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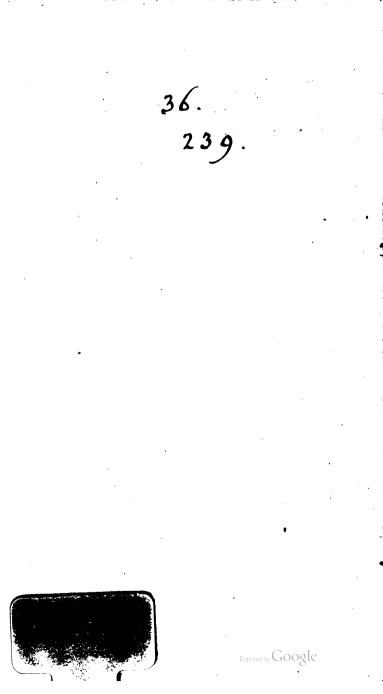
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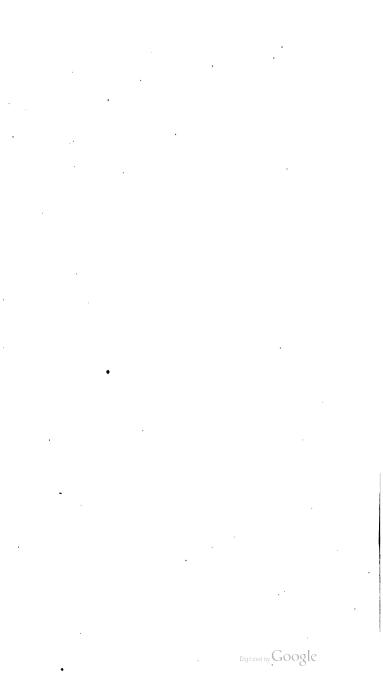
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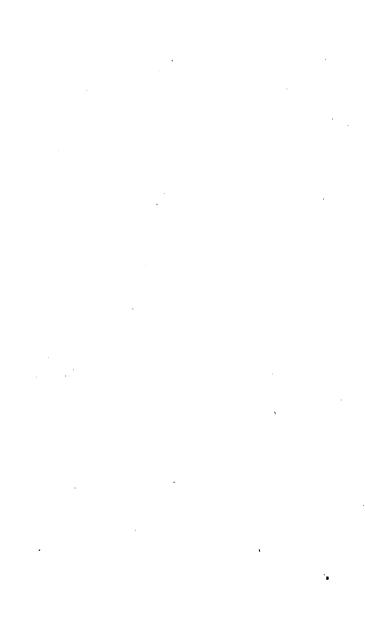
COMPENDIUM

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THE ENGLISH FLORA.

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SECOND EDITION.



COMPENDIUM

0**7**

THE ENGLISH FLORA

OF

SIR JAMES EDWARD SMITH, M.D., F.R.S.

LATE PRESIDENT OF THE LINKMAN SOCIETY, MEMBER OF THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, PHILADELPRIA, NEW YORK, STC., ETC.; THE INPERIAL ACAD. NATURE OFFICESORUM,

AND THE ROYAL ACADEMY OF SCIENCES AT PARIS ; BONOBARY MEMBER OF THE BORTICULTURAL SOCIETY OF LONDON .

"Summa sequar fastigia rerum."-VIRG. ÆN.



SECOND EDITION, WITH ADDITIONS AND CORRECTIONS.

By W. J. HOOKER, LL.D., F.R., A., & L.S.

ETC , ETC., ETC.,

AND REGIUS PROFESSOR OF BOTANY IN THE UNIVERSITY OF GLASGOW.

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PREFACE.

A PRINCIPAL boject of Botany must always be to investigate the nature and qualities of Plants, with a view to ascertain their various uses, and, in many cases, the best mode of cultivating them; but it has been proved that without a methodical arrangement the observations of individuals on these subjects cannot be accumulated, nor the discoveries of one age handed down to another. The ancients knew much, and wrote much, concerning vegetables; yet, from want of system, their discoveries are mostly lost, and their writings of comparatively little value.

The several editions that have already been published of the "Compendium Floræ Britannicæ," and of some other manuals on the same subject, are deemed sufficient proofs of the usefulness of a brief description of our native plants, which we may carry in our hands during our excursions into the fields.

The present little volume, however, besides exhibiting a concise yet comprehensive view of the latest improvements and discoveries contained in "The English Flora"

PREFACE.

of Sir J. E. Smith, and the third edition of the first vol. of "The British Flora" of Dr. Hooker, and referring each genus to its place in the System of Jussieu, points out the groupes that are natural, and furnishes short notices, occasionally, of the general habits and qualities of the more extensive Natural Orders.

The English reader may also ascertain the correct pronunciation of the Latin generic and specific names, which are here accentuated throughout the book.

In other respects, the plan is the same as that of the *Compendium* mentioned above, which has been honored, for a considerable time, with the approbation of the scientific and learned. The genera are accordingly placed synoptically at the beginning of each Class, and are there arranged agreeably to certain artificial characters; but in the body of the work they follow each other, as much as possible, in the order of their natural affinities. This method was first employed by the celebrated Linnæus, though it has not been sufficiently understood by many of his followers.

Each specific character is extracted entire from the "Flora," except in the case of the more recently discovered plants, and where the insertion of these necessarily demanded an alteration in the nearly allied species—various particulars, which are highly useful whilst we are investigating plants in their native situations, though they could not be included in that character, are subjoined in an additional paragraph, rarely occupying more than one line. These particulars—after stating the situation in which the plant generally grows, its usual time of flowering,* its duration, and its arboreous or shrubby nature—allude chiefly, and in as few words as possible,† to habit, size, colour, or general aspect.

The synonymes are almost wholly omitted, as they could be of no use during our excursions; but they ought to be carefully examined at home from the "Flora" itself, as well as the more diffuse descriptions and critical discussions which it contains.

It would be advisable, indeed, as soon as the genus to which the plant under examination belongs, has been satisfactorily ascertained, to compare it, in the first place, with the characters which are given in this Compendium, in order to discover its specific name, and afterwards, with the detailed observations which the "Flora" furnishes. For experience has proved that plants examined in this way are not readily forgotten; at the same time that a habit of correct investigation is formed, and the power of discrimination increased.

It may be proper to observe that the figures annexed to the species, refer to the *volumes* and *plates* of the "English Botany."

• The figures 1, 2, 3, &c. answer to the months January, February, March, &c.; and the marks \odot , \mathcal{F} , \mathcal{H} , to the terms annual, bicannial, perennial, respectively; \mathcal{H} indicating that the plant is either arboreous or shrubby.

† The abbreviations here used seem not to need much explanation; mount. or mts. being written for mountains, sit. for situations, cal. for calyx, R. for root, L. for leaves, Fl. for flower, with many other similarly contracted forms.



Class I. MONANDRIA. Stamen 1.

Order I. MONOGYNIA. Style 1.

* Seed one.

- 1. SALICÓRNIA. Calyx tumid, undivided. Corolla 0. Stamens 1 or 2. Seed invested with the calyx .- N.O. CHENOPODER.
- RIS. Cal. a slight border crowning the germen. Con Seed inferior, naked. Stigma 1.-N.O. HALORAGE ... 2. HIPPÚRIS. 0.
- 3. ZOSTÉRA. Flowers aggregate. Spadix flat, many-flowered. Stigm. 2. Drupa. Nut with 1 kernel.-N.O. NAIADES. See Valeriana, species 1. and Alchemilla, 3.

** Seeds several.

Cal. 0. Style 0. Anther sessile, globose. Berry 4. CHÁRA. with many seeds.-N.O. CHARACEE.* Some species of Salix.

Order II. DIGYNIA. Styles 2.

5. CALLÍTRICHE. Cal. 0. Petals 2, inferior. Seeds 4, naked, compressed. Some flowers separated.-N.O. HALOBAGER.

MONANDRIA MONOGYNIA.

I. SALICÓRNIA. Jointed-glasswort.

- 1. S. herbácea, S. annua, 6. 415. (Common J.) Stem herbaceous, erect; joints compressed, notched; interstices inversely conical. Spikes tapering upward.
- Salt marshes. O. 8, 9. 1 foot, fleshy, salt, bushy. Spikes 3-fl. 2. S. procúmbens, 35. 2475. (Procumbent J.) Stem herbaceous, procumbent; interstices inversely conical; branches simple. Spikes tapering upward. Stamens two.
- Salt marshes. (). 8. 4 in. divided at the base. Stigma notched.
- 3. S. radicans, 24. 1691. (Creeping J.) Stem woody, procumbent; taking root at the base. Joints compressed, notched; inter-stices somewhat cylindrical. Spikes oblong. Stamens two. On muddy sea-shores. 4.9. 6-8 in. Spikes tumid. Stig. 2-3-cleft.

• An Order of Acotyledonous Plants; the genus Chara being now almost universally considered to belong to the Cryptogamia Alga. - En.



4. S. fruticósa, 35. 2467. (Shrubby J.) Stem woody, ascending; joints and interstices cylindrical. Spikes nearly sessile, cylindrical. obtuse.

Sea-shore, rare. 4.8,9. Woody, slender. Stigm. 2. Avar. of S.rad.?

2. HIPPURIS. Mare's tail.

1. H. vulgáris, 11. 763. (Common M.) Leaves linear, many in each whorl.

Ditches and pools. 4.5. 1. f. erect, simple. Fl. axill. solit. sessile.

3. ZOSTÉRA. Grass-wrack.

1. Z. marína, 7. 467. (Common G.) Leaves entire, obscurely threcribbed. Stem slightly compressed

Salt water. 4.8, 9. Leaves long, grassy. Spadix green.

4. CHÁRA. Chara.

1. C. vulgáris, 5. 336. (Common C.) Striated, without prickles. Whorled branches tapering, with internal partitions. Bracteas four together.

Muddy ditches. O.7. Immersed, generally incrusted with earth.

*1. C. Hedwigii, Suppl. 2762. (Hedwig's C.) Smooth, even, somewhat flexible. Branchlets articulated. Bracteas about equal to the ovate fruit.

Pools, rare. O. 6. Bracteas longer than in C. vulg. **1. C. áspera, Suppl. 2738. (Rough C.) opaque, brittle, obscurely striated, clothed with patent spinules. Whorled branches subulate; fertile ones with many short bracteas accompanying the fruit, varying in length.

Pools, rare. O. 6. 7. Slender, opaque, very prickly.

2. C. hispida, 7. 463. (Prickly C.) Furrowed. Whorled branches tapering, with internal partitions. Bracteas whorled. Prickles on the stem bristly, deflexed.

Ditches and pools. O. 7, 8. Incrusted like C. vulg., but prickly.

- 3. C. flexilis, 15. 1070. (Smooth C.) Smooth, transparent, without prickles. Whorled branches cylindrical, blunt, with a minute point, no internal partitions; some cloven. Bracteas none. Ditches and ponds. O.7, 8. Slender, green, floating. Anth.naked.
- 4. C. translúcens, 26. 1855. (Transparent C.) Smooth, transparent, without prickles. Whorled branches simple, cylindrical, obtuse, with a small point, and transverse internal partitions; fertile ones axillary, compound, partly forked. Bracteas none. Pools, rare. 0.6, 7. Largest species. Whorled br. spreading widely.

5. C. nidífica, 24. 1703. (Proliferous C.) smooth, transparent, without prickles. Whorled branches simple, elongated, without internal partitions; fertile ones axillary, compound. Bracteas

unequal.

Salt-water ditches. O. 7, 8. More slender. Aspect bushy.

6. C. grácilis, 80. 2140. (Slender C.) Smooth, transparent, shining,

Ord. 1.7

Whorled branches acute, repeatedly forked, without prickles. often fertile, as well as the axillary compound ones. Bracteus none. Ponds, rare. O. 9. Smaller and more compound than the others.

MONANDRIA DIGYNIA.

5. CALLÍTRICHE. Water-starwort.

- 1. C. vérna, C. aquatica, 11. 722. (Vernal W.) Leaves triple-ribbed; the uppermost crowded, obovate. Margin of the seeds obtuse. Ditches and ponds. (). 4-9. Floating. Fl. axill. solit. monæcious.
- *1. C. pedunculáta, C. autumnalis, Suppl. 2606. (Pedunculated C.) Leaves linear, abrupt, uniform, single-ribbed. Seeds on a peduncle, bluntly keeled at the back.

Ditch, Sussex. O. 8. Immersed. Fruit more or less stalked.
C. autumnális, Suppl. 2732. (Autumnal W.) Leaves linear, abrupt, uniform, single-ribbed. Margin of the seeds membranous. Clear pools. O. 6-10. Immersed. Leaves membr. Fl. united.

Class II. DIANDRIA. Stamens 2.

Order I. MONOGYNIA. Style 1.

* Flower inferior, of one petal, regular.

- Corolla 4-cleft. Berry with 4 seeds.- N.O. 6. LIGÚSTRUM. JASMINEÆ.
- 7. FRÁXINUS. Cor. 0, or deeply 4-cleft. Capsule compressed, with 1 or 2 seeds. Some flowers without stamens .--N.O. JASMINEÆ.

** Fl. inf., of 1 pet., irreg., with seed-vessels.

- 9. VERÓNICA. Cor. wheel-shaped, deeply 4-cleft. Caps. of 2 cells .- N.O. SCROPHULABINE.
- 10. PINGUÍCULA. Cor. ringent, spurred. Cal. 5-cleft.—N.O. LENTIBULABLÆ. Caps. of 1 cell.
- 11. UTRICULÁRIA. Cor. ringent, spurred. Caps. of 1 cell. Cal. of 2 leaves .- N.O. LENTIBULARIE.

*** Fl. inf., of 1 pet., irreg., with naked seeds.

- 13. LYCOPUS. Cor. nearly equal. Stam. distant, simple. Seeds abrupt .--- N.O. LABIATAS.
- 14. SALVIA. Cor. ringent. Stamens with a lateral stalk .-. N.O. LABIATE.

**** Flowers superior.

8. CIRCEA. Cor. of 2 petals. Cal. in 2 segments. Caps. of 8 cells. Seeds solitary .- N.O. ONAGRARIM.

**** Flowers without petals, or with 4 Petals.

- 12. LÉMNA. Cor. 0. Cal. of 1 leaf. Caps. with 1 seed. N.O. PISTIACEZ.
- 15. CLÁDIUM. Cor. 0. Glumes chaffy, sheathing ; the outer ones empty. Drupa, bristles none at the base.-N.O. CYPERACEE. Pet. 0. See Salicornia, species 2 and 3. Fraxinus 1. Schænus 4. Carex. Pet. 4. See Lepidium 2. Senebiera 2.

Order II. DIGYNIA. Styles 2.

16. ANTHOXÁNTHUM. Cal. a glume of 2 valves, 1-flowered. Cor. glume of 2 valves, awned. Seed 1.-N.O. GRAMINEE. See Hierochloe.

DIANDRIA MONOGYNIA.

6. LIGÚSTRUM. Privet.

1. L. vulgáre, 11. 764. (Common P.) Leaves elliptic-lanceolate, obtuse, with a small point.

Hedges and thickets. b. 5, 6. Panicles dense, white. Berries black.

7. FRÁXINUS. Ash.

1. F. excélsior, 24. 1692. (Common A.) Leaves serrated. Flowers without calyx or corolla.

Woods and hedges. b. 4, 5. Tall, smooth. L. pinnate. Fl. in pan. 2. F. heterophýlla, 33. 2476. (Simple-leaved A.) Leaves both simple and compound, with tooth-like serratures.

Hedges, rare. b. 4, 5. L. occasionally ternate, or even of 5 leaflets. A variety of the last ?

8. CIRCAA. Enchanter's-nightshade.

- 1. C. lutetiána, 15. 1056. (Common E.) Stem erect. Leaves ovate, slightly toothed, opaque and downy. Moist shady places. 24.6,7. Clusters one or more. Fl. white
- or reddish. Stem 18-20 in. 2. C. alpina, 15. 1057. (Mountain E.) Stem ascending. Leaves
 - heart-shaped, serrated, shining. Calyx membranous. Shady, stony alpine pl. 24.7, 8. Smaller than the last. Flowers redder, and in more plentiful clusters; cal. more membr.

9. VERÓNICA. Speedwell.

* Clusters or Spikes terminal. Root perennial.

1. V. spicáta, 1, 2. (Spiked S.) Spike terminal. Leaves bluntly

serrated about the middle, tapering at the base; radical ones obovate. Stem ascending, quite simple.

- Chalky past. U. 7-9. 4-8 in. L. hairy. Fl. deep blue, numerous.
 2. V. hýbrida, 10. 673. (Welsh S.) Spikes terminal. Leaves elliptical, obtuse, unequally and bluntly serrated; lowermost ovate, stalked. Stem nearly upright, not perfectly simple. Mount., very rare. U. 7. Larger and more hairy. Fl. deep
 - Mount., very rare. 4.7. Larger and more hairy. Fl. ac blue. A var. of the last?
- V. fruticulósa, 15.1028. (Shrubby S.) Cluster terminal, elongated, many-flowered. Leaves elliptic-lanceolate. Stems erect; shrubby below. Capsule ovate, with four lanceolate valves.
- Scott. mount. in moist pl. 4.7. Fl. pale pink, with purple veins.
- 4. V. saxátilis, 15. 1027. (Rock S.) Cluster terminal, corymbose, of few flowers. Leaves elliptical. Stems spreading; shrubby below. Capsule ovate, with four lanceolate valves.
- Scott. mount. 24.7. Cor. large, of a fine blue ; pink at the throat.
- 5. V. *alpina*, 7. 484. (Alpine S.) Cluster terminal, dense, corymbose. Leaves ovate, smoothish, somewhat serrated. Calyx fringed. Stem ascending, simple.
 - Lofty Scott. mount. neur rivul. 24. 7, 8. Fl. small, bright blue.
- V. serpyllifólia, 15. 1075. (Smooth S.) Cluster terminal, somewhat spiked. Leaves ovate, slightly crenate, three-ribbed, smooth. Capsule inversely heart-shaped, shorter than the style. Mead. and past. 21.5, 6. Stem decumb. Fl. pale, with dark blue streaks.

** Clusters or Spikes lateral. Root perennial.

- 7. V. Beccabúnga, 10. 655. (Brooklime.) Clusters lateral. Leaves elliptical, flat. Stem creeping.
- Ditches and rivul. 4. 7. Sometimes floating, smooth, juicy, shining. L. obtuse. Fl. blue.
 8. V. Anagállis, 11. 781. (Water S.) Clusters lateral, opposite.
- 8. V. Anagállis, 11. 781. (Water S.) Clusters lateral, opposite. Leaves lanceolate, serrated. Stem erect.
- Marshes and ditches. 24.7. Smooth, with long acute l. Fl. blue.
 9. V. scutelláta, 11. 782. (Narrow-leaved S.) Clusters lateral, alternate; fruit-stalks reflexed. Leaves linear, slightly indented. Spongy bogs. 24.7, 8. Slender, lax. Fl. pale, with dark blue streaks.
- V. officinális, 11. 765. (Common S.) Clusters lateral; partial stalks shorter than their bracteas. Leaves elliptical, serrated, roughish. Stem procumbent. Stigma capitate.
- High past. and heaths. 24. 5, 6. Cor. light blue, with dark streaks.
- V. hirsúta, Suppl. 2673. (Hairy S.) Clusters lateral; partial stalks shorter than their bracteas. Leaves elliptic-lanceolate, somewhat serrated, slightly hairy. Stem ascending. Capsule abrupt, undivided.

Dry heaths, Ayrshire. 4. 6. Diminutive. Var. of the last?

12. V. Chaméedrys, 9. 623. (Germander S.) Clusters lateral. Leaves ovate, sessile, wrinkled, deeply serrated. Stem diffuse, with a hairy line on each side. Calyx four-cleft, lanceolate. Mead. and hedges. 4.5. Light green, hairy. Fl. large, blue. Caps. inversely heart-shaped.

- 13. V. montána, 11. 766. (Mountain G. S.) Clusters lateral, lax, of few flowers. Leaves ovate, stalked, serrated. Stem diffuse. hairy all round.
 - Moist woods on a chalky soil. 4.5.6. Fl. smaller and paler. Caps. larger. compressed.

*** Flowers axillary, solitary. Root annual.

14. V. agréstis, Suppl. 2603 ; not E. B. (Green procumbent S.) Flowers solitary. Leaves stalked, ovate, crenate. Stem procum-Segments of the calyx oblong, blunt. Capsule inversely bent. heart-shaped; lobes turgid, obsoletely keeled, approximated, Seeds cupped, about 6 in each cell.

Fields and waste gr. O. 4-9. Fl.-stalks longer than the leaves.

- *14. V. polita, V. agrestis, 11. 783. (Grey procumbent S.) Leaves all stalked, cordate-ovate, inciso-serrate, shorter than the flowerstalks. Segments of the calyx ovate, acute. Stem procumbent. Capsule of 2 turgid lobes; cells many-seeded.
- Fields and waste gr. O. 4-9. Fl. all blue, with deeper veins.
- **14. V. Buxbáumii, Suppl. 2769. (Buxbaum's S.) Leaves all stalked, cordate-ovate, inciso-serr., shorter than the flower-stalks. Segments of the calyx lanceolate, acute. Stem procumbent. Capsule inversely heart-shaped, of 2 turgid divaricated lobes. which are compressed upwards and sharply keeled; cells about 8-seeded.

Fields. \odot . 4–9. Larger and more hairy than the two last.

- 15. V. arvénsis, 11. 734. (Wall S.) Flowers nearly sessile. Leaves ovate, deeply serrated ; the floral ones lanceolate, entire. Stem erect. Seeds flat.
 - Fields and walls. O. 5. Pale green. Fl. hight blue. Caps. compress.
- fringed. 16. V. hederifólia, 11. 794. (Ivy-leaved S.) Leaves heart-shaped, flat, five-lobed. Segments of the calyx heart-shaped, acute. Seeds cupped, wrinkled.
 - Cult. and waste gr. O. 4, 5. Procumb. Cor. purplish blue. Caps. tumid.
- 17. V. triphýllos, 1. 26. (Blunt-fingered S.) Upper leaves in deep, finger-like, obtuse segments. Flower-stalks longer than the calyx. Seeds flat.

Sandy fields, rare. O. 1. Spread. hoary. Fl. of a deep blue. Cal. blunt.

18. V. vérna, 1. 25. (Vernal S.) Leaves pinnatifid ; uppermost lanceolate, undivided. Flower-stalks shorter than the calyx. Stem erect.

Sandy fields. O. 4. 1-4 in. Fl. pale blue. Cal. acute.

10. PINGUÍCULA. Butterwort.

1. P. Lusitánica, 3. 145. (Pale B.) Nectary obtuse, shorter than the nearly regular petal. Flower-stalk hairy. Capsule globose.

Ord. 1.]

Bogs. 24. 6, 7. Hairy. Fl. pale lilac, with a yell. throat. *1. P. alpina, Suppl. 2747. (Alpine B.) Nectary conical, shorter than the irregular petal, and curved towards the lower retuse lip. Flower-stalk glabrous.

Bogs, Scotl., rare. 4, 6, Cor. vellowish, with a tuft of deep vell. hairs within.

- 2. P. vulgáris, 1. 70. (Common B.) Nectary cylindrical, acute, as long as the very irregular petal. Segments of the calyx oblong. Capsule ovate.
- Bogs. 21.5, 6. Smooth, larger. Fl. violet. Stigma with a spur. 3. P. grandiflóra, 31. 2184. (Large-flowered B.) Nectary cylindrical, acute, as long as the nearly regular petal. Segments of the calyx ovate, obtuse. Capsule ovate.

Bogs, S. of Irel. 4.5,6. Cor. 5-cleft, twice as large, with blue veins.

11. UTRICULÁRIA. Bladderwort.

- 1. U. vulgáris, 4. 253. (Greater B.) Spur conical. Stalks straight. Cluster somewhat corymbose. Upper lip of the corolla as long as the palate, reflexed at the sides.
 - Ditches and pools. 4. 7. Floating, branched, bladdery. Fl. large, yell.
- 2. U. intermédia, 35. 2489. (Intermediate B.) Spur conical. Stalk two- or three-flowered. Upper lips of the corolla flat, twice as long as the palate. Bladders separate from the leaves.
 - Ditches, Ir. and Scot. 4. 7. L. in deep, forhed, flat segm. Bladders fewer.
- 3. U. minor, 4. 254. (Lesser B.) Spur keeled, very short, obtuse, deflexed. Cluster of few flowers. Corolla ringent; palate nearly flat; lips undivided.
 - Ditches and marshes, rare. 4.7. Smaller. Bladd. more numer. attached. Fl. small, yellow.

12. LÉMNA. Duckweed.

1. L. trisúlca, 13. 926. (Ivy-leaved D.) Fronds stalked, ellipticlanceolate, proliferous.

Pools. $\odot. 6$. Floating, often waved or toothed, pale green, Fl. white.

2. L. minor, 16. 1095. (Lesser D.) Fronds obovate, flattish above and beneath. Roots solitary.

Ponds. O. 6, 7. Leaves (or fronds) small, connected in floating masses. Fl. rare.

- 3. L. gibba, 18. 1233. (Gibbous D.) Fronds obovate ; slightly convex above ; hemispherical beneath. Roots solitary. Ponds. \odot . 6, 7. Larger, vascular; reticulated beneath; purplish above.
- 4. L. polyrrhiza, 85. 2458. (Greater D.) Fronds roundish-obovate ; convex beneath. Roots clustered.

Ditches. O.7,8. Much larger, purplish beneath. Roots of many fibres.

13. LYCOPUS. Gipsy-wort.

1. L. Européaus, 16. 1105. (Common G.) Leaves deeply serrated. Pools. 4. 7, 8. Stems 2 f., 4-sided. Fl. white, dotted, whorled.

14. SÁLVIA. Sage, or Clary.

- 1. S. praténsis, 3. 153. (Meadow S.) Leaves oblong, crenate, heart-shaped at the base; the uppermost clasping the stem. Bracteas very small. Summit of the corolla glutinous.
- Dry mead. 24.7. Upright, 3 f. Fl. in whorls, large, purplish blue.
 2 S. verbenáca, 3. 154. (Wild English Clary.) Leaves serrated, sinuated, smoothish. Corolla narrower than the calyx.
 - Mead. and waste gr. 24. 6-10. Decumb. at the base, 12-18 in. Fl. small, violet blue.

15. CLÁDIUM. Twig-rush.

- 1. C. Martscus, 14. 950. (Prickly T.) Panicle completely compound, leafy. Spikes capitate. Stem round, leafy, smooth. Leaves prickly at the edge and keel.
 - Fens. 24.7,8. Erect, polished, 8 or 4 f. L. keeled. Drupa pointed.

DIANDRIA DIGYNIA.

16. ANTHOXÁNTHUM. Vernal-grass.

 A. odorátum, 9. 647. (Sweet-scented V.) Panicle spiked, ovateoblong. Flowers longer than their awns, on short partial stalks. Mead. and past. 4. 5. Odorous in drying. Spike turning yellow with age.

Class III. TRIANDRIA. Stamens 3.

Order I. MONOGYNIA. Style 1.

* Flowers superior.

- 17. VALERIÁNA. Cor. 5-cleft; protuberant at the base. Seed 1, with a feathery radiating crown.—N.O. VALEBIANEE.
- 18. FÉDIA. Cor. 5-cleft; protuberant at the base. Caps. crowned with the toothed calyx, without valves, of 1-3 fertile cells. Seeds solitary.-N.O. VALEBIANEZ.
- 19. CRÓCUS. Cor. in 6 deep equal segments; tube longer than the limb. Stigmas folded.—N.O. IBIDEE.
- TRICHONÉMÁ. Cor. in 6 deep equal segments; tube shorter than the limb. Filam. downy. Stigma very slender, divided. —N.O. IRIDEE.
- 21. IRIS. Cor. in 6 deep unequal segments, alternately reflexed. Stigmas 2-lipped, like petals.—N.O. IBIDER.

Ord 2.]

** Fl. inferior, chaffy. Seed 1.

- SCHÓSMUS. Cor. 0. Spike of very few flowers. Glumes 2-ranked, with many smaller, empty, external ones. Style simple at the base, deciduous.—N.O. CYPERACEZ.
- 23. RHYNCHÓSPORA. Cor. 0. Spike of very few flowers. Gl. imbricated all round, with many smaller, empty, external ones. Seed beaked with the dilated, hardened, permanent base of the style.—N.O. CYPEBACEZ.
- 25. SCIRPUS. Cor. 0. Gl. imbricated all round, uniform, concave, expanded. Style simple at the base, deciduous.-N.O. CYPERACE.
- ELEÓCHARIS. Cor. 0. Gl. imbricated all round, uniform, expanded. Seed crowned and articulated with the dilated, hardened base of the style.—N.O. CYPERACEE.
- ERIÓPHORUM. Cor. 0. Gl. imbricated all round, uniform, expanded. Seed subtended by numerous very long hairs.... N.O. CYPEBACEE.
- 24. CYPÉRUS. Cor. 0. Gl. imbricated, 2-ranked, uniform. compressed. Style simple at the base, decid. Seed naked at the base.—N.O. CYPERACEE.
- 28. NÁRDUS. Cor. a glume of 2 valves. Cal. 0.—N.O. GRA-MINEÆ.

Some Junci.

Order II. DIGYNIA. Styles 2.

True Grasses. N.O. GRAMINER.

* Fl. dispersed. Cal. of 2-3 valves, with a solitary floret.

- 31. ALOPECÚRUS. Cal. of 2 valves. Cor. of 1 valve; simple at the summit; awned at the base. Styles combined.
- 32. KNÁPPIA. Cal. of 2 valves. Cor. of 2 unequal, very hairy, awnless valves.
- 30. PHLÉUM. Cal. of 2 close, parallel, pointed valves, concealing the cor. of 2 awnless valves. Seed loose.
- 29. PHALARIS. Cal. of 2 close, parallel valves, concealing the double cor. of 3-4 valves; 2 innermost downy, subsequently hardened, investing the seed.
- 33. POLYPÓGON. Čal. of 2 valves, awned at the summit, concealing the cor. of 2 valves; the outermost with a terminal awn. Seed loose.
- 34. MíLlUM. Cal. of 2 close, tumid valves, inclosing the cor. of 2 valves. Seed coated with the hardened corolla.
- 35. AGRÓSTIS. Cal. of 2 acute valves, shorter than the cor. which is unchanged, membranous, tufted with hairs at the base. Seed loose.
- 36. CÝNODON. Cal. of 2 lanceolate, acute, equal, spreading valves, shorter than the cor. of 2 compressed, very unequal valves. Seed coated with the hardened corolla.

- 49. SPARTÍNA. Cal. of 2 lanceolate, compressed, clasping valves. Cor. of 2 compressed, rather unequal, lanceolate valves.
 Nect. 0. Seed loose. Styles combined.
- 53. STÍPA. Cal. of 2 lax, pointed, awnless valves. Cor. with a terminal spiral *awn*, jointed at the base.
- 55. LAGÚRUS. Cal. of 2 fringed valves, with terminal, feathery awns. Outer valve of the cor. with 3 awns.
- 37. DIGITÁRIA. Cal. of 2 or 3 very unequal, close-pressed, awnless valves. Cor. of 2 unequal, depressed, awnless valves. Seed coated with the hardened corolla.

Arundo 2, 3, 4, 5. Melica 1.

** Fl. dispersed. Cal. of 2 valves, containing 2 or 3 florets.

- 39. AfRA. Florets 2, without any intermediate rudiment. Seed loose. Cor. unchanged.
- 42. MÉLICA. Florets 1 or 2, with the rudiments of 1 or 2 intermediate ones. Seed coated with the hardened corolla.
- 40. HÓLCUS. One *floret* barren. Cor. awned. Seed coated with the hardened corolla. Cal. keeled.
- 38. PÁNICUM. One *floret* neuter: cor. of the perfect one awnless. Seed coated with the hardened corolla. Cal. ribbed.
- 14. HIERÓCHLOE. Florets 3; central one perfect, with 2 stamens; lateral ones barren, with 3. Cor. membranous, unchanged. Seed loose. Styles distinct.
- SESLÉRIA. Florets 2 or 3, all perfect. Outer value of the corolla toothed; inner cloven. Seed loose. Styles combined.

*** Fl. dispersed. Cal. containing many florets.

- 47. BRÍZA. Cor. awnless, tumid, expanded, concave, without a keel. Seed depressed, united to the corolla.
- 45. PÓA. Cor. awnless, compressed, keeled, ovate, acute. Seed loose, elliptic-oblong.
- 44. GLYCERIA. Cor. awnless, cylindrical, furrowed, ribbed, abrupt, not keeled. Seed loose, cylindric-oblong.
- 46. TRIÓDIA. Cor. orbicular, expanded, obscurely ribbed, deeply cloven, with an intermediate point; both valves concave. Seed loose, depressed.
- 48. DÁCTYLIS. Cor. awned at the summit, lanceolate, keeled, compressed; inner valve folded, 2-ribbed. Seed loose, oblong. Cal. compressed, taper-pointed, unequal.
- 51. FESTUCA. Cor. awned at the summit, or pointed, keeled, nearly cylindrical, concave; inner valve flat, 2-ribbed, downy at the ribs. Seed loose, oblong. Cal. concave, acute, very unequal.
- CYNOSÚRUS. Cor. awned at the summit, lanceolate, keeled, concave; inner valve flat, 2-ribbed. Seed loose, ellipticoblong. Cal. awned, equal. Spikelets in pairs; 1 entirely neuter.

10

Ord. 3.]

- 52. BRÓMUS. Cor. awned at the back, cloven, concave; inner valve flat, 2-ribbed, bristly at the ribs. Seed elliptic-oblong, united to the inner valve.
- 54. AVENA. Cor. awned at the back, cloven, nearly cylindrical ; inner valve flat, ovate. Seed elliptic-oblong, united to the hard outer valve.
- 56. ARÚNDO. Cor. surrounded with long, permanent hairs. Florets 1 or many.

**** Fl. aggregate, on a jointed, or toothed, common stalk, with lateral excavations.

- Cal. of 1 principal valve, opposite to the stalk, 57. LÓLIUM. fixed. many-flowered.
- 58. ROTTBÓLLIA. Cal. of 2 parallel, sometimes combined. valves, opposite to the stalk, imperfectly 2-flowered.
- 61. TRÍTICUM. Cal. of 2 transverse, opposite valves, solitary, many-flowered.
- 59. ÉLYMUS. Cal. of 2 parallel valves, aggregate, with 2 or more florets.
- 60. HÓRDĚUM. Cal. of 2 parallel valves, aggregate, ternate, with one floret. Central flower only perfect.

Order III. TRIGYNIA. Styles 3.

- 62. MÓNTIA. Cal. of 2 leaves. Cor. of 1 petal. Caps. with 3 valves, and 3 seeds.—N.O. POBTULACEE.
- 64. POLYCARPON. Cal. of 5 leaves. Pet. 5, nearly entire. Caps. with 3 valves, and many seeds.—N.O. PABONYCHIEZ.
- 63. HOLÓSTEUM. Cal. of 5 leaves. Pet. 5, jagged. Caps. with 6 teeth, and many seeds .- N.O. CARYOPHYLLEE. Tillæa 1. Stellaria 2.

TRIANDRIA MONOGYNIA.

* Fl. superior.

17. VALERIÁNA. Valerian.

- 1. V. rúbra, 22. 1531. (Red V.) Flowers with one stamen, and a long spur. Leaves ovate-lanceolate, nearly entire.
- Chalk pits and old walls. 24.6-9. Fl. slender, red. 2. V. diotca, 9. 628. (Small Marsh V.) Flowers with three stamens, diœcious. Stem-leaves pinnatifid; radical ones ovate. Marshes. 4.6. Fl. pale flesh-coloured. A span high.
- 3. V. officinális, 10. 698. (Great Wild V.) Flowers with three stamens. Leaves all pinnate ; leaflets lanceolate, nearly uniform. Marsh. and on mount. 24. 6. 3 f. Fl. flesh-coloured. 4. V. pyrenáica, 23. 1591. (Heart-leaved V.) Stamens three. Stem-
- leaves heart-shaped, serrated, stalked; the uppermost pinnate. Scot. woods. 4. 6. About 8 f. Fl. rose-coloured. Not wild.

rCl. 3.

18. FÉDIA. Corn-salad.

- 1. F. olitória, Valeriana Locusta, 12. 811. (Common C.) Leaves linear-tongue-shaped, blunt. Flowers capitate. Capsule inflated, two-lobed.
- Fields. O. 4-6. Forked, a span high. Fl. pale blue.
- 2. F. dentáta, 20. 1370. (Smooth narrow-fruited C.) Capsule ovate, ribbed in front, acuminate, crowned with the prominent, cupshaped, oblique, unequally 4-toothed calyx. Flowers corymbose. A sessile flower in the forks.
 - Corn-fields and banks. O. 6. 7. Leaves narrow. Fl. small, purplish.
- *2. F. Aurícula, Br. Fl. ed. 3. p. 24. (Sharp-fruited C.) Capsule ovate. acuminated, somewhat inflated, slightly grooved in front, glabrous, crowned with the single entire tooth of the limb of the calyr. Flowers corymbose. A sessile fl. in the forks. Fields. Rare. \odot . 6. 7. Fruit broader and more inflated and
 - acuminated than in the last.
- **2. F. carináta, Br. Fl. ed. 3. p. 483. (Carinated F.) Fruit oblong, rimoso-carinate, glabrous; the 2 sterile cells nearly equal to the fertile one, crowned with the straight single tooth of the limb of the calyx.

Near Ongar, Essex. O.

19. CRÓCUS. Crocus.

1. C. sativus, C. autumnalis, 5. 343. (Saffron C.) Stigma prominent laterally, in three deep, linear, notched segments.

Mead. and past., naturalized. 24. 9. Cor. viol., throat naked. Stig. deep-orange, fragrant :- the officinal Saffron. 2. C. vernus, 5. 344. (Purple Spring C.) Stigma within the flower,

- in three short, wedge-shaped, jagged lobes. Tube of the corolla hairy at the mouth.
- Mead. 24. 3. Stigma pale, inodorous.
- *2. C. minimus, Suppl. 2645. C. reticulatus, E. Fl. (Least purple C.) Stigma erect, longer than the stamens, included in the solitary flower. Leaves linear-filiform. Bulb with a membranous coat.

Wood, Suffolk, not wild. 4.3. Flowers whitish with purple streaks.

- **2. C. aúreus, Suppl. 2646. (Golden C.) Two-flowered. Stamens longer than the stigma. Segments of the corolla oblong, incurvopatent. Bulb coated with compact fibres.
- With the preceding. 24. 3. Flowers gold-colour.
- 3. C. nudiflorus, 7. 491. (Naked-flowering C.) Stigma within the flower, erect, in 3 deeply laciniated tufted segments, equal in height with the stamens. Flowers appearing before the leaves. Meadows, rare, naturalized. 4. 10. Tube 1 f. Stigma yell. L. flattish.
- *3. Č. speciósus, Suppl. 2752. (Showy Autumnal C.) Stigma within the flower, erect, in 3 deeply laciniated segments, longer than the stamens, Flowers appearing before the leaves.

Ord. 3.7

Meadows, rare, not wild. 2. 10. Differs from C. nudiflor. in the greater length of the stigma.

20. TRICHONÉMA. Trichonema.

- 1. T. Colúmnæ, T. Bulboc., E. Fl. Isia Bulbocodium, 36. 2549. (Columna's T.) Scape single-flowered, mostly solitary, slightly drooping. Leaves filiform, compressed, furrowed, flexuose. Spathas longer than the tube of the corolla. Style shorter than the stamens : stigmas bifid at the apex.
 - Sandy pastures, S. of Engl. and Guernsey. 2. 3. 4. Cor. purplish. Stalks curved. 2 in.

21. ÍRIS. Iris, or Flower-de-luce.

- 1. I. Pseud-ácorus, 9. 578. (Yellow Water I.) Corolla beardless : inner segments smaller than the stigma. Leaves sword-shaped. Seeds angular.
 - Watery places. 4. 7. Fl. yellow, pencilled with dark purple.
- 2. I. factidissima, 9. 596. (Stinking I.) Corolla beardless; inner segments spreading. Stem with one angle. Leaves swordshaped. Seeds globose.
 - Thickets, chiefly in the S. W. of Engl. 4. 6. Leaves dull green. Fl. pencilled with dark veins.

* Fl. inferior, chaffy. Seed 1.

22. SCHŒNUS. Bog-rush.

1. S. nigricans, 16. 1121. (Black B.) Stem round, naked. Head roundish, abrupt, overtopped by one of the two floral leaves. Turfy bogs. 4.6. Stem 8-12 in., smooth. Head black. Stigm. 3.

23. RHYNCHÓSPORA. Beak-rush.

1. R. álba, Schœnus albus, 14. 985. (White B.) Heads abrupt. Stamens two. Leaves tapering. Seed with numerous bristles at the base.

Turfy bogs. 4.8. A smooth, slender plant, with white fl. Stigm. 2.

2. R. fúsca, S. fuscus, 22. 1575. (Brown B.) Heads ovate-oblong. Stamens 3. Leaves thread-shaped. Seed with three bristles at the base.

Marshes, rare. 4.8. Smaller. Glumes of a shining reddish brown.

24. CYPÉRUS. Cyperus, or Galingale.

- 1. C. lóngus, 19. 1309. (Sweet C. English G.) Stem triangular. Umbel leafy, twice compound, with naked stalks. Spikes alternate. Marshes, very rare. 4.7. Stem 2-3 f. Root aromat. Sp. lin. many-fl.
- 2. C. fuscus, Suppl. 2626. (Brown C.) Stem triangular. Umbel compound, with three unequal leaves beneath. Spikes crowded, spreading every way. Stigmas three.

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[Cl. 3.

Moist. past. Little Chelsea, now extinct. O. 9. R. fibr. Stems several, smooth and pliant. 6 in.

25. SCIRPUS. Club-rush, and Bull-rush.

* Spikes solitary.

1. S. caspitósus, 15. 1029. (Scaly-stalked C.) Stem round, striated ; sheathed and invested with numerous scales at the base. Snike terminal. Outer glumes largest, with leafy points.

Turfy heaths. 24.7. Stems erect. Spike small, reddish brown.

- 2. S. pauciflórus, 16. 1122. (Chocolate-headed C.) Stem round. with a tight leafless sheath at the base. Spike terminal, of few flowers, longer than its blunt, membranous-tipped outer glumes. Moist. mount. 4.8. Stems slender. Spike with about 4 flowers. S. S. flúitans, 3. 216. (Floating C.) Stem branched, leafy, pliant
- and floating. Flower-stalks alternate, naked. Spikes terminal, of few flowers.
 - Ditches, and moist heaths. 4.8. Stems zigzag, very slender, 2-3 in. Sp. small.

** Stem round, with several spikes.

- 4. S. lacústris, 10. 666. (Bull-rush.) Stem round, naked. Panicle cymose, twice compound, terminal. Spikes ovate. Bracteas shorter than the panicle.
 - Clear ponds. 4. 7. Stem 4-6 f. dark green, simple, without leaves.
- 5. S. glaúcus, 33. 2321. (Glaucous C.) Stem round, naked, glaucous. Panicle cymose, not higher than the bractea. Spikes ovate, conglomerate. Stigmas two.
 - Salt marshes. 4.7, 8. Stem 2 f. Pan. less compound.
- S. Holoschánus, 23. 1612. (Round-cluster-headed C.) Stem round, naked. Spikes numerous, in globular, sessile, or stalked heads. Bracteas 2, unequal, leafy. Leaves channelled. Seeds without bristles.

Sandy sea-shores, rare. 4.8-11. Stem 3 f.

- 7. S. setáceus, 24. 1693. (Bristle-stalked C.) Stem compressed, with one or two leaves at the base. Spikes about 2, terminal. General bractea erect, leafy, much shorter than the stem. Seed ribbed, obovate and marked with transverse lines. Bristles none. Moist gravelly places, frequent. 4.7, 8. Tufted, 2-5 inches high. Stam. 2. Stigmas 3.
- 7. S. Šávii, Suppl. 2782. (Savi's C.) Stem round, leafy below. Spikes 1-3, terminal, shorter than the unequally 2-leaved involucre. Seed subglobose, rough with slightly elevated points, bristles none.

Bogs, Irel. and W. of Engl. and Scotl. 24.7. Similar in habit

to the last, but fruit guite different. Stam. 3. 8. S. caricínus, Schœnus compressus, 11. 791. (Compressed C.) Stem roundish, leafy at the base. Spikes aggregate, two-

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ranked, many-flowered. Leaves flat; their edges and keel rough. Seed with six bristles at the base.

Boggy mead. 4.7. About 1 f. simple. Style perman. Stigm. decid. 9. S. rúfus, Schænus mfus, 15. 1010. (Brown C.) Stem round, leafy at the base. Spikes aggregate, two-ranked, few-flowered. Leaves channelled, smooth, without a keel. Seed without bristles. Marshes in the W. 2.6.7. Stems 4-6 in. Leaves 2. Style decid.

*** Stem triangular. Panicle naked.

10. S. triqueter, 24. 1694. (Triangular C.) Stem acutely triangular. straight, naked, sharp-pointed. Spikes lateral; sessile or stalked. Stigmas two. Seed smooth.

- Banks of riv. near the sea. 4.8. Stem 3 f., smooth, with 1 leaf. 11. S. carinátus, 28. 1983. (Blunt-edged C.) Stem bluntly triangular upward, naked; round at the base. Panicle cymose, terminal. Bractea pungent, channelled, erect. Stigmas two.
 - Banks of riv. 4.8. Root creeping. Stem roundish below. Leaves 0.

**** Stem triangular. Panicle leafy.

- 12. S. marítimus, 8. 542. (Sea C.) Stem triangular. Panicle terminal, leafy. Spikes conglomerate. Glumes torn, with an intermediate point. Stigmas three. Salt marshes. 4.7,8. Stem 1-3 f., roughish. Spikes few,
- brown. Seed with 1-5 bristles. 13. S. sylváticus, 13. 919. (Wood C.) Stem triangular, leafy.
- Panicle terminal, leafy, cymose, repeatedly compound. Flowerstalks sheathed at the base. Spikes aggregate.
 - Moist shady woods. 4.7. Stem 3 f., smooth. Spikes very numer., small, dark green. Seed bristly at the base.

26. ELEÓCHARIS. Spike-rush.

1. E. palústris, Scirpus palust. 2. 131. (Creeping S.) Stem round. Root creeping. Stigmas two. Seed lenticular, most convex at one side.

Boggy ground. 4. 6, 7. Stems erect. Leaf 0. Spike brown.

2. E. multicáulis, S. mult. 17. 1187. (Many-stalked S.) Stem round. Root fibrous. Stigmas three. Seed, as well as the permanent base of the style, acutely triangular.

Turfy bogs. 4. 7. Stems spread. Spikes of a dark purplish brown. 3. E. aciculáris, S. acic. 11. 749. (Least S.) Stem quadrangular.

Stigmas three. Seed numerously furrowed, without bristles at the base. Filaments permanent.

Moist heaths. 24.8. 2-6 in., very slender. Spikes small.

27. ERIÓPHORUM. Cotton-grass.

* Spike solitary.

1. E. vaginátum, 13. 873. (Hare's-tail C.) Stem triangular above ;

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hrd. 3.]

30. PHLEUM. Carson and

L. praténse, 15, 1076. [Common Contra mine. The driesl. Calya abrapt, fringed at the seen. segar tak is swe. Plt alpinum, 8, 519. (Alpine C.) Linters miles. mile-miles. Owlyn abrupt, fringed at the icen. - our - I and her TUBRITURS.

Inst. in Sect. 24. 7. Sp. seprestu Income Ph. operum, Ph. pamiculistum, 13. 11. Long paked, sylindrical. Calva wenge statest. sweiner av rointed, rough ; keel makeri. Surn maneners.

h. Hachmeri, Phalaris pillenines, 14.3. Parte-muen Panicle spiked, nearly cylimitrical. Last cause and

inte, slightly pointed, neurly smooth, annot a te and mark. Stem simple.

Dily plaine, rare. M. T. Shen pury.
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offindrical. Calyz-glumes internate. mer-mater. mer ringest. Cornilla oblinne, from harry more wave toven.

My necks, Clova. 1. 7. Plan purple. L. men.

"L orendriam, Phalaris area. 4. 200 THE MELT 5**-3**-... punicled, ovate-hanceulate, minuse mogod, thrice the length of the simul michel, or i.a.

my sea coast. O. S. Ginne. Seme score - - -

81. ALOPECTRUE. For-ai grass.

praténsis, 11. 758. Mensiuw F from eret. . Spike somewhat paniched. Carra-guines some part containen. If the base, shorter than the avia of the moule.

ad, and past. 22. 5. Spiker I m. ant and then-

alpinus, 16, 1126. (Alpine F Inca great, striktti, buise orate, somewhat puniched. Carra-grante would during alrupt, nearly as long as the ava of the sonala.

lount in Scot. 14.7. Stem i f. fpine marrely . H.

. agreatis, 12. 548. (Siender F.) Sten cont. ringrunt. Spine normose, nearly simple, topering. Carra-gumes amont mater. combined at the base, dilated at the seen.

tilds and by road sides. (. 7. former 3 m. somer entr.

Woulddiens, 18, 1949. (Bulbous F Steen ener. Spike uner of, perfectly simple. Colyn-glumes farmer, incar, pomer, towar Root bulbous.

it marsh, rare, 14.7. Stem a spen haph, siender, Sp. shout . ; m. L geniculatur, 18, 1250. (Ploating F Stern scienting, 1998 at the joints. Spike cylindrical sheathy passicles. Curraglumes combined at the base, abrupt, images. Corola nearest. num twice the length of the call.

round below, with a swelling sheath. Spike ovate. Glumes membranous.

Boggy heaths. 24. 3. Leaves trian., sharp-pointed. Spike erect, of a silvery-grey; finally with long white hairs.

- E. capitátum, 34. 2387. (Round-headed C.) Stem entirely round, with a swelling sheath. Spike roundish. Glumes membranous. Rivulet on Ben Lawers. 4. 8. Smaller, thicker and straighter.
 E. alpinum, 5. 311. (Alpine C.) Stem triangular, naked above
- E. alpínum, 5. 311. (Alpine C.) Stem triangular, naked above the leaves. Spike oblong ovate. Glumes firm, strongly keeled. Bog near Forfar; now extinct. 4. 4, 5. L. very short. Spike minute.

** Spikes several.

- 4. E. polystáchion, 8. 563. (Broad-leaved C.) Stem round. Leaves flat, lanceolate, with a triangular point. Stalks of the spike smooth. Hairs thrice the length of the spikes. Boggy mead. 24. 4. Leaves broad. Spikes ovate, at length drooping.
- E. pubescens, Suppl. 2633. (Downy-stalked C.) Stem angular upwards. Leaves flat, lanceolate, with a triangular point. Stalks of the spikes downy. Hairs twice the length of the spikes. Rogs. 24. 4, 5. Smaller. Leaves narrower. Glumes blackish.
 E. angustifolium, 8. 564. (Common C.) Stem nearly round.
- E. angustifólium, 8. 564. (Common C.) Stem nearly round. Leaves linear, triangular; channelled towards the base. Stalks of the spikes smooth. Hairs four times the length of the spike. Boggy mead. 4. 4. L. very narr. Gl. grey, concealed by the hairs.
- E. grácile, 34. 2402. (Siender C.) Štem round, with three slight angles. Leaves triangular; channelled towards the base. Spikes longer than the bractea. Hairs twice the length of the spike. Boggy mount., Scotl., rare. 24. 7. Smaller, more slender, with jointed runners from the root.

28. NÁRDUS. Mat-grass.

- 1. N. stricta, 5. 290. (Common M.) Spike bristle-shaped, straight. Leaves thrice the length of their sheaths.
 - Moist sandy moors. 4.7. Stems rigid, 4-5 in. L. bristle-sh. spreading.

TRIANDRIA DIGYNIA.

29. PHÁLARIS. Canary-grass.

- 1. Ph. canariénsis, 19. 1310. (Common C.) Panicle ovate, resembling a spike. Calyx-glumes boat-shaped; entire at the summit. Outer corolla of two naked valves.
 - Waste and cult. gr. naturalized. \odot . 6-8. Glauc. 2 f. Sp. variegated with green and white.
- 2. Ph. arundinácea, 6. 402. 30. 2160. f. 2. (Reed C.) Panicle upright, with spreading branches. Flowers crowded, unilateral. Outer corolla of two bearded valves.

Pools and rivers. 24.7. About 4 f. Panicle rough.

Ord. 3.7

30. PHLÉUM. Cat's-tail grass.

- 1. Ph. praténse, 15. 1076. (Common C.) Clusters spiked, cylindrical. Calyx abrupt, fringed at the keel, longer than its awns. Mead. and past. 4.6-10. Root sometimes bulbous. Spike 2-5 in.
- 2. Ph. alpinum, 8. 519. (Alpine C.) Clusters spiked, ovate-oblong. Calyx abrupt, fringed at the keel, as long as its awns. Root tuberous.

Mount. in Scot. 24. 7. Sp. scarcely 1 in., thickened.

8. Ph. ásperum, Ph. paniculatum, 15. 1077. (Rough C.) Panicle spiked, cylindrical. Calyx wedge-shaped, swelling upwards, pointed, rough ; keel naked. Stem branched.

- Dry fields, rare. O. 7. Root fibrous. Pan. green, awnless. 4. Ph. Bochméri, Phalaris phleoides, 7. 459. (Purple-stalked C.) Panicle spiked, nearly cylindrical. Calyx-glumes linear-lanceolate, slightly pointed, nearly smooth, abrupt at the inner margin. Stem simple.
 - Sandy plains, rare. 4. 7. Stem purp. 1-11 f. Cor. pointed.
- 5. Ph. Michélii, 32. 2265. (Michelian C.) Panicle spiked, nearly cylindrical. Calyx-glumes lanceolate, taper-pointed, hairy, fringed. Corolla oblong, firm, hairy ; inner valve cloven. Lofty rocks, Clova. 4. 7. Pan. purple. L. green.
- Ph. arenárium, Phalaris aren. 4. 222. (Sea C.) Spike slightly panicled, ovate-lanceolate, obtuse. Calyx-glumes lanceolate, fringed, thrice the length of the abrupt notched corolla. Sandy sea coast. O. 6. Glauc. Stems several. 3-6 in.

31. ALOPECÚRUS. Fox-tail grass.

- 1. A. praténsis, 11. 759. (Meadow F.) Stem erect, smooth. Spike somewhat panicled. Calyx-glumes acute, hairy, combined at the base, shorter than the awn of the corolla.
 - Mead. and past. 2.5. Spikes 2 in., soft and thick.
- 2. A. alpinus, 16. 1126. (Alpine F.) Stem erect, smooth. Spike ovate, somewhat panicled. Calyx-glumes woolly, obliquely abrupt, nearly as long as the awn of the corolla.

- Mount. in Scot. 24. 7. Stem 1 f. Spike scarcely 1 in. 3. A. agréstis, 12. 848. (Slender F.) Stem erect, roughish. Spike racemose, nearly simple, tapering. Calyx-glumes almost naked, combined at the base, dilated at the keel.
 - Fields and by road sides. O. 7. Spikes 3 in., slender, acute.
- 4. A. bulbósus, 18. 1249. (Bulbous F.) Stem erect. Spike tapering, perfectly simple. Calyx-glumes distinct, linear, pointed, downy. Root bulbous.

Salt marsh. rare. 4.7. Stem a span high, slender. Sp. about 14 in.

5. A. geniculátus, 18. 1250. (Floating F.) Stem ascending, bent at the joints. Spike cylindrical, slightly panicled. Calyxglumes combined at the base, abrupt, fringed. Corolla notched, its awn twice the length of the calyx.

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Ponds and ditches. 24.7. Stems float. R. bulbous in dry ground. 6. A. fulous, 21. 1467. (Orange F.) Stem ascending, bent at the joints. Spike cylindrical, panicled. Calyx-glumes combined at the base, obtuse, fringed. Awn the length of the calvx. Anthers roundish.

Ponds and ditches. 24. 7. Larger, float. Anth. orange-coloured.

32. KNÁPPIA. Knappia.

1. K. agrostidea, 16. 1127. (Early K.) Sandy past. sea-side, rare. (). 3, 4. 2-3 in. ; L. few, short.

33. POLYPÓGON. Beard-grass.

- 1. P. monspeliénsis, Agrostis panicea, 24. 1704. (Annual B.)
- A was straight, thrice as long as the calyx. Root fibrous.
 Sea coast, rare. O. 7, 8. Pale. Pan. with long shining awas.
 P. littorális, Agr. litt. 18. 1251. (Perennial B.) Awas straight, about the length of the calyx. Root creeping. Muddy salt marsh., rare. 4. 8. Pan. purple, with shorter awas.

34. MÍLIUM. Millet-grass.

- 1. M. effúsum, 16. 1106. (Spreading M.) Flowers in a loose spreading panicle, without awns.
- Moist shady places. 24. 6, 7. Stems several. 2. M. lendigerum, 16. 1107. (Panick M.) Flowers in a dense spiked panicle. Corolla awned.

Inund. fields, rare. O. 8. Stems nearly solit., branched at the base.

35. AGRÓSTIS. Bent-grass.

* Awned.

- 1. A. Spica vénti, 14. 951. (Silky B.) Awn straight, rigid, many times longer than the corolla. Panicle loosely spreading.
- Moist sandy fields. O. 6, 7. Stems 2-3 f. erect. Pan. large, silky, waving on one side. 2. A. canina, 26. 1856. (Brown B.) Awn incurved from below
- the middle of the corolla; inner valve obsolete. Calyx ovate, coloured. Stems decumbent, with prostrate shoots.

- Moist places. 24.7. Pan. erect., purplish. Stip. lanceolate. 8. A. setácea, 17. 1188. (Bristle-leaved B.) Awn incurved, from near the base of the corolla ; inner valve minute. Calyx lanceolate, tapering, rough. Radical leaves bristle-shaped.
 - Dry heaths. 4.7, 8. Leaves glauc. Stem nearly erect. Pan. close, erect, oblong.

** Generally without awns.

4. A. vulgáris, 24. 1671. (Fine B.) Panicle spreading, with divaricated, capillary branches. Calyx-valves nearly equal. Stem erect. Stipula abrupt, very short.



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- Mead. and past. 24.7. Pan. purple, shining, very slender. 5. A. álba, 17. 1189. (Marsh B.) Panicle condensed at the base of the main divisions ; stalks rough. Calyx-valves lanceolate, bristly at the keel. Stem spreading, creeping. Stipula oblong. ribbed.
 - β. A. stolonifera, 22. 1532. Pan. more condensed. Stem sometimes floating.

Fields and marshes. 4.7, 8. Larger. Stip. elongated. Pan. 2-6 in.

36. CÝNODON. Dog's-tooth grass.

- 1. C. Dáctylon, Panicum Dactylon, 12. 850. (Creeping D.) Spikes four or five, crowded together. Corolla smooth. Sandy shores. 4.7, 8. Roots widely creeping. Leaves sharp
 - pointed, hairy.

37. DIGITÁRIA. Finger-grass.

- 1. D. sanquinális, Pan. sanguinale, 12.849. (Hairy Cock's-foot F.) Leaves and their sheaths somewhat hairy. Flowers in pairs. Calyx rough at the edge of its largest valve only.
- Fields, rare. O.7. Sp. umbellate, linear; common stalk flat, winged. 2. D. humifusa, Suppl. 2613. (Smooth F.) Leaves and sheaths smooth. Florets ovate, downy.
 - Sandy places, Sussex, Norf. and Suff. O. 7, 8. Smaller than the last and of a purplish hue. Florets more ovate and more convex.

38. PÁNICUM. Panick-grass.

1. P. verticillátum, 13. 874. (Rough P.) Panicle spiked, cylindrical, lobed, with whorled branches; and several prominent bristles, rough with reversed teeth. Corolla of the perfect floret slightly uneven.

- Moist fields. O. 6, 7. Stems smooth, jointed. Cal. keeled. 2. P. viride, 13. 875. (Green P.) Panicle spiked, cylindrical, continuous, with numerous prominent bristles rough with crect teeth. Corolla of the perfect floret slightly uneven. Sandy fields, rare. O. 7. Stems erect. Spike nearly uninterrupted.
- 3. P. Crus-gálli, 13. 876. (Loose P.) Panicle erect, branched, bristly. Flowers awned, unilateral. Leaves lanceolate, harsh, naked, without stipulas.

Moist land. O. 7. Spikelets generally on one side, condensed.

89. AÍRA. Hair-grass.

* Corolla avmless.

- 1. A. cristáta, 9.648. (Crested H.) Panicle spiked. Calyx longer than its flower-stalk, shorter than the florets. Glumes all pointed. Dry past. 24. 7, 8. Stems erect, 8 in., jointed below. Pan. lanceol., downy.
- 2. A. aquática, 22. 1557. (Water H.) Panicle spreading Florets

awnless, even, obtuse, longer 'than the calyx. Leaves flat. Stipula oblong.

Watery places. 4. 5, 6. Stem float. Glumes abrupt, notched.

** Corolla awned, hairy at the base.

 A. caspitósa, 21. 1423. (Tufted H.) Panicle spreading. Florets about the length of the calyx, abrupt, hairy at the base; one of them on a hairy stalk. Awn short, from the bottom of the outer valve.

Moist. past. and groves. 4. 6, 7. About 3 f., erect. Leaves flat. Pan. large.

- 4. A. alpina, A. lævigata, 80. 2102. (Alpine H.) Leaves involuteawl-shaped, with smooth sheaths. Panicle rather close and upright. Florets the length of the calyx, acute; one of them on a smooth stalk. Awn short, from near the top of the outer valve. Mount. and sea shores in Scot. 24. 5, 6. 18 in., often viviparous.
- 5. A. *flexuósa*, 22. 1519. (Wavy H.) Leaves bristle-shaped. Panicle spreading, triple-forked, with wavy branches. Florets about the length of the calyx, acute. Awn from the middle of the outer valve, twisted, longer than the calyx.

Rocky mount. 4.7. About 1 f. Pan. loose, shining, capill. copp.-col.

- A. canéscens, 17. 1190. (Grey H.) Leaves bristle-shaped. Panicle rather dense. Florets shorter than the calyx. Awn club-shaped, not longer; hairy at the joint. Sandy shores. 24.7. About 4 in. Pan. lanceol. Leaves glauc.
- A. précox, 18. 1296. (Early H.) Leaves bristle-shaped, with angular sheaths. Panicle close, erect. Florets the length of the calyx, both sessile. Awn nearly twice as long, from the base of the valve.

Barren gravelly soil. O. 5, 6. 4 in., pale. Sheaths tumid. Pan. of few fl.

- 8. A. caryophýllea, 12. 812. (Silver H.) Leaves bristle-shaped, with ribbed sheaths. Paniele triple-forked, spreading. Florets not longer than the calyx, both sessile. Awn twice as long, from above the middle of the valve.
 - Barren gravelly soil. O. 7. 4-6 in. Pan. capill. Fl. purp. green and white.

40. HÓLCUS. Soft-grass.

1. H. lanátus, 17. 1169. (Meadow S.) Calyx woolly. Lower floret perfect, awnless; upper with an arched awn. Leaves downy on both sides.

Mead. and past. 4. 6, 7. Root fibr. Leaves soft and downy.

 H. móllis, 17. 1170. (Creeping Š.) Calyx partly naked. Lower floret perfect, awnless; upper with a sharply-bent prominent awn. Root creeping.

Fields and groves. 4.7, 8. Leaves green, slightly downy. Fl. hairy at the base.

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3. H. avenáceus, 12. 813. (Oat-like S.) Calyx-valves unequal, smooth. Barren floret lowest, with a sharply-bent prominent awn. fertile one slightly elevated, scarcely awned. Root knotty. Past. & by road-sides. 4.6, 7. L. roughish, deep green. Pan. elong.

41. HIERÓCHLOE. Holy-grass.

1. H. boreális, Suppl. 2641. (Northern H.) Panicle somewhat unilateral, with smooth flower-stalks. Perfect florets awnless ; barren ones slightly awned. Nectary in two deep, unequal, linear segments.

Lofty glens in Scot. 4.5, 6. Fragrant when dry. L. flat.

42. MÉLICA. Melic-grass.

1. M. uniflóra, 15. 1058. (Wood M.) Panicle branched, unilateral. Flowers erect. Spikelet with only one perfect floret. Petals beardless.

Groves. 4. 5, 6. Root fibr. Fert. flor. sessile ; barren one stalhed. 2. M. nútans, 15. 1059. (Mountain M.) Panicle close, drooping, nearly simple. Flowers pendulous. Spikelet with two perfect florets. Petals beardless.

- 3. M. cærúlea, 11.750. (Purple M.) Panicle close, erect, compound. Flowers upright, cylindrical. Petals beardless, acute.
 - Barren watery pl. 24. 8. Root bulb. Pan. violet-coloured, many-flowered.

49. SESLÉRIA. Moor-grass.

1. S. carúlea, 23. 1613. (Blue M.) Spike ovate-oblong, imbricated. Bracteas alternate. Exterior valve of the corolla with three teeth. Moist chalky mount. 4.4. About 1 f. Leaves flat. Spike short.

44. GLYCÉRIA. Sweet-grass.

1. G. aquática, Poa aquat. 19. 1315. (Reedy S.) Panicle erect, repeatedly branched, spreading. Florets numerous, obtuse, with seven ribs. Nectary cloven, acute.

Ditches and riv. 4.7. Smooth. 4 f. Leaves sword-sh. Stip. entire.

2. G. fluitans, P. fluit. 22. 1520. (Floating S.) Panicle oblong, branched, divaricating. Spikelets close-pressed. Florets numerous, obtuse, seven-ribbed, with short intermediate ribs at the base. Nectary obtuse, tumid.

Ditches and rivul. 4.6-8. R. creeping. L. obtuse. Stip. notched.

3. G. distans, P. dist. 14.986. (Reflexed S.) Panicle branched, spreading ; the branches finally reflexed. Florets about five, obtuse, obscurely five-ribbed, polished. Root fibrous.

Waste sandy shores. 4.7. Stems 1 f. Leaves glauc.

4. G. marítima, P. marit. 16. 1140. (Sea S.) Panicle branched, rather close ; erect after flowering. Florets about five, somewhat pointed, slightly five-ribbed. Root creeping.

Mount. woods. 4. 6, 7. Root creeping. Fert. flor. 2; barr. 1 or 2, long-stalked.

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Salt marshes. 4.7. Glauc. Florets elong. cylindr.

- G. procúmbens, P. procumb. 8. 532. (Procumbent S.) Panicle lanceolate, unilateral, two-ranked, close, with rough stalks; the main one cylindrical. Florets about five, bluntish, five-ribbed. Near the sea. O. 7, 8. Glauc. prostr. Root fibr. Pan. rigid.
- Near the sea. O. 7, 8. Glauc. prostr. Root fibr. Pan. rigid.
 6. G. rigida, P. rigida, 20. 1371. (Hard S.) Panicle lanceolate, unilateral, two-ranked, close, with smooth stalks; the main one bordered. Florets about seven, acute, scarcely ribbed.
 Walls and sandy pl. O. 6. Stems wiry, purple. Cal. acute.

45. PÓA. Meadow-grass.

- P. compréssa, 6. 365. (Flat-stalked M.) Panicle unilateral, rather dense. Stem compressed. Root creeping. Spikelets ovate-oblong. Florets connected by a web at the base.
 Walls and dry past. 4.7, 8. Stems nearly 1 f., erect above, com-
- pressed.
 2. P. alpina, 14. 1003. (Alpine M.) Panicle loosely spreading. Spikelets heart-shaped, four- or five-flowered. Florets rather sickle-shaped, hairy at the base, without a web. Lower stipulas very short; upper oblong, acute.
 - Highl. of Scot. U. 7. Leaves spread. short. Spikel. of a shining purple, often vivip.
- 8. P. *laza*, P. flexuosa, 16, 1129. (Wavy M.) Panicle drooping, loosely spreading, zigzag. Spikelets ovate, three-flowered. Florets connected by a web. Stipulas all lanceolate.
 - Highl. of Scot. 4.7. Leaves erect. Spikel. glaucous, varieg. with purple.
- P. bulbósa, 15. 1071. (Bulbous M.) Panicle close, slightly zigzag. Spikelets four-flowered. Florets hairy at the keel, connected by a web. Leaves finely serrated. Stem bulbous at the base. Sandy shores. 24. 5, 6. Bulbs crowded. Stem erect. Stip. obtuse.
- 5. P. triviális, 15. 1072. (Roughish M.) Panicle spreading. Spikelets three-flowered. Florets lanceolate, five-ribbed, connected by a web. Stipula oblong. Root fibrous.
- Mead. and past. 42.6-9. Stems and leaves roughish. 18 in., high.
 P. praténsis, 15. 1073. (Smooth-stalked M.) Panicle spreading. Spikelets four-flowered. Florets lanceolate, five-ribbed, con
 - nected by a web. Stipula short and obtuse. Root creeping. 8. P. subcærulea, 14. 1004. Of humble growth, glaucous.

Mead. and past. 24.5,6. Stem even. Leaves smooth, green, or glauc.

- 7. P. ánnua, 16. 1141. (Annual M.) Panicle widely spreading. Spikelets ovate, five-flowered. Florets a little remote, fiveribbed, without a web. Stems oblique, compressed.
 - Fields and mead. O. 3-11. Leaves pale, wavy, flaceid. Stigm. compound, large.
- 8. P. glauca, 24. 1720. (Glaucous M.) Panicle spreading. Spikelets ovate. Florets from two to five, obscurely five-ribbed, blantish; silky at the keel and lateral ribs; hairy at the base, without a web. Stipulas of the lower leaves very short and blant.

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 P. cæsia, 24. 1719. Florets 4 or 5. Leaves rather broad. Mountains. 4. 6, 7. Of a purp. glauc. hue. Root fibr.

 P. nemorális, 18. 1265. (Wood M.) Panicle spreading, capillary. Calyx-glumes lanceolate, taper-pointed, each three-ribbed. Spikelets lanceolate. Florets about three, five-ribbed, acute; silky at the keel and lateral ribs; hairy at the base, without a web. Stipulas very short, notched.

Woods. 4.6. Stems erect, slender, 1-11 f. Spikel. small, pale.

46. TRIÓDIA. Heath-grass.

1. T. decúmbens, Poa decumbens, 11. 792. (Decumbent H.) Panicle nearly simple, close, erect. Florets four; their middle tooth shortest. Calyx smooth. Stipula hairy.

Spongy bogs. 4.7. Leaves rigid, involute. Spikel. turgid.

47. BRÍZA. Quaking-grass.

- B. minor, 19. 1316. (Small Q.) Spikelets triangular, seven-flowered. Calyx longer than the florets. Stipulas lanceolate, very long. Fields, S. of Engl., rare. O. 7. Stem 6-8 in., branched at the base. Pan. deep green.
- 2. B. média, 5. 340. (Common Q.) Spikelets ovate, about sevenflowered. Calyx shorter than the florets. Stipula very short and blunt.

Past. 4. 5, 6. Stem 12-18 in., simp., solit. Pan. light brown.

48. DÁCTYLIS. Cock's-foot-grass.

1. D. glomeráta, 5. 335. (Rough C.) Panicle distantly branched. Flowers in dense globular tufts, unilateral. Corolla somewhat awned, five-ribbed, taper-pointed.

Mead. and past. 4. 6-8. L. flat, harsh. Spikes ovate, many-fl.

49. SPARTÍNA. Cord-grass.

1. S. stricta, Dactylis str. 6. 380. (Twin-spiked C.) Spikes two or three, erect, with very smooth stalks. Glumes downy. Outer valve of the calyx smallest.

Muddy salt marshes. 4.8. Leaves involute, pointed, striated.

50. CYNOSÚRUS. Dog's-tail-grass.

1. C. cristatus, 5. 316. (Crested D.) Spike simple, linear. Neuter spikelets without awns.

Dry past. 4.7. Stems erect. Stip. blunt. A valuable grass.

 C. echinátus, 19.1333. (Rough D.) Spike compound, ovate. Neuter spikelets awned. Awns of the corolla full as long as the glume. Sandy pl. S. of Engl., rare. ⊙. 7. Stems branched at the base.

51. FESTÚCA. Fescue-grass.

 F. ovina, 9. 585. (Sheep's F.) Panicle unilateral, rather close. Florets cylindrical, pointed or awned; smooth at the base, and at the edges of the inner valve. Stem square. Leaves folded, bristle-shaped. β. F. cæsia, 27. 1917. Glauc. Inner valve somewhat hairy. Dry past. 4. 6. 6-12 in. Pan. lanceol. Stip. short and obtuse.

2. F. vivipara, 19. 1355. (Viviparous F.) Panicle unilateral, rather close. Florets compressed, keeled, awnless, somewhat downy, as well as the edges of their inner valve, and the calyx. Stem square. Leaves folded, bristle-shaped, smooth.

Lofty mount. 4. 7. Pan. short, nearly simp. Fl. often vivip.

 F. duriúscula, 7. 470. (Hard F.) Panicle unilateral, spreading. Florets longer than their awns. Stem round. Upper leaves flat. Root fibrous.

Mead. and past. 4. 6. 13-2 f., striated, smooth. Flor. keeled.

 F. rúbra, 29. 2056. (Creeping F.) Panicle spreading, unilateral. Florets longer than their awns. Leaves downy above. Root extensively creeping.

Hills and sea-shores. 4.7. L. pointed, involute, somewhat glaucous.

- F. bromoides, 20. 1411. (Barren F.) Panicle racemose, nearly erect. Florets tapering, shorter than their awns, rough at the top. Leaves tapering, shorter than their sheaths.
 - Walls and sandy gr. O. 6. Pale. Pan. short. Upper half of the stem naked.
- 6. F. Myúrus, 20. 1412. (Wall F.) Panicle drooping, elongated, rather close. Florets tapering, shorter than their awns, rough at the top. Leaves awl-shaped.

Walls and sandy gr. O.6. Pan. very long. Stem leafy to the summit.

- F. uniglúmis, 20. 1430. (Single-husked F.) Panicle erect, nearly simple. Florets tapering, compressed, awned. One valve of the calyx very short.
 - Sandy shores. O. S. 6. Stems several, 6-14 in. leafy, smooth. Flor. keeled.
- 8. F. gigántea, 26. 1820. (Tall F.) Panicle drooping, twice compound, spreading. Florets from three to six, ovate-lanceolate, shorter than their awns. Stipula abrupt, auricled, clasping the stem.

β. F. triflora, 27. 1918. Smaller and more slender, with fewer florets. Woods and hedges. 4. 7, 8. Stem 3-4 f. Sp. ovate, smooth.

 F. calamária, 14.1005. (Reed F.) Panicle repeatedly compound, spreading, erect. Florets from two to five, oblong, angular, cylindrical, keeled, pointed; inner valve folded in the middle.
 F. decidua, 32. 2266. Smaller and more slender. Up. fl. decid.

Alpine woods. 4. 7. Stem 3 f. Leaves sword-shaped, striated.

 F. loliácea, 26. 1821. (Spiked F.) Spike two-ranked, drooping. Spikelets nearly sessile, linear-oblong. Florets cylindrical, awnless, pointed, with five slight ribs.

Humid mead. 4. 6, 7. About 2 f. Spikes long, with altern. spikel.

 F. praténsis, 23. 1592. (Meadow F.) Panicle nearly upright, branched, spreading, turned to one side. Spikelets linear, compressed. Florets cylindrical, obscurely ribbed. Root fibrous. Mead and past. 4. 6, 7. 2 f. Upper leaves rough. Nect. 4-cleft. Fl. numerous.

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- F. elátior, 23. 1593. (Reedy F.) Panicle somewhat drooping, much branched, loosely spreading. Spikelets ovate-lanceolate. Florets numerous, cylindrical, somewhat awned, obscurely ribbed. Root creeping.
 - Humid past. 4. 6, 7. About 4 f. Leaves broader, rough-edged. Nect. 4-cleft.
- F. sylvática, Bromus sylv, 11. 729. (Wood F.) Spike simple, drooping. Spikelets nearly cylindrical, turned to one side. Awns longer than their glumes. Leaves hairy. Root fibrous. Copses and hedges. 4.7. About 2 f. slender, bright green. Nect. of 2 scales.
- F. pinnáta, B. pinn. 11. 730. (Spiked Heath F.) Spike simple, erect, two-ranked. Spikelets nearly cylindrical. Awns shorter than their glumes. Leaves nearly smooth. Root somewhat creeping. Fields and heaths, on a chalky soil. 4. 7. 18. in. rigid, smoothish.

52. BRÓMUS. Brome-grass.

- 1. B. secálinus, 17. 1171. (Smooth Rye B.) Panicle spreading; slightly subdivided below. Spikelets ovate, of about ten distinct, somewhat cylindrical, smooth florets.
- Fields. \odot 7. L. slightly hairy. Awns wavy, shorter than the glumes.
- 2. B. velutinus, B. multiflorus, 27. 1884. (Downy Rye B.) Panicle spreading, scarcely subdivided. Spikelets ovate-oblong, of from ten to fifteen crowded, elliptical, downy florets.

Fields, rare. O. 7. L. slightly hairy. Awns as long as the glumes.

 B. móllis, 15. 1078. (Soft B.) Panicle erect, rather close, compound. Spikelets ovate, downy. Florets imbricated, depressed, ribbed.

Fields and waste gr. 3. 6. Soft and downy. Gl. 7-9-ribbed, the length of their awns.

- 4. B. racemósus, 15. 1079, B. arvensis, 13. 920. (Smooth B.) Panicle nearly erect, spreading, slightly branched. Spikelets ovate-oblong, naked. Florets imbricated, depressed, ribbed.
 - Mead. and past. O.6. L. somewhat downy. Awns as long as the gl,
- 5. B. squarrósus, 27. 1885. (Corn B.) Panicle drooping, nearly simple. Spikelets ovate-oblong. Florets about twelve, imbricated, depressed, ribbed. Awns widely spreading.
 - Fields. O. 7. 1 f. Spikel. large, shining. A doubtful native.
- B. arvénsis, 28. 1984. (Field B.) Panicle spreading, drooping, compound, half-whorled. Spikelets lanceolate, acute. Florets about eight, imbricated, smoothish, with two close ribs at each side. Fields. O. 7. 3 f. Leaves hairy. Pan. large. Spikel. varieg. with purple and green.
- 7. B. eréctus, 7. 471. (Upright B.) Panicle erect, slightly branched. Florets lanceolate, compressed, loosely imbricated. Awn straight, shorter than the glume. Radical leaves very narrow, fringed with scattered hairs.
- Sandy and chalky soil. 24.7. Spikel. linear-lanceol. with about 8 flor.
- 8. B. ásper, 17. 1172. (Rough B.) Panicle drooping, branched.

Florets lanceolate, rather distant, compressed, downy. Awns shorter than the glumes. Leaves uniform ; lower ones hairy. Moist woods. O. S. 7. Stem 4-6 f. Spikel. linear-oblong, with about 8 flor.

- 9. B. stérilis, 15. 1030. (Barren B.) Panicle drooping, mostly sim-Florets about seven, lanceolate, compressed, seven-ribbed, ple. Florets about seven, lanceolate, compressed, seven-noo furrowed. Awns longer than the glumes. Leaves downy.
- Fields and waste gr. O. 6, 7. Hairy. 18 in. Spikel. linear-lanceol. 10. B. diándrus, 14. 1006. (Annual B.) Panicle upright, a little spreading, scarcely subdivided. Florets lanceolate, with two close marginal ribs, and only two stamens.

Walls and sandy gr. O.6. About 1 f., upright. Spikel. erect.

53. STÍPA. Feather-grass.

1. S. pennáta, 19. 1356. (Common F.) Awns feathery. Rocky mount., not a native. 24.7. L. upright, long, narrow, acute. Awns 1 f.

54. AVÉNA. Oat, or Oat-grass.

- 1. A. fátua, 31. 2221. (Wild O.) Panicle erect, compound. Spikelets pendulous. Florets about three, shorter than the calyx, bristly at the base, with an oblique scar, all awned.
- Corn fields. O. 6-8. Leaves rough. Pan. simple. Gl. yellow. 2. A. strigósa, 18. 1266. (Bristle-pointed O.) Panicle oblong, turned to one side. Florets two. Outer valve of the corolla tipped with a double straight bristle.

- Corn f. O. 6-8. 3 f. glauc. Pan. a little crowded. Awns reddish. 3. A. pubéscens, 23. 1640. (Downy O.) Panicle erect, nearly simple. Florets about three, longer than the calyx. Partial stalk Leaves flat, downy. Root somewhat creeping. bearded. Past. on chalky soil. 2.6. Upright. Florets 2, with 1 abort.
- all on a long, bent partial stalk. 4. A. praténsis, 17. 1204. (Narrow-leaved O.) Panicle erect,
- with very short simple branches. Florets about five, longer than the calyx. Partial stalks hairy. Leaves involute, naked, finely serrated ; sheaths smooth.

Dry chalky past. 24.7. Upright, smooth. Stip. lanceol.

- 5. A. alpina, A. planiculmis, 30. 2141. (Alpine O.) Panicle erect, slightly branched. Florets about five, longer than the calyx; partial stalk bearded under each. Leaves flat, minutely serrated, naked ; their sheaths rough.
- Lofty rocks in Scot. 4. 7. R. fibr. downy. Sheaths long. Fl. large.
- 6. A. planicúlmis, Suppl. 2684. (Flat-stemmed O.) Panicle erect, compound. Spikelets erect, linear-oblong, of from 5 to 7 florets, much longer than the calyx. Leaves scabrous, broadly linear, suddenly acute, minutely serrated. Sheaths flat, shortly carinated, scabrous. Lower part of the culm slightly compressed, 2-edged.

Glen Sannox, Isle of Arran, Scotl. 24.7. Spikelets much longer than in A. alpina. Florets smaller.

7. A. flavéscens, 14. 952. (Yellow O.) Panicle much branched, spreading, erect. Florets about three, longer than the very unequal calyx. Leaves flat, a little downy. Root somewhat creeping. Past. mead. and way-sides. 24.6, 7. Spikel. of 2-4 yell. shining, minute fl.

55. LAGÚRUS. Hare's-tail-grass.

1. L. ovátus, 19. 1334. (Ovate Hare's-tail-grass.) Sandy fields, Guernsey. O.6. L. downy. Sp. ovate, drooping, hairy.

56. ARÚNDO. Reed.

- 1. A. Phragmítes, 6. 401. (Common R.) Florets about five, awnless, longer than the calyx. Panicle loose. Pools and ditches. 24.7. About 6 f. Cal. smooth.
- 2. A. epigéjos, 6. 403. (Wood R.) Calyx single-flowered, longer than the corolla. Panicle erect, close. Flowers crowded, unilateral. Leaves lanceolate.
 - Moist woods. 4.7. Smaller. Cal. with a rough keel. Cor. with a dorsal awn about as long as the hairs and calyx.
- 3. A. Calamagróstis, 30. 2159. (Small R.) Calyx single-flowered, much exceeding the corolla. Panicle erect, loose. Flowers scattered, spreading every way. Hairs longer than the corolla. Awn terminal, short. Leaves linear.
- Moist woods. 24. 7. About 4 f. slender. Pan. much branched. 4. A. strícta, 30. 2160. (Close R.) Calyx single-flowered, ovate, scarcely longer than the corolla. Panicle close, erect. Flowers scattered, spreading every way, with a dorsal awn. Hairs shorter than the corolla.

Marshes in Scot. 4.6.2 f. slender. Fl. smaller. Stip. very short.

5. A. arenária, 8. 520. (Sea R. Marram, Sea mat-weed.) Calyx single-flowered, longer than the corolla. Panicle spiked. Flowers erect, slightly awned. Leaves involute, sharp-pointed. Sandy sea-shores. 4.7. 3 f. L. glauc. rigid, furrowed. Stip. lanceol.

57. LÓLIUM. Darnel.

1. L. perénne, 5. 315. (Perennial D. or Rye-grass.) Corolla very slightly awned. Spikelets longer than the calyx. Florets lanceolate.

Mead. and past. 4.6. Smooth, dark green. Stem bent at the base.

2. L. temuléntum, 16. 1124. (Bearded D.) Awns longer than the corolla. Spikelets shorter than the calvx. Florets elliptical. Stem rough in the upper part.

Fields. O. 7. Stem 2 f., erect ; smooth below. L. green, rough.

8. L. arvénse, 16. 1125. (Short-awned D.) Corolla slightly awned. Spikelets as long as the calvx. Florets elliptical. Stem very smooth.

Fields, rare. O.7. Smaller; almost entirely smooth. Awns obsol.



58. ROTTBÓLLIA. Hard-grass.

 R. incurváta, 11. 760. (Sea H.) Spike cylindrical, tapering. Calyx-valves combined below. Floret solitary. Corolla awnless. Maritime past. O. 8. Stems branched. Sp. incurved, cylindr.

59. ÉLYMUS. Lyme-grass.

- E. arenárius, 24. 1672. (Sea L.) Spike upright, close; main stalk not winged. Calyx lanceolate, the length of the spikelets. Leaves spinous-pointed.
- Sandy sca-shores. 4.7.4 f., glauc. Stip. very short. Sp. 7-10 in.
- E. geniculátus, 23. 1586. (Pendulous L.) Spike bent perpendicularly downward, lax; main stalk winged. Calyx awl-shaped, longer than the spikelets. Leaves spinous-pointed.
- Marshes near the sea, rare. \mathcal{U} . 7. Taller, but slenderer. Sp. 11-2 f. 3. E. Européeus, 19. 1317. (Wood L.) Spike erect. Florets about
 - two, rough, awned, as well as the calyx. Leaves flat, pliant.
 - Woods. 4.6. Dark green. 2 f. Upper florets often solitary.

60. HÓRDEUM. Barley.

- 1. H. murínum, 28. 1971. (Wall B.) Lateral flowers barren; calyxvalves of the intermediate one lanceolate, fringed.
- Waste gr. O. 6-8. Stems recumb. at the base. L. rough, dark green.
- H. praténse, 6. 409. (Meadow B.) Lateral flowers imperfect, with shorter awns. All the calyx-valves bristle-shaped and rough. Moist past. 24. 6. Stem erect, 18 in. Leaves roughish.
- H. marítimum, 17. 1205. (Sea B.) Lateral flowers imperfect, with shorter awns; the inner valve of their calyx half-ovate. Mead. and sandy shores, O. 6, 7. Like the first. L. smoother,
 - and more glauc. Awns very rough, with minute bristly teeth.

61. TRÍTICUM. Wheat, or Wheat-grass.

1. T. júnceum, 12. 814. (Rushy Sea W.) Calyx-valves blunt, manyribbed. Florets about five, awnless. Main-stalk smooth. Leaves involute, sharp-pointed. Root creeping widely.

Sandy sea-shores. 4.7. Glaucous, rigid. Stem purp. at the base.

- T. repens, 13. 909. (Creeping W., Couch-grass.) Calyx-valves pointed or awned, lanceolate, many-ribbed. Florets about five, sharp-pointed or awned. Leaves flat. Root creeping.
 - Waste and cult. gr. 4. 6-9. Straight and slender. Leaves rough on the upper side; glaucous near the sea.
- T. caninum, 20. 1372. (Fibrous-rooted W.) Calyx-valves somewhat awned, with three or five ribs. Florets four, awned. Leaves flat. Root fibrous.

Woods on a chalky soil. 4. 7. Slender, straight, green. L. rough.

- T. cristátum, 32. 2267. (Crested W.) Calyz-valves elliptical, awned, keeled, obscurely ribbed. Florets awned. Spikelets closely imbricated, depressed, straight. Stems simple.
 - Marit. cliffs in Scot., a doubtful native. 24.7. Slender, rigid, 1-11 f. L. hairy above.



Ord. 1.7

- 5. T. loliáceum, 4. 221. (Dwarf Sea W.) Calyx-valves obtuse, awnless. Florets numerous, awnless, elliptical, ribbed. Spike unilateral. Stem branched. Root fibrous.
 - Sandy sea-shores. O. 6, 7. 2-4 in., rigid and wiry, pery smooth and polished.

TRIANDRIA TRIGYNIA.

62. MÓNTÍA. Blinks.

1. M. fontána, 17. 1206. (Water Blinks. Water-Chickweed.) By rills and rivers. O. 4, 5. Spreading, smooth. Fl. white, small. Seeds black.

63. HOLÓSTEUM. Jagged Chickweed.

1. H. umbellátum, 1. 27. (Umbelliferous Jagged Ch.) Flower-stalks umbellate. Leaves ovate, acute. Old walls. O. 4. Smooth, erect, a little glaucous. Fl. white.

64. POLYCÁRPON. All-seed.

1. P. tetraphýllum, 15. 1031. (Four-leaved All-seed.) Waste and sandy gr., S. of Engl., rate. O. 5-98. Spreading flat on the ground. L. generally 4. Fl. small, whitish, panicled. Stip. jagged.

Class. IV. TETRANDRIA. Stamens 4. equal.

Order I. MONOGYNIA. Style 1.

* Fl. of 1 petal, superior, single-seeded.

- 65. DÍPSACUS. Common cal. of many leaves. Proper cal. single, superior, of 1 leaf, cup-shaped, crowning the seed .--- N.O. Dir-SACEÆ.
- 66. SCABIÓSA. Common Cal. of many leaves. Prop. Cal. double, superior, crowning the seed.-N.O. DIPBACEE.

** Fl. of 1 petal, superior, 2-seeded.

- 70. RÚBIA. Cor. bell-shaped. Fruit pulpy.-N.O. RUBIACEÆ. 69. GÁLIUM. Cor. flat. Fruit dry.-N.O. RUBIACEÆ.
- 68. ASPÉRULA. Cor. tubular. Fruit without a crown.-N.O. RUBIACEE.
- 67. SHERÁRDIA. Cor. tubular. Fruit crowned with the calyx; each seed with 3 teeth .- N.O. RUBIACEE.

*** Fl. of 1 petal, inferior.

- 71. EXÁCUM. Cor. salver-shaped, spreading. Stamens shorter than the limb. Caps. with 2 valves, many-seeded, opening at the top.-N.O. GENTIANEE.
- 72. PLANTÁGO. Cor. reflexed. Stamens very long. Caps. of 2 or 4 cells, bursting all round.-N.O. PLANTAGINEE.
 - 73. CENTÚNCULUS. Cor. tubular, spreading. Stam. within the tube. Caps. of I cell, bursting all round. - N.O. PRIMULACEA. Some Gentianæ.

**** Fl. of 4 petals.

- 75. EPIMÉDIUM. Nect. 4, hollow, lying on the petals. Pod superior. of I cell, with many seeds. Cal. deciduous.-N.O. BER-BERIDEÆ.
- 76. CÓRNUS. Nect.O. Drupa inferior: nut of 2 cells. N.O. CORNES. Senebiera 2. Cardamine.

***** Fl. without petals.

- 77. PARIETÁRIA. Cal. 4-cleft, inferior. Stam. elastic, Seed invested with the elongated calyx. Some flowers without stamens, their cal. remaining unaltered. - N.O. URTICEE. *77. ISNÁRDIA. Cal. 4-cleft, superior. Caps. quadrangular, of
- 4 cells, crowned by the calyx.-N.O. ONAGRARIÆ.
- 74. SANGUISÓRBA. Cal. 4-cleft, superior, coloured. Stam. dilated upward. Caps. quadrangular, of 1 cell, not bursting. -N.O. ROSACEÆ.
- 78. ALCHEMÍLLA. Cal. 8-cleft, inferior. Seed 1 or 2, naked. -N.O. ROSACEÆ.

Order II. DIGYNIA. Styles 2.

79. BUFFÓNIA. Petals 4. Caps. of 2 valves. Seeds 2.-N.O. CARYOPHYLLEÆ.

Alchemilla. Gentiana. Cuscuta.

Order III. TETRAGYNIA. Styles, or Stigmas, 4.

- 80. ILEX. Cor. wheel-shaped, of 1 or 4 petals. Berry with 4 seeds. Styles 0. Some flowers barren.-N.O. ILICINEE.
- 84. Mc NCHIA. Pet. 4. Caps. of 1 cell, and 1 valve, with 8 teeth. Cal. of 4 leaves.—N.O. CARVOPHYLLEE.
- 83. SAGÍNA. Pet. 4. Caps. of 1 cell, and 4 valves. Cal. of 4 leaves .- N.O. CARYOPHYLLE ...
- 86. RADÍOLA. Pet. 4. Caps. of 8 cells, and 8 valves. Calyx of 1 leaf, in 12 segments.—N.O. LINEE. 85. TÍLLEA. Pet. 4, 3, or 5. Caps. several. Seeds several.—N.O.
- CRASSULACEÆ.

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Ord 1.]

- 81. POTAMOGÉTON. Pet. 4. Cal. 0. Seeds 4, naked, sessile.
- 82. RÚPPIA. Pet. 0. Cal. 0. Seeds 4, stalked.—N.O. NATADES. Cerastium.

TETRANDRIA MONOGYNIA.

65. DÍPSACUS. Teasel.

1. D. fullónum, 29. 2080. (Fuller's T.) Leaves combined, serrated. Scales of the receptacle hooked backwards. Common calyx reflexed.

Hedges, not wild. S. 7. Erect, 5 or 6 f., prickly. Fl. whitish.

D. sylvéstris, 15. 1032. (Wild T.) Leaves opposite, serrated. Scales of the receptale straight. Common calyx inflexed, longer than the head.

About hedges. 3.7. Less robust, 4 f. Scales taper, less rigid.

D. pilósus, 13. 877. (Small T.) Leaves stalked, with lateral leaflets. Common calyx deflexed, about the length of the head. Moist chalky soil. 4.8. L. ovate, pointed. Fl. white. Scales fringed.

66. SCABIÓSA. Scabious.

- S. succisa, 13. 878. (Devil's-bit S.) Corolla in four equal segments. Heads nearly globular. Stem-leaves distantly toothed. Past. 24.8-10. R. abrupt. Stem 1-2 f., hairy. L. entire. Fl. blue.
- S. arvénsis, 10.659. (Field S.) Corolla in four segments; the marginal flowers radiant. Leaves pinnatifid, cut. Stem bristly. Fields, 24.7. Root tangering. Stem 3 f El. large, node nurnle.
- Fields. 24. 7. Root tapering. Stem 3 f. Fl. large, pale purple.
 3. S. columbária, 19. 1311. (Small S.) Corolla in five unequal segments. Radical leaves ovate, or lyrate, notched; the others pinnatifid, linear.

Moist chalky soil. 4.6, 7. R. woody. Stem 12-18 in. Cor. radiant.

67. SHERÁRDIA. Field-madder.

1. Sh. arvénsis, 13. 891. (Little F.) Leaves all whorled. Flowers terminal.

Fields. O. 5-8. Spreading. 3-6 in. L. obov. Cor. purplish blue.

68. ASPÉRULA. Woodruff.

1. A. odoráta, 11. 755. (Sweet W.) Leaves eight in a whorl, lanceolate. Panicles stalked, of few flowers.

Woody mount. 4.5. L. shining, rough at the edges. Fl. pure white.

 A. cynánchica, 1. 33. (Small W. Quinsy-wort.) Leaves linear, four in a whorl; the upper ones very unequal. Flowers all fourcleft. Fruit smooth.

Dry chalky banks. 24. 6. Spreading. 4-6 in. Cor. flesh-col. *3. A. arvénsis, Suppl. 2792. (Field W.) Leaves 6-10 in a whorl, linear-lanceolate, obtuse. Flowers aggregate, terminal, surrounded by long ciliated bracteas. Fruit glabrous. Root annual. Fields, Devon, rare, introduced. O. 6, 7. Flowers bright blue. Fruit large.

69. GÁLIUM. Bed-straw.

* Fruit smooth.

- G. cruciátum, 2. 143. (Cross-wort B. Mug-weed.) Leaves ovate, hairy, four in a whorl. Stem hairy, simple above. Flower-stalks axillary, corymbose, with two leaves.
 - Thickets and hedges. 4. 5. Stem 1 f. Fl. yellow ; some barren.
- G. palústre, 26. 1857. (Water B.) Leaves obovate, obtuse ; upper ones four in a whorl, unequal. Stem weak ; branched in the upper part.

Moist situations. 4.7. Stem smooth. Fl. white, terminal.

- G. Witheríngii, 31. 2206. (Rough Heath B.) Leaves about five in a whorl, widely spreading, lanceolate, fringed with bristles. Stem upright, nearly simple, rough with reversed hooks. Moist elevated places. 4.7. Pan. term. Cor. white. Anth. reddish.
- 4. G. saxátile, 12.815. (Smooth Heath B.) Leaves six in a whorl, obovate, obtuse, with a small point. Stem much branched,
 - prostrate, smooth. Fruit granulated. Heaths and hilly sit. 24.7, 8. L. roughish at the edges. Fl. white, term.
- G. uliginósum, 28. 1972. (Rough Marsh B.) Leaves six in a whorl, obovate-lanceolate, rigid, bristle-pointed; their edges rough, like the stem, with recurved prickles. Corollalarger than the smooth fruit.
 - Watery pl. 24.6. Stem rough. Fl. white, on term. panicled stalks.
- G. créctum, 29. 2067. (Upright B.) Leaves about eight in a whorl, lanceolate, bristle-pointed; their edges rough with prickles, all pointing forward. Stem weak, slightly hairy under each joint. Moist. past. 4.6, 7. Panicles dense terminal. Cor. white, taperpointed.
- G. cinéreum, Suppl. 2783. (Grey spreading B.) Leaves six or eight in a whorl, linear, bristle-pointed; their edges beset with prickles, all pointing forward. Stem branched, smooth. Corolla taper-pointed.

Near Edin. 24.8. Stem weak, about 2 f.Fl. white. Fr. smoothish.

- 8. G. aristátum, Suppl. 2784. (Bearded B.) Leaves six in a whorl, stalked, lanceolate, flat, reticulated with veins, bristle-pointed, with minute marginal prickles pointing forward. Seeds kidneyshaped, separated, smooth. Corolla taper-pointed.
 - Scott. mount. Angus-shire. 4.7, 8. Stem 1 f., branched, spreading, smooth. Fl. white.
- 9. G. verrucósum, 31. 2173. (Warty-fruited B.) Leaves six in a whorl, lanceolate, with marginal prickles all pointing forward. Stalks axillary, three-flowered. Fruit warty, drooping.

Fields, Yorkshire and near Forfar. O. 6-8. Prickles of the stem recurved. Fl. small, yellowish. G. saccharatum, Br. Fl.

10. G. tricorne, 23. 1641. (Rough-fruited B.) Leaves about eight in

a whorl, lanceolate; their edges, like the stem, beset with reflexed prickles. Stalks axillary, three-flowered. Fruit sharply granulated, drooping.

Chalky fields. O. 7. Stem simple. Fl. greenish white. Fruit as if shaven.

 G. spúrium, 26. 1871. (Smooth-fr. B.) Leaves about eight in a whorl, lanceolate; their edges, like the stem, besct with reflexed prickles. Stalks axillary, many-flowered, cymose. Fruit smooth, erect.

Fields, near Forfar. O. 6, 7. Flowers green. Seeds kidney-shaped.

- 12. G. pusillum, 2. 74. (Least B.) Leaves eight in a whorl, linearlanceolate, hair-pointed, entire, somewhat hairy. Panicles terminal, forked. Fruit very smooth.
- Calcar. hills. 4.7,8. Stems many, 4-10 in. Fl. white, small, copious.
- G. vérum, 10. 660. (Yellow B.) Leaves eight in a whorl, linear, channelled, entire, rough. Flowers in dense panicles.
 Hilly, bushy pl. 4.7, 8. Stem 18 in. Fl. numer. of a golden yell.
- 14. G. Mollágo, 24. 1673. (Great Hedge B.) Leaves eight in a whorl, elliptical, bluntish, bristle-pointed, rough-edged. Flowers in loose spreading panicles. Corolla thick-tipped. Seeds smooth, globular.

Hedges and thickets. 4. 7, 8. Stem 3-4 f. Fl. white, numerous.

 G. ánglicum, 6, 384. (Wall B.) Leaves about 6 in a whorl, lanceolate, pointed, fringed with prickles. Stems straggling, rough. Flower-stalks cloven. Fruit granulated, without hairs. Walls and sandy gr. O. 6, 7. Scarcely a span. Fl. few, pale yell.

** Fruit bristly.

- G. boreále, 2. 105. (Cross-leaved B.) Leaves four in a whorl, ovate-lanceolate, three-ribbed, smooth, with rough edges. Stem erect. Fruit rough with hooked bristles.
 - Rocky pl. 4 7. R. creeping. Stem 18 in. Fl. white, panicled.
- G. Aparine, 12. 816. (Goose Grass, or Cleavers.) Leaves eight in a whorl, lanceolate, keeled, rough, fringed with reflexed prickles. Stem weak.

Hedges. O. 5-8. 3-4 f. Fl. small, pale buff. Fr. a double globe

70. RÚBIA. Madder.

1. R. peregrina, 12. 851. (Wild M.) Leaves four, or more, in a whorl, elliptical; shining and smooth on the upper side. Flowers five-cleft.

Dry ground, S. W. of Engl. 4. 6, 7. L. everyr. broad, shining. Berry black.

71. EXÁCUM. Gentianella.

- 1. E. filif orme, 4. 235. (Least G.) Leaves sessile. Stem threadshaped, forked. Flowers on long stalks.
 - Sandy bogs in the south. O.6. About 3 in., bitter. Fl. small, yellow.

72. PLANTÁGO. Plantain.

- P. májor, 22. 1558. (Greater P.) Leaves ovate, smoothish, somewhat toothed, on longish footstalks. Flower-stalks round. Spike tapering. Seeds numerous.
 Mead. & past. 4.5-9. L. rather upright, 7-9 ribbed. Spikes long.
- Mead. & past. 4.5—9. L. rather upright, 7—9 ribbed. Spikes long.
 P. média, 22. 1559. (Hoary P.) Leaves ovate, downy, on short stalks. Flower-stalks round. Spike cylindrical. Seeds solitary.
- Dry past. 4.5-8. L. close to the ground. Sp. short. Stam. pink.
 9. P. lanceoláta, 8. 507. (Ribwort P.) Leaves lanceolate, entirs, tapering at each end; woolly at the base. Flower-stalks angular. Spike ovate.

Mead. and past. 24. 6, 7. Leaves plaited, erect. Spike blackish.

- 4. P. marítima, 8. 175. (Sea P.) Leaves linear, channelled, nearly entire. Flower-stalks round, longer than the leaves. Spike cylindrical.
 - Salt marshes, and mount. 4.8. Varying in size. Spikes long and slender.
- 5. P. Corónopus, 13. 892. (Buck's-horn P.) Leaves in many pinnate, linear segments. Flower-stalks round.

Sandy gr. 0. 5-8. L. numerous, spread flat. Spike short.

73. CENTÚNCULUS. Chaff-weed.

1. C. minimus, 8. 531. (Small C.) Flowers sessile. Corolla without glands at the base.

Watery heaths. O.6, 7. About 2 in. L. ovate. Fl. axillary, reddish.

74. SANGUISÓRBA. Burnet.

- 1. S. officinális, 19. 1312. (Great B.) Spikes ovate. Mead. and past. 2f. 6. About 2 f. L. pinnate. Sp. dull purple.
- 2. S. média. (Oblong B.) Spikes cylindrical. West of Scot. 24.7. A var. of S. off.

75. EPIMÉDIUM. Barrenwort.

1. E. alpinum, 7. 438. (Alpine B.) Radical leaves none ; stemleaf twice ternate.

Mount. thickets, rare. 4.5. Leafl. fringed. Fl. in clusters, drooping, dark-red; nect. yellowish. Indigenous?

76. CÓRNUS. Cornel.

- 1. C. sanguinea, 4. 249. (Wild C., Dog-wood.) Branches straight. Leaves green on both sides. Cymes naked, flat.
- Woods and hedges. 5. 6. Dark red. Wood hard. Fl. white, termin.
 C. suécica, 5. 310. (Dwarf C.) Herbaceous. Umbel between two branches, stalked, with an involucrum. Ribs of the leaves but slightly combined.

Alpine past. 4. 6, 7. Stem 4-6 in., erect. Umb. of dark purple A.

77. PARIETÁRIA. Wall-pellitory.

1. P. officinális, 13. 879. (Common W.) Leaves lanceolate-ovate,

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without lateral ribs at the base. Involucrum three-flowered, with seven ovate segments. Stem ascending.

Walls and rubbish. 4. 6-9. Stems annual, reddish. L. dark-green.

* 77. ISNÁRDIA, Isnardia.

1. I. palústris, Suppl. 2593. (Marsh Isnardia.) Ponds and watery pl. O. 7. Floating, smooth. L. opposite, ovate, bright green, succulent. Fl. small, green, solit.

78. ALCHEMÍLLA. Lady's Mantle.

1. A. vulgáris, 9. 597. (Common L.) Leaves lobed, plaited. High and dry past. 4.6, 7. Stems 4-8 in. Fl. green, in termin. clust.

- 2. A. alpina, 4. 244. (Alpine L.) Leaves fingered, serrated ; silky at the back.

Alpine rocks. 4.7. L. of a bright silvery hue beneath ; fine green above. Fl. green, in tufts.

3. A. arvénsis, 15. 1011. (Field L.) Leaves flut, three-lobed, cut. Fallow fields. O.5-8. Spreading, about 3 in. Fl. lateral, green.

TETRANDRIA DIGYNIA.

79. BUFFÓNIA. Buffonia.

1. B. tenuifólia, 19. 1313. (Slender Buffonia.) Sea-coasts, now extinct. O. 6. Stem erect. L. awl-shaped.

TETRANDRIA TETRAGYNIA.

80. fLEX. Holly.

1. I. Aquifolium, 7. 496. (Common H.) Leaves ovate, acute, spinous and wavy. Flowers axillary, somewhat cymose. Hedg. and bushy pl. 5. A handsome evergreen tree. Fl. white.

81. POTAMOGÉTON. Pond-weed.

1. P. nátans, 26. 1822. (Broad-leaved P.) Upper leaves oblongovate, stalked, floating, coriaceous ; lower ones linear, membranous, sessile.

Pools and ditches. 4.7. Stem branched, immersed. Spike raised.

2. P. heterophýllum, 18. 1285. (Various-leaved P.) Úpper leaves elliptical, stalked, floating, slightly coriaceous; lower ones lanceolate, membranous, sessile. Flower-stalks swelling upward.

Pools and ditches. 24.7-9. Much smaller. Spikes dense, about 1 in. 3. P. perfoliatum, 3. 168. (Perfoliate P.) Leaves heart-shaped,

- clasping the stem, uniform, all submersed. Pools and riv. 4. 7, 8. L. pellucid, olive-colour. Spikes alone
 - emersed.

- 4. P. dénsum, 6. 397. (Close-leaved P.) Leaves ovate, pointed, opposite, crowded. Stem forked. Spike of four flowers.
- Pools and slow riv. 4.6. Smaller, immersed. Spike short, emersed.
 5. P. ruf éscens, P. fluitans 18. 1286. (Reddish P.) Lower leaves lanceolate, acute, membranous, with distinct ribs; upper elliptic-

oblong, coriaceous, stalked, obtuse, floating.

Ditches and rivul. 4.8, 9. Leaf-ribs distinct. Of a reddish hue.

6. P. *lúcens*, 6. 376. (Shining P.) Leaves elliptic-lanceolate, pointed, membranous, stalked, repeatedly triple-ribbed, all submersed. Spike dense, many-flowered.

Ponds & lakes. 4.6,7. Larger, olive-green, or reddish. Spike green.

*6. P. prælongum. (Long-stalked P.) Leaves oblong, obtuse, with three principal and several lesser parallel ribs, arising from the base, connected by reticulations. Peduncles elongated. Spikes cylindrical, many-flowered.

Pools, Scotland. 4.7. Nearly as large as P. lucens. Leaves semiamplexicaul. Peduncles very long.
7. P. lanceolátum, 28. 1985. (Lanceolate P.) Leaves lanceolate,

- P. lanceolátum, 28. 1985. (Lanceolate P.) Leaves lanceolate, membranous, flat, entire; contracted at the base; with chain-like reticulations near the ribs. Spikes ovate, dense, of few flowers. Anglesea and Scot. 4.8. Stip. narrow. Fl. brownish.
- P. crispum, 15. 1012. (Curled P.) Leaves lanceolate, waved, serrated, alternate; the upper ones opposite. Flowers in loose spikes.

Ditch. and rivul. 4. 6, 7. Wholly under water. Fl. yellowish green.

- 9. P. compréssum, 6. 418. (Flat-stalked P.) Leaves linear, obtuse, with a very slight point; two lateral ribs meeting just below the extremity. Stem compressed.
 - Ditches and slow streams. 4.6, 7. Stip. sheathing. Fl. brownish, about 4 in a spike.
- *9. P. acutifólium, Suppl. 2609. (Sharp-leaved P.) Leaves linear, acuminate, with three principal ribs, and numerous close parallel intermediate ones, occupying the whole surface. Spikes oval, compact, about equal in length with the short peduncle. Ditches, Sussex, rare. 4.7.
- P. zosteræfólium, Suppl. 2685. (Pointed-leaved P.) Leaves broadly linear, acute, with three principal ribs, and numerous intermediate ones, all distinct. Spikes cylindrical, upon long peduncles.

Ponds and rivul. 4. 7. Larger, bright green. Fl.-stalks very long. P. cuspidatum. E. Fl.

- P. gramíneum, 32. 2253. (Grassy P.) Leaves linear, tapering downward, with solitary, very slender, lateral ribs. Stem round, forked. Flower-stalks from the forks, scarcely longer than the spikes. Ponds and ditches. *4. 7. Submersed. Stipulas convoluted.*
- 12. P. pusillum, 3. 215. (Small P.) Leaves linear, spreading at the base, opposite or alternate, with solitary, very slender, lateral ribs. Stem round. Flower-stalks axillary, mostly lateral, many times longer than their spikes.

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Ord. 1.]

Clay ditches & ponds. 24.7. Stem slender, 1-2 f. Spike small, ovate.

 P. pectinatum, 5. 323. (Fennel-leaved P.) Leaves bristle-shaped, single-ribbed, parallel, thickly set in two ranks; sheathing at the base. Spikes interrupted.

Ditches of fresh or salt water. 4. 7. Fl. 2 or 3 together, dull green.

82. RÚPPIA. Ruppia.

1. R. marítima, 2. 136. (Sea R., Tassel Pond-weed. Salt-water ditches. 4? 8, 9. L. linear, immersed. Sp. 2-4, A.

83. SAGÍNA. Pearl-wort.

- S. procúmbens, 13. 880. (Procumbent P.) Stems procumbent, smooth. Leaves minutely pointed. Petals half as long as the calyx. Rubbish & gravelly banks, 21. 5-8. Stems 2-4 in, rooting. L. evergr.
- S. maritima, 31. 2195. (Sea P.) Stems nearly upright, divaricated, smooth. Leaves obtuse without bristles. Petals none. High mount. and sea-coast. O. 5-8. Stems 2 or 3 in., purplish.
- S. apétala, 13. 881. (Small-flowered P.) Stems nearly upright, hairy. Leaves bristle-pointed, fringed. Petals none, or very small. Gravel & rubbish. O.5, 6. Fl.-stalks long and hairy. Pet. white, or 0.

84. M ŒNCHIA. Mœnchia.

1. M. erécta, Sagina erecta, 9. 609. (Upright M.) Gravelly past. O. 5. Glauc. Fl. glistening.

85. TILLÆA. Tillæa.

1. T. muscósa, 2. 116. (Mossy T.) Stems procumbent. Flowers sessile, mostly three-cleft.

Barren sandy heaths. ⊙. 5, 6. Stems 1-2 in. reddish. Stam. 3. 86. RADÍOLA. Flax-seed.

80. RADIULA. Flax-seed.

1. R. millegrána, 13. 893. (Thyme-leaved F.) Wet sandy gr. ⊙. 7, 8. Smooth, erect, 1-2 in. forhed. Fl. white.

Class V. PENTANDRIA. Stamens 5.

Order I. MONOGYNIA. Style 1.

Asperifoliæ L.-N.O. BOBAGINEÆ.

* Fl. of 1 pet., inferior, with 2 or 4 naked seeds.

- 96. ÉCHIUM. Throat of the cor. dilated, naked ; limb irregular. Stigma deeply cloven.
- 91. PULMONÁRIA. Cor. naked in the throat, funnel-shaped. Calyx prismatic, 5-cleft at the margin.
- 88. LITHOSPERMUM. Cor. naked in the throat, funnel-shaped. Cal. in 5 deep segments.
- 92. SYMPHYTUM. Cor. closed with awl-shaped converging valves; limb bell-shaped.

- 93. BORÁGO. Cor. closed with awl-shaped or notched valves; limb wheel-shaped.
- 95. LYCÓPSIS. Cor. closed with concave obtuse valves, funnelshaped; tube doubly bent. Seeds concave at the base.
- 89. ANCHÚSA. Cor. closed with concave obtuse valves, funnelshaped; tube straight, tumid below. Seeds concave at the base.
- ASPERÚGO. Cor. closed with concave obtuse valves, salvershaped. Cal. of the fruit compressed, with jagged parallel lobes.
- 87. MYOSÓTIS. Cor. half closed with rounded valves, salvershaped; lobes obtuse. Seeds perforated at the base, borne by the calyx.
- 90. CYNOGLÓSSUM. Cor. half closed with rounded valves, funnel-shaped. Seeds depressed, imperforate, borne by a central column.

** Fl. of 1 pet., inferior, with numerous covered seeds.

- 102. ANAGÁLLIS. Caps. of 1 cell, bursting all round. Cor. wheel-shaped. Stam. hairy.—N.O. PRIMULACEE.
- 101. LYSIMACHIA. Caps. of 1 cell, with 10 (or 5) valves. Cor. wheel-shaped.-N.O. PRIMULACE &.
- 98. CYCLAMEN. Caps. of 1 cell, pulpy within. Cor. wheelshaped, reflexed. Stigma simple.—N.O. PRIMULACEZ.
- 100. HOTTÓNIA. Caps. of l cell, with 5 teeth. Cor. salvershaped. Stam. from the margin of the tube. Stigm. globular. Cal. in 5 deep segm.—N.O. PRIMULACEÆ.
- 99. MENYÁNTHES. Caps. of 1 cell. Cor. hairy. Stigma divided.—N.O. GENTIANEÆ.
- 117. ERYTHRÆA. Caps. of 2 incomplete cells. Cor. salvershaped. Anthers finally spiral.—N.O. GENTIANEÆ.
- 113. DATÚRA. Caps. of 2 cells, and four valves. Cor. funnelshaped. Cal. deciduous.—N.O. SOLANER.
- 114. HYOSCÝAMUS. Caps. of 2 cells, with a lid. Cor. funnelshaped. Stigma capitate.—N.O. SOLANEÆ.
- 112. VERBÁSCUM. Caps. of 2 cells. Cor. wheel-shaped, irregular. Stigma obtuse. Stam. declining.—N.O. VERBASCEE.
- 104. COŇVÓLVULUS. Caps. of 2 or 3 cells, with 2 seeds in each. Cor. bell-shaped, plaited. Stig. 2.—N.O. CONVOLVULACEZ.
- 105. POLEMÓNIUM. Caps. of 3 cells. Cor. deeply 5-cleft; tube closed by 5 valves. Stam. between the valves, opposite to the segments.—N.O. POLEMONIACEÆ.
- 103. AZÁLĒA. Caps. of 5 cells. Cor. bell-shaped. Stam. from the receptacle. Anth. with 2 pores. Stigma capitate.—N.O. ERICEÆ.
- 127. VÍNCA. Follicles 2, erect. Cor. salver-shaped, oblique. Seed. simple.-N.O. APOCYNEE.

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- 116. SOLÁNUM. Berry of 2 cells. Cor. wheel-shaped. Anth. with 2 pores.-N.O. SOLANEE.
- 115. ATKÓPA. Berry of 2 cells. Cor. bell-shaped. Stam. distant, incurved. Anth. heart-shaped.—N.O. SOLANEE.

*** Fl. of 1 petal, superior.

- 118. SÁMOLUS. Caps. of 1 cell, with 5 recurved valves. Cor. funnel-shaped, 5-cleft, with intermediate scales.—N.O. PRI-MULACEÆ.
- 108. JASIÓNE. Caps. half 2-celled, opening at the top. Cor. wheel-shaped, in 5 deep segments. Stigm. club-shaped. Anth. combined at the base. - N.O. CAMPANULACE.
- 107. PHYTEÚMA. Caps. of 2 or 3 cells, bursting laterally. Cor. wheel-shaped, in 5 deep segments. Stigma 2- or 3-cleft.— N.O. CAMPANULACEÆ.
- 109. LOBÉLIA. Caps. of 2 or 3 cells. Cor. irregular, split lengthwise. Stigma capitate, hairy.-N.O. CAMPANULACEE.
- 106. CAMPÁNULA. Caps. of 2 or 3 cells, with torn fissures at the base. Cor. bell-shaped. Stigma 2- or 3-cleft, revolute.... N.O. CAMPANULACEE.
- 119. LONICÉRA. Berry of 1 or more cells, with many seeds. Cor. irregular.—N.O. CAPRIFOLIACES.

Rubia 1.

**** Fl. of 5, or 4, petals, inferior.

- 120. RHÁMNUS. Berry of several cells. Cal. funnel-shaped, bearing the petals.—N.O. RHAMNEE.
- 121. EUÓNŸMUS. Caps. with 4 or 5 cells. Seeds with a fleshy tunic. Cal. flat.—N.O. CELASTINEE.
- 110. IMPÁTIENS. Caps. of 5 cells, and 5 elastic valves. Cal. of 2 leaves. Cor. irregular.—N.O. BALSAMINEZ.
- 111. VIOLA. Caps. of 1 cell, and 3 valves. Cal. of 5 leaves, extended at the base. Cor. irregular, spurred.....N.O. VIO-LARIEZ.

***** Fl. of 5 petals, superior.

- 122. RÍBES. Berry with many seeds. Cal. bearing the petals. Style divided.—N.O. GLOSSULARIEZ.
- 123. HÉDERA. Berry with 3-5 seeds. Cal. surrounding the germen. Style simple. Pet. broadest at the base.-N.O. ABALIACEE.

****** Petals wanting.

- 125. GLÁUX. Caps. superior with 5 seeds. Cal. coloured, of 1 leaf.—N.O. PRIMULACE E.
- 124. ILLÉCEBRUM. Caps. superior, with 1 seed. Cal. cartilaginous, of 5 leaves.—N.O. PARONYCHIEE.
- 126. THÉSIUM. Drupa inferior, dry. Cal. coriaceous, 5-cleft, bearing the stamens.—N.O. SANTALACEE.

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Order II. DIGYNIA. Styles 2.

* Fl. of 1 petal, inferior.

- 134. SWÉRTIA. Caps. of 1 cell. Cor. wheel-shaped, with 2 nectariferous pores at the base of each segment.—N.O. GENTIANEE.
- 185. GENTIÁNA. Caps. of 1 cell. Cor. tubular at the base, destitute of nectariferous pores.—N.O. GENTIANEZ.
- 133. CÚSCUTA. Caps. of 2 cells, bursting all round. Cor. bellshaped.—N.O. CONVOLVULACEE.

** Fl. of 5 petals, inferior.—(Staphylea 1.)

*** Petals wanting. Seed solitary.

- BÉTA. Seed kidney-shaped, imbedded in the fleshy calyz. N.O. CHENOPODEE.
- 131. SÁLSOLA. Caps. closed, imbedded in the fleshy calyz. Seed with a spiral embryo.—N.O. CHENOPODEÆ.
- 128. HERNIÁRIA. Caps. closed, membranous, invested with the calyz. Stam. with 5 imperfect filaments.—N.O. PARONY-CHIEÆ.
- 132. ULMUS. Caps. closed, membranous, compressed, bordered, superior.—N.O. ULMACEÆ.

Polygonum 1.

**** Fl. of 5 pet. superior. Seeds 2.-N.O.UMBELLIFER.E.

A. Fruit a single or double globe.

152. CORIÁNDRUM. Fruit smooth, without ribs. Cal. broad, unequal. Petals radiant. Floral receptacle 0.

B. Fruit beaked.

- 143. SCÁNDIX. Beak much longer than the seeds. Fruit somewhat bristly. Cal. 0. Pet. unequal, undivided. Flor. recept. 5-lobed, coloured.
- 142. ANTHRÍSCUS. Beak shorter than the seeds, even. Fr. rough with scattered, prominent bristles. Cal. 0. Pet. equal, inversely heart-shaped. Fl. recept. slightly bordered.
 144. CHÆROPHÝLLUM. Beak shorter than the seeds, angular.
- 144. CHÆROPHÝLLUM. Beak shorter than the seeds, angular. Fruit smooth, without ribs. Cal. 0. Pet. inversely heartshaped, rather unequal. Fl. recept. wavy.

C. Fruit solid, prickly, without a beak.

- 136. ERÝNGIUM. Fr. ovate, clothed with straight bristles. Cal. pointed. Pet. oblong, equal, inflexed, undivided. Fl. aggregate. Common recept. scaly.
- SANÍCULA. Fr.ovate, clothed with hooked bristles. Cal. acute. Pet. lanceol. inflexed, nearly equal. Fl. separated, dissimilar.



Ord. 2.]

- 138. ECHINÓPHORA. Fr. ovate, imbedded in the enlarged, armed receptacle. Seed solitary. Cal. spinous. Pet. obcordate, unequal. Fl. separated.
- 139. DAUCUS. Fr. elliptic-oblong, compressed transversely. Seeds with 4 rows of flat prickles, and rough intermediate ribs. Cal. obsolete. Pet. inversely heart-shaped, unequal. Fl. separated.
- 140. CÁUCALIS. Fr. elliptic-oblong, compressed transversely. Seeds with 4 rows of ascending, awl-shaped, hooked prickles; the *interstices* prickly or rough. Cal. broad, acute, unequal. Pet. inversely heart-shaped, unequal. Fl. imperfectly separated.
- 141. TORÍLIS. Fr. ovate, slightly compressed laterally. Seeds ribless, rough with scattered, prominent, ascending, rigid prickles. Cal. short, broad, acute, nearly equal. Pet. inversely heart-shaped, nearly equal. Fl. united.

- D. Fruit solid, nearly round, unarmed, without wings.
- 145. MÝRRHIS. Fr. deeply furrowed. Cal. 0. Pet. inversely heart-shaped, rather unequal. Fl. recept. 0. Fl. imperfectly separated.
- 146. BÚNIUM. Fr. slightly ribbed. Cal. small, acute, unequal. Pet. inversely heart-shaped, equal. Fl. recept. 0. Fl. imperfectly separated.
- 153. CENÁNŤHĖ. Fr. ribbed, somewhat spongy. Cal. large, lanceol. acute, spread. uneq. Pet. inversely heart-shaped, radiant, very uneq. Fl. recept. dilated, depressed. Fl. separated.
- 154. CRÍTHMUM. Fr. ribbed, coriaceous. Cal. small, broad, acute, incurved. Pet. ellipt. acute, incurv., equal. Fl. recept. 0. Fl. united, all perfect.
- 163. ATHAMÁNTÁ. Fr. ribbed, ovate, hairy. Styles short. Cal. lanceol. acute, incurved. Pet. inversely heart-shaped, equal, with a broad point. Fl. recept 0. Fl. imperfectly separated.
- 164. PIMPINÉLLA. Fr. ovate, ribbed, with convex interstices. Styles capillary, as long as the fruit. Cal. 0. Pet. inversely heart-shaped, nearly equal. Fl. recept. 0. Fl. either united or directions.
 - E. Fruit solid, unarmed, without wings, compressed laterally; its transverse diameter being at least twice the breadth of the juncture.
- 147. SÍUM. Fr. ovate or globular, ribbed, furrowed. Cal. small, acute, uneq. or obsolete. Pet. obovate or inversely heartshaped, equal, longer than the cylindr. styles. Fl. recept. 0. Fl. uniform, united.
- 148. SÍSON. Fr. ovate or nearly orbicul., ribbed. Cal. blunt, or obsolete. Pet. ellipt. or inversely heart-shaped, equal, with an involute point. Styles very short and thick. Fl. recept. 0. Fl. uniform, united.
- 149. CICÚTA. Fr. nearly orbicul. heart-sh. at the base, with 6 double ribs. Cal. broad, acute, rather uneq. Pet. ovate or

Myrrhis 1.

slightly heart-shaped, nearly equal. Styles scarcely tumid at the base. Fl. recept. depressed, withering. Fl. uniform, nearly regular, united.

- 151. CONÍUM. Fr. ovate, with 10 acute ribs, wavy in an unripe state. Cal. obsolete. Pet. inversely heart-shaped, slightly uneq. Styles a little tumid at the base. Fl. recept. dilated, depressed, wavy, permanent. Fl. slightly irreg. united.
- 155. SMÝRNIUM. Fr. broader than long, concave at each side, with 6 acute dorsal ribs; interstices convex. Cal. very small, acute. Pet. equal, lanceol. incurved, or inversely heart-shaped. Styles depressed and tumid at the base. Fl. recept. 0. Fl. nearly reg., partly barren.
- 156. APIUM. Fr. roundish-ovate, with 6 acute dorsal ribs; interstices flat. Cal. obsol. Pet. roundish, with an inflexed point, very nearly equal. Styles greatly swelled at the base. Fl. recept. thin, orbicular, wavy. Fr. nearly reg., united.
- 157. ÆGOPÓDIUM. Fr. elliptic-oblong, with equidistant ribs; interstices flattish. Cal. 0. Pet. inversely heart-shaped, broad, a little uneq. Styles ovate at the base. Fl. recept. 0. Fl. united, all perfect, slightly radiant.
- 161. MÉUM. Fr. ellipt.-obl. with equidistant ribs; interstices flattish. Cal. 0. Pet. obovate, equal, with an inflexed point. Styles short, recurved, tumid at the base. Fl. recept. 0. Fl. united, all perfect, reg.
- 162. CARUM. Fr. ellipt.-obl. with equidist. ribs ; interst. convex. Cal. acute, small, or obsol. Pet. inversely heart-shaped, uneq. Styles tumid at the base ; subsequently elongated, widely spreading. Fl. recept. annular, thin, wavy, permanent. Fl. separated, irreg.
- 165. CNÍDIUM. Fr. ovate, acute, with equidist. very sharp ribs; interst. deep, concave; juncture contracted. Cal. 0. Pet. equal, obov. or inversely heart-shaped. Styles hemispherical at the base; subsequently elon., cylindr., spreading. Fl. recept. annular, thin, undulated, erect; afterwards depressed. Fl. imperfectly separ. nearly reg.
- 166. BUPLEÚRUM. Fr. ovate-obl. obtuse, with acute, prominent, abrupt ribs; interst. flat; juncture contracted. Cal. 0. Pet. equal, involute, very short, broadly wedge-sh. Styles short, not extending beyond the edge of their broad, tumid bases. Fl. recept. 0. Fl. all perfect and reg.
- 167. HYDROCÓ TYLE. Fr. nearly orbic. rather broader than long, angular, much compressed; *juncture* very narrow. Cal. 0. Pet. equal, ovate, undivided, spreading. Styles cylindr. shorter than the stamens; tumid at the base. Fl. recept. 0. Fl. all perfect, reg.
 - F. Fruit solid, unarmed, compressed transversely; the juncture being broader than the transverse diameter.
- 150. ÆTHÚSA. Seeds ovate, convex, with 5 tumid, rounded, acutely



keeled *ribs*; *interst.* deep, acutangular; *border* 0. *Cal.* minute, pointed. *Pet.* inversely heart-shaped, very slightly irreg. *Fl. recept.* 0. *Fl.* all perf., scarcely radiant.

- 158. IMPERATÓRIA. Seeds orbic. with a notch at each end, a little convex, with 3 prom. dorsal ribs; border dilated, flat, even. Cal. 0. Pet. inversely heart-shaped, scarcely irreg. Fl. recept. 0. Fl. all perfect, elightly radiant.
- 168. SELÍNÚM. Seeds ellipt. slightly convex, with 3 acute dorsal ribs; border dilated, flat, even. Cal. minute, pointed, spreading. Pet. inversely heart-shaped, involute, equal. Fl. recept. obsol. Fl. reg. nearly all perfect.
- 159. ANGÉLICA. Seeds ellipt.-obl. convex with three dorsal wings; border narrow, flat, even. Cal. O. Pet. lanceol. flattish undiv. contracted at each end, equal. Fl. recept. thin, wavy, narrow, perm. Fl. all perf. reg.
 160. LIGÚSTICUM. Seeds obl. convex, with 3 dorsal and 2 mar-
- 160. LIGÚSTICUM. Seeds obl. convex, with 3 dorsal and 2 marginal equal wings. Cal. small, pointed, erect; broad at the base. Pet. ellipt., flattish, undiv., contracted at each end, equal. Fl. recept. 0. Fl. all perf. and reg.
 - G. Fruit thin and almost flat, compressed transversely, without dorsal wings.
- 169. PEUCÉDANUM. Seeds broadly ellipt. notched at each end, a little convex, with 3 slightly promin. ribs; interst. striated; border narrow, flat, even, smooth, and entire. Cal. pointed, ascending. Pet. all very nearly equal. Fl. recept. 0. Fl. reg. imperfectly separated.
- 170. PASTINACA. Seeds ellipt.-obov. with a slight notch at the summit, very nearly flat, with 3 dorsal ribs, and 2 marg. ones; border narrow, flat, thin, even, smooth and entire. Cal. very minute, obsol. Pet. broadly lanceol. involute, equal. Fl. recept. broad, orbic., wavy, rather thin, concealing the calyx. Fl. reg. uniform, perfect.
- 171. HERACLEUM. Seeds inversely heart-shaped, with a notch at the summit, very nearly flat, with 3 slender dorsal ribs, 2 distant marginal ones, and 4 intermediate, depressed, coloured abrupt lines from the top; border narrow, slightly tumid, even and smooth, entire. Cal. of 5 small, acute, evanescent teeth. Pet. obcordate, radiant. Fl. recept. wavy, crenate, obtuse. Fl. separated.
- 172. TORDÝLIUM. Seeds orbic. nearly flat, roughish, without ribs; border tumid, wrinkled or crenate, naked or bristly. Cal. of 5 awl-sh. unequal teeth. Pet. inversely heart-shaped, radiant, variously uneq. and irreg. Fl. recept. 0. Fl. separated.

ΓCl. 5.

Order IIL TRIGYNIA. Styles 3.

* Fl. superior.

- 173. VIBÚRNUM. Cor. 5-cleft. Berry with 1 seed. (Leaves simple) .- N.O. CAPRIFOLIACEE.
- 174. SAMBUCUS. Cor. 5-cleft. Berry with 3 seeds. (Leaves pinnated).-N.O. CAPRIFOLIACEE.

** Fl. inferior.

- 175. STAPHYLÉA. Pet. 5. Caps. 2 or 3, inflated .- N.O. CE-LASTRINE ...
- 176. TAMARIX. Pet. 5. Caps. of three valves. Seeds numerous, feathered.-N.O. TAMARISCINEE.
- 177. CORRIGIOLA. Pet. 5. Seed 1, naked, triangular.-N.O. PARONYCHIEZ.

Chenopodium. Stellaria 2.

Order IV. TETRAGYNIA. Styles 4.

178. PARNÁSSIA. Nect. fringed with bristles, bearing globes. Caps. of 4 valves.-N.O. Hypericines.

> Order V. PENTAGYNIA. Styles 5.

- 180. LÍNUM. Pet. 5. Caps. of 10 cells.—N.O. LINEÆ. 181. SIBBÁLDIA. Pet. 5. Seeds 5, naked. Cal. in 10 segments. -N.O. ROSACEÆ.
- 179. STATICE. Pet. 5. Seed 1, clothed with the base of the funnel-shaped calyz.-N.O. PLUMBAGINEZ. Cerastium 3. Spergula.

Order VI. HEXAGYNIA. Styles 6.

182. DRÓSERA. Pet. 5. Caps. of 3 valves, with many seeds.-N.O. DROSEBACEA.

Order VII. POLYGYNIA. Styles numerous.

183. MYOSÚRUS. Pet. 5, with tubular, honey-bearing claws Seeds naked. Cal. spurred at the base.—N.O. RANUNCULACEE. Ranunculus.

PENTANDRIA MONOGYNIA.

87. MYOSÓTIS. Scorpion-grass.

* Roots perennial, or perhaps biennial.

1. M. palustris, 28. 1973. (Great Water S.) Clusters leafless. Calva funnel-shaped, with short broad spreading teeth, and, as well as



the leaves, roughish with close bristles. Limb of the corolla spreading, longer than the tube.

Watery pl. 4.7, 8. Root creeping. Fl. of a fine sky blue.

*1. M. répens, Suppl. 2703. (Creeping Water S.) Clusters leafy at the base. Calvx with straight appressed bristles, deeply 5cleft; when in fruit mostly connivent, shorter than the diver-gent pedicel. Limb of cor. flat, longer than the tube; lobes somewhat emarginate. Pubescence of stem spreading. Boggy streamlets. O. 5-9. Smaller than the preceding, in-

creasing by creeping stolones.

 M. cæspitósa, Suppl. 2661. (Tufted Water S.) Clusters leafy at the base. Calyx funnel-shaped, with broad spreading teeth, and besprinkled, like the leaves, with crect bristles. Limb of the corolla as long as the tube.

Watery pl. 4.5.5, 6. Pale and weak, Root fibr. Fl. smaller and

- paler. 3. M. sylvática, Suppl. 2630. (Wood S.) Calyx with spreading, uncinated bristles, deeply 5-cleft; when in fruit ovate, closed, shorter than the divergent pedicel. Limb of the corolla flat, longer than the tube. Root-leaves on short dilated stalks .-- M. intermedia ? E. Fl.
 - Dry shady places, not common. 24.? 6, 7. Flowers brilliant blue. as large as in M. alpestris.
- 4. M. alpéstris, M. rupicola, 36. 2559. (Rock S.) Leaves hairy : radical ones shorter than their stalks. Clusters forked at the base, leafless. Calyx deeply five-cleft, with upright hairs ; the lowermost incurved.

Breadalb. Mts. 4. 7, 8. Root fibr. tufted. Fl.blue, large and elegant.

** Roots annual.

5. M. arvénsis, Suppl. 2629, not E. Fl. (Field S.) Calyx with spreading, uncinate bristles, half 5-cleft; when in fruit ovate, closed, shorter than the divergent pedicel. Limb of the corolla concave, equalling the tube. M. sylvatica, E. Fl. ?

Banks and fields. O. 6-8. Flowers small, pale.

6. M. collina, M. arvensis, 36. 2558. (Early Field S.) Calyx with spreading uncinate bristles; when in fruit open, ventricose, as long as the divergent pedicel. Limb of the corolla concave, shorter than the tube. Primordial raceme usually with one distant flower at the base.

Wall-tops and dry places, about Edinburgh, rare. \odot . 4, 5. 7. M. versicolor, 36. 2558, t. 480. f. l. (Yellow and blue S.) Leaves hairy. Clusters on long, naked stalks. Calyx longer than the partial stalks; hairs of its tube hooked.

Fields and walls. O. 4-6. Root fibr. L. narrow. Fl. yellow, then blue.

88. LITHOSPÉRMUM. Gromwell.

1. L. officinále, 2. 134. (Common G.) Seeds even. Corolla not

much longer than the calyx. Leaves lanceolate, rather acute, with lateral transverse ribs.

Grav. or chalky sit. 4. 5. Rough. Cor. buff-col. Seeds hard, polished.

2. L. arvénse, 2. 123. (Corn G. Bastard Alkanet.) Seeds wrinkled. Corolla not much longer than the calyx. Leaves obtuse, without lateral ribs.

Fields. O. 5, 6. Root imparting a red dye. Fl. white. Seeds pitted.

- L. purpuro-cærúleum, 2. 117. (Purple G.) Seeds even. Corolla much longer than the calyx. Leaves lanceolate, acute, without lateral ribs. Barren stems prostrate.
 - Chalky thickets, rare. 4.5. Stems 1-2 f. barren ones taking root. Fl. viol.
- 4. L. maritimum, Pulmonaria marit. 6. 368. (Sea G.) Seeds keeled, even. Leaves ovate, glaucous, with callous points. Stems all procumbent.

Northern sea-shores. 4.7. Widely spreading. Fl purplish blue.

89. ANCHÚSA. Alkanet.

1 A. officinális, 10. 662. (Common A.) Spikes terminal, imbricated, unilateral. Bracteas ovate, the length of the calyx. Leaves lanceolate.

Rubbish, near the sea, very rare. 4. 6, 7. Spikes in pairs. Fl. viol.

2. A. sempervirens, 1. 45. (Evergreen A.) Flower-stalks axillary, each bearing two dense spikes, with an intermediate flower, and two principal ovate bracteas. Leaves ovate.

Waste gr. 4. 5, 6. L. broad. Fl. of a brilliant sky blue.

90. CYNOGLÓSSUM. Hound's-tongue.

1. C. officinále, 13. 921. (Common H.) Stamens shorter than the corolla. Leaves broadly lanceolate, downy, sessile. Flowers without bracteas.

Waste gr. 3. 6. Fetid, soft and downy. Cor. dull crifts. L. dull gr.

 C. sylváticum, 23. 1642. (Green-leaved H.) Stamens shorter than the corolla. Leaves lanceolate, slightly spathulate; the upper ones clasping the stem; smooth and shining above, rough beneath. Flowers without bracteas.

Hedges, rare. &. 6. Nearly inodorous. L. bright green. Fl. blue.

91. PULMONÁRIA. Lungwort.

- 1. P. officinális, 2. 118. (Officinal L.) Leaves ovate.
- Groves. rare. 4. 5. Stem erect. L. speckled with white. Fl. blue.
- 2. P. angustifólia, 23. 1628. (Narrow-leaved L.) Leaves lanceolate. Woods in the South, rare. 24. 5. L. seldom spotted, but longer, and tapering at each end.

92. SYMPHYTUM. Comfrey.

1. S. officinále, 16.817. (Common C.) Leaves ovate-lauceolate, decurrent, finely hairy. Watery pl. 24. 5, 6. Root black. Stem 3 f. Fl. whitish or purplish.
2. S. tuberósum, 21. 1502. (Tuberous C.) Leaves ovate, slightly decurrent, a little harsh; upper ones opposite.

Shady pl. in the N. 4. 7. Root knobbed, white. Stem 2 f. Fl. yellowish.

93. BORÁGO. Borage.

- 1. B. officinális, 1. 36. (Common B.) Limb of the corolla flat, much longer than the tube; mouth with a double row of valves; the innermost awl-shaped, bearing the stamens.
 - Waste gr. and on rubbish. S. 6, 7. Bristly. Cor. of a brill. blue. Valv. and anth. black.

94. ASPERÚGO. Madwort.

 A. procúmbens, 10. 661. (German M.) Calyx of the fruit flat. Waste gr. rare. 0. 4, 5. L. crowded. Fl. small, blue, axillary.

95. LYCÓPSIS. Bugloss.

 L. arvénsis, 14. 938. (Small B.) Leaves lanceolate, wavy, somewhat toothed, very bristly. Flower- and fruit-stalks erect. Fields and banks. O. 6, 7. Erect, bristly. Cor. bright blue. Tube and values white.

96. ÉCHIUM. Viper's-bugloss.

- E. vulgáre, 3. 181. (Common V.) Stem herbaceous, simple, warty and bristly. Stem-leaves lanceolate, bristly, single-ribbed. Spikes short, lateral, deflexed, hairy. Stamens longer than the corolla. Fields and walls. A. 6, 7. Spikes of large, beautiful, blue (or wh.) fl.
- Fields and walls. g. 6, 7. Spikes of large, beautiful, blue (or wh.) fl.
 2. E. violáceum, Fl. Br. (Violet-flowered B.) Stem herbaceous, diffuse, branched, hispid. Lower leaves ovate-oblong, petiolate; upper ones oblong, cordate, and somewhat amplexical at the base. Spikes elongated. Stamens scarcely longer than the corolla. Sandy ground, Jersey. A. 8. Spikes elongated. Flowers distant.

- 1. P. vulgáris, 1. 4. (Common P.) Leaves obovate-oblong, toothed, wrinkled. Stalks single-flowered. Limb of the corolla flat. Groves and grassy pl. 4.4. L. soft. Fl. sulphur-col. numer.
- 2. P. elátior, 8. 513. (Oxlip P.) Leaves toothed, wrinkled, contracted tourisde the middle. Stulk many forward. Limb of
 - tracted towards the middle. Stalk many-flowered. Limb of the corolla flat.

Woods and thickets, less common. 24. 4. Fl. in umbels, sulphurcol. outer ones drooping.

 P. véris, 1. 5. (Common C.) Leaves toothed, wrinkled, contracted towards the middle. Stalk many-flowered. Limb of the corolla concave.

Mead. and past. 14.4,5. Fl.in umb. smaller, deep yell. with 5 or. spots. 4. P. farinósa, 1. 6. (Bird's-eye P.) Leaves toothed, even, powdery

^{97.} PRÍMULA. Primrose, and Cowslip.

much forger tans the entry. Leaves hereeday, rather and, with internal transverse time.

- Grav. or chaily at 2. 5. Research Constraint: Search and political 9. L. orreiner, 2. 150, Olers G. Basser, Masser, South original d. Constraint and much longer that the safet. Leaves obtains, without lateral rise.
- L. perpero-correlation, J. 117. (Pupple G. Sould even, Could more longer than the colors. Lerrors surrelate, sense, willing interval viso. Entropy some reservate.
 - Charley thickets, ram. 27.2. Stens 1-2 f. derves case taking root. F/, wial.
- L. moviennos, Pulmonaria moria, 6, 205. (See G.) Seeds keelel, even. Louven ovate, glannas, while calloury points. Stems all procombinat.

Nurthern mashpres. 2.7. Widely spreading. Fl. purplish like.

80. ANCHUSA, Alkanti,

A officientita, 10, 662. (Common A.) Sylices transmit/initrited, similational. Bractions evisite, the length of the onlys. Lanves investigate.

Roldnah, nour the ana, very rare. 24 6, 7. Syndervin parity. Fit mink

A remportions, J. 45. (Evergreen A.) Forer-stalls utiliary, rest, bourse two dense spikes, with an intermediate flower, and two principal overte bracters. Leaves overin.

Waste gr. M. 6, 6, L. Iround. PL of a brilliant sty blan.

00 CVNOGLOSSUM, Hound'storger,

- ¹ afferingts, 18, 1921. (Common H.) Stamens shorter than the correctly. Leaves broadly lancesdate, downy, sessile. Flowers Without broavena.
- Witten mit A. D. Potisi, and and discover, Car. doll critics, L. doll gr. P. M. Stands and Society and H. Stanarts shorter Hand H. S. Giovan, and H. Stanarts shorter digitaly spatialists; the said staning above, rough

. L. bright green. FL blue.

J. aves interoiate.

Comfrey. Leaves ovate-lanceolate,

TUCT

Watery pl. 2.5, 6. Root black. Stem 3 f. Fl. whitish or purplish. S. tuberosum, 21. 1502. (Tuberous C.) Leaves ovate, slightly 2. decurrent, a little harsh ; upper ones opposite.

Shady pl. in the N.4. 7. Root knobbed, white. Stem 2 f. Fl. yellowish.

93. BORÁGO. Borage.

- 1. B. officinalis, 1. 36. (Common B.) Limb of the corolla flat, much longer than the tube; mouth with a double row of valves; the innermost awl-shaped, bearing the stamens.
 - Waste gr. and on rubbish. 5.6,7. Bristly. Cor. of a brill. blue. Valv. and anth. black.

94. ASPERÚGO. Madwort.

procúmbene, 10. 661. (German M.) Calyx of the fruit flat. A. F. Calyx of the fruit flat. We gr. Fare. O. 4, 5. L. crowded. Fl. small, blue, axillary.

95. LYCÓPSIS. Bugloss.

1. L. Control Volthed, very briefly Files toothed, very bristly. Flower- and fruit-stalks erect. d banks. O. 6, 7. Erect, bristly. Cor. bright blue. Tube Fields at and 11

96. ÉCHIUM. Viper's-bugloss.

2. 181. (Common V.) Stem herbaceous, simple, warty Stem-leaves lanceolate, bristly, single-ribbed. Spikes I. E. vulgare h deflexed, hairy. Stamens longer than the corolla. and bristly 6, 7. Spikes of large, beautiful, blue (or wh.) ft. short, later Br. (Violet-flowered B.) Stem herbaceous, dif-Fields and wall hjspid. Lower leaves ovate-oblong, petiolate ; ngated. Stamens scarcely longer than the corolla. 2. E. violáceum. fuse, branched upper ones obl OVY. 3.8. Spikes elongated. Flowers distant. and, Jers LA. Primrose, and Cowslip. Smuy ground, Jers

tiokled.

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Woods

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latior. M tracted

and gr

97. PRIM m mon P.) Leaves obovate-oblong, toothed, ale-flowered. Limb of the corolla flat.

P.) Leaves toothed, wrinkled, con-Stalk many-flowered. Limb of ile.

mmon. 4. 4. Fl. in umbels, sulphur-

.) Leaves toothed, wrinkled, contracted alk many-flowered. Limb of the corolla

Lin umb. smaller, deep yell. with 5 or. spots. rd's-eye P._) Leaves toothed, even, powdery beneath. Limb of the corolla flat ; mouth with a notched border. Stigma undivided.

- Mount. past. by rills. 24. 6, 7. Fl. in umbels, rose-col. small. 5. P. Scótica, Suppl. 2608. (Scottish P.) Leaves finely toothed, even, powdery. Limb of the corolla flat ; mouth with a notched border. Stigma with five points.
 - N. of Scot., exceedingly rare. 2.7. Much smaller. Fl. violetpurple, with a yellow eye.

98. CÝCLAMEN. Cyclamen.

1. C. hederifolium, C. Europæum, 8. 548. (Ivy-leaved C.) Leaves heart-shaped, angular, finely toothed; their stalks and ribs roughish.

Groves, rare. 24. 4. No stem. Fl. pendulous, white; mouth purple.

99. MENYÁNTHES. Buckbean.

- 1. M. trifoliáta, 7. 495. (Common B.) Leaves ternate. Disk of the corolla densely shaggy.
- Watery pl. 24. 6, 7. Fl. flesh-col. in clusters or spikes. Anth. yell. 2. M. nymphaoides, 4. 217. (Fringed B.) Leaves heart-shaped, wavy at the edges, floating. Corolla fringed.
 - Ponds and rivers, rare. 4. 7, 8. Several f. Fl. axillary, yell.

100. HOTTÓNIA. Featherfoil.

1. H. palústris, 6. 364. (Water F.) Stalks solitary, many-flowered, partial stalks whorled.

Ponds. 4.6,7. L. pinnatifid : segm. linear. Fl. pink, or rose-col.

101. LYSIMÁCHIA. Loosestrife.

* Stalks many-flowered.

- 1. L. vulgáris, 11. 761. (Great Yellow L.) Clusters panicled, terminal. Leaves ovate-lanceolate, acute.
 - Shady watery pl. 24. 7. About 3 f. Fl. yellow, large.
- 2. L. thyrsiflora, 3. 176. (Tufted L.) Clusters lateral, axillary, stalked.

Watery pl. in the N., rare. 4. 7. 11 f. Fl. yellow, small, in dense clusters.

** Stalks single-flowered.

- 3. L. némorum, 8. 527. (Wood L.) Leaves ovate, acute. Flowers
- solitary. Stem procumbent. Stamens smooth.
 Shady pl. 4. 5-9. Stem 1-1; f. red. Fl. yellow. Cal. awl-sh.
 L. Nummulária, 8. 528. (Creeping L. Moneywort.) Leaves somewhat heart-shaped. Flowers solitary. Stem prostrate, creeping. Stamens glandular.

Wet mead. 4. 6. 7. L. pale green. Fl. lemon-col. Cal. ovate.

102. ANAGÁLLIS. Pimpernel.

1. A. arvénsis, 8. 529. (Scarlet P., Poor Man's Weatherglass.)

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Leaves ovate ; dotted beneath. Stem procumbent. Corolla minutely notched.

- Cultivated fields. O. 6,7. Cor. bright scarlet; violet at the mouth. 2. A. cærúlea, 26. 1823. (Blue P.) Leaves ovate, or somewhat lanceolate; dotted beneath. Stem erect. Corolla strongly notched. Corn fields, rare. O. 6, 7. Fl. of a most vivid blue.
- 3. A. tenélla, 8. 530. (Bog P.) Leaves roundish, somewhat pointed, stalked. Stem creeping. Stigma acute. Mossy bogs. 24.7,8. Cor. rose-coloured, slightly funnel-shaped.

103. AZÁLEA. Azalea.

1. A. procúmbens, 13. 865. (Trailing A.) Branches spreading and reclining. Leaves opposite, revolute, very smooth. Alpine moors, Scotl. b. 7. Dwarfish, woody, branched. Fl. small, rcd.

104. CONVÓLVULUS. Bindweed.

- 1. C. arvénsis, 5. 312. (Small B.) Leaves arrow-shaped, acute at each end. Stalks mostly single-flowered. Bracteas minute, remote from the flower.
 - Fields and hedges, very common. 4. 6, 7. Twining or prostr. Fl. fragr. pink, with crimson stains.
- 2. C. sépium, 5. 313. (Great B.) Leaves arrow-shaped, abrupt at the posterior lobes. Stalks single-flowered, square. Bracteas heartshaped, close to the flower.

Moist hedges. 24.7,8. Twining. Fl large, white, rarely rose-col. 8. C. Soldanélla, 5.314. (Sea B.) Leaves kidney-shaped, somewhat

angular. Stalks single-flowered ; their angles membranous. Sea shores. 4.7. Stems procumb. Fl. large, purplish pink; with pale yellow plaits.

105. POLEMÓNIUM. Jacob's Ladder.

- 1. P. cærúleum, 1. 14. (Blue J.) Leaves pinnate. Flowers erect. Root fibrous.
 - Bushy pl., in the N., rare. 24. 6. 11-2 f. Fl. in panicles, blue, occasionally white.

106. CAMPÁNULA. Bell-flower.

- 1. C. rotundifólia, 13. 866. (Heath Bell.) Radical leaves kidney-or heart-shaped, serrated; stem-leaves linear, entire. Heaths and banks. 24.8, 9. Smooth. Fl. blue, pendulous, tremulous.
- 2. C. pátula, 1. 42. (Spreading B.) Radical leaves obovate, or ellipticlanceolate ; the rest linear-lanceolate. Panicle spreading. Calyx minutely toothed. Stem with several fringed angles. Pastures, rare. 3.7,8. Roughish. Fl. erect, blue, tapering below.

C. Rapúnculus, 4. 283. (Rampion B.) Leaves wavy, crenate, roughish; radical ones elliptic-lanceolate. Panicle compact.

Calyx entire.

Banks. 5. 7, 8. Stem 3 f. angular; hairy below. Fl. blue; swelling betow.

- 4. C. persicifólia, Suppl. 2773. (Peach-leaved B.) Leaves smooth, slightly serrated, sessile, linear-lanceolate, distant; radical ones obovate. Stem round, very smooth, with few flowers.
 - Woods in Scot., rare. 4. 7. Generally 2 f. Fl. large, erect, wide, of a fine blue.
- C. latifólia, 5. 302. (Giant B.) Leaves roughish, ovate-lanceolate. Stem unbranched, round. Stalks single-flowered. Fruit drooping. Moist thickets. 4.8. Very large, 4 f. Fl. deep blue.
- C. rapunculoides, 20. 1369. (Creeping B.) Leaves roughish; radical ones stalked, heart-shaped, crenate; uppermost sessile, lanceolate. Flowers drooping, unilateral. Calyx reflexed. Woods, rare. 24.8. 11-2 f. leafy. Fl. blue, in a terminal, brac
 - teated cluster.
- 7. C. Trachélium, 1. 12. (Nettle-leaved B.) Stem angular. Leaves lanceolate, partly heart-shaped, sharply serrated, bristly like the calyx. Stalks axillary, with few flowers.
 - Woods. 4. 7. 2-3 f. bristly, upright. Cor. large, perfectly bellshaped.
- 8. C. glomeráta, 2. 90. (Clustered B.) Stem angular, simple. Flowers sessile, mostly in a terminal head. Leaves ovate, crenate.
 - Open chalky past. 4.7, 8. L. hairy, pale underneath. Heads bracteated.
- 9. C. hýbrida, 6. 375. (Corn B.) Stem straight, often branched from the base. Leaves oblong, crenate, wavy. Corolla shorter than the calyx. Capsule prismatic.
 - Dry fields in the S. O. 8. Barely a span high. Cor. widely spreading, deep blue.
- 10. C. hederácea, 2. 73. (Ivy-leaved B.) Stem flaccid, much branched, trailing. Leaves stalked, smooth, heart-shaped, with angular lobes.

Moist shady pl. 4.6-8. A delicate little plant. Fl. solit. light blue.

107. PHYTEÚMA. Rampion.

- 1. Ph. orbiculáre, 2. 142. (Round-headed R.) Head roundish. Leaves crenate ; radical ones elliptic-lanceolate, or heart-shaped. Chalky past. in the S., rare. 4.8. Stem simp. 1 f. Fl. brilliant blue.
- *2. Ph. spicátum, Suppl. 2598. (Spiked B.) Flowers in an oblongcylindrical spike. Radical leaves cordato-oblong, petiolate, somewhat doubly serrated : upper ones and bractegs linear-lanceolate, short, sessile.
 - A bout Mayfield and Waldron, Essex. Scarcely indigenous. 24. 6, 7. Tall. Spikes elongated, of greenish flowers.

108. JASÍONE. Sheep's-bit.

1. J. montána, 13. 882. (Common S. Sheep's Scabious.) Sandy pl. ⊙. 6, 7. Stems several, a span high. Cor. light blue. Ord. 1.]

109. LOBÉLIA. Lobelia.

- 1. L. Dortmánna, 2. 140. (Water L.) Leaves linear, entire, of two longitudinal cells. Stems nearly naked.
 - Lakes, in the N. 4.7. Smooth. L. immersed. Fl. light blue, in a simple cluster.
- L. *Grens*, 14. 953. (Acrid L.) Stem nearly upright. Lower leaves obovate, slightly toothed; upper lanceolate, servated. Clusters terminal.
 - Heaths in Devonsh., rare. 4. 8, 9. Stem 1 f. leafy. Fl. light purplish blue.

110. IMPÁTIENS. Balsam.

- 1. I. Noli-me-tangere, 14. 937. (Yellow B. Touch-me-not.) Peduncles solitary, many-flowered. Leaves ovate. Joints of the stem swelling.
- Moist shady pl. rare. O. 8. Smooth, juicy, erect, 1-11 f. Fl. large and handsome, yellow, and spotted with red.
 2. I. fulva, Suppl. 2794. (Tawny-fl.-Touch-me-not.) Leaves ovate,
- I. fúlva, Suppl. 2794. (Tawny-fl.-Touch-me-not.) Leaves ovate, tapering to the base, coarsely serrated. Peduncles solitary, about 4-flowered. Cone of the nectary longer than the lateral petals, and twice as long as the closely recurved emarginate spur. Banks of the Wey, Surrey, naturalized. O.7. A native of America.

111. VÍOLA. Violet.

* Stem none.

- 1. V. hirta, 13. 894. (Hairy V.) Leaves heart-shaped, rough with hairs, as well as their stalks. Calyx-leaves obtuse. Lateral petals with a hairy central line.
 - Chalky soil, rare. 4. 4. Scyons short. Fl. blue, streaked with black, scentless.
- V. odoráta, 9.619. (Sweet V.) Scyons creeping. Leaves heartshaped, nearly smooth, as well as their stalks. Calyx-leaves obtuse. Lateral petals with a hairy central line.
 - Woods. 4.3, 4. Soyons very long. Fl. deep purplish blue, fragrant. A white var. of this, found in Shropshire without hairiness on the petals, is said by Prof. Lindley to be the V. imberbis of Mr. Leighton, -V. suavis, Bieb.
- 3. V. palústris, 7. 444. (Marsh V.) Leaves kidney-shaped, smooth. Root creeping. Lateral petals with a hairy central line.

Mossy bogs. 4. 4. Scyons 0. Fl. very pale blue, with purple streaks.

** Stems 1 or more.

4 V. canina, 9. 620. (Dog's V.) Stem at length ascending, channelled. Leaves oblong-heart-shaped. Calyx acute. Stipulas serrated. Bracteas awl-shaped, entire.

Groves and heaths. 24.4-6. Branched, smooth. Fl. blue, scentless.

 V. *láctea*, 7. 445. (Cream-coloured V.) Stem ascending, round. Leaves ovate-lanceolate. Stipulas jagged. Bracteas lanceolate, somewhat serrated. Mount. heaths. 24. 5. Smaller. Fl. whitish, or pale blue. Changes by cult. to V. canina. Mr. Leighton.

- V. flavicórnis, Suppl. 2736. (Yellow-spurred V.) Stem woody, much branched, somewhat angular. Leaves heart-shaped, coriaceous, smooth and even. Stipulas and bracteas fringed. Calyzleaves lanceolate.
 - Past. and banks, 4.5, 6. Stem 1-2 in., ascending. Fl. $\frac{1}{2}$ the size of the last.
- V. tricolor, 18. 1287. (Pansy V. Heart's-ease.) Stem angular, diffuse, divided. Leaves oblong, deeply crenate. Stipulas lyrate, pinnatifid. Bracteas obsolete. V. Curtisii, Suppl. 2693.
 β. arvensis. V. arvensis, Suppl. 2767. Petals short.
 - Fields. O. 5-9. Stem weak. Fl. varieg. with yell., blue, and purple.
- V. látea, 11. 721. (Yellow V.) Stem triangular, simple. Leaves ovate-oblong, crenate, fringed. Stipulas lobed, palmate. Bracteas minute, scarcely toothed.
 - Mount. past. 4. 5-9. Spur the length of the cal. Cor. yell. with black radiating lines; rarely all purple.

112. VERBÁSCUM. Mullein,

- V. Thápsus, 8. 549. (Great M.) Leaves decurrent, crenate, woolly on both sides. Stem simple. Cluster dense. Flowers almost sessile. Banks. & . 7, 8. 3-4 f. Fl. large, of a golden yell. Stam. red.
- V. Lychnitis, 1. 58. (White M.) Leaves wedge-shaped-oblong; stripped of down on their upper side. Stem angular, panicled. Road-sides, on a chalky soil. 3. 7, 8. Fl. stalked, whitish.
- *2. V. "*thapsiforme*, Schrad. (Thapsus-like M.) Stem simple. Leaves lanceolate-ovate. Raceme spiked, dense. Bracteas longer than the woolly calyz. Segments of the corolla obovate, rounded. Two of the anthers oblong. DC." Lindl.
 - Road-sides, Kent. 3.7, 8.
- V. pulveruléntum, 7. 487. (Hoary M.) Leaves ovate-oblong, obscurely serrated, clothed with mealy deciduous wool. Stem round, panicled.
 - Gravelly soil, rare. 3. 7. Stem 3-5 f. Fl. very numer. golden, with scarlet anth.
- V. nígrum, 1. 59. (Black M.) Leaves oblong-heart-shaped, stalked, waved and crenate, slightly downy. Cluster mostly solitary. Grav. soil. 24.7,8. Spike a little lax. Fl. aggreg. golden; filam. violet.
- V. virgátum, 8. 550. (Large-flowered M.) Leaves ovate-lanceolate, toothed, sessile; radical ones downy, somewhat lyrate. Stem branched. Flowers aggregate, partly sessile.
- Fields, rare. 3. 8. Stem slightly winged, 5-6 f. Fl. very large, yellow.
- 6. V. Blattária, 6. 393. (Moth M.) Leaves clasping the stem, oblong, smooth, serrated; radical ones sinuated. Clusters panicled, simple. Flower-stalks longer than the bracteas.
 - Banks, rare. O. 7. Stem slightly angular, 3-4 f. Cor. yell.

Ord. 1.7

113. DATÚRA. Thorn-apple.

- 1. D. Stramónium, 18. 1288. (Common T.) Fruit spinous, ovate, erect. Leaves ovate, smooth, sinuated.
 - Dunghills and waste gr. O. 7. Bushy, foetid, narcotic. Cor. 3 in. white. plaited.

114. HYOSCYAMUS. Henbane.

- 1. H. niger, 9. 591. (Common H.) Leaves sinuated, clasping the stem. Flowers sessile.
 - Waste gr. O. 7. Bushy, fetid, downy and viscid. Cor. yellowish with purple veins.

115. ATROPA. Dwale.

- 1. A. Belladonna, 9. 592. (Common D. Deadly Nightshade.) Stem herbaceous. Leaves ovate, entire. Flowers solitary.
 - Waste gr. on calcar. soil. 24. 6. Bushy, fetid. Fl. 1 in. drooping, dull purp.

116. SOLÁNUM. Nightshade.

- 1. S. Dulcumára, 8. 565. (Woody N., Bittersweet.) Stem shrubby, zigzag, without thorns. Upper leaves hastate. Clusters cymose. Hedges. h. 6, 7. Twining, many f. Fl. purple. Berries scarlet, poisonous.
- 2. S. nígrum, 8. 566. (Garden N.) Stem herbaceous, without thorns. Leaves ovate, bluntly toothed, or wavy. Umbels lateral, drooping. Waste and cult. gr. O. 6-9. Bushy, fetid, narcot. Fl. white. Berries black

117. ERYTHRÆA. Centaury.

- 1. E. Centáurium, Chironia Cent. 6. 417. (Common C.) Stem nearly simple. Panicle forked, corymbose. Leaves ovate-lanceolate. Calyx half the length of the tube ; its segments partly combined. Gravelly past. O. 7, 8. 1 f. Cor. pink; anth. spiral, with 3 convolutions.
- 2. E. littorális, Ch. littor. 33. 2305. (Dwarf C.) Stem simple, straight. Leaves linear-obovate; obscurely three-ribbed. Flowers densely corymbose, nearly sessile. Calyx as long as the tube.

Sandy sea-shore. O. 6,7. 2-3 in. L. nearly uniform. Style straight. 3. E. latifólia, Suppl. 2719. (Broad-leaved C.) Stem three-cleft

- at the top. Flowers in dense forked tufts. Calyx as long as the tube. Segments of the corolla lanceolate. Sea-shores, Lanc. \bigcirc . 7.3 in. Lower l. 5—7-ribbed, ellipt. Style
- straight.
- 4. E. pulchélla, Ch. pulch. 7. 458. (Branched C.) Stem forked, winged, mostly branched. Flowers solitary, stalked. Calyx nearly as long as the tube. Leaves ovate.
 - Sandy gr. chiefly near the sea. O. 8, 9. 2-3 in. Cor.-segm. lanceolate. Anth. scarcely spiral.

118. SÁMOLUS. Brookweed.

1. S. Valerándi, 10. 703. (Common B.) Leaves obovate, obtase. Clusters corymbose, many-flowered. Bracteas solitary, in the middle of each partial stalk.

Watery pl. 4.7. Smooth, 1 f. Fl. small, white.

119. LONICÉRA. Honeysuckle.

 L. Caprifólium, 12. 799. (Perfoliate H.) Flowers ringent, whorled, terminal. Leaves deciduous; the uppermost confluent and perfoliate.

- 2. L. Periclýmenum, 12.800. (Common H. or Woodbine.) Heads of flowers ovate, imbricated, terminal. Leaves all separate, deciduous. Flowers ringent.
- Hedges and thickets. h. 6, 7. L. sometimes downy. Berries deep red.
- 3. L. Xylosteum, 13. 916. (Upright H.) Stalks two-flowered. Berries distinct. Leaves entire, downy.
 - Thickets, rare. 5. 7. Stem erect, bushy, 4-5 f. Fl. small, reddish, or cream-col.

120. RHAMNUS. Buckthorn.

- 1. R. cathárticus, 23. 1629. (Common B.) Thorns terminal. Flowers four-cleft, diœcious. Leaves ovate, serrated. Stem erect. Berry with four seeds.
- Hedges. 5. 5, 6. Fl. yellowish green. Stigm. 4-cleft. Ber. black.
 2. R. Frángula, 4. 250. (Alder B.) Thorns none. Flowers all perfect. Style simple. Leaves entire, smooth. Berry with two seeds. Moist thickets. 5. S. L. often ellipt. Fl. whitish. Stig. cloven.

121. EUÓNYMUS. Spindle-tree.

- 1. E. *Européeus*, 6. 362. (Common S.) Flowers mostly four-cleft. Petals acute. Branches smooth and even.
 - Hedges and thickets. b. 5. Fetid when bruised. Fl. on forked stalks. Caps. rose-col., occasionally white.

122. RÍBES. Currant, and Gooseberry.

* Without prickles. Currants.

1. R. rúbrum, 18. 1289. (Common C.) Clusters smooth, pendulous. Flowers nearly flat. Petals inversely heart-shaped.

Woods and banks of riv. 5. 5. Leaves a little downy. Fl. yellowish. Berries red, acid.

2. R. petræum, 10. 795. (Rock C.) Clusters somewhat hairy; in flower upright, in fruit pendulous. Flowers slightly concave. Petals bluntish. Bracteas shorter than the flower-stalks. Stem erect.

Mount. woods. 7. 5, 6. L. downy underneath. Fl. reddish. Berry bright red.

3. R. spicátum, 18. 1290. (Acid Mountain C.) Spikes upright.

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Woods, rare. h. 5, 6. L. smooth. Berries of a tawny orange, ellipt.

Flowers nearly sessile. Petals oblong. Bracteas shorter than the flowers.

Woods, very rare, N. of Engl.; now extinct? b. 5. Resembling the last, but the spike is always erect.

4. R. alpinum, 10. 704. (Tasteless Mountain C.) Clusters always erect. Bracteas longer than the flowers. Leaves polished at the back. Berries smooth. Stem erect.

Woods in the N. h. 4, 5. L. smaller. Berry red, insipid, mucilaginous.

5. R. nigrum, 18. 1291. (Black C.) Clusters hairy, pendulous, with a separate flower-stalk at the base of each. Flowers oblong. Moist sandy thickets. b. 5. L. strongly scented when rubbed. Berry black.

** Branches prickly. Gooseberries.

6. R. Grossulária, 18. 1292. (Common G.) Prickles one, two, or three under each bud. Branches otherwise smooth, spreading. Stalks single-flowered. Bracteas close together. Calyx reflexed, shorter than the tube.

β. R. Uva crispa, 29. 2057. Fruit smooth. Woods and waste gr. b. 4. L.3-lobed. Berries pendulous, rough.

123. HÉDERA. Ivv.

1. H. Hélix, 18. 1267. (Common I.) Leaves some ovate, some lobed. Woods, hedges, and old walls. b. 10. Stems either trailing, or climbing by fibres.

124. ILLÉCEBRUM. Knotgrass.

1. I. verticillátum, 13. 895. (Whorled K.) Flowers whorled, without bracteas. Stem procumbent.

Marshy gr. in the S. 4.7. L. ovate. Cal.-leaves bristle-pointed.

125. GLÁUX. Sea Milkwort.

1. G. marítima, 1. 13. (Common Sea Milkwort. Black Saltwort.) Muddy salt-mar. 4. 6, 7. Erect, 3-5 in. Fl. solit. axill. reddish.

126. THÉSIUM. Bastard-toadflax.

1. Th. linophýllum, 4. 247. (Flax-leaved B.) Cluster branched; bracteas three together. Leaves linear-lanceolate. Tube of the calyx very short.

Chalky past. 4. 7. Rigid, smooth. Fl. green with a white border.

127. VÍNCA. Periwinkle.

1. V. minor, 13. 917. (Lesser P.) Stems procumbent. Leaves elliptic-lanceolate, smooth-edged. Flowers stalked. Segments of the calyx lanceolate.

Groves. 2.5. Fl. violet blue. Cal. smooth.

2 V. májor, 8. 514. (Greater P.) Stems ascending. Leaves ovate,

fringed. Flowers stalked. Segments of the calvx bristle-shaped. elongated.

Groves and thickets. 4.5. Fl. blue, large. Cal. generally fringed.

PENTANDRIA DIGYNIA.

128. HERNIÁRIA. Rupture-wort.

1. H. glabra, 3. 206. (Smooth R.) Herbaceous. Leaves and calva smooth.

Sandy or gray, soil, 4.7, 8. Prostr. branched. Fl. minute green.

- 2. H. Airsúla, 20, 1379. (Hairy R.) Herbaceous. Leaves and calyx hairy.
 - Sandy gr. rare. 4. 7, 8. Fl. fewer. Bract. white. A variety of the former !

129. CHENOPÓDIUM. Goosefoot.

[Herbaceous, mostly O. Pubescence mealy and unctuous. Fl. small, mostly green.]

* Leaves angular.

- 1. Ch. Bonus Henricus, 15. 1033. (Mercury G.) Leaves triangulararrow-shaped, entire. Spikes terminal, compound, leafless.
 - Waste gr. 4. 5, 6. 1 f., tapering, dark green, mucilaginous; sometimes mealy.
- 2. Ch. úrbicum, 10. 117. (Upright G.) Leaves triangular, toothed. Spikes lobed, crowded, long and straight, approaching the stem. almost leafless.

Dunghills and roadsides. O. 8, 9. Stem upright. Seeds the size

- of rape-seed. Fl. sessile. 3. Ch. rúbrum, 24. 1721. (Red G.) Leaves triangular, somewhat rhomboid, deeply toothed and sinuated. Spikes erect, compound, leafy.
 - Dunghills and waste gr. O. 8. L. elongated at the base. Seeds extremely minute.
- 4. Ch. botryodes, 32. 2247. (Many-spiked G.) Leaves triangular, somewhat toothed; the upper ones bluntish. Spikes erect, compound, rounded, leafy.

Moist pl. near the sea. O. S. Leaves much smaller, fleshy. Fl. red.

5. Ch. murále, 24. 1722. (Nettle-leaved G.) Leaves ovate, acute, many-toothed, shining. Spikes aggregate, panicled, cymose, leafless.

Waste gr. O.8, 9. Dark green, fetid, shining. Fl. powdery. Seeds dotted.

- 6. Ch. hýbridum, 27. 1919. (Maple-leaved G.) Leaves heart-shaped, pointed, with broad angular teeth. Spikes aggregate, panicled, cymose, divaricated, leafless.
 - Moist pl. O. 8. Bright green, fetid, slender. L. large. Seeds coarsely dotted.

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ΓCl. 5.

Ord. 2.]

- Ch. *álbum*, 24. 1723. (White G.) Leaves rhomboid-ovate, jagged, mealy ; entire towards their base ; upper ones oblong, entire. Seed quite smooth.
 - Waste and cult. gr. \odot . 7, 8. Mealy, with a whitish, unctuous pubescence. L. variable.
- 8. Ch. ficifolium, 24. 1724. (Fig-leaved G.) Leaves sinuated, jagged, somewhat hastate; entire towards their base; upper ones oblong, quite entire. Seed dotted.
 - Dungh. and waste gr. about Lond. O. 8. Greener. L.-stalks purple at the base.
- Ch. glaucum, 21. 1454. (Oak-leaved G.) Leaves all oblong; deeply waved at the margin; glaucous and mealy beneath. Spikes compound, leafless, lobed.
 - Sandy rubb. about Lond. O. 8. Spreading. Seeds very minutely dotted.

** Leaves undivided, entire.

- 10. Ch. *ólidum*, 15. 1034. (Stinking G.) Leaves ovate somewhat rhomboid, entire. Spikes dense, crowded, leafless.
 - Rubb. near the sea. (). 8. Spreading, nauseous, covered with a greasy mealiness.
- 11. Ch. polyspérmum, 31. 1480. (Round-leaved G.) Leaves ovate, obtuse, entire. Stem prostrate. Clusters cymose, divaricated, leafless.

Rubb. and dunghills. O. 7, 8. Dark green. Clusters lax, spreading.

- 12. Ch. acutifólium, 21. 1431. (Sharp-leaved G.) Leaves ovate, acute, entire. Stem erect. Clusters spiked, compound, erect, elongated, partly leafy; lower ones somewhat cymose.
- Fields and rubb. O. 7, 8. Paler than the last. Clusters upright.
 13. Ch. marítimum, 9. 633. (Sea G.) Leaves awl-shaded, semicylindrical. Flowers axillary, sessile.

Sea shore. O. 7, 8. Much branched, erect, fleshy. Seeds striated.

130. BÉTA. Beet.

1. B. maritima, 4. 285. (Sea B.) Stems procumbent. Flowers in pairs. Segments of the calyx entire at the keel. Sea shore. 24. 8. R. thick, fleshy. L. ovate, wavy. Fl. green.

131. SÁLSOLA. Saltwort.

- S. Káli, 9. 364. (Prickly S.) Herbaceous and decumbent. Leaves awl-shaped, spinous-pointed, rough. Calyx with a dilated margin. Sandy sea-shores. O. 7. Rigid, very bushy and prickly.
- S. fruticósa, 9. 635. (Shrubby S.) Erect, shrubby. Leaves semicylindrical, bluntish, without spines.

Sea coast, rare. h. 7, 8. 3 f. woody and bushy. L. smooth and fleshy.

132. ÚLMUS. Elm.

[Long-lived trees, with hard wood. Leaves unequal at the base.]

1. U. campéstris, 27. 1886. (Small-leaved E.) Leaves rough, doubly

serrated. Flowers nearly sessile, four-cleft. Capsule oblong, naked, deeply cloven.

- Hedges. h. 4. Bark of the branches even. Fl. purplish.
- 2. U. suberósa, 31. 2161. (Cork-barked E.) Leaves pointed, rough, doubly and sharply serrated. Flowers stalked, four- or five-cleft. Capsule almost orbicular, naked, deeply cloven.
- Hedges. 5. 3. Branches spreading; their bark corky, fissured. 3. U. májor, 36. 2542. (Dutch Cork-barked E.) Leaves rough,
 - unequally and rather bluntly serrated. Flowers nearly sessile, four-cleft. Capsule obovate, slightly cloven, naked.
 - Hodges. b. S. Br. almost drooping; their bark very corky and rugged.
- 4. U. montána, 27, 1887. (Broad-leaved E.) Leaves pointed, rough. doubly serrated, Flowers stalked, tufted, five- or six-cleft. Capsule somewhat orbicular, naked, slightly cloven,
 - Woods and hedges. 5. 4. Br. droop. Bark even. L.broad. Fl. large.
- 5. U. glabra, 32. 2248. (Smooth-leaved E.) Leaves smooth, ellipticoblong, doubly serrated. Flowers nearly sessile, five-cleft. Capsule obovate, deeply cloven, naked.
 - Hedges in Essex. b. S. Tall. Br. even, rather droop. L. rigid, not large.
- *6. U. carpinifólia, (Hornbeam-leaved E.) Leaves ovate, acute, coriaceous, strongly veined, simply crenate, serrated, slightly oblique and cordate at the base; shining, but rather scabrous above, smooth beneath. Branches bright brown, nearly smooth. Fruit_? Lindl.

- Near Stratford on Avon. Prof. Lindley. 1. *7. U. strícta, (Cornish E.) Leaves obovate, cuspidate, cuneate at the base, evenly and nearly doubly crenato-serrate, strongly veined, coriaceous, very smooth and shining above, smooth beneath, with hairy axils. Branches bright-brown, smooth, rigid, erect, very compact. Fruit-? Lindl.
 - β. parvifolia. Leaves much smaller, less oblique at the base, finely and regularly crenated, acuminate rather than cuspidate. Cornwall and Devon. - \$. Less common. b. Lindl.

133. CÚSCUTA. Dodder.

1. C. Europáca, 6. 378. (Greater D.) Flowers nearly sessile. Corolla without scales. Stigmas acute.

Parasit. on thistles, nettles, &c. O. 8, 9. Stem red, 3 f. twining. Fl. in round heads.

 C. Epithymum, C. Europæa, 1. 55. (Lesser D.) Flowers sessile, with a notched scale at the base of each stamen. Stigmas acute. Parasit. on shrubby plants. 24 ? 8. Smaller, red. Stam. mostly 4.

134. SWÉRTIA. Felwort.

- 1. S. perénnis, 21, 1441. (Marsh F.) Flowers five-cleft. Radical leaves ovate
 - Moist. alp. past., Wales. 24.8. About 1 f. smooth, bitter. Fl. purplish.



Ord. 2.]

135. GENTIÁNA. Gentian.

- G. Pneumonánthe, 1. 20. (Marsh G.) Corolla bell-shaped, fivecleft. Flowers stalked. Leaves linear. Moist turfy heaths, rare. -24. 8, 9. Stems a span high. Fl. large, deep blue.
- G. acáulis, 23. 1594. (Dwarf G.) Flower solitary, five-cleft, bellshaped. Stem quadrangular, about the length of the flower. South Wales; not native. 4.5. Fl. large, blue, very beautiful.
- 3. G. vérna, 7. 493. (Spring G.) Corolla five-cleft, salver-shaped; crenate; with a small appendage at the base of the segments. Leaves ovate, crowded.

Barren mount. 4.4. Stem short, leafy, with 1 large vivid blue fl.

4. G. nivális, 13. 896. (Alpine G.) Corolla five-cleft, funnel-shaped; the intermediate segments notched. Angles of the calyx even, acute. Stem many-flowered.

Lofty mount. in Scot. extremely rare. O. 8. Cor. slender ; tube greenish ; limb bright blue.

- G. Amarélla, 4. 236. (Autumnal G.) Corolla five-cleft, salvershaped; bearded in the throat. Segments of the calyx nearly equal. Stem branched, flowering in every part. Chalky past. O. 8. Stem panicled, with many leafy br. Fl. violet.
- G. Campéstris, 4. 237. (Field G.) Corolla four-cleft, salvershaped; bearded in the throat. Two outer segments of the calvx ovate, very large.
 - Gravelly past. ⊙. 9. Paler, and of more humble growth. Fl. pale violet.

[Hence to the end of PENTANDBIA DIGYNIA follows the entirely natural Order of UMBELLIFEBOUS PLANTS. They are generally herbaceous, with leaves, for the most part, repeatedly compound. *F2.* white, reddish, or yellow. On dry situations they are aromatic and wholesome; but the aquatic kinds are virulent and dangerous.]

136. ERÝNGIUM. Eryngo.

- E. marítimum, 10. 718. (Sea E.) Radical leaves roundish, plaited, spinous. Heads stalked. Scales of the receptacle 3-cleft. Sandy sea-shores. 4. 7, 8. Glaucous, rigid. Pet. bright blue.
- Sandy sea-snores. 4. 7, 8. Glaucous, rigid. Fet. oright office.
 E. campéstre, 1. 57. (Field E.) Leaves clasping the stem; radical ones twice or thrice pinnatifid. Scales of the receptacle undivided.
 - Past. near the sea; indigenous? 4.7, 8. Green. Pet. white or purplish, narrow, inflexed.

137. SANÍCULA. Sanicle.

1. S. Européa, 2.98. (Wood S.) Radical leaves simple, deeply lobed. Flowers all nearly sessile.

Woods. 4.5. Lobes 3-cleft, shining. Umb. capitate. Pet. whitish.

138. ECHINÓPHORA. Prickly-Samphire.

1. E. spinósa, 34. 2413. (Sea P.-S.) Leaves with spinous, awl-shaped, entire segments.

Sandy coasts, rare, not now to be found. 4.7. Copiously branched. L. doubly pinnatifid. Fl. white.

139. DÁUCUS. Carrot.

1. D. Caróta, 17. 1174. (Wild C.) Seeds with slender bristles. Leaflets pinnatifid, with linear-lanceolate acute segments. Umbels concave when in seed.

Borders of fields. S. 6, 7. L. bipinn. Fl. white; central one red.

 D. maritimus, 36. 2560. (Sea C.) Seeds with bristles flattened at the base. Leaflets dilated, fleshy, pinnatifid, with rounded segments. Umbels convex when in seed.
 South search 4. 7. 8. Et al. for an adding and the bases.

South coast. 3.7, 8. Fl. all of one colour, reddish.

140. CÁUCALIS. Bur-parsley.

- 1. C. daucoides, 3. 197. (Small B.) Umbels three-cleft, naked ; partial ones with three bracteas, and ripening about three fruits. Leaves repeatedly subdivided.
- Chalky fields. O. 6. Bushy. L. with smooth narrow segments.
- C. latifólia, 3. 198. (Great B.) Umbels three-cleft, with membranous bracteas; partial ones ripening about five fruits. Leaves pinnate, serrated.

Chalky fields, rare. O.7. Stem 3 f. with minute prickles. L. rough.

141. TORÍLIS. Hedge-parsley.

 T. Anthriscus, Caucalis Anthr. 14. 987. (Upright H.) Umbels of many close rays, with numerous general bracteas. Leaflets pinnatifid. Branches nearly upright.

- T. infesta, C. inf. 19. 1314. (Spreading H.) Umbels of many close rays, with scarcely any general bracteas. Leaflets pinnatifid. Branches spreading.
 - Fields and hedges. O. 7. Fl. white or yellowish. Fr. large. Stem 6-8 in.
- T. nodósa, C. nod. 3. 199. (Knotted H.) Umbels lateral, simple, nearly sessile. Stem prostrate. Fruit partly granulated. Gravelly soil. ⊙. 5, 6. Fl. mostly white. Leaves glaucous-green.

142. ANTHRÍSCUS. Beaked-parsley.

 A. vulgáris, Scandix Anthr. 12. 818. (Common B.) Fruit ovate, twice the length of its beak. Leaves triply pinnate, pinnatifid. Waste gr. O.6. Stem smooth, tumid under each joint. L. deep green.

143. SCÁNDIX. Shepherd's-needle.

1. S. Pecten- Véneris, 20. 1397. (Common Sh. Venus's Comb.) Fruit

[Cl. 5.

Hedges and fields. O. 7. Fl. white or flesh-col. Fr. purplish at the summit.

nearly smooth, with a bristly-edged beak. Umbels simple ; solitary, or in pairs. Bracteas jagged. Petals inflexed at the point. Fields. O. 6, 7. L. triply pinnatifid, smoothish. Umb. with 2 or 3 rays.

144. CHÆROPHÝLLUM. Chervil.

- 1. Ch. sativum, Scandix Cerefolium, 18, 1268. (Garden Ch.) Umbels lateral, sessile. Bracteas lanceolate.
 - Waste gr. and rubb. O. 6. Deep green, aromat. L. bipinn. Fl. small, white.
- 2. Ch. sylvéstre, 11. 752. (Wild Ch.) Umbels terminal, stalked. Bracteas ovate, membranous.

Hedges. 4.4,5. Leaves triply pinnatifid, jagged. Fl. white, radiant.

145. MÝRRHIS. Cicely.

- 1. M. odoráta, Scandix odor. 10. 697. (Sweet C.) Seeds with very sharp prominent angles, roughish towards the summit. Mount. past. 4.5. About 3 f. L. 3-pinn. pale, hairy. Fl. white.
- 2. M. temulenta, Chærophyllum tem, 22, 1521. (Rough C.) Seeds furrowed, nearly smooth. Stem rough, swelled under each joint. Bushy pl. S. 6, 7. Leaves 2-pinn. pinnatif. hairy. Fl. white.
- 3. M. aurea, Ch. aur. 30. 2103. (Tawny-seeded C.) Seeds ribbed, nearly smooth, coloured. Stem slightly swelling, angular, hairy. Leaflets sharply pinnatifid or cut, pointed.

Fields in Scot. 2. 6. General bracteas few ; partial deflexed.

4. M. aromática, Ch. aromat. Suppl. 2636. (Broad-leaved C.) Seeds ribbed, smooth. Styles elongated. Leaflets ovate. acute. serrated, undivided.

Road, near Arbroath. 4.6. L. 2-ternate, smoothish. Gen. bract. few.

146. BÚNIUM. Earth-nut.

1. B. flexuósum, 14. 988. (Common E.) General bracteas scarcely three. Stem tapering and zigzag at the base. Fruit somewhat beaked. Styles nearly upright.

Gravelly soil. 4.5, 6. R. eatable, nearly globul. L. 3-pinn. linear.

147. SIUM. Water-parsnep.

1. S. latifolium, 3. 204. (Broad-leaved W.) Leaves pinnate ; leaflets oblong-lanceolate, equally serrated.

Riv. and ditches. 4. 7, 8. 3-6 f. Umb. large, flattish, white. 2. S. angustif ólium, 2. 189. (Narrow-leaved W.) Leaves pinnate; leaflets unequally lobed and serrated. Umbels stalked, opposite to the leaves. Stem erect.

Rivul. and ditches. 4. 7, 8. Smaller, and more slender. Pet. white.

3. S. nodiflorum, 9. 639. (Procumbent W.) Leaves pinnate ; leaflets ovate, equally serrated. Umbels nearly sessile, opposite to the Stem procumbent. leaves.

Riv. & fens. 4.7.8. Smaller. Invol. often want., of 1 leaf, if present. 4. S. répens, 20. 1431. (Creeping W.) Leaves pinnate ; leaflets roundish, deeply toothed. Umbels stalked, opposite to the leaves. Stem creeping.

Watery pl. 4.6-8. Still smaller. Gen. & part. bract. of many leaves.

5. S. inundátum, Sison inund. 4. 227. (Least W.) Leaves pinnate, cut; the lowermost in many compound capillary segments. Umbels five-flowered, in pairs.

- Fools and ditches. 4? 5. Procumbent or floating.
 6. S. verticillatum, Sison vert., 6. 395. (Whorled W.) Leaflets in numerous, linear, almost capillary, whorled segments. Salt marshes, in the N. and W. 4.7, 8. R. fleshy, spindle
 - shaped. Stems erect, $1-1\frac{1}{2}f$.

148. SÍSON. Honewort.

1. S. Amómum, 14. 954. (Hedge H.) Leaves pinnate ; the upper ones ternate. Umbels erect, with about four general rays. Styles globose at the base.

Moist marly soil. O. 8. Stem 3 f. branched. Leafl. ovate, cut.

 S. ségetum, 4. 228. (Corn H.) Leaves pinnate; leaflets round-ish-ovate, numerous. Umbels drooping, irregularly aggregate. Styles dilated and depressed at the base.

Chalky fields. O. 8. Stem 12-18 in. rushy. Leaflets serrated.

149. CICÚTA. Cowbane.

1. C. virósa, 7. 479. (Water C. Water Hemlock.) Leaves twice ternate : leaflets linear-lanceolate, decurrent.

Rivers and ditches. U. 8. Branches nearly erect. Leaves serrated.

150. ÆTHÚSA. Fool's-parsley.

1. Æ. Cynápium, 17. 1192. (Common F.) Leaves uniform ; leaflets wedge-shaped, decurrent, with lanceolate segments. Cult. fields. O. 7. 8. Leaves green, bipinnate, smooth.

151. CONÍUM. Hemlock.

- 1. C. maculatum, 17. 1191. (Common H.) Stem polished and spotted, much branched.
 - Hedges and waste gr. 5.6, 7. 3-5 f. L. repeatedly comp. shining. Fl. white.

152. CORIÁNDRUM. Coriander.

- 1. C. sativum, 1. 67. (Common C.) Fruit globular ; each seed being hemispherical. Leaflets of the lower leaves wedge-shaped.
- Fields and dunghills; not wild. O.6. Lower leaves pinn.; upper 3-tern, linear.

153. ŒNÁNTHE. Water-dropwort.

1. Œ. fistulósa, 6. 363. (Common W.) Root sending forth runners. Stem-leaves pinnate, cylindrical, tubular. General bracteas mostly wanting.

Fens and ditches. 4. 7, 8. R. tuberous. Lower umb. of 3 gen. rays.

- CE. pimpinelloides, 5. 347. (Parsley W.) Radical leaflets wedgeshaped, cloven; the rest entire, flat, linear, elongated. General bracteas linear, numerous.
 Salt marshes. 4. 7. Tubercles of the root tapering. Umb. of many
 - Salt marshes. 4.7. Tubercles of the root tapering. Umb. of many rays.
- C. peucedanifólia, 5. 348. (Sulphur-wort W.) Leaflets all linear. General bracteas none. Knobs of the root sessile, elliptical. Ditches and bogs, rare. 4. 6. Stem thick and firm. Cal. erect. Fruit large.
- CE. crocata, 33. 2313. (Hemlock W.) Leaflets all wedge-shaped, many-cleft, nearly uniform. Fruit linear-oblong, with slender intermediate ribs.

Watery pl. 4. 7. Juice fetid, orange-col. Cal. generally incurv.

5. CE. Phellandrium, Phell. aquat. 10. 684. (Fine-leaved W.) Leaflets all uniform, with narrow, wedge-shaped, cut, spreading segments. Fruit ovate, with five broad ribs, and narrow intermediate furrows.

Riv. and pools. 3. 6, 7. Stem bushy, stout, and hollow.

154. CRÍTHMUM. Samphire.

1. C. marítimum, 12. 819. (Sea S.) Leaflets lanceolate, fleshy. Bracteas ovate.

Marit. cliffs. 4.8. R. branched, creeping. L. 3-tern. Fl. yellowish.

155. SMÝRNIUM. Alexanders.

- 1. S. Olusátrum, 4. 230. (Common A.) Stem-leaves ternate, stalked, serrated.
 - Waste gr. and near the sea. 3.5. Smooth and shining. Fl. green. Fr. black.

156. ÁPIUM. Parsley.

 A. graveólens, 17. 1210. (Smallage P. Wild Celery.) Stem-leaflets wedge-shaped. Stem furrowed. Partial bracteas none. Pools and ditches. 3. 7, 8. Shining, bright green, acrid. Umb.

Pools and ditches. 5. 7, 8. Saining, oright green, acria. Umo. nearly sessile.

[•]2. A. *Petroselinum*, Petroselinum sativum, Suppl. 2793. (Common Parsley.) Leaves decompound, shining; lower leaflets ovate-cuneate; upper ones linear-lanceolate, nearly entire. Partial bracteas filiform.

Old walls, in the South ; naturalized. 3.6, 7.

157. ÆGOPÓDIUM. Gout-weed.

1. *E. Podagrária*, 14. 940. (Common G.) Cult. gr. and moist shady pl. 4. 5, 6. *R. creeping. Leafl. ovate.*

158. IMPERATÓRIA. Masterwort.

1. I. Ostrúthium, 20. 1380. (Great M.) Leaves twice ternate, undivided, or three-lobed, rough-edged. Flower-stalks alternate.

[C]. 5.

Moist mead. Scotl., naturalized. 4. 6. R. fleshy, creep. aromat. Fl. regular. pale.

159. ANGÉLICA. Angelica.

- 1. A. Archangélicu, 36. 2561. (Garden A.) Terminal leaflet lobed. Watery pl. rare. 3. 6-9. 5 f. Bright green, aromat. Fl. green. 2. A. sylvestris, 16. 1128. (Wild A.) Leaflets equal, ovate, serrated.
- Watery pl. 4.7. St. polished, purp. L. rather glauc. Fl. flesh-col.

160. LIGÚSTICUM. Lovage.

- 1. L. scóticum, 17. 1207. (Scottish L.) Leaves twice ternate. Sea-coast of Scot. 4. 7. Leafl. rhomb. broad. Anth. red. Fr. ribs membr.
- 2. L. cornubiénse, 10. 683. (Cornish L.) Radical leaves twice or thrice pinnate, rough-edged, cut. Stem-leaves ternate, lanceolate, entire.
 - Bushy pl. in Cornw. 4. 7. Leafl. wedge-sh. narrow. Fl. white. Fr.-ribs bluntish. (Physosperm. cornub. Br. Fr.)

161. MÉUM. Spignel, or Fenuel.

- 1. M. athamánticum, 82. 2249. (Spignel, or Meu.) Leaflets all in numerous, deep, bristle-like segments. Bracteas both general and partial.
 - Mount. past. in the N. 24. 5. R. aromat. fibrous at top. Fl. yellowish-white.
- 2. M. Fanículum, Anethum Fanic. 17. 1208. (Common F.) Leaves triply pinnate ; leaflets awl-shaped, drooping. Bracteas none. Chalky cliffs and road-sides. 3.7, 8. Fl. of a golden yellow.

162. CÁRUM. Caraway.

1. C. Cárui, 21. 1503. (Common C.) Stem branched. Partial bracteas none.

Mead. and past. & . 6, Lower leafl. decussate. Fl. white.

163. ATHAMÁNTA. Stone-parsley.

1. A. Libanótis, 2. 188. (Mountain S.) Leaves doubly pinnate, cut. Umbels hemispherical

Chalky past. rare. 4. 8. Stem 2 f. furrowed. Fl. white; Styles viol.

164. PIMPINÉLLA. Burnet-saxifrage.

1. P. saxifraga, 6. 407. (Common B.) Leaves pinnate ; radical leaflets roundish ; uppermost linear. Dry chalky past. 4.7,8. R. aromat. pung. Leafl. of var. shapes.

- 2. P. mágna, 6. 408. (Greater B.) Leaves pinnate; leaflets all ovate, serrated, somewhat cut ; the terminal one three-lobed.
 - Shady pl. on a chalky soil. 24. 7, 8. Larger. Leafl. uniform.
- 3. P. dioica, 17. 1209. (Dwarf B.) Leaflets all nearly linear. Umbels Flowers diæcious. panicled.

Limestone rocks, rare. 4.5, 6. Glauc. even, about a span high.

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165. CNÍDIUM. Pepper-saxifrage.

- 1. Cn. Siláus, Peucédanum Silaus, 30. 2142. (Meadow P.) Leaflets deeply pinnatifid ; their segments opposite, decurrent. General bracteas one or two.
 - Moist mead. and past. 24.7, 8. L. dark green, var. in shape. Fl. vellowish.

166. BUPLEURUM. Hare's-ear.

- 1. B. rotundifolium, 2. 99. (Common H.) General bracteas wanting. Leaves perfoliate.
 - Chalky fields. O. 7. Rigid, 18 in. L. ovate. Pet. yellow, short.
- 2. B. Odontites, 35. 2468. (Narrow-leaved H.) Partial bracteas five, ovate, acute, three-ribbed; general ones three or four. Branches widely spreading. Umbels all stalked. Rocks in Devonsh. O. 7. Rigid. L. lanceol. Fl. reddish cream-col.
- 3. B. tenuíssimum, 7. 478. (Slender H.) Umbels simple, alternate, of about three flowers. Bracteas five, awl-shaped. Muddy salt-marshes, rare. O. 7, 8. Stem 3-12 in. wiry. L.
 - lanceol. Fl. yellowish.
- 4. B. falcátum, Suppl. 2763. (Falcate-leaved H.) Lower leaves obovate, stalked; upper linear-lanceolate, sessile. Partial involucre of 5 lanceolate leaves, as long as the flowers; general 1-5 leaved. Stem panicled, leafy. Heath, Norton, Essex; naturalized? 24. 8. Stems 1-4 f. high.
 - Umbels of 8-9 slender rays.

167. HYDROCÓTYLE. White-rot.

- 1. H. vulgáris, 11. 75]. (Common W.) Leaves orbicular, peltate, smooth; cloven at the base. Umbels somewhat aggregate. Flowers nearly sessile.
 - Watery pl. 24. 5, 6. Stem creeping. 2-3 f. L. opposite. Fl.-stalks axill.

168. SELÍNUM. Milk-parsley.

- 1. S. palústre, 4. 229. (Marsh M.) Milky. Root generally single. Leaves triply pinnate ; leaflets pinnatifid, with elliptic-lanceolate segments. Ribs of the seeds broad and obtuse.
 - Marshes. 4. ? 7. Stem 4 f. furrowed. Rays of the umb. rough. Fl. white.

169. PEUCÉDANUM. Sulphur-wort.

1. P. officinále, 25. 1767. (Sea S.) Leaves five times deeply threecleft; leaflets linear, undivided, flat. Bracteas linear, almost capillary.

Salt marshes, rare. 24. 6, 7. 3-4 f. with a resinous juice. L. very narrow. Fl. buff-yellow.

170. PASTINÁCA. Parsnep.

1. P. sativa, 8. 556. (Wild P.) Leaves simply pinnate ; downy beneath.

Chalky hillocks. 8. 7. R. spindle-sh. Stem 3 f. Fl. yellow. Fr. large.

171. HERÁCLEUM. Cow-parsnep.

- 1. H. Sphondýlium, 14. 939. (Common C. Hog-weed.) Leaves pinnate; leaflets pinnatifid, cut and serrated.
 - Hedges and bord. of fields. S. 7. 4 f. Fl. large, white, radiant. H. angustifolium, of Fl. Brit. 307, is a variety of this, and not the Linnæan H. angust.

172. TORDÝLIUM. Hart-wort.

1. T. officinále, 34. 2440. (Small H.) Partial bracteas about as long as the flowers. Leaflets ovate, cut, crenate. Radiant petals in pairs, with very unequal lobes.

Fields, rare. O. 6, 7. Fl. reddish white; exterior pet. very large.-Perhaps introduced by error.

2. T. máximum, 18. 1173. (Great H.) Leaflets lanceolate, deeply serrated, and notched. Flowers somewhat radiant; the outermost petal of two equal lobes. Stem rough, with close deflexed bristles.

Fields, rare. O. 6, 7. Fl. white or reddish ; exter. pet. the largest

PENTANDRIA TRIGYNIA.

173. VIBÚRNUM. Guelder-rose.

1. V. Lantána, 5. 331. (Mealy G.) Leaves heart-shaped, serrated, veiny; downy beneath.

Hedges, on a chalky soil. b. 5. Cymes white, downy. Berry black, mealy.

2. V. Opulus, 5. 332. (Common G.) Leaves lobed; their stalks beset with glands.

Moist shady pl. b. 6. Smooth. Fl. white. Berry red and juicy.

Elder. 174. SAMBÚCUS.

1. S. Ebulus, 7. 475. (Dwarf E.) Cymes of three main branches.

Stipulas leafy. Stem herbaceous.
 Waste gr. 4. 7. Stem 3 f. simple. Fl. of a dull flesh-colour.
 S. nigra, 7. 476. (Common E.) Cymes of five main branches. Stipulas obsolete. Leaflets ovate. Stem arboreous.
 Groves and hedges. 5. 6. A small tree. Fl. milk white. Ber. black.

175. STAPHYLÉA. Bladder-nut.

1. S. pinnáta, 22. 1560. (Common B.) Leaves pinnate. Styles and capsules but two.

Hedges, rare. b. 6. Clusters drooping, greenish white. L. smooth.



Ord. 5.]

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176. TÁMARIX. Tamarisk.

 T. gállica, 19. 1318. (French T.) Stamens five. Clusters lateral, numerous. Leaves lanceolate, acute, spurred. Branches smooth. Rocks, on the south coast; scarcely indigenous. 5.7. Branches red, long and slender. L. small. Fl. reddish.

177. CORRIGÍOLA. Strapwort.

1. C. littorális, 10. 668. (Sand S.) Southern coast of Eng. O.7, 8. Prostr. glauc. Fl. small, white.

PENTANDRIA TETRAGYNIA.

178. PARNÁSSIA. Grass of Parnassus.

1. P. palústris, 2. 82. (Common Grass of P.) Leaves heart-shaped. Bristles of each nectary numerous.

Marshes. 4.9, 10. Stem a span high, 1-fl. Fl. snow white, elegant.

PENTANDRIA PENTAGYNIA.

179. STÁTICE. Thrift.

- S. Arméria, 4. 226. (Common Th.) Stalk simple. Flowers capitate. Awns of the calyx minute. Leaves linear. Sea shores and marine rocks. 24.7, 8. Inner bract. several, filmy.
- Sea shores and marine rocks. 4.7, 8. Inner bract. several, filmy. Fl. rose-col.
- S. plantaginea, (Plantain-leaved T.) Leaves linear-lanceolate, with 3-5 ribs. Stalk simple; bearing a rounded head. Leaves of the involucre cuspidate. Awns of the calyx long. Jersey. 4. 6, 7. Easily distinguished from S. Arm. by its strongly
 - Jersey. 4. 6, 7. Easily distinguished from S. Arm. by its strongly cuspidate involucre, broad leaves and long setaceous teeth to the cal. Fl. pale purple.
- S. Limonium, 2. 102. (Blue Th. Sea Lavander.) Leaves ellipticlanceolate, stalked, mucronate, single-ribbed. Stalks angular, with a much branched spreading corymb at the top. Calyx with deep acute, plaited segments and intermediate teeth.

Muddy sea-shores. 4.7, 8. Leaves leathery, glauc. Fl. fine blue.
*2. S. spathuláta, S. binervosa, Suppl. 2663. (Upright-spiked T.) Leaves spathulate, with a short mucro, glaucous, 3-nerved. Stalks branched from below the middle. Panicle elongated. Branches distichous. Spikes erect. Calyx with blunt segments, without

intermediate teeth. Sea-shores. 4.8. Readily recognised from the preceding by the 3-nerved leaves and dense upright spikes.

3-nerved leaves and dense upright spikes.
3. S. reticuláta, 5. 328. (Matted Th. or Sea Lav.) Stalks panicled, prostrate, zigzag, dotted; lower branches barren. Leaves wedge-shaped, rather acute, but without points.

ΓCl. 5.

Muddy sea-shores, E. coast. 4.7, 8. L. small. Fl. bluish ; stalks spreading.

180. LÍNUM. Flax.

[Herbaceous or shrubby. Leaves simple. Bark very tenacious.]

* Leaves alternate.

- 1. L. usitatissimum, 19. 1357. (Common F.) Calyx-leaves ovate, acute, with three ribs. Petals crenate. Leaves lanceolate, alternate. Stem mostly solitary. Stem inder y solitary.
 Fields. O. 7. Root small, fibr. Fl. blue. Caps. acuminate.
 L. perénne, I. 40. (Perennial F.) Calyx-leaves obovate, obtuse,
- obscurely five-ribbed, naked. Leaves linear-lanceolate. Stems numerous, ascending.
- Chalky hills, 4.6, 7. R. woody, branched at the top. Caps. bluntish. 3. L. angustifólium, 6. 381. (Narrow-leaved F.) Calyx-leaves elliptical, three-ribbed, naked, and, like the capsule, pointed. Leaves linear-lanceolate, three-ribbed. Stems numerous.

Sandy or chalky past. 4. 7. Like the last, but stem more erect.

** Leaves opposite.

4. L. cathárticum, 6. 382. (Purging F.) Leaves opposite, obovatelanceolate. Panicle forked, partly drooping. Petals acute. Dry past. ⊙. 6-8. Slender. Fl. small, white. Cal. single-ribbed.

181. SIBBÁLDIA. Sibbaldia.

1. S. procúmbens, 13. 897. (Procumbent S.) Leaflets wedge-shaped, with three terminal teeth.

Highl. mount. 4.7. R. woody. Stem 1-3 in. hairy. Pet. yell. small.

PENTANDRIA HEXAGYNIA.

182. DRÓSERA. Sun-dew.

[Herbaceous, often stemless, clothed with glandular viscid hairs.]

1. D. rotundifólia, 13. 867. (Round-leaved S.) Leaves depressed, nearly orbicular, on hairy stalks. Flower-stalks from the root. racemose.

Bogs. 4. 7, 8. Hairs of the leaves red, inflexed. Fl. white.

2. D. longifólia, 13. 868. (Long-leaved S.) Leaves radical, spathulate, very obtuse, erect, on long glabrous footstalks. Seeds with a compact, rough coat, not chaffy.

Bogs. 4.7, 8. Like the last, but rather larger. L. oblong. S. D. ánglica, 13. 869. (Great S.) Leaves radical, linear-spathulate, erect, on very long glabrous footstalks. Seeds with a loose chaffy coat.

Marshes, rare. 4.7, 8. Larger and guite distinct.

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Ord. 1.7

PENTANDRIA POLYGYNIA.

183. MYOSÚRUS. Mouse-tail.

1. M. mínimus, 7. 435. (Common M.) Gravelly fields. O. 5. Stem 0. L. narrow, tapering at the base. Fl. small, yellow.

Class. VI. HEXANDRIA. Stamens 6, each 3 equal.

Order I. MONOGYNIA. Style 1.

* Fl. with both caly x and corolla.

- 201. FRANKÉNIA. Cor. of 5 petals. Cal. of 1 leaf, inferior. Caps. of 1 cell, with many seeds.—N.O. FRANKENIACEE. 200. BÉRBERIS. Cor. of 6 petals. Cal. of 6 leaves, inferior.
- Berry with 2 seeds.-N.O. BERBERIDEE.
- 202. PEPLIS. Cor. of 6 petals. Cal. with 6 deep segments, and 6 intermediate plaits. Caps. of 2 cells .-- N.O. LYTHBARIER,

Lythrum 2.

** Fl. superior, without a calyx.

- 185. LEUCÓJUM. Cor. superior, of 6 equal petals, bell-shaped. Stam. simple, equal.-N.O. AMABYLLIDEE.
- 184. GALÁNTHUS. Cor. superior, of 6 petals, three innermost shortest, abrupt, notched.-N.O. AMARYLLIDEÆ.
- 186. NARCÍSSUS. Cor. superior, of 6 petals, attached to a bellshaped nectary, which conceals the stamens.-N.O. AMA-RYLLIDEÆ.

*** Fl. inferior, without a calvx.

- 196. CONVALLÁRIA. Cor. inferior, deciduous ; limb in 6 segments. Berry of 3 cells. Stigma triangular.-N.O. SMI-LACEÆ.
- 192. HYACINTHUS. Cor. inf. deciduous; limb in 6 segments; tube swelling. Stam. uniform. Caps. of 3 cells. Seeds globose. -N.O. Asphodelez.
- 195. ASPÁRAGUS. Cor. inf. in 6 deep segments, permanent. Berry of 3 cells. Stigmas 3.—N.O. ASPHODELEÆ.
- 187. ALLIUM. Cor. inf. of 6 ovate petals. Stamens awl-shaped, flattened. Stigm. acute. Seeds angular.-N.O. ASPHODELE.E.
- 193. ANTHÉRICUM. Cor. inf. of 6 elliptic-oblong petals. Stam. thread-shaped. Stigma obtuse. Seeds angular.-N.O. As-PHODELER.

- 194. NARTHÉCIUM. Cor. inf. of 6 linear-lanceol. petals, spreading. Stam. woolly. Seeds tunicated, tapering at each end. -N.O. JUNCER.
- 190. ORNITHÓGALUM. Cor. inf. of 6 lanceolate petals, partly spreading, permanent. Stam. dilated at the base.-N.O. ASPHODELEE.
- 191. SCILLA. Cor. inf. of 6 ovate-oblong petals, spreading, de-ciduous. Stam. all thread-shaped.—N.O. ASPHODELEE.
- 188. FRITILLÁRIA. Cor. inf. of 6 pet. each with a nectariferous cavity at the base withinside .- N.O. LILIACEE.
- 189. TULIPA. Cor. inf. of 6 pet. without nectaries. Style 0. Seeds flat.—N.O. LILIACEE.
- ACORUS. Cor. inf. of 6 petals, abrupt. Style 0. Seeds ovate-197 oblong. Spadix covered with numerous sessile flowers .-N.O. AROIDEE.

**** Flowers without petals.

- 198. JUNCUS. Cal. of 6 leaves. Caps. of 3 cells and 3 valves. Seeds numerous, horizontal.-N.O. JUNCER.
- 199. LUCÍOLA. Cal. of 6 leaves. Caps. of 1 cell and 3 valves. Seeds 3, erect.-N.O. JUNCEE.

Peplis 1. Polygona.

Order II. DIGYNIA. Styles 2.

203. OXYRIA. Cal. of 2 leaves. Pet. 2. Seed 1, compressed, winged.-N.O. POLYGONEZ.

Order III. TRIGYNIA. Styles or Stigmas 3.

- 206. SCHEUCHZÉRIA. Cal. 0. Pet. 6. Caps. 3, inflated. Seeds solitary .- N.O. JUNCAGINER.
- 208. CÓLCHICUM. Cal. 0. Cor. of 1 pet. tubular. Caps. 3, inflated. Seeds numerous.—N.O. MELANTHACEÆ. 207. TRÍGLOCHIN. Cal. of 3 leaves. Pet. 3. Caps. opening at
- the base with three valves.—N.O. JUNCAGINEZ. 204. RÚMEX. Cal. of 3 leaves. Pet. 3. Seed 1, naked, triangular. —N.O. POLYGONEZ.
- 205. TOFIELDIA. Cal. 3-cleft. Pet. 6. Caps. 3, with many seeds. -N.O. MELANTHACEZ. Elatine.

Order IV. POLYGYNIA. Styles numerous.

209. ALÍSMA. Cal. of 3 leaves. Pet. 3. Caps. 6 or more, aggregate. Sceds 1 or 2.-N.O. ALISMACEE.

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Ord. 1.]

HEXANDRIA MONOGYNIA.

184. GALÁNTHUS. Snow-drop.

1. G. nivális. 1. 19. (Common S.)

Orchards, meadows, &c., scarcely indigenous. 4. 2. L. glauc. in pairs. Interior pet. green at the top.

185. LEUCÓJUM. Snow-flake.

- 1. L. æstivum, 9. 621. (Summer S.) Flowers several. Style clubshaped.
 - Moist mead. not wild. 24.5. L. numer. Pet. uniform; tipped with green.

186. NARCÍSSUS. Narcissus, or Daffodil.

1. N. poéticus, 4. 275. (Poet's N.) Flowers mostly solitary. Cup of the nectary very short, depressed; membranous and crenate at the margin. Leaves bluntly keeled; their edges reflexed. Sandy plains, introduced. 4. 5. Pet. pure white. Nect. with

a crimson margin.

- 2. N. bifforus, 4. 276. (Pale N.) Flowers in pairs. Cup of the nectary very short, depressed ; membranous and crenate at the margin. Leaves acutely keeled ; their edges inflexed.
 - Sandy soil, not wild. 24. 4, 5. Pet. pale sulphur yell. Nect. with a white border.
- N. Pseudo-Narcissus, 1.17. (Common Daff.) Flowers solitary. Cup of the nectary bell-shaped, erect, crisped, with six marginal segments; its length equal to that of the ovate petals.
 Woods and thickets. 2f. 3. Pet. lemon yell. Nect. large, deep yell.

187. ÁLLIUM. Garlick.

* Stem leafy. Leaves flat.

- 1. A. Ampeloprásum, 24. 1657. (Great round-headed G.) Umbel globose, without bulbs. Stem leafy below. Leaves flat. Three alternate stamens deeply three-cleft. Keel of the petals rough. Steep Holms in the Severn, imported. 24. 7. L. 1 inch broad.
 - Ümb. large.
- 2. A. arenárium, 19. 1358. (Sand G.) Umbel globose, bearing bulbs. Stem leafy below. Leaves flat, with cylindrical sheaths. Bracteas obtuse. Alternate stamens dilated, three-cleft. Keel of the petals roughish.

Woody mount. in the N. 4. 7. L. half as broad, rough-edged. Umb. small, red.

3. A. carinátum, 24. 1658. (Mountain G.) Umbel lax, bearing bulbs. Leaves flat. Bracteas tapering, longer than the umbel. Stamens simple, awl-shaped.

Mts. rare. 4.7. L. narr. Bract. long. Pet. with a smooth keel.

** Stem leafy. Leaves somewhat cylindrical.

4. A. oleráceum, 7. 488. (Streaked Field G.) Umbel lax, bearing

Leaves semicylindrical, tubular, rough ; channelled bulbs. above, ribbed beneath. Bracteas pointed, longer than the umbel. Stamens simple, awl-shaped.

Fields, rare. 24. 7. Fl. reddish. Germ. rough at the top. 5. A. vineále, 28. 1974. (Crow G.) Umbel spherical, bearing bulbs. Leaves cylindrical, smooth. Alternate stamens deeply 3-cleft. Waste ground and chalky fields. 24.7. L. long, tapering, hollow. Stam. longer than the pet., 3 of them with capill. later. segm.

*** Stalk radical, naked.

6. A. ursinum, 2. 122, (Broad-leaved G.) Stalk semicylindrical. naked. Leaves elliptic-lanceolate, stalked. Umbel level-topped. Stamens simple.

Moist woods. 2. 5, 6. L. 1 or 2, flat, broad, ribbed. Fl. white.

7. A. Schænoprásum, 34. 2441. (Chive G.) Stalk naked, round, the height of the foliage. Leaves cylindrical, somewhat tapering. Stamens simple.

Mead., scarce. 4.6. Fl. of a purplish ross-col. Stam. concealed.

188. FRITILLÁRIA. Fritillary.

- 1. F. Meleágris, 9. 622. (Common F.) All the leaves alternate, linear-lanceolate, pointed. Stem single-flowered. Nectary linear. Points of the petals inflexed.
 - Moist mead., chiefly in the S. 4. 4. Stem 1 f. leafy. Fl. chequered, drooping.

189. TULÍPA. Tulip.

1. T. sylvéstris, 1.63. (Wild T.) Flower solitary, a little drooping. Leaves lanceolate. Stigma triangular, abrupt. Stamens hairy at the base.

Chalk pits, rare. 4. 4. Fl. sweet-scented, bright yellow.

190. ORNITHÓGALUM. Star of Bethlehem.

1. O. luteum, 1. 21. (Yellow Star of B.) Stem angular, with one leaf at the bottom, and one or two at the top. Flower-stalks umbellate, simple, smooth.

Groves, rare. 4. 4. L. linear-lanceol. Fl. yellow; green on the back.

2. O. pyrenáicum, 7. 499. (Tall Star of B.) Cluster very long. Filaments all dilated. Flower-stalks equal, spreading; growing erect, and close-pressed, as the fruit ripens.

Past. rare. 4. 6, 7. Stalk 2-3 f. Fl. greenish, spreading, numer.

8. O. umbellátum, 2. 130. (Common Star of B.) Flowers corymbose ; their partial stalks overtopping the main one. Filaments dilated, tapering, entire.

Mead. and past. 4. 4, 5. L. roundly chann. Fl. white; green outside.

- 4. O. nútans, 28. 1997. (Drooping Star of B.) Flowers pendulous, unilateral. Filaments dilated, cloven, converging ; three of them longer, their lobes nearly equal to the anther.
 - Dry mead., naturalized. 4.5. About 1 f. Fl. large, of a silv. alauc. white.

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TCI. 6.

Ord. 1.]

191. SCILLA. Squill.

1. S. vérna, 1. 23. (Vernal S.) Bulb coated. Corymb hemispherical. of few flowers. Bracteas lanceolate, obtuse. Leaves linear. channelled.

Marit. cliffs. 24. 4. L. very numer. Fl. deep blue, with blue anth. 2. S. bifólia, 1. 24. (Two-leaved S.) Bulb coated. Cluster slightly corymbose, without bracteas. Flowers nearly erect. Leaves lanceolate, generally two.

3. S. autumnális, 2. 78. (Autumnal S.) Leaves linear, numerous. Cluster slightly corymbose. Flower-stalks without bracteas, ascending, the length of the flowers.

Dry past, in the S. 24. 9. Stalk 3 in. L. chann. numer. Fl. rose-col. Stam. reddish ; pist. blue.

4. S. nútans, 6. 377. (Wild Hyacinth.) Leaves linear. Cluster drooping. Flowers pendulous, cylindrical-bell-shaped ; petals reflexed at the points. Bracteas in pairs.

Groves and thickets. 24.5. Stalk 1 f. Fl. blue, sweet-scented.

192. HYACÍNTHUS. Hyacinth.

1. H. racemósus, 27. 1391. (Starch H.) Flowers ovate, with six furrows ; the upper ones sessile, and abortive. Leaves linear, channelled, flaccid.

Grassy fields, naturalized. 4.5. Fl. dark blue, smelling like wet starch.

193. ANTHÉRICUM. Spiderwort.

1. A. serótinum, 12. 793. (Mountain S.) Leaves semicylindrical; those on the stem dilated at their base. Flower mostly solitary. Lofty Welsh mounts., rare. 24.6.4 in. Fl. erect, white, with red veins outside.

194. NARTHÉCIUM. Bog-asphodel.

1. N. ossifragum, 8. 535. (Lancashire B.) Cluster uninterrupted. One bractea at the base, the other above the middle, of each partial stalk.

Turfy bogs. 4.7.8. L. sword-sh. Stemsimple. Fl. yell. with red anth.

195. ASPÁRAGUS. Asparagus.

1. A. officinális, 5. 339. (Common A.) Stem herbaceous, round, erect, without prickles. Leaves bristle-shaped, flexible. Stipulas mostly solitary.

Sea coast. 4.8. Stem much branched. Fl. whitish, droop. inodor.

196. CONVALLÁRIA. Lily of the Valley, and Solomon's Seal.

1. C. majális, 15. 1035. (Lily of the V.) Flower-stalk radical, naked, semicylindrical. Cluster simple. Flowers drooping, cup-shaped, with rather distant segments.

Groves, W. of Eng. 2.34. Larger. Fl. pale blue, with brownish anthers.

r Cl. 6.

Groves. 4. 5. L. in pairs, ellipt. Fl. white, sweet-scented. Berry scarlet.

- C. verticilláta, 2. 128. (Narrow-leaved Solomon's Seal.) Leaves linear-lanceolate, whorled.
 Seat-lanceolate, and the seater of the second second
- Scot. woods, rare, 24. 6. L. narrow. Fl.-stalks axill. branched.
 C. Polygonátum, 4. 280. (Angular Sol.) Leaves alternate, clasping the angular stem. Stalks axillary, mostly single-flowered. Stamens smooth.
 - Rocky thickets, rare. 24. 5, 6. L. ellipt. Fl. pendul. bearded, sweet-scented.
- C. multiflora, 4. 279. (Common S.) Leaves alternate, clasping the round stem. Stalks axillary, many-flowered. Stamens downy. Thickets. 4. 5, 6. L. ellipt. Fl. smaller, scarcely bearded.

197. ÁCORUS. Sweet-Flag.

- 1. A. Cálamus, 5. 356. (Common Sweet-F.) Summit of the flowerstalk leafy, rising high above the spadix.
 - Watery pl. 4. 6. Aromatic. L. sword-shaped, 2-3 f. Spadiz lateral, green.

198. JÚNCUS. Rush.

* Leaves none.

- J. acútus, 23. 1614. (Great Sharp Sea R.) Stem naked, sharppointed. Panicle aggregate, near the summit. Bractea spinous. Capsule twice as long as the calyx, roundish, with a blunt point. Sandy sea-shores. 4. Stem 3 or 4 f. stiff. Caps. ovate, pointed.
- J. marítimus, 24. 1725. (Lesser Sharp Sea R.) Stem naked, sharppointed. Panicle proliferous, near the erect summit. Bractea spinous. Capsule oblong, the length of the calyx.
 - Marshes near the sea. 4.8. Smaller and more slender. Caps. prismatic.
- J. glaucus, 10. 665. (Hard R.) Stem naked, straight, glaucous. Panicle upright, far below the summit. Capsule elliptical, pointed, rather shorter than the calyx.
 - Moist past. 4. 7. Slender, tough. Sheaths (or scales) at the base shining.
- 4. J. conglomerátus, 12. 835. (Common R.) Stem naked, straight. Panicle dense, globular, far below the summit. Capsule abrupt. Stamens three.

Moist sit. 4. 7. Acute, but not pungent. Caps. ovate, strongly triang.

- J. effúsus, 12. 836. (Soft R.) Stem naked, straight. Panicle loose, repeatedly compound, very far below the summit. Capsule obtuse. Moist pl. 4. 7. Soft and pliable. Pan. loose and spreading.
- J. filiformis, 17. 1175. (Least R.) Stem naked, thread-shaped, drooping. Panicle nearly simple, corymbose, of few flowers, very far below the summit. Bractea taper-pointed. Capsule almost globular.

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calvx.

Moist alpine past. 4.8. Stems very slender. Pan. of 5-8 pale green flowers.

- J. bálticus, Suppl. 2621. J. arcticus, Hook. and E. Fl. (Northern R.) Stem naked, not striated. Panicle lateral, compound, erect, lax. Calyx-leaves acute, nearly equal, as long as the elliptical and scarcely trigonal capsule. Root much creeping.
 - Sandy sea-shores, N. of Scotl. 4.7. Taller than J. arcticus and more rigid. Panicle larger and decidedly branched. Capsules rounded, not trigonous.

** Leafy.

8. J. trífidus, 21. 1482. (Three-leaved R.) Stem naked. Radical leaves very few. Bracteas three, leafy, channelled, with from one to three terminal flowers.

Alpine bogs in Scot. 4. 7. Thread-sh. Fl. 1, 2, or 3, dark brown.

9. J. squarrosus, 13. 933. (Moss R.) Stem naked. Leaves numerous, radical, channelled. Panicle terminal, compound, with cymose branches.

Boggy heaths. 4. 6, 7. L. radical, rigid. Cal. brown : edges white.

- J. compréssus, J. bulbosus, 13. 934. (Round-fruited Ř.) Stem single, compressed; leafy below. Leaves linear, incurved at the edges. Panicle cymose, terminal, shorter than the bractea. Capsule roundish-obovate, longer than the obtuse calyx.
- Moist past. 24. 7. R. creep. Stem leafy at the root. Cal. obtuse.
 11. J. canosus, Suppl. 2680. (Mud R.) Stem simple, leafy. Leaves linear, channelled. Panicle cymose, terminal, longer than the bractea. Capsule obovate, the length of the rather obtuse

Salt marshes. 4.7. Stem more leafy. Cal. and caps. dark brown. —A var. of J. compressus.

12. J. ténuis, J. Gesneri, E. Fl. J. gracilis, 31. 2174. (Slender spreading R.) Stem simple, naked. Leaves slightly channelled. Panicle forked, racemose, shorter than the bractea. Calyx-leaves lanceolate, taper-pointed, three-ribbed, longer than the oval capsule.

Scot. mount. 4.7. Stem slender, upright. Cal. & caps. pale brown.

13. J. bufónius, 12. 802. (Toad R.) Stem leafy. Leaves angular, channelled. Panicle forked, racemose, longer than the bracteas. Calyx-leaves lanceolate, taper-pointed, membranous, two-ribbed, longer than the oblong capsule.

Moist sandy heaths. O. 7, 8. Stems 2-12 in. many-fl. Caps. oblong.

- 14. J. uliginósus, 12. 801. (Little bulbous R.) Stem leafy, bulbous at the base. Leaves bristle-shaped, channelled. Heads lateral and terminal, about three-flowered. Capsule obtuse, rather longer than the calyx.
 - Moist heaths. 24. 6, 7. Stem reclining. Cal. 3-ribbed. Caps. prismatic.
- 15. J. subverticillátus. (Whorl-headed R.) Stem leafy, trailing. Leaves bristle-shaped, channelled, very slightly jointed. Panicle

forked. Heads lateral and terminal, about five-flowered, somewhat whorled. Capsule obtuse, rather longer than the calyx.

- Watery pl. 4.7, 8. Root simple, fibr. Stems decumb. or floating, emitting roots.—A var. of the preceding.
- 16. J. capitătus, Suppl. 2644. (Dense-headed R.) Stem erect, unbranched. Leaves bristle-shaped, channelled. Heads one or two, lateral and terminal. Stamens three. Calyx keeled, bristlepointed, twice as long as the capsule.
- Jersey, rare. O. 5-7. Stem 3 in. leafy at the base. Stigm. 3.
- J. *biglúmis*, 13. 898. (Two-flowered R.) Stem erect, simple; leafy at the base. Leaves flat. Head solitary, of two unilateral flowers, surmounted by a leafy bractea.
- About mount. rills, rare. 4. 8. 3 in. Fl. 2, one above the other.
- J. triglúmis, 13.899. (Three-flowered R.) Stem erect, simple; leafy at the lower part. Leaves flat. Head solitary, terminal, of about three upright flowers, with elliptical bracteas.
- By alpine rivul. 4.7. Rather larger. Fl. 2-4, usually 3; all erect.
- J. castáneus, 13. 900. (Clustered Alpine R.) Stem simple, leafy. Leaves keeled, flat, sheathing at the base. Heads terminal, mostly in pairs, many-flowered, with leafy bracteas.
 - Breadalbane Mts. 4. 7. 1 f. shining. Fl. dark brown. Cal. half the length of the caps.
- 20. J. acutiflorus, J. articulatus, 4. 238. (Sharp-flowered Jointed R.) Leaves apparently jointed, slightly compressed. Panicle repeatedly compound, forked. Calyx-leaves all bristle-pointed, shorter than the taper beak of the capsule.
 - Wet woods. 4. 6. L. hollow, with transverse partitions. Fl. small.
- J. lampocárpus, 30. 2143. (Shining-fruited Jointed R.) Leaves apparently jointed, compressed. Panicle erect, compound, forked. Capsule ovate, coloured, highly polished, longer than the calyx.
 panicles less branched. Heads of more numerous flowers.
 - J. polycephalus, Don. E. Fl. J. nigritellus, Suppl. 2643.
 - Humid mead. 4.6, 7. Inner calyx-leaves bordered. Caps. large, varnished.
- 22. J. obtusifiorus, 30. 2144. (Blunt-flowered Jointed R.) Stem and leaves apparently jointed, cylindrical. Panicle repeatedly compound; branches divaricated and reflexed. Calyx obtuse, as long as the capsule.

Marshes. 24. 7, 8. Fl. smaller. Caps. obov. of a light, shining brown.

199. LUCÍOLA. Wood-rush.

- 1. L. pilbsa, Juncus pilosus, 11. 736. (Broad-leaved Hairy W.) Panicle cymose, widely spreading, and reflexed. Flowers solitary. Capsule pointless. Crest of the seeds hooked.
 - Groves and thickets. 2.3, 4. Stem 9-12 in. L. flat, fringed with white hairs.
- 2. L. Forstéri, J. Forsteri, 18. 1293. (Narrow-leaved Hairy W.) Panicle cymose, erect. Flowers solitary. Capsule pointed. Crest of the seeds straight and obtuse.



[Cl. 6.

Ord. 1.] HEXANDRIA MONOGYNIA.

Groves. 4.5. L. much narrower. Pan. smaller.

- L. sylvática, J. sylvaticus, 11. 737. (Great W.) Panicle cymose, doubly compound. Flowers and bracteas aggregate. Capsule pointed. Crest of the seeds obsolete.
 Woods and bushy gr. 4. 5, 6. Stems 12-18 in. L. br. Caps. small.
- L. campéstris, J. camp. 10. 672. (Field W.) Panicle of three or four ovate, dense, partly stalked, clusters. Capsule obovate, obtuse, with a small point, shorter than the calyx. Seeds stalked, without a crest.

Barren past. 4. 4. 5. Scarcely a span high. L. flat, very hairy at the margin.

5. L. congésta, Suppl. 2718. (Many-headed Bog W.) Panicle of numerous, dense, roundish-ovate, partly stalked, clusters. Capsule obovate, obtuse, with a small point, as long as the calyx. Seeds stalked, without a crest.

Turfy marshes. 24.6. Stem 18 in. L. narrow, flat; edges rough, hairy. A var. of L. campestris.

- L. spicáta, J. spic. 17. 1176. (Spiked W.) Panicle dense, compound, oblong, lobed, drooping. Capsule elliptical, with a small point. Crest of the seeds obsolete. Stem-leaves channelled. Lofty mount. 4. 7, 8. Stem slender, 4 in. Pan. lobed, many-ft.
- L. arcuáta, Suppl. 2688. (Curved Mountain W.) Panicle somewhat umbellate, partly compound, with drooping branches. Heads globose, of few flowers. Bracteas membranous, fringed. Capsule elliptical. Leaves channelled.
 - Barren Northern Scott. mount. 4. 7. Stem 4 in. with 1 or 2 leaves. Fl. about 3 together, in small round heads, collected into a terminal panicle.

200. BÉRBERIS. Barberry.

1. B. vulgáris, 1. 49. (Common B.) Thorns 3-cleft. Clusters pendulous. Leaves obovate-oblong, with bristly serratures. Petals entire.

Hedges and chalky hills. b. 5, 6. L. ovate, in tufts. Fl. bright yell.

201. FRANKÉNIA. Sea-heath.

- F. lævis, 3. 205. (Smooth S.) Leaves linear, revolute, crowded; fringed at the base. Flowers solitary. Muddy salt-marshes. 24. 7. Stems prostrate, forked. L. glauc. Fl. flesh-col.
- 2. F. pulverulénta, 31. 2222. (Powdery S.) Leaves obovate, abrupt; downy, and somewhat powdery beneath.

Coast of Suss. rare. O. 7. Prostr. Cal. prismat. Fl. pale-red.

202. PÉPLIS. Purslane.

1. P. Pórtula, 17. 1211. (Water P.) Petals wanting, or scarcely visible. Leaves opposite, obovate, stalked. In marshes. O.7, 8. Prostr. rooting. L. oppos. Fl. small, reddish.

HEXANDRIA DIGYNIA.

203. OXÝRIA. Mountain-sorrel.

1. O. reniformis, Rumex digynus, 13. 910. (Kidney-shaped M.) Near mountain rills. 24. 6. Stem erect, 8 in. L. kidney-shaped, abrupt.

HEXANDRIA TRIGYNIA.

204. RÚMEX. Dock, and Sorrel.

* Flowers all perfect.

- 1. R. sanguineus, 22. 1533. (Bloody-veined D.) Petals permanent, entire, oblong; one of them at least bearing a tubercle. Leaves lanceolate; somewhat heart-shaped.
 - Shady pl. and waste gr. 24.7. Tubercle red. Ribs of the leaves reddish ; in β . green.
- *1. R. pratensis, Suppl. 2757. (Meadow D.) Petals permanent, unequal, toothed at the base, with an entire triangular point; one principally with a tubercle. Leaves oblong-lanceolate, wavy. Clusters nearly leafless. Whorls distinct.
 - Marshes about the Thames and in Suss. 4.6, 7. Allied to the following, Clusters less crowded; enlarged values of cor. unequal and more toothed; leaves broader and less curled.
- R. crispus, 28. 1998. (Curled D.) Petals permanent, ovate, entire; each bearing a tubercle. Leaves lanceolate, wavy, acute. Past. and waste gr. 4. 6, 7. Clust. of drooping pale green flowers.
- *2. R. aquáticus, Suppl. 2698. (Grainless Water D.) Petals permanent, broadly cordate, reticulated, without tubercles. Leaves lanceolate; the lower ones cordate-oblong, crisped and waved. Whorls crowded, mostly leafless.
 - Moist places near Ayr. 2. 7. Enlarged petals quite destitute of tubercles. Lower leaves a foot long.
- R. acútus, 11. 724. (Sharp D.) Petals permanent, oblong, obscurely toothed; each bearing a tubercle. Leaves oblong-heartshaped, pointed. Clusters leafy.

Waste watery pl. 24.7. Clust. spreading, elongated. Seed small.

*8. R. alpinus, Suppl. 2694. (Alpine D. or Monk's Rhubarb.) Petals permanent, cordate, reticulated, obscurely toothed at the margin; one bearing a small grain. Leaves broadly heartshaped, ample. Whorls leafless, crowded.

River banks and road-sides, Scotl., indigenous ? 4.7. L. a span broad, heart-shaped, very obtuse, wrinkled and strongly veined.

 R. obtusifólius, 28. 1999. (Broad-leaved D.) Petals permanent, toothed; one principally bearing a tubercle. Radical leaves heart-shaped, obtuse. Stem roughish.

Waste gr. 4. 7.8. Clust. scarcely leafy. Teeth of the pet. awl-sh.

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[Cl. 6.

Ord. 3.]

- 5. R. púlcher, 22. 1576. (Fiddle D.) Petals permanent, toothed; one principally bearing a tubercle. Radical leaves fiddle-shaped. Stem smooth, straggling.
 - Gravelly past. 24. 8. Stem often procumbent. Clust. leafy.
- R. marítimus, 11. 725. (Golden D.) Petals permanent, triangular. tuberculated, fringed with taper teeth. Leaves linear. Whorls crowded.
 - Marshes near the sea. 24. 7, 8. Clust. uninterrupted, of a golden hue. L. narrow.
- 7. R. palústris, 27. 1932. (Yellow Marsh D.) Petals permanent, lanceolate, tuberculated, toothed at the base. Leaves linearhanceolate. Whorls distinct.

Ditches. 4. 7, 8. Clust. interrupt. tawny. Rad. leaves very large.

8. R. Hydrolápathum, R. aquaticus, 20. 2104. (Great Water D.) Petals permanent, ovate-oblong, nearly entire, unequally tuberculated. Leaves lanceolate; acute at each end. Whorls rather crowded, almost entirely leafless.

Ditches & riv. 4.7,8. About 5 f. L. slightly glauc. lower ones 1-2f.

** Flowers separated.

- 9. R. Acetósa, 2. 127. (Common Sorrel.) Flowers diœcious. Leaves oblong, arrow-shaped. Permanent petals tuberculated.
- Mead. and past. 4. 6. Stem 1-2 f. erect. Pan. branched, reddish. 10. R. Acetosélla, 24. 1674. (Sheep's S.) Flowers diœcious. Leaves
- lanceolate, hastate. Permanent petals without tubercles. Dry gravelly fields. 24.6, 7. Not half the size of the last, slender.

205. TOFIÉLDIA. Scottish Asphodel.

1. T. palústris, 8. 536. (Marsh Scottish A.) Flowers in an ovate head. Stem smooth, thread-shaped, leafless. Petals obovate, obtuse. Germens roundish.

Mountain rills. 4. 8. Stem solit. 4-5 in. L. sword-sh. Fl. small.

206. SCHEUCHZÉRIA. Scheuchzeria.

1. S. palustris, 26. 1801. (Marsh Scheuchzeria.) Spongy bogs, very rare. 4.6. Root creeping. Stem a span high.

207. TRÍGLOCHIN. Arrow-grass.

1. T. palústre, 6.366. (Marsh A.) Capsule nearly linear, of three cells; tapering at the base. Root fibrous.

Watery pl. 24.7. L. linear, channelled. Stalk 1 f. simple, naked. 2. T. maritimum, 4. 255. (Sea A.) Capsule ovate, of six cells.

Muddy salt-marshes. 24.5-8. Leaves broader and more fleshy.

208. CÓLCHICUM. Meadow-saffron.

1. C. autumnálc, 2. 133. (Common M.) Leaves flat, lanceolate, erect. Segments of the corolla oblong. Rich mead., imported. 4.9. Bulb large. Fl. radical, leafless, purple, with a long white tube.

p. 20. 1432. 4. 4. 5. Fl. greenish white, elongated, abortive.

HEXANDRIA POLYGYNIA.

209. ALÍSMA. Water-plantain.

1. A. Plantágo, 12. 837. (Greater W.) Leaves ovate, acute. Capsules obtusely triangular.

Watery pl. U. 7. Stalk naked. Pan. in comp. whorls of purple fl. 2. A. Damasónium, 23. 1615. (Star-headed W.) Leaves oblong;

heart-shaped at the base. Styles six. Capsules tapering. Ditches, rare. 4. 6, 7. Small; with 1 or 2 whorls of white fl.

- 3. A. nátans, 11. 755. (Floating W.) Leaves elliptical, obtuse. Flower-stalks simple. Capsules striated. Mount. lakes, rare. 24.7, 8. Lower l. submersed, linear. Fl. white.
- 4. A. ranunculóides, 5. 326. (Lesser W.) Leaves linear-lanceolate. Capsules numerous, angular, acute, in a globular head. Stem gle-flowered. Suppl. 2722. A. repens, E. Fl.

Swamps. Wales. 24.8. Fl. stalk round. Fl. whorled.

Class VII. HEPTANDRIA. Stamens 7.

Order I. MONOGYNIA. Style 1.

210. TRIENTÁLIS. Cal. of 7 leaves. Cor. in 7 deep segments, equal and flat. Caps. of about 7 valves. Seeds tunicated .-N.O. PRIMULACE

Ulmus 4.

HEPTANDRIA MONOGYNIA.

210. TRIENTÁLIS. Chickweed Wintergreen.

1. T. européea, 1. 15. (European Chickweed W.) Leaves obovateoblong; the lowermost very obtuse. Woods and mount. heaths. 24. 5, 6. Stem 3 or 4 in. crowned with

a tuft of smooth leaves and elegant white flowers.

[Cl. 7.



Class VIII. OCTANDRIA. Stamens 8.

Order I. MONOGYNIA. Style 1.

* Flowers complete.

- 219. ÁCER. Pet. 5. Cal. 5-cleft, inferior. Caps. winged. Sceds 1 or 2.-N.O. ACERINEZ.
- 212. EPILÓBIUM. Pet. 4. Cal. 4-cleft, superior. Caps. of 4 cells. Seeds bearded.-N.O. ONAGRARIEE.
- 211. ŒNOTHÉRA. Pet. 4. Cal. 4-cleft, superior. Caps. of 4 cells. Seeds beardless. Anth. linear.-N.O. ONAGBABIEE.
- CHLÓRA. Cor. in 8-6 deep segm. Cal. inf. of 8-6 leaves. Caps. of 1 cell.-N.O. GENTIANEE.
 VACCÍNIUM. Cor. of 1 pet. Cal. 4-cleft. Berry inferior.
- -N.O. VACCINIEE.
- 215. MENZIÉSIA. Cor. of 1 pet. Cal. of 1 leaf. Caps. superior ; partitions double, from the margin of the valves.—N.O.ERICEZ. 217. ERICA. Cor. of 1 pet. Cal. of 4 leaves. Caps. superior;
- partitions simple, from the centre of each valve. N.O. EBICEE.
- 216. CALLUNA. Cor. of 1 pet. Cal. double ; each of 4 leaves. Caps. superior; partitions from the column, alternate with the valves.—N.O. EBICEZ.

Monotropa.

** Flowers without petals.

218. DAPHNE. Cal. coloured, 4-cleft, inf. Berry with 1 seed. -N.O. THYMELER.

(DIGYNIA. Styles 2.)

See Polygonum in the next Order; Chrysosplenium and Scleranthus in Class 10.

Order II. TRIGYNIA. Styles 3.

220. POLYGONUM. Cal. in several deep segments, coloured, inf. Cor. 0. Seed 1, naked.—N.O. POLYGONEÆ.

Order III. TETRAGYNIA. Styles 4.

- 222. ADÓXA. Cal. half-inf. Cor. in 4 or 5 segm. Berry invested with the calyx. Seeds 4, bordered.-N.O. ABALIACE ...
- 221. PÁRIS. Cal. of 4 leaves. Pet. 4. Berry superior. Seeds numerous, globose.—N.O. SMILACE.
- 223. ELATINE. Cal. of 4 leaves. Pet. 4. Caps. super. of 4 cells ; partitions from the column. Seeds oblong.-N.O. ELATINER.

Sagina 2. Rhodiola.

OCTANDRIA MONOGYNIA.

211. ŒNOTHÉRA. Evening-primrose.

- 1. CB. biénnis, 22, 1584. (Common E.) Leaves ovate-lanceolate, flat. Stem rough, somewhat hairy. Stamens equal. Petals nndivided.
 - Sandy banks, W. of Eng. not native. 3.7-9. 3 f. Fl. large, yell. expand. in the evening.

212. EPILÓBIUM. Willow-herb.

* Fl. irreaular.

1. E. angustifólium, 28. 1947. (Rose-bay W.) Leaves scattered, linear-lanceolate, veiny, smooth, Petals unequal, Stamens declining.

Mead. and shady pl. 24.7.3-6 f. smooth, reddish. Pet. crimson

** Fl. req. Stigma deeply 4-cleft.

2. E. hirsútum, 12. 838. (Hairy W. Codlings and Cream.) Leaves half clasping the stem, ovate-lanceolate, hairy. Stem much branched. Root creeping.

- Watery pl. 4.7. Stein 4 f. downy. Fl. large, pink. 3. E. parviflorum, 12.795. (Small-flowered W.) Leaves sessile, lanceolate, downy. Stem nearly simple, woolly. Root fibrous. Watery pl. 4.7. Stem 2 f. densely woolly. Fl. 1 the size of the former, light purple.
- 4. E. montánum, 17. 1177. (Smooth W.) Leaves stalked, ovate, toothed. Stem round.
 - Hilly stony pl. 4. 7. Stem slender, 1-2 f. somewhat downy. L. broad.

*** Fl. reg. Stigma undivided.

5. E. roseum, 10. 693. (Pale W.) Leaves stalked, ovate, toothed. Stem erect, obscurely quadrangular.

Marshy gr. rare. 4.7. Stem rather hoary. Fl. small, pale, streaked.

6. E. tetragónum, 28. 1948. (Square-stalked W.) Leaves sessile. lanceolate; minutely toothed. Stem erect, unequally quadrangular.

Marshes. 4.7. Stem nearly smooth. L. narrower. Pet. cloven.

7. E. palústre, 5. 346. (Marsh W.) Leaves sessile, linear-lanceolate, slightly toothed. Stem round.

Marshes. 4. 7. Stem nearly smooth. L. opposite. Pet. obcordate.

8. E. alsinifolium, 28. 2000. (Chickweed-leaved W.) Leaves stalked, ovate, acute, toothed. Root creeping. Stem decumbent, obtusely quadrangular.

Moist mts. in the N. 4. 7. R. forming tufts. Pet. rose-col. heart-sh.

 E. alpinum, 28, 2001. (Alpine W.) Leaves slightly stalked, elliptic-lanceolate, obtuse, mostly entire. Stem decumbent, twoor three-flowered.

Alpine rivul. 4.6, 7. Stem 3 or 4 in. simp. Pet. small, red, cloven.

213. CHLÓRA. Yellow-wort.

1. C. perfoliata, 1. 60. (Perfoliate Y.) Leaves perfoliate. Panicle forked, many-flowered.

Chalky or clayey banks. O. 7, 8. Herb glauc. 12-18 in. Fl. bright yellow. Sligm. scarlet.

214. VACCÍNIUM. Whortle-berry.

* Leaves deciduous.

- 1. V. Myrtillus, 7. 456. (Black W. Bilberry.) Stalks solitary, single-flowered. Leaves ovate, serrated, membranous, smooth. Stem acutely angular. Calyx wavy, nearly entire.
- Mount heaths. 5. 5. L. bright green. Cor. red. Stam. 10. Ber. black.
 2. V. uliginósum, 9. 581. (Bog W.) Stalks somewhat aggregate, single-flowered. Leaves obovate, entire, smooth. Branches round. Boggy mount. heaths. 5. L. glauc. beneath. Anth. horned. Berr. black.

** Leaves evergreen.

 V. Vitis Idéa, 9.598. (Red W. Cow-berry.) Clusters terminal, drooping; with ovate concave bracteas, longer than the flowerstalks. Leaves obovate, revolute, minutely toothed; dotted beneath. Corolla bell-shaped.

High stony heaths. h. 6. A low, Box-tree-like-shrub, with red berr.

- V. Oxycóccus, 5. 319. (Marsh W. Cranberry.) Leaves ovate, smooth, entire, revolute, acute. Stems creeping, thread-shaped, smooth. Flowers terminal. Corolla deeply 4-cleft.
 - Turfy bogs. h. 6. Slender, trailing. Berries deep-red, at first spotted.

215. MENZIÉSIA. Menziesia.

- 1. M. cartilea, 35. 2469. (Scottish M.) Leaves linear, obtuse, with cartilaginous teeth. Flower-stalks terminal, aggregate, simple. Flowers 5 cleft, with ten stamens.
 - Alpine heaths, Perthshire, very rare. 5. 6, 7. Fl. 4 or 5, bluishred, without bracteas.
- 2. M. polifólia, Erica Dabeoci, 1.35. (Irish M.) Leaves ovate, revolute; downy and white beneath. Flowers 4-cleft, in terminal leafy clusters, with eight stamens.

Mount. W. of Ir. 5.6, 7. Fl. purplish-red, with 4 segm. and 4 angles.

216. CALLÚNA. Ling.

1. C. vulgáris, Erica vulg. 15. 1013. (Common L.) Open barren heaths, and woods. 5. 6, 7. L. somewhat arrow-sh. closely imbricated. Fl. shining.

217. ERÍCA. Heath.

- 1. E. *Tétraliz*, 15. 1014. (Cross-leaved H.) Anthers horned. Style nearly concealed. Flowers in roundish, terminal tufts. Corolla ovate. Leaves fringed, four in a whorl.
 - B. Leaves broader and more fringed. E. Mackaii, Hook.
 - Heathy bogs. B. Cornwall and Cunnamara, Ireland. 5. 7, 8. L. spreading. Fl. rose-col, oblong. B. approaches ciliaris: distinct?
- E. cinérea, 15. 1015. (Fine-leaved H.) Anthers crested. Style a little prominent. Stigma capitate. Corolla ovate. Leaves three in a whorl.
- Turfy heaths. b. 7, 8. L. smooth, with axill. shoots. Fl. bluish crims.
- *2. E. mediterránea. (Mediterranean H.) Anthers without awns, and, as well as the style, exserted. Corolla narrow-urceolate. Bracteas above the middle of the peduncle. Calyx coloured. Flowers axillary. Leaves 4 in a whorl.—β. Flowering branches and style shorter. Suppl. 2776.
 - β. Bogs, Cunnamara, Ireland. h. 4.
- E. vagans, 1. 3. (Cornish H.) Anthers simple, cloven at the top, prominent as well as the style. Corolla bell-shaped. Flowers axillary, crowded. Leaves four in a whorl.
- Cornw. 5. 7, 8. L. smooth, convex above. Cor. 4-cleft; limb spread. 4. E. ciliáris, Suppl. 2618. (Fringed H.) Anthers simple, included.
- Style prominent. Corolla ovate. Clusters unilateral. Leaves ovate, acute, fringed, 3-4 in a whorl.
 - Boggy heaths in Cornw. 5, 7, 8. L. spread. horizont. often 4 in a whorl. Cor. large, unequal at the mouth.

218. DÁPHNE. Mezereon.

- 1. D. Mezéreum, 20. 1381. (Common M. Spurge-Olive.) Flowers naked on the stem, sessile, about three together. Leaves lanceolate, deciduous.
 - Woods, rare, not wild. L. 3, 4. Leaves scattered, smooth. Fl. red, fragrant, appearing before the leaves. Berry red.
- D. Lauréola, 2. 119. (Spurge-Laurel.) Clusters axillary, generally five-flowered, drooping; shorter than the smooth, obovatelanceolate, evergreen leaves. Calyx obtuse.
 - Thickets. J. 3, 4. Fl. green, fragr. in the evening. Berry black.

219. ACER. Maple.

1. A. Pseudo-plátanus, 5. 303. (Greater M. or Sycamore.) Leaves five-lobed, unequally serrated. Clusters pendulous.

Hedges and about houses, not wild. b. 5. A large handsome tree, with smooth bark. Fl. green.

- 2. A. campéstre, 5. 304. (Common M.) Leaves five-lobed, obtuse, somewhat cut. Clusters corymbose, erect.
 - Hedges and thickets. 5. 5. 6. A smaller tree, with corky bark, full of fissures.

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OCTANDRIA TRIGVNIA.

220. POLYGONUM. Persicaria, Bistort, Knot-grass, & Buckwheat.

* Styles 2.

- 1. P. amphibium, 7. 436. (Amphibious P.) Stamens five. Styles two, united half way up. Spike ovate.
 - Ponds and ditches. 4.7, 8. Creeping, floating. L. stalked. 11. crimson.
- 2. P. Persicária, 11. 756. (Spotted P.) Stamens six. Styles two. united half way up. Clusters dense, ovate-oblong, erect, on Stipulas fringed. smooth stalks.
 - Ponds and marshes. O. 7, 8. Stem erect. L. marked with a black lunate spot.
- 3. P. lapathifolium, 20. 1382. (Pale-flowered P.) Stamens six. Styles two, distinct. Flower-stalks rough. Stipulas beardless. Seeds concave at each side.
 - Dunghills, & cult. gr. 0.7, 8. Spreading. L. with glandular dots.
- 4. P. Hydrópiper, 14. 989. (Biting P.) Stamens six. Styles two, united half way up. Leaves lanceolate, wavy, without spots. Clusters lax, interrupted, drooping. Stem erect.
 - Ditches and watery pl. O. 9. Smooth, slender. Fl. with glandular dots.
- 5. P. minus, 15. 1043. (Small creeping P.) Stamens six. Styles two. combined. Leaves linear-lanceolate, flat. Clusters lax, slender, nearly upright. Stem trailing at the base.

Wet gravelly commons. O. 9. Smaller. Fl. without spots.

** Styles three.

6. P. Bistorta, 8. 509. (Bistort, or Snake-weed.) Stem simple, with a single, spiked cluster of flowers. Leaves ovate, wavy, running down into the footstalks.

Mead. and past. 4. 6. About 18 in. Spike thick, blunt. Stam. occasionally but 6.

7. P. viviparum, 10. 669. (Alpine B.) Stem simple, with a single, spiked cluster of flowers. Leaves lanceolate, revolute, with numerous prominent marginal veins.

Mountain past. 24. 6, 7. 3-6 in. Spike linear. Fl. vivip.

8. P. aviculáre, 18. 1252. (Knot-grass.) Flowers nearly sessile, 1-3 in the axils. Seeds incrusted, striated with minute, raised points. Leaves elliptic-lanceolate. Stipulas shorter than the internodes; their ribs remote. Stems herbaceous, usually procumbent.

Waste gr. \odot 4—10. Fl. small, often tipped with red. Leaves

generally minutely crisped at the edge. *8. P. acetosum, Bieb. Fl. T. Cauc. (Acid sea-side K.) Flowers on short stalks, 1-3 in the axils. Seeds protruded, quite even, glossy. Leaves elliptic-lanceolate, glaucous. Stipules much shorter than the internodes; their ribs remote. Stems herbaceous, prostrate.

- Southern and Western sandy sea-shores. O. &? 4-7. Larger. Roots running deep into the sand. Fl. tipped with while, more open. (P. marinum, Ray. P. Raii, Bab. P. avic. β , Hook.) Quite distinct.
- **8. P. marítimum, Barr. Ic. 560. f. l. (Sea K.) Flowers on longish stalks, 1-4 in the axils. Seeds slightly protruded, quite even, glossy. Leaves elliptic-lanceolate, glaucous, fleshy. Stipules large, as long as the internodes; their ribs prominent, close. Stems prostrate, shrubby at the base.
 - Sandy sh. near Christ's Church, Hants. Mr. Borrer; who observes, that the leaves are less acute, and the nerves of the stip. less numerous than in his foreign specimens. 24. 4-7? Stipules clothing almost the whole stem, at length much torn. Leaves black when dry.
- P. Fagopýrum, 15. 1044. (Buck-wheat.) Leaves heart-arrowshaped. Stem nearly upright, without prickles. Angles of the seeds even.

Fields. O. 7, 8. 1 f. Chusters axill. and term. Fl. variegated.

- P. Convolutus, 14. 941. (Black Bind-weed.) Leaves heartarrow-shaped. Stem angular, twining. Segments of the calyx bluntly keeled.
 - Fields and hedges. (). 6, 7. Climbing, 3-5 f. Clusters terminal. Fl. whitish.
- *11. P. dumetórum, Fl. Dan. t. 756. (Wing-fruited Bind-weed.) Leaves heart-arrow-shaped. Stem angular, twining. Segments of the calyx with decurrent wings.
 - Wimbledon, Mr. Hankey; indigenous? O. 6, 7. Well distinguished from P. Conv. by the broad wings of the perianth, especially when in fruit.

OCTANDRIA TETRAGYNIA.

221. PÁRIS. Herb Paris.

1. P. quadrifólia, 1. 7. (Herb. P) Leaves ovate, about four. Groves. 24. 5. Stem simple, about 1 f. smooth. Fl. solitary, green.

222. ADÓXA. Moschatell.

1. A. Moschatéllina, 7, 453. (Tuberous M.) Groves and thickets. 4. 4, 5. L. twice ternate, lobed. Fl. 5, in a round head.

223. ELÁTINE. Waterwort.

 E. hezándra, E. Hydropiper, 14. 955. E. tripetala, E. Fl. (Small hexandrous W.) Leaves opposite, spathulate. Flowers alternate, pedicellate, erect, hexandrous, tripetalous. Capsule turbinate, concave at the summit, 3-celled. Seeds about 12 in each cell, straight, ascending.



Margins of ponds and ditches, rare. O. 7, 8. Minute, procumbent. Fl. axillary. Pet. rose-col.

*2. E. Hydrópiper, Suppl. 2670. (Small Octandrous W.) Leaves opposite, spathulate. Flowers alternate, sessile, erect, octandrous, 4-petaled. Calyx shorter than the petals; segments ligulate. Capsule roundish, depressed, 4-celled. Seeds 16 in each cell, much curved.

Llyn Coron. Anglesea. O. 8.

Class IX. ENNEANDRIA. Stamens 9.

Order I. HEXAGYNIA. Styles 6.

224. BUTOMUS. Cal. 0. Pet. 6. Caps. 6, with many seeds. — N.O. BUTOMEZ.

ENNEANDRIA HEXAGYNIA.

224. BUTOMUS. Flowering-rush.

 B. umbellátus, 10. 651. (Common F.) An aquatic herb. 4. 6, 7. Leaves linear, 3-sided. Stalk simple, 3 or 4 f., bearing a large umb. of rose-col. flowers.

Class X. DECANDRIA. Stamens 10.

Order I. MONOGYNIA. Style 1.

* Fl. of several petals.

- 225. MONÓTROPA. Pet. 10, or 8; the 5, or 4, outermost protuberant at the base. Anth. of 1 cell and 2 valves....N.O. MONOTROPEE.
- 228. PTROLA. Pet. 5. Anth. of 2 cells, with 2 pores.-N.O. MONOTROPEZ.

** Fl. of 1 petal, equal.

- 227. ARBUTUS. Cor. ovate, transparent at the base. Berry of 5 cells.—N.O. ERICEZ.

Vaccinium 1, 2. Menziesia 1.

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Order II. DIGYNIA. Styles 2.

- 231. SCLERÁNTHUS. Cor. 0. Cal. of 1 leaf. Seeds 2.-N.O. PARONYCHIEE.
- 229. CHRYSOSPLÉNIUM. Cor. 0. Cal. coloured. Caps. with 2 beaks. Seeds numerous.—N.O. SAXIFEAGEZ.
- 230. SAXIFRAGA. Pet. 5. Cal. in 5 deep segments. Caps. with 2 beaks. Seeds numerous.—N.O. SAXIFRAGEE.
- 232. SAPONÁRIA. Pet. 5. Cal. tubular, without angles, of l leaf, naked at the base. Caps. oblong.—N.O. CARTOPHYLLER.
- 233. DIANTHUS. Pet. 5. Cal tubular, of 1 leaf, with scales at the base. Caps. oblong.—N.O. CABYOPHYLLEE.

Order III. TRIGYNIA. Styles 3.

- 235. STELLÁRIA. Caps. of 1 cell. Pet. deeply cloven, spreading. - N.O. CABYOPHYLLEE.
- 237. CHERLÉRIA. Caps. of 1 cell. Pet. 0. Glands 5 at the base of the stamens.—N.O. CARVOPHYLLEE.
- 234. SILÉNE. Caps. of 3 incomplete cells. Pet. with claws; limb cloven. Cal. of 1 leaf.—N.O. CARYOPHYLLEE. Polygonum 8.

Order IV. PENTAGYNIA. Styles 5.

- 238. COTYLÉDON. Caps. 5, each with a scale at the base. Cor. of 1 petal.—N.O. CRASSULACEÆ.
- 239. SEDUM. Caps. 5, each with a scale at the base. Cor. of 5 petals.-N.O. CRASSULACE.
- 240. OXÁLIS. Caps. of 5 cells, angular. Seeds 2, tunicated. Pet. connected at the base.—N.O. OXALIDEÆ.
- 242. LÝCHNIS. Caps. of 5 cells, or of 1, with many seeds. Cal. tubular, membranous.—N.O. CABYOPHYLLEE.
- 249. CERÁSTIUM. Caps. of 1 cell. Pet. cloven. Cal. of 5 leaves.....N.O. CABYOPHYLLEE.
- 244. SPÉRGULA. Caps. of 1 cell. Pet. undivided. Cal. of 5 leaves.—N.O. CARYOPHYLLER.

Stellaria, 6, 7. Adoxa.

DECANDRIA MONOGYNIA.

225. MONÓTROPA. Bird's-nest.

1. M. Hypópitys, 1. 69. (Yellow B.) Flowers in a drooping cluster; lateral ones with eight stamens; terminal one with ten.

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Parasit. on the roots of beech and fir. 4. 6. Juicy, of a pallid hue.

226. ANDRÓMEDA. Andromeda.

1. A. polifólia, 10. 813. (Marsh A.) Clusters terminal. Leaves alternate, lanceolate, revolute ; glaucous beneath.

Mossy bogs. b. 6. 6-9 in. everar. Fl. white or reddish. drooping.

227. ÁRBUTUS. Strawberry-tree. Bear-berry.

- 1. A. Unedo, 35. 2377. (Common S.) Stem arboreous. Leaves smooth, bluntly serrated. Panicle terminal. Berry with many seeds.
 - Limest. rocks, S. of Ir. b. 9. Bushy. Berry crims. very like a strawberry.
- 2. A. alpína, 29. 2038. (Black B.) Stems procumbent. Leaves rugged, serrated. Clusters terminal.
- Rocky mount. b. 5. Stems woody, trailing. Berries smooth, black.
- 3. A. Uva úrsi, 10.714. (Red B.) Stems procumbent. Leaves obovate, entire. Clusters terminal.
 - Alpine, stony heaths. 5.6. Widely spreading. Fl. rose-col. Ber. red, mealy.

228. PYROLA. Winter-green.

- 1. P. rotundifólia, 3. 213. (Round-leaved W.) Stamens ascending. Style twice as long, declining and recurved. Cluster manyflowered. Calyx as long as the stamens.
- Bushy pl., rare. 2.7, 8. L. nearly orbic. Fl. droop. white, bell-sh.
- P. média, 28. 1945. (Intermediate W.) Stamens regularly in-flexed. Style twice as long, deflexed. Cluster many-flowered. Calyx shorter than the stamens.

Northern woods. 24. 7. Smaller. Fl. drooping, globose, milk-wh.
3. P. minor, 3. 168. (a bad fig.), P. rosea, 36. 2543. (Lesser W.) Stamens regularly inflexed. Style the same length, straight. Stigma five-lobed, pointless, without a ring. Cluster of many drooping flowers.

Northern woods. 4.7. Still smaller. Fl. rose-col. Style short.

4. P. secúnda, 8. 517. (Serrated W.) Leaves ovate, acute, serrated. Cluster unilateral. Pores of the anthers dilated. Style straight. Stigma five-lobed.

Alpine woods. 24. 7. L. acute, veiny. Fl. droop. Pet. white, converaina.

- 5. P. uniflora, 3. 146. (Single-flowered W.) Stalk single-flowered. Pores of the anthers tubular, contracted. Stigma with five pointed rays.
 - Moist woods, N. of Scotl., rare. 4. 7, About 2 in. L. roundish. Fl. large, fragrant.

DECANDRIA DIGYNIA.

229. CHRYSOSPLÉNIUM. Golden-saxifrage.

- Ch. alternifölium, 1. 54. (Alternate-leaved G.) Leaves alternate. Near shady rivul. 4. 5. L. kidney-sh. notched. Corymb of deep yellow fl.
- Ch. oppositif ólium, 7. 490. (Opposite-leaved G.) Leaves opposite. Shady watery pl. 4. 5. Paler. Fl. small, lemon-col. L. smaller.

230. SAXÍFRAGA. Saxifrage.

* Calyz reflexed, inferior. Leaves undivided. Flower-stalks panicled, erect, much taller than the stems.

1. S. Géum, 22. 1561. (Kidney-leaved S.) Leaves roundish-kidneyshaped, notched, somewhat hairy. Footstalks linear, channelled, much longer than the leaves. Flower-stalk panicled. Capsule superior.

Mount. in Kerry, Ir. 4. 6. Pet. cream-col. with dull yell. spots.

2. S. hirsúta, 33. 2322. (Hairy S.) Leaves oval, with sharp, cartilaginous notches; slightly hairy; heart-shaped at the base. Footstalks linear, much longer than the leaves. Panicle somewhat forked. Capsule superior.

Mount. in Ir. 4.6. Larger. Disk of the pet. dotted with crimson.

- S. umbrósa, 10.663. (London-pride S.) Leaves obovate, smooth, with sharp, cartilaginous notches; tapering at the base into dilated, flat footstalks. Panicle rather racemose. Capsule superior. Mount. chiefly in the W. of Ir. 24.6. Still larger. Pet. fleshcol. with crims. dots; base yell.
- 4. S. stelláris, 8. 167. (Starry S.) Leaves elliptic-wedge-shaped, coarsely serrated; tapering and entire at the base. Panicle corymbose, of few flowers. Capsule superior.
 - By alpine rills. 4. 6, 7. Of humble growth. Pet. white, with 2 yellowish spots.

** Calyx spreading, partly superior. Leaves undivided. Flowerstalks radical, panicled or tufted, erect. Stem none.

- 5. S. nivális, 7. 440. (Clustered Alpine S.) Leaves roundish-obovate, serrated; tapering and entire at the base. Cluster dense, capitate, of few flowers. Calyx spreading. Capsule half-inferior.
 - Scot. mts. and Snowdon. 24.7. L. more fleshy. Pet. white, with green spots.

*** Stem leafy. Leaves undivided. Calyx partly or entirely inferior. Stigmas downy.

6. S. oppositifólia, 1. 9. (Purple S.) Branches single-flowered, clothed with opposite, imbricated, fringed leaves. Petals ovate.

On alpine rocks. 4. 4. Branches in dense tufts. Fl. purplish.

7. S. Hirculus, 15. 1009. (Yellow Marsh S.) Stem erect, clothed

with alternate, lanceolate, naked leaves. Capsule superior. Calvx reflexed, fringed, obtuse.

Turfy bogs, rare. 4.8. Stem 4-8 in. Pet. deep yellow, dotted with red 8. S. aizoides, 1. 39. (Yellow Mountain S.) Stem decumbent at the base. Leaves alternate, linear, with fringe-like teeth. Capsule half-superior. Floral receptacle depressed. Calvx spreading.

Mount. rills. 24. 7, 8. Tufted. Pet. 3-ribb. bright yell. with red spots.

*** Calyx spreading. Leaves partly lobed. Stigmas mostly downy. Flowering stems erect, more or less leafy.

9. S. granuláta, 7. 500. (White Meadow S.) Leaves kidney-shaped. lobed. Stem panicled, leafy. Root granulated. Germen halfinferior.

Mead. 4.5. Stem 1 f. loosely hairy. Fl. numer. large, white. 10. S. cérnua, 10.664. (Drooping S.) Leaves somewhat palmate, Stem with aggregate, axillary bulbs. Germen altogestalked. ther superior. Petals obovate.

Summits of the Breadalbane Mts. 24. 7. R. scaly. Fl. solit. droop. white.

- 11. S. rivuláris, 32. 2275. (Alpine Brook S.) Leaves palmate, stalked ; the uppermost spathulate. Stem with few flowers. Root fibrous. Germen half-inferior.
 - Lofty Scot. mts. very rare. 4.6, 7. 1-2 in. Fl. small, white, erect. Pet. acute.
- 12. S. tridactylites, 7. 501. (Rue-leaved S.) Leaves wedge-shaped, with three or five segments; the uppermost undivided. Stem panicled, leafy. Stalks single-flowered, alternate. Germen inferior.

Walls. O. 5. Small, fleshy, viscid, downy, reddish. Fl. small, white.

13. S. muscoides, Hal. Opusc. t. 1. f. 1. pyrenaica, &c. (Moss-like S.) Leaves lincar, obtuse, smooth, triple-ribbed, undivided, or with two small lateral lobes. Flowers few, corymbose. Petals nearly Calyx almost naked. linear.

Alpine rocks. 24.5. 3 in. in dense tufts. Fl. few, erect, pale yell.

14. S. pýgmæa, S. moschata, 33. 2314. (Dwarf S.) Leaves linear, abrupt, smooth, undivided. Flowers corymbose. Petals obovate, scarcely longer than the very obtuse, glandular calyx.

Highl. of Scot. 4. 6, 7. In very dense, leafy tufts. Fl. greenish yell. A var. of S. muscoides.

15. S. cæspitósa, 12. 794. (Tufted S.) Radical leaves crowded, threeor five-cleft, obtuse, veiny, fringed; lowermost undivided. Flowers one to five, or more. Germen half-inferior, hairy. Calyx smoother, obtuse. Petals rounded, triple-ribbed.

B. S. palmata, 7. 455. A span; corymbose, with 5-6 flowers. Mts., rare. 4. 5, 6. Densely tufted, 2-6 in. Pet. white.

16. S. hirta, 32. 2291. (Hairy S.) Radical leaves rather crowded, three- or five-cleft, pointed, veiny, fringed. Flowers few, corymbose. Germen half-inferior. Calyx acute. Petals obovate, tripleribbed.

Alpine rocks. 4. 6, 7. Lateral shoots long, leafy, hairy. Fl. white.

- 17. S. affinis. (Involute S.) Radical leaves 5-cleft; those of the trailing shoots mostly three-cleft; lobes linear, pointed. Segments of the calyx awl-shaped, channelled, pointed, recurved. Petals oblong, inflexed at the edges.
 - Mts. in Ir. 4. 5, 6. Bright green. L. tapering at the base. Pet. white.
- S. platypétala, 32. 2276. (Broad-petaled S.) Radical leaves fivecleft; those of the trailing shoots three-cleft; lobes bristlepointed. Segments of the calyx ovate, pointed, erect. Petals nearly orbicular, flat, with many lateral veins.

Mount. 4. 6. Leaves narrow. Pet. large, white.

- S. incurvifolia, (Curve-leaved S.) Radical leaves five-cleft, those of the upright shoots three-cleft; segments lanceolate, obtuse, incurved. Segments of the calyx ovate, acute. Petals roundish, slightly cloven.
 - Lofty rocks in Ir. 4.6? At first smooth, then hairy. Pet. tripleribbed.
- S. denudáta, (Grampian S.) Radical leaves five-cleft; those of the upright shoots three-cleft; segments linear-awl-shaped, acute, smooth, bristle-pointed. Segments of the calyx lanceolate, minutely pointed. Petals obovate, cloven.
 - Gramp. hills. 4. 6? Very smooth. Shoots very short. Fl. white, bell-shaped.
- 21. S. hypnoides, 7. 454. (Mossy S.) Radical leaves three-or fivecleft, those of the long, procumbent shoots undivided; all bristlepointed and fringed. Segments of the calyx ovate, pointed. Petals obovate. Stigmas nearly smooth.
 - Rocky Mts. 24.5, 6. Tufted; pale green. Shoots entangled. Cal. ovate.
- 22. S. elongélla, 32. 2277. (Long-stalked S.) Radical leaves threeor five-cleft; those of the upright, short shoots undivided or three-cleft; all bristle-pointed, slightly fringed. Flower-stalks very long, simple and naked. Calyx pointed. Petals obovate. Scot. mount. 4. 6. Stem deeply branched, leafy. Fl. large, white.
- 23. S. leptophýlla, (Narrow-leaved S.) Radical leaves deeply fivecleft; those of the very long procumbent shoots deeply threecleft, or undivided; lobes linear-lanceolate, very sharp, widely spreading. Petals spathulate, entire. Calyx oblong-ovate. Welsh mount. 24.6? Densely tufted. Fl. many, drooping, white.
- 24. S. *lætevirens*, (Bright green S.) Leaves deeply three- or fivecleft, with linear acute segments. Shoots long and trailing. Calyx lanceolate, pointed. Petals spathulate, slightly cloven.
- Scot. mount. 24. 6? Densely tufted. Stems few, with 3 white fl.
 25. S. pedatifida, 32. 2278. (Web-foot-leaved S.) Radical leaves kidney-shaped, divided in a pedate manner into seven lobes. Panicle cymose, level-topped, many-flowered. Calyx superior, with linear-lanceolate segments, as long as the capsule.

Clova Mts. Scot. 24.5,6. Larger; the shoots rooting. Fl. small, white.

Ord. 2.]

231. SCLERÁNTHUS. Knawel.

- 1. S. ánnuus, 5. 351. (Annual Kn.) Calyx of the fruit with taper, acute, spreading segments. Stems spreading.
- Sandy fields. O. 7. L. opp. linear, with a fringed border. Fl. green.
 S. perénnis, 5. 352. (Perennial Kn.) Calyx of the fruit with converging, obtuse segments, edged with a broad membrane. Stems

procumbent.

Sandy plains. 4. 10, 11. Of a glauc. glistening hue. Cal. with white edges.

232. SAPONÁRIA. Soapwort.

- 1. S. officinális, 15. 1060. (Common S.) Calyx cylindrical. Leaveselliptic-lanceolate.
 - Mead. and hedges. 4. 8, 9. Creeping, smooth, 12-2 f. Fl. large, rose-col.

233. DIÁNTHUS. Pink.

Flowers aggregate.

- 1. D. Arméria, 5. 317. (Deptford P.) Flowers aggregate, tufted. Scales of the calyx lanceolate, downy, as long as the tube. Petals serrated.
 - Gravelly soil. O. 7, 8. Downy. Fl. small, pink and white.
- 2. D. prôlifer, 14. 956. (Proliferous P.) Flowers aggregate, capitate. Scales of the calyx ovate, obtuse, pointless, membranous; overtopping the tube.

Gravelly past. rare. O. 7. Smooth, rushy. Pet. rose-col. notched.

** Flowers solitary, several on the same stem.

3. D. Caryophýllus, 3. 214. (Clove P. or Carnation.) Flowers solitary. Scales of the calyx almost rhomboid, very short. Petals notched, beardless.

Old walls, very rare. 24.7. L. glauc. channelled. Fragr., pale red.

- 4. D. deltoides, 1. 61. (Maiden P.) Flowers solitary. Scales of the calyx ovate-lanceolate, acute, generally two. Leaves bluntish, somewhat downy. Petals notched, smooth.
- Gravelly past. 24. 7—10. L. flat. Fl. small, pale rose-col. with a purple circle.

*** Stems single-flowered, herbaceous.

5. D. césius, 1. 62. (Mountain P.) Stems single-flowered. Scales of the calyx short, roundish. Leaves rough-edged. Petals hairy, unequally notched.

Cheddar rocks, Somersets. 4. 6, 7. Glauc. Fl. fragr., pale rose-col.

DECANDRIA TRIGYNIA.

234. SILÉNE. Catchfly, or Campion.

* Stem racemose, occasionally somewhat forked.

1. S. ánglica, 17. 1178. (English C.) Hairy and viscid. Petals slightly cloven. Flowers lateral, alternate, erect. Lower capsules spreading or reflexed.

Sandy fields. O. 7. L. linear-lanceol. Fl. white, or pale rose-col.

- 2. S. quinquevúlnera, 2.86. (Variegated C.) Hairy. Petals roundish, entire. Flowers lateral, alternate, erect, as well as the capsules. Calyx somewhat shaggy.
 - Sandy corn-fields, not native. \odot . 6, 7. L. ellipt.-lanceol. Disk of the pet. crimson.

** Stem forked ; branches panicled.

- S. inflata, Cucubalus Behen. S. 164. (Bladder C.) Flowers copiously panicled, drooping. Petals cloven half way down, mostly without scales. Calyx smooth, inflated, reticulated. Stem erect.
 Fielde 21.7. Clover and the state of the state of the state.
- Fields. 4. 7. L. glaucous, ovate, acute. Fl. white. Caps. ovate.
 4. S. marítima, 14.957. (Sea C.) Flowers slightly panicled or solitary, terminal. Petals cloven, each with a cloven acute scale. Calyx smooth, inflated, reticulated. Stem recumbent. Stony sea-coasts. 4. 8, 9. L. lanceol. Caps. almost globular.

*** Stem, and branches if any, forked, leafy.

- 5. S. cónica, 13. 922. (Striated Corn C.) Stem forked. Petals cloven, each with a cloven acute scale. Leaves softly downy. Calyx of the fruit conical, with thirty furrows.
 - Sandy fields, Kent. O. 7. Fl. from the forks of the stem, fragrant, rose-col.
- 6. S. noctifiora, 5. 291. (Night-flowering C.) Stem forked. Petals cloven, each with a cloven abrupt scale. Calyx with ten hairy ribs; its teeth linear, almost as long as the tube.
 - Sandy soil. ⊙. 7. L. soft. Fl. from the forks, reddish; expanding and fragrant at night.

**** Panicle forked, corymbose, leafless.

7. S. Arméria, 20. 1398. (Common C.) Panicles forked, level-topped, many-flowered. Petals cloven, each with a double awl-shaped scale. Upper leaves heart-shaped, and, as well as the calyx, smooth. Capsule not longer than its stalk.

Fields and banks, rare. O. 7, 8. Stem viscid. L. glauc. Fl. red.

***** Stem panicled, imperfectly forked.

*7. S. *itálica*, Suppl. 2748. (Italian C.) Flowers panicled, nearly erect. Branches opposite. Calyx long, clavate. Petals deeply bifid, not crowned, the segments broad. Radical leaves spathulate, on long stalks. Cauline ones sessile, linear-lanceolate.

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[Cl. 10.

Ord. 3.7

Cliffs at Dover. Indigenous? 4. 6, 7. Petals white. Whole plant more or less downy. Panicle slightly viscid.

- 8. S. nútans, 7. 465. (Nottingham C.) Paniele with drooping, unilateral, partly forked, branches. Petals deeply cloven, with linear segments, and an acute cloven scale. Leaves elliptic-lanceolate, downy.
 - Limest. rocks, rare. 24.6, 7. Cal. half-inferior, its ribs downy. Fl. white, fragr. in the evening.
- 9. S. Otites, Cucubalus Ot. 2. 85. (Spanish C.) Panicle with tufted, somewhat umbellate, upright branches. Flowers dioscious. Petals linear, undivided, naked. Leaves spathulate, roughish.
 - Open plains, E. of Engl. 4.7, 8. Stem downy, clammy on the upp. joint. Fl. greenish.

****** Stems single-flowered.

- 10. S. acáulis, 16. 1081. (Moss Campion.) Stems tufted, much branched. Leaves linear, acute, fringed at the base. Stalks terminal, solitary, single-flowered. Calyx smooth.
 - Lofty mount. 4. 6, 7. Tufted. Fl. elegant, rose-col. Caps. cylindr.

235. STELLÁRIA. Stitchwort.

- 1. S. némorum, 2. 92. (Wood S.) Lower leaves heart-shaped, stalked ; upper ovate, sessile. Panicle repeatedly forked. Moist northern woods. 24.5, 6. Stems lax, hairy. Fl. pure white.
- 2. S. média. 8. 537. (Common S. or Chickweed.) Leaves ovate. Stems procumbent, with a hairy alternate line on one side. Waste and cult. gr. O. 4-10. L. smooth. Fl. very small, white. Stam. 5-10.
- 3. S. holóstea, 8. 511. (Greater S.) Leaves lanceolate, finely serrated. Petals inversely heart-shaped. Calyx without ribs. Dry woods and thickets. 4.5. Rather glauc. and rigid. with large and elegant white flowers.
- 4. S. graminea, 12. 803. (Lesser S.) Leaves linear-lanceolate. entire. Panicle terminal, spreading. Calyx three-ribbed, nearly as long as the petals.

Bushy pl. and past. 24.5. Smaller, and not glauc. Fl. small, white.

5. S. gláuca, 12. 825. (Glaucous Marsh S.) Leaves linear-lanceolate, entire, glauçous. Flower-stalks partly scattered, erect. Calyx three-ribbed, half as long as the petals.

Humid mead. 24. 6, 7. Perfectly smooth. Fl. dispersed, large, white.

- 6. S. uliginósa, 15. 1074. (Bog S.) Leaves elliptic-lanceolate, entire, with a callous tip. Flowers irregularly panicled, lateral, or ter-Petals shorter than the calyx. minal.
 - Rivul. and ditches. O. 6. Of a pale glauc. hue. Fl. small, white.
- 7. S. scapigera, 18. 1269. (Many-stalked S.) Leaves linear-lanceolate, rough-edged. Flower-stalks longer than the stem. Calyx three-ribbed, as long as the petals. By Scot. rivul. 4.6. 3 in. many-flowered, somewhat corymbose.
- 8. S. cerastoides, 13. 911. (Alpine S.) Leaves elliptic-oblong, blunt-

ish, smooth. Stems with a lateral hairy line, about two-flowered. Calyx with a single downy rib. Flower-stalks downy. Highl. of S. 24.6. Stem diffuse, 3-4 in. with 1-3 upright white fl.

236. ARENÁRIA. Sandwort.

* Stipulas none.

1. A. peploides, 3. 189. (Sea S.) Leaves ovate, acute, fleshy. Calyx obtuse, without ribs.

Sea coast. 24.6, 7. Root creeping. Herb smooth, recumbent. Fl. few, white.

- A. trinérvis, 21. 1483. (Plantain-leaved S.) Leaves ovate, acute, stalked, ribbed. Calyx obscurely three-ribbed, with a rough keel. Bushy pl. O. 5, 6. Weak, downy, erect, 1 f. Fl. small, white.
- 3. A. serpyllif ólia, 13. 923. (Thyme-leaved S.) Leaves ovate, nearly sessile, rough. Calyx hairy; three outermost of its leaves five-ribbed.
 - Dry sterile gr. O. 6, 7. Bushy, spreading. 3-4 in. L. small. Fl. white.
- 4. A. tenuifólia, 4. 219. (Fine-leaved S.) Leaves awl-shaped, pointed. Stem panicled. Capsules erect, of three valves. Petals lanceolate, shorter than the calyx.

Walls and sandy fields. O. 6. Erect, slender, smoothish. Pet. small, white.

5. A. vérna, 8. 512. (Vernal S.) Leaves awl-shaped, bluntish. Stem panicled. Calyx-leaves with three remote equal ribs; longer than the petals.

Mount. past. 4. 5-8. Tufted. Fl. white.

6. A. rubélla, Suppl. 2638. (Little Red S.) Leaves awl-shaped, bluntish. Stems single-flowered. Calyx-leaves with three equal ribs; longer than the petals.

Breadalbane Mts. 24. 6. In dense tufts. Stem 2-4 in.

 A. fastigiáta, 25. 1744. (Level-topped S.) Leaves awl-shaped. Stem erect, straight, densely corymbose. Petals very short. Lateral ribs of the calyx dilated.

Scot. mt. O. 6. Fl. small. Seeds beautifully toothed, like a wheel.

8. A. ciliáta, 25. 1745. (Fringed S.) Leaves spathulate, roughish; fringed at the base. Stems numerous, branched, procumbent, downy. Flowers terminal, solitary. Calyx-leaves with five or seven ribs.

Mount. in Ireland. 4.8. Roughish. Fl. large; stalks finely hairy.

** Stipulas membranous.

 A. rúbra, 12. 852. (Purple S.) Leaves linear, bristle-pointed. Stipulas membranous, sheathing. Seeds compressed, angular, roughish.

Sandy fields. O. 7, 8. Stems prostr. L. flat. Fl. brill. light purple.

 A. marína, 14. 958. (Sea Spurrey S.) Leaves semicylindrical, fleshy, pointless. Stipulas membranous, sheathing. Seeds compressed, bordered, smooth.



[Cl. 10.

Sandy sea-coasts. O. 6, 7. Larger. L. thicker. Fl. and caps. much larger.

237. CHERLÉRIA. Cyphel.

 Ch. sedoldes, 17, 1212. (Mossy C. Dwarf Cherleria.) Lofty Scott. mount. 4.7. A short, densely tufted herb. L. awlshaped. Fl. yellowish green.

DECANDRIA PENTAGYNIA.

238. COTYLÉDON. Navelwort.

- C. Umbilicus, 5. 325. (Common N.) Leaves peltate, notched. Flowers clustered, drooping. Bracteas entire. Root tuberous. Moist rocks and old walls. 4. 6, 7. Succul., fragile, 6-9 in. Fl. cylindrical, cream-coloured.
- C. *litea*, 22. 1522. (Yellow N.) Leaves deeply toothed; the lowermost slightly peltate. Flowers erect. Root creeping. Moist rocks, and old walls. Introduced as British by error. 4.6.

A foot or more. Fl. numerous, full yellow.

239. SEDUM. Stonecrop.

* Leaves flat.

- 1. S. Telephium, 19. 1319. (Orpine, or Live-long.) Leaves flattish, serrated. Corymb leafy. Stem erect.
 - Fields and bushy pl. 4.8. Stems 2 f. simple. Fl. crimson, rarely white.

** Leaves tumid, or somewhat cylindrical.

2. S. dasyphýllum, 10. 656. (Thick-leaved S.) Leaves ovate, obtuse, fleshy, sessile; the lower ones opposite. Stems flaccid. Panicles glutinous.

Walls and rocks, rare. 4.6. Stems weak, glauc. 3-4 in. Pet. white.

 S. ánglicum, S. 171. (White English S.) Leaves ovate, thick, mostly alternate; spurred at the base. Cyme of two smooth branches.

On rocky coasts. O. 7. Less glauc. Fl. white, speckled with red. 4. S. ácre, 12. 839. (Biting S. Wall Pepper.) Leaves alternate,

- S. ácre, 12. 839. (Biting S. Wall Pepper.) Leaves alternate, nearly ovate, thick, tumid; spurred at the base. Cyme of three smooth branches, leafy.
 - Walls and roofs. 4. 6. Smooth, green, in spreading tufts. Fl. golden yellow.
- 5. S. sexanguláre, 28. 1946. (Insipid S.) Leaves in six or seven rows, nearly cylindrical, obtuse, fleshy, spreading; spurred at the base. Cyme of three smooth branches, leafy.
 - Old walls and sandy gr. rare. 4.6, 7. L. slender and cylindr. Fl. golden yellow.

- 6. S. villósum. 6. 394. (Hairy S.) Leaves alternate, linear, flattened, slightly hairy as well as the flower-stalks. Stem erect. Wet mount. 4.7. Stem branched at the base. Pan. viscid. Pet. rose-col.
- 7. S. álbum, 22. 1578. (White S.) Leaves oblong, cylindrical, obtuse, spreading, smooth. Panicle much branched.
 - Rocks and walls, rare. 4. 7. Erect, purple, leafu. Pan. smooth. Pet. white.
- 8. S. refléxum, 10. 695. (Crooked S.) Leaves awl-shaped, scattered, purred at the base ; the lowermost recurved. Flowers cymose. Culvx ovate.

- Walls and roofs. 4. 7. Stem 1 f. leafy. Fl. bright yellow. 9. S. gláucum, 35. 2477. (Glaucous S.) Leaves glaucous, awlshaped, scattered ; spurred at the base ; those of the branches thread-shaped. Flowers cymose. Calyx lanceolate. Rough sandy gr. 24.7,8. More glauc. L. more slender. Pet. yell.
- 10. S. rupéstre, 3. 170. (Rock S.) Leaves glaucous, spurred at the base, those of the branches awl-shaped, erect, in five close rows. Flowers imperfectly cymose. Calyx elliptical, obtuse. Rocks, rare. 4. 7. Reddish, 8-9 in. L. densely imbric. Pet. yell.
- 11. S. Forsterianum, 26. 1802. (Welsh S.) Leaves spurred at the base; those of the branches semicylindrical, bluntish, pointed,
 - spreading, in many rows. Flowers cymose. Calyx elliptical, obtuse.

Welsh rocks. 4.7. Bright green, not glauc. Pet. ellipt. bright yell.

240. OXÁLIS. Wood-sorrel.

1. O. Acetosélla, 11. 762. (Common W.) Stalks radical, singleflowered. Leaves ternate, inversely heart-shaped, hairy. Root of many scaly joints. Stamens simple.

Shady pl. 4. 4, 5. Stem 0. Fl. solit. streaked with purple veins.

 O. corniculára, 24. 1726. (Yellow W.) Stem branched, procumbent. Flower-stalks in small umbels. Stipulas united to the base of the footstalks.

Waste shady pl. 4. 5-10. Leafl. obcordate. Fl. small, yell.

[O. stricta, (Upright W.) from America, but now almost a weed in gardens, has no stipulas.]

241. AGROSTÉMMA. Cockle.

1. A. Githágo, 11.741. (Corn C.) Hairy. Calyx-teeth rising above the corolla. Petals undivided, without teeth. Fields. O. 6, 7. 2-3 f. branched. L. linear-lanceol. Fl. large, purple.

242. LYCHNIS. Lychnis.

1. L. Flos Cúculi, 8. 573. (Meadow L. Ragged Robin.) Petals in four linear segments. Capsule roundish, of one cell. Stem rough with deflexed bristles.

Moist mead. 24.6. L. lanceol. Fl. in loose pan, rose-col.

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Ord. 5.]

- L. Viscária, 11. 788. (Rock L.) Viscid. Petals nearly entire. Capsule stalked, of five cells. Leaves fringed at the base. Rocks, in the N., rare. 24. 5, 6. L. linear. Pan. spiked. Fl. rose-coloured.
- L. alpina, 32. 2254. (Alpine Campion.) Smooth. Petals cloven. Flowers densely corymbose. Capsule stalked, of five cells. Leaves linear-lanceolate, naked at the base.
- Clova mts. 4. 6, 7. Smaller, paler, not viscid. Fl. rose-col.
- L. dioíca, 22. 1579, β. 1580. (Red or White C.) Flowers diæcious. Petals cloven, crowned with four teeth. Capsule of one cell. Fields and hedges. 24. 5-9. Hairy, slightly viscid. Fl. red : in β. white.

243. CERÁSTIUM. Mouse-ear-Chickweed.

- 1. C. vulgátum, 11. 789. (Broad-leaved M.) Huiry, viscid, tufted. Leaves ovate. Petals as long as the calyx. Flowers longer than their stalks.
 - Fields and waste gr. O. 4, 5. Pale green. Pet. small, white. L. broadly ovate.
- 2. C. viscósum, 11. 790. (Narrow-leaved M.) Hairy, viscid, recumbent. Leaves lanceolate-oblong.
- Past. & waste gr. 4.5-9. Dark green. Pet. longer than the calyz.
- C. semidecándrum, 23. 1630. (Little M.) Hairy and viscid. Stamens five. Petals slightly cloven.
 Waste sandy gr. O. 4, 5. Like the last, but much smaller and more erect.
- 4. C. tetrándrum, Sagina cerastoides, 3. 166. (Four-cleft M.) Hairy and somewhat viscid. Flowers four-cleft, with four stamens. Petals inversely heart-shaped, shorter than the taper-pointed calyx, which is nearly as long as the capsule.

Sandy gr. 0.5, 6. Stems several, spreading. Pet. 4, white. Styles 4.

- 5. C. arvénze, 2. 93. (Field Chickweed.) Leaves linear-lanceolate, bluntish; fringed at the base. Petals twice the length of the calyx; capsule shorter.
 - Gravelly soil. 24.5-8. Hairy ; base recumb. Fl. large, pure white.
- C. alpinum, 7. 472. (Alpine M.) Leaves elliptical, naked or hairy. Panicle forked, bracteated, of few flowers. Capsule oblong, recurved.

Near alpine rills. 4. 6, 7. Leafy, erect, 3-4 in. Fl. large, white.

- C. latifolium, 7. 473. (Broad-leaved M.) Leaves elliptical, rough with short bristly hairs. Flower-stalks terminal, simple, mostly solitary. Capsule ovate at the base.
- Mts. 4. 6. Of still more humble growth. Hairs tawny, rigid.
- 8. C. aquáticum, 8. 538. (Water M.) Leaves heart-shaped, sessile. Flower-stalks lateral, solitary. Capsules drooping, ovate, with five cloven teeth.
 - Watery pl. 24. 7. Stems about 2 f. weak and hairy. Pet. deeply divided.

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244. SPÉRGULA. Spurrey.

- 1. S. arvénsis, 22. 1535. (Corn S.) Leaves whorled. Stalks when in fruit reflexed.
 - Sandy corn-fields. O. 7, 8. Hairy and rather viscid. L. linear. Cal. membr.
 - B. S. pentandra, 22. 1536. Stamens five. Seed smooth.
- S. nodósa, 10. 694. (Knotted S.) Leaves opposite, awl-shaped, smooth; upper ones clustered. Calyx without ribs. Moist sandy gr. 4.7, 8. Stems spread. 3-6 in. Fl. large, of a
- brill. white. 3. S. saginoídes, 30. 2105. (Smooth S.) Leaves opposite, awl-shaped, almost pointless, naked. Flower-stalks solitary, smooth. much longer than the leaves.
- Scott. mount. 24. 6. Smooth, 2-9 in. decumb. Pet. short, white.
- 4. S. subuláta, 16. 1082. (Fringed S.) Leaves opposite, awlshaped, bristle-pointed, fringed. Flower-stalks solitary, much longer than the leaves, slightly hairy.
 - Sandy heaths. 4.7,8. Hairs glandul. Pet. wh., as long as the cal.

Class XI. DODECANDRIA. Stamens 12-19.

Order I. MONOGYNIA. Style 1.

- 245. ÁSARUM. Cor. 0. Cal. 3-cleft, superior. Caps. of 6 cells. –N.O. ARISTOLOCHIEZ. 246. LYTHRUM. Pet. 6. Cal. 12-cleft, inferior.–N.O. Ly-
- THRARIE.

Order II. DIGYNIA. Styles 2.

247. AGRIMÓNIA. Pet. 5, borne by the calyx. Seeds in the bottom of the hardened calyx.-N.O. ROSACEE.

Order III. TRIGYNIA. Styles 3.

248. RESÉDA. *Pet.* in many segments. *Caps.* of 1 cell, gaping. -N.O. RESEDACE *E*.

(TETRAGYNIA. Styles 4.)

Tormentilla 1.

Order IV. DODECAGYNIA. Styles 12.

249. SEMPERVÍVUM. Pet. 12. Cal. in 12 deep segments. Caps. 12.—N.O. CRASSULACEE.

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Ord. 4.] DODECANDRIA DODECAGYNIA.

DODECANDRIA MONOGYNIA.

245. ÁSARUM. Asarabacca.

1. A. européeum, 16. 1083. (Common A.) Leaves kidney-shaped, obtuse, two on each stem.

Mount. woods, rare. 4. 5. Stem short, simple, bearing two dark green leaves, and one drooping flower.

246. LYTHRUM. Purple Loosestrife.

- 1. L. Salicária, 15. 1061. (Spiked Purple L.) Leaves opposite, lanceolate; heart-shaped at the base. Flowers in whorled leafy spikes. Stamens twelve.
- Watery pl. 24. 7, 8. Stems 2-4 f. erect, leafy. Fl. purplish.
 2. L. hyssopifolium, 5. 292. (Hyssop-leaved Purple L.) Leaves alternate, linear-lanceolate. Flowers axillary, solitary. Stamens six. Watery pl. rare. O. 8. A span, branched. Fl. small, light purple.

DODECANDRIA DIGYNIA.

247. AGRIMÓNIA. Agrimony.

1. A. Eupatória, 19. 1335. (Common A.) Leaves of the stem pinnate; leaflets elliptic-oblong, terminal, one-stalked. Calyx bristly. Spikes elongated.

Hedges and thickets. 24. 6, 7. Hairy, about 2 f. Fl. small, yell.

DODECANDRIA TRIGYNIA.

248. RESÉDA. Rocket.

- R. Lutéola, 5. 320. (Dyer's R. Yellow-weed.) Leaves lanceolate, undivided. Calyx in four segments. Waste, chalky gr. O. 8. Upright, wand-like. Fl. greenish white,
 - Waste, chalky gr. (). 8. Upright, wand-like. Fl. greenish while, in spikes.
- R. lútea, 5. 321. (Wild Mignonette.) Leaves in three deep segments; lower ones pinnatifid. Calyx in six divisions.
 Waste gr. and chalk hills. ⊙? 7, 8. Bushy, spreading. Fl. buff-col.
- R. fruticulosa, Suppl. 2628. (Shrubby Base R.) Leaves all pinnated, waved, glaucous. Calyx 5-partite. Petals 5, nearly equal 3-fid.

Hedges and waste places, rare; indigenous ? 5. or 4. 6.

DODECANDRIA DODECAGYNIA.

249. SEMPERVÍVUM. Houseleek.

1. S. tectorum, 19. 1320. (Common H.) Leaves fringed. Offsets spreading. Edges of the petals hairy, entire.

Roofs and walls. 4.7. L. succulent, tufted. Fl. pale rose-ccl.

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[CL 12.

Class XII. ICOSANDRIA. Stamens 20. or more, from the rim of the calyx.

All the Genera belong to the NAT. ORD. ROSACE &.

Order I. MONOGYNIA. Style 1.

250. PRÚNUS. Cal. inferior, 5-cleft. Pet. 5. Nut of the drupa with slightly prominent seams. Mespilus 1.

Order II. PENTAGYNIA. Styles 2-5.

- 251. MÉSPILUS. Cal. superior, 5-cleft. Pet. 5. Apple with 2-5 bony, single-valved capsules. Seeds 2.
- PYRUS. Cal. superior, 5-cleft. Pet. 5. Apple with 2-5 membranous, 2-valved capsules. Seeds 2.
 SPIRAA. Cal. inferior, 5-cleft. Pet. 5. Capsules of 2 mem-
- branous valves. Seeds numerous.

Order III. POLYGYNIA. Styles numerous.

- 254. RÓSA. Cal. 5-cleft : tube finally pulpy, lined with hairs, and with numerous bristly seeds.
- 255. RÚBUS. Cal. 5-cleft. Berry superior, compound, deciduous. Recept. spongy, permanent.
- 258. TORMENTILLA. Cal. 8-cleft. Pet. 4. Seeds naked, beardless. Recept. dry, obsolete.
- 260. DRYAS. Cal. 8- or 10-cleft. Pet. 5 or 8. Seeds each with a feathery tail.
- 259. GÉUM. Cal. 10-cleft. Pet. 5. Seeds each with a bent hooked tail. Recept. columnar.
- 256. FRAGÁRIA. Cal. 10-cleft. Seeds naked, even, on the surface of a pulpy deciduous receptacle.
- 261. CÓMARUM. Cal. 10-cleft. Seeds naked, even, on the surface of a spongy, hairy, permanent receptacle.
- 257. POTENTILLA. Cal. 10-cleft. Seeds naked, rugged, beardless. Recept. dry, obsolete.

Spiræa, 2, 3.

ICOSANDRIA MONOGYNIA.

250. PRÓNUS. Plum, and Cherry.

1. P. Pádus, 20. 1383. (Bird Cherry.) Flowers in cylindrical pendulous clusters. Leaves deciduous, with two glands on the under side at the base.

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Woods and hedges. h. 5. L. obov. rather glauc. Fr. bl., nauseous.

- P. Cérasus, 10. 706. (Wild Cherry-tree.) Flowers in nearly sessile umbels. Leaves ovate-lanceolate, folded flat in the bud; somewhat downy beneath.
 Woods and hedges. 5. Stip. and bract. with glandul, teeth. Fr.
 - woods and hedges. h. 5. Stip. and bract. with glandul. teeth. Fr. red or black.
- 3. P. doméstica, 25. 1783. (Wild Plum-tree.) Flower-stalks solitary or in pairs. Leaves lanceolate-ovate; convolute while young. Branches without thorns.

Hedges, not native. b. 4. Drupa elliptical.

- P. insititia, 12. 841. (Wild Bullace-tree.) Flower-stalks in pairs. Leaves lanceolate-ovate; convolute while young; downy beneath. Branches thorny at the end.
- Hedges and groves. b. 4. L. tapering at the base. Drupa globul.
 5. P. spinósa, 12. 842. (Sloe, or Blackthorn.) Flower-stalks solitary. Leaves lanceolate, smooth. Branches thorny at the end.
 - Hedges and thickets. h. 3, 4. A low bushy shrub. Fr. globul. black, astringent, and very austere.

ICOSANDRIA PENTAGYNIA.

251. MÉSPILUS. Hawthorn, and Medlar.

1. M. Oxyacántha, 35. 2504. (Hawthorn, Whitethorn, or May.) Thorny. Leaves obtuse, variously three- or five-lobed, serrated, smooth. Styles about two.

Hedges and copses. h. 5, 6. Fl. corymbose. Fr. dark-red, mealy.

- M. germánica, 22. 1523. (Common Medlar.) Leaves lanceolate, a little downy. Flowers solitary, nearly sessile, terminal. Styles five. Hedges. h. 5. L. slightly serrat, at the top. Fl. large. Fr. hairy, brown.
- 3. M. Cotoneáster, Cotoneaster vulgaris, Suppl. 2713. (Dwarf M.) Thorns none. Leaves elliptic-ovate, entire, downy beneath. Germen smooth. Styles three or four.
 - Limest. rocks in Wales. 5. 7. A small bush. Fl. drooping, pale red. Filam. 16.

252. PYRUS. Pear, Apple, and Service.

1. P. commúnis, 25. 1784. (Wild P.) Leaves simple, ovate, serrated. Flower-stalks corymbose.

Woods and hedges. h. 4, 5. Fl. white, with pink anth. Fr. obovate.

- P. Málus, 3. 179. (Wild Apple or Crab-tree.) Leaves simple, serrated. Flowers in a simple sessile umbel. Woods and parks. b. 5. Fl. rose-col. outside. Fr. alobose.
- P. torminalis, Crategus torm. 5. 298. (Wild S.) Leaves simple, somewhat heart-shaped, serrated, seven-lobed; the lower lobes spreading. Flower-stalks corymbose, branched.

Woods and hedges. 5. 4, 5. Fl. white, numer. Fr. small, brown, dotted.

4. P. doméstica, 5. 350. (True S.) Leaves pinnate; leaflets uniform, downy beneath; serrated towards the point. Flowers panicled. Fruit obovate.

Mountain woods, very rare. 5. 5. Fr. reddish, spotted, with only one mature seed.

5. P. aucupária, Sorbus aucup. 5. 337. (Mountain Ash.) Leaves pinnate; leaflets uniform, serrated, smooth. Flowers corymbose. Styles about three. Fruit globular.

Woody mount. h. 5. Apples like berries, scarlet, sour. Seeds two.

 P. pinnatifida, 33. 2331. (Bastard Mountain A.) Leaves deeply pinnatifid, or half-pinnate; downy beneath. Flowers corymbose. Styles about three.

Mountains. b. 5. L. pinnatifid chiefly at the base. Fr. scarlet. A var. of P. auc.

- P. Aria, 26. 1858. (White Beam-tree.) Leaves simple, elliptical, cut, serrated, scored; downy beneath. Flowers corymbose. Styles about two.
 - Chalky mts. h. 5. L. white and cottony beneath. Fr. small, scarlet.

253. SPIRÉA. Spiræa, Dropwort, and Meadow-sweet.

- S. salicifólia, 21. 1468. (Willow-leaved S.) Leaves elliptic-lanceolate, unequally serrated, smooth. Clusters terminal, compound. Swampy mts. not wild? b. 7. A branched shrub. 4 f. Fl. rose-col.
- 2. S. Filipéndula, 4. 284. (Common D.) Leaves interruptedly pinnate; leaflets uniform, serrated, smooth. Stem herbaceous. Flowers cymose, with many styles.
- Dry elevat. past. 4. 7. Root with elliptical knobs. Fl. cream-col.
- S. Ulmária, 14. 960. (Meadow-sweet.) Leaves interruptedly pinnate; downy beneath; the terminal leaflet largest and lobed. Stem herbaceous. Flowers cymose, with many styles.
 Swampy past. 4. 6, 7. R. fibr. Fl. small, white, sweet-scented.

ICOSANDRIA POLYGYNIA.

254. RÓSA. Rose.

* Branches bristly. Prickles mostly slender, nearly straight.

*1. R. Dicksóni, Suppl. 2707. (Dickson's R.) Flower-stalks bristly. Shoots bristly. Prickles scattered, slender, subulate. Leaflets oval, hairy, coarsely and irregularly serrated, sparingly glandulose beneath. Fruit ovate-urceolate.

Ireland. 5. 7. Petals deep pink. Fruit orange-red, with a lengthened neck, clothed with a few strong bristles.

1. R. cinnamómea, 34. 2388. (Cinnamon R.) Flower-stalks bracteated, smooth. Calyx mostly simple. Fruit globose. Bristles

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deciduous. Leaflets oblong, simply serrated, finely downy; glaucous beneath.

- Woods in Yorks.; a doubtful native. 7.5. Fr. small, orange-col.
 R. rubélla, 36. 2521. (Red-fruited R.) Flower-stalks generally without bracteas; bristly, like the prickly stem and simple calyx. Fruit globose. Prickles straight, scattered. Leaflets elliptical or roundish, smooth, with mostly simple serratures.
- Sandy sea-cousts. 7. 7. Bushy, 2-3 f. Cal.-segm. entire. Fr. red. 3. R. spinosíssima, 3. 187. (Burnet R.) Flower-stalks without bracteas; mostly smooth, as well as the simple calyx. Fruit globose. abrupt, somewhat depressed. Prickles of the stem straight, unequal, numerous, intermixed with glandular bristles. Leaflets roundish, smooth, with simple serratures.
- Sandy heaths. b. 7. Of humble growth. Pet. white. Fr. black. *3. R. Wilsoni, Suppl. 2723. (Wilson's R.) Flower-stalks bristly. Prickles crowded, unequal, straight, intermixed with bristles. Leaflets simply serrated, bairy ; their disk eglandulose. Calyx simple. Fruit nearly globular, with a short neck.
- Near Bangor Ferry. h. Petals dark pink. Fr. orange-scarlet. 4. R. involúta, 29. 2068. (Prickly Unexpanded R.) Flower-stalks generally without bracteas; bristly, like the globular fruit and simple calyx. Stem bristly and very prickly. Leaflets elliptical, doubly and sharply serrated; their veins hairy beneath.
- West of Scot. 5. 6. Pet. pale-red, convolute. 5. R. Doniána, Suppl. 2601. (Dwarf Hairy R.) Flower-stalks generally without bracteas; bristly, like the globular fruit and simple calyx. Stem bristly and prickly, like the downy foot-Leaflets elliptical, doubly and sharply serrated, hairy stalks. on both sides.

Scott. mount. b. 6, 7. Pet. white, spreading.

- 6. R. grácilis, R. villosa, 9. 583. (Tall Bristly R.) Flower-stalks usually in pairs, bristly, often bracteated. Branches, globular fruit, and simple calyx, bristly. Larger prickles curved, mostly Leaflets doubly serrated, hairy on both sides. two together.
- Thickets, N. of Eng. h. 7,8. 8-10 f. Pet. fine pink, slightly concave.
- 7. R. Sabini, Suppl. 2594. (Sabinian Bristly R.) Flower-stalks somewhat aggregate, bristly, often bracteated. Branches, globular fruit, and pinnate calyx, bristly. Prickles scattered, straight-Leaflets doubly serrated, smoothish, with hairy ribs. ish. Mount. thickets. b. 7. 5-8 f. Pet. red. Fr. bright scarlet.

** Branches without bristles. Prickles nearly straight.

8. R. villosa, R. mollis, 35. 2459. (Soft-leaved R.) Fruit globose. somewhat depressed, partly bristly. Calyx slightly compound. Prickles nearly straight. Leaflets rounded, bluntish, all over downy.

Bushy mount. L. 6. 6 f. Downy and hoary. Pet. red. Fr. large. 9, R. tomentosa, 14. 990. (Downy-leaved Dog R.) Fruit broadly

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elliptical, bristly. Calyx copiously pinnate. Prickles slightly curved. Leaflets ovate, acute, more or less downy.

Hedges and thickets. 1. 6, 7. Generally hoary and downy, with a resinous scent. Pet. light red; white at the base. Pubescence variable.

** Branches without bristles. Prickles hooked, compressed. Styles distinct.

- R. Sherárdi, (Round-headed R.) Fruit globular, abrupt, somewhat bristly. Calyx copiously pinnate. Prickles hooked, compressed. Leaflets elliptical, acute, downy.
 - Hedges and thickets. b. 6, 7. Prickles conical, often in pairs. Fr. corrugated.
- 11. R. rubiginosa, 14.991. (Sweet Briar, or Eglantine.) Fruit obovate, bristly towards the base. Calyx pinnate. Prickles hooked, compressed, with smaller straighter ones interspersed. Leaflets elliptical, doubly serrated, hairy; with rusty-coloured glands beneath.

Dry bushy pl. h. 6, 7. Bushy, erect. L. fragrant. Pet. bright pink.

- *11. R. sépium, Suppl. 2653. (Small-leaved S. Briar.) Fruit ovate. Calyx-segments and pinnæ elongated. Prickles numerous, the larger curved, the smaller subulate, intermixed with a few bristles. Leaflets small, doubly serrated, hairy, acute at each end, glandulose beneath.
 - Near Bridport, Warwicksh. b.6. Pet. white, with a faint tinge of pink.
- 12. R. micrántha, 35. 2490. (Small-flowered Sweet Briar.) Fruit elliptical, somewhat bristly, contracted at the summit. Calyx pinnate, deciduous. Prickles hooked, scattered, nearly uniform. Leaves ovate, doubly serrated, hairy; glandular beneath.
 - Thickets, S. of Eng. 4.6, 7. Stems straggling. L. less fragr. Fl. smaller.
- R. inodóra, R. Borreri, E. Fl. R. dumetorum, 36, 2579. (Downy-stalked Dog R.) Fruit elliptical, smooth. Flower-stalks aggregate, hairy. Calyx copiously, often doubly, pinnate, deciduous. Leaflets ovate, doubly serrated, hairy, without glands. Hedges and thick. 1.6, 7. Prickles much hooked. Pet. light red.
- R. cássia, 33. 2367. (Glaucous-leaved R.) Fruit elliptical, smooth. Flower-stalks smooth, solitary. Calyx distantly and sparingly pinnate. Leaflets glaucous, elliptical, somewhat doubly serrated; hairy beneath, without glands.
 - Highl. of Scot. b. 7. Prickles uniform. Fl. of a fine carnation hue.
- R. sarmentácea, Suppl. 2595. (Trailing Ř.) Fruit broadly elliptical, naked. Flower-stalks aggregate, smooth, or minutely bristly. Calyx strongly pinnate. Leaflets ovate, doubly serrated, very smooth.
 - Hedges and thickets. 5. 6, 7. Stem 8-10 f. Pr. hooked. Fl. pink, fragrant.
- 16. R. bractéscens, (Bracteated R.) Fruit globose, smooth. Flower-



stalks aggregate, occasionally a little hairy. Calyx pinnate, with entire leaflets. Leaflets ovate, almost simply serrated; downy beneath. Bracteas rising much above the fruit.

- Hedges and thick. h. 6, 7. Stem 6-7 f. Pr. hooked; aggreg. Fl. flesh-col. Styles hairy.
- 17. R. dumetorum, Suppl. 2610. (Thicket R.) Fruit elliptical, smooth. as tall as the bracteas. Flower-stalks aggregate, slightly hairy. Calyx copiously pinnate, somewhat cut. Leaflets simply serrated, hairy.
 - Hedges in the S. h. 6. 4-6 f. Pr. scattered, hooked. Styles a little hairy.
- 18. R. Forsteri, Suppl. 2611. (Downy-ribbed Dog R.) Fruit elliptical, smooth, like the aggregate flower-stalks. Calvx copiously, and somewhat doubly, pinnate. Leaflets simply serrated, smooth above ; ribs hairy beneath.

Hedges. b. 6, 7. 6-8f. Pr. scatt. conical, hooked. Leafl. 5, or 7.

19. R. hibérnica, 31. 2196. (Irish R.) Fruit nearly globular, smooth, as well as the flower-stalks. Calyx pinnate, with entire appendages, permanent. Leaflets elliptical, simply serrated; ribs hairy beneath. Prickles slightly curved, scattered, unequal. Thickets in Ir. 5.6-11. Bushy and prickly, 3-5 f. Fr. orange-col.

- 20. R. canina, 14. 992. (Dog R.) Fruit ovate, smooth, or some-what bristly, like the aggregate flower-stalks. Calyx pinnate, deciduous. Leaflets simply serrated, pointed, quite smooth. Prickles strongly hooked.
 - Hedges, woods, and thick. b. 6, 7. 6-8 f. spreading. Pet. pinkish. large, fragr. Fr. scarlet, of a grateful flavour.

**** Branches without bristles. Prickles hooked, compressed. Styles combined.

21. R. systýla, R. collina, 27. 1895. (Close-styled Dog R.) Fruit ovate-oblong, smooth. Flower-stalks glandular. Calyx pinnate, deciduous. Floral receptacle conical. Styles combined, smooth. Leaflets simply serrated.

Hedges & thick. b. 6, 7. Pr. dilated at the base. Fl. pinkish, fragr.

- 22. R. arvénsis, 3. 188. (Field Dog R.) Fruit globose or elliptical, smooth. Flower-stalks glandular. Calyx pinnate, deciduous. Floral receptacle nearly flat. Styles combined, smooth. Leaflets simply serrated.
 - Hedges and fields. b. 7. Br. of great length, reddish. Fl. white, fragr.

255. RÚBUS. Bramble and Raspberry.

* Stem shrubby, angular.

1. R. fruticosus, 10. 715. (Common B. or Blackberry.) Stems furrowed; barren ones arched and elongated. Prickles hooked. Leaves pedate, of five, stalked, ovate-oblong leaflets; white and downy beneath. Calyx reflexed, unarmed.

Hedges and thick. 5. 7, 8. L. almost evergr. Pan. cylindr. twice comp. Pet. pink.

 B. carpinifolius, Suppl. 2664. R. plicatus, E. Fl. (Hornbeamleaved B.) Stem decumbent or arched, somewhat angular and furrowed, hairy, with numerous deflexed, curved, uniform prickles. Leaves digitate, of five, stalked, ovate, pointed, plicate leaflets; pale beneath. Panicle compact, hairy; its branches ascending, corymbose. Calyx spreading.

Hedges, Cheshire, Lancashire, and N. Wales. J. 7. 8.

- R. rhamnifólius, Suppl. 2604. (Buckthorn-leaved B.) Stems furrowed; barren ones arched. Prickles deflexed, straight. Leaves slightly pedate, of five or three, orbicular, obovate, or somewhat heart-shaped, pointed leaflets. Calyx spreading.
 Woods. F. 7, 8. L. hoary beneath. Pan. twice comp. hairy.
- 4. R. leucostáchys, Suppl. 2631. (White-clustered B.) Stems downy. Prickles deflexed, slightly hooked. Leaves of five or three roundish-ovate, or heart-shaped, pointed, jagged leaflets; hoary beneath. Calyx unarmed, reflexed, and, like the panicle, minutely glandular.

Woods & thickets. h. 7, 8. Pubesc. shaggy and shining. Pan. cylindr.

*4. R. macrophýllus, Suppl. 2625. (Large-leaved B.) Stem somewhat angular and furrowed. Prickles uniform, few, small. Leaves digitate, of three or five, stalked, elliptical or ovate, flexible leaflets. Panicle repeatedly divided, somewhat corymbose.

Hedges and thickets, Sussex. b. 7, 8.

- 5. R. Kohléri, Suppl. 2605. R. glandulosus, E. Fl. (Glandular B.) Branches and footstalks hairy, with glandular bristles interspersed. Prickles deflexed, partly hooked. Panicle and calyx very prickly and hairy, with copious glandular bristles.
 - Woods and thickets. F. 7, 8. Leafl. 5 or 3, downy beneath. Pan. corymb. Pet. white, narrow.
- R. plicátus, Suppl. 2714. not E. Fl. (Shining B.) Stems obtusely angular, smooth spreading. Prickles hooked. Leaflets somewhat hairy beneath. Panicle and calyx slightly prickly, without bristles. R. nitidus, E. Fl.
 - Woods and thickets. b. 7, 8. Leafl. 5 or 3. Pan. mostly simp. Pet. broadish.—Var. of R. suberectus.
- R. affinis, Weihe, t. 3. (Ovate Hairy B.) Stems nearly smooth, reclining. Prickles hooked. Leaflets ovate-heart-shaped, pointed; loosely hairy beneath. Panicle hairy and prickly. Calyx hoary, unarmed.

Woods & thickets. b. 7,8. Leafl. 5, 3, or 1. Pan. comp. Pet. white.

- R. suberéctus, 36. 2572. (Red-fruited B.) Stems ascending, smooth; branches roundish. Prickles deflexed. Leaffets ovateheart-shaped, pointed, minutely hairy beneath. Clusters simple, hairy, prickly, on lateral leafy branches.
 - Mount. thickets. h. 7, 8. Leafl. 3, 5, or 7. Cal. slightly hairy, unarmed. Pet. crumpled.



Ord. 4.]

** Stems shrubby, round.

- 9. R. *idéeus*, 34. 2442. (Raspberry.) Stems erect, smooth, with downy branches; their prickles straight and slender. Leaves pinnate, of five or three, ovate, rather angular leaflets; very downy beneath. Clusters somewhat compound, prickly. Flowers pendulous.
- Woods and thickets. 5. 5. 6. Stems bienn. Fr. crimson, fragr.
 10. R. corylifólius, 12. 827. (Hasel-leaved B.) Stems spreading; barren ones somewhat angular. Prickles scattered, straight, deflexed. Leaflets five or three; finely hairy beneath. Calyx reflexed, minutely glandular, as well as the panicle.
- Hedges. h. 7. Stems bienn. glauc. brittle. Leafl. broad.
- R. cœsius, 12. 826. (Blue B. or Dewberry.) Stems prostrate, glaucous, prickly and bristly. Prickles deflexed. Leaflets three; hairy beneath; lateral ones lobed externally. Calyx bristly, embracing the fruit.

Woods & hedges. h. 6, 7. Stems weak. Pan. corymb. Grains few.

*** Stems herbaceous.

- R. saxátilis, 32. 2233. (Stone B.) Leaflets three. Stems slightly prickly, ascending, with prostrate runners. Panicle with few flowers. Calyx of the fruit converging, without prickles or glands. Dry stony mount. 24. 6. Fl. small, white. Grains few, crimson.
- R. árcticus, 23. 1585. (Dwarf B.) Leaflets three, bluntly serrated. Stem without prickles, bearing one or two solitary flowers. Petals roundish.
 - Scottish mount.? 4.5, 6. Fl. crims. Gr. several, fragr. and grateful.
- R. Chamæmórus, 10. 716. (Mountain B. or Cloud-berry.) Leaves simple, plaited, lobed. Stem without prickles, simple, singleflowered. Segments of the calyx ovate.

Turfy alp. bogs. 24.6. Fl. white, nearly monæcious. Gr. large, tawny.

256. FRAGÁRIA. Strawberry.

- F. vésca, 22. 1524. (Wood S.) Calyx of the fruit reflexed. Hairs of the footstalks widely spreading; those of the partial flowerstalks close-pressed, silky.—β. atro-virens, Suppl. 2724.
- stalks close-pressed, silky. B. atro-virens, Suppl. 2721.
 Groves. 24.5, 6. Leafl. 3. Fl. white. Fr. scarlet, very grateful.
 2. F. elátior, 31. 2197. (Hautboy S.) Calyx of the fruit reflexed. Hairs of the footstalks, and of all the flower-stalks, widely spreading, somewhat deflexed.

Groves, S. of Eng., not wild. 4. 6-9. Fl. imperf. diacious. Fr. rare, of a musky flavour.

257. POTENTÍLLA. Cinquefoil, or Potentilla.

* Lcaves pinnate.

1. P. fruticósa, 2. 88. (Shrubby Cinq.) Leaves pinnate, entire, hairy. Stem shrubby. Mt. thickets, Yorksh. L. 6.3 f. bushy, L. hairy beneath. Fl. yell.

2. P. anserina, 12. 861. (Silver-weed, or Wild Tansy.) Leaves interruptedly pinnate, serrated, silky. Stem creeping. Stalks axillury, solitary, single-flowered.

Spongy humid soil. 4.6, 7. A silky herb, with several long, trailing, jointed stems. Fl. large, bright, yellow.

8. P. rupéstris, 29. 2058. (Strawberry-flowered C.) Leaves lyratepinnate. Leaflets seven, five, or three, ovate, serrated, hairy. Stem erect.

** Leaves digitate.

- P. argéntea, 2. 89. (Hoary C.) Leaflets five, wedge-shaped, jagged; downy beneath. Stem ascending. Gravelly soil. 4. 6. Stems white and cottony. Fl. small, yellow.
- 5. P. alpestris, P. aurea, S. 561. (Alpine C.) Radical leaves of five wedge-shaped, somewhat hairy, leaflets; deeply cut in their upper half. Upper stipulas ovate. Stems ascending. N. mts. 4. 7. About a span. Pet. obcordate, orange-yellow.
- P. vérna, 1. 37. (Spring C.) Radical leaves of five or seven, obovate-wedge-shaped, partly serrated, furrowed leaflets; bristly at the edges and ribs beneath. Upper stipulas dilated. Calyxsegments partly three-ribbed. Stems procumbent.

Elevated past. 4. 4, 5. Stems spreading all round. Pet. yellow.

- P. opáca, 35. 2449. (Hairy C.) Radical leaves of seven hairy, linear-wedge-shaped, deeply serrated leaflets; stem-leaves ternate, mostly opposite. Stems recumbent. Mount. of Sc., rare. 4. 6. A span high, slender. Pet. bright yell.
- B. Alba, 20. 1884. (White C.) Radical leaves of five leaflets; silky beneath; tipped with converging seratures. Stems threadshaped, procumbent. Receptacle very hairy.

Mts. Wales ? 4. 7, 8. Leafl. ellipt.-obl. Fl. white, on slender stalks.
9. P. réptans, 12. 862. (Creeping C.) Leaflets five, obovate, serrated. Stem creeping. Stalks axillary, single-flowered.

Mead. and past. 4. 6-8. Fl. bright yellow, on long stalks.

*** Leaves ternate.

10. P. tridentáta, 84. 2389. (Three-toothed C.) Leaflets three, wedgeshaped; smooth above; hairy beneath; with about three terminal teeth. Stem panicled, erect.

Werron Mt., Angus. 4. 5, 6. Stem 3-4 in. Fl. white. Seeds even.

11. P. Fragariástrum, Fragaria sterilis, 25. 1785. (Strawberryleaved C.) Leaflets three, roundish-obovate, serrated, hairy. Stems prostrate. Seeds corrugated, hairy at the scar.

Dry past. 4. 3, 4. Like a strawberry, except in the fruit. Fl. white.

258. TORMENTÍLLA. Tormentil.

1. T. officinális, 12. 863. (Common T.) Stem ascending, branched. Leaves almost sessile. Stipulas cut.



Craig Breddin, Montgom. 4. 6, 7. 1 f. corymbose. Fl. white. Seeds smooth.

Ord. 1.]

Dry past. and heaths. 4.6, 7. Weak, wiry. Pet. bright yell. rarely 5.

2. T. réptans, 12. 864. (Trailing T.) Stem prostrate, mostly simple. Leaves stalked. Stipulas undivided.

Hedges, rare, 24. 6. 7. Stems very long. Fl. large, bright yell.

259. GÉUM. Avens.

1. G. urbánum, 20. 1400. (Common A. Herb Bennet.) Leaves ternate; radical ones somewhat lyrate. Stipulas rounded, cut. Flowers nearly upright. Styles naked.

Woods and hedges. 4.5-8. About 2 f. Fl. small, bright yellow.

2. G. riválc, 2. 106. (Water A.) Radical leaves interruptedly pinnate, somewhat lyrate. Stipulas ovate, acute, cut. Flowers drooping. Styles hairy above the curvature.

Moist woods. 4. 6, 7. 1 f. Fl. large and elegant, of a tawny brown.

260. DRYAS. Drvas.

1. D. octopétala, 7. 451. (White D.) Petals eight. Leaves simple; downy beneath.

Stony alp. heaths. 4.7, 8. L. white beneath. Fl. large, of a brill. mhite.

261. CÓMARUM.' Marsh-cinquefoil.

1. C. palústre, 3. 172. (Purple Marsh-cinquefoil.) Spongy boggy soil. 24.6, 7. L pinnate, with 5, rarely 7, leaflets; upper ones ternate. Fl. and fr. dark purple.

Class XIII. POLYANDRIA. Stamens numerous, from the receptacle.

Order I. MONOGYNIA. Style 1.

* Petals 4.

- 265. PAPÁVER. Cal. of 2 leaves. Caps. of 1 cell, opening by pores under the stigma.—N.O. PAPAVERACEÆ.
- 263. CHELIDÓNIUM. Cal. of 2 leaves. Pod of 1 cell. Seeds crested.-N.O. PAPAVERACE.
- 264. GLÁCIUM. Cal. of 2 leaves. Pod of 2 or 3 cells. Seeds
- dotted.—N.O. PAPAVEBACEZ. 262. ACTZA. Cal. of 4 leaves. Berry of 1 cell. Seeds de-pressed, in 2 vertical rows.—N.O. RANUNCULACEZ. Cistus 1, occasionally.

** Petals 5.

269. CÍSTUS. Caps. of several valves, with many seeds. Cal. of 5 permanent leaves, 2 of them smaller.-N.O. CISTINEE.

268. TÍLIA. Caps. of several close cells, with few seeds. Cal. in 5 deep, valvular, equal segments, deciduous. - N.O. TILIACEE. Delphinium 1.

*** Petals numerous.

- 266. NYMPH ÆA. Berry coated, of many cells. Cal. larger than the petals. Pet. seated on the germen. Nect. in the centre of the stigma.-N.O. NYMPHEACEE.
- 267. NUPHAR. Berry coated, of many cells. Pet. from the receptacle, furrowed and honey-bearing at the back .- N.O. NYMPH RACE R.

Order II. PENTAGYNIA. Styles 2-6.

All the genera of this Order, with the exception of Stratiotes, belong to the N.O. RANUNCULACEE.

- 270. PÆÓNIA. Cal. of 5 leaves. Pet. 5. Styles 0. Follicles (Caps.) with many seeds.
- 271. DELPHÍŇIUM. Cal. 0. Pet. 5; the upper one spurred. Nect. divided, tubular, sessile, in the spur.
- 272. ACONÍTUM. Cal. 0. Pet. 5; the upper one hooded. Nect. 2, recurved, stalked, under the hood.
- 273. AQUILÉGIA. Cal. 0. Pet. 5, equal. Nect. 5, spurred below.

274. STRATIÓTES. Cal. superior, 3-cleft. Pet. 3. Berry coated, of 6, or more, cells .- N.O. Hydrochabides.

Reseda 1. Helleborus 1, 2.

Order III. POLYGYNIA. Styles numer.

All the genera of this Order belong to the N.O. RANUNCULACER.

- 277. THALICTRUM. Cal. 0. Pet. 4 or 5, imbricated. Seeds without any appendage.
- 276. CLÉMATIS. Cal. 0. Pet. 4-8, valvular, or folded in at the edges. Seeds tailed. Recept. capitate. 275. ANEMONE. Cal. 0. Pet. 5-15, imbricated. Seeds numerous.
- 281. HELLÉBORUS. Cal. 0. Pet. 5, permanent. Nect. tubular, 2lipped. Follicles (Caps.) 3 or 4.
- 282. CALTHA. Cal. 0. Pet. 5, or more. Nect. 0. Follicles 5-10.
- 280. TRÓLLIUS. Cal. 0. Pet. 5-15, deciduous. Nect. flattened. Follicles numerous.
- 279. RANÚNCULUS. Cal. of 5 leaves. Pet. 5, or more, with nectaries in their claws. Seeds numerous, naked.
- 278. ADÓNIS. Cal. of 5 leaves. Pet. 5-15. Nect. 0. Seeds numerous. naked.

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POLYANDRIA MONOGYNIA.

262. ACTÉA. Bane-berries.

- 1. A. spicáta, 13. 918. (Black B. Herb Christopher.) Cluster dense, ovate. Petals the length of the stamens.
 - Rare. Limestone rocks. Yorks. 4. 5, 6. L. thrice ternate, serated. Fl. white. Berry black.

263. CHELIDÓNIUM. Celandine.

1. Ch. május, 22. 1581. (Common C.) Waste shady gr. 4. 5, 6. L. pinnate, glauc. Juice orange-col. fetid. Fl. yell.

264. GLÁUCIUM. Horned-poppy.

- 1. G. lúteum, Chelidonium Glaucium, 1. 8. (Yellow H.) Stem smooth. Stem-leaves wavy. Pod roughish, with minute tubercles. Sandy sea-shores. 3.7, 8. Glauc. spread. Rad. leaves lyrate.
- Fl. large, golden yell. 2. G. phaniceum, 20. 1433. (Scarlet H.) Stem hairy. Stem-leaves
- pinnatifid, cut. Pod rough with upright bristles. Sandy fields. British? O. 6, 7. Smaller, more upright. Fl. scarl.
- 3. G. violáceum, Chelidonium hybridum, 3. 201. (Violet H.) Leaves doubly pinnatifid, linear, smooth. Stem smooth. Pod of three valves and three cells, with membranous partitions.
 - Fields, rare. 0.5, 6. Dark green, erect. Fl. large, of a bright violet blue.

265. PAPÁVER. Poppy.

* Capsules bristly.

1. P. hýbridum, 1. 43. (Round-headed P.) Capsule nearly globular, furrowed, bristly. Calyx hairy. Stem leafy, many-flowered, Leaves doubly pinnatifid.

Fields, rare. O. 7. Pet. crimson or scar. Stam. viol. Pollen blue.

2. P. Argemóne, 9. 643. (Long-headed P.) Capsule club-shaped, ribbed, bristly. Stem leafy, many-flowered. Leaves doubly pinnatifid. Čalyx slightly hairy.

Fields, rare. O. 6, 7. Pet. pale scarlet. Stam. dilated upwards.

** Capsules smooth.

- 3. P. dúbium, 9. 644. (Smooth-headed P.) Capsules smooth, oblong, angular. Stem many-flowered, hairy. Bristles on the flower-stalks close-pressed. Leaves doubly pinnatifid. Fields, on a light soil. (). 6, 7. Pct. light scarlet. Pollen yell.
 - Stigma with 6-8 rays.
- 4. P. Rhécas, 9. 645. (Red P.) Capsule smooth, nearly globular. Stem many-flowered, rough, like the flower-stalks, with spreading bristles. Leaves pinnatifid, cut.

Fields, common. O. 6, 7. Pet. large, scarlet. Stigma of many rays.

5. P. somniferum, 30. 2145. (White P.) Capsule nearly globular, smooth, as well as the calyx and stem. Leaves notched, clasping the stem.

Fields, and waste gr. introd. O. 7. Pet. white. L. glancous. Stem 3 f.

6. P. cámbricum, 1. 66. Meconopsis cambr. Br. Fl. (Yellow P.) Capsule smooth, oblong, beaked. Stem many-flowered, nearly smooth. Leaves stalked, pinnate, cut.

Rocky mounts., rare. 24. 6. Pet. lemon-coloured. Juice yellow.

266. NYMPHAA. White Water-lily.

- 1. N. *álba*, 3. 160. (Great White W.) Leaves heart-shaped, entire; even beneath. Petals elliptic-oblong. Rays of the stigma sixteen, recurved. Root horizontal.
 - Pools and slow rivers. 4.7. L. floating. Fl. large, white, slightly fragr.

267. NÚPHAR. Yellow Water-lily.

1. N. *látea*, Nymphæa lutea, 3. 159. (Common Yellow W.) Calyx of five leaves. Border of the stigma entire. Footstalks twoedged. Lobes of the leaves meeting each other.

Rivers & ponds. 4. 7. L. float. Fl. golden yell. with a vinous scent.

- N. púmila, N. minima, 32. 2292. (Least Yellow W.) Calyx of five leaves. Stigma toothed at the border. Footstalks two-edged. Lobes of the leaves rather distant.
 - Northern lakes. 4. 7. Smaller. Fl. lemon-col. Border of the stigmas green.

268. TÍLIA. Lime-tree or Linden.

- 1. T. curopéea, 9. 610. (Smooth L.) Nectaries none. Leaves smooth, twice the length of their stalks, with a woolly tuft at the origin of each vein beneath. Capsule coriaceous, downy.
- Woods. h. 7. An elegant tree. Cymes many-fl. Fl. pale lemon-col.
- 2. T. grandifólia, Suppl. 2720. (Downy L.) Nectaries none. Leaves downy, especially beneath; origin of their veins woolly. Umbels three-flowered. Capsule downy, woody, turbinate, with five prominent angles.
- Woods and hedges. 1. 6, 7. Branches brown, hairy.
- T. parvifólia, 24. 1705. (Small-leaved L.) Necturies none. Leaves smooth above; glaucous beneath, with hairy blotches. Capsule brittle, roundish, nearly smooth.

Woods. h. 8. L. much smaller. Umbels comp. many-flowered.

269. CÍSTUS. Cistus.-Helianthemum, Br. Fl.

1. C. marifólius, 6. 396. (Honey dwarf C.) Stem dwarf, shrubby. Stipulas none. Leaves opposite, stalked, oblong, flat; downy and hoary beneath. Alpine rocks, rare. 5. 5. 6. Stem 3-4 in. Fl. small, golden-yell. Style bent.-C. canus, Jacq.

- C. guttátus, 8. 544. (Spotted C.) Stem herbaceous. Stipulas and bracteas none. Leaves opposite, lanceolate, three-ribbed.
 Sandy past. rare. ⊙. 6, 7. About 1 f. L. hairy. Pet. yellow, with a red spot.
- C. ledifolius, 34. 2414. (Ledum-leaved C.) Herbaceous, downy, with stipulas. Leaves lanceolate. Flower-stalks erect, solitary, opposite to the leaves, shorter than the calyx.
 - Sandy past. rare. \odot . 6, 7. Stems erect, leafy. Pet. small, pale yellow, very fugacious.
- C. surrejánus, 31. 2207. (Dotted-leaved C.) Shrubby, procumbent, with stipulas. Leaves ovate-oblong, hairy and dotted beneath. Petals lanceolate.

Chalky hills, rare. 1. 7, 8. L. flat. Pet. yellow, narrow, acute. — A var. of C. Helianth.

- C. Heliánthemum, 19. 1321. (Common Dwarf C.) Shrubby, procumbent, with fringed stipulas. Leaves elliptic-oblong; white and downy beneath. Calyx-ribs bristly; its outer leaves lanceolate, fringed.
- Chalky or gravelly hills. h. 7,8. L. more or less revolute. Pet. yell.
- C. tomentosus, 31. 2208. (Downy-cupped C.) Shrubby, procumbent, with hoary stipulas. Leaves elliptic-oblong; snow-white, with starry down beneath. Outer calyx-leaves obtuse.
 - Mount. of Scot. 7. 7. Fl. large, golden yellow. Calyz all over hoary.—A var. of C. Helianth.
- C. polifólius, 19. 1322. (White Mountain C.) Shrubby, procumbent, with somewhat hairy stipulas. Down starry. Leaves oblong, revolute, white, and downy beneath. Calyx slightly hairy; its outer leaves fringed.
 - Stony hills in the S., near the sea, rare. b. 6, 7. Stipulas most hairy at the margin. Pet. white.

POLYANDRIA PENTAGYNIA.

270. PÆÓNIA. Piony.

 P. corállina, 22. 1513. (Entire-leaved P.) Leaves twice ternate; leaflets ovate, undivided, smooth. Follicles downy, recurved.
 Islands in the Severn, imported? 24.5, 6. Fl. large, with yell. anth. and 2-4 purple stigmas.

271. DELPHÍNIUM. Larkspur.

- 1. D. Consólida, 26. 1839. (Field L.) Capsule solitary. Nectary of a single leaf. Stem subdivided, spreading.
 - Sandy fields. O. 6, 7. L. in many divisions, with linear segments. Fl. blue.

272. ACONÍTUM. Wolf's-bane, or Monkshood.

1 A. Napéllus, Suppl. 2730. (Common W. or M.) Upper petal arched at the back; lateral ones hairy at the inner side. Germens three, smooth. Leaves deeply five-cleft, cut, with linear segments, furrowed above.

Watery pl. Herefordsh., Devon; not wild. 4.6, 7. Fl. darh blue.

273. AQUILÉGIA. Columbine.

- 1. A. vulgáris, 5. 297. (Common C.) Nectaries about the length of the petals; their spurs incurved. Stem and leaves smooth. Capsules hairy.
 - Mead. and thickets. U. 7. L. twice ternate, lobed. Fl. pendulous, purplish.

274. STRATIÓTES. Water-soldier.

1. S. aloides, 6. 379. (Water Aloe, or Water-soldier.) Leaves swordshaped, channelled, with a prominent rib, and sharp marginal prickles.

Pools & ditch. 24.7. Stoloniferous, float. Fl. white, some imperfect.

POLYANDRIA POLYGYNIA.

275. ANEMÓNE. Anemone.

1. A. Pulsatilla, 1.51. (Pasque-flower A.) Flowers solitary, nearly upright. Involucrum in deep linear segments. Petals six, erect. Seeds with feathery tails. Leaves doubly pinnate, cut, with linear lobes.

Chalky past. 24. 4, 5. Fl. large, erect, of a dull violet blue.
2. A. nemorósa, 5. 855. (Wood A.) Flower solitary. Involucrum of three ternate or quinate, stalked, lobed and cut leaves. Seeds pointed, without tails.

Thickets. 4. 4. Pet. 6, or more, ellipt. whitish; purple at the back.

3. A. apennina, 15. 1602. (Mountain A.) Flower solitary. Involucrum of three ternate, stalked, deeply cut leaves. Seeds pointed, without tails.

Groves, rare, not wild. 4. 4. Pet. 12-16, lanceolate, bluntish, blue.

 A. ranunculoides, 21, 1484. (Yellow A.) Flowers solitary, or in pairs. Involucrum of three, somewhat stalked, deeply cut leaves. Seeds pointed, without tails.

Groves, rare, not British. 24. 4. Pet. 5, ellipt. yellow. Leaves lanceol. cut.

276. CLÉMATIS. Traveller's-Jov.

1. C. Vitálba, 9. 612. (Common Tr.) Leaves pinnate ; leaflets heartshaped, partly cut; their stalks twining, permanent. Panicles forked, not larger than the leaves.



Ord. 5.]

Hedges, chiefly on chalky soil. b. 7. Stems woody. Fl. white, sweet-scented.

277. THALICTRUM. Meadow-Rue.

1. Th. alpinum, 4. 262. (Alpine M.) Stem guite simple, and almost naked, with a simple terminal cluster.

Moist. alp. past. 4. 6. L. biternate, shining. Stem 3-6 in.

 Th. minus, 1. 11. (Lesser M.) Leaves doubly pinnate; leaflets ternate, three-cleft. Flowers' panicled, pendulous. Stipulas rounded.

- Chalky past. 24. 6, 7. Glauc. Stem 1 f. zigzag. Pet. pale purple. 3. Th. majus, 9. 611. (Greater M.) Leaves triply pinnate; leaflets ternate, lobed. Branches of the panicle aggregate, somewhat umbellate. Flowers drooping. Stipulas crescent-shaped, notclied. Mount. thickets. 24.6, 7. Stem 3 f. L. dark green above, glauc. beneath.-A var. of the preceding.
- 4. Th. flávum, 6. 367. (Common M.) Stem erect, furrowed, leafy. Leaves doubly pinnate ; partly three-lobed. Panicle compound, close, corymbose. Flowers and stamens erect.

Wet mead. 4.7. Root yellow. Stem 3-4 f. Pet. cream-col.

278. ADÓNIS. Pheasant's-eye.

1. A. autumnális, 5. 308. (Corn Ph.) Petals about eight, obcordate. Fruit ovate. Stem branched.

Corn-fields; introd. O. 5-10. L. pinn. segm. linear. Pet. crims. Anth. mol.

279. RANÚNCULUS. Crowfoot, or Ranunculus.

* Leaves simple.

- 1. R. Flámmula, 6.387. (Lesser Spear-wort C.) Leaves ovate-lanceolate, bluntish, stalked. Stem reclining. Root fibrous. Seeds
- smooth.—\$\mathcal{\beta}\$, reptans, Lightf.
 Watery pl. \$\mathcal{2}\$, 6—9. Stems spreading. Fl. of a golden yellow.
 R. Lingua, 2. 100. (Great Spear-wort C.) Leaves lanceolate, pointed, nearly sessile, somewhat serrated. Stem erect, manyflowered. Root fibrous. Seeds smooth.

Marshes. 4.7. Thrice the size of the last. Cal. hairy. Fl. large, yell.

3. R. gramineus, 33. 2306. (Grassy C.) Leaves linear-lanceolate, many-ribbed, entire. Stem erect, of few flowers, very smooth. Root tuberous.

N. Wales? 4. 5, 6. Stem 1 f. L. glaucous. Cal. spreading.
4. R. Ficária, 9. 584. (Pilewort C.) Leaves heart-shaped, angular, stalked, smooth. Petals numerous, elliptic-oblong.

Mead. and past. 4. 4. About 4 in. L. shining. Pet. bright yellow.

** Leaves lobed, or cut.

5. R. aurícomus, 9. 624. (Wood C. Goldilocks.) Radical leaves kidney-shaped, deeply three-cleft, notched ; stem-leaves divided

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to the base into linear segments. Stem many-flowered. Calyr coloured.

Dry groves. 24.4, 5. About 1 f. slightly downy. Nect. a naked pore.

6. R. scelerátus, 10. 681. (Water C.) Stem erect, hollow, much branched. Leaves smooth; lower ones palmate; upper fingered. Fruit oblong. Seeds minute, very numerous. Watery pl. O. 6-8. Pale green, and smooth. Stem thick. Fl. small.

- 7. R. alpestris, 34. 2390. (Alpine C.) Leaves very smooth ; radical ones somewhat heart-shaped, obtuse, in three deep lobed serments ; those of the stem lanceolate, entire. Calvx smooth. Clova Mts., very rare. 24.5. 3-6 in. Fl. mostly solitary, white.
- 8. R. bulbósus, 8. 515. (Bulbous C. Butter-cups.) Calyx reflexed; its stalk furrowed. Stem upright, many-flowered. Leaves compound. Root bulbous. Seeds smooth. Mead. and past. 24.5. 1-12 f. L. ternate, 3-cleft. Fl. golden yell.
- R. hirsútus, 21. 1504. (Harry C.) Calyx reflexed, pointed. Štem upright, many-flowered, hairy. Leaves ternate. Root fibrous. Seeds tuberculated.
 - Waste and cult. gr. \odot . 6—10. $1\frac{1}{2}f$. Hairs of the stem spreading. R. parvulus of Linn. Mant. 79, and Fl. Brit. 593, is but a var.
- 10. R. repens, 8. 516. (Creeping C.) Calyx spreading. Flower-stalks furrowed. Scyons creeping. Leaves compound, cut ; the uppermost entire.
 - Mead. and shady pl. 24.6-8. Runners very long. L. dark green.
- 11. R. ácris, 10. 652. (Upright Meadow C.) Calyx spreading. Flower-stalks round and even. Leaves in three deep lobed and cut segments ; those of the uppermost linear and entire. Mead. & past. 4. 6, 7. Stem 2 f. erect ; hairs close. Fl. bright yell.
- R. arvénsis, 2. 135. (Corn C.) Seeds very prickly at the sides. Leaves once or twice deeply three-cleft, with linear-lanceolate Stem erect, much branched, many-flowered. segments.

Fields. O.6. A very smooth, shining, pale green herb. Fl. lemon-col.

 R. parviflorus, 2. 120. (Small-flowered C.) Seeds with hooked prickles at the sides. Leaves simple, hairy, sharply cut; upper ones three-lobed. Stem prostrate.

Gravelly fields. O. 5, 6. A pale green, hairy herb. Fl. small, yellow.

14. R. hederáceus, 28. 2003. (Ivy C.) Seeds wrinkled. Leaves roundish-kidney-shaped, with three or five lobes, entire, smooth. Stem creeping.

Watery pl. 24. 5-8. Smooth. Fl. small, white. Stam. 5-10.

15. R. aquátilis, 2. 101. (White Floating C.) Seeds wrinkled. Leaves in capillary segments under water; above somewhat peltate, lobed, bluntly notched.

Ditches & ponds. 4.5, 6. Floating. Pet. white, with yellow claws.

280. TRÓLLIUS. Globe-flower.

1. T. européeus, 1.28. (Mountain G.) Petals about fifteen, converging into a globe. Nectaries five to ten, as long as the stamens. Shady mount. sit. 24.5, 6.2 f. L. in many deep, cut lobes. Fl. yell.



Ord. 1.] DIDYNAMIA GYMNOSPERMIA.

281. HELLÉBORUS. Hellebore.

- 1. H. víridis, 3. 200. (Green H.) Stem many-flowered, leafy. Leaves digitate. Petals spreading.
- Woods, on a chalky soil : wild ? 4. 4. L. bright green. Fl. green.
 2. H. fézidus, 9. 613. (Stinking H.) Stem many-flowered, leafy. Leaves pedate. Petals converging.

Thickets : native ? 4. 3, 4. L. dark green. Pet. purple-edged.

282. CÁLTHA. Marsh-marigold.

1. C. pakstris, 8. 506. (Common M.) Stem erect. Leaves heartshaped, rounded.

Marshy pl. 24.5. Smooth. L. bluntly notched. Fl. large, yellow.

 C. radicans, 31. 2175. (Creeping M.) Stem reclining, creeping. Leaves triangular, somewhat heart-shaped, sharply crenate. Marshy pl. in Scot. 4. 6. Smaller. Fl. small.—A var. of C. palust.

Class XIV. DIDYNAMIA. Stamens 4, 2 outermost longest.

Order I. GYMNOSPERMIA. Seeds naked, 4 at most.

All the Genera, except VERBENA, belong to the N.O. LABIATE.

[The plants of this Ord. are mostly herbaceous. Stems quadrang. L. opp. Fl. all complete and perf., mostly in whorls. Cal. of 1 pet., ringent, or lipped. Qualities aromatic, or bitter, always harmless.]

Calyx in 5 segments, nearly regular.

- 296. LEONÚRUS. Anther incumbent, besprinkled with hard granulations. Upper lip of the corolla shaggy.
- 288. GLECHÓMA. Anth. converging crosswise in pairs. Upper lip cloven.
- 287. MÉNTHA. Filaments spreading widely, straight. Cor. nearly equal.
- 284. TEUCRIUM. Upper lip of the cor. in 2 very deep, remote, lateral lobes.
- 283. AJUGA. Upper lip minute, abrupt, notched.
- 292. BETÓNICA. Upper lip nearly flat, ascending; tube cylindrical, incurved. Stam. not longer than the throat.
- 289. LAMIUM. Cor. toothed at each side of the throat.
- 290. GALEÓPSIS. Lower lip of the cor. with 2 hollow prominences at the base in front.
- 291. GALEÓBDOLON. Lower lip in 3 acute, undivided segments.
- 293. STÁCHYS. Lower lip with reflexed lateral lobes. Stam. finally spreading outwards at each side.

- 285. NÉPETA. Lower lip numerously notched, throat bordered and reflexed at each side.
- 294. BALLÓTA. Cal. with 10 furrows. Upper lip of the cor. vaulted, shaggy. 295. MARRUBIUM. Cal. with 10 furrows. Upper lip of the cor.
- straight, linear, cloven.
- 286. VERBENA. Cal. with 1 of the 5 teeth abrupt. Cor. nearly equal, curved. Stam. in the tube.-N.O. VEBBENACEE.*

** Calyx 2-lipped.

- 301. SCUTELLÁRIA. Cal. when in fruit closed by a dorsal lid.
- 299. THÝMUS. *Cal.* closed with dense converging hairs. 300. MELÍTTIS. *Cal.* open, wider than the tube of the cor. Upper lip nearly flat. Anth. converging crosswise in pairs. 297. CLINOPÓDIUM. Cal. many-ribbed. Involucrum of numer-
- ous taper leaves under the flowers. 298. ORIGANUM. Cal. without ribs. Invol. of numerous dilated,
- flat leaves, 1 to each fl. collected into a spurious catkin.
- 302. PRUNELLA. Filam. forked, 1 of the points bearing the anther.

Order II. ANGIOSPERMIA. Seeds in a capsule, generally numerous.

* Calyx 4-cleft.

- 3)7. LATHRÉA. Caps. of 1 cell. A gland under the germen .--N.O. OBOBANCHEZE.
- 303. BÁRTSIA. Caps. of 2 cells. Seeds angular.-N.O. Scho-PHULABINÆ.
- 304. RHINÁNTHUS. Caps. of 2 cells. Seeds compressed, imbricated.-N.O. SCROPHULABINE.
- 306. MELAMPYRUM. Caps. of 2 cells. Seeds in pairs, smooth, tumid .- N.O. SCROPHULARINÆ.
- 305. EUPHRÁSIA. Caps. of 2 cells. Seeds furrowed. Anth. spinous. -N.O. SCROPHULARINÆ.

** Calyz 5-cleft. All, except Linnæa, belong to the N.O. SCROPHULARINÆ.

- 814. LIMOSELLA. Caps. imperfectly 2-celled. Cor. bell-shaped. nearly equal.
- 310. SCROPHULÁRIA. Caps. of 2 cells. Cor. reversed ; tube inflated; limb rounded, much shorter.
- 313. SIBTHÓRPIA. Caps. of 2 cells, with transverse partitions. Cor. nearly wheel-shaped. Stam. converging laterally in pairs.
- 311. DIGITÁLÍS. Caps. of 2 cells. Cor. bell-shaped, tumid beneath. Stam. bent.
 - This plant properly belongs to the following Order AuguOSPERMIA.

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- 309. ANTIRRHÍNUM. Caps. of 2 cells, bursting unequally at the summit. Cor. closed with a palate, prominent, or spurred at the base behind.
- PEDICULÁRIS. Caps. of 2 cells. Seeds pointed. Cor. ringent; upper lip compressed.
- 312. LĬNNÆA. Berry dry, of 3 cells in the germen. Cor. bellshaped. Cal. double; innermost superior.—N.O. CAPRI-POLIACEÆ.

*** Calyx of 2 leaves.

315. OROBÁNCHE. Calyx-leaves lateral. A gland under the germen. Caps. of 1 cell, with 4 receptacles.—N.O. ORO-BANCHEZ.

DIDYNAMIA GYMNOSPERMIA.

283. AJÚGA. Bugle.

* Fl. whorled, blue.

- A. réptans, 7.489. (Common B.) Almost smooth, with a solitary stem, and creeping scyons. Lower lip of the corolla four-cleft. Moist woods. 4.5. L. obov. veiny. Fl. blue and white.
- A. alpina, 7. 477. (Alpine B.) Leaves almost smooth, irregularly toothed; uppermost entire. Whorls many-flowered, not crowded. Scyons none.

Mount. 4. 7. Cor. pale blue, with dark stripes ; lip often 3-lobed. —A var. of A. rept.?

- A. pyramidális, 18. 1270. (Pyramidal B.) Hairy. Whorls manyflowered, crowded into a pyramidal form. Radical leaves very large, obovate, crenate, obtuse. Upper lip deeply cloven.
 - N. Highl., rare. 24.5, 6. Fl. light purp. Bract. small, pale purp.

** Fl. solitary, yellow.

4. A. Chamápitys, 2. 77. (Yellow B. Ground Pine.) Stem spreading, branched. Leaves in three deep, linear, entire segments. Flowers solitary, axillary, shorter than the leaves.

Sandy fields ; imported? O. 4, 5. Hairy, glutinous, aromat. Fl. yellow.

284. TEÚCRIUM. Germander.

- T. Scorodónia, 22. 1543. (Wood G.) Leaves heart-shaped, hairy, serrated, stalked. Clusters aggregate, unilateral. Stem erect. Woods & thickets. 24. 7. Fl. yell. Stam. purp. Herb glutin. bitter.
- T. Scórdium, 12. 828. (Water G.) Leaves oblong, sessile, downy, with tooth-like serratures. Flowers axillary, stalked, in pairs. Stem procumbent.

Wet mead. rare. 4. 7, 8. Cor. dull purple. Herb bitter,

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3. T. Chaméedrys, 10. 680. (Wall G.) Leaves somewhat ovate, stalked, deeply crenate, or cut. Flowers axillary, stalked, three together. Stem roundish, hairy.

Old walls, rare. 4. 7. L. tapering at the base. Fl. purp. Cal. hairy.

285. NÉPETA. Cat-mint.

1. N. catária, 2. 197. (Common C.) Whorls stalked, crowded into spikes. Leaves stalked, finely downy, heart-shaped, with toothlike serratures.

Chalky, or grav. banks. 24.7. Downy, aromat. Cor. white, dotted.

286. VERBÉNA. Vervain.

 V. officinális, 11. 767. (Common V.) Stamens four. Spikes slender, panicled. Leaves deeply cut. Stem mostly solitary. Waste gr. 4.7. L. roughish. Fl. small, light blue, inodorous.

287. MÉNTHA. Mint.

1. M. sylvéstris, 10. 686. (Horse M.) Spikes shaggy, scarcely interrupted. Leaves acute, with deeply toothed serratures ; chiefly downy beneath. Bracteas awl-shaped.

Moist waste gr. 4.8, 9. 3 f. hoary. Cal. hairy. Fl. pale purple.

- M. rotundifólia, 7. 446. (Round-leaved M.) Spikes interrupted, somewhat hairy. Leaves elliptical, obtuse, wrinkled, sharply crenate, hairy beneath. Bracteas lanceolate. Moist waste gr. 4.8, 9. Green, viscid; smell acrid. Stam. prom.
- M. viridis, 34. 2424. (Spear M.) Spikes interrupted. Leaves sessile, lanceolate, acute, naked. Bracteas bristle-shaped, somewhat hairy. Flower-stalks very smooth.

Marshy pl. 4.8. Deep green. Cal. narrow, smooth; teeth often hairy.

- M. piperíta, 10. 687. (Pepper M.) Spikes blunt, interrupted below. Leaves stalked, smoothish, somewhat ovate. Calyx very smooth at the base.
 - Watery pl. 4.8, 9. Scent like camphor. Cal.-teeth dark purp.
- 5. M. citráta, M. odorata, 15. 1025. (Bergamot M.) Spikes capitate, very blunt. Leaves stalked, heart-shaped, naked. Calyx and flower-stalks perfectly smooth.

Watery pl. rare. 24. 7, 8. Smooth, fragrant, reddish.

 M. hirsúta, 7. 447, β. sativa, 448. (Hairy M.) Flowers capitate or whorled. Leaves stalked, ovate. Calvx clothed with erect hairs; flower-stalks with recurved ones.—Var. crispa. Leaves plaited and crisped. M. crispa, Suppl. 2785.

Watery pl. 4.8, 9. Scent, as well as the whole plant, very variable.

7. M. acutifólia, 34. 2415. (Sharp-leaved M.) Flowers whorled. Leaves ovate-lanceolate, tapering at each end. Calyx hairy. Hairs of the flower-stalks spreading.

Watery pl. rare. 4. 9. Sweet-scented. L. rather nar. on short stalks.

 M. rúbra, 20. 1413. (Tall red M.) Flowers whorled. Leaves ovate. Stem upright, zigzag. Flower-stalks, and lower part of the calyx, very smooth ; its teeth hairy.

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Ord. 1.] DIDYNAMIA GYMNOSPERMIA.

Ditches and watery pl. 24. 9. Smoothish, 4-6 f. Fl. large, reddish.

- M. gentilis, 30. 2118. (Bushy Red M.) Flowers whorled. Leaves ovate. Stem much branched, spreading. Flower-stalks, and base of the bell-shaped calyx, nearly smooth.
 - Watery pl. rare. 4. 8. Bushy, slightly hairy, 12-18 in. Cor. small, pale purple.
- M. grácilis, M. gentilis, 7. 449. (Narrow-leaved M.) Flowers whorled. Leaves lanceolate, nearly sessile. Stem much branched, erect. Flower-stalks, and base of the calyx, quite smooth.
- Wet sit. 4.8. Grass green, roughish. Cor. bearded at the tip.
 11. M. arvénsis, 30. 2119. (Corn M.) Flowers whorled. Leaves ovate. Stem much branched, spreading. Calyx bell-shaped, covered with horizontal hairs.
- Watery fields. 4.6-9. Odour strong, like that of mouldy cheese.
- M. agréstis, 30. 2120. (Field M.) Flowers whorled. Leaves somewhat heart-shaped, wrinkled, strongly serrated. Stem erect. Calyx bell-shaped, covered all over with horizontal hairs.
- Fields, S. of Eng. 24. 8. Odour like the last : A variety ?
- M. Pulégium, 15. 1026. (Penny-royal.) Flowers whorled. Leaves ovate. Stem prostrate. Flower-stalks and calyx all over downy; its teeth fringed.

Wet commons. 4.9. Small; with a peculiar, strong, acrid odour.

288. GLECHÓMA. Ground-ivy.

- 1. G. hederácea, 12. 853. (Common G.) Leaves kidney-heartshaped, crenate.
 - Groves & hedges. 4.4,5. Creeping, downy. Fl. blue; palate white.

289. LÁMIUM. Dead-nettle.

I. L. *álbum*, 11. 768. (White D.) Leaves heart-shaped, pointed, hairy, strongly serrated. Flowers about twenty in a whorl. Tube of the calyx shorter than its teeth. Upper lip of the corolla notched.

Waste gr. 24. 5-9. Fl. white, with black anth.; teeth lanceolate.

- L. maculátum, 36. 2550. (Spotted D.) Leaves heart-shaped, pointed, strongly serrated, hairy. Flowers about ten in a whork. Tube of the calyx curved, as long as its teeth. Upper lip notched. Banks, rare. 24. 4. Fl. large, crimson; teeth bristle-shaped.
- L. purpúreum, 11.769. (Řed D.) Leaves heart-shaped, unequally crenate, bluntish, stalked; the upper ones crowded. Stem leafless in the middle. Tube of the corolla, near the bottom, closed with hairs. Calyx-teeth lanceolate.

Waste and cult. gr. O. 5-9. Fl. purplish red, with red anth.

- L. incisum, 27. 1983. (Cut-leaved D.) Leaves heart-shaped, dilated, stalked, irregularly cut; the upper ones crowded. Tube of the corolla internally naked. Stem leafless in the middle. Sandy fields. O. 5. Small. Fl. red; teeth broad, confluent.
- 5. L. amplexicaule, 11. 770. (Henbit D.) Floral leaves sessile, kid-

ney-shaped, obtuse, clasping the stem. Teeth of the calva linear-awl-shaped, as long as its tube.

Fields, on a light soil. O. 2-6. Cor. of a beautiful crimson.

290. GALEÓPSIS. Hemp-nettle.

1. G. Ládanum, 13. 884. (Red H.) Stems not swelled below the joints. Leaves lanceolate, somewhat serrated, hairy. Upper lip slightly notched.

Chalky fields. O. 8. 9. Cor. rose-col. varieg. with red and white.

- 2. G. villosa, 33. 2353. (Downy H.) Stems not swelled below the joints. Leaves ovate-lanceolate, serrated, soft and downy. Upper lip deeply notched.
- Sandy fields. O. 7, 8. Cor. light yellow ; palate deep yellow.
- 3. G. Tetráhit, 3. 207. (Common H.) Stem bristly; swelled below the joints. Corolla twice the length of the calvx; upper lip nearly straight.

Fields. O. 7, 8. Cor. varieg. with white, red, and purple.

 G. versicolor, 10. 667. (Large-flowered H.) Stem bristly; swelled below the joints. Corolla thrice the length of the calyx; upper lip tumid ; middle lobe of the lower heart-shaped. Sandy fields. O. 7, 8. Fl. large, yell.; palate with reddish lines.

291. GALEÓBDOLON. Weasel-snout.

1. G. lúteum, 11. 787. (Yellow Weasel-snout.) Moist shady pl. 24. 5, Root creeping. Fl. yell.; lower lip spotted with red.

292. BETÓNICA. Betony.

1. B. officinális, 16, 1142. (Wood B.) Spike interrupted. Middle segment of the lower lip notched.

Woods & thick. 24.7,8. Stem, except the mid., rough. Fl. crims.

293. STÁCHYS. Wound-wort.

- 1. S. sylvática, 6. 416. (Hedge W.) Six flowers in a whorl. Leaves stalked, heart-shaped. Stem solid. Woods & groves. 4. 7, 8. Hairy, fetid, dark gr. Fl. dusky-reddish.
- 2. S. ambigua, 30. 2089. (Ambiguous W.) Six flowers in a whorl. Leaves oblong, stalked; heart-shaped at the base. Stem hollow.
- Waste and cult. gr. in Scot. 24. 9. R. creeping. Fl. brighter. 3. S. palústris, 24. 1675. (Marsh W.) Six to ten flowers in a whorl. Leaves linear-lanceolate, half clasping the stem. Root tuberous. Moist sit. 4.8. R. fleshy. Herbage fetid, greyish, and silky.
- 4. S. germánica, 12. 829. (Downy W.) Many flowers in a whorl. Leaves crenate. Stem woolly, erect. Limest. soil, rare. 42. 7. Densely silky and woolly. Fl. hairy. 5. S. arvénsis, 17. 1154. (Corn W.) Six flowers in a whorl. Ste
- Stem weak. Leaves heart-shaped, obtuse, crenate, a little hairy. Gravelly fields. O. 7, 8. L. 3-ribbed at the base. Cor. light purple.
- 6. S. ánnua, Suppl. 2669. (Pale W.) Annual, erect, downy. Leaves

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[C]. 14.

oblong-lanceolate, rather acute, crenate-serrate, 3-nerved ; the lower ones stalked. Whorls of about 6 flowers, spiked. Calyx hairy, its segments subulate. Seeds roundish, glossy.

Fields, betw. Gad's hill and Rochester, Kent. O. 8. Fl. yellow.

294. BALLÓTA. Black Horehound.

 B. nígra, 1. 46. (Stinking Black H.) Leaves ovate, undivided, serrated. Calyx funnel-shaped, abrupt, with short spreading teeth. Waste gr. 24. 7, 8. Fetid. Cor. dull purple; hairs converging.

295. MARRÚBIUM. White Horehound.

 M. vulgáre, 6. 410. (Common White H.) Calyx-teeth ten, bristleshaped, hooked backward. Leaves roundish-ovate, unequally serrated.

Waste gr. 24.7. Aromatic, bitter, hoary. Fl. small, white.

296. LEONÚRUS. Mother-wort.

- 1. L. Cardiaca, 4. 286. (Common M.) Upper leaves lanceolate, either three-lobed or undivided.
- Hedges; rare. 4.7, 8. Bitter, fetid. Fl. purp.; white and woolly outside.

297. CLINOPÓDIUM. Wild Basil.

 C. vulgáre, 20. 1401. (Common Wild B.) Whorls bristly. Bracteas awl-shaped. Flower-stalks branched. Leaves obscurely serrated.

Chalky, or gravelly soil. 24.8. Aromatic. Fl. light purple.

298. ORÍGANUM. Marjoram.

1. O. *vulgáre*, 16. 1143. (Common M.) Heads of flowers roundish, •panicled, crowded, erect. Involucral leaves ovate, smooth. Throat of the calyx hairy.

Bushy, chalky pl. 4.7, 8. Hot, fragrant. Fl. purplish.

299. THÝMUS. Thyme.

1. T. Serpýllum, 22. 1514. (Wild T.) Flowers in small heads. Stems recumbent. Leaves flat, ovate, obtuse, entire, fringed at their base.

Heaths. 4.7, 8. Stems a little shrubby and downy. Fl. purple.

- T. Acinos, 6. 411, Acinos vulgaris, Br. Fl. (Basil T.) Flowers about six in a whorl, on simple stalks. Stem branched, ascending. Leaves acute, serrated. Calyx protuberant at the base. Sandy fields. ⊙.7,8. Less fragr. Fl. bluish pur. varieg. with white.
- T. Calamintha, 24. 1676, Calamintha officinalis, Br. Fl. (Calamint,) Whorls on forked, many-flowered stalks. Leaves with shallow serratures. Huirs within the calyx.
 - Gravelly soil. 4. 7, 8. Of a sweet aromatic flavour. Cor. light purple, dotted, downy.

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- 4. T. Népeta, 20. 1414, Calamintha Nep. Br. Fl. (Lesser Calamint.) Whorls on forked, many-flowered stalks, longer than the adjoining leaf. Leaves scrrated. Hairs in the mouth of the calyx prominent.
 - Dry chalky banks. 4.8. Smaller. Odour of Penny-royal.—A var. of T. Cal.?

300. MELÍTTIS. Bastard Balm.

1. M. Melissophyllum, 9. 577. (Reddish Bastard B.) Calyx in three unequal lobes.

Woods. 4.5, 6. Cor. pale red; lower lip lobed, spotted with crims.

2. M. grandiffora, 9. 636. (Purple-and-white Bastard B.) Calyx four-lobed.

Woods. 4. 5. Cor. whitish, larger; lower lip with a violet spot. A var. of M. Meliss.

301. SCUTELLÁRIA. Skull-cap.

- S. galericuláta, 8. 523. (Common S.) Leaves lanceolate, crenate, rugged, heart-shaped at the base. Flowers axillary. Ditches and watery pl. 4. 7, 8. 1½ f. Fl. blue; lip streaked with white.
- S. minor, 8. 524. (Lesser S.) Leaves ovate, nearly entire, heartshaped, and occasionally lobed, at the base. Flowers axillary. Wet gravelly pl. 24. 8. 3-5 in. Fl. pale, reddish purple. Lower lip white, with red dots.

302. PRUNÉLLA. Self-heal, or Slough-heal.

 P. vulgáris, 14. 961. (Common S.) Leaves all ovate-oblong, stalked. Upper calyx-lip with very minute teeth. Mead. and past. 24. 7, 8. Fl. violet, in a whorled, bracteated spike.

DIDYNAMIA ANGIOSPERMIA.

303. BÁRTSIA. Bartsia.

- B. alpina, 6. 361. (Alpine B.) Leaves opposite, ovate, somewhat heart-shaped, bluntly serrated. Root creeping. Stem square. Alpine rills, rare. 4. 7. A span high, simple. Fl. violet.
 B. viscosa, 15. 1045. (Viscid B.) Leaves serrated; the upper ones
- B. viscosa, 15. 1045. (Viscid B.) Leaves serrated; the upper ones alternate. Flowers lateral and distant. Root fibrous. Stem round. Marshes, chiefly in the W. O. 7.8. Scarcely branched. Fl. yell.
- 3. B. Odontites, 20. 1415. (Red B.) Leaves lanceolate, serrated; the upper ones alternate. Flowers in unilateral clusters. Stem square. Root fibrous.

Moad. & past. (). 7, 8. Much branched. Fl. rose-col. Cal. dull viol.



Ord. 2.]

304. RHINÁNTHUS. Yellow-rattle.

- R. Crista-gálli, 10. 657. (Common Y.) Upper lip of the corolla concealing the style. Seeds bordered. Leaves lanceolate, serrated. Past. O. 6. Scarcely branched, 1 f. Cor. yellow. Anth. red.
- R. májor, Suppl. 2737. (Large Y.) Style prominent. Leaves linear-lanceolate, serrated. Bracteas taper-pointed. Fields. O. 7. Much branched. Cor. purp. Seeds slightly bordered.

305. EUPHRÁSIA. Eve-bright.

I. E. officinális, 20. 1416. (Common E.) Leaves ovate, furrowed, sharply toothed.

Heaths & past. 0.7-9.3-5in. Fl.white, varieg. with purple and yell.

306. MELAMPYRUM. Cow-wheat.

- M. cristátum, 1. 41. (Crested C.) Spikes quadrangular. Bractens heart-shaped, closely imbricated, finely toothed.
 Fields and groves, rare. O. 7. Cor. yellow; upper lip purple.
- M. arvénse, 1. 53. (Purple C.) Spikes conical. Bracteas lax, lanceolate, pinnatifid. Calyx-teeth longer than the tube. Corolla closed. Fields in Norfolk; very rare. O. 7. Cor. yell., tipped with purp. Bract. purp.
- M. praténse, 2. 113. (Yellow C.) Flowers axillary, turned to one side, in partly distant pairs. Corolla closed; lip direct.
 Woods and thick. ⊙. 7, 8. Cor. yell. Upper floral leaves toothcd at the base.
- M. sylváticum, 12. 804. (Wood C.) Flowers axillary, turned to one side, in distant pairs. Corolla gaping ; lip deflexed.
 - Alpine woods; chiefly in the N. rare. O. 7, 8. L. entire. Cor. deep yellow.

307. LATHRÆA. Toothwort.

 L. squamária, 1. 50. (Greater T.) Flowering branches erect, simple. Flowers pendulous, lower lip in three lobes; upper cloven. Dry groves. 24. 4. Root scaly and fleshy. Fl. dull purple, unilater.

308. PEDICULÁRIS. Lousewort.

- 1. P. palústris, 6. 399. (Marsh L.) Stem solitary, branched. Calyx ovate, hairy, ribbed, in two unequally notched lobes.
- Boggy past. 14. 6, 7. 1 f. L. doubly pinnatifid. Fl. dark crimson. 2. P. sylvática, 6. 400. (Dwarf L.) Stems several, spreading, simple.
- Calyx oblong, angular, smooth, in five unequal notched segments. Moist heaths. 24.6, 7. 3-5 in. L. of the root ovate. Fl.rose-col.

309. ANTIRRHÍNUM. Snapdragon.

* Leaves dilated. Stems flaccid.

- A. Cymbalária, 7. 502. (Ivy-leaved S.) Leaves heart-shaped, fivelobed, alternate, smooth. Stems procumbent.
 - Old walls; not native. 24. 5-11. Fl. varieg. with violet and blue.

[C]. 14.

2. A. spúrium, 10. 691. (Round-leaved S.) Leaves ovate, alternate. Stems procumbent.

Fields, rare. ⊙.7-9. Hairy. Fl. yell. upp. lip viol. Cal.-segm. ovate.

 A. Elatine, 10. 692. (Sharp-pointed S.) Leaves chiefly halbertshaped, alternate; lowermost ovate, opposite. Stems procumbent. Fields. O. 7-9. Hairy, more slender. Cal.-segm. lanceolate.

** Leaves narrower. Stems upright.

- A. répens, 18. 1253. (Creeping S.) Leaves linear, scattered; partly whorled. Stem panicled. Calyx smooth, as long as the spur. Chalky banks; rare, chiefly in the S. 24. 7-9. L. glauc. F7. pale grey, striped with blue, sweet-scented.
- A. Linária, 10. 658. β. 4. 260. (Yellow S. Toadflax.) Leaves linear-lanceolate, crowded. Stem erect. Spikes terminal. Calyx smooth, shorter than the spur.
 - Hedges, and borders of fields. 44.6, 7. Fl. rich yellow, imbricated; palate orange.—In β . the cor. is regular five-cleft, with 5 spurs, and 5 equal stam.
- A. minus, 28. 2014. (Least S.) Leaves lanceolate, obtuse, downy, mostly alternate. Stem much branched, spreading. Calyx longer than the spur.

Sandy fields. O. 6-8. Fl. purplish ; lower lip white ; palate yell.

*** Corolla without a prominent spur.

- 7. A. május, 2. 129. (Great S.) Corolla tumid at the base. Flowers in a dense cluster. Calyx-segments ovate, obtuse.
 - Old walls, not British. 24.7, 8. L. lanceol. Fl. large, rose-col.; palate yellowish.
- 8. A. Oróntium, 17. 1155. (Lesser S.) Corolla scarcely tumid at the base. Flowers loosely spiked. Calyx finger-shaped, longer than the corolla.

Sandy, or chalky fields. O. 7, 8. Cor. purplish rose-col. ; palate yell.

310. SCROPHULÁRIA. Figwort.

- S. nodósa, 22. 1544. (Knotty-rooted F.) Leaves heart-shaped, acute; three-ribbed at the base. Stem sharp-edged. Groves and hedges. 4.7. R. tuberous. Cor. dull green; lip limd
- purple.
 2. S. aquática, 12.854. (Water F. or Betony.) Leaves heart-shaped, bluntish, on decurrent stalks. Stem winged.

Watery pl. 4.7. R. fibr. Fl. with a gr. tube, and dark blood-red limb.

- S. S. Scorodónia, 31. 2209. (Balm-leaved F.) Leaves heart-shaped, doubly serrated; downy beneath. Cluster leafy.
 Banks of rivul. in the S.; very rare. 24. 7, 8. Stems 3 f. hairy. Fl. paler.
- S. vernális, 8. 567. (Yellow F.) Leaves heart-shaped, doubly serrated, downy. Flower-stalks axillary, solitary, forked, leafy. Thickets, rare. 3. 4. 5. Cor. yell.; no inner lobe. L. often ternate.

Ord. 3.7

311. DIGITÁLIS. Foxglove.

I. D. purpúrea, 19. 1297. (Purple F.) Calyx-segments ovate, acute. Corolla obtuse ; upper lobe scarcely cloven. Leaves downy. Woods and hedges, in hilly countries. 2. 6, 7. L. ovate, or ellipt .obl. crenate. Fl. purp.

312. LINNÆA. Linnæa.

1. L. boreális, 7. 433. (Two-flowered L.) In dry stony, shady fir-woods, rare; confined to the N. 21. 5. 6. Smooth. Fl. in pairs, flesh-col.

313. SIBTHÓRPIA. Sibthorpia.

1. S. européea, 10. 649. (Creeping S. Cornish Penny-wort.) Moist shady pl. in the S. 4.7, 8. Downy. L. orbic. hidney-sh. Fl. solit.

314. LIMOSÉLLA. Mudwort.

1. L. aquática, 5. 357. (Common M.) Muddy pl. O. 7, 8. Smooth, creeping. L. lanceol. Fl. flesh-col.

315. OROBÁNCHE. Broom-rape.

* Bracteas solitary.

1. O. májor, 6. 421. (Greater B.) Stem simple. Corolla inflated : segments of its lower lip nearly equal, acute. Stamens quite smooth below. Style downy.

Parasitical on broom or furze. 24.6, 7. Fl. of a dull purplish brown.

2. O. elátior, 8. 568. (Tall B.) Stem simple. Corolla funnel-shaped : lower lip with acute, nearly equal segments. Stamens downy. Style smooth.

Gravelly & bushy pl. 4. 7, 8. Taller. Fl. numerous, lighter purple.

2. O. caryophyllacea, Suppl. 2639. (Clove-scented B.) Stem simple. Tube of the corolla inflated, especially above. Limb spreading ; upper lip broad, emarginate : lower with 2 lobes; all the segments obtuse, wavy. Stamens hairy, especially at the base within. Style pubescent. Stigma dark purple.

On roots of Galium Mollugo and Rubus fruticosus, S. Kent. 21. 7. 3. O. minor, 6. 422. (Lesser B.) Stem simple. Corolla nearly cylindrical; lower lip with curled segments, the middle one lobed.

Stamens fringed. Style smooth. Clover fields. \bigcirc ? 7, 8. Fl. of a pale, dingy, purplish hue.

- 4. O. rubra, 25. 1786. (Red B.) Stem simple. Corolla somewhat tumid ; upper lip cloven ; lower in three nearly equal segments. Stamens fringed at the base. Style partially hairy.
 - Basaltic rocks. 24.8. Of a rusty purplish red. R. creeping. Fl. sweet-scented.

** Bracteas three to each flower.

5. O. cærúlea, 6. 423. (Purple B.) Stem simple. Bracteas three. Upper lip of the corolla cloven and notched; lower in three equal entire segments. Style downy.

Grassy past. near the sea. 4.7. Stem straight, dark grey. Fl. bluish violet.

6. O. ramósa, 3. 184. (Branched B.) Stem branched. Bracteas three. Upper lip of the corolla deeply cloven; lower equally lobed; segments all rounded and entire. Style smoothish.

Rich fields, on roots of hemp. O. 8, 9. Spread. Fl. light purple.

Class XV. TETRADYNAMIA. Stamens 6; the 2 opposite ones shortest.

This whole Class constitutes an entirely Natural Order, the CRUCIFERE.

[CRUCIFEROUS plants are generally *herbaceous*; if *shrubby*, of humble growth. *Stem* round. *L*. mostly alternate; rarely compound. *Fl*. in clusters, or corymbs; without bracteas; generally white or yellow; often fragr., especially at night; all complete and perf. *Cor.* of 4 pet. cruciform. *Qualities* rather acrid, most wholesome when *boiled*; *seeds* warm and pungent.]

Order I. SILICULOSA. Fruit a short roundish pod, or pouch.

* Cotyledons accumbent.

- DRÁBA. Pouch entire, laterally compressed ; valves nearly flat. Seeds numerous.
- 316. VÉLLA. Pouch entire, with a prominent, dilated, flat style, twice as long as the concave valves.
- 880. CRÁMBE. Pouch globose, stalked, coriaceous, of 1 cell, without valves, deciduous. Seed solitary.
- 329. CAKILE. Pouch angular, of 2 joints, each of 1 cell, without valves; the uppermost deciduous. Seed solitary.
- 322. HUTCHÍNSIA. Pouch nearly entire ; valves keeled, not bordered. Seeds 2, at least, in each cell. Filaments simple.
- 319. ALÝSSUM. Pouch nearly entire, bordered, laterally compressed; valves concave. Seeds 1 or 2 in each cell. Filam. often toothed.
- 325. COCHLEÁRIA. *Pouch* nearly entire, turgid, rugged, of 2 valves. *Seeds* numerous.
- 324. THLÁSPI. *Pouch* cloven, inversely heart-shaped; valves with a bordered keel. *Seeds* numerous.



- 327. IBÉRIS. Pouch cloven, inversely heart-shaped. Seeds solitary : 2 outer petals largest.
- 323. TEESDALIA. Pouch cloven, inversely heart-shaped ; valves keeled. Seeds 2 in each cell. Filam. each bearing a scale at the base.

** Cotyledons incumbent.

- 317. SUBULÁRIA. Pouch entire, transversely compressed ; valves tumid. Seeds numerous. Cotyledons linear.
- 328. ISÁTIS. Pouch entire, deciduous, bordered, transversely compressed, of 2 valves, and 1 cell. Seed solitary.
- 320. CAMELÍNA. Pouch entire ; valves tumid. Seeds numerous. not bordered. *Filam.* all simple. 325. SENEBIÉRA. *Pouch* nearly entire, transversely compressed,
- wrinkled, of 2 cells, without valves. Seeds solitary in each cell.
- 321. LEPIDIUM. Pouch cloven, elliptical, of 2 cells, and 2 keeled valves. Seeds solitary in each cell.

Order II. SILIQUOSA. Fruit a long many-seeded pod.

* Cotyledons flat, accumbent.

- 337. CHEIRÁNTHUS. Pod rather compressed, straight. Stigma either of 2 spreading lobes, or capitate. Cal. closed ; 2 of its leaves prominent at the base.
- 338. MATTHÍOLA. Pod nearly cylindrical, straight. Stigma of 2 converging lobes, either thickened or protuberant at the back. Cal. closed ; two of the leaves prominent at the base.
- 333. NASTURTIUM. Pod nearly cylindrical, oblique ; valves concave, without keels. Stigma obtuse, notched. Cal. spreading, equal at the base.
- 835. BARBARÉA. Pod quadrangular, two-edged. Seeds in a single row. Cal. erect. Glands at the inside of the shorter filaments.
- 340. ARABIS. Pod linear; valves flat. Seeds in a single row.
- 341. TURRÍTIS. Pod linear ; valves flat, keeled. Seeds in a double row.
- 832. CARDAMÍNE. Pod linear ; valves flat, without ribs, bursting elastically from the base. Seeds on capillary stalks.
- 331. DENTÁRIA. Pod lanceolate ; valves flat, without ribs, narrower than the partition, bursting elastically from the base. Seeds on flat, dilated stalks.

** Cotyledons flat, incumbent.

- 334. SISYMBRIUM. Pod nearly cylindrical. Stigma capitate, notched.
- 339. HÉSPERIS. Pod inaccurately quadrangular. Stigma nearly sessile, of two converging lobes. Cal. closed; with 2 protuberances at the base. Seeds not bordered.
- 336. ERÝSIMUM. Pod quadrangular. Stigma capitate, notched

*** Cotyledons folded, incumbent.

- 342. BRÁSSICA. Pod nearly cylindrical, beaked, with 2 valves. Seeds nearly globular. Calyx closed.
- 343. SINÁPIS. Pod nearly cylindrical, somewhat beaked, with 2 valves. Seeds nearly globular. Calyx spreading.
 344. RÁPHANUS. Pod tumid, imperfectly jointed, without valves.
- 344. RAPHANUS. Pod tumid, imperfectly jointed, without valves. Seeds globular.

TETRADYNAMIA SILICULOSA.

316. VÉLLA. Cress-rocket.

1. V. ánnua, 21. 1442. (Annual C.) Leaves doubly pinnatifid. Pouches deflexed.

Sandy fields, rare ; not native. O. 6. Stem erect, rough. Pet. yell.

317. SUBULÁRIA. Awlwort.

1. S. aquática, 11. 732. (Water A.) Alpine lakes, under water. O. 7. L. awl-shaped. Fl. white.

318. DRABA. Whitlow-grass.

- D. vérna, 9. 586. (Common W.) Stalks radical, naked. Petals deeply cloven. Leaves lanceolate, somewhat notched, hairy. Walls, banks, &c. O.3, 4. Hairs some simple, some forked. Fl. white.
- 2. D. aizoides, 18. 1271. (Yellow W.) Stalks solitary, naked. Petals slightly notched, twice the length of the calyx. Leaves lanceolate, rigid, keeled, fringed.
 - Walls and rocks, near Swansea. 4.3. Tufted. Fl. few, yellow, corymbose.
- D. hirta, 19. 1338. (Simple-haired W.) Stalk nearly leafless. Petals undivided. Pouch elliptic-oblong. Leaves lanceolate, slightly toothed, fringed with simple hairs.—D. rupestris, Br.

Ben Lawers. 4. 5, 6. Fl. small, white. Pet. with a shallow notch.

- D. incána, 6. 388. (Hoary W.) Stem-leaves numerous, hoary, like the stem, with close starry pubescence. Pouch elliptic-oblong, oblique, or twisted, longer than the hairy partial staks.
- Alpine rocks. 3. 5, 6. Hoary. Fl. numerous, white. Pet. obcord. 5. D. murális, 13. 912. (Speedwell-leaved W.) Stem branched.
 - Leaves heart-shaped, toothed, hairy. Pouch elliptical, obtuse, flat, shorter than the partial stalks.

Shady mt. pl. O. 5. Fl. numerous, small, white. Pet. obov. entire.

319. ALÝSSUM. Alyssum.

 A. maritimum, 25. 1729. (Sweet A.) Stem somewhat woody, much branched, spreading. Leaves lanceolate, acute, entire, hoary with close hairs. Stamens simple.





Ord. 1.7

Marit. cliffs ; not native. 4.8, 9. Fl. white, honey-scented. Seeds solitary.

320. CAMELÍNA. Gold of Pleasure.

1. C. sativa, Alyssum sativum, 18. 1254. (Common G.) Pouches obovate, bordered, twice as long as the style. Leaves lanceolatearrow-shaped.

Cult. f. ; not native. O. 6. Smoothish, 11 f. Fl. small, pale yellow.

321. LEPÍDIUM. Pepperwort.

- 1. L. latifolium, 3. 182. (Broad-leaved P.) Leaves ovate-lanceolate, undivided, serrated. Pouch oval, entire.
- Saltish marshes. 4. 7. Glaucous, 3 f. Fl. small, white. *1. L. Drába, Suppl. 2683. (Whitlow P.) Leaves amplexicaul, broadly oblong or lanceolate, entire or toothed. Pouch cordate, entire at the apex, crowned with a style about its own length. Fields and hedges, rare : S. Wales and Kent. 4. 6. Naturalized ?
- 2. L. ruderále, 23. 1595. (Narrow-leaved P.) Stamens two. Petals none. Leaves smooth; lower ones pinnatifid, toothed; upper linear. entire. Pouch notched.

Waste gr. near the sea. 3.6. 1 f. L. fleshy. Fl. minute.

3. L. campéstre, Thlaspi camp. 20. 1385. (Mithridate P.) Pouch scaly, notched ; bordered at the summit. Style very short. Stemleaves arrow-shaped, toothed.

Fields. O. 7. Downy. 1 f. Pet. small, white. Seeds solitary.

4. L. hirtum, Thlaspi hirtum, 26. 1803. (Hairy Mithridate P.) Pouch often hairy, not scaly, bordered at the summit. Style prominent. Stem-leaves arrow-shaped, slightly toothed.-L. Smithii, Br. Fl. Fields. 4.6. Finely hairy. Seeds solit.

322. HUTCHÍNSIA. Hutchinsia.

1. H. petráca, Lepidium petræum, 2. 111. (Rock H.) Leaves pinnate, entire. Petals scarcely equal to the calyx. Stigma sessile. Seeds two in each cell.

Limest. rocks. A. 3. 4. Stem branch. 2-3 in. smooth. Fl. small, white.

323. TEESDÁLIA. Teesdalia.

1. T. nudicáulis, Iberis nudic. 5. 327. (Naked-stalked T.) Petals unequal.

Dry, gravelly fields. O. 5. L. lyrate. Fl. minute, white.

[T. regularis, (Lepidium nudicaule of Linn.,) the only species known besides, has equal petals.]

824. THLÁSPI. Shepherd's Purse.

1. T. arvénse, 24. 1659. (Penny Cress.) Pouch orbicular, nearly flat, shorter than its stalk, Leaves smooth, oblong, toothed. Stem erect.

Fields, rare. O. 6, 7. Fl. small, white. Pouches large, erect.

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SA. [Cl. 15.

- T. perfoliatum, 33. 2354. (Perfoliate S.) Pouch inversely heartshaped. Stem-leaves heart-shaped, rather sharp at the base, clasping the branched stem. Style very short.
- Linest, past. rare. O. 4, 5. Spreading. L. slightly toothed. 3. T. alpéstre, 2. 81. (Alpine S.) Stem-leaves arrow-shaped. Stems
- T. alpéstre, 2. 81. (Alpine S.) Stem-leaves arrow-shaped. Stems simple. Style prominent beyond the margin of the obovate sbrupt pouch.

Mts. N. of Eng. 4. 6, 7. Stems straight. L. entire. Fl. white.

T. Bursa-postoris, 21. 1485. Capsella Bursa-past. Br. Fl. (Common S.) Hairy. Pouch obcordate, somewhat triangular. Radical leaves pinnatifid.

Waste and cult. gr. \odot . 3-9. Rough. Pouches smooth, not notched.

325. COCHLEÁRIA. Scurvy-grass.

- C. officinális, 8.551. (Common S.) Radical leaves roundish; those of the stem oblong and somewhat sinuated. Pouch globose. Mts. & sea-shores. O. 5. Smooth. Fl. white. Pouch scarcely veiny.
- C. groenlandica, 34. 2403. (Greenland S.) Leaves kidney-shaped, fleshy, entire; uppermost oblong. Pouch globose.
 Scot. mts. O. 8. Much smaller. Fl. large, white, tinged with purp.
- 3. C. *ánglica*, 8. 552. (English S.) Radical leaves ovate, entire; those on the stem sessile, lanceolate and toothed. Pouch elliptical, strongly reticulated with veins.
 - Muddy sea-shores. O. 5. Pouch twice the size, wrinkled.
- 4. C. Dánica, 10. 696. (Danish S.) Leaves all triangular and stalked. Pouch elliptical, reticulated with veins.

Muddy shores, rare. O. 5, 6. Smaller. L. uniform, 3-lobed. Fl. white.

 C Armorácia, 33. 2323. (Horse-radish.) Radical leaves oblong, crenate; those of the stem lanceolate, either cut or entire. Watery pl.; introd. 4. 4, 5. Roots long, white, pungent. Stems 2 f.

326. SENEBIÉRA. Wart-cress.

 S. Corónopus, Coron. Ruellii, 24. 1660. (Common W.) Pouch undivided, crested with little sharp points. Style prominent. Leaves pinnatifid, subdivided.

Waste. gr. 0.6-8. Prostrate. Corymb dense, of small, white fl.

2. S. didyma, C. didyma, 4. 248. (Lesser W.) Pouch cloven, of two round wrinkled lobes. Style scarcely discernible. Leaves pinnatifid, partly notched.

Waste gr. near the sea. O. 7. Smaller. Fl. numer. white. Stam. 2-4.

327. IBÉRIS. Candy-tuft.

- 1. I. amára, 1. 52. (Bitter C.) Stem herbaceous. Leaves lanceolate, acute, partly notched. Flowers in oblong clusters.
 - Chalky fields in the S., rare. O. 7. Stems branched. Fl. handsome, white.

328. ISÁTIS. Woad.

1. I. tinetória, 2. 97. (Dyer's W.) Radical leaves copiously crenate ;

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those of the stem entirc. Pouch abrupt, smooth, thrice as long as broad.

Fields, rare : naturalized. §.7. Glaucous. Stem 2 f. Fl. yell.

329. CAKÍLE. Sea Rocket.

1. C. marítima, Bunias Cak. 4. 231. (Purple Sea R.) Joints of the pouch two-edged; the upper one arrow-shaped. Leaves fleshy, pinnatifid, obtuse.

Sandy sea-shores. O. 6-9. Stem branched, twisted. Fl. purple.

330. CRÁMBE. Kule.

1. C. maritima, 13. 924. (Sea Kale.) Longer filaments toothed. Leaves roundish, sinuated, wavy, toothed, glaucous, very smooth, like the stem.

Sandy sea-shores. 4. 5, 6. L. broad. Fl. copious, white.

TETRADYNAMIA SILIQUOSA.

331. DENTÁRIA. Coralwort.

1. D. bulbifera, 5. 309. (Bulbiferous C.) Lower leaves pinnated : upper simple, with axillary bulbs.

Moist shady pl. rare. 24. 4, 5. Root toothed. Fl. purple.

32. CARDAMÍNE. Bitter-cress.

* Leaves simple.

1. C. bellidifólia, 33. 2355. (Daisy-leaved B.) Leaves simple, ovate, slightly wavy, entire; the radical ones much shorter than their stalks.

Scotland? 4.8.2 in. Fl. few, white. Style short, conical.

** Leaves pinnate.

- 2. C. impátiens, 2. 80. (Impatient B.) Leaves pinnate; leaflets lanceolate, mostly cut. Stipulas fringed.
- Shady rocky pl. O. 5, 6. Erect, pale green. Fl. minute. Pod elastic.
- C. hirsúta, 7. 492. (Hairy B.) Leaves pinnate, without stipulas; leaflets stalked, roundish-oblong, notched.
 - Waste and cult. gr. O. 3-6. More or less hairy and spread. Fl. white.
- 4. C. praténsis, 11. 776. (Meadow B. or Cuckoo-fl.) Leaves pinnate, without stipulas; leaflets of the radical ones roundish and toothed; those of the stem-leaves lanceolate, entire. Petals with a tooth upon the claw.

Mead. and past. 4.4, 5. Root tuberous. Fl. large, purple.

5. C. amára, 14. 1000. (Marsh B.) Leaves pinnate, without stipulas; leaflets of the lowermost roundish; of the rest toothed or angular. Stem creeping at the base.

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Wet pl.; rare. 4. 4, 5. Root toothed. Fl. white; anth. viol.; style elong.

333. NASTÚRTIUM. Cress.

- 1. N. officinále, Sisymbrium Nasturtium, 12. 855. (Water C.) Leaves pinnate : leaflets roundish-heart-shaped, wavy. Clear riv. & ponds. 4.6, 7. Stems spread. Fl. white. Pod slender.
- 2. N. sylvéstre, S. sylv. 33. 2324. (Creeping Yellow C.) Leaves pinnate; leaflets lanccolate, deeply serrated or cut. Root creeping. Wet gravelly mead. 24. 6-9. Root widely creep. Fl. bright yell. 3. N. terréstre, S. terr. 25. 1747. (Annual Yellow C.) Leaves pin-
- natifid, unequally toothed. Root tapering. Petals scarcely so long as the calyx. Pod curved.
- Banks and mead. ⊙. 6-9. Root simple. Fl. small, yellow.
 4. N. amphibium, S. amph. 26. 1840. (Amphibious Yellow C.) Leaves oblong, pinnatifid, or serrated. Roots fibrous. Petals longer than the calyx. Pod elliptical. Rivers and ditches. 4.6-8. Stem trailing. Fl. yellow; style elong.

334. SISYMBRIUM. Hedge-Mustard.

- 1. S. officinále, Erysimum off. 11. 735. (Common H.) Pods pressed close to the main stalk, awl-shaped, downy. Leaves runcinate, hairy. Stem rough with reflexed bristles.
- Waste gr. O. 7. Stems 2 f. spreading. Fl. small, pale yellow.
 S. Trio, 23. 1631. (Broad H. London Rocket.) Leaves runcinate, toothed, smooth as well as the stem. Pods erect.
- Waste gr. and walls. O. 7, 8. Quite smooth. Fl. small, yellow. 3. S. Sophia, 14. 963. (Fine-leaved H.) Leaves doubly pinnatifid, a little hairy. Petals smaller than the calyx.
 - Waste gr. O. 7. L. with narrow segments. Fl. minute, yellow.

335. BARBARÉA. Winter-cress.

- 1. B. vulgáris, Erysimum Barb. 7. 443. (Yellow Rocket.) Lower leaves lyrate, the terminal lobe roundish; upper obovate, toothed. Marshes and waste gr. 4.5-8. Smooth, shining, bitter. Fl. yellow.
- 2. B. prácox, E. præcox, 16. 1129. (Early W.) Lower leaves lyrate; upper deeply pinnatifid, with linear-oblong, entire segments. Watery pl. rare. 3.4-10, Smooth, 11-2 f. hot. Fl pale yellow.

836. ERÝSIMUM. Treacle-mustard.

1. E. cheiranthoides, 14. 942. (Worm-seed T.) Leaves lanceolate, obscurely toothed. Pods erect, on horizontal stalks. Stigma almost sessile.

Fields, and osier-holts. O. 7. Roughish, with close, forked bristles. Fl. golden.

2. E. Alliária, 12. 796. (Garlick T. Sauce-alone.) Leaves heartshaped, broadly toothed, stalked.

Shady pl. 24.5. Smooth, with a scent of garlick. Fl. white.

Ord. 2.7 TETRADYNAMIA SILIQUOSA,

3. E. orientále, Brassica orientalis, 26. 1804. (Hare's-ear T.) Leaves elliptic-heart-shaped, obtuse, clasping the stem; radical ones obovate ; all smooth, undivided, entire.

Fields, and marit. cliffs. O. 6. Even. glauc. Fl. whitish.

337. CHEIRÁNTHUS. Wall-flower.

- 1. Ch. fruticulosus, 27. 1934. (Wild W.) Leaves lanceolate, acute; most hoary beneath, with simple close hairs. Stem shrubby. Branches angular.
 - Walls. L. 5, 6. Cal. purplish. Pet. bright yellow. Style prominent.

338. MATTHÍOLA. Stock.

- 1. M. incána. Cheiranthus incanus, 27, 1935. (Hoary S.) Stem shrubby, upright, branched. Leaves lanceolate, obtusé, entire. Pods without glands. hoary.
- Marit. cliffs, not indigenous. h. 5. Fl. light purple, fragrant.
- 2. M. sinuáta, Ch. sin. 7. 462. (Great Sea S.) Stem herbaceous, spreading. Leaves downy, glandular, obtuse, sinuated; those of the branches undivided. Pods rough with prominent glands. Southern sea coasts. 3.8. Fl. purple, fragrant in the evening.

339. HÉSPERIS. Dame's-violet.

1. H. matronális, H. inodora, 11. 731. (Common D.) Partial flower-stalks the length of the calyx. Leaves ovate-lanceolate. toothed. Stem upright, slightly branched. Pods smooth, irregularly tumid, equilateral, nearly erect.

Hilly past. near rills. 24.5, 6. Somewhat hoary. Fl. rose-coloured.

840. ÁRABIS. Wall-cress, or Rock-cress.

1. A. thaliána, 13. 901. Sisymbr. th. Br. Fl. (Common W.) Leaves hairy, more or less toothed ; radical ones stalked, oblong. Stamens not much shorter than the petals. Stem branched. Pods pointing upwards.

Walls, dry banks, &c. O. 4. Fl. small, white. Pod a little curved.

2. A. stricta, 9. 614. (Bristol R.) Leaves toothed, obtuse, bristly; radical ones somewhat lyrate. Stems hairy. Petals nearly erect. Calvx smooth.

Limestone rocks near Bristol. 4.5. Fl. larger, cream-col. Pod straight.

3. A. hispida, Cardamine hastulata, 7. 469. (Alpine R.) Radical leaves lyrate or hastate, smooth or bristly, tufted ; stem-leaves lanceolate, entire, scattered, mostly smooth. Petals spreading. Root branched at the crown.

Alpine rocks ; rare. 24. 6, 7. *Fl. pale purple, or white.* 4. A. *ciliáta*, Turritis alpina, 25. 1746. (Fringed R.) Leaves somewhat toothed, smooth on both sides, distantly fringed and bearded; radical ones obovate. Stem simple.

Marit. cliffs, W. of Ir. rare. 5.7, 8. Stem-leaves ellipt. Fl. white.

- 5. A. hirsúta, T. hirs. 9. 587. (Hairy W.) Leaves toothed and bristly. Stem rough, with simple spreading hairs. Pods quite erect, with slightly keeled valves.
- Walls and rocks. 4.5. Stem 14 f. slightly branched. Fl. white.
 6. A. Turrita, 3. 178. (Tower W.) Leaves toothed, clasping the stem. Flower-stalks the length of the calyx, each with a leafy bractea. Pods linear, flat, thick-edged, recurved in one direction. Old walls, rare; introduced. 8.5. 1 f. Fl. pale sulphur-coloured.

341. TURRÍTIS. Tower-mustard.

- 1. T. glábra, 11. 77. (Smooth T.) Radical leaves toothed, rough: the rest entire, clasping the stem, smooth.
 - Gravelly past. 0.5, 6. Stem 2-3 f. wand-like. Pods slender, close to the stem.

342. BRÁSSICA. Cabbage, Turnep, &c.

- 1. B. Nápus, 30. 2146. (Rape, or Cole-seed.) Root spindle-shaped. Leaves smooth; upper ones lanceolate, heart-shaped at their base, clasping the stem; lower ones lyrate, toothed.
- Fields and banks. 8. 5. L. glauc. beneath. Fl. yellow.
- B. Rápa, 31. 2176. (Common Turnep.) Root stem-like, fleshy, orbicular, depressed. Radical leaves lyrate, rough; those of the stem smooth; the uppermost entire.
- Cult. fields. S. 4. Radical leaves dark green. Fl. bright yellow.
- S. B. campéstris, 32. 2234. (Wild Navew.) Root tapering. Radical leaves lyrate, rough; stem-leaves smooth, clasping, oblong, partly pinnatifid.
 - Fields. O. 6, 7. Glaucous. Fl. yellow.
- 4. B. olerácea, 9. 637. (Sea Cabbage.) Root stem-like, cylindrical, fleshy. Leaves smooth, glaucous, waved, lobed, partly lyrate. Pod without a beak.

Cliffs near the sea; rare. & . 5, 6. Stem scarred below. Fl. lemon-col.

- 5. B. monénsis, Sisymbrium monense, 14. 962. (Isle of Man C.) Leaves glaucous, deeply pinnatifid, nearly smooth; lobes oblong, unequally toothed. Stem simple, smooth. Pods quadrangular; beak lodging two or three seeds.
 - Sandy sea-shores, rare. 24.6, 7. Stem a span high. Fl. lemon-col. veined.

343. SINÁPIS. Mustard.

1. S. arvénsis, 25. 1748. (Wild M. Charlock.) Pods with many angles, rugged, longer than their own awl-shaped beak. Leaves toothed, partly lyrate, or hastate. Fields. O. 5. Fl. yellow. Pods about 8-angled; beak furrowed.

2. S. álba, 24. 1677. (White M.) Pods bristly, rugged, spreading, shorter than their own flat two-edged beak. Leaves lyrate.

- Fields. O.6. Fl. numer. yellow. Beak very long, bristly, sword-sh.
- 3. S. nígra, 14. 969. (Common M.) Pods quadrangular, smooth,

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slightly beaked, close-pressed to the stalk. Lower leaves lyrate; upper linear-lanceolate, entire, smooth.

- Fields & banks. O. 6. Fl. yell., small. Upp. branches dependent.
 4. S. tenuifólia, Sisymbrium tenuifolium, 8. 525. (Narrow-leaved Wall M.) Pods erect, on spreading stalks, linear, compressed, slightly beaked. Leaves once or twice pinnatifid; the upper-most undivided. Stem smooth.
 - Walls and rubbish. 4.7-10. Bushy. Fl. large, lemon-col. Seeds 2-ranked.
- 5. S. murális, Sisymb. murale, 16. 1090. (Sand M.) Pods ascend-ing, on spreading stalks, linear, compressed, slightly beaked. Leaves sinuated. Stem roughish with reflexed bristles. Sandy gr. O. 8-10. Stems spreading, leafy below. Fl. smaller.
 - Seeds 2-ranked.

344. RÁPHANUS. Radish.

1. R. Raphanistrum, 12. 856. (Wild R.) Pods jointed, striated, of one cell. Leaves lyrate.

Fields. O. 6, 7. Upp. l. oblong, or lanceol. Fl. pale, with viol. veins.

R. maritimus, 27. 1643. (Sea R.) Pods jointed, deeply furrowed, of one cell. Radical leaves interruptedly lyrate, serrated. Seaside. 3.6. Larger. Fl. yellow, less veiny.

Class XVL MONADELPHIA. Filaments combined, in one set.

Order I. PENTANDRIA. Stamens 5.

345. ERÓDIUM. Style 1. Fruit beaked, of 5 aggregate capsules, each tipped with a spiral awn, bearded on the inside.-N.O. GEBANIACEE.

Lysimachia 1. Linum. Geranium 8.

Order II. DECANDRIA. Stamens 10.

846. GERÁNIUM. Style 1. Fruit beaked, of 5 aggregate capsules, each tipped with a recurved naked awn.-N.O. GEBANIACEE. Oxalis. Spartium. Genista. Anthyllis. Ulex. Ononis.

Order III. POLYANDRIA. Stamens numerous.

The genera belony to the Nat. Ord. MALVACEE.

- 349. LAVATERA. Styles numerous. Outer calyx 3-lobed. Caps. whorled, 1-seeded.
- 348. MÁLVA. Styles numerous. Outer cal. of 3 leaves. Caps. whorled, 1-seeded.

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[Cl. 16.

847. ALTHÉA. Styles numerous. Outer cal. in 9 segments. Caps. whorled, 1-seeded.

MONADELPHIA PENTANDRIA.

845. ERÓDIUM. Stork's-bill.

- 1. E. cicutârium, 25. 1768. (Hemlock S.) Stalks many-flowered. Leaves pinnate; leaflets sessile, pinnatifid, cut. Stamens simple. Rubbish, and sandy gr. O. 6-8. Fetid. Stem procumb. Fl. purp.
- 2. E. moschátum, 13, 902. (Musky S.) Stalks many-flowered. Leaves pinnate; leaflets nearly sessile, elliptical, unequally cut. Perfect stamens toothed at the base.
 - Mount. past. rare. 0.6, 7. Of a musky fragrance. Stems depressed. Fl. smaller.
- 3. E. marítimum, 9. 646. (Sea S.) Stalks barely three-flowered. Leaves simple, heart-shaped, cut, crenate, rough. Sandy sea-shores. 4. 5-9. L. simple, on rather long stalks. Fl.
 - pale red.

MONADELPHIA DECANDRIA.

346. GERÁNIUM. Crane's-bill.

- 1. G. phœum, 5. 322. (Dusky C.) Stalks two-flowered, panicled. erect. Calyx slightly pointed. Capsules keeled ; hairy below : wrinkled at the summit. Stamens hairy. Mount. thickets. 24.5, 6. L. palmate. Pet. wavy, dark purple.
- 2. G. nodósum, 16. 1091. (Knotty C.) Stalks two-flowered. Leaves opposite, three- or five-lobed, pointed, serrated. Capsules even. downy all over.
 - Mount. thickets, indigenous? 24. 5-8. Stem 18 in., weak, swelled at the joints. Fl. purple.
- 3. G. sylváticum, 2. 121. (Wood C.) Stalks two-flowered, somewhat corymbose. Leaves about seven-lobed, cut and serrated. Capsules hairy all over. Stamens awl-shaped.
- Mt. thick. 4. 6, 7. Pet. purp., with crimson veins. Stam. fringed. 4. G. praténse, 6. 404. (Meadow C.) Stalks two-flowered. Leaves in about seven deep segments, sharply pinnatifid and serrated. Capsules hairy all over. Stamens much dilated at the base. Mount. past. 4. 6, 7. Pet. very large, fine blue. Stam. smooth.
- 5. G. robertiánum, 21. 1486. (Stinking C. Herb Robert.) Stalks two-flowered. Leaves somewhat pedate, pinnatifid, five-angled. Calyx with ten angles. Capsule wrinkled.— β , smaller, G. purpureum, Suppl. 2648.

Hedges and waste gr. \odot . 5—10. Fetid, reddish. Fl. crimson. 6. G. *Ucidum*, 2.75. (Shining C.) Stalks two-flowered. Leaves five-

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Ord. 2.] MONADELPHIA POLYANDRIA.

lobed, rounded. Calyx pyramidal, transversely wrinkled. Capsules wrinkled, triply keeled.

Walls and moist rocks. O. 5-8. Shining, reddish. Fl. purple.

 G. mólle, 11. 778. (Dove's-foot C.) Stalks two-flowered, alternate, opposite to the leaves, which are rounded, lobed, notched, and downy. Capsules numerously wrinkled, smooth. Seeds without dots.

Past. and waste gr. O. 4-8. Stems spreading. Fl. small, purple.

8. G. pusillum, 6. 385. (Small-flowered C.) Stalks two-flowered. Leaves kidney-shaped, palmate, cut, downy. Capsules keeled, even, with erect hairs. Seeds without dots.

Gravelly soil. ⊙. 6-9. Fl. small, bluish, with only 5 perfect anth.

- G. pyrenáicum, 6. 405. (Perennial Dove's-foot C.) Stalks twoflowered. Petals twice the length of the calyx. Leaves kidneyshaped, lobed. Capsules keeled, even, somewhat downy. Seeds without dots.
 - Mead. and past. 4.7. Stem erect, 3 f. Fl. pretty large, light blue. Seeds even.
- G. rotundifôlium, 3. 157. (Round-leaved C.) Stalks two-flowered. Petals entire. Leaves kidney-shaped, cut, downy. Capsules even, hairy. Seeds reticulated.
- Waste gr. and past. O. 6, 7. Stem spreading. Fl. small, rose-col.
- G. disséctum, 11. 753. (Jagged-leaved C.) Stalks two-flowcred. Petals cloven. Leaves in five deep, laciniated segments. Capsules hairy. Seeds reticulated.

Barren grav. pl. ⊙.5, 6. Segm. of the leafl.narrow. Fl.small, purp.

- G. columbinum, 4. 259. (Long-stalked C.) Stalks two-flowered, thrice as long as the leaves, which are in five deep, laciniated segments. Capsules quite even and smooth. Seeds reticulated. Chalky or grav. banks. O. 6, 7. A slender herb. Fl. larger.
- 13. G. sanguineum, 4. 272. (Bloody C.) Stalks single-flowered. Leaves roundish, in five or seven, deeply separated, three-cleft lobes. Capsules even, bristly at the summit. Seeds minutely wrinkled.

Hilly stony pl. 4. 7-9. Spreading. Fl. large, blood-col.

MONADELPHIA POLYANDRIA.

347. ALTHÆA. Marsh-Mallow.

1. A. officinális, 3. 147. (Common M.) Leaves simple, downy, slightly five-lobed.

Marsh. near the sea. 24. 7-9. Stems straight, 3 f. Fl. reddish purp.

[•]2. A. hirsúta, Suppl. 2674. (Hairy M.) Leaves cordate, rough with hairs; lower ones obtusely, upper ones acutely, lobed, and toothed. Stem hispid. Peduncles single-flowered, longer than the leaves.

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Field near Cobham, Kent. Native ? 0.6, 7. Hispid. Fl. small, red-purple.

348. MÁLVA. Mallow.

1. M. sylvéstris, 10. 671. (Common M.) Stem upright, herbaceous. Leaves with seven acute lobes. Stalks of the flower and of the leaf, hairy.

Hedges and road-sides. 24.5-8. Much branched. Fl. large, purp.

 M. rotundifólia, 16. 1092. β. pusilla, 4. 231. (Dwarf M.) Stems prostrate. Leaves roundish-heart-shaped, bluntly five-lobed. Stalks of the fruit bent downwards.

Waste gr. \odot . 6—9. Scarcely branched. Fl. small, reddish; in β . very minute.

3. M. moscháta, 11. 754. (Musk M.) Radical leaves kidney-shaped, cut; the rest in five deep, pinnatifid, jagged segments. Calyx hairy; its outer leaves linear-lanceolate.

349. LAVATÉRA. Tree-mallow.

1. L. arbórea, 26. 1841. (Sea T.) Stem arboreous. Leaves downy, plaited, with seven angles. Stalks axillary, crowded, singleflowered.

Maritime rocks, rare. §. 7-10. 6 f. Fl. purple, shining.

Class XVII. DIADELPHIA. Filaments combined, in two sets.

Order I. HEXANDRIA. Stamens 6.

350. FUMÁRIA. Cal. of 2 leaves. Cor. ringent, prominent and honey-bearing at the base. Each filament with 3 anthers... N.O. FUMARIACEZ.

Order II. OCTANDRIA. Stamens 8.

351. POLYGALA. Two segments of the cal. like wings. Standard of the cor. cylindrical. Caps. of 2 cells and 2 valves. Seeds solitary, crested.—N.O. POLYGALEE.

Order III. DECANDRIA. Stamens 10.

- An entirely NAT. OBD., comprehending the Papilionaceous plants; LEGUMINOSE.
- * Stamens all connected at the base ; the tube which they form mostly split along its upper side.
- 352. SPÁRTIUM. Filam. all forming a simple tube. Stigma lateral, linear, hairy. Legume flat.

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Grav. soil, by hedges. 24.7,8. Roughish; mushy-sc. Fl. large, rose-c.

- 353. GENÍSTA. Filam. upwards in 2 sets. Stigma terminal. a little capitate. Pistil depressing the keel. Standard reflexed. Legume turgid.
- 354. ÚLEX. Cal. of 2 leaves, nearly as long as the legume. 356. ANTHYLLIS. Cal. inflated, including the legume.
- 355. ONÓNIS. Cal. in 5 deep segments. Legume rhomboid, sessile. Standard striated.
 - ** Stigma or style, downy ; without the character of the former section.
- 358. 6 ROBUS. Style linear, nearly cylindrical. Stigma downy on the upper side.
- 357. PÍSUM. The upper prominent angle of the stigma downy. Style triangular.
- 359. LATHYRUS. Style flattened vertically. Stigma downy along the dilated upper half of the style.
- 360. VÍCIA. Style bearded in front, below the stigma. 361. ÉRVUM. Stigma capitate, all over downy.

*** Legume more or less perfectly 2-celled; without the former characters.

- 365. ASTRÁGALUS. Legume tumid, of 2 longitudinal cells.
- **** Legume with scarcely more than 1 seed ; without the former characters.
- 366. TRIFÓLIUM. Legume hardly longer than the calyz, with 1 seed, rarely more, not bursting, deciduous.
- ***** Legume either jointed or spiral; without the former characters.
- 364. HEDÝSARUM. Legume of one or more, close, compressed, single-seeded joints. Keel very obtuse.
- 362. ORNÍTHOPUS. Legume somewhat cylindrical, curved; of many close, single-seeded joints. Keel rounded.
- 363. HIPPOCRÉPIS. Legume compressed, partly membranous, incurved; with many curved joints; one suture with several notches.
- 368. MEDICÁGO. Legume spiral, compressed, somewhat membranous. Pistil pressing the keel downwards.
- ****** Legume of 1 cell, with numerous seeds ; without the former characters.
- 367. LÓTUS. Legume cylindrical, spongy within. Wings converging at their upper edges. Filam. partly dilated.

DIADELPHIA HEXANDRIA.

350. FUMÁRIA. Fumitory.

- * Pod with many seeds. Nect. single. Corydalis of DeCand.
- 1. F. sólida, 21. 1471. (Solid F.) Stem mostly simple, erect.

.

Leaves twice ternate. Bracteas palmate, longer than each flower-stalk.

- Thick., rare; native? 4.4,5. R. bulbous, solid. Fl. tipped with purple.
- F. *lutea*, 9. 588. (Yellow F.) Pods nearly cylindrical, shorter than their stalks. Stem angular, erect. Bracteas minute. Spur short, rounded.
 - Old walls; naturalized. 4. 5. R. fibrous. Fl. lemon-col. with yellow tips.
- F. claviculáta, 2. 103. (Climbing F.) Pods lanceolate, undulated. Stem climbing. Footstalks ending in branched tendrils. Gravelly, bushy hills. O. 6, 7. Very tender and glauc. Fl. white.

** Pod single-seeded. Nect. single. Fumaria of De Cand.

4. F. officinális, 9. 589. (Common F.) Cluster rather lax. Pods single-seeded, globose, abrupt, on upright stalks twice as long as the bracteas. Stem spreading. Segments of the leaflets hanceolate.

Cult. gr. ⊙. 5-8. Glaucous. Fl. pale red ; deep red at the summit.

- F. parviflora, 9. 590. (Small-flowered F.) Cluster lax. Pods single-seeded, globose, pointed. Stem spreading. Segments of the leaflets linear, channelled.
 Field S. of Fare O. S. O. Los and provide real mode and
- Fields, S. of Eng. O. 8, 9. Leafl. very narrow. Fl. small, pale red.
 6. F. capreoláta, 14. 943. (Ramping F.) Cluster rather lax. Pods single-seeded, globose. Stem climbing by the twisting footstalks. Leaflets wedge-shaped, lobed.

Fields, rare. O. 6-9. 3-4 f. Pet. pale-red, tipped with deep-red.

DIADELPHIA OCTANDRIA.

351. POLÝGALA. Milkwort.

 P. vulgáris, 2. 76. and P. amara, Suppl. 2764, not L. (Common M.) Flowers crested. Stems ascending, herbaceous, simple. Leaves linear-lanceolate.

Dry gravelly pl. 24.6, 7. Smooth and bitter. Bract. 3, deciduous. Fl. blue, pink, or white. Cal. permanent; its wings about as long as the corolla.

DIADELPHIA DECANDRIA.

[This Natural Order of *Papilionaceous* Plants (Leguminosæ of Jussieu) is in habit either herbaceous, or shrubby. Wood hard. L. mostly pinnate, with a tendril or an odd leaflet; rarely simple. Stip: in pairs. Fl. handsome, often fragrant; all complete and perfect. Cor. papilionaceous. Herbage wholesome for cattle; seeds for mankind.]

352. SPÁRTIUM. Broom.

1. S. scopárium, 19, 1339. Cytisus scoparius, Br. Fl. (Common B.)

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Leaves ternate, or solitary. Branches angular, without thorns. Filaments in one set at the base. Legume fringed.

Dry gravelly pl. b. 5, 6. Fl. stalked, large, yell. Cal. purplish.

353. GENÍSTA. Green-weed.

- 1. G. tinctoria. 1. 44. (Dyer's G.) Leaves lanceolate, smooth. Branches round, striated, erect, without thorns.
- Past. and thickets. L. 7, 8. Of humble growth. Fl. bright yellow. 2. G. pilósa, 3. 208. (Hairy G.) Leaves obovate-lanceolate, obtuse ;
- hairy beneath. Stem tuberculated, prostrate, without thorns. Dry elevated moors. 5. 5, & again 9. Cal. & fl. stalks silky. Fl. yell. 3. G. ánglica, 2. 132. (Needle G. Petty Whin.) Thorns nearly sim-
- ple. Flowering-branches unarmed. Leaves ovate-lanceolate. Boggy heaths. 5. 5, 6. About 1 f. woody. Fl. small, lemon-col.; standard yell.

354. ÚLEX. Furze.

- 1. U. européeus, 11. 742. (Common F. Whin.) Teeth of the calyx obsolete, converging; bracteas ovate, lax. Branches erect.
- Heaths and commons. b. 5-12. 2-5 f. Fl. yellow. 2. U. námus, 11. 743. (Dwarf F.) Teeth of the calyx lanceolate, spreading. Bracteas minute, close-pressed. Branches reclining. Dry heaths. L. 8-10. Scarcely half the size. Fl. smaller and paler.

355. ONÓNIS. Rest-harrow.

1. O. arvénsis, 10. 682, and Suppl. 2659. (Common R.) Stem hairy. Branches at length spinous. Flowers mostly solitary. Leaves generally simple ; entire towards their base.

Fields and past. 2. 6-8. Fl. on short stalks, brilliant rose-col.

- 2. O. reclináta, Barr. Ic. 761. (Small Annual R.) Herbaceous, spreading. Leaves ternate. Leaflets cuneate, serrate, with viscid pubescence. Stipulas broadly ovate, acute, serrated. Peduncles 1-flowered, shorter than the leaf. Calyx longer than the corolla, shorter than the legume.
 - Cliffs, Mull of Galloway. (Dr. Graham.) O. 6, 7. 3-5 inch. Cor. purplish-white.

356. ANTHÝLLIS. Kidney-vetch.

1. A. vulnerária, 2. 104. (Common K. or Ladies' finger.) Herbaceous. Leaves pinnate, unequal. Heads of flowers in pairs. Chalky past. 4.6-8. L. lyrate. Cor. yellow, rarely of a fine red.

357. PÍSUM. Pea.

- 1. P. marítimum, 15. 1046. Lathyrus pisiformis, Br. Fl. (Sea P.) Footstalks flattish on the upper side. Stem angular. Stipulas arrow-shaped. Stalks many-flowered.
 - Stony sea-shores. 4.7. Procumb. Fl. purple. varieg. with crimson. H

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DIADELPHIA DECANDRIA.

858. ÓROBUS. Bitter-vetch.

- 1. O. tuberósus, 17, 1153. (Common B. Heath-pea.) Leaves pinnate, elliptic-lanceolate. Stipulas half-arrow-shaped; toothed at the base. Stem simple, erect.
- Heaths & woods. 4.5, 6. R. knobbed, sweetish. Fl. purple & red.
 2. O. niger, Suppl. 2788. (Black B.) Leaves pinnate, of from four to six pairs of elliptic-lanceolate leaflets. Stipulas linear-awl-shaped, simple, entire. Stem branched, angular, erect. Shady rocks, Scot. 4. 6, 7. R. tapering. Fl. eleg., bluish purp.
- Shady rocks, Scot. 4. 6, 7. R. tapering. Fl. eleg., bluish purp.
 3. O. sylvática, 8. 518. (Wood B.) Stems recumbent, hairy, branched. Leaflets numerous.
 - Mount. woods, rare. 4. 5, 6. Pet. cream-col. streaked with purp. In A. a var. found in Cardiganshire, the leaves are large, simple, ovate !

359. LÁTHYRUS. Vetchling.

* Flowers mostly solitary.

- 1. L. Aphaca, 17. 1167. (Yellow V.) Tendrils without leaves. Stipulas between heart- and arrow-shaped.
- Gravelly places, rare. O. 6-8. L. 0. Stip. large. Fl. lemon-col.
- 2. L. Nissólia, 2. 112. (Crimson V.) Leaves simple, without tendrils. Stipulas awl-shaped.

Bushy pl. ⊙. 5. Herb grassy. Fl. crims., varieg. with purp. & white.

** Flowers in pairs.

 L. hirsútus, 18. 1255. (Rough-podded V.) Each tendril with a pair of linear-lanceolate leaflets. Legumes hairy. Seeds rough. Fields, rare. O. 7. Stem hairy, winged. Stand. crims.; keel white.

*** Flowers numerous on each stalk.

- L. praténsis, 10. 670. (Meadow V.) Tendrils mostly simple, each bearing a pair of lanceolate leaflets. Mead. and past. 4. 7, 8. Smooth. Stems angular. Fl. bright yell
- 5. L. sylvéstris, 12. 805. (Narrow-leaved Everlasting Pea.) Tendrils branched, each bearing a pair of sword-shaped leaflets. Stem winged.

Thick. and moist hedges. 24. 7, 8. 6 f. Fl. purp. with violet wings.

- L. latifolius, 16. 1108. (Broad-leaved Everlasting Pea.) Tendrils branched, each bearing a pair of elliptical leaflets. Stem winged. Woods, rare : native? 4. 7, 8. Fl. large ; pet. all rose-col.
- L. palústris, 3. 169. (Marsh V.) Tendrils branched, each bearing several elliptic-lanceolate leaflets. Stipulas lanceolate. Humid mead. and thick. 24. 7, 8. 4 f. winged. Fl. varieg. with

blue and purple.

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360. VÍCIA. Vetch.

* Stalks elongated, many-flowered.

1. V. sylvática, 2. 79. (Wood V.) Leaflets elliptical. Stipulas crescent-shaped, deeply toothed.

[CL 17.

Woody mount, 4.7, 8. Stem smooth, 6 f. Fl. white, with blue lines.

2. V. Crácca, 17. 1168. (Tufied V.) Flowers imbricated. Leaflets lanceolate, downy. Stipulas half-arrow-shaped, mostly entire. Hedges, and bushy past. 4.7, 8. Stem 3 f. downy. Fl. violet.

** Flowers axillary, nearly sessile.

- 3. V. sativa, 5. 834. (Common V.) Flowers mostly in pairs. Leaflets elliptic-oblong; lower ones abrupt. Stipulas with a blackish depression beneath. Seeds orbicular, smooth,
- Corn fields (0. 5,6. Herb more or less downy. Pet. purplish crims., variegaled.—V. augustif. is scarcely distinct. 4. V. angustifólia, Suppl. 2614. and V. Bobartii, Suppl. 2708.
- (Narrow-leaved V.) Flowers solitary. Leaflets linear ; lower ones obcordate. Stipulas with a pale depression beneath. Seeds orbicular, smooth.

- Grassy past. ()? 6. Smaller, slender. Fl. eleg., crims.; heel white. 5. V. lathyroides, 1. 30. (Spring V.) Flowers solitary. Leaflets elliptic-oblong; lower ones obcordate. Tendrils simple, shorter than the leaflets. Seeds cubic, warty.
 - Gravelly soil. O. 4, 5. Stem 3-4 in. downy. Fl. bluish-purp. Seeds cubical.
- 6. V. lútea, 7. 481. (Rough-podded V.) Flowers solitary, very nearly sessile. Standard smooth. Legumes reflexed, hairy. Stem spreading. Stipulas ovate, pointed, coloured.
- Stony gr. near the sea. 4.8. Fl. pale sulph. or whitish.
- 7. V. hýbrida, 7. 482. (Hairy-flowered V.) Flowers solitary. Standard hairy. Legumes reflexed, hairy. Stems ascending. Leaflets abrupt. Stipulas ovate, unstained.

Thickets, S. of England, very rare. 4. 6. Fl. sulphur-col., more reddish. Stip. green.

- 8. V. lævigáta, 7. 483. (Smooth-podded V.) Flowers solitary. nearly sessile. Legumes reflexed, smooth. Stems ascending. Stipulas cloven, unstained. Leaflets bluntish, very smooth.
- Weymouth. 24.8. Quite smooth. Fl. pale blue. 9. V. sépium, 22. 1515. (Bush V.) Flowers about four together, in short axillary clusters. Legumes upright, smooth. Leaflets ovate, obtuse; the upper ones gradually smaller.
- Thickets and hedges. 24. 5, 6. Leafl. numer. Fl. dull purp. varieg. 10. V. bithýnica, 26. 1842. (Purple V.) Flowers stalked, mostly solitary. Legumes upright, rough. Leaflets in two pairs, lanceo-Stipulas with lateral teeth. late.

Bushy gravelly pl. rare. 24. 7, 8. Stip. large. Fl. purple,

361. ÉRVUM. Tare.

1. E. tetraspérmum, 17. 1223. (Smooth T.) Flowers mostly in pairs. Legume smooth, with four seeds. Leaflets oblong, bluntish. Moist corn fields. O. 6. Slender, hairy. Fl. pale purple.

 E. hirsútum, 14. 970. (Hairy T.) Clusters many-flowered. Legumes hairy, with two seeds. Leaflets abrupt. Past. and corn fields. O. 6. Stem smoothish. Fl. almost white.

362. ORNÍTHOPUS. Bird's-foot.

 O. perpusillus, 6. 369. (Common B.) Leaves pinnate. Flowers capitate, accompanied by a leaf. Legumes incurved, beaded. Gravelly pl. O. 5. Prostrate. Fl. varies, with white and crimson.

863. HIPPOCRÉPIS. Horse-shoe-vetch.

1. H. comósa, l. 31. (Tufted H.) Legumes umbellate, rough; their joints neither dilated nor bordered.

Chalky soil. 4.5-8. Prostr. smooth. L. pinnate. Fl. dull yellow.

364. HEDÝSARUM. Saint-foin.

 H. Onóbryckis, 2. 96. (Common S.) Leaves pinnate, nearly smooth. Legume single-seeded, toothed at the margin and ribs. Wings of the corolla not longer than the calyx. Stem elongated. — Onobrychis sativa, Br. Fl.

Dry chalky soil. 4.6, 7. Recumb. 2-3 f. Fl. in spikes, crims. varieg.

365. ASTRÁGALUS. Milk-vetch.

1. A. glycyphýllos, 3. 203. (Sweet M.) Stem prostrate. Legumes obscurely triangular, incurved. Leaves longer than the flowerstalks; leaflets oval.

Woods or thick., on a chalky soil. 24. 6. Large. Spikes pale sulph.

- 2. A. hypoglóttis, 4. 274. (Purple M.) Stem prostrate. Flowers in round heads. Legumes ovate, deeply channelled along the back, compressed, hairy; hooked at the point.
 - Chalky or sandy soil. 24. 6, 7. Leaft. blunt, hairy. Fl. violet.
- ^{*}2. A. *alpinus*, Suppl. 2717. (Alpine M.) Pubescent. Stem ascending. Leaflets elliptical. Stipulas ovate, free. Legumes elliptical, stipitate, pendulous, clothed with black hairs.
 - Cliff, Glen of the Dole, Clova. 4.7. Stem slender, diffusely branched. Fl. white, tipped with purple.
- A. uralénsis, 7. 466. (Hairy M.) Stem none. Stalk upright, taller than the leaves. Legumes oblong, tumid, pointed, shaggy, erect. Leaflets ovate, acute, all over silky like the calyx.—Oxytropis ural. Br. Fl.
 - Dry pastures, Scotl., rare. U. 7. Shining, silky. Fl. bluish-purple, rarely white.
- 4. A. campéstris, 36. 2522. (Yellowish M.) Stem none. Stalk ascending. Legumes ovate, inflated, hairy, erect. Leaflets lanceolate, acute, somewhat hairy.—Oxytr. camp. Br. Fl.
 - Mt. rocks in Clova. 24. 7. Fl. cream-col, or buff; keel and wings purplish.



366. TRIFÓLIUM. Trefoil, Clover, and Melilot.

* Flowers in clusters or spikes. Seeds 1 or more. Melilotus.

- T. officinále, 19. 1340. (Common Yellow M.) Legumes 2-seeded, ovate, wrinkled. Clusters lax. Corolla more than twice as long as the calyx. Petals nearly equal in length. Stem erect. Thickets O. 6. 7. Elevence sufficient fragment when during
- Thickets. O. 6, 7. Flowers yellow. Plant fragrant when drying.
 *1. T. leucántha, Melilotus leuc. Suppl. 2629. (White-flowered M.) Legumes 2-seeded, ovate, wrinkled. Corolla twice as long as the calyx. Keel and wings shorter than the standard. Stem erect.

Fields and waste places, not common. 3.7, 8. Flowers white, fragrant; smaller than the last.

** Flowers capitate. Seeds several.

- 2. T. ornithopodioides, 15. 1047. (Bird's-foot T.) Flowers about three together. Legume prominent, eight-seeded, twice as long as the calyx. Stems reclining.
 - Barren gravelly past. O. 6, 7. Fl. slender, pale reddish; keel very small.
- T. repens, 25. 1769. (White T. Dutch Clover.) Heads globose. Flowers somewhat stalked. Legume within the calyx, fourseeded. Stems creeping, solid.
 - Mead. and past. 4. 5-9. L. generally stained. Fl. numer. white.
- T. suffocatum, 15. 1049. (Suffocated T.) Heads sessile, lateral, roundish. Legume concealed, two-seeded. Calyx nearly smooth, with lanceolate, acute, recurved teeth, longer than the corolla. Sandy sea-coasts. O. 6, 7. Stems generally buried in the sand. Fl. whitish.

*** Seeds single. Calyx generally hairy.

- 5. T. subterráneum, 15, 1048. (Subterraneous T.) Heads hairy, of about four flowers. Involucrum central, reflexed, rigid, starry, embracing the fruit.
- Dry, gravelly, and barren situations. \odot . 5. Depressed. Fl. white.
- 6. T. ochroleucum, 17. 1224. (Sulphur-coloured T.) Flowers in a solitary, terminal, hairy head. Stem erect, downy. Lower leaflets inversely heart-shaped. Lowest calyx-tooth thrice as long as the rest.

Dry past. 4.6, 7. Stem straight. Fl. pale sulphur. Keel 1-pet.

7. T. praténse, 25. 1770. (Common purple C.) Spikes dense. Stems ascending. Petals unequal. Calyx hairy; four of its teeth equal. Stipulas ovate, bristle-pointed.

Mead. and past. 24.5-9. Fl. sweet-scented, light purp. ; pet. united.

 T. médium, 3. 190. (Zigzag T.) Spikes lax. Stems zigzag and branching. Petals nearly equal. Stipulas tapering, converging. Two upper calyz-teeth rather the shortest.

Chalky or gravelly soil. 2. 7. Heads rather larger. Pet. purple. 9. T. marítimum, 4. 220. (Teasel-headed T.) Spikes ovate, somewhat hairy. Stipulas lanceolate, erect. Calyx-teeth after flowering dilated, leafy, and spreading. Leaflets obovate-oblong.

Muddy salt-marshes, rare. O. 6, 7. Fl. pale purple. Legume thin. 10. T. stellátum, 22. 1545. (Starry-headed T.) Spikes hairy, round-

- ish. Stipules elliptical. Calyx-teeth longer than the corolla; after flowering dilated, leafy, reticulated, and spreading; tube closed. Leaflets inversely heart-shaped.
 - Shoreham harbour, introd. ⊙.7. Fl. crowded, light crims. Cal. hairy.
- T. arvénse, 14. 944. (Hare's foot T.) Spikes cylindrical, very hairy. Stipulas lanceolate, bristle-pointed. Calyx-teeth bristleshaped, longer than the corolla. Leaflets linear-obovate.

Sandy fields. O. 7, 8. Much branched, finely hairy. Fl. whitish.

12. T. scábrum, 13. 903. (Rough T.) Heads sessile, axillary, ovate. Calyx-teeth unequal, lanceolate, rigid; finally recurved. Stems procumbent.

Chalky or sandy fields. O. Prostrate, rigid. Fl. white.

 T. glomerátum, 15. 1063. (Round-headed T.) Heads sessile, axillary, hemispherical, smooth. Calyx-teeth heart-shaped, reflexed, veiny.

Gravelly fields. O. 6. Quite smooth and prostrate. Fl. reddish.

 T. striátum, 26. 1843. (Knotted T.) Heads sessile, axillary and terminal, ovate. Calyx elliptical, furrowed, hairy, with straight bristle-shaped teeth.

Dry barren ground. O. 6. Procumbent, a little hairy. Fl. purplish.

**** Calyx of the fruit inflated, bladdery,

- T. fragiferum, 15. 1050. (Strawberry-headed T.) Heads roundish. Calyx finally inflated, deflexed, with two terminal teeth. Moist mead. 4.7, 8. Creeping. Fl. on long stalks, small, rose-col.
- *15. T. resupinátum, Suppl. 2789. (Reverse-fl. T.) Heads hemispherical, at length globose; on stalks, at first only about as long as the petiole. Corollas resupinate. Calyx, after flowering, membranaceous, reticulated, inflated, hairy, acute; two of the teeth longer, patent. Leaflets obovate. Stem prostrate.
 - Mead. near Bristol; naturalized. O. 6. Smooth; calyz alone hairy and much inflated.

***** Standards deflexed, dry and membranous.

- T. procúmbens, 14. 945. (Hop T.) Heads oval, many-flowered. Standard finally deflexed, furrowed. Stems spreading or procumbent. Common foot-stalk longest at the base.
 - Dry gravelly soil. O. 6, 7. Spreading widely. Fl. bright yellow, finally deflexed.
- 17. T. minus, 18. 1256. (Lesser T.) Heads hemispherical. Flowerstalks straight, rigid. Standard nearly even. Stems prostrate. Common footstalk very short.
 - Dry gravelly soil. O. 6, 7. Fl. yellow ; fewer and smaller, -- Var. of T. filif.?

 T. flifforme, 18. 1257. (Slender T.) Clusters lax, of few flowers. Common stalks capillary, wavy. Standard even. Stems prostrate. Leaflets all nearly sessile.

Grassy past. O. 6, 7. Very slender, smooth. Fl. small, yellow.

367. LÓTUS. Bird's-foot-trefoil.

- L. corniculatus, 30. 2090. (Common B.) Heads depressed, of few flowers. Stems recumbent, pithy. Legumes spreading; nearly cylindrical. Claw of the standard obovate. Filaments all dilated. Past. 4.6-8. Hairs close-pressed. Fl. bright yell.; keel pals yell.
- L. májor, 30. 2091. (Greater B.) Heads depressed, many-flowered. Stems erect, tubular. Legumes drooping, cylindrical. Claw of the standard linear. Shorter filaments not dilated.
 - Wet bushy pl. 24. 7, 8. Larger, 2-8 f. Hairs loosely spread. Fl. dull orange.
- 3. L. ténuis, Suppl. 2615. L. decumbens, E. Fl. (Slender B.) Heads of few flowers. Stems recumbent, nearly solid. Legumes somewhat spreading, cylindrical, two-edged. Calyx hairy; its teeth shorter than the tube.
 - Fields and mead. 4.6. Stems spread, partly prostrate. Umbels of 3-6 yellow fl.
 - 4. L. angustissimus, L. diffusus, 13. 925. (Slender B.) Flowers solitary, or in pairs. Stems much branched, prostrate, tubular. Legumes two-edged, very slender, somewhat compressed. Calyx loosely hairy; its teeth fringed, twice the length of the tube.
 - Rocky pl. near the sea. 4? 5, 6. Smaller, with fine long hairs. Fl. yell.

368. MEDICÁGO. Medick.

- 1. M. sativa, 25. 1749. (Purple M. Lucerne.) Clusters upright. Legumes spiral. Stem erect, smooth.
 - Mead. past. and hedges. 24. 6, 7. Fl. violet. A variety of the next ?
- 2, M. falcáta, 15. 1016. (Sickle-podded M.) Clusters upright. Legumes sickle-shaped. Stem procumbent. Gravelly banks. 4. 7. Fl. pale yellow, or green, occasionally violet.
- 3. M. lupulina, 14. 971. (Black M. Nonsuch.) Spikes ovate, erect. Legumes kidney-shaped, rugged and veiny, single-seeded. Stem procumbent.

Mead. and past. O. 5-8. Fl. small, bright yell. Legume black.

- 4. M. maculata, M. polymorpha, 23. 1616. (Spotted M.) Stalks two- or three-flowered. Leaflets inversely heart-shaped, spotted. Stipulas dilated, sharply toothed. Legumes spiral, depressed, fringed with long spreading bristles.
- Gravelly soil. O. 5, 6. Prostrate. Fl. yellow. Legumes brown.
- M. muricáta, Sm. Rees Cyclop. v. 23. n. 27. (Flat-toothed M.) Stalks barely three-flowered. Stipulas deeply toothed, hairy. Legumes even, with short depressed, radiating teeth, in a single row.

Sea coast. \odot . 6. Leafl. obovate, somewhat rhomboid, hairy.

- 6. M. minima, Suppl. 2635. (Little Bur M.) Stalks many-flowered. Stipulas half-ovate, nearly entire. Leaflets hairy. Legumes orbicular, with a double row of hooked spines.
 - Sandy or chalky fields, rare. ⊙. 6, 7. Small, prostrate, densely downy. Fl. yellow.
- *7. M. denticulăta, Suppl. 2634. (Reticulated M.) Nearly glabrous. Leaflets inversely heart-shaped. Stipulas laciniated. Peduacles 2---5-flowered. Legumes broad, loosely spiral, and flat, reticulated, with 1-3 convolutions; the margin thin, keeled, with a double compact row of subulate curved prickles.

Sandy banks, S. of Engl. and Norfolk. O. 4-6. Legumes very beautiful, and quite different from any of the preceding.

Class XVIII. POLYADELPHIA. Filaments combined, in more than two sets.

Order I. POLYANDRIA. Stamens numerous.

369. HYPÉRICUM. Cal. inferior, in 5 deep divisions. Pet. 5. Filaments united at the base, into 3 or 5 parcels. Caps. with many seeds.—N.O. HYPERICINEZ.

POLYADELPHIA POLYANDRIA.

369. HYPÉRICUM. St. John's-wort.

[Herbs, or shrubs, perenn. L. simple, opposite. Stip. 0. Pet. yell.]

1. H. calycinum, 29.2017. (Large-flowered St. J.) Flowers solitary. Styles five. Stem shrubby, branched, quadrangular. Segments of the calyx obovate, obtuse, permanently spreading. Leaves oblong.

Bushy pl. in the W.; native ? h. 7-9.1 f. Fl. very large, gold. yell.

- H. Androsámum, 18. 1225. (Tutsan, or Park leaves.) Styles three. Capsule pulpy. Stem shrubby, compressed.
 Woods, rare. 4. 7, 8. Fl. large, yellow. Fruit purplish-black.
- S. H. quadrángulum, 6. 370. (Square St. J. St. Peter's wort.) Styles three. Stem herbaccous, with four sharp angles. Leaves with copious pellucid dots. Segments of the calyx lanceolate.
 - Moist mead. and thickets. 4. 7, 8. Fl. small, lemon-col.
- 4. H. perforátum, 5. 295. (Perforated St. J.) Styles three. Stem twoedged. Leaves obtuse, with copious pellucid dots. Segments of the calyx lanceolate.

Thickets. U. 7, 8. Fl. bright yell., dotted and streaked with black. 5. H. dubium, 5. 296. (Imperforate S.) Styles three. Stem obscurely

Ord. 1.] SYNGENESIA POLYGAMIA BQUALIS.

guadrangular. Leaves obtuse, almost without pellucid dots. Segments of the calyx elliptical.

Mount. groves. 24. 7, 8. Young rad. shoots bright red. Fl. yellow.
H. humifusum, 18. 1226. (Trailing St. J.) Styles three. Flowers somewhat cymose. Stem compressed, prostrate. Leaves elliptical, smooth.

Groves & past. 21. 7. Stems slender. Fl. few, yell. Cal. leafy, ovate.

 H. montanum, 6. 371. (Mountain St. J.) Styles three. Calyx with dense, prominent, glandular servatures. Stem erect, round, smooth. Leaves ovate, naked, clasping the stem.

Mount. and bushy hills. 24.7. Stem simple, straight. Fl. lemon-col.

8. H. barbátum, 28. 1986. (Bearded St. J.) Styles three. Calyx and petals fringed and dotted. Leaves ovate, naked, dotted and glandular, clasping the stem.

Bushy pl. Perthshire? 4.9.10. Stem erect, a little angul. Pet. yellow, dotted.

9. H. hirsútum, 17. 1156. (Hairy St. J.) Styles three. Calyx lanceolate, with glandular serratures. Stem erect, round. Leaves ovate, downy.

Thickets on a dry soil. 4.6, 7. Stems hairy, straight. Fl. numer. yellow.

- H. polchrum, 18. 1227. (Upright St. J.) Styles three. Calyx ovate, with glandular servatures. Stem erect, round. Leaves clasping the stem, heart-shaped, smooth.
- Bushy pl. on a clay soil. 24.7. Very smooth. Fl. yell.; extern. scarlet.
 11. H. elódes, 2. 109. (Marsh St. J.) Styles three. Calyx obtuse, glandular. Stem procumbent, creeping, round, shaggy, like the roundish obtuse leaves. Panicle of few flowers.

Mount. bogs. 24.7, 8. Stems spongy. Fl. lemon-col. with green lines.

Class XIX. SYNGENESIA. Anthers united into a tube. Flowers compound.

[All the Genera belong to the NAT. OBD. COMPOSIT.E.]

Order I. POLYGAMIA ÆQUALIS. Florets all perfect, each having 5 stamens and 1 pistil, and producing 1 seed.

Corolla of each floret ligulate. Semiflosculous.

[Plants herbaceous, milky, bitter. L. alternate. Fl. generally yell. Florets all ligulate; perfect and fertile.]

379. HYPOCHÆRIS. Receptacle chaffy. Seed-down feathery. Calyx somewhat imbricated.

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- 881. CICHORÍUM. Recept. slightly chaffy. Down chaffy, shorter than the seed. Cal. double.
- 378. CRÉPIS. Recept. roughish. Down simple, partly stalked. Cal. double ; ontermost lax, tumid, deciduous,
- 377. HIERÁCIUM. Recept. almost naked, dotted. Down simple, sessile. Cal. imbricated, ovate.
- 876. APÁRGIA. Recept. naked, dotted. Down feathery, sessile, unequal and various. Cal. double ; innermost imbricated.
- 371. PICKIS. Recept. naked. Down feathery. Seeds furrowed transversely. Cal. double ; innermost equal : outer lax.
- 870. TRAGOPÓGON. Recept. naked. Down stalked, feathery. Cal. simple, of several equal scales, in 2 rows.
- 375. LEÓNTODON. Recept. nuked. Down stalked, simple. Cal. imbricated, double; scales of the outermost lax.
- S73. LACTÚCA. Recept. naked. Down stalked, simple. Cal. imbricated, simple, cylindrical; scales membranous at the margin.
- 374. PRENÁNTHES. Recept. naked. Down nearly sessile, simple. Cal. double. Florets in a single row.
- 372. SÓNCHUS. Recept. naked. Down sessile, simple. Cal. simple, imbricated, swelling at the base.
- 380. LAPSÁNA. Recept. naked. Down 0. Cal. double; innermost of equal channelled scales.

** Florets all tubular, with a five-cleft spreading limb. Capitate.

[Stem mostly herbaceous. L. altern. often spinous. Fl. generally red or purple. Florets tubular only; some neuter.]

- . 387. CARLÍNA. Calyz swelling ; outer scales spinous ; inner coloured, polished, radiant. Recept. chaffy. Down feathery.
 - 382. ARCTIUM. Cal. globose ; scales spinous, hooked, inflexed.
 - S84. CÁRDUUS. Cal. tumid, imbricated ; scales spinous. Recept. hairy. Down deciduous, capillary, roughish.
 - 385. CNÍČUS. Cal. tumid, imbricated; scales spinous. Recept. hairy. Down deciduous, feathery.
 - ONOPÓRDUM. Cal. tumid; scales spinous, spreading. Recept cellular, somewhat chaffy.
 - 383. SERRÁTULA. Cal. nearly cylindrical, imbricated ; scales unarmed. Down permanent.

Centaurea 1.

*** Florets all tubular, parallel, crowded, nearly on a level at the top. Discoid.

[Plants herbaceous, sometimes shrubby. L. in some opposite. Fl. with the disk mostly yell.; rays of the same, or of a diff. colour. Florets various in degree of perfection.]

889. EUPATÓRIUM. Recept. naked. Down rough. Cal. imbricated, oblong. Style cloven half way down, prominent.

- 390. CHRYSÓCOMA. Recept. naked. Down rough. Cal. imbricated, hemispherical. Style scarcely longer than the florets.
- 388. BIDENS. Recept. chaffy. Down rough with reversed prickles. Cal. of many parallel, channelled scales. Cor. occasionally radiated.
- 391. DIÓTIS. Recept. chaffy, with hairy-tipped scales. Down 0. Cal. imbricated, hemispherical. Florets with 2 spurs, which border the seed.

Tanecetum. Senecio 1. Aster 1. Anthemis 2.

Order II. POLYGAMIA SUPERFLUA. Florets all fertile, though those of the circumference have no stamens.

Corolla of the marginal florets obsolete, or wanting. Discoid.

- 392. TANACÉTUM. Recept.naked. Seed with a membranous crown. Cal. imbricated, hemispherical. Florets of the circumference 3-cleft, obsolete, sometimes wanting.
- 395. CONYZA. Recept. naked. Down rough. Cal. imbricated, roundish. Florets of the circumference 3-cleft.
- 394. GNAPHÁLIUM. Recept. naked. Down rough, or feathery, Cal. imbricated ; scales filmy, coloured. Fl. of the circumf. awl-shaped.
- 393. ARTEMÍSIA. Recept. either naked or hairy. Down 0. Cal. imbricated ; scales rounded, converging. Fl. of the circumf. awl-shaped, entire.

Tussilago 2.

** Corolla of the marginal florets ligulate. Radiant.

- 404. BELLIS. Recept. naked, conical. Down 0. Cal. hemispherical; scales equal. Seed obovate. 407. MATRICARIA. Recept. naked, nearly cylindrical. Down 0.
- Cal. nearly flat, imbricated; scales membranous at the edges.
- 405. CHRYSANTHEMUM. Recept. naked, rather convex. Down 0. Cal. hemispherical, imbricated; scales with a dilated membranous border.
- 406. PYRETHRUM. Recept. naked. Seed crowned with a border. Cal. hemispherical, imbricated; scales rather acute, membranous at the edges.
- 403. DORÓNICUM. Recept. naked. Down simple; wanting on the seeds of the radius. Cal. a double row of equal scales, longer than the disk.
- 401. ÍNULA. Recept. naked. Down simple. Cal. imbricated. Flor. of the radius very numerous, linear. Anth. with two bristles at the base.
- 396. ERIGERON. Recept. naked. Down simple. Cal. imbricated. Florets of the radius numerous, linear, very narrow. Anthers simple.

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- 400. SOLIDÁGO. Recept. naked, pitted. Down simple. Cal. imbricated, with close scales. Florets of the radius about 5.
- 399. ÁSTER. Recept. naked. Down simple. Cal. imbricated ; lowermost scales spreading. Flor. of the radius more than 10.
- 398. SENÉCIO. Recept. naked. Down simple. Cal. double; the innermost cylindrical, of numerous equal scales; outer of several minute ones; scales all withered at the extremity.
- 897. TUSSILÁGO. Recept. naked. Down simple. Cal. simple, tumid at the base; scales numerous, equal, somewhat membranous. Seed obovate, compressed.
- 402. CINERÁRIA. Recept. naked. Down simple. Cal. simple, cylindrical ; scales númerous, equal. Seed quadrangular.
- 408. ANTHEMIS. Recept. chaffy. Seed crowned with a slight border. Cal. hemispherical; scales nearly equal. Flor. of the radius numerous, oblong.
- 409. ACHILLÉA. Recept. chaffy. Down 0. Cal. ovate; scales imbricated, unequal. Flor. of the radius 5-10, roundish. somewhat heart-shaped.

Bidens 2.

Order III. POLYGAMIA FRUSTRANEA. Florets of the disk perfect and fertile: those of the circumference neuter.

410. CENTAURÉA. Recept. bristly. Down simple, or feathery. rarely wanting. Flor. of the radius funnel-shaped, dilated, irregular, without stamens or style.

SYNGENESIA POLYGAMIA ÆQUALIS.

370. TRAGOPÓGON. Goat's-beard.

1. T. praténsis, 7. 484. (Yellow G.) Calyx about equal to the co-rolla. Leaves keeled, tapering; dilated and somewhat undulated at the base. Flower-stalk cylindrical.

Grassy past. 3. 6. Smooth, juicy, $1\frac{1}{2}$ —2 f. Fl. yell. opening early. *1. T. májor, Jacq. Austr. t. 29. (Greater G.) Calyx more than half

as long again as the yellow corollas. Leaves smooth, acumi-nated, channelled. Flower-stalk swelling upwards.

Past. in the N., rare. J. 6, 7. Fl. yellow. 2. T. porrifólius, 9. 638. (Purple G.) Calyx half as long again as the corolla. Leaves tapering, straight. Flower-stalk swelling upwards.

Wet past. rare. 3. 5, 6. Smooth, juicy, 4. f. Dull purple.

371. PÍCRIS. Ox-tongue.

1. P. echioides, 14. 972. (Bristly O.) Outer calyx of five broad

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prickly scales. Down stalked. Leaves wavy.-Helminthia ech. Br. Fl.

Hedges and fields, on a clay soil. O. 6, 7. Bristly. Fl. golden vell.

2. P. hieracioides, 3. 196. (Hawkweed O.) Outer calyx of numerous radical ones toothed. Down sessile. Stem rough.

Dry gravelly or chalky soil. 8. 7,8. Rough, dark green. Fl. yell.

372. SÓNCHUS. Sow-thistle.

- 1. S. carúleus, 34. 2425. (Blue S.) Flower-stalks and calvx bristly. racemose. Leaves somewhat lyrate; their terminal lobes triangular and very large .- S. alpinus, Br. Fl.
 - Mts. of Aberdeensh. and Clova. 4. 7, 8. Fl. large. Cal. brown. Cor. fine blue.
- 2. S. palustris, 13. 935. (Marsh S.) Flower-stalks and calve bristly. somewhat umbellate. Leaves runcinate, rough-edged ; arrowshaped at the base.

Marshes, very rare. 24. 7, 8. 6-8 f. Cal. black. Cor. lemon-col. 3. S. arvénsis, 10. 674. (Corn S.) Flower-stalks and calyx bristly, somewhat umbellate. Leaves runcinate, finely toothed, heart-shaped at the base. Root creeping.

Fields, on a clay soil. 4.8. 3-4 f. Cal. black. Cor. large, deep yell.

4. S. oleráceus, 12. 843. (Common S.) Flower-stalks cottony. Calyx smooth. Leaves runcinate, toothed.- β . asper. Leaves with rounded auricles, lower ones sessile. Fruit ribbed. S. asper, Suppl. 2765 and 2766.

Waste and cult. gr. O. 7-9. Varying much. Cal. green. Cor. yell.

378. LACTÚCA. Lettuce.

- 1. L. virósa, 28. 1957. (Strong-scented L.) Leaves horizontal, finely toothed; the keel prickly.
- Chalky banks. §. 8, 9. Dark green, juicy, fetid. Fl. small, pale yell. 2. L. Scaríola, 4. 268. (Prickly L.) Leaves perpendicular, sinuated, finely toothed; the keel prickly.

Waste gr. rare. S. 8. Glauc. milky, less fetid. Fl. small, lemon-col. 3. L. saligna, 10. 707. (Least L.) Leaves linear; hastate or pinnatifid, entire, sessile; the keel prickly.

Waste chalky gr. & .8. Slender. Stem wavy, 2 f. L. glauc. Fl. yell.

874. PRENÁNTHES. Wall-lettuce.

1. P. murális, 7. 457. (Ivy-leaved W.) Florets 5. Leaves runcinate. Walls, or woods, on a chalky soil. 4.7. Smooth, brittle. Fl. yell.

375. LEÓNTODON. Dandelion.

1. L. Taráxacum, 8. 510. (Common D.) Outer scales of the calyx reflexed. Leaves runcinate, toothed, smooth. Mead. and past. 4.4-7. Leaves a perfect example of the runcinate

form. Fl. solitary, large, yellow.

2. L. palústre, 8. 553. (Marsh D.) Outer scales of the calyx shorter, imbricated, ovate. Leaves sinuated and toothed, not quite smooth. Low boggy mead. 4. 6, 7. Smaller. FL stained with red outside. -A par. of L. Taraz.

376. APÁRGIA. Hawkbit.

1. A. hispida, Hedypnois hisp. 8. 554. (Rough H.) Stalks naked, single-flowered. Leaves runcinate, rough. Florets hairy at their orifice ; glandular at the tip. Seeds scarcely beaked, all with feathery down.

- Chalky past. 4.7. R. tapering. Fl. yellow. Seeds uniform, slender. 2. A. hirta, Hedyp. hirta, 8. 555. (Deficient H.) Stalks naked, single-flowered. Leaves toothed, rough. Calyx nearly smooth. Outer row of seeds crowned with scales only .- Thrincia hirt., Br. Fl.
 - Grav. past. 4.7 8. R. abrupt. FL smaller, red beneath, without hairs.
- 3. A. Tarázaci, Hedyp. Tar. 16. 1109. (Dandelion H.) Stalks mostly single-flowered; tumid and hairy at the summit. Leaves smooth, runcinate. Calyx shaggy.

Moist mountainous sit. 4.8. Various in appearance. Hairs blackish.

4. A. autumnális, H. aut. 12. 830. (Autumnal H.) Common stalk branched; partial ones scaly. Leaves lanceolate, toothed or pinnatifid, nearly smooth.

Mead. and past. 4. 8. Fl. small, numerous. Cal. a little downy.

377. HIERÁCIUM. Hawk-weed.

* Stalk radical, naked, single-flowered.

1. H. alpinum, 16. 1110. (Alpine H.) Leaves oblong, undivided. somewhat toothed. Stalk almost leafless, single-flowered. Calyx shaggy.

Dry rocky mount. 4. 7. Hairy all over. Fl. large, golden yell. 2. H. Pilosélla, 16. 1093. (Mouse-ear H.) Leaves elliptical, entire; cottony beneath. Scyons creeping. Stalks single-flowered, naked. Mead. 4. 5-7. L. hoary beneath. Florets lemon-col. with a red stripe outside.

** Stalk radical, naked, many-flowered.

3. H. dúbium, 83. 2332. (Branching Mouse-ear H.) Leaves ellipticlanceolate, obtuse, nearly entire, besprinkled with coarse hairs. Scyons creeping, elongated. Stalk nearly smooth, loosely corymbose. Calva bristly.

Moist mountainous sit. rare. 4.7,8. L. glauc. beneath. Fl. lemon-col.

4. H. Auricula, 33. 2368. (Orange Mouse-ear H.) Leaves lanceolate, acute, nearly entire, coarsely hairy. Scyons scarcely so long as the leaves. Stalk downy and hairy, corymbose. Calyx shaggy.

Mts. Westmoreland. 24. 7, 8. L. green on both sides. Fl. orange-yell. 5. H. aurantiacum, 21. 1469. (Orange H.) Leaves elliptical, acute,

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entire. Stalk almost leafless, hairy, densely corymbose, manyflowered. Calyx shaggy.

Elevated woods. 4. 6, 7. Larger. Fl. deep orange-coloured.

*** Stem leafy.

- 6. H. murórum, 29, 2082, (Wall H.) Stem corvmbose, with a solitary leaf. Leaves ovate-heart-shaped, wavy, with radiating teeth chiefly at the base.
 - Rocks, and old walls. 4. 6. L. broad. glauc -green. Fl. large, yell.
- 7. H. maculátum, 30. 2121. (Stained-leaved H.) Stem cymose, many-leaved, tubular. Leaves ovate-lanceolate, strongly toothed; teeth pointing forward. Rocks & mount. 4.6. Larger. L. dark green, spotted with black.
- 8. H. sylváticum, 29. 2031. (Wood H.) Stem simply racemose, many-leaved, solid. Leaves ovate-lanceolate, toothed chiefly about the base ; teeth pointing forward.

Dry woods, banks, or old walls. 24.6, 7. More slender, pale. Fl. smaller.

- 9. H. pulmonárium, 33. 2307. (Lungwort H.) Stem somewhat corymbose, solid, slightly leafy. Leaves lanceolate, deeply and unequally toothed throughout ; teeth pointing forward.
 - Rocks near riv. in Scot. 4.7. L. clouded with purplish-brown.
- 10. H. Lawsóni, 29. 2083. (Glaucous H.) Stem remotely and simply branched, solid ; slightly leafy. Radical leaves stalked, ellipticlanceolate, decurrent, glaucous, fringed, nearly entire. Mount. and rocks. 4.7. Stems erect or spreading; 1-2 f. Fl.

very large. lemon-coloured.

- H. paludósum, 16. 1094. (Marsh H.) Stem angular, tubular, leafy, smooth, corymbose. Leaves smooth, toothed, clasping the stem with their heart-shaped base. Calyx hairy.
 - Moist elevated sit. 4.7. Smooth, intensely bitter. Fl. yellow.
- 12. H. molle, 31. 2210. (Soft-leaved H.) Stem angular, tubular. leafy, downy, corymbose. Leaves lanceolate, slightly toothed, clasping the stem; lower ones stalked, elliptical, and obtuse. Scot. woods. 4.7,8, A little hairy, slender. Fl. full golden yell.
- 13. H. cerinthoides, 34. 2378. (Honeywort-leaved H.) Stem solid, leafy, corymbose, somewhat angular. Leaves hairy, slightly toothed; the uppermost ovate, pointed, clasping; radical ones elliptic-oblong, with shaggy fringed footstalks.

Rocks in Scot. 4. 8. Larger. L. a little glauc. ; smooth above. *13. H. amplexicáule, Suppl. 2690. (Amplexicaul H.) Glanduloso-

- pilose. Stem corymbose. Leaves toothed; radical ones ob-long-ovate; cauline ones heart-shaped at the base, amplexicaul. Naturalized, on old walls at Oxford, and at Cliesh, Scotland. Clova mountains? 4.8. Clothed with brownish glandular hairs.
- 14. H. villosum, 34. 2379. (Shaggy H.) Stem tubular, leafy, shaggy, with very few flowers. Leaves oblong, wavy, unequally toothed, shaggy as well as the calyx. Seeds angular.

Moist alp. rocks. 24.8. Very shaggy. Fl. large, lem.-col. nearly solit.

15. H. Halleri, Hook. Scot. 229. (Hallerian Dwarf H.) Stem erect, with one or two flowers, slightly leafy. Leaves hairy, lower ones obovate-oblong, stalked, toothed ; upper lanceolate, much diminished. Calyx shaggy.

Highl. of Scot. 4. 7, 8. Cal. dark. Fl. of a full golden yellow.

16. H. sabáudum, 5. 349. (Shrubby H.) Stem erect, copiously leafy, many-flowered. Leaves ovate-lanceolate, sharply toothed, roughedged, somewhat clasping, hairy beneath.

Woods & thick. 4.8, 9. Aspect shrubby. Stems 2-3 f. wand-like.

17. H. denticulátum, 30. 2122. (Small-toothed H.) Stem erect, leafy, solid, many-flowered, cymose, with downy glandular stalks. Leaves sessile, elliptic-lanceolate, finely toothed, smoothish; glaucous beneath.

Woods, S. of Scot. 4. 8, 9. L. thin, with smooth edges. Fl. yellow,

 H. prenanthoides, 32. 2235. (Rough-bordered H.) Stem erect. leafy, solid, many-flowered, corymbose, with downy glandular stalks. Leaves somewhat toothed, clasping, rough near the edge ; glaucous beneath ; upper ones heart-shaped.

Woods and thickets in Scot. 24. 8. Like the last. Stem 3 f. leafy.

19. H. umbellatum, 25. 1771. (Narrow-leaved H.) Stem erect, leafy, almost solid, imperfectly umbellate. Leaves scattered, linear. slightly toothed, nearly smooth as well as the calyx.

Shady rocky sit. 4.8,9. Stem 2-3 f. L. very narrow. Cal. smooth.

378. CRÉPIS. Hawk's-beard.

1. C. fætida, 4. 406. (Stinking H.) Leaves hairy, pinnatifid, with reversed teeth; on toothed footstalks. Stem hairy. Calyx downy. -Borkhausia foet. Br. Fl.

Chalky past. rare. 3.6, 7. Smell of bitter almonds. Fl. lemon-col.; red outside.

- 2. C. púlchra, 33, 2325. (Small-flowered H.) Leaves downy, toothed; radical ones obovate; the rest somewhat arrow-shaped and clasping. Panicle corymbose, spreading. Calyx pyramidal, smooth.-Prenanthes hieraciifolia, Br. Fl.
- Rocky hills in Scot. rare. O. 6-9. Slender, spread. Fl. small, yell. 3. C. virens, C. tectorum, 16. 1111. (Smooth H.) Radical leaves runcinate; the rest clasping, lanceolate, and toothed. Stem Calyx rough. Seed-down sessile. smooth.

Dry pastures, and roofs. O. 6-9. Various in appearance, smoothish. Fl. small, yellow. (" The true C. virens, L." Babington.)

4. C. biénnis, S. 149. (Rough H.) Leaves pinnatifid, runcinate, rough ; their lobes toothed in front. Calyx somewhat bristly and downy.

Chalky past. 8.6,7. 3-4 f. hollow. Fl. corymbose, large, lemon-col.

879. HYPOCH ÆRIS. Cat's-ear.

- 1. H. maculáta, 4. 225. (Spotted C.) Stem solitary, nearly naked. almost simple. Leaves ovate-oblong, undivided, toothed.
- Chalky hills. 24. 7. L. rough, spotted. Fl. large, yellow.

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- 2. H. glábra, 8. 575. (Smooth C.) Nearly smooth. Calyx oblong, regularly imbricated. Stems branched, somewhat leafy. Leaves toothed or sinuated. Down of the marginal seeds sessile, Gravelly gr. O. 6-8. Various in size. Fl. small, bright yellow.
- 8. H. radicáta, 12. 831. (Long-rooted C.) Leaves runcinate, bluntish, rough. Stems branched, naked, smooth. Flower-stalks scaly. Down of all the seeds stalked.

Past. and waste gr. 24.6-8. L. depressed. Fl. large, bright yell.

380. LAPSÁNA. Nipple-wort.

- 1. L. commúnis, 12. 844. (Common N.) Calyx of the fruit angular. Stem branched, panicled, leafy. Leaves ovate, stalked, toothed. Flower-stalks cylindrical, even.
- Waste or cult. gr. O. 6-8. Stem solit. 2-3 f. Fl. yellow. 2. L. pusilla, Hyoseris minima, 2. 95. (Dwarf N.) Stalks radical, leafless, subdivided; swelling and tubular at the summit. Leaves obovate, rough-edged, toothed.

Gravelly fields. O. 6. L. depressed. Fl. small, yellowish.

381. CICHORÍUM, Succory.

1. C. Intybus, 8. 539. (Wild S.) Flowers in pairs, both nearly sessile. Leaves runcinate.

Chalky or grav. soil. 4.7, 8. Stem 3 f. rough, tough. Fl. bluc.

382 ARCTIUM. Burdock.

- 1. A. Láppa, 18. 1228. (Common B.) Leaves stalked, heart-shaped, wavy, without prickles. Calyx when in seed nearly smooth. Waste gr. 3.7,8. Bushy. Cal. globose, sticking. Fl. purple.
- 2. A. Bardana, 35. 2478. (Woolly-headed B.) Leaves stalked, heart-shaped, nearly entire and even, without prickles. Calyx when in seed cottony.
 - Waste gr. O. 7, 8. Cal. globose, var. in size and woolliness. Var. of A. Lapp.

383. SERRÁTULA. Saw-wort.

l. S. tinctória, 1.38. (Common S.) Leaves with copious bristly serratures, pinnatifid, somewhat lyrate; terminal lobe largest. Seeddown roughish.

Woods and thickets. 4. 7, 8. L. smooth. Fl. purple.

2. S. alpina, 9. 599. (Alpine S.) Leaves undivided, distantly toothed, cottony beneath. Calyx rather ovate, finely downy. Seed-down feathery.-Saussurea alp. Br. Fl.

Alpine rocks. 24. 7, 8. Stem, simple, woolly. Fl. pink, with blue anth.

384. CÁRDUUS. Thistle.

* Leaves decurrent.

1. C. nútans, 16. 1112. (Musk Th.) Leaves interruptedly decurrent, spinous. Flowers solitary, drooping. Calyx-scales lanceolate, their upper part spreading.

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- Grav. & chalky sit. (). 7, 8. Stem 2 f. Fl. large, purp. Scent musky. 2. C. acanthoides, 14. 973. (Welted Th.) Leaves decurrent, sinuated, very spinous. Flowers aggregate, somewhat stalked. Calyx globose ; scales linear, partly recurved. Dry waste gr. O. 6, 7. Green, 3 f. Fl. purplish-crimson. smaller.
- 3. C. tenuiflorus, 6. 412. (Slender-flowered Th.) Leaves decurrent, sinuated, spinous. Flowers aggregate, sessile. Calyx nearly cylindrical: scales ovate at the base; somewhat recurved at the point. Dry gr. chiefly near the sea. O. 6, 7. White, cottony, 4 f. Fl. pale purp.

** Leaves sessile.

4. C. mariánus, 14. 976. (Milk Th.) Leaves wavy, spinous, clasping the stem ; radical ones pinnatifid. Calyx-scales leafy, recurved, channelled ; spinous at the margin.

Banks. O. 6, 7. L. shining green, with white veins. Fl. large, purp.

385. CNÍCUS. Plume-thistle.

* Leaves decurrent. Stem winged.

- 1. Cn. lanceolátus, Carduus lanc. 2. 107. (Spear P.) Leaves decurrent, pinnatifid, hispid, with variously-spreading spinous lobes. Calyx ovate, shaggy. Stem furrowed, hairy.
 - Waste gr. 3. 6-9. Stem 4 f. Fl. erect, large, crimson.
- 2. Cn. palustris, Card. pal. 14. 974. (Marsh P.) Leaves decurrent, pinnatifid, toothed, spinous, rough. Flowers aggregate. Calva ovate, minutely spinous, nearly smooth. Moist mead. & .7, 8. Prickly, straight, dark-green, 3-6 f. Fl. purp.

- ** Leaves sessile, or partially decurrent. Stem not winged.
- 3. Cn. arvénsis, Card. arv. 14. 975. (Creeping P.) Leaves sessile. pinnatifid, spinous, nearly smooth. Stem panicled, solid. Calva ovate; outer scales spinous. Root creeping, tuberous. Fields, and way sides. 4. 7. Stems 3-4 f. Fl. erect, pale purp.
- 4. Cn. Forsteri, (Branching Bog P.) Leaves slightly decurrent, pinnatifid, spinous; downy beneath. Stem panicled, hollow. Calva ovate, rather cottony; outer scales spinous.
 - Boggy woods. 24.7, 8. Stem erect, 3-4 f. Fl. 2 or 3 together, deep crimson.
- 5. Cn. erióphorus, Card. erioph. 6. 386. (Woolly-headed P.) Leaves sessile, pinnatifid, with two-ranked spinous segments; bristly Calyx globular, densely woolly, leafy at the base. above.
 - Grav. and chalky sit. 3. 8. Bushy. Fl. very large. Cal. clothed with cottony wool, like a dense cobweb.
- 6. Cn. tuberósus, 36. 2562. (Tuberous P.) Leaves deeply pinnatifid. lobed, fringed with prickles; lower ones on long stalks. Stem almost single-flowered, without wings or prickles. Calyx-scales minutely spinous, nearly smooth.
- Copse, Greatridge, Wilts. 24.8. R. creep., tuber. Cal. a little cottony. 7. Cn. heterophýllus, Card. het. 10. 675. (Melancholy P.) Leaves

clasping the stem, fringed ; undivided or pinnatifid ; very smooth



above ; densely cottony beneath. Stem downy, al nost single-flowered.

Moist mount. past. 4. 7, 8. R. creeping. L. white beneath.

8. Cn. praténsis, Card. prat. 3. 177. (Meadow P.) Leaves lanceolate, wavy or lobed, fringed with prickles; loosely cottony beneath. Stem downy, slightly leafy, single-flowered. Calyx cottony, with tapering sharp scales.

Humid past. 4. 6. R. fibr. Cal. clothed with loose cobweb-like down.
9. Cn. acaulis, Card. acaul. 3. 161. (Dwarf P.) Stalks radical, single-flowered, shorter than the smooth calyx.

Grav. or chalky soil. 4.7, 8. Stem 0. L. depressed. Fl. a fine crims.

386. ONOPÓRDUM. Cotton-thistle.

1. O. Acánthium, 14. 977. (Common C.) Calyx-scales awl-shaped, spreading in every direction. Leaves ovate-oblong, sinuated, woolly on both sides.

Waste grav. gr. 3.7, 8.5 f. Covered with a white cottony pubescence.

387. CARLÍNA. Carline-thistle.

 C. vulgáris, 16. 1144. (Common C.) Stem corymbose, manyflowered. Flowers terminal. Outer calyx-scales pinnatifid; inner whitish.

Dry sandy past. S. 6. 1 f. Fl. variegated. Cal.-scales polished.

388. BÍDENS. Bur-marigold.

- B. tripartita, 16. 1113. (Three-lobed B.) Leaves in three segments. Bracteas unequal. Bristles of the seeds two or three, erect. Waterv pl. O. 8, 9. Fl. solit. of a brownish yell. L. cut.
- Watery pl. O. 8, 9. Fl. solit. of a brownish yell. L. cut.
 2. B. cérnua, 16. 1114. (Nodding B.) Leaves lanceolate, serrated. Flowers drooping. Bracteas nearly equal, entire. Bristles of the seeds about four, erect.

Ditches & ponds. O. 9. Fl. yell., occasionally furnished with rays.

389. EUPATÓRIUM. Hemp-agrimony.

1. E. cannabinum, 6. 428. (Common H.) Leaves digitate. Watery boggy pl. 24. 7, 8. L. rough. Fl. corymbose, rose-col.

390. CHRYSÓCOMA. Goldilocks.

 Ch. Linosýris, 35. 2505. (Flax-leaved G.) Herbaceous. Leaves linear, smooth. Calyx-scales loosely spreading. Rocky cliffs, S. of Eng. rare. 24. 9. 1 f. erect. Fl. yellow.

391. DIÓTIS. (Santolina, Fl. Brit.) Cotton-weed.

1. D. marítima, 2. 141. (Sea C.) Leaves oblong, obtuse, crenate, cottony.

Sandy sea-shores, rare. 4.8, 9. Stem 1 f. Fl. yell. in corymb. tufts.

SYNGENESIA POLYGAMIA SUPERFLUA. [Cl. 19.

SYNGENESIA POLYGAMIA SUPERFLUA.

392. TANACÉTUM. Tansy.

1. T. vulgáre, 18. 1229. (Common T.) Leaves doubly pinnatifid. deeply serrated, naked.

Hilly past. & road-sides. 4.7, 8. Strong-scented, 1-2 f. Fl. yell.

893. ARTEMÍSIA. Wormwood, Southernwood, and Mugwort.

- 1. A. campéstris, 5. 338. (Field S.) Leaves in many linear segments. Stems procumbent before flowering, wand like. Dry sandy sit. rare. 4.8. Inodorous. L. narrow, green. Fl. yell.
- 2. A. maritima, 24. 1706. (Sea W.) Leaves downy, pinnatifid; uppermost undivided. Flowers drooping, oblong, downy, sessile. Receptacle naked.

Sea shores. 4.8. Aromatic and bitter. L. hoary. Fl. ovate.

8. A. gállica, 24, 1706. (A. maritima, 14. 1001.) (Upright Sea W.) Leaves downy, pinnatifid; radical ones capillary; uppermost undivided. Flowers erect, oblong, downy, partly stalked, of few florets. Receptacle naked.

Banks near the sea. 4.8. L. narrow. Fl. upright, more abundant.

4. A. Absinthium, 18. 1230. (Common W.) Leaves in many deep segments, clothed with close silky down. Flowers drooping, hemispherical. Receptacle hairy. Waste gr. 4.8. Aromatic and intensely bitter ; bushy.

- 5. A. vulgaris, 14.978. (Mugwort.) Leaves pinnatifid, flat, cut; downy beneath. Clusters simple. Flowers ovate. Receptacle naked. Waste gr. about hedges. 4. 8. L. dark green above. Stem 3-4 f.
- 6. A. cæruléscens, 34. 2426. (Bluish M.) Leaves hoary; most of them lanceolate, undivided, tapering at the base; lower ones variously divided. Flowers erect, cylindrical. Receptacle naked. Sea coast : now extinct. 24.8. L. of a bluish hoary hue. Fl. small. erect.

394. GNAPHÁLIUM. Cudweed.

* Calyx yellow.

1. G. luteo-álbum, 14. 1002. (Jersey C.) Herbaceous. Leaves halfclasping, linear-oblong, wavy, woolly on both sides ; lower ones blunt. Flowers densely tufted.

Dry sandy gr. in the S. O. 7, 8, Stem 3-12 in., spreading below.

** Cal. white, or reddish.

- 2. G. margaritáceum, 29. 2018. (American C. Pearly Everlasting.) Herbaceous. Leaves linear-lanceolate, sharp-pointed, alternate; loosely cottony on the upper-side ; densely so underneath. Stem branched in the upper part. Panicles corymbose, level-topped. Mead., rare : introd. 4. 8. 2 f. Cal. of a pure, paper-like white.
- 3. G. dioícum, 4. 267. (Mountain C.) Shoots procumbent. Stem unbranched. Corymb simple, terminal. Flowers diœcious. Seed-



Ord. 2.] SYNGENESIA POLYGAMIA SUPERFLUA.

down feathery, various.—A. Leaves woolly on both sides. Antennaria hyperborea, Suppl. 2640.

Dry mount. past. 4.6, 7.4-6 in. Cal. of the fertile flor. redder.

*** Cal. brown and less ornamented.

- 4. G. sylváticum, 13. 913. (Highland C.) Stem simple, erect. Spike leafy, somewhat compound. Leaves lanceolate, tapering at the base; cottony on both sides.
 - Mount. past. 4.8. Scarcely a span. Cal. dark shining brown.
- G. réctum, 2. 124. (Upright C.) Stem erect, panicled, manyflowered, leafy. Leaves linear-lanceolate, naked on the upper side; silky beneath.

Sandy groves. 4. 8. 2 f. Cal. of a blush-coloured brown.

- 6. G. supinum, 17. 1193. (Dwarf Alpine C.) Stem recumbent, quite simple, with a simple cluster of very few flowers. Leaves linearlanceolate, somewhat cottony on both sides.
- Highl. mount. 4. 7. Stems 2-5 in. long ; very slender.
- 7. G. uliginásum, 17. 1194. (Marsh C.) Stem much branched, spreading. Leaves linear-lanceolate, cottony on both sides. Flowers in dense terminal tufts.
- Sandy watery pl. O.8. Stems several, 4-5 in. Cal. yellowish-brown.
- G. gállicum, 33. 2369. (Narrow-leaved C.) Stem erect, branched. Leaves linear, revolute, acute. Flowers awl-shaped, axillary, tufted.

Gravelly fields, rare. O. 7, 8. Stem a span. Cal. green and downy.

- G. minimum, 17. 1157. (Least C.) Stem erect, branched. Leaves lanceolate, acute, flat. Flowers conical, in lateral & terminal tufts. Barren, sandy gr. O.7. Fl. woolly, few. Cal. green, mostly membr.
- G. germánicum, 14. 946. (Common C.) Stem erect, proliferous. Leaves lanceolate. Heads globose, many-flowered, lateral as well as terminal. Calyx-scales bristle-pointed.

Dry gravelly sit. 0.7, 8. Grey and cottony, prolif. Cal. smooth.

395. CONÝZA. Spikenard.

 C. squarrása, 17. 1195. (Ploughman's S.) Leaves ovate-lanceolate, downy, crenate. Stem herbaceous, corymbose. Calyx-scales leafy, recurved.

Woods and past. S. 7, 8. Downy, fragr. 2-3 f. Fl. dull yellow.

396. ERÍGERON. Flea-bane.

1. E. canadénsis, 29. 2019. (Canada F.) Stem hairy, panicled, manyflowered. Leaves lanceolate ; lower ones toothed.

Waste and cult. gr. imported. \odot . 8, 9. Stem wand-like, 1-3 f. Fl. small, pale yellow.

- 2. E. ácris, 17. 1158. (Blue F.) Stem racemose. Stalks mostly single-flowered. Leaves lanceolate or tongue-shaped, sessile. Radius erect, scarcely taller than the seed-down.
 - Dry grav. past. 3. 7, 8. Hairy, 1-2 f. Flor. of the disk yellow, of the margin blue.

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- E. alpinus, 7. 464. (Alpine F.) Stem mostly single-flowered. Calyx hairy. Radius spreading; twice the length of the seed-down. Alpine rocks, Scot. 24. 7. 4-6 in. Flor. of the margin light purp.
- E. uniflórus, 84. 2416. (Pale-rayed F.) Stem single-flowered. Calyx woolly. Radius erect, twice the length of the seed-down. Mount. of Scot. 24. 7. Var. of E. alp.

397. TUSSILÁGO. Colt's-foot, and Butter-bur.

- 1. T. Fárfara, 6. 429. (Colt's-foot.) Stalks simple-flowered, clothed with scaly bracteas. Flowers radiant. Leaves heart-shaped, angular and toothed.
- Clayey sit. 4. 3, 4. L. white and cottony beneath. Fl. bright yell.
- T. Petasítes, 6. 431. (Butter-Bur.) Panicle densely, ovate-oblong. Flowers flosculous. Leaves heart-shaped, unequally toothed, three-ribbed at the base.—Petasites vulgar., Br. Fl.
 - Humid mead. 24. 4. L. very large, often 3 f. Germens generally abortive.
 - T. hybrida, 6. 430, similar in foliage, has mostly perfect germens and stigmas.

398. SENÉCIO. Groundsel, or Ragweed.

* Flowers without rays.

 S. vulgáris, 11. 747. (Common G.) Flowers dispersed, without rays. Leaves pinnatifid, toothed, obtuse, smoothish; clasping at the base.

Cult. & waste gr. O. 3-10. Smoothish, shining. Fl. a yell. disk only.

** Flowers with speedily revolute rays.

 S. viscosus, 1. 32. (Stinking G.) Rays revolute. Leaves pinnatifid, viscid. Outer calyx lax, about as long as the inner. Stem with many spreading branches.

Waste chalky gr., rare. O. 7-10. Fetid, hairy. Fl. large, golden.

 S. *Hvidus*, 35. 2515. (Green-scaled G.) Rays revolute. Leaves clasping the stem, lanceolate, pinnatifid, and toothed. Outer calyx short, with sharp, not discoloured points.

Barren heaths. O. 9, 10. Habit of the next. Fl. small, golden yell.

- S. sylváticus, 11. 748. (Mountain G.) Rays revolute. Leaves sessile, pinnatifid, lobed and toothed. Outer calyx short, with bluntish discoloured tips.
 - Bushy and heathy pl. O. 7, 8. Fetid and downy. Stem wand-like, 3-4 f. leafy.

*** Flowers with spreading rays. Leaves pinnatifid.

- 5. S. squálidus, 9. 600. (Inelegant Ragweed.) Rays spreading, elliptical, entire. Leaves smooth, pinnatifid, with distant, and somewhat linear, segments.
 - Walls at Oxford : not wild. O. 6-10. Smooth. Corymb laz. F?. largish, golden.

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Ord. 2.] SYNGENESIA POLYGAMIA SUPERFLUA.

- 6. S. tensifolius, 8. 574. (Hoary R.) Rays spreading, oblong. Leaves pinnatifid, somewhat revolute; paler and shaggy beneath. Stem erect, loosely cottony.
 - Woods and hedges, on a chalky soil. 24.7, 8. Stem erect, 2-3 f. H. bright yell.
- S. Jacobéa, 16. 1130. (Common R.) Rays spreading, oblong, toothed. Leaves doubly pinnatifid, somewhat lyrate, with spreading, toothed, smooth segments Stem erect. Seeds of the disk silky. Mead. & past. 4.7, 8. Deep gr. bushy, 2-3 f. Fl. yell. Seeds hairy.
- S. aquáticus, 16. 1131. (Marsh R.) Rays spreading, elliptic-oblong. Leaves lyrate, serrated; the lowermost obovate and undivided. Seeds all smooth.
 - Marshes and watery pl. 4. 7, 8. Generally smooth. Fl. few, large, bright yell.

**** Fl. radiant. Leaves undivided.

- S. pałudósus, 10. 650. (Great Fen R.) Rays spreading, toothed. Flowers corymbose. Leaves lanceolate, tapering, sharply serrated, somewhat cottony beneath. Stem perfectly straight, hollow. Fens, rare. 4. 6, 7. 3—6 f. loosely downy. Fl. large, golden. Seeds
- hairy.
 10. S. saracénicus, 31. 2211. (Broad-leaved R.) Rays spreading, nearly entire. Flowers corymbose. Leaves lanceolate, serrated, minutely downy. Stem solid.
 - Moist past. rare. 24. 7, 8. 3-5 f. smooth. Fl. yell. Seeds mostly smooth.

399. ÁSTER. Star-wort.

 A. Tripólium, 2. 87. (Sea S., Michaelmas Daisy.) Herbaceous, corymbose. Leaves lanceolate, entire, fleshy, smooth, obscurely three-ribbed. Calyx-scales obtuse, somewhat membranous. Salt marsh. 4.8, 9. 2-3 f. Flor. of the disk yell.; of themarg. blue.

400. SOLIDÁGO. Golden-rod.

- S. Virgáurea, 5. 301. (Common G.) Stem slightly zigzag, angular. Clusters downy, panicled, crowded, erect. Leaves partly serrated.
 - Groves & heaths. 4. 7-9. Stem 1-3 f. Fl. yell. with 5-10 rays.

401. INULA. Elecampane, and Flea-bane.

 I. Helénium, 22. 1546. (Elecampane.) Leaves ovate, rugged, clasping the stem; downy beneath. Calyx-scales ovate, leafy. Moist mead. rare. 4.7, 8.3 f. Fl. very large, golden. Seeds smooth.

Moist meau. rare. 4. 7, 0. 5 J. F. very large, gouden. Seeds smooth.

 I. dysentérica, 16. 1115. (Common Flea-bane.) Leaves oblong, downy, clasping the stem with their heart-shaped bases. Stem woolly, panicled. Calyx-scales bristle-shaped, hairy.—Pulicaria dys., Br. Fl.

Watery pl. 24. 8. 1 f. Fl. golden. Seeds bristly.

3. I. pulicária, 17. 1196. (Small F.) Leaves clasping the stem, wavy.

Stem much branched, hairy. Flowers hemispherical ; radius scarcely longer than the disk.—Pulicaria vulgaris, Br. Fl.

Wet sandy sit. O. 9. A span. Fl. pale yell.; rays short, recurved. 4. I. crithmoides, 1. 68. (Samphire-leaved F.) Leaves linear, fleshy, partly three-pointed. Calyx smooth.—Limbarda crith., Br. Fl. Muddy sea-shores. 24.8. L. crowded. Flor. of the disk orange; of the margin golden.

402. CINERÁRIA. Flea-wort.

1. C. palústris, 3. 151. (Marsh F.) Flowers corymbose. Leaves broadly lanceolate, toothed or sinuated. Stem shaggy, leafy, hollow.

Pools and ditches. 24. 6, 7. Stem 3 f. stout. Fl. golden yellow. 2. C. integrifólia, 3. 152. (Mountain F.) Flowers simply and imperfectly umbellate, with several lanceolate bracteas. Radical leaves elliptical, obscurely toothed; the rest lanceolate; all shaggy.-C. campestris, Br. Fl.

Limest. cliffs. 4.5-7. Stem a span high, simple. Fl. few, golden.

403. DORÓNICUM. Leopard's bane.

- 1. D. pardaliánches, Suppl. 2654. (Great L.) Leaves heart-shaped, toothed; the lowermost on long naked stalks; intermediate ones with the petioles dilated into two broad semiamplexicaul ears at the base ; the uppermost sessile and amplexicaul.
 - Meadows and pastures, not indig. 24.6, 7. Root tuberous. Stem 2-3 f. high. Fl. large, yell.
- 2. D. plantagineum, D. pardalianches, 9.630, not of L. (Plantainleaved L.) Leaves toothed; radical ones on naked stalks, ovate or slightly heart-shaped, produced at the base; cauline ones sessile, except the lowest, which has a winged stalk, with amplexicaul ears; intermediate ones heart-shaped-oblong; upper ovate-acuminate.

Waste pl. not indig. 24.6, 7.

404. BÉLLIS. Daisy.

1. B. perénnis, 6. 424. (Common Daisy.) Root creeping. Flowerstalks radical, naked.

Mead. & past. 4.3-12. L. obovate. Disk yell. ; rays white or crims.

405. CHRYSÁNTHEMUM. Ox-eve.

1. Ch. Leucánthemum, 9. 601. (White O. Moon Daisy.) Leaves clasping the stem, oblong, obtuse, cut; pinnatifid at the base; radical ones obovate, stalked.

Fields & past. 4. 6, 7. Smoothish. Fl. large; disk yell. rays white. 2. Ch. segetum, 8. 540. (Yellow O. Corn Marigold.) Leaves clasping

the stem, glaucous; jagged upwards; toothed at the base. Fields. O. 6-8. Smooth. Stem bushy. Fl. yell. large and elegant.

406. PÝRETHRUM. Feverfew.

1. P. Parthénium, 18. 1231. (Common F.) Leaves stalked, com-



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pound, flat ; leaflets ovate, cut ; the uppermost confluent. Flowerstalks corymbose. Stem erect.

Waste gr. 5. 6, 7. 3 f. Bitter, aromatic. Fl. white ; rays short.

 P. inodórum, 10. 676. (Corn F.) Leaves sessile, pinnate; in sumerous, capillary, pointed segments. Stem branched, spreading. Crown of the seeds entire.

Gravelly fields. O. 8, 9. 1 f. Fl. solit. white ; disk yellow.

3. P. maritimum, 14. 979. (Sea F.) Leaves sessile, doubly pinnate, fleshy, pointless; convex above, keeled beneath. Crown of the seeds lobed.

Sea coast. 4.7. Stems spreading. Disk reddish ; rays white.

407. MATRICÁRIA. Wild-Chamomile.

1. M. Chamomilla, 18. 1232. (Common W.) Leaves smooth, pinnate; leaflets linear, simple or divided. Rays spreading. Calyx-scales dilated, bluntish.

Fields & dunghills. O. 5-7. Erect, branched. Fl. white; disk ycll.

408. ÁNTHEMIS. Chamomile.

- 1. A. marítima, 33. 2370. (Sea Ch.) Leaves doubly pinnatifid, acute, fleshy, dotted, somewhat hairy. Stem prostrate. Scales of the receptacle prominent, sharp-pointed.
- Rocky sea-coast, rare. O. 7. Disk yell., nearly flat ; rays cream-col.
- A. nóbilis, 14. 980. (Common Ch.) Leaves doubly pinnate, semicylindrical, acute, a little downy. Stem procumbent. Scales of the receptacle membranous, obtuse, shorter than the florets. Gravelly past. U.8, 9. Bitter and aromatic. Rays white, spreading or reflexed.
- A. arvénsis, 9. 602. (Corn Ch.) Receptacle conical; scales lanceolate, acute, keeled, prominent. Seeds crowned with a quadrangular border. Leaves doubly pinnatifid, hairy; segments parallel.

Grav. fields. O. 5. 6, 7. Scarcely odor., erect, a little hoary, 1-11 f. 4. A. Cótula, 25. 1772. (Stinking Ch.) Receptacle conical; scales

 A. Cótula, 25. 1772. (Stinking Ch.) Receptacle conical; scales bristle-shaped. Seeds without any border. Leaves doubly pinnatifid, slightly hairy; segments spreading.

Fields. ⊙. 6, 7. Fetid and acrid, bright green, bushy. Fl. solitary.

- 5. A. tinctoria, 21. 1472. (Ox-eye Ch.) Leaves doubly pinnatifid, serrated; downy beneath. Stem corymbose, erect. Seeds crowned with a membranous undivided border.
 - Stony mount. pl. rare. 3? 7, 8. Bushy, 18 in. downy or cottony. Fl. large and elegant.

409. ACHILLÉA. Yarrow.

- 1. A. Ptármica, 11. 757. (Sneeze-wort Y. Goose-tongue.) Leaves linear, pointed, equally and sharply serrated, smooth.
- Moist groves. 4. 7, 8. 2 f. Fl. not numerous, but large and white. 2. A. serráta, 36. 2531. (Serrated Y.) Leaves linear-lanceolate,
- A. serrata, 36. 2531. (Serrated Y.) Leaves linear-lanceolate, sessile, downy, deeply serrated; laciniated at the base. Flowers almost simply corymbose.



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Hills in Derbysh. 2f. 8. 18. in. Fl. few, scented, buff-coloured. 3. A. Millef olium, 11. 758. (Common Y. or Milfoil.) Leaves doubly

 A. Millef ólium, 11. 758. (Common Y. or Milfoil.) Leaves doubly pinnatifid, huiry; segments linear, toothed, pointed. Stem furrowed.

Mead. and past. 4. 6-8. 1 f. Fl. numer., small, white, or reddish. 4. A. tomentósa, 36. 2532. (Woolly Y. or M.) Leaves doubly pin-

 A. tomentosa, 36. 2532. (Woolly Y. or M.) Leaves doubly pinnatifid, woolly; segments crowded, linear, acute. Corymbs repeatedly compound.

Dry hills, Sc. and Ir. : native ? 4. 8. A span. Fl. golden yellow.

SYNGENESIA POLYGAMIA FRUSTRANEA.

410. CENTÁUREA. Knapweed, Blue-bottle, and Star-thistle.

1. C. Jácea, 24. 1678. (Brown Kn.) Calyx-scales membranous, torn; lower ones pinnatifid. Leaves linear-lanceolate; radical ones elliptic-lanceolate, toothed. Flowers radiant. Seed-down very short, in a simple row.

Past. rare. 24.8, 9. Stem 1 f. leafy. Cal. brown. Fl. purple.

2. C. nígra, 4. 278. (Black Kn.) Čalyx-scales oval, fringed with upright capillary teeth. Lower leaves somewhat lyrate, with angular lobes; upper ones ovate. Flowers discoid. Seed-down very short, tufted.

Past. 4. 6-8. Rather taller and more bushy. Cal. black.

- C. Cyánus, 4. 277. (Corn B.) Calyx-scales serrated. Leaves linear-lanceolate, entire; lower ones toothed towards their base. Corn fields. O. 7, 8. 2-3 f. Disk purplish; rays bright sky-blue.
- C. Scabiósa, 1. 56. (Greater Kn.) Calyx-scales ovate, fringed, somewhat downy. Leaves pinnatifid; segments lanceolate, roughish, partly toothed.

Borders of fields. 4. 7, 8. 2 f. Fl. large and handsome, crimson.

5. C. Isnárdi, 32. 2256. (Jersey Star-thistle.) Calyx-scales with palmate spines. Leaves toothed, somewhat lyrate, roughish, slightly clasping the stem. Flowers terminal, solitary, leafy at the base.

Meadows, in Jersey, 4.7, 8. Stems recumb. 6-8 in. Fl. light purp.

 C. Calcátrapa, 2. 125. (Common S.) Flowers lateral, sessile. Calyxscales doubly spinous. Leaves pinnatifid, toothed. Stem hairy, widely spreading.

Waste, sandy soil. O. 7, 8. Low and spread. Fl. lateral, rose-col.

 C. solstitiális, 4. 243. (Yellow S.) Flowers terminal, solitary. Calyx-scales doubly spinous. Stem winged, from the decurrent, lanceolate, unarmed leaves; radical leaves lyrate.
 Fielde men part patra of 7.8 Stem 1. 26 Kit mel Applications.

Fields, rare, not native. \odot . 7, 8. Stem 11-2 f. Fl. bright yellow.

Class XX. GYNANDRIA. Stamens situated either on the style, or on the germen.

The first and second Orders of this Class are perfectly natural, without any exception, comprehending the ORCHIDEÆ.

[The British Orchideæ are all herbaceous, with either tuberous, or stoutly fibrous roots. Stem simple. L. simple, entire, smooth. Fl. in a simple spike or cluster, all complete and perfect. Cal. superior, of 3 leaves; 2 of them opposite, equal. Cor. of 3 parts; viz. 2 petals, and a nectary or lip; the latter usually projecting in front, and extending behind in the form of a spur.]

Order I. MONANDRIA. Stamen, or sessile Anther, 1.

* Anth. of 2 distinct vertical cells, fixed to the summit of the column.

- 411. ÓRCHIS. Nectary with a spur behind.
- 412. ACERAS. Calyz converging. Nect. without a spur, flat.
- 414. ÓPHRYS. Cal. spreading. Nect. without a spur, convex.
- 419. HERMINIUM. Cal. spreading. Petals with lateral lobes, like the nectary, which is flat, without a spur.

** Anther parallel to the stigma, of 2 cells close together, permanent.

- 416. NEÓTTIA. Cal. converging, embracing the base of the flat nectary, which is without a spur. Pet. converging. Column without wings.
- 415. GOODYÉRA. Cal. spreading, embracing the base of the globose inflated nect., which is without a spur. Pet. converging. Column without wings.
- 417. LISTÉRA. Cal. spreading. Nect. without a spur, nearly flat. Pet. spreading. Column without wings.

*** Anther terminal, fixed.

418. EPIPÁCTIS. Nect. without a spur; tumid underneath at the base; contracted in the middle; undivided at the end.

**** Anther a terminal deciduous lid.

- 419. MALÁXIS. Nect. embracing the column with its concave base; without a spur, sessile. Pet. spreading.
- 420. CORALLORRHÍZA. Nect. unconnected with the column, spurred or stalked at the base. Pet. spreading.

Order II. DIANDRIA. Stamens, or sessile Anthers, 2.

421. CYPRIPÉDIUM. Calyx and petals spreading. Nect. inflated. Column with a terminal dilated appendage.

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[Cl. 20.

Order III. HEXANDRIA. Stamens, or sessile Anthers, 6.

GYNANDRIA MONANDRIA.

411. ÓRCHIS. Orchis.

* Knobs of the roots roundish, undivided.

- O. bifólia, Habenaria bifol. Br. Fl. (Butterfly O.) Spur filiform, twice as long as the germen. Lip linear, entire. Upper calyxleaf and the lateral petals connivent. Root leaves 2, oblongobovate, attenuated at the base.
 - Groves. 4. 6. Stem $1-l\frac{1}{2}f$. Fl. white, fragr. in the evening. L. ellipt.
- *1. O. chlorántha, O. bifol. E. Bot. t. 22. and E. Fl. Habenaria chlor. Br. Fl. (Yellow Butterfly O.) Spur half as long again as the germen. Lip ovate-lanceolate, scarcely longer than the petals. Stalk-leaves lanceolate: root-leaves 2 obovate, patent. Kent. 24. 5. Plant stouter. Fl. greener.
- 2. O. pyramidális, 2. 110. (Pyramidal O.) Knobs of the root oval. Lip of the nectary in three equal entire lobes, with two protuberances above; spur long and slender.
- Grassy chalky pl. 24. 7. Fl. crimson, fragrant. Spike pyramidal.
- O. Morio, 29. 2059. (Meadow O.) Knobs of the root oval. Lip of the nectary four-cleft, somewhat crenate; spur obtuse, ascending. Calyx many-ribbed, converging.

Moist mead. and past. 24. 5, 6. Leaves unspotted. Fl. purple or pale, with green lines.

 O. máscula, 9. 631. (Purple O.) Knobs of the root oval. Lip of the nectary four-cleft, crenate; spur obtuse. Calyx-leaves threeribbed; two lateral ones reflexed upwards.

Mead. & past. 4. 4, 5. L. spotted with black. Fl. purp. Cal. 3-rib.

5. O. ustulata, 1. 18. (Dwarf O.) Knobs of the root oval. Lip of the nectary four-lobed, rough with small points. Spur obtuse, not half the length of the germen. Calyx converging. Leaves lanceolate.

Chalky hills, Eng. 4. 6. 3-4 in. Cal. blackened; its leaflets distinct.

6. O. fusca, O. militaris, 1. 16. (Brown-winged O.) Knobs of the root oval. Lip of the nectary five-lobed, dilated, rough. Spur obtuse, not half the length of the germen. Calyx converging, blunt-pointed. Leaves elliptic-oblong.

Chalky bushy hills; Kent. 4. 5. Large. Cal. dark br. Cor. reddish.

 O. militáris, Suppl. 2675. (Military O.) Knobs of the root oval. Lip of the nectary five-lobed downy; two middle lobes dilated,



^{422.} ARISTOLÓCHIA. Calyx of 1 leaf. Corolla 0. Stigma with 6 lobes. Caps. of 6 cells.—Nat. Ord. ARISTOLOCHIER.

Spur obtuse, not half the length of the germen. rounded. Calvx converging, taper-pointed.

Chalky hills; near the Thames. 4.5. Smaller. Cal. of a greyish hue; its lip long and purplish.

- 8. O. tephrosánthos, O. militaris, 27. 1873. (Monkey O.) Knobs of the root oval. Lip of the nectary downy, in five lobes; four of them equal, linear, entire. Spur obtuse, not half the length of the germen. Calyx converging, taper-pointed.
 - Chalky hills; in the S. 24.5. Herbage and fl. like the last, but rather less.
- 9. O. hircína, Satyrium hircinum, 1. 34. (Lizard O.) Knobs of the root globose. Lip of the nectary downy, in three linear segments; the middle one very long, twisted, notched at the end. Calyx converging. Chalky bushy hills; Kent and Surrey. 24.7. The largest British
 - Orchis. 2-3 f. Cal. green. Scent disagreeable.

*** Knobs of the root tapering, clustered.

- 10. O. álbida, Sat. albidum, 8. 505. (White O.) Knobs tapering, clustered, undivided. Lip of the nectary in three deep acute lobes; the middle one largest; spur one-third the length of the germen .--- Habenaria alb. Br. Fl.
- Grassy mount. past. 4.6. Slender. Fl. small, white; lip green.
- 11. O. viridis, S. viride, 2. 94. (Frog O.) Knobs tapering, clustered, divided. Lip of the nectary linear, with three teeth; the middle one smallest. Spur very short, slightly cloven.- Habenaria virid. Br. Fl.

Moist. past. 4. 6, 7. Fl. brownish green, shorter than the bracteas.

*** Knobs of the root palmate.

- 12. O. latifólia, 33. 2308. (Marsh O.) Knobs imperfectly palmate. Lip of the nectary convex, crenate, slightly three-cleft; spur conical. Bracteas longer than the flowers. Stem hollow.
 - Marshes. 4.5, 6. Fl. varying from pale to crimson; lip varieg. L. unspotted.
- 13. O. maculátu, 9. 632. (Spotted O.) Knobs palmate, spreading. Lip of the nectary flat, crenate, three-lobed ; spur cylindrical, rather shorter than the germen. Bracteas shorter than the flowers. Wds. & mead. 4. 6, 7. Stem solid, leafy. Fl. white & purp. L. spott.

14. O. conópsea, 1. 10. (Aromatic O.) Knobs palmate. Lip of the nectary in three entire equal lobes ; spur very slender, twice as long as the germen. Calyx widely spreading.-Gymnedenia

conops. Br. Fl. Moist. mead. 4. 6. Stem 1 f. L. linear. Fl. small, purp. highly frag .

412. ÁCERAS. Man-orchis.

1. A. anthropóphora, Ophrys anthr. 1. 29. (Green M.) Lip longer than the germen.

Chalky past. 4.6. Knobs 2, woolly, ovate. Fl. brownish-green; lip yell.



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413. HERMÍNIUM. Musk-orchis.

1. H. monôrchis, Ophrys mon., 1. 71. (Green M.) Radical leaves two, lanceolate.

Chalky banks in the S. E. 24.6, 7.4-5 in. Pet. small, yellow.

414. ÓPHRYS. Insect Orchis.

1. O. muscifera, 1. 64. (Fly Orchis.) Lip twice as long as the calyx, with four expanded lobes, somewhat downy; the disk polished. Petals linear. Column obtuse.

Chalky past. 24. 6. 1 f. Nect. dark purple with a bluish spot.

2. O. apifera, 6. 383. (Bee O.) Lip the length of the calyx, tumid, with five reflexed marginal lobes; the terminal one awl-shaped; the rest hairy above. Calyx coloured. Column with a hooked point.

Chalky past. 4.6,7.1 f. Nect. brownish-purple, with yellow spots. Cal. rose-coloured.

- 3. O. arachnites, Suppl. 2596. (Late Spider O.) Lip longer than the calyx, dilated, somewhat tumid, with five shallow, inflexed, marginal lobes; the terminal one flattened. Calyx coloured. Column with a hooked point. Petals deltoid, downy.
- Chalky past. S. Kent. 4. 7. Like the last. Lip essentially different.
- 4. O. aranífera, 1. 65. (Early Spider O.) Lip the length of the calyx, tumid, hairy, rounded, with four shallow, reflexed, marginal lobes. Column acute, incurved. Cells of the anther near together. Petals linear, smooth.

Dry chalky past. 4. 4. A span high. Cal. green. Nect. dark brown.

5. O. *fuctifiera*, Suppl. 2649. (Drone O.) Lip longer than the calyx, obovate, hairy, undivided, with a spreading wavy margin. Column bluntly pointed, incurved. Petals roughish; ovate at the base.

Chalky hills, Kent. 4. 5, 6. Size, habit, and aspect of the last.

415. GOODYÉRA. Goodyera.

1. G. répens, Satyrium repens, 5. 289. (Creeping G.) Leaves ovate. Spike spiral. Point of the nectary elongated, deflexed.

Mossy alpine woods. 4. 7. R. knotted, downy. Fl. white.

316. NEÓTTIA. Lady's Tresses.

1. N. spirális, Ophrys spir. 8. 541. (Fragrant L.) Leaves ovate, stalked. Spike twisted, unilateral. Bracteas downy, tumid. Lip ovate, entire.

Open past. 4. 8, 9. Stalk 3-4 in. Bulbs ovate. Fl. white, fragrant.

 N. gemmipara, Suppl. 2786. (Proliferous L.) Leaves lanceolate, as tall as the stalk. Spike three-ranked, twisted. Bracteas smooth. Marsh, Dumbog, S. W. of Ir. 4.7. Stalk 2 in. Spike dense. Fl. white.—A very imperfectly known species.

417. LISTÉRA, Br. Listera, or Twayblade.

1. L. ováta, Ophrys ov., 22. 1548. (Common T.) Leaves elliptical,

opposite. Nectary with two linear-oblong, nearly parallel, lobes. Column with a posterior hood.

Groves. 24. 6. R. fibr. Stem 1¹/₂ f. Fl. numer. green. Caps. roundish.
2. L. cordáta, O. cord. 5. 358. (Heart-leaved T.) Leaves heart-shaped, opposite. Nectary with four lobes.

Alpine moors. 4.7.3-6 in. Fl. few, small, brownish-green.

 L. Nidus ávis, O. Nid. 1. 48. (Bird's nest L.) Leaves none. Stem clothed with sheathing scales. Nectary with two spreading lobes. Shady woods. 24. 5, 6. Of a pallid hue. R. in whitish tufts.

418. EPIPÁCTIS. Helleborine.

1. E. latifólia, Serapias lat. 4. 269. (Broad-leaved H.) Leaves ovate, clasping the stem. Lower bracteas longer than the drooping flowers. Lip shorter than the calyx, entire, with a minute point. Germen downy.

Mount. woods. 4. 7, 8. 2 f. Fl. small, brownish-purple.

- E. purpuráta, Suppl. 2775. (Purple-leaved H.) Leaves ovatelanceolate. Bracteas linear, all twice as long as the flowers. Lip shorter than the calyx, entire. Germen downy.
 Shady woods, U. 6. Of a reddish-lilac hue: 1 f. downy. leafu.
- Shady woods. 4.6. Of a reddish-lilac hue; 1 f. downy, leafy.
 E. palústris, S. pal. 4. 270. (Marsh H.) Leaves lanceolate, clasping the stem. Flowers drooping. Lip rounded, obtuse, crenate, as long as the petals, with a notched protuberance on the disk. Swampy places. 4.7, 8.1 f. Fl. large, white, varieg. with crims.
- Grandiffora, S. grand. 4. 271. (Large White H.) Leaves elliptic-lanceolate. Bracteas longer than the smooth germen. Flowers sessile, erect. Lip abrupt, shorter than the calyx, with elevated lines on the disk.

Chalky woods. 4.6. 1 f. Fl. few, large, white, seldom expanding.

- 5. E. ensifólia, S. ens. 7. 494. (Narrow-leaved H.) Leaves lanceolate, pointed. Bracteas minute, much shorter than the smooth germen. Flowers sessile, erect. Lip abrupt, half as long as the calyx, with elevated lines on the disk.
 - Mt. woods, rare. 4. 6. Stem 1 f. very leafy. L. narrow, 2-ranked. Fl. white.
- E. rúbra, S. rub. 7. 437. (Purple H.) Leaves lanceolate. Bracteas longer than the downy germen. Flowers sessile, erect. Lip tapering to a point, with elevated undulating lines on the disk. Stony mount. woods, rare. 4. 6, 7. 1-1+f. Fl. purple; lip white.

419. MALÁXIS. Bog-orchis.

1. M. paludósa, 1. 72. (Least B.) Leaves about four, spathulate; rough at the tip. Stalk with five angles. Lip entire, concave, erect, acute, half the length of the calyx.

Turfy bogs. 4.7. Stalk 2-4 in. Fl. num., small, palegreen, reversed.

2. M. Loesélii, Ophrys Loes. 1. 47. (Two-leaved B.) Leaves two, elliptic-lanceolate. Stalk triangular. Petals linear. Lip obovate, channelled, undivided, recurved, longer than the calyx.—Liparis Loes. Br. Fl.

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Sandy bogs, S. E. of Engl. 4. 7. Larger in every part. Cal. pale lemon. Pet. deeper yell.

420. CORALLORRHÍZA. Coral-root.

- C. innáta, Ophrys cor. 22. 1547. (Spurless C.) Spur of the nectary short, not distinct from the slightly three-lobed lip. Root copiously branched.
 - Marshy woods in Scot. very rare. 2.5, 6. A span high. Fl. pale, yellowish; fragrant when dry.

GYNANDRIA DIANDRIA.

421. CYPRIPÉDIUM. Lady's Slipper.

1. C. Calcéolus, 1. l. (Common L.) Stem leafy. Appendage to the column elliptical, obtuse, channelled. Lip somewhat compressed, shorter than the petals.

Woods, N. of Engl. very rare. 4. 6. 1 f. Lip swollen, large, yellow; the rest of the flower a dark rich brown.

GYNANDRIA HEXANDRIA.

422. ARISTOLÓCHIA. Birthwort.

 A. Clematitis, 6. 398. (Common B.) Leaves heart-shaped. Stem erect. Flowers aggregate, axillary, upright. Calyx unilateral. Thickets, and among ruins. 24.7, 8. Smooth, 2 f. Fl. pale yell.

Class XXI. MONOECIA. Stamens and Pistils in separate flowers, on the same plant.

Order I. MONANDRIA. Stamen 1.

423. EUPHÓRBIA. Involucrum with numerous barren fl. and 1 fertile. Barr. fl. Cal. 0. Cor. 0.

Fert. Fl. Cal. 0. Cor. 0. Caps. 3-lobed. Styles 3, cloven. -N.O. EUPHORBIACEE.

424. ZANNICHÉLLIA. Invol. 0. Barren fl. Cal. 0. Cor. 0. Fert. fl. Cal. of 1 leaf. Cor. 0. Germ. 4, or more. Seeds 4, stalked. Stigmas peltate.—N.O. NAIADES.

Callitriche. Chara ? Zostera ? Typha minor.



(DIANDRIA. Stamens 2.)

Carex.

Order II. TRIANDRIA. Stamens 3.

426. SPARGÁNIUM. Barren fl. Cal. 3-leaved. Cor. 0. Fert. Fl. Cal. 3-leaved. Cor. 0. Drupa dry.-N.O. Aboldez.

427. CÁREX. Barr. Fl. Cath. imbricated. Cal. a scale. Cor. 0. Fert. Fl. Cathin imbric. Cal. a scale. Cor. a hollow permanent glume, investing the loose seed.—N.O. CYPERACEZ.

428. KOBRÉSIA. Barr. A. Catkin with opposite scales, imbricated, in 2 rows. Cal. an inner scale. Cor. 0.

Fert. fl. Cal. an outer scale. Cor. 0. Seed 1, loose. — N.O. CYPEBACE E.

425. TÝPHA. Barr. fl. Catkin hairy. Cal. 0. Cor. 0. Anth. about three on each filament.

Fert. A. Catkin hairy. Seed 1, on a hairy stalk.....N.O. ABOIDEZ.

Amaranthus.

Order III. TETRANDRIA. Stamens 4.

429. LITTORÉLLA. Barr. fl. 4-leaved. Cor. 4-cleft. Stam. capillary, very long.

Fert. Fl. Cal. O. Cor. unequally 3- or 4-cleft. Style very long. Nut of 1 cell.—N.O. PLANTAGINEE.

432. URTÍCA. Barr. fl. Cal. 4-leaved. Pet. 0. Nect. central, cup-shaped. Stam. the length of the calyx.

Fert. A. Cal. 2-leaved. Cor. 0. Seed 1, superior, polished. -N.O. URTICEZ.

431. BÚXUS. Barr. fl. Cal. 3-leaved. Pet. 2. Rudiment of a germen.

Fert. fl. Cal. 4-leaved. Pet. 3. Styles 3. Caps. with 3 beaks, and 3 cells. Seeds 2.-N.O. EUPHORBIACE.

430. ÅLNUS, Barr. A. Cal. the scale of a catkin, permanent, 8flowered. Cor. deeply 4-cleft.—N.O. AMENTACEE. Fert. fl. Cal. the scale of a catkin, permanent, 2-flowered.

Fert. A. Cal. the scale of a catkin, permanent, 2-flowered. Cor. 0. Styles 2. Nut compressed, without wings.— N.O. AMENTACE.

Eriocaulon. Myrica.

Order. IV PENTANDRIA. Stamens 5.

439. XÁNTHIUM. Barr. A. Common Cal. imbricated, manyflowered, with intermediate scales. Cor. of 1 petal, funnelshaped, 5-cleft.

Fert. fl. Cal. of 2 leaves, with 2 flowers. Cor. 0. Drupa 1^{2}

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spurious, coated with the prickly calvx, cloven. Nut of 2 cells.-N.O. Compositz.

434. AMARÁNTHUS. Barr. fl. Cal. of 3 or 5 leaves. Cor. 0. Stam. 3. or 5.

Fert. fl. Cal. of 3 or 5 leaves. Cor. 0. Styles 3 or 2. Caps. of 1 cell, bursting all round. Seed 1.-N.O. AMARAN-ТНАСЕЖ.

435. BRYÓNIA. Barr. fl. Cal. with 5 teeth. Cor. 5-cleft. Filam. 3. Anth. 5.

Fert. fl. Cal. with 5 teeth, deciduous. Cor. 5-cleft. Style 3-cleft. Berry inferior. Seeds few.-N.O. CUCUBBITACEZ. Fagus. Quercus. Atriplex.

Order V. HEXANDRIA. Stam. 6.

436. ERIOCÁULON. Common Cal. imbricated, many-flowered. Barr. fl. in the middle. Cor. in 6 or 4 deep segments. Stam. 6, 4, or 3.

Fert. fl. in the circumf. Pet. 6 or 4. Style 1. Caps. superior. 2- or 3-lobed. Secds solitary .- N.O. RESTIACER.

Rumices. Quercus.

Order VI. POLYANDRIA. Stam. 7, or more.

- 438. MYRIOPHYLLUM. Barr. fl. Cal. 4-leaved. Pet. 4. Stam. 8. Fert. fl. Cal. 4-leaved. Pet. 5. Stigm. 4, sessile. Drupas 4. -Ň.O. HALOBAGEÆ.
- 441. POTÉRIUM, 92. Barr. fl. Cal. S-leaved. Cor. deeply 4-cleft. Stam. 30-50.

Fert. fl. Cal. 3-leaved: Cor. deeply 4-cleft. Pist. 1 or 2. Nut coated, of 1 or 2 cells .- N.O. ROSACEA.

439. SAGITTÁRIA. Barr. fl. Cal. 3-leaved. Pet. 3. Stam. about 24.

Fert. A. Cal. 3-leaved. Pet. 3. Pist. numerous, Seeds numerous, bordered.-N.O. ALISMACEZ.

437. CERATOPHYLLUM. Barr. fl. Cal. many-cleft. Cor. 0. Stam. 16-20. Fert. fl. Cal. many-cleft. Cor. 0. Stigm. nearly sessile,

oblique. Drupa compressed.-N.O. CEBATOPHYLLER.

443. FAGUS. Barr. fl. in a catkin. Cal. in several segments. Cor. 0. Stam. 5-20.

Fert. fl. Cal. double; outer inferior, prickly, in several deep segments, 2- or 3-flowered ; inner superior, 5- or 6-cleft. Cor. 0. Styles 5 or 6. Nuts 2 or 3, loosely invested with the spreading outer calyx.—N.O. AMENTACEE.

442. QUÉRCUS. Barr. fl. in a catkin. Cal. in several segments. Cor. 0. Stam. 8 or more,

Fert A. Cal. double ; outer inferior, scaly, undivided ; inner superior, in 6 deep segm. Cor. 0. Style 1. Nut soli-



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tary, closely invested, at its base, with the hemispherical outer calyx.---N.O. AMENTACEE.

- 446. CÓRYLUS. Barr. fl. in a cathin. Cal. a 3-cleft scale. Cor. 0. Stam. 8 or more.
 - Fert. fl. Cal. double; outer inferior, divided; inner superior, obsolete. Cor. 0. Styles 2. Nut solitary, bony, invested with the enlarged, coriaceous, jagged outer calyx. —N.O. AMENTACEZ.
- 445. CARPÍNUS. Barren fl. in a cathin. Cal. a rounded scale. Cor. 0. Stam. 10, or more.
 - Fert. A. Cal. double; outer inferior, of several deciduous scales; inner superior, in three deep, sharp segm., permanent. Cor. 0. Styles 2. Nut ovate, angular, naked. -N.O. AMENTACEÆ.
- 444. BÉTULA. Barr. fl. in a catkin. Cal. a ternate scale. Cor. 0. Stam. 10-12.
 - Fert. A. in a catkin. Cal. a peltate, 3-lobed, 3-flowered scale. Cor. 0. Styles 2. Nut winged, deciduous.—N.O. AMENTACEÆ.
- 440. ÁRUM. Common Cal. a sheathing leaf, enclosing a common stalk, naked above. Cor. 0.

Barr. fl. Stam. numerous, in a dense ring, surmounted by another ring of abortive filaments.

Fert. fl. Germens numerous, in a dense ring, below the stamens, sessile. Styles 0. Stigma downy. Berry with several seeds.—N.O. ABOIDEE.

Order VII. MONADELPHIA. Filam. united below.

437. PÍNUS. Barr. fl. in a cathin, naked. Stam. numerous, on a common stalk.

Fert. fl. in a catkin, of close, rigid, 2-lipped, 2-flowered scales. Seeds 2 to each scale, winged. N.O. CONIFERE.

Typha ?

MONOECIA MONANDRIA.

423. EUPHÓRBIA. Spurge.

[Herbaceous or shrubby, abounding with white, milky, acrid juice. Stem round, leafy. L. simple, sometimes downy.]

* Stem forked.

1. E. *Péplis*, 28. 2002. (Purple S.) Leaves nearly entire, half-heartshaped. Involucrums solitary, axillary. Stems procumbent. Capsule smooth.

Sandy sea-shores, in the S. O. 7, 8. Glauc. tinged with purple.



** Umbel of 3 branches.

- 2. E. Péplus, 14, 959. (Petty S.) Umbel three-branched, forked. Bracteas ovate. Leaves obovate, stalked, entire. Nectaries crescent-shaped. Seeds dotted. Cult. gr. ⊙. 7, 8. Erect ; 6—10 in. light green. Fl. small, yellowish.
- 3. E. exigua, 19. 1336. (Dwarf S.) Umbel three-branched, forked. Bracteas lanceolate. Leaves linear. Necturies horned. Seeds wrinkled.
 - Gravelly fields. O. 7. Small; 3-5 in. Fl. yellowish. Umb. sometimes of 4 or 5 branches.

*** Umbel of 4 branches.

4. E. Láthyris, 32. 2255. (Caper S.) Umbel 4-branched, forked. Leaves opposite, 4-ranked, sessile, entire; heart-shaped at the base. Thickets, rare, naturalized. 5. 5, 6. Erect ; 2-3 f. purplish. Fl. in the forks.

**** Umbel of 5 branches.

- 5. E. portlándica, 7. 441. (Portland S.) Umbel five-branched, forked. Bracteas slightly heart-shaped, concave. Leaves linearobovate, pointed, smooth, spreading. Nectaries four. Capsule rough at the angles.
- Sea-coast in the S. 24. 8. About 1 f. glauc. Nect. 4, crescent-sh. 6. E. parália, 3. 195. (Sea S.) Umbel about five-branched, forked. Bracteas heart-kidney-shaped. Leaves imbricated upwards, concave. Nectaries five. Capsule nearly smooth.
 Sandy sea-coast. 4.8,9. Giauc. 1 f. Nect. 5, crescent-shaped.
 7. E. helioscópia, 13. 883. (Sun S. Wart-wort.) Umbel of five three-
- cleft, then forked, branches, Bracteas and leaves obovate, serrated. Nectaries four, undivided. Capsule smooth.
- Cult. gr. O. 7, 8. Deep green, 6-10 in. Nect. yellowish. 8. E. stricta, 5. 333. E. platyphylla, Br. Fl. (Upright Warty S.) Umbel of about five three-cleft, then forked, branches. Leaves lanceolate, finely serrated. Nectaries four, rounded, entire. Capsule warty. Seeds smooth.
 - Fields. O. 7, 8. Light green, 6-15 in. Br. and divisions fewer in weak plants.

***** Umbel of 6 or more branches.

- 9. E. Esula, 20. 1399. (Leafy-branched S.) Umbel of numerous forked branches. Bracteas nearly heart-shaped. All the leaves uniform. Nectaries rhomboid, with two horns. Capsule smooth. Shady woods, rare : wild? 4.7. Green, 12-18 in. L. linear-obov. Nect. tawny.
- 10. E. Cyparissias, 12. 840. (Cypress S.) Umbel of numerous, forked branches. Bracteas somewhat heart-shaped. Stem-leaves lanceolate ; those of the lateral branches linear and very narrow. Nectaries lunate. Capsule nearly smooth.

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Grov. and barr. pl. : wild ? 4. 5, 6. Hubit like the last. Bract. at length scarlet.

- 11. E. hibérna, 19. 1337. (Irish S.) Umbel of six forked branches. Bracteas ovate. Leaves obtuse. Stem simple. Nectaries kidneyshaped, pointless. Capsule warty, erect.
- Fields and woods; S. of Ir. 4. 6. 2 f. Nect. tawny purple. *11. E. pilosa, Suppl. 2787. (Hairy S.) Umbel of 3-5 principal rays; with several scattered inferior ones. Bracteas broadly oval. entire ; and, as well as the elliptical finely serrated leaves, hairy, or glabrous. Glands of the involucre 4, transversely oval, with intermediate rounded lobes. Capsule warty or even, hairy or smooth. Seeds glossy, even.

Hedges and woods, S. of Engl.; naturalized. 24.7. 2-3 f. high.

- 12. E. amygdaloides, 4. 256. (Wood S.) Umbel of about six forked branches; with numerous axillary stalks beneath. Bracteas rounded, perfoliate. Leaves obtuse, hairy. Capsule smooth. Woods. 24. 3, 4. Shrubby, purplish, downy. Nect. lunate, yellow. 13. E. Charácias, 7. 442. (Red Shrubby S.) Umbel of numerous
- forked downy branches; with many axillary crowded stalks beneath. Bracteas somewhat pointed, perfoliate. Leaves lanceolate, downy. Capsule hairy.
 - Needwood Forest, Staffords., not indig. J. 3, 4. Shrub, 3 f. purplish-brown. L. evergreen.

424. ZANNICHÉLLIA. Horned-pondweed.

- 1. Z. palústris, 26. 1844. (Common H.) Anther of two, or four cells. Stigma entire, or toothed. Leaves linear.
 - Ponds & ditch. 0.7. Stem float. thread-sh. branched, leafy, 12-18 in.

MONOECIA TRIANDRIA.

425. TÝPHA. Cat's-tail, or Reed-mace.

- 1. T. latifólia, 21. 1455. (Great C.) Leaves somewhat convex beneath. Catkin continuous. Receptacle hairy. Ponds and ditches. 4.7. Smooth, 6 f. erect ; leafy at bottom only.
- L. upright, linear. Cath. 1 f. 2. T. angustifólia, 21. 1456. (Lesser C.) Leaves slightly semi-
- cylindrical; channelled above. Barren catkin separated from the fertile one. Receptacle scaly.
 - Ponds and ditches, less freq. 24. 6, 7. Like the last, but smaller and more slender.
- 3. T. minor, 21. 1457. (Dwarf C.) Leaves linear, convex beneath. Catkins a little distant ; barren one leafy ; fertile short and turgid ; often interrupted. Anthers nearly solitary. Receptacle naked.

Marshes, rare : not British. $4.7.1-1\frac{1}{2}f$. slender.

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426. SPARGÁNIUM. Bur-reed.

1. S. ramósum, 11. 744. (Branched B.) Leaves triangular at the base, with concave sides. Common flower-stalk branched. Stigma linear.

Watery pl. 4. 7, 8. Stem erect, 3 f. Balls of fl. alternate ; the barren ones white, above the rest.

2. S. simplex, 11.745. (Unbranched B.) Leaves triangular at the base. with flat sides. Common flower-stalk simple. Stigma linear.

Grav. pools & ditches. 24.7,8. Smaller. Cal. greenish. Anth. yell. 3. S. nátans, 4. 273. (Floating B.) Leaves floating, flat; concave

at the base. Common flower-stalk simple. Stigma ovate, very short. Ball of barren flowers mostly solitary.

Muddy fens. 4.7. Still smaller, floating. Čal. pale green.

427. CÁREX. Carex, or Sedge.

[A very extensive genus, with grassy herbage. Root perennial. Stem simple, generally 3-angled. Leaf linear, pointed, roughish. Seed loosely coated with the enlarged, hardened, single-valved, membranous corolla; both together constituting the fruit.]

* Cathin solitary, simple.

- 1. C. dioíca, 8. 543. (Creeping C.) Catkins simple, diœcious. Fruit ovate, ribbed, ascending, finely serrated at the edges. Root creeping.
- Bogs. 4. 5, 6. Stems a span high at most. Herbage slender, smooth.
- 2. C. Davalliána, 30. 2123. (Prickly C.) Catkins simple, diœcious. Fruit lanceolate, triangular, ribbed, deflexed; its angles rough towards the summit.

Boggy sit. rare. 4. 5, 6. R. tufted. Stems rough, taller.

- 3. C. pulicáris, 15. 1051. (Flea C.) Catkin simple ; florets in the upper half barren; in the lower fertile. Fruit spreading, deflexed, polished, tapering at each end. Stigmas two.
- Muddy bogs. 4.6. R. fibrous. Stems 6-12 in. smooth. Fr. brown. 4. C. pauciflora, 29. 2041. (Few-flowered C.) Catkin simple, lax, of few flowers ; the uppermost barren. Fruit spreading, deflexed, awl-shaped, smooth. Stigmas three.
 - Alpine bogs, rare. 4. 6. Smooth, 3-5 in. Fr. striated, rusty yell.
- ** Catkins, or spikelets, aggregate, each composed of barren and fertile florets. Stigmas 2. (In C. Vahlii 3.)
- 5. C. stelluláta, 12. 806. (Prickly C.) Spikelets three or four, roundish, slightly distant. Barren florets inferior. Fruit spreading, with a tapering undivided beak.

Boggy mead. 4.5,6. A span, grass-green. Spikel. roundish, brown. 6. C. cúrta, 20. 1886. (White C.) Spikelets about six, elliptical,

slightly distant, scarcely bracteated. Scales ovate, membranous, about as long as the ovate, tumid, smooth fruit.

Watery pl. rare. 24. 6. 1 f. Spikel. short, tumid, of a silvery hue.

Ord. 2.7

*6, C. Váhlii, Suppl. 2666. (Close-headed Alpine C.) Spikes 3-4, roundish or oblong, aggregated; the terminal one with barren flowers at its base. Stigmas three. Fruit obovate, scabrous above, with minute chrystalline prickles; shortly beaked, longer than the ovate, obtuse calyx. Stem triangular, rough at the edges.

Alpine rocks, head of Loch Callater, in Braemar; and Glen of the Dole, Clova. 4. 8, 9. Stem erect, rigid.

- 7. C. elongáta, 27. 1920. (Elongated C.) Spikelets numerous, oblong, rather distant, without bracteas. Fruit ovate-oblong, tapering, cloven, many-ribbed, recurved, longer than the scales.
- Marsh., rare. 24.6. Taller. Spikel. of a rusty greenish br., & glossy.
- 8. C. ovális, 5. 306. (Oval-spiked C.) Spikelets about six. oval. crowded, alternate, with a bractea under the lowermost. Fruit lanceolate, rough-edged, striated, nearly entire, the length of the lanceolate acute scales.
- Watery pl. 4. 6. Larger, 1-11 f. Spikel. 5 or 6, greyish, soft. 9. C. tenélla. (Slender-headed C.) Spikelets three, bracteated, distant, minute, of about three florets. Fruit elliptical, convex at each side, very smooth and even, with a blunt, entire beak.
- Wood, by the Esk, Angus. 4. 6. Slender, smooth. 8 in. Stam. 2. 10. C. remota, 12. 832. (Remote C.) Spikelets several, solitary, rc-
- mote, simple, nearly sessile. Bracteas very long, overtopping the stem. Fruit ovate, with a slightly cloven beak.
- Moist shady pl. 4. 5, 6. Pale and slender, 1 f. Sp. pale yellow.
- 11. C. axilláris, 14. 993. (Axillary C.) Spikelets several, remote, sessile: the lower ones compound, with very long bracteas. Fruit ovate; its beak deeply cloven.

Marshes. 4.5, 6. Larger and stouter. Sp. brownish.

12. C. incúrva, 13. 927. (Curved C.) Spikelets crowded into a dense head. Lower florets fertile. Bracteas membranous. Stem roundish, smooth. Leaves channelled.

Sandy sea-shore, N. of Scotl. 4.7, 8. 2-5 in. Sp. ovate, brown.

- 13. C. arenária, 13. 928. (Sea C.) Spikelets numerous, crowded into an oblong spike ; upper ones chiefly of barren, lower of fertile, florets. Bracteas membranous; lower ones leafy. Stem triangular. Leaves flat. Fruit winged. Sandy sea-shores. 4.6.1 f. R. long & cord-like, widely spreading.
- 14. C. intermédia, 29. 2042. (Soft Brown C.) Spikelets numerous, crowded into an oblong dense spike : the lowermost and terminal ones fertile; intermediate ones barren. Stem upright, triangular.

Marshy mead. 4.5, 6. Taller. Spike soft, rusty brown.

15. C. divisa, 16. 1096. (Bracteated C.) Spike dense, once or twice compounded. Spikelets of barren and fertile florets ; the latter inferior, most numerous. Bracteas leafy, erect. Fruit not spread-Root creeping. ing.

Marsh., near the sea. 4. 5, 6. Stems weak. Spike small, dark brown. 16. C. muricáta, 16. 1097. (Greater Prickly C.) Spike oblong, dense, prickly, with the broad, rough-edged, cloven, spreading beaks of the fruit. Spikelets roundish, mostly simple. Root fibrous.

Moist past. 14. 5, 6. Bright grass-green. Spikel. ovate, thin, globose. 17. C. divúlsa, 9. 629. (Grey C.) Spike elongated, lax; with the spikelets

of its lower half finally very distant, mostly single. Fruit erect, smooth-edged; roughish at the cloven point of the beak. Root fibrous.

Moist past. 4.5. Bright green; 1-1+ f. weak. Sp. whitish.

 C. vilpina, 5. 307. (Compound Prickly C.) Spike thrice compound, dense, obtuse. Fruit spreading, with a notched roughedged beak. Scales pointed. Angles of the stem compressed, very sharp.

Watery pl. 4. 5. Firm, 2 f. Sp. ovate, green. Fr. spreading, brown.

- C. teretiúscula, 15. 1065. (Lesser Panicled C.) Spike twice or thrice compound, dense. Fruit spreading, tumid at one side, with a tapering, serrated beak. Stem triangular, with convex interstices.
 - Watery mead. 4. 5. R. slightly creeping. Stem $1-\frac{1}{2}f$. slender, Fr. brown.
- 20. C. paniculáta, 15. 1064. (Great Panicled C.) Spike thrice compound, loosely panicled, interrupted, acute. Fruit spreading, with an abrupt serrated beak. Stem sharply triangular, with flat interstices.

Marshes. 4.6. R. tufted. Stems stouter, 2-3 f.; angles very rough.

- **** Barren and fertile florets in separate catkins; the barren catkin solitary. Bracteas membranous. Stigmas 3.
- C. digitáta, 9. 615. (Fingered C.) Bracteas membranous, sheathing, scarcely leafy. Catkins linear, lax, erect; the barren one shortest; fertile, two or three. Leaves flat.

Shady chalky pl. 4.5. Aspan high. Scales abrupt, reddish brown.

22. C. clandestina, 30. 2124. (Dwarf Silvery C.) Bracteas membranous, scarcely leafy. Fertile catkins remote, of few flowers, inclosed in the sheathing bracteas. Leaves channelled.

Limest. rocks, Bristol. 4. 5. 1-3 in. Scales of a silvery whiteness.

- **** Barren and fertile florets in separate catkins; the barren catkin solitary, rarely more than one. Bracteas leafy and generally sheathing.
- C. péndula, 33. 2315. (Great Pendulous C.) Sheaths nearly as long as the flower-stalks. Fertile catkins cylindrical, very long, drooping. Fruit densely crowded, ovate, beaked.

Moist woods. 4.5.7. R. fibr. Stem 3-6f. L. large, recurved, harsh.

- C. strigósa, 14. 994. (Loose Pendulous C.) Sheaths nearly equal to the flower-stalks. Catkins slender, loose, slightly drooping. Fruit lanceolate, triangular, ribbed.
 - Groves & thickets, rare. 4. 4-6. R. fibr. Stem 2 f. more slender as well as the leaves.
- 25. C. sylvática, 14. 995. (Pendulous Wood C.) Sheaths not half

the length of the flower-stalks. Catkins slender, rather loose, drooping. Fruit ovate, triangular, beaked, without ribs.

Woods. 2, 5, 6. Bright grass-green. Stem 3 f. stouter. Fl.-stalks slender.

- 26. C. depauperáta, 16. 1098. (Starved Wood C.) Sheaths much shorter than the flower-stalks. Fertile catkins distant, erect, of about three florets. Fruit inflated, ribbed, with a notched beak.
- Dry woods, rare. 4. 5, 6. Fr. 2-4, large, green, ovate, smooth. 27. C. Mielichóferi, 32. 2293. (Loose-spiked C.) Sheaths not half the length of the flower stalks. Fertile catkins three, distant, erect, lax. Fruit ovate, tumid, triangular, rough-edged; its beak cloven, membranous at the summit.

Alpine rocks in Scot. 24.7, 8. Stem 1 f. roundish. L. smooth, flat.

- 28. C. speirostáchya, Suppl. 2770. (Short-spiked C.) Sheaths shorter than the flower-stalks. Fertile catkins about three, distant, erect, ovate, dense, many-flowered. Fruit ovate, triangular, ribbed, smooth; with a deeply cloven beak, membranous at the orifice. Marshes in Scot. 24. 7, 8.- Var. of C. fulva.
- 29. C. phæostáchya, Suppl. 2731. (Short-brown-spiked C.) Sheaths shorter than the flower-stalks. Fertile catkins two, distant, erect, ovate. Fruit triangular, smooth; with a cloven beak. Scales of the barren catkin pointed ; of the fertile ones obtuse. Highl. rocks, Scot. 4.6.—Var. of C. panicea.
- 30. C. capilláris, 29. 2069. (Capillary C.) Common sheath much shorter than the two or three capillary drooping flower-stalks. Fertile catkins ovate, rather loose, pendulous. Fruit ovate, triangular, pointed, without ribs ; membranous at the tip. Root fibrous.

Highl. Mts. Scot. 4. 7, 8. Slender, 2-4 in Fl.-stalks very slender.

- 31. C. rariflora, 35. 2516, (Loose-flowered C.) Sheaths scarcely any. Fertile catkins lax, drooping, of few florets. Fruit obovate, triangular, slightly pointed, without ribs. Root creeping.
- Clova Mts. 4.7. Rather larger. Scales ovate, acute, black. 32. C. Pseudo-cypérus, 4. 242. (Bastard-Cyperus C.) Sheaths scarcely any. Fertile catkins dense, cylindrical, drooping, many-flowered. Scales awl-shaped. Fruit spreading, lanceolate, furrowed, rough-edged, with a deeply-cloven beak.

Wet shady pl. 4. 6. 1 f. Spikel. 11-2 in. green, on rough stalks.

33. C. limósa, 29. 2043. (Green-and-Gold C.) Sheaths scarcely any. Fertile catkins ovate, dense, drooping, many-flowered. Fruit elliptical, compressed, ribbed, smooth-edged, without a beak. Root creeping.

Deep rotten bogs. 4. 6. A span high. Scales brown, with a golden lustre. Fr. green.

- 34. C. ustuláta, 34. 2404. (Scorched C.) Sheaths very short. Fertile catkins ovate, dense, pendulous. Fruit elliptical, compressed, rough-edged, with a cloven beak. Root tufted, somewhat creeping. Wet micaceous sit. 24.7. 3-4 in. Scales and fruit dark brown.
- 85. C. atráta, 29. 2044. (Black C.) Sheaths scarcely any. Catkins

uniform, stalked, ovate, drooping; the terminal one with many barren florets below. Fruit elliptical, compressed, smooth, with a notched beak. Stamens two or three.

Alpine past. 24. 6, 7. Stem 12-15 in. Scales black. Fr. yellow.
36. C. púlla, 29. 2045. (Russet C.) Sheaths none. Fertile catkins ovate ; the lower one stalked. Fruit elliptical, slightly inflated, with a short notched beak. Stigmas two.

Highl. mts. rare. 4. 7. R. creeping. Stem a span. Scales black. 37. C. palléscens, 31. 2185. (Pale C.) Sheaths very short. Fertile

catkins cylindrical, stalked; at length pendulous. Fruit obovate, triangular, inflated, smooth, obtuse, with a minute abrupt beak.

Mead. & past. 4. 5. 6. Pale green, 1 f. Scales yellowish. Fr. green.

 C. fláva, 18. 1294. (Yellow C.) Sheaths short, nearly equal to the flower-stalks. Fertile catkins roundish-ovate. Fruit triangular, smooth, with a cloven beak curved downward. Stem nearly smooth.

Boggy mead. 4. 5, 6. 9-12 in. Scales light brown. Fr. ultimately yellow.

- Č. Oedéri, 25. 1778. (Oederian C.) Sheaths and flower-stalks all very short. Fertile catkins roundish-ovate. Fruit globular, triangular, direct, smooth, with a straight cloven beak. Stem smooth. Wet commons. U. 7. Of humble growth, and less vellow.
- Wet commons. 4.7. Of humble growth, and less yellow.
 40. C. fúlva, 18. 1295. (Tawny C.) Sheaths tubular, elongated, shorter than the flower-stalks. Fertile catkins ovate, erect. Scales pointless. Fruit ovate, triangular, direct, smooth, with a straight, cloven, rough-edged beak. Stem rough.
 - Boggy mead. 4. 6, 7. Slender, 12-15 in. Sp. tawny brown. Fr. brownish.
- 41. C. exténsa, 12. 833. (Long-bracteated C.) Sheaths and flowerstalks very short. Bracteas very long and spreading. Fertile catkins elliptic-oblong, near together. Scales somewhat awned. Fruit ovate, triangular, with a short, smooth, cloven beak. Stem very smooth.

Sea coast. 24. 6. 6-18 in., a little curved, as well as the bracteas.

42. C. distans, 18. 1284. (Loose C.) Sheaths tubular, elongated, nearly equal to the flower-stalks. Fertile catkins elliptic-oblong, widely distant. Scales pointed. Stem smooth.

Muddy marshes. 24. 6. Stem weak, $1-1\frac{1}{2}f$. Sp. dark rusty brown.

 C. binérvis, 18. 1235. (Green-ribbed Č.) Sheaths tubular, elongated, shorter than the flower-stalks. Fertile catkins cylindrical, distant; partly compound. Scales pointed. Stem smooth. Fruit with two principal ribs.

Drv heaths. 4.6. Larger and stouter. Sp. blackish.

44. C. précox, 16. 1099. (Vernal C.) Sheaths about equal to the very short flower-stalks. Catkins all elliptical, rather crowded. Scales of the fertile ones pointed. Fruit pear-shaped, downy, with an abrupt entire point.

Dry heaths. U. 4. 3-8 in. Fert. cathins club-shaped, pale-yell. 45. C. pilulifera, 13. 885. (Round-headed C.) Sheaths none. Fertile Ord. 2.]

catkins two or three, sessile, crowded, almost globular, with pointed scales. Fruit triangular, roundish, downy, with a short cloven beak.

Heaths, & wet past. 4. 4, 5. Stems recumb. weak, curved, 9-12 in.

- 46. C. tomentosa, 29. 2046. (Downy-fruited C.) Sheaths extremely short. Fertile catkins one or two, nearly sessile, cylindrical, obtuse, with acute scales. Fruit globose, slightly triangular, densely downy, with a short cloven beak.
 - Mead. at Merston Measey, Wilts. 4. 6. Erect, 1 f. or more. L. flat, much shorter than the stem.
- 47. Č. panicía, 21. 1505. (Pink-leaved C.) Sheaths elongated, about half the length of the flower-stalks. Fertile catkins one or two, distant; lower one rather lax. Fruit tumid, smooth, cloven at the summit. Stem smooth, obtusely triangular.
 - Moist past. 4. 5, 6. Erect, about a span high. Sp. dark brown.
- C. recúrva, 21.1506, (Glaucous C.) Sheaths short. Fertile catkins two or three, cylindrical, dense, drooping, on very long recurved stalks. Fruit elliptical, triangular, roughish, obtuse, slightly notched.

Moist past. & heaths. 4. 5, 6. Herbage glauc. 1 f. Sp. dark brown.

49. C. *rigida*, 29. 2047. (Rigid C.) Stigmas two. Sheaths none. Fertile catkins ovate; the lowermost stalked. Bracteas lanceolate, recurved, as well as the leaves. Fruit triangular, somewhat compressed, with a short abrupt beak.

Loftiest mts. 4.6, 7. Rigid, 3-6 in. mostly curved. Sp. dark-col.

50. C. cæspitósa, 21. 1507. (Tufted C.) Stigmas two. Sheaths none. Fertile catkins cylindrical, obtuse, erect; the lowermost rarely stalked. Leaves and suricled bracteas, linear, erect. Fruit permanent, elliptical, flat, many-ribbed, with a very short abrupt beak.

Marshes. 24. 5, 6. Bright green, 6-12 in. Sp. erect, 1 in.

51. C. stricta, 13. 914. (Straight-leaved C.) Stigmas two. Sheaths none. Fertile catkins nearly sessile, erect, cylindrical, elongated, acute; often barren-flowered at the top. Bases of the leaves reticulated. Fruit elliptical, flat, with a short cloven beak, deciduous.

Marshes. 4. 4. Rather glauc. erect, $1\frac{1}{2}$ -2 f. Sp. 2 in.

- *51. C. aquátilis, Suppl. 2758. (Straight-leaved Water C.) Sheaths none. Bracteas long, leafy. Fertile catkins nearly sessile, cylindrical, elongated, attenuated below, often acuminated; with barren flowers at the extremity. Fruit roundish-obovated; with a short entire beak. Stem smooth, obtusely triangular. Leaves long, straight, narrow-linear, not fibrous at their bases.
 - Moist alp. bogs, Clova. 4. 7, 8. Fruit rounder than the last; bracteas longer. Leaves without filaments at the base.

***** Barren and fertile florets in separate catkins. Barren catkins two or more.

52. C. acúta, 9. 580. (Slender-spiked C.) Stigmas two. Catkins

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cylindrical, slender; drooping in flower; afterwards erect. Fruit elliptical, with a blunt, undivided beak.

Watery mead. 2.5. Bright green, 2 f. Sp. elongated.

53. C. paludósa, 12, 807. (Lesser common C.) Stigmas three. Catkins cylindrical, bluntish, erect; the fertile ones with taperpointed scales. Fruit ovate, triangular, compressed, with a notched beak.

Boggy mead. 4. 5. Of a glaucous hue, erect, 2 f.

- 54. C. ripária, 9. 579. (Great common C.) Stigmas three. Catkins erect, with taper-pointed scales. Fruit ovate, tumid, with a deeply cloven beak.
 - Watery pl. 24. 4, 5. 3 f. or more, rough : the largest and stoutest Carex.
- 55. C. lævigáta, 20. 1387. (Smooth-stalked C.) Catkins cylindrical; fertile ones stalked. Scales all pointed. Sheaths very long. Fruit triangular, with a cloven beak.

Marshes; not freq. 4. 5. Bright green, smooth, 3 f. Fruit green. 56. C. vesicária, 11. 779. (Bladder C.) Fertile cutkins cylindrical,

short, abrupt, on short stalks. Scales all lanceolate, acute. Sheaths none. Fruit ovate, inflated, with an elongated cloven beak. Marshes. U. 5. Erect, 2 f. with rough angles. Fr. very smooth.

57. Č. ampullácea, 11. 780. (Flagon C.) Fertile catkins cylindrical, elongated, nearly sessile. Scales all lanceolate, acute. Sheaths none. Fruit inflated, globose, with a linear cloven beak.

Pools & marshes. 4.5,6. Somewhat glauc. 1-2 f. Fr. small, yell.

58. C. hirta, 10. 685. (Hairy C.) Herbage hairy. Fertile catkins ovate-cylindrical, remote. Scales awned. Sheaths nearly as long Fruit hairy, tumid, with a deeply cloven as the flower-stalks. beak. Stem rough-edged.

- Wet mead. and watery pl. 4. 5, 6. Dull green, 2 f. Sp. brown. 59. C. secálina. (Rye C.) Fertile catkins ovate-cylindrical; the lower one very remote. Scales acute. Sheaths as long as the flower-stalks. Fruit ovate, rough-edged, compressed; concave at the inner side ; with an elongated, linear, cloven beak. Stem smooth.
 - Springy place, near Forfar : indig. ? 4.6,7? Herb. naked. Stem 1 f. or more. Fr. large.
- 60. C. stictocárpa, Suppl. 2772. (Dotted C.) Fertile catkins two, ovate, stalked. Scales pointed. Sheaths scarcely any. Fruit obovate, obtuse, pointless, finely dotted.

Highl. of Scot. 24. 6, 7?—A var. of C. recurva. 51. C. angustifólia, (Narrow-leaved C.) Fertile catkins one or two, ovate, stalked Scales obtuse. Sheaths none. Fruit ovate, compressed, smooth, with a short abrupt beak. Leaves linear, channelled.

Marshes in Scot. 4.6? Smooth and slender. Stem 15 in.-A var. of C. cæspit.

62. C. filif ormis, 13. 904. (Slender-leaved C.) Fertile catkins ovate.

yellowish.

Scales pointed. Sheaths nearly equal to the short flower-stalks. Fruit ovate, hairy, with a deeply cloven beak. Leaves linear, channelled, smooth.

Boggy mead. 4. 6. About 2 f. smooth. L. narrow. Sp. blackish.

428. KOBRÉSIA. Kobresia.

[Habit like Carex.]

1. K. caricína, Schœnus monoicus, 20. 1410. (Compound-headed Kobresia.) Catkins aggregate, crowded, alternate.-Elyna caricina, Br. Fl.

Mts., N. of Engl. and Scotl., rare. 24.8. Stem 3-6 in. L. radical, linear.

MONOECIA TETRANDRIA.

429. LITTORÉLLA. Shore-weed.

1. L. lacústris, 7. 468. (Plantain Shore-weed.) Wet sandy pl. 4. 6. Stem 0. L. linear, fleshy, 3-4 in. Barr. fl. stalked.

430. ÁLNUS. Alder.

1. A. glutinósa, Betula Alnus, 21. 1508. (Common Alder.) Leaves roundish-wedge-shaped, wavy, serrated, glutinous, rather abrupt; downy at the branching of the veins beneath,

Watery pl. b. 3,4. Wood reddish, Br. spread. Fert. cat. roundish.

BÚXUS. Box-tree.

1. B. sempervírens, 19. 1341. (Common B.) Leaves ovate, convex. Anthers ovate-arrow-shaped.

Dry chalky hills. 5. 4. L. entire ; their stalks slightly downy. Fl. pale yellow.

432. URTÍCA. Nettle.

- 1. U. pilulifera, 3. 148. (Roman N.) Leaves opposite, ovate, ser-rated; with transverse ribs. Fertile flowers in globular heads.
- Waste gr. chiefly near the sea. \bigcirc . 6, 7. 2 f. stinging virulently. 2. U. Grens, 18. 1236. (Little N.) Leaves opposite, elliptical, with
- about five longitudinal ribs. Clusters nearly simple.
 Cult. gr. ⊙. 6-10. Smaller, bright green; stings less virulent.
 U. dioica, 25. 1750. (Great N.) Leaves opposite, heart-shaped. Clusters much branched, in pairs, mostly diœcious. Roots creeping.

Waste gr. & hedges. 4, 7, 8. Dull gr., 3 f. with less irrit. stings.

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MONOECIA PENTANDRIA.

433. XÁNTHIUM. Bur-weed.

- 1. X. strumárium, 36. 2544. (Broad-leaved B.) Prickles none. Leaves heart-shaped ; three-ribbed at the base.
 - Rich soil, or dunghills, rare; not wild. O. 8, 9. Stem solit., branched, 2 f. Fl. green.

434. AMARÁNTHUS. Amaranth.

1. A. Blitum, 31. 2212. (Wild A.) Flowers three-cleft, with three stamens, in small lateral tufts. Leaves ovate. Stems spreading. Rich gr. and dunghills, rare. O. 8. L. entire. Fl. green. Seed black and shining.

435. BRYÓNIA. Bryony.

 B. dioíca, 7. 439. (Red-berried B.) Leaves palmate, rough on both sides with callous points. Flowers dioccious. Hedges. 4. 5-9. Rough, leafy, climbing by tendrils. Fl. white.

MONOECIA HEXANDRIA.

436. ERIOCÁULON. Pipewort.

- 1. E. septanguláre, 11. 733. (Jointed P.) Florets four-cleft. Capsule of two cells. Stem with about seven angles, many times taller than the channelled, taper-pointed leaves. Flower convex. Outer calyx-scales empty, rounded, smooth.
 - Lakes in the Hebrides and South W. of Irel. 4.6. Stalk 1 f. naked. Fl. white, feathery.

MONOECIA POLYANDRIA.

437. CERATOPHYLLUM. Hornwort.

1. C. demérsum, 14. 947. (Common H.) Fruit armed with three spines. Segments of the calyx notched at the extremity.

Ditches. 24.8.9. Floating, whorled, dichotomous.

2. C. submérsum, 10. 679. (Unarmed H.) Fruit destitute of spines. Segments of the calyx acute, entire.

Ditches, rare. 4.9. L. more compound. Scarcely a distinct sp.

438. MYRIOPHÝLLUM. Water-Milfoil.

1. M. spicátum, 2. 83. (Spiked W.) Flowers in whorled, interrupted, leafless spikes.

Berr. scarlet.

Ord. 6.7

Ditches and pools. 24. 7, 8. Leaves under water, pectinated.

Spikes above the surface. 2. M. verticillátum, 4. 218. (Whorled W.) Flowers all axillary. Ponds, less freq. 4. 7. Flowering branches above water, all over leafy.

439. SAGITTÁRIA. Arrow-head.

1. S. sagittifólia, 2. 84. (Common A.) Leaves arrow-shaped, acute. Ditches. 4.7, 8. Branches of the scape whorled. Fl. white, violet at the base.

440. ÁRUM. Cuckow-pint.

1. A. maculátum, 19. 1298. (Common C., Wake Robin.) Stem none. Leaves halberd-shaped, entire. Common stalk of the flowers club-shaped, obtuse.

Groves and hedges. 4.5. L. shining, spotted. Berry scarlet.

441. POTÉRIUM. Salad-Burnet.

1. P. Sanguisórba, 12. 860. (Common S.) Thorns none. Stem somewhat angular.

Chalky hills. 24. 7. L. impari-pinnate. Leafl. roundish, serrate.

442. QUÉRCUS. Oak.

1. Q. Robur, 19. 1342. (Common British O.) Leaves deciduous, oblong ; wider towards the extremity ; their sinuses rather acute ; lobes obtuse. Fruit-stalks elongated.

Woods and hedges. h. 4. Handsome tree. Wood hard, very valuable.

2. Q. sessiliflora, 26. 1845. (Sessile-fruited O.) Leaves on elongated stalks, deciduous, oblong ; with opposite, acute sinuses. Woods. h. 4, 5. Wood less valuable. L. sometimes downy.

443. FÁGUS. Beech and Chestnut.

- 1. F. Castánea, 13. 886. (Sweet C.) Leaves lanceolate, sharply serrated ; smooth beneath. Prickles of the outer calyx compound and entangled. Stigmas six.-Castanea vesca, Br. Fl.
- Woods. 5. 5. Introduced ? Large tree. Seeds large, esculent.
 2. F. sylvática, 26. 1846. (Common B.) Leaves ovate, obsoletely serrated. Prickles of the outer calyx simple. Stigmas three. Chalky hills. Native ? L. 4, 5. Branches spreading. Bark smooth. Seeds triguetrous.

444. BETULA. Birch.

- 1. B. álba, 31. 2198. (Common B., B. Weeping B.) Leaves ovate, acute, somewhat deltoid, unequally serrated, nearly smooth.
- Sandy woods. b. 4, 5. Bark white, papery. Branches slender.
 B. nána, 33. 2326. (Dwarf B.) Leaves orbicular, crenate : reticulated with veins beneath.

Mount. moors, Scotl. b. 5. 1-2 f. much branched, erect.

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DIOECIA.

445. CARPÍNUS. Hornbeam.

 C. Bétulus, 29. 2032. (Common H.) Bracteas of the fruit flat, serrated, with two lateral lobes. Clayey woods. 7.5. Small Elm-like tree, smooth.

445. CÓRYLUS. Hasel-nut.

1. C. Aveilána, 11. 723. (Common H.) Stipulas ovate, obtuse. Leaves roundish, heart-shaped, pointed. Young branches hairy. Calyx shorter than the nut.

Woods and hedges. 1. 3, 4. Bushy tree. L. downy. Nuts eatable.

MONOECIA MONADELPHIA.

447. PÍNUS. Fir.

 P. sylvéstris, 35. 2460. (Scotch F.) Leaves rigid, in pairs. Young cones stalked, recurved. Crest of the anthers very small. Highlands of Scotl. 5. 5. Tall evergreen tree. Cones tubercled.

Class XXII. DIOECIA. Stamens and pistils in separate flowers, on different plants.

(MONANDRIA. Stamen 1.)

Several Salices.

Order I. DIANDRIA. Stamens 2.

448. SÁLIX. Bar. f. Catkin imbricated. Cal. a scale. Pet. 0. Nect. 1 or more glands, at the base. Stam. 1-5.

Fert. fl. Catkin imbricated. Cal. a scale. Pet. none. Nect. as in the barr. fl. Stig. 2. Caps. sup. of 1 cell and 2 valves. Seeds tufted.—N.O. AMENTACEE.

Order II. TRIANDRIA. Stam. 3.

449. EMPÉTRUM. Barr. fl. Cal. in 3 deep segments. Pet. 3. Stam. capillary, 3-9.

Fert. A. Čal. in 3 deep segments. Pet. 3. Stigmas 9. Berry superior, with 9 seeds.—N.O. EMPETRES.

- 450. RÚSCUS. Barr. fl. Cal. of 6 leaves. Pet. 0. Nect. ovate, tubular, bearing the stam. internally.
 - Fert. fl. Cal. and nect. as in the barr. fl. Stam. 0. Style 1. Berry superior, of 3 cells. Seeds in pairs.—N.O. SMILACEÆ.

Valeriana dioica. Some Salices.



Order III. TETRANDRIA. Stamens 4.

452. HIPPÓPHAE. Barr. fl. Cal. deeply cloven. Cor. 0.

Fert. A. Cal. tubular, cloven. Style 1. Berry superior. Seed solitary, oblong, with a double tunic.—N.O. ELE-AGNEE.

453. MYRÍCA. Barr. fl. in a catkin. Cal. a concave scale. Cor. 0. Fert. fl. in a catkin. Cal. a concave scale. Cor. 0. Styles
2. Berry superior, with 1 globular seed.—N.O. MY-BICEZ.

451. VÍSCUM. Barr. fl. Cal. 0. Pet. 4, calyx-like, dilated and combined at the base. Anth. sessile, on the petals.

Fert. fl. Cal. a slight border. Pet. 4, dilated at the base. Style 0. Berry inferior, with 1 compressed seed.—N.O. LOBANTHEZ.

Rhamnus 1. Euonymus 1. Urtica 3.

Order IV. PENTANDRIA. Stamens 5.

454. HUMULUS. Barr. fl. Cal. of 5 leaves. Cor. 0. Anth. with 2 terminal pores.

Fert. fl. in a catkin. Cal. an oblique, undivided scale. Cor. 0. Styles 2. Seed 1, tunicated, winged with the calyx. -N.O. URTICER.

Ribes 4. Pimpinella 3. Bryonia 1. Salix 5-19.

Order V. HEXANDRIA. Stamens 6.

455. TÁMUS. Barr. fl. Cal. 0. Cor. in 6 deep segments.

Fert. A. Cal. 0. Cor. in 6 deep segments. Style 3-cleft. Berry inferior, of 3 cells. Seeds in pairs.—N.O. SMI-LACEE.

Rumex, 9, 10.

Order VI. OCTANDRIA. Stamens 8.

457. RHODÍOLA. Barr. fl. Cal. in 4 deep segments. Pet. 4. Nect. 4, notched.

> Fert. fl. Cal. Pet. Nect. the same. Pist. 4. Caps. 4, with many seeds.—N.O. CRASSULACE E.

456. PÓPULUS. Barr. fl. Catkin imbricated. Cal. a torn scale. Cor. turbinate, oblique, undivided.

Fert. fl. Catk. Cal. Cor. the same. Stigma 4 or 8. Caps. superior, of 1 cell and 2 valves. Seeds tufted. - N.O. AMENTACEE.

Order VII. ENNEANDRIA. Stamens 9.

458. MERCURIÁLIS. Barr. fl. Cal. in 3 deep segments. Cor. 0. Stam. 9-12. Anthers of 2 globose cells.

[Cl. 22.

Fert. fl. Cal. the same. Cor. 0. Styles 2. Caps. of 2 lobes and 2 cells. Seeds solitary.—N.O. EUPHORBIACEE.
459. HYDRÓCHARIS. Barr. fl. Cal. 3-cleft. Pet. 3. Inner filam. beaked.
Fert. fl. Cal. and pet. the same. Styles 6. Caps. inferior, of 6 cells, with many seeds.—N.O. HYDROCHARIDEE.

Empetrum 1.

(DECANDRIA. Stam. 10.)

Silene 9. Lychnis 4.

(ICOSANDRIA. Stam. numerous, from the calyx.) Rubus 14. Fragaria 2.

(POLYANDRIA. Stam. numerous, from the receptacle.) Stratiotes 1. Populus, 1, 3-4.

Order VIII. MONODELPHIA. Filam. combined in one set.

460. JUNÍPERUS. Barr. fl. Cal. the scales of a catkin. Cor. 0. Stam. 8.

Fert. A. Cal. the scales of a catkin, fewer ; finally pulpy, united into a berry with 3 seeds.—N.O. CONIFERE.

461. TÁXUS. Barr. fl. Cal. 0. Cor. 0. Anth. peltate, lobed.

Fert. fl. Cal. cup-shaped, entire. Cor. 6. Style 1. Seed 1, enclosed in the enlarged, pulpy, unconnected calyz.— N.O. CONIFERE.

Salix 25, 26.

DIOECIA DIANDRIA.

448. SÁLIX. Willow, Sallow, Osier.

[Trees or shrubs with flexible branches. Leaves simple, deciduous, as are the stipules. Catkins early.]

* Adult leaves servated, smooth or nearly so.

1. S. triándria, 20. 1435. (Long-leaved triandrous W.) Leaves linear-oblong, serrated, smooth; rather unequally sloping at the base. Stamens three. Germen stalked, ovate, compressed, smooth. Stigmas nearly sessile.

Wet woods and osier grounds. 5. 5 and 8. Tree 20-30 f.; bark decid. Young branches 6-9 f. tough and pliant. Cultivated.
2. S. Hoffmanniána, Suppl. 2620. (Short-leaved triandrous W.)

Leaves ovate-oblong, serrated, smooth; slightly rounded at the base. Stamens three. Germen stalked, ovate, compressed, smooth. Stigmas nearly sessile.

- Banks of rivul. 5. 5. Shrub, 10-15 f. L. 1 -2 in. not linear.
 S. lanceolata, 20. 1436. (Sharp-leaved triandrous W.) Leaves lanceolate, serrated, smooth; tapering towards each end. Footstalks decurrent. Stamens three. Germen stalked, ovate, smooth. Style as long as the stigmas.
- Low mead. and osier gr. H. 4, 5. Tree. L. long. Stip. pointed. Bark decid. Cult.
- 4. S. amygdalina, 27. 1936. (Almond-leaved triandrous W.) Leaves ovate, serrated, smooth; rounded and unequal at the base. Stamens three. Germen ovate, compressed, smooth; its stalk about as long as the scale. Stigmas nearly sessile. Young branches furrowed.
- Low wet pl. h. 4, 5. A large bushy shrub, casting its bark. Cult.
- S. pentándra, 26. 1885. (Bay-leaved W.) Leaves ovate, pointed, crenate, glandular, smooth. Footstalks glandular at the summit. Stamens five or more, hairy at the base. Germen ovate, tapering, smooth, nearly sessile.
 - About rivers. h. 6, 7. A handsome tree. L. broad, resinoue, fragr.
- 6. S. nigricans, 17. 1213. (Dark-leaved W.) Leaves elliptic-lanceolate, acute, crenate; smooth, with a downy rib, above; glaucous beneath. Stamens two, thrice the length of the hairy scales. Germen lanceolate, downy; on a short downy stalk.
- Fens and woods. b. 4. A large bushy shrub. L. turning blackish.
 7. S. phylicifólia, 28. 1958. (Tea-leaved W.) Leaves elliptic-lanccolate, with wavy serratures, very smooth; glaucous beneath. Stipulas glandular on the inside. Germen lanceolate, stalked, silky. Style twice the length of the stigmas.
 - Breadalbane. 7. 5. A low spreading bush; its long recumbent branches taking root. Nect. single, abrupt.
- S. Borreriána, Šuppl. 2619. (Dark Upright W.) Leaves lanceolate, with shallow even serratures, very smooth; glaucous beneath. Stipulas obsolete. Scales of the catkins acute, shaggy.
 - Highl. of Scot. 5. 5. A bushy shrub, 8-10 f. with dark upright branches.
- 9. S. nitens, Suppl. 2655. (Shining-leaved W.) Leaves elliptical, acute, unequally serrated; very smooth and glaucous beneath; minutely downy, with a downy midrib, above. Stipulas obsolete. Catkins nearly sessile, with acute, shaggy scales.
 - Scott. hills, and Teesdale, Yorks. 5. 4. A bushy shrub. L. of a shining green.
- 10. S. Davalliána, Suppl. 2701. (Davallian W.) Leaves obovate-lanceolate, finely serrated, or minutely toothed, tapering at each end, smooth; rather glaucous beneath. Footstalks, midrib, and young branches, somewhat downy. Catkins with small rounded scales. Capsules lanceolate, smooth.
 - Highl. of Scot. h. 5. Bushy, 5-7 f. with upright brown br.

- S. Weigeliána, Suppl. 2656. S. Wulfeniana, E. Fl. (Weigelian W.) Leaves obovate or elliptical, somewhat pointed, finely serrated, smooth; glaucous beneath. Catkins dense, with hairy scales, longer than the stalks of the awl-shaped germens. Style longer than the stigmas.
 - Highl. of Scot. and N. of Eng. b. 4, 5. Diffuse, $1-1 \frac{1}{2} f$. then upright, 4-6 f.
- 12. S. tetrapla, Suppl. 2702. (Four-ranked W.) Leaves elliptic, oblong, pointed, unequally serrated, nearly smooth; glancous beneath, with prominent veins. Stipulas half-heart-shaped. Scales mostly shorter than the hairy stalks of the ovate-oblong smooth germens. Style as long as the stigmas.
 - Breadalbane. h. 5. A larger shrub, with longer, spirally inserted, leaves.
- *12. S. tenúior, Suppl. 2650. (Narrow-leaved intermediate W.) Leaves on slender stalks, obovate-lanceolate, acute, obsoletely crenate, flat; naked on both sides; glaucous beneath. Stipules acute, glandulose. Catkins slender, lax. Scales acute, longer than the silky stalk of the capsule. Style longer than the ovate stigmas.
 - Banks of the Lochy, Killin. h.5. Nearly allied to S. laurina.
- 13. S. laurina, S. bicolor, 26. 1806. (Shining W.) Leaves elliptiooblong, acute, waved, and slightly serrated, nearly smooth; glaucous beneath. Footstalks dilated at the base. Stipulas pointed, serrated. Scales obtuse, hairy, half as long as the densely downy, ovate, long-stalked germen.
- Woods. 5. 4, 5. Shrub, or small tree, with straight brown branches and upright leaves.
- *13. S. laxifiora, Suppl. 2749. (Loose-flowered W.) Young shoots slightly pubescent. Leaves naked, flat, broadly obovate, narrowed to the base, slightly toothed; glaucescent beneath. Upper ones acute. Stipulas small, concave. Catkins loose. Germen stalked, bluntish, naked in the lower part. Style as long as the linear divided stigmas.
 - Breadalbane, h. 4. A tree-like shrub, with crooked divaricating branches.
- 14. S. bicolor, S. tenuifolia, 31. 2186. (Two-coloured W.) Leaves elliptical; green and shining above; smooth and glaucous beneath; serrated, with oblique points. Stipulas crescent-shaped, serrated. Barren catkins copious, bright yellow. Filaments slightly bearded at the base.

Banks of riv. in the N. h. 4-7. Fertile plant unknown?

*14. S. phillyreifolia, Suppl. 2660. (Phillyrea-leaved W.) Leaves elliptic-lanceolate, acute at each extremity and strongly serrated; naked on both sides; glaucous beneath. Stipulas small. Young shoots pubescent. Scales oblong, hairy, longer than the naked stalk of the naked germen. Style as long as the stigmas.

Highland valleys of Scotl. h. 4. Allied to S. bicolor and Dick-



soniana, but they have leaves approaching to obovate, with a point, which are, for the most part, obsoletely serrated.

- 15. S. malifolia, 23. 1617. (Apple-leaved W.) Leaves elliptic-oblong, toothed, waved, thin and crackling, very smooth. Stipulas heart-shaped, about equal to the footstalks. Scales obovate, bearded. Germen lanceolate, smooth, on a short smooth stalk. Scotland? 7. 4. Apple-tree-like, 3-6 f. with dark crooked branches. L. large.
- 16. S. petioláris, 16. 1147. (Dark long-leaved W.) Leaves lanceolate, serrated, smooth; glaucous beneath; somewhat unequal at the base. Stipulas lunate, toothed. Catkins lax. Scales hairy, shorter than the stalks of the ovate silky germens. Stigmas divided, sessile.
- Swamps. h. 4. A small bushy tree, with flexible, purplish br.
- 17. S. vitéllina, 20. 1389. (Yellow W. or Golden Osier.) Leaves lanceolate, acute, with cartilaginous serratures; smooth above; glaucous and somewhat silky bencath. Stipulas minute, lanceolate, deciduous, smooth. Scales linear-lanceolate, acute, fringed at the base, longer than the pistil.
 - Swamps. 5. 5. A hands. tree, of moder. growth, with lax, shining yell. branches. Cult.
- S. decipiens, 27.1937. (Varnished W.) Leaves lanceolate, pointed, serrated, very smooth; floral ones partly obovate and recurved. Footstalks somewhat glandular. Germen tapering, stalked, smooth. Style longer than the cloven stigmas. Branches smooth, highly polished.
 - Wet hedges and os. gr. h. 5. An upright, not lofty tree; with smooth varnished bark; shoots stained with crims. Occasionally cult.
- S. frágilis, 26. 1807. (Crack W.) Leaves ovate-lanceolate, pointed, serrated throughout, very smooth. Footstalks glandular. Germen ovate, abrupt, nearly sessile, smooth. Scales oblong, about equal to the stamens and pistils. Stigmas cloven, longer than the style.
 - Marshy gr. 5. 4, 5. A tall bushy-headed tree. Br. oblique, brittle at the base. Stam. 2-5.
- 20. S. Russelliána, 26. 1803. (Bedford W.) Leaves lanceolate, tapering at each end, serrated throughout, very smooth. Footstalks glandular or leafy. Germen tapering, stalked, longer than the scales. Style as long as the stigmas.
 - Marshy woods. h. 4, 5. A more handsome tree, of a brighter hue. Br. slender and straight, not angular at their insertion like S. fragilis. Timber and bark very valuable.
- S. purpúrea, 20. 1388. (Purple W.) Branches trailing, decumbent. Leaves partly opposite, obovate-lanceolate, serrated, very smooth; narrow at the base. Stamen one. Stigmas very short, ovate, nearly sessile.
 - Low mead. rate. h. 3. Shrub, 3-4 f. with long, slender, spreading purple br. A valuable osier.
- 22. S. Hélix, 19. 1343. (Rose W.) Branches erect. Leaves partly

opposite, oblong-lanceolate, pointed, slightly serrated, very smooth; linear towards the base. Stamen one. Style nearly as long as the linear divided stigmas.

Marshes and osier-holts. b. 3, 4. A low tree, yellowish, ash-col.

- 23. S. Lambertiána, 19. 1359. (Boyton W.) Branches erect. Leaves partly opposite, obovate-lanceolate, pointed, serrated, smooth; rounded at the base. Stipulas none. Stamen one. Stigmas ovate, obtuse, notched, very short, nearly sessile.
 - Swamps. 5. 3, 4. A low tree. Young br. of a purple glaucous hue, and like those of a honeysuckle.
- *23. S. Woolgariána, Suppl. 2651. (Woolgarian Osier.) Monandrous, erect. Leaves scarcely glaucescent, cuneato-lanceolate, minutely serrated; naked on both sides. Stipulas none. Germen sessile, ovate, downy. Style short. Stigmas obtuse.
- Osier beds, Sussex, and Kingston-on-Thames; scarcely wild. L. 5.
- 24. S. Forbiána, 19. 1344. (Basket O.) Branches erect. Leaves alternate, with small stipulas, lanceolate-oblong, smooth, with shallow serratures; rounded at the base; glaucous beneath. Stamen one. Style nearly as long as the linear divided stigmas.

Mead. & os.-holts. h. 4. A bushy shrub, with fine greyish yell. twigs.

- S. rúbra, 16. 1145. (Green-leaved O.) Stamens combined below. Leaves linear-lanceolate, elongated, acute, smooth, with shallow serratures; green on both sides. Stigmas ovate, undivided.
 - Low gr. rare. 5. 4, 5. A small tree, with long tawny br. L. long and narrow.
- S. Croweána, 16. 1146. (Broad-leaved Willow.) Stamens combined below. Leaves elliptical, slightly serrated, quite smooth; glaucous beneath.

Swampy gr. h. 4, 5. A bushy shrub, 4-5 f. with brittle, useless br.

- S. prunifólia, 19. 1361. (Plum-leaved W.) Leaves broadly ovate, serrated, smooth on both sides; even above; glancous beneath. Capsules ovate; shaggy, like the scales, with silky hairs.
 - Mount. of Scot. h. 4, 5. Bushy, 2-3 f. with brown erect. br.
- S. vacciniifolia, 33. 2341. (Bilberry-leaved W.) Leaves lanceolate-ovate, serrated; smooth and even above; glaucous and silky beneath. Capsules ovate, silky. Stems decumbent. Scott. mount. D. 4. Much smaller. Br. slender. Catk. thicker.
- 29. S. venulosa, 19, 1362. (Veiny-leaved W.) Leaves ovate, serrated, naked; reticulated with prominent veins above; rather glaucous beneath. Capsules ovate, silky.

Highl. of Scot. h. 4, 5. Like S. prunif. but differing in the leaves.

- S. myrsinites, 19. 1360. (Whortle-leaved W.) Leaves elliptical, serrated, smooth, veiny; polished on both sides. Young branches hairy. Germens stalked, downy. Capsules awl-shaped.
- Highl. of Scot. 5. 5. 6. A bushy shrub, 1-2 f. L. short and rigid.
 *30. S. procimbens, Suppl. 2753. (Oval-leaved Alpine W.) Leaves oval, rarely acute, obscurely serrated, shining, quite smooth. Germens nearly sessile, lanceolate, very silky. Style very short, cleft almost to the base. Stigmas short, bifd, obtuse.

Mountains of Breadalb. and Cairn-gorum. L. 6. Low shrub. L. glossy, oval, larger and quite glabrous. 31. S. Dicksoniána, 20. 1390. (Mountain W.) Leaves elliptical,

acute, slightly toothed, smooth; glaucous beneath. Young branches very smooth. Catkins ovate, short. erect. Germen stalked, ovate, silky. Stigmas nearly sessile.

Highl. of Scot. b. 4. Erect, 1 f. L. flat, even ; green above.

32, S. carináta, 19. 1363. (Folded-leaved W.) Leaves ovate. finely toothed, smooth, minutely veined, folded into a keel. Catkins cylindrical, with rounded, hairy scales. Germen sessile, ovate, silky.

H. of Scot. L. 4. Shrub; larger than prunif. or venul. L. recurv.

33. S. Arbúscula, 19. 1366. (Little Tree W.) Leaves lanceolate. acute, obscurely toothed, smoothish; glaucous beneath; silky when young. Branches downy. Catkins ovate, erect. Germen stalked, ovate-lanceolate, silky.

Highl, of Scot. b. 4. Like a little tree, 1 f. slender. Cath. erect.

34. S. livida. (Livid Dwarf W.) Leaves elliptic-oblong, obscurely toothed, smooth; livid beneath. Stipulas none. Germen nearly cylindrical, downy; its stalk twice as long as the scale. Stigmas nearly sessile.

Near Moffat, Scotl. L. Very smooth, 1 f. Cath. lax ?

35. S. herbácea, 27. 1907. (Least W.) Leaves orbicular, serrated, reticulated with veins; very smooth and shining on both sides. Germen stalked, ovate-lanceolate, smooth.

Lofty mt., on a micaceous soil. b. 6. Smallest of shrubs, 1-2 in.

** Adult leaves entire, nearly smooth.

36. S. reticuláta, 27. 1908. (Wrinkled W.) Leaves orbicular, somewhat elliptical, obtuse, entire, coriaceous, with reticulated veins, nearly smooth ; glaucous beneath. Germen sessile, downy. Loftiest mount. b. 6. Larger. Stems stout, spreading on the gr.

*** Leaves all shaggy, woolly, or silky.

37. S. gláuca, 26, 1810. (Glaucous W.) Leaves nearly entire, elliptic-lanceolate; even and nearly smooth above; woolly and snowwhite beneath. Footstalks decurrent. Germen sessile, ovate. woolly.

- Clova mts. 5. 5. Stout, bushy, 2-3 f. L. nearly 2 in. rather nar. 38. S. Stuartiána, 36. 2586. (Shaggy W.) Leaves nearly entire, ovatelanceolate, acute; shaggy above; densely silky, somewhat cottony, beneath. Style as long as the almost sessile woolly germen. Stigmas capillary, deeply divided, the length of the style.
 Highl. of Scot. 5. 7, 8. Bushy, 2-3 f. L. half the size.
 S. arenária, 26. 1809. (Downy W.) Leaves nearly entire, ovate,
- acute; reticulated, and somewhat downy above; veiny and densely woolly beneath. Style as long as the sessile woolly germen. Stigmas linear, deeply divided, the length of the style. Mts. of Scot. h. 5, 6. Larger & stouler, most resembling sp. 37.

40. S. lanáta, Suppl. 2624. (Woolly W.) Leaves roundish-ovate, pointed, entire; shaggy on both sides; glaucous beneath. Germen sessile, oblong, smooth. Styles four times as long as the blunt, divided stigmas.

Clova Mts. very rare. 1. 5. 3-4 f. Br. thick, distorted. L. broad.

41. S. argéntea, 19. 1364. (Silky Sand W.) Leaves elliptical, entire, somewhat revolute, with a recurved point; rather downy above; silky and shining beneath, as well as the branches. Germen ovate-lanceolate, silky ; its silky stalk nearly equal to the linearoblong scale. Style not longer than the stigmas.

Sandy sea-shores. 7. 5. Spreading, or erect, 4-5 f. L. scarcely 1 in.

42. S. fatida, S. adscendens, 28. 1962. (Fishy W.) Leaves elliptical, nearly entire, with a recurved point; glaucous and silky beneath. Germen ovate-lanceolate, on a silky stalk nearly equal to the obovate scale.

Heathy gr. h. 5. A low shrub. Br. long, recumb. Odour offensive. β. (S. parvifolia, 28. 1961) is smaller in every part. Odour the same.

- 43. S. répens, 3. 183. (Dwarf W.) Leaves elliptic-lanceolate, straight, somewhat pointed, nearly entire; almost naked above; glaucous and silky beneath. Stipulas none. Germen stalked, ovate, downy. Capsules smooth.
- Sandy heaths. h. 5. Depres., often creep. Br. upr. 3-4 in. L. 1-1 in.
- 44. S. fúsca, 28. 1960. (Brownish Dwarf W.) Leaves elliptic-oblong, acute, straight, flat, with a few glandular teeth ; glaucous and silky beneath. Stipulas none. Germen sessile, nearly smooth, tapering into an elongated style.

Heathy mt. h. 5. Bushy, erect, 6-12 in. Br. brownish, spread. 45. S. prostráta, 28. 1959. (Prostrate W.) Leaves elliptic-oblong, convex, somewhat toothed, with a curved point; glaucous, silky and veiny beneath. Stipulas minute. Germen stalked, ovate, silky. Style shorter than the stigmas.

Heaths and comm. h. 3, 4. Stems in an entangled spreading mat. Br. 1 f. slender; tough and downy.

- 46. S. incubacea, Suppl. 2600. (Trailing W.) Leaves elliptic-lanceolate, pointed, straight, nearly entire; convex and smooth above, with prominent reticulated veins; glaucous and silky beneath. Catkins ovate-oblong. Stalks of the silky germens longer than the scales. Capsules smooth.
 - Sandy pl. near the sea. h. 5. Stems recumb. 2 f. dark-brown.
- 47. S. Doniána, Suppl. 2599. (Rusty-branched W.) Leaves obovate-lanceolate, partly opposite, acute, straight, slightly serrated; livid and somewhat silky beneath. Catkins cylindrical. Germen stalked, silky, longer than the obovate bearded scales.

Scot. h. 5. 5-6 f. Stem and br. erect, of a rusty brown.

48. S. rosmarinifólia, 19. 1365. (Rosemary-leaved W.) Leaves linearlanceolate, pointed, straight, entire ; silky beneath. Catkins ovate, recurved. Germen stalked, lanceolate, silky.

Moist sandy gr. h. 4. A slender upright shrub, 2-3 f. silky.

49. S. cinérea, 27. 1897. (Grey Sallow.) Lower leaves entire ; upper

serrated, obovate-lanceolate; glaucous, downy, and reticulated with veins, beneath. Stipulas half-heart-shaped, serrated. Germen silky; its stalk half as long as the lanceolate scales.

Moist woods. I. 4. Tree, 20-30 f.; bushy in hedges; of a rusty glittering hue.

- 50. S. aurita, 21. 1487. (Round-eared S.) Leaves somewhat serrated, convex, obovate, obtuse, with a small hooked point; hairy, and reticulated with veins, on both sides. Stipulas roundish, convex, toothed. Germen silky, stalked. Stigmas nearly sessile.
 - Woody hills. h. 4, 5. Bushy, 3-4 f. Br. trailing, entangl. B. smaller.
- *50. S. ambigue, Suppl. 2733. (Ambiguous S.) Leaves obovateoblong, slightly serrated upwards; downy above; soft silky, and veiny beneath. Catkins lax. Germens lanceolate-subulate, very silky; upon long hairy stalks. Style more or less elongated. Stigmas entire, undivided, obovate.

Gravelly heaths. 1.5. 3-6 f. high, with dingy coloured bark; and hoary, more or less silvery, leaves.

51. S. aquática, 20. 1437. (Water S.) Leaves slightly serrated, obovate-elliptical, minutely downy, flat; rather glaucous beneath. Stipulas rounded, toothed. Germen silky, stalked. Stigmas nearly sessile.

Wet hedges. b. 4. Small tree. Stem & br. erect. L. 2 in. flat.

- 52. S. oleifólia, 20. 1402. (Olive-leaved S.) Leaves obovate-lanceolate, flat, rather rigid, minutely toothed, acute ; glaucous, reticulated, and finely hairy, beneath. Stipulas small, notched, rounded. Catkins oval, nearly half as broad as long.
 - Woods. h. 3. Tree. Br. spreading, brown. Buds large.
- 53. S. cotinifólia, 20. 1403. (Quince-leaved S.) Leaves broadly elliptical, nearly orbicular, slightly toothed; glaucous and downy, with rectangular veins, beneath. Style as long as the linear notched stigmas.

Thickets. h. 4. Stem erect, 2 f. ; if sheltered, 7 f. Br. downy, spread.

- 54. S. hirta, 20. 1404. (Hairy-branched S.) Leaves elliptic-heartshaped, pointed, finely crenate; downy on both sides. Stipulas half-heart-shaped, flat, toothed, nearly smooth.
- Woods. 5. 4, 5. A small tree, erect. Br. hoary and densely hairy.
 *54. S. tcnuifólia, Suppl. 2795. (Thin-leaved Willow.) Upright. Young shoots and leaf-stalks densely pubescent. Leaves elliptical or oblong, flat with a recurved point, crenate, reticulated with sunken veins; slightly hairy; glaucous beneath. Stipulas half-heart-shaped. Catkins on a short stalk. Bracteas small. Calyx-scale oblong, shaggy. Germen naked, on a naked stalk. Style as long as the stigmas.

Kirkby Lonsdale Bridge. 7. 4. 10-12 f. high.

55. S. rupéstris, 33. 2342. (Rock S.) Leaves obovate, acute, serrated, flat, even, silky on both sides. Stipulas hairy. Branches minutely downy. Germen stalked, awl-shaped, silky. Style as long as the blunt undivided stigmas.

Rocks in Scot. \mathfrak{h} . 5. Shrub, with trailing stems, and dark col. br.

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- 56. S. Andersoniána, 33. 2343. (Mountain S.) Leaves elliptical, acute, finely notched, slightly downy ; paler beneath. Stipulas half-ovate, nearly smooth. Branches minutely downy. Germen smooth; its stalk almost equal to the scale. Style cloven, longer. than the cloven stigmas.
 - Woods. b. 4, 5. Bushy, upright; at first green, then sooty brown. L. bright green.
- *56. S. Damascána, Suppl. 2709. (Damson-leaved S.) Erect. Young shoots densely hairy. Leaves ovate-rhomboidal, bluntly toothed; silky when young, at length nearly naked; green on both sides. Stipulas half-heart-shaped. Catkins (in flower) longer than the floral leaves. Calyx-scales obovate. Germen stalked, naked. Style divided, longer than the diverging stigmas.
- South of Scotland. h. 4. Too near S. Andersoniana. 57. S. Forsteriána, 33. 2344. (Glaucous S.) Leaves elliptic-obovate, acute, crenate, slightly downy; glaucous beneath. Stipulas vaulted. Germen stalked, awl-shaped, silky. Style as long as the blunt notched stigmas.

- Woods. h. 5. A small tree, with finely downy br. L. 2-3 in. *57. S. petréea, Suppl. 2725. (Dark-green Rock S.) Young shoots densely hairy. Leaves oblong, serrated, carinated, twisted, reticulated with deeply sunken veins; beneath hairy, glaucous; at length pale green. Stipulas half-heart-shaped, flattish, with few glands. Germen stalked, naked, wrinkled towards the point. Style divided, longer than the cloven stigmas.
 - Mts. of Breadalbane. h. 5. Remarkable for the long, dark, shining, wavy leaves and large stipules of its strong shoots. 10-15 f. high.
- **57. S. propingua, Suppl. 2729. (Flat-leaved Mount. S.) Erect. Young shoots minutely pubescent. Leaves elliptical, obscurely crenate, nearly flat, with slightly sunken veins; nearly naked on both sides; pale green beneath. Stipulas small, vaulted, glandulose. Germen stalked, silky towards the point. Style longer than the notched stigmas.
 - "Britain." Mr. Anderson. b. Very near S. petræa.
- 58. S. sphaceláta, 33. 2333. (Withered-pointed S.) Leaves ellipticobovate, even, veiny, entire, or slightly serrated; downy on both sides; discoloured at the point. Stipulas half-heart-shaped, toothed, erect. Germen stalked, ovate-lanceolate, silky. Stigmas notched, longer than the style.
 - Valley, near Loch Tay. L. 4, 5. Small bushy tree, 6-8 f.
- 59. S. capréa, 21. 1488. (Round-leaved S.) Leaves roundish-ovate, pointed, serrated, waved; pale and downy beneath. Stipulas somewhat crescent-shaped. Catkins oval. Germen stalked, ovate, silky. Stigmas nearly sessile, undivided. Capsules swelling.
 - Woods. Z.4. Tree. L. the largest and broadest of the genus. Buds large.
- 60. S. acumináta, 20. 1434. (Long-leaved S.) Leaves lanceolateoblong, pointed, wavy, finely toothed; glaucous and downy

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Ord. 1.7

Stipulas half-ovate; then kidney-shaped. Catkins beneath. cylindrical. Germen stalked, ovate, hairy. Style as long as the undivided stigmas.

Rather moist woods. 1.4. Tree, scarcely so large. L. 3-4 in. by lin.

- 61. S. viminális, 27. 1898. (Common Osier.) Leaves linear, inclining to lanceolate, elongated, taper-pointed, entire, wavy ; snow-white and silky beneath. Germen sessile. Style as long as the linear undivided stigmas.
 - Wet mead. & osier-holts. 5. 4, 5. Tree, with long wand-like br. L. a span long, by 1 in. Valuable for basket-work. Also the Velvet O. a variety.
- 62. S. Smithiána, S. mollissima, 21, 1509. (Silky-leaved O.) Leaves lanceolate, pointed, slightly wavy, minutely toothed; soft and scarce visibly downy above; whitish and silky beneath. Stipulas crescent-shaped, minute, Catkins ovate. Germen stalked. Style shorter than the linear, deeply divided, stigmas.
 - Mead. and os. gr. h. 4, 5. Shrub, with reddish, wand-like, but brittle twigs.
- *62. S. ferruginea, Suppl. 2665. (Ferruginous O.) Leaves thin, lanceolate, with wavy crenatures and small teeth ; minutely hairy on both sides; paler beneath. Stipulas small, half-ovate. Scales oblong-lanceolate. Germen silky, stalked. Style about as long as the oblong stigmas.

Banks of streams. 5. 5. A bushy shrub, 12-14 f. high.

- 63. S. stipuláris, 17. 1214. (Auricled O.) Leaves lanceolate, pointed, slightly wavy, obscurely crenate; soft and nearly naked above; white and downy beneath. Stipulas half-heart-shaped, stalked, very large. Nectary cylindrical. Germen ovate, nearly sessile, as well as the linear undivided stigmas.
 - In osier-holts. b. 3. Shrub, with upright, downy, reddish, tall but brittle twigs. L. about a span, almost upright.
- 64. S. álba, 34. 2430. (Common White Willow.) Leaves elliptic-lanceolate, pointed, serrated, silky on both sides ; the lowest serratures glandular. Stamens hairy. Germen smooth, almost sessile. Stigmas deeply cloven. Scales rounded. Moist woods. 7. 5, and 7. A tall tree. L. greyish-white.

B. S. cærulea, 34. 2431. (Blue W.) A handsome tree, of great value, has not yet exhibited a sufficient specific distinction, notwithstanding its silvery blue colour.

[S. babylonica, the hardy and elegant Weeping Willow, with pendulous branches, and linear-lanceolate, smooth, and finely serrated leaves, is now a common ornament in the vicinity of water. It is a native of Asia, and appears to have been introduced about 50 years ago.]

DIOECIA TRIANDRIA.

449. EMPÉTRUM. Crow-berry.

 E. nigrum, 8. 526. (Black C.) Stem and branches procumbent. Mount. heaths. h. 5. A trailing, dwarf, heath-like shrub, Berr. black.

450. RÚSCUS. Butcher's-broom.

1. R. aculeátus, 8. 560. (Common B.) Leaves ovate, sharp-pointed, flowering on the upper-side, without a leaflet. Bushy heaths. b. 3. 4. A hard, rivid, dark-oreen shrub. 2 f. Berry

scarlet.

DIOECIA TETRANDRIA.

451. VÍSCUM. Misseltoe.

- 1. V. *dibum*, 21. 1471. (White M.) Leaves obovate-lanceolate, obtuse. Stem forked, with sessile intermediate heads, of about five flowers.
 - Parasit. on trees. 7. 5. Bushy, rigid, smooth, yellow-green. Berry white.

452. HIPPÓPHAE. Sallow-thorn.

1. H. rhamnoides, 6. 425. (Common S., Sea Buckthorn.) Leaves linear-lanceolate.

Sandy cliffs. h. 5. A bushy, rigid shrub. L. 11 in. Fl. gr. minute.

453. MYRÍCA. Gale.

1. M. Gále, 8.562. (Sweet G. or Dutch Myrtle.) Leaves lanceolate, serrated; tapering and entire at the base. Scales of the catkins pointed.

Boggy pl. h. 5. An upright, bushy shrub, 3-4 f. Fragrant.

DIOECIA PENTANDRIA.

454. HÚMULUS. Hop.

1. H. Lúpulus, 6. 427. (Common Hop.) Hedges & thick. 4. 7. Rough, climbing. Cones aromat. and bit/er.

DIOECIA HEXANDRIA.

455. TÁMUS. Black Bryony.

1. T. commúnis, 2. 91. (Common Black Bryony.) Leaves heartshaped, undivided, acute.

Woods & hedg. 24.6. Smooth, twining, and climbing without tendr.



DIOECIA OCTANDRIA.

456. PÓPULUS. Poplar.

- 1. P. álba, 23. 1618. (White P., Abele Tree.) Leaves lobed and toothed ; somewhat heart-shaped at the base ; snow-white and densely downy beneath. Fertile catkins ovate. Stigmas four. Moist woods. b. 3. Tree, with smoothish bark, and horizont. br. Wood white.
- 2. P. canéscens, 23. 1619. (Grey P.) Leaves roundish, deeply waved, toothed; hoary and downy beneath. Fertile catkins cylindrical. Stigmas eight.
 - Turfy mead. b. 3. A tall tree, with more upright br. Bark silvery. Wood valuable.
- 3. P. trémula, 27. 1909. (Aspen, or Trembling P.) Leaves nearly orbicular, toothed ; smooth on both sides. Footstalks compressed. Young branches hairy. Stigmas four, erect, auricled at the base. Moist woods. b. 3, 4. A lofty round-headed tree. L. quivering.
- 4. P. nigra, 27. 1910. (Black P.) Leaves deltoid, pointed, serrated, smooth on both sides. Catkins all lax and cylindrical. Stigmas four, simple, spreading.

Watery pl. h. S. A tall tree. Bark thick, blackish.

457. RHODÍOLA. Rose-root.

1. R. rósea, 8. 508. (Mountain Rose-root.) Fiss. of alpine and northern maritime rocks. 24.5, 6. Leafy, a span. L. obov. fleshy. Cyme of yellow A.

DIOECIA ENNEANDRIA.

458. MERCURIÁLIS. Mercury.

1. M. perénnis, 26. 1872. (Perennial M.) Stem perfectly simple. Leaves rough. Root creeping.

Banks. 4. 4. 5. Herb. rough, fetid, poisonous, 1 f. L. ovate. Fl. gr.
2. M. ánnua, 8. 559. (Annual M.) Stem cross-branching. Leaves smooth. Root fibrous. Barren flowers in numerous, spiked, alternate tufts.

Waste and cult. gr. O. 7-9. A bushy, bright green herb, 6-12 in.

459. HYDRÓCHARIS. Frog-bit.

1. H. Morsus ránæ, 12. 808. (Common Frog-bit.) Ditches and ponds. 4. 7. A floating, smooth herb, increasing by runners. L. entire, not 2 in. broad. Fl. numer. white.

DIOECIA MONADELPHIA.

460. JUNÍPERUS. Juniper.

- J. communis, 16. 1100. (Common J.) Leaves three in each whorl, tipped with a spine, spreading, longer than the ripe fruit. Hills and moist woods. b. 5. An erect husby smooth shrub
- Hills and moist woods. 5. 5. An erect, bushy, smooth shrub.
 2. J. nána, Suppl. 2743. (Dwarf J.) Leaves three in each whorl, tipped with a spine, somewhat imbricated, curved, the length of the oval ripe fruit.

Mount. h. 5. A dwarf shrub, with prostrate stems. Berr. larger. — Var. of J. communis.

461. TÁXUS. Yew.

1. T. baccáta, 11.746. (Common Yew.) Leaves two-ranked, crowded, linear, flat. Receptacle of the barren flowers globular.

Mount. woods. 5. 8, 4. Tree. Trunk straight, variously channelled, Branches horizontal. In β , from Ireland, the branches are upright, and the leaves larger and scattered. A distinct species ?

Class XXIII. POLYGAMIA. Stamens and Pistils united in the same flower, besides others in separate flowers, having a different structure in their accessary parts, on the same or different plants.

Order I. MONOECIA. Flowers different on the same plant.

462. ÁTRIPLEX. United A. Cal. inferior, in 5 deep segments. Cor. 0. Stam. 5. Style deeply cloven. Seed 1, depressed. Fert. Fl. Cal. inferior, in 2 deep segments. Cor. 0. Style deeply cloven. Seed 1, compressed.—N.O. CHENOPODEE.

POLYGAMIA MONOECIA.

462. **ATRIPLEX**. Orache.

[Herbaceous or shrubby, branched, mostly upright. L. simple, without stipulas. Stam. opposite to the calyx-segm.

1. A. portulacoides, 4. 261. (Shrubby O., Sea Purslane.) Leaves opposite, obovate-lanceolate, entire; tapering at the base. Flowers generally completely separated. Muddy sea-coast. 5. 7, 8. R. woody. Stem shrubby, 1-11 f. spreading. L. hoary, or mealy.

- 2. A. laciniáta, 3. 165. (Frosted Sea O.) Leaves trowel-shaped, angular and toothed; scaly beneath.
- Sandy sea-coast. O. 7. Root fibr. Herbaceous, spreading; clothed with silvery scales.
- 3. A. pátula, 13. 936. (Halberd-leaved O.) Leaves triangular, lanceolate, somewhat halberd-shaped. Calyx of the fruit tuberculated at the sides.

Cult. & waste gr. O. 6-8. Herb. spread. L. powdery. Seed dotted.

- A. angustifolia, 25. 1774. (Narrow-leaved Ô.) Leaves lanceolate, entire; the lower ones partly three-lobed. Calyx of the fruit halberd-shaped, slightly warty at the sides. Cult. & waste gr. ⊙. 6—8. Habit of the last. Seed scarcely dotted.
- A. erécta, 31. 2223. (Upright O.) Leaves ovate-lanceolate; lower ones sinuated. Calyx of the fruit all over armed with sharp tubercles.
 - Waste gr. rare. O. 8. Herbaceous, erect. L. slightly powdery. Fr. small.
- A. littorális, 10. 708. (Grass-leaved O.) Leaves all linear, entire, variously toothed, or sinuated. Calyx of the fruit sinuated; its disk armed with prominent tubercles.
- Salf marshes. O. 7, 8. Herb. erect, a little mealy. L. 2-4 in. 7. A. pedunculáta, 4. 232. (Stalked O.) Leaves obovate, entire.
- Seed-bearing flowers stalked, wedge-shaped. Muddy salt-marshes. O. 7, 8. Herb. zigzag, spreading, greyish,
 - all over scaly.

Class XXIV. CRYPTOGAMIA. Stamens and Pistils either imperfectly, or not at all, known; or not to be numbered with any precision.

The Orders are all perfectly natural.

- Order I. FILICES. Ferns. Frond with dorsal, terminal, axillary, or radical fructification.
 - Capsules aggregate, on the back of a leafy frond, bivalve, each bound with an elastic jointed ring, contrary to the valves. Subord. FILICES VERE.

[The roots of the True Ferns are perennial, either tuberous or creeping, scaly, often parasitical. Plants mostly herbaceous; either ever-



green or deciduous. Frond with a simple or alternately branching stalk; the leaf ribbed, veiny; either simple or variously divided; bearing the fructification at the back, very seldom at the edges. The membranous Cover, or Involucrum, which protects the masses of capsules till they arrive at maturity, affords highly useful characters for distinguishing and establishing the genera.]

- 463. POLYPÓDIUM. Capsules in roundish scattered masses. Cover none.
- 464. ASPÍDIUM. Caps.in roundish scattered masses. Cover nearly orbicular; fixed by the centre, separating all round.
- 465. CYSTÉA. Caps. in roundish scattered masses. Cover orbicular, concave ; fixed by a lateral point underneath, finally reflexed and jagged.
- 471. WÓODSIA. Caps. in roundish scattered masses. Cover roundish; fixed by a central stalk under each mass; the margin in numerous, deep, capillary, incurved segments.
- 466. ASPLÉNIUM. Caps. in linear, scattered masses. Cover linear, separating at the side towards a midrib or vein.
- 467. SCOLOPENDRIUM. Caps. in nearly linear, twin, scattered masses, between 2 parallel veins. Covers 2, linear, opposite, folding over each other.
- 468. BLÉCHNUM. Caps. in linear, solitary masses, close to the midrib. Cover linear, flat, separating towards the rib.
- 469. PTERIS. Caps. in linear, nearly marginal masses. Cover from the inflexed margin of the frond, wavy, continuous, separating at its inner edge.
- 470. ADIÁNTUM. Caps. on the back of each rounded, reflexed, marginal, distinct cover, in small, roundish, central masses.
- 472. TRICHOMANES. Caps. in oblong masses, imbedded in the edge of the frond. Cover marginal, pitcher-shaped, of one leaf, opening outwards.
- 473. HYMENOPHÝLLUM. Caps. in roundish masses, imbedded in the edge of the frond. Cover marginal, compressed, of two valves, opening outwards.

** Capsules, or seeds, without any distinct elastic ring.

[Habit various; mostly *herbaceous*, and growing in or near watery places.]

- 476. OPHIOGLÓSSUM. Spike 2-ranked. Caps. bivalve, imbedded. —SUBORD. FILICES VERÆ.
- 474. OSMÚNDA. Cluster branched. Caps. stalked, naked, globular, with a striated protuberance.—SUBORD. FILICES VERE.
- 475. BOTRYCHIUM. Common stalk compound, flattened. Caps. sessile, naked, globular, simple.—SUBORD. FILICES VEBE.

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Ord. 1.] CRYPTOGAMIA FILICES.

- 477. LYCOPÓDIUM. Caps. axillary, solitary, compressed.—SUB-ORD. LYCOPODIACE &.
- 479. PILULÁRIA. Common recept. of 4 cells, concealing numerous barren and fertile *florets*. Seeds coated.—SUBORD. MABSILEACEE.
- 480. ISOÉTES. Comm. recept. of 1 cell, within the base of the frond. Seeds rough.—SUBORD. MARSILEACE ...

CRYPTOGAMIA FILICES.

463. POLYPÓDIUM. Polypody.

- 1. P. vulgare, 16. 1149. (Common P.) Frond deeply pinnatifid; lobes oblong, somewhat serrated, obtuse. Root scaly.
- Walls, & shady banks. 42. 5—10. Frond 9—12 in. Caps. croud.
 P. Phegópteris, 31. 2224. (Pale Mountain P.) Frond pinnate; leaflets lanceolate, united at the base, pinnatifid, with blunt segments; the lowest pair deflexed. Ribs and veins hairy. Masses of capsules marginal.

Northern mt. 4. 6, 7. Fr. 1-11 f. delicate, pale gr. Caps. fewer. 3. P. Dryópteris, 9. 616. (Tender Three-branched P.) Frond three-

- 3. P. Dryopteris, 9. 616. (Tender Three-branched P.) Frond threebranched; branches doubly pinnate, spreading rather downwards; segments obtuse, somewhat crenate. Root threadshaped. Masses of capsules scattered, distinct.
- Shady mount. pl. 4.7. Fr. 1 f. green, delicate. Stalk pale, brittle. 4. P. calcáreum, 22. 1525. (Rigid Three-branched P.) Frond three-
- P. calcáreum, 22. 1525. (Rigid Three-branched P.) Frond threebranched; branches doubly pinnate, erect, rather rigid; segments obtuse, somewhat crenate. Masses of capsules crowded, finally confluent.

Limest. mount., Derbysh. 24, 7. R. stouter. Fr. firmer, 1 f.

464. ASPÍDIUM. Shield-fern.

- 1. A. Lonchitis, 12. 797. (Alpine Sh.) Frond linear-lanceolate, simply pinnate ; leaflets crescent-shaped, declining, bristly-serrated. Stalks scaly.
 - Alp. rocks. 4. 5, 6. A span; harsh. Masses of caps. in the upper half.
- A. *Thelýpteris*, 15, 1018. (Marsh Sh.) Frond pinnate ; leaflets linear-lanceolate, deeply pinnatifid, smooth, somewhat crenate; their lowermost segments elongated. Masses globular; at length confluent. Cover central, lax. Root trailing.
- Boggy mead. 4.7. Fr. 1-13 f. deep green; stalks slender, naked.
 3. A. Oreópteris, 15. 1019. (Heath Sh.) Frond pinnate; leaflets deeply pinnatifid, entire; besprinkled underneath with resinous

globules. Masses nearly marginal, at length confident. Root tufted.

Heathy mount. 4.6. Thrice as large. R. large and scaly.

- A. Filix más, 21. 1458. (Male Sh.) Frond doubly pinnate ; leaflets obtuse, serrated, partly confluent. Stalk scaly. Masses near the midrib. Cover orbicular.
 - Woods and shady pl. 4.6,7. R. like the last. Fr. 8 f. Masses copious.
- A. cristátum, 30. 2125. (Crested Sh.) Frond linear-oblong, almost doubly pinnate; leaflets decurrent, ovate, obtuse, crenate, or pinnatifid, with little sharp terminal teeth. Stalk scaly at the base. Masses equidistant from the midrib and margin. Cover orbicular.
 - Boggy heaths, very rare: Norf. Suff. and Notts. (Dr. Howitt.) 4. 6, 7. R. tufted. Fr. 1-2 f. pale yellowish-green.
- A. aculeátum, 22. 1562. (Prickly Sh.) Frond doubly pinnate; leaflets ovate, pointed, stalked, somewhat crescent-shaped, fringed with prickly serratures. Midribs all scaly or shaggy. Cover orbicular, flat.
- Shady pl. 4. 6. R. tufted, large. Fr. 2 f. dark green, paler beneath.
- 7. A. anguláre, Suppl. 2776. (Angular-leaved Sh.) Frond doubly pinnate; leaflets ovate, bluntish, stalked, fringed with bristly serratures, each leaflet with a lateral lobe at the base; the lowermost elongated, partly pinnatifid. Stalk scaly. Ribs all shaggy. Cover orbicular, umbilicated.
 - Shady pl. 4. 7. Softer and more delicate. Leafl. more copious. Masses crowded.
- 8. A. lobátum, 22. 1563. (Close-leaved Prickly Sh.) Frond doubly pinnate; leaflets elliptical, pointed, decurrent, slightly crescentshaped, somewhat serrated; the foremost of the lowest pair very large. Stalk and midrib scaly. Cover orbicular, umbilicated.
 - Shady banks. 4.6. Fr. firmer, narrower, of a paler green, and more polished.
- *8. A. rígidum, Suppl. 2724. (Rigid Sh.) Frond lanceolate, bipinnate. Leaflets subcordate-oblong, obtuse, pinnatifid-serrate; the segments subbidentate; the teeth mucronulate. Stalk and midrib chaffy. Masses in the upper half of the frond.
 - Mountains of Yorkshire. 4.6. Smaller than the following; with narrower fronds and more closely placed leaflets.
- 9. A. spinulosum, 21. 1460. (Prickly-toothed Sh.) Frond somewhat triangular, smooth, doubly pinnate; leaflets decurrent, on a winged stalk, elliptical, deeply serrated, with prickly teeth, and a zigzag midrib. Stalk elongated, scaly at the base. Cover orbicular, with a lateral notch.
 - Marshy pl. rare. 24.6, 7. R. somewhat creep. Fr. 1 f. of a fine light green.
- A. dilatâtum, 21. 1461. (Sharp-toothed Sh.) Frond doubly pinnate; leaflets deeply pinnatifid; lobes deeply serrated, with prickly teeth. Common stalk scaly. Cover kidney-shaped, tumid; finely orbicular, with a lateral notch.—A. spinulos. *B. Br. Fl.*

Moist shady pl. 4.6, 7. R. tuberous. Fr. generally 2 f.; midribs straight.

- 11. A. dumetorum, Pluk. Phyt. tab. 80. f. 4. (Thicket Sh.) Frond doubly pinnate ; leaflets pinnatifid ; lobes with terminal, sharp, prickly teeth. Common stalk scaly. Cover orbicular, flat, with a deep notch.
 - Shady stony pl. 4.7. One-third the size, but agreeing in habit. Masses few.-A var. of A. spinulos.?
- 12. A. Filix fármina, 21. 1459. (Female Sh.) Frond doubly pinnate; leaflets linear-oblong, pinnatifid, serrated, pointless. Stalk smooth. Cover oblong, finally somewhat kidney-shaped, jagged.
 - Wet shady sit, 4.6, 7. R. tufted. Elegant, 2 f. of a rich dcep green.
- 13. A. irríguum, 31. 2199. (Brook Sh.) Frond lanceolate, doubly pinnate; leaflets oblong, deeply servated, pointless. Stalk quadrangular. Cover roundish-oblong, finally kidney-shaped, jagged.
 - About clear springs in the South. 4.6. Not unlike the last, but scarcely $\frac{1}{4}$ so large. Fronds narrower, and of a paler green.

465. CYSTÉA. Bladder-fern.-Cystopteris, Br. Fl.

- 1. C. frágilis, Cyathea fr. 23. 1587. (Brittle B.) Frond oblong-lanceolate, doubly pinnate; leaflets ovate, acute, pinnatifid, cut or serrated. Midribs bordered. Masses crowded. Cover irregularly torn.
 - Wet shady rocks, or walls; in mountainous districts. 24. 6, 7. R. tufted. Fr. a span ; of a full green.
- 2. C. dentáta, Cyath. dent. 23. 1588. (Toothed B.) Frond oblonglanceolate, doubly pinnate; leaflets ovate, obtuse, pointless, bluntly toothed, partly pinnatifid. Partial midribs bordered. Masses crowded; finally confluent.

- Among alpine rocks. 24. 7. Like the last, but rather smaller.
 3. C. angustáta, Suppl. 2790. (Deep-cut B.) Frond oblong, doubly pinnate ; leaflets lanceolate, decurrent, wavy, or pinnatifid, with linear, acute, partly cloven segments. Masses scattered, distinct. Shady alpine sit. 4. 6, 7. R. tufted, black. Fr. 12-15 in. Stalk slender, blackish.
- 4. C. régia, Cyath. incisa, 3. 163. (Laciniated B.) Frond lanceolate, doubly pinnate; leaflets deeply pinnatifid, with oblong, blunt, partly notched segments. Partial stalks winged. Masses nume-rous, scattered, distinct.—Cystopteris alp., Br. Fl.

Walls & alp. rocks, rare. 24.6.3-10 in. bright gr. Ribs straightish.

466. ASPLÉNIUM. Spleenwort.

1. A. Trichómanes, 8. 576. (Common S.) Frond linear, pinnate; leaflets roundish-ovate, crenate. Midrib coloured, polished; keeled underneath.

Rocks & walls. 24.3-10. Fr. several, scarcely a span. Stalk blackish. 2. A. viride, 32. 2257. (Green S.) Frond linear, pinnate ; leaflets

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roundish-ovate, somewhat deltoid, crenate. Midrib flattened beneath.

Mt. rocks. 4.6, 7. Like the last, but brighter green. Rib pale gr.

8. A. marinum, 6. 392. (Sea S.) Frond oblong, pinnate ; leaflets ovate, oblique, serrated, obtuse; unequal and wedge-shaped at the base.

Clefts of marit. rocks. 24.7-10. Fr. firm, 3-9 in. Stalk darkcol. Rib with a thick border.

- 4. A. septentrionále, 15. 1017. (Forked S.) Frond three-cleft; leaflets alternate, linear, jagged at the summit. Alpine rocks ; rare. 4.6-10. Fr. innumer. in dense, dull green
 - tufts, S-4 in.
- 5. A. alternifólium, 32. 2258. (Alternate-leaved S.) Frond pinnate ; leaflets alternate, wedge-shaped, erect, notched at the extremity. Rocky mt. 2. 6-10. Fr. numer. 3-6 in. bright gr. Masses linear.
- 6. A. Ruta murária, 3. 150. (Wall-rue S.) Frond alternately twice compound; leaflets rhomboid-wedge-shaped, notched at the extremity.

Rocks & old walls. 4, 6-10. Fr. several, 3-4 in. like Rue-leaves.

7. A. Adiantum nigrum, 28. 1950. (Black S.) Frond somewhat deltoid, alternately thrice-pinnate; leaflets lanceolate, sharpish, deeply serrated.

Shady pl. 24. 6-10. Fr. 1 f. dark shining green. Stalk purplish br.

- 8. A. lanceolátum, 4. 240. (Lanceolate S.) Frond lanceolate, doubly pinnate; leaflets and segments obovate, deeply and sharply Principal midrib not bordered. toothed.
 - Rocks in the S.4.6-10. Fr. scarce a span, grass-green. Stalks shorter.
- 9. A. fontánum, Aspidium font. 29. 2024. (Rock S.) Frond Engarlanceolate, doubly pinnate; leaflets and segments wedge-shaped, deeply and sharply toothed. General and partial midribs bordered. Walls & rocks, rare. 4. 6-9. An elegant little fern; 2-6 in. light gr.

467. SCOLOPÉNDRIUM. Hart's-tongue.

- 1. S. vulgáre, 16. 1150. (Common H.) Frond oblong, smooth; heart-shaped at the base. Stalk shaggy.
 - Moist shady sit. $2 \cdot 7 \cdot 1 1 \frac{1}{2} f$. of a full grass green.
- 2. S. Céterach, 18. 1244. (Scaly H.) Frond pinnatifid; scaly at the back.

On rocks or old walls. 24.4-10.3-6 in.slightly glauc.; scales rusty.

468. BLÉCHNUM. Hard-fern.

1. B. boreale, 17. 1159. (Northern H.) Frond smooth, pinnate, pectinate; leaflets linear, entire, scarcely dilated at the base. Rough heathy gr. 4.7. Fr. tufted, lanceol. deep green, 13 f.

469. PTÉRIS. Brake.

1. P. aquilina, 24. 1679. (Common Brake.) Frond thrice pinnate;

segments lanceolate, bluntish; lowermost pinnatifid; upper gradually smallest; terminal ones large, undivided.

Heaths & commons, abund. 4.7. Fr. 1-6 f. of a light bright gr. the margins revolute, sheltering the linear masses of tawny caps.
P. crispa, 17. 1160. (Curled, or Rock, Brake.) Frond twice or

thrice pinnate; barren leaflets wedge-shaped, cut; fertile elliptic-oblong, obtuse, convex.—Cryptogramma crispa, Br. Fl. Stony mount. 24. 7. About a span high, bright pea green.

470. ADIÁNTUM. Maidenhair.

- A. Capillus Véneris, 22. 1564. (True M.) Frond doubly compound; leaflets alternate, wedge-shaped, lobed, on capillary stalks. Covers transversely oblong. Moist rocks, chiefly in the S. W., very rare. 24. 5-9. A most
 - Moist rocks, chiefly in the S. W., very rare. 4. 5-9. A most elegant fern, 6-12 in. Stalks ultimately quite capillary, whence the name.

471. WOODSIA. Woodsia.

- 1. W. *ilvensis*, Suppl. 2616. (Oblong W.) Leaflets oblong, deeply pinnatifid, with oblong segments.
- Alp. rocks, very rare. 4. 7-9. 3-5 in. Stalk brown, elastic & wiry.
- W. hyperbórea, Polypodium hyperboreum, 29. 2029. (Rounded L. W.) Leaflets bluntly triangular, pinnatifid, with rounded seg. Alpine rocks, very rare. 4. 6. 2-4 in., more rusty. Stalk less elastic. Leafl. shorter, rounder, and broader at the base.

472. TRICHÓMANES. Bristle-fern.

- T. brevisétum, Hymenophyllum alatum, 20. 1417. (Short-styled B.) Frond thrice pinnatifid, lobed, smooth; segments linear, entire. Stalk winged. Covers oblong. Common receptacles at first but slightly prominent.
 - Wet rocks, very rare; chiefly in the S. of Irel. 4. 5, 6. Fr. 4-5 in. membranous, deep green.

473. HYMENOPHÝLLUM. Filmy-fern.

1. H. Tunbridgénse, 3. 162. (Tunbridge F.) Fronds tender, pinnate; pinnæ distichous, vertical, pinnatifid; the segments linear, undivided or 2-cleft, and, as well as the axillary, solitary, nearly orbicular, compressed involucre, spinulose-serrate. Midrib strongly veined.

Moist rocks, among moss, in mount. distr. 4. 5, 6. Tender and delicate. Pinnæ on the same plane with the winged midrib.

*2. H. Wilsóni, Suppl. 2686. (Scottish F.) Fronds rigid, pinnate; pinnæ recurved, subunilateral, pinnatifid; the segments linear, undivided or two-cleft, spinulose-serrate. Involucres axillary, solitary, ovate, swollen, entire. Midrib only slightly margined towards the extremity.

Wet rocks, N. of Engl. and Wales. Abundant in the mount. parts

of Scotl. and Irel. 4. 5, 6. More rigid ; with a quite distinct mode of growth, the pinnæ being strongly curved backwards, in a direction contrary to that of the fructification.

474. OSMÚNDA. Osmund-royal.

1. O. regális, 3. 209. (Common O.) Leaflets oblong, nearly entire; dilated, and somewhat auricled, at the base. Clusters panicled, terminal.

Shady bogs and woods; not comm. 24. 6, 7. Fr. 3-6 f. Pan. comp. A large and beautiful fern.

475. BOTRÝCHIUM. Moonwort.

 B. lunária, Osmunda lun. 5. 318. (Common M.) Leaf solitary, pinnate; leaflets fan-shaped, notched. Mount. past. 4. 6. A span high, smooth, pale green.

476. OPHIOGLÓSSUM. Adder's-tongue.

1. O. vulgatum, 2. 108. (Common A.) Leaf ovate, veinless, about as tall as the spike.

Moist past. 4. 5. Scarcely a span high, green, smooth, simple.

477. LYCOPÓDIUM. Club-moss.

- 1. L. clavátum, 4. 224. (Common C.) Stem creeping. Branches ascending; partially almost naked. Leaves scattered, incurved, with filamentous points. Spikes two or three, cylindrical, stalked, with dilated, membranous scales.
- Heaths. 4.7, 8. Stems several feet. Spikes sulphur-coloured.
- 2. L. Selaginoides, 16. 1148. (Prickly C.) Stems recumbent, branched; shorter than the solitary, ascending, tumid spikes. Leaves scattered, lanceolate, fringed; the floral ones larger and more spreading.

Wet alp. heaths. 4.8. Stems 3 in. terminating in a yellow spike.

- L. inundátum, 4. 239. (Marsh C.) Stems depressed, creeping, slightly branched. Leaves scattered, linear-lanceolate, pointless, entire. Spikes solitary; their scales dilated at the base.
 Wet sandy heaths. 4. 6, 7. Spikes solit. 1-11 in. on upright br.
- L. Selágo, 4. 233. (Fir C.) Stems upright, forked, level-topped. Leaves in eight rows, uniform, lanceolate, pointless, entire,
 - Leaves in eight rows, uniform, lanceolate, pointless, entire, slightly spreading.

Moist alp. heaths. 4.6-8. A span high. L. of a bright shining gr.

- 5. L. annotinum, 24. 1727. (Interrupted C.) Stems recumberst at the base; branches erect, annually proliferous at the summit. Leaves scattered, in five rows, lanceolate, acute, naked-pointed, slightly serrated; the floral ones broader than they are long, imbricated.
 - Mts. rare ; chiefly in the N. U. 6-8. Handsome. Flowering br. erect, above a span high.

Ord. 1.]

 L. alpinum, 4. 234. (Savin-leaved C.) Stems prostrate. Branches erect, clustered, forked, level-topped. Leaves acute, keeled, imbricated in four rows. Scales of the spikes ovate-lanceolate, flat. Lofty mts. 4. 8. A handsome evergreen, of a glaucous hue.

478. EQUISÉTUM. Horse-tail.

- 1. E. sylváticum, 27. 1874. (Wood H.) Branches compound, curved downwards, smooth.
- Moist shady woods. 4. 4, 5. 1-1} f. with many whorls. Very eleg. 2. E. fluviátile, 29. 2022. (Water H.) Sterile stems beset with innu-
- E. fluviátile, 29. 2022. (Water H.) Sterile stems beset with innumerable, roughish, doubly angular branches; flowering ones unbranched, with numerous, crowded, deeply toothed sheaths. Watery pl. 4. 4. The largest sp. Fl. stems a span. Catk. large.
- Watery pi. 4. 4. The target sp. F. stens a span. Cat. targe.
 8. E. arvénse, 29. 2020. (Corn H.) Frond attenuated upwards. Sterile stem slightly scabrous, with 12-14 furrows. Teeth of the sheath lanceolate-subulate. Branches simple, rather spreading. Fertile stem without branches; its sheaths remote, loose. Moist corn-fields. 4. 3-4. Fl.-stems a span high; pale br.
- *3. E. Drummondii, Suppl. 2777. (Blunt-topped H.) Frond very obtuse at the extremity. Sterile stem, especially upwards, rough with prominent points and about 20 striæ. Teeth of the sheath appressed. Branches simple, spreading. Fertile stem without branches; its sheaths approximate, appressed, with subulate teeth.

Moist banks, Scotl. and Irel. 4. 4. Very distinct from the preceding.

 E. palústre, 29. 2021. (Marsh H.) Stem deeply furrowed, branched throughout, with a terminal catkin; branches simple, erect, roughish, with simple angles. Marshes. 4.6, 7. Sheaths green; whitish at the top. Catk. small.

Marshes. 4.6, 7. Sheaths green ; whitish at the top. Catk. small. 5. E. limósum, 13, 929. (Smooth H.) Stem partially naked, striated,

- smooth as well as the branches. Catkin terminal, elliptical. Marshy watery pl. 4. 6, 7. Stem 2 f. Br. short, not numer. Catk. large.
- E. hyemále, 13.915. (Rough H. Shave-grass.) Stem naked, very rough, mostly branching at the base. Sheaths whitish; black at the top and bottom; teeth deciduous. Catkin terminal.
 - Boggy woods. 4.7, 8.1-2 f. deep glauc. green. Catk. small, br. The bark, abounding in silex, is used for polishing; being imported under the name of *Dutch rushes*.
- E. variegátum, 28. 1987. (Variegated H.) Stem naked, very rough, branched at the base. Sheaths black; with white, membranous, lanceolate teeth. Catkin terminal.

Wet sandy gr. 4.7. Smaller and more slender. Cath. blackish.

479. PILULÁRIA. Pillwort.

1. P. globulifera, 8. 521. (Creeping Pillwort. Pepper-grass.) Watery gravelly pl. 4. 6, 7. Stems thread sh. creeping, partly

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branched. Fructification close to the leaves, globular, blackish, resembling pepper-corns, but downy.

480. ISOÉTES. Quill-wort.

- I. lacústris, 16. 1084. (European Q., Merlin's grass.) Fronds bluntly quadrangular, with four longitudinal cells. Alpine lakes. 24. 5, 6. Stem 0. Fr. awl-shaped, tufted, 3-9 in.
 - Seeds pure white.

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