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A
SYNOPTICAL COMPEND

OF

BRITISH BOTANY,

ARRANGED AFTER THE

LINNEAN SYSTEM ;

AND CONTAINING

THE ESSENTIAL CHARACTERS OF THE GENERA,
THE SPECIFIC CHARACTERS,
ENGLISH NAMES, PLACES OF GROWTH, SOIL AND SITUATION,
COLOUR OF THE FLOWERS,
TIMES OF FLOWERING, DURATION,
AND
REFERENCES TO FIGURES.

ORIGINALLY

BY JOHN GALPINE, A. L. S.

The Fourth Edition,

INCLUDING

THE LINNEAN ORDER OF FERNS, TOGETHER WITH ESSENTIAL CHARACTERS
AND TYPES OF THE GENERA OF THE OTHER ORDERS OF CRYPTOGAMIA ;

AND THE

NATURAL ORDERS OF THE GENERA IN ALL THE CLASSES.

LONDON :

SAMUEL BAGSTER,

PATERNOSTER ROW, AND, VERE STREET, CAVENDISH SQUARE.

M.DCCC.XXXIV.

TO THE
PRESIDENT AND FELLOWS
OF
THE LINNEAN SOCIETY
OF LONDON,
THIS REVISED EDITION
OF A
COMPEND OF BRITISH BOTANY,

IS RESPECTFULLY DEDICATED,

BY THEIR OBEDIENT SERVANT,

THE PUBLISHER.

No. 15, PATERNOSTER ROW.

PREFACE

TO THE THIRD EDITION.

IN the present state of botanical science, it has been thought advisable to add to the names of the *Genera* those of the *Natural Orders* to which they belong. In some few cases where botanists differ with regard to the genera in which a plant should be placed (as in the English Hyacinth, which has been repeatedly changing its place from *Hyacinthus* to *Scilla*, and from *Scilla* to *Hyacinthus*) the Editor has scrupulously followed the *English Flora* of Sir J. E. Smith: considering it important that students, for whom the work is especially adapted, should not be confused, alarmed, and deterred by unnecessary contradictions, from even attempting to study the science. For the same reason Sir J. E. Smith's arrangement of the *Filices* has been adopted. The *Musci*, *Hepaticæ*, *Algæ*, and *Lichenes*, will be found to accord with Loudon's *Encyclopedia of Plants*, in which they are arranged by an able botanist, according to the latest and best authorities.

In consequence of the great attention latterly bestowed upon the *Fungi*, the genera are so considerably multiplied, as to become inadmissible without materially increasing the size of the volume. It is by no means certain whether several of these are vegetables at all; and those which admit of more accurate classification, could be studied to no advantage from the specific characters of a few individuals: their insertion, therefore, in the manner followed with regard to the four preceding Orders, would afford no adequate compensation for the increased bulk which would render the volume less conveniently portable. This Order has not been wholly omitted; but one genus only has been described of each subdivision in which the genera are ranged, instead of the types of the genera.

July 7th, 1829.

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EXPLANATORY TABLE

OF

MARKS AND ABBREVIATIONS.

MARKS.

- † Put after the specific names of Plants which are not now found wild.
- § After the names of Plants which are doubtful natives.
- ! After the Soil or Situation of such Plants as are rare.
- * In the column for figures, denotes that the figure there quoted is given under a name different from that under which the Plant is described in this work.
- † In the column for the soil, &c. signifies *or*.

SOIL, OR SITUATION.

Alp. bogs ..	Alpine bogs.	Bushy hi. ..	Bushy hills.
Alp. bu. pl. ..	Alpine bushy places.	Bushy pl. ..	Bushy places.
Alp. hea. ..	Alpine heaths.	Cale. ba. ..	Calcareous banks.
Alp. lak.	Alpine lakes.	Calc. roc. ..	Calcareous rocks.
Alp. mar. ..	Alpine marshes.	Chal. ba. ..	Chalky banks.
Alp. mea. ..	Alpine meadows.	Chal. cl.	Chalky cliffs.
Alp. riv.	Alpine rivulets.	Chal. fi.	Chalky fields.
Alp. roc.	Alpine rocks.	Chal. hil. ..	Chalky hills.
Alp. roc. & tr.	Alpine rocks and trees.	Chal. pa. ..	Chalky pastures.
Ara. lan.	Arable land.	Chal. so.	Chalky soil.
Ba.	Banks.	Chal. wo. ..	Chalky woods.
Bar. gro. ..	Barren ground.	Clov. fi.	Clover fields.
Bar. hea. ..	Barren heaths.	Corn fi.	Corn fields.
Bar. past. ..	Barren pastures.	Cult. gr.	Cultivated ground.
Bar. san. ..	Barren sandy places.	Dit.	Ditches.
Boggy hea. ...	Boggy heaths.	Dit. ban. ..	Ditch banks.
Boggy m. ..	Boggy meadows.	Dry com. ..	Dry commons.
Boggy pl. ..	Boggy places.	Dry fi.	Dry fields.
Bo. on M. }	Bogs on Mountains.	Dry hea.	Dry heaths.
Bgs. on M. }		Dry m. pl. }	Dry mountainous places.
Bks.	Banks.	Dry pas. ..	
Bor. of fi. ..	Borders of fields.	Dry st. pl. ..	Dry stony places.
Br.	Branches.	Dr. st. wds. .	Dry stony woods.
Bushy fi. ..	Bushy fields.		

Dry wds. . . .	Dry woods.	M. thick. . . .	Mountainous thickets.
Dunghil	Dunghills.	M. wo.	Mountainous woods.
Edges of D. . .	Edges of Ditches.	Mud. dit. . . .	Muddy ditches.
Grav. ban. . . .	Gravelly banks.	Mud. sh. . . .	Muddy shores.
Grav. hea. . . .	Gravelly heaths.	N. of Eng. . . .	North of England.
Grav. pas. . . .	Gravelly pastures.	N. of Sco. . . .	North of Scotland.
Grav. so	Gravelly soil.	Nor. pas. . . .	Northern pastures.
Gro. Hed. . . .	Groves and hedges.	Nor. wa. pl. {	Watery places in the
Hea.	Heaths.		North.
Hea. & wo. . . .	Heaths and woods.	Nor. wds. . . .	Woods in the North.
Hed. ban. . . .	Hedge banks.	Old w. . . . }	Old walls.
Highl. va. . . .	Highland valleys.	Old wa. . . . }	
Hilly pas. . . .	Hilly pastures.	Osier hol. . . .	Osier holts.
Ir. bogs	Irish bogs.	Pas.	Pastures.
Ir. mount. . . .	Irish mountains.	Peaty dit. . . .	Peaty ditches.
Ir. roc.	Irish rocks.	Riv. ban. . . .	River banks.
Ir. shores . . .	Irish shores.	Rivul.	Rivulets.
Ir. thick	Irish thickets.	Ro. si.	Road sides.
Lak.	Lakes.	Rub.	Rubbish.
Marg. lak. . . .	Margins of lakes.	Salt mar. . . .	Salt marshes.
Marit. roc. . . .	Maritime rocks.	S. W. dit. . . .	Salt water ditches.
Mar.	Marshes.	San. fi.	Sandy fields.
Mea.	Meadows.	San. gr.	Sandy ground.
Mea. pas. . . .	Meadows and pastures.	San. hea. . . .	Sandy heaths.
Mic. rocks . . .	Micaceous rocks.	San. mar. . . .	Sandy marshes.
M. alp. pl. . . .	Moist alpine places.	San. pas. . . .	Sandy pastures.
M. alp. wo. . . .	Moist alpine woods.	San. pl.	Sandy places.
Moi. chal. . . .	Moist chalky soil.	San. sh.	Sandy shores.
Moi. cha. h. . .	Moist chalky hills.	San. w. pl. . . .	Sandy wet places.
Moi. fi.	Moist fields.	San. † chal. . .	Sandy or chalky soil.
Moi. gr.	Moist ground.	Sc. alps.	Scottish alps.
Moi. hea. . . .	Moist heaths.	Sc. bogs	Scottish bogs.
Moi. hed. . . .	Moist hedges.	Sc. hea	Scottish heaths.
Moi. mea. . . .	Moist meadows.	Sc. isl.	Scottish islands.
Moi. pas. . . .	Moist pastures.	Sc. mar.	Scottish marshes.
Moi. pl.	Moist places.	Sc. mount. . . .	Scottish mountains.
Moi. roc. . . .	Moist rocks.	Sc. pas.	Scottish pastures.
Moi. roc. & tr.	Moist rocks and trees.	Sc. roc.	Scottish rocks.
Moi. s. p. . . .	Moist shady places.	Sc. sh.	Scottish shores.
Moi. wo. . . .	Moist woods.	Sc. thick	Scottish thickets.
Mos. bog. . . .	Mossy bogs.	Sc. val.	Scotch valleys.
Mount.	Mountains.	Sc. wo. . . . }	Scottish woods.
Mount. h. {	Mountainous heaths.	Sc. wds. . . . }	
M. hea. . . . }			
M. pas.	Mountainous pastures.	Sea co.	Sea coast.
Mou. pl. . . .	Mountainous places.	Sea. sh.	Sea shore.
M. roc. hea {	Mountainous rocky	Sev. isles . . .	Severn isles.
		Sha. ba.	Shady banks.
	heaths.	Sha. bogs . . .	Shady bogs.

Sha. cops. . . . Shady copses.	Tu. bogs Turfy bogs.
Sha. la. Shady lanes.	Tu. hea. Turfy heaths.
Sha. m. pl. . . . Shady moist places.	Uncul. gr. . . . Uncultivated ground.
Sha. pl. Shady places.	Uncul. pl. . . . Uncultivated places.
Sha. roc. Shady rocks.	Wa. gr. Waste ground.
So. coast South coast.	Wal. Bks. . . . Walls and Banks.
S. of Sco. . . . South of Scotland.	Wall. Mts. . . . Walls and Mountains.
Sou. riv. Southern rivulets.	Wat. com. . . . Watery commons.
Sp. bogs. Spongy bogs.	Wat. pl. Watery places.
Stag. wa. Stagnant water.	Wat. sh. pl. . . . Watery shady places.
Ston. in wa. . . . Stones in water.	W. Alps Welsh alps.
Sto. & wa. . . . Stones and walls.	Wel. bogs Welsh bogs.
Stony hi. Stony hills.	Wel. lak. Welsh lakes.
St. moor. Stony moors.	Wel. roc. Welsh rocks.
Stony pa. . . . Stony pastures.	Wet alp. hea. . . Wet alpine heaths.
Stony pl. Stony places.	Wet. com. Wet commons.
Sun. hil. Sunny hills.	Wet. gr. Wet ground.
Sun. roc. Sunny rocks.	Wet. gro. Wet groves.
Thick. Thickets.	Wet. sa. p. . . . Wet sandy places.
Tr. Trees.	Wet. sh. gr. . . . Wet shady ground.
Tr. & st. Trees and stones.	Wet. sha. pl. . . . Wet shady places.
Tru. of trees, Trunks of trees.	Wet. thick Wet thickets.

COLOUR OF THE FLOWERS.

Apetal. } Apetalous, without	Scar. Scarlet.
Pur. } petals.	Viol. Violet.
	Yel. Yellow.

TIME OF FLOWERING.

1. January. 2. February. 3. March, &c.

DURATION.

A. Annual.	P. Perennial.	S. Shrub.
B. Biennial.		T. Tree.

DESCRIPTIONS.

Androg. Androgynous.	Cor. Corolla.
Anth Anther.	Corymb. Corymbus.
Bar. Barren.	Cylind. Cylindrical.
Bract. Bractæ.	Dichot. Dichotomous.
Cal. Calyx.	Fem. Female.
Calyp. Calyptra.	Fer. Fertile.
Caps. Capsule.	Filam. Filament.

Fl.	Flower.	Perist.	Peristome.
Flor.	Floret.	Pet.	Petal.
Flow.	Flowered.	Pist.	Pistil.
Fr.	Fruit.	Polyg.	Polygamous.
Fruct.	Fructification.	Recept.	Receptacle.
Germ.	Germen.	Seg.	Segment.
Herm.	Hermaphrodite.	Silic.	Silicle.
Invol.	Involucre.	Spikel.	Spikelet.
Leaf.	Leaflets.	Stig.	Stigma.
L.	Leaves.	Stip.	Stipulæ.
Nect.	Nectary.	Stam.	Stamen.
Pan.	Panicle.	Term.	Terminal.
Pedunc.	Peduncle, or peduncled	Umb.	Umbel.

BOOKS QUOTED.

<i>Achar</i>	} Acharius, Lichenographia Universalis.
<i>Achar. Lichenog. univ</i>	
<i>Annals of Bot.</i>	Annals of Botany by C. König and J. Sims.
<i>Bot. Mag.</i>	Curtis and Sims's Botanical Magazine.
<i>De Candolle</i>	} De Candolle, Flore Française.
<i>Eng. Bot.</i>	Smith and Sowerby's English Botany.
<i>Eng. Flo.</i>	Smith's English Flora.
<i>Flor. Dan.</i>	Icones Plantarum sponte nascentium in Regnis Daniæ et Norwegiæ.
<i>Gray's Brit. Pl.</i>	Gray's Natural Arrangement of British Plants.
<i>Hooker's Musc. Brit.</i> ..	Hooker and Taylor's Muscologia Britannica.
<i>Hort. Kew.</i>	Hortus Kewensis. Ed. 2.
<i>Hudson</i>	Hudson's Flora Anglica.
<i>Jussieu</i>	Jussieu, Genera Plantarum.
<i>Lam.</i>	} Lamouroux in Annales du Museum d'Histoire naturelle.
<i>Lamouroux</i>	
<i>Lind. Syn.</i>	Lindley's Synopsis of the British Flora.
<i>Linn.</i>	Linnaei Genera Plantarum.
<i>London's Ency. Pl.</i> ..	London's Encyclopedia of Plants.
<i>Pluk. Phyt.</i>	Plukenet, Phytographia.
<i>Sow. Eng. Fung.</i>	Sowerby's Coloured figures of the English Fungi or Mushrooms.
<i>Trans. Linn. Soc.</i>	Transactions of the Linnean Society of London.
<i>Ventenat</i>	Ventenat, Choix des plantes.
<i>Willd.</i>	Willdenow, Species plantarum.

BOTANICAL TERMS.

- ACEROSE**, chaffy
Acicular, needle-shaped
Aciniform, scimitar-shaped
Aculeate, prickly
Adnate, adhering
Aggregate, many flowers included in one common calyx
Alate, winged
Androgynous, bearing male and female flowers, distinct from each other on the same root
Anther, the summit of the stamens, containing the pollen
Apetalous, without petals
Apophysis, a swelling beneath the capsule of a moss
Appressed, squeezed close
Arborescent, becoming woody
Arboreus, woody and permanent
Arcuate, bowed, bent like a bow
Articulated, jointed
Asci, small tubes in which the seeds of some Cryptogamic plants are placed
Atteuated, growing slender
Auriculate, ear-shaped
Awn, or beard, a sharp process, issuing from the chaff in corn and grasses
Awnless, without beard
Axillary, flowers, &c. proceeding from an angle formed by a branch with the stem
Beaded, granulated
Beaked, projecting like the beak of a bird
Bearded, beset with parallel hairs, or tufts of hair
Bicapsular, having two capsules
Bieucual, plants which continue alive two years
Bifid, two-cleft or cloven
Bifarious, pointing from opposite sides
Bilabiate, blossom with two lips
Bilocular, having two cells
Binate, in pairs
Bipartite, deeply divided into two parts
Bipinnate, doubly-winged
Bifurcate, doubly three-fold
Bivalve, two valved
Border, the upper spreading part of a monopetalous flower
Bractea, floral leaf, may often be mistaken for the calyx, but is more permanent
Bulbiferous, flowers succeeded by bulbs instead of seeds
Calyptra, veil, covering the anther of mosses like a hood
Calyx, the outer covering of the flower
Campanulate, bell-shaped
Canaliculate, channelled
Cancellated, latticed
Capillary, hair-like
Capitate, growing in heads
Capsule, a membranous hollow seed vessel.
Carinated, keeled
Carnose, fleshy
Catkin, flowers and chaff arranged on a long slender stalk like a cat's tail
Caudate, tailed
Cauliscent, having a stem
Cell, the hollow in a capsule for lodging the seed
Central florets, those which occupy the middle part of a compound flower
Chaff, the dry calyx of corn and grasses
Ciliate, fringed
Cirrhii, tendrils
Cirrhose, terminating in a tendril
Clavated, club-shaped
Claw, the lower narrow part of the petal in flowers
Cleft, divided into parts
Club-shaped, thinner at the base than the termination
Coadunate, joined together at the base
Coated, composed of layers, as the bulb of the onion
Cochleated, snail-shaped
Column, the central pillar in a capsule
Columnar, like the shaft of a column
Common fruit stalk, bearing several flowers
Compact, growing close, and as it were pressed together
Complicate-carinate, doubly keeled
Compound flowers, consisting of many florets or little flowers
Compressed, a stem having the two opposite sides, plain or flat
Conduplicate, folded, or doubled together
Confluent, running one into another at the base
Congested, heaped together
Conjugated leaf, a pinnate leaf with only one pair of leaflets
Connate, united at the base
Connivent, converging or approaching
Converging, applied to the corolla, when the tips of the petals meet so as to close the flower
Convolute, twisted spirally
Cordate, heart-shaped
Cordate-lanceolate, heart spear-shaped
Coriaceous, leather-like
Cornute, horn-shaped
Corolla, blossom
Corona, crown
Corymb, a bunch of flowers supported on separate foot-stalks
Costated, ribbed
Cotyledones, seed-lobes
Crenate, scalloped
Crenato-serrulated, finely notched
Crested, having an appendage like a crest or tuft
Criuite, hairy
Cruciform, cross-shaped
Cucullate, cone-shaped
Culm, straw
Cuneiform, wedge-shaped
Curtain, the calyx of agarics

BOTANICAL TERMS.

Cuspidate, prickly pointed
 Cyathiform, glass-shaped
 Cylindrical, round without angles, like a walking stick
 Cyme, tuft
 Cymose, tufted
 Deciduous, falling off
 Declining, bent like a bow with the arch downwards
 Decomound, doubly compound, or containing within a common calyx, smaller calyxes common to several flowers
 Decumbent, lying down
 Decurrent leaf, having its base running down the stem
 Decussated, crossed at right angles
 Deflected, bowed or bent down
 Dehiscent, gaping
 Deltoid, trowel-shaped
 Dentate, toothed
 Denticulate, set with little teeth
 Dichotomous, forked
 Didymous, double
 Digitate, finger-like
 Dimidiate, divided into two parts
 Dioecious, male and female flowers, growing on different plants
 Dipetalous, of two petals
 Diphyllous, two leaved
 Disk, the whole surface of a leaf or flower
 Divaricating, straddling
 Diverging, making a right angle
 Drupe, a pulpy seed vessel, containing a nut or stone
 Duplicate, doubled
 Echinated, set with prickles
 Elliptic, oval
 Elliptic-lanceolate, narrow oval
 Emarginate, notched at the end
 Ensiform, sword-shaped
 Erode, gnawed
 Exserted, protruded, opposed to inclosed
 Extra-foliolate, growing under the leaves
 Farina, see Pollen
 Fascicled, bundled
 Fastigate, flat topped
 Feathered, downy
 Female flowers, containing pistils but no stamens
 Fibres, woody strings or nerves
 Filament, the thread-like part of a stamen, supporting the anther
 Filiform, thread-shaped
 Fistulous, hollow
 Flexuose, zig-zag, winding
 Floral leaf, the leaf next the flower, sometimes mistaken for the calyx
 Floret, the separate little flower of an aggregate flower
 Foliaceous, leafy
 Frond, when the stem, root, and leaf, are all in one, as in ferns
 Fruit-stalk, a stalk bearing flowers but not leaves
 Fruticose, shrub-like
 Fuliginous, sooty
 Furcated, forky
 Fusiform, spindle-shaped
 Genuiculated, knee-jointed
 Germen, or seed bud, the rudiment of the fruit yet in embryo
 Gibbous, bulging
 Gills, the thin plates on the under side of a mushroom

Glands, secretory vessels
 Glandular, formed of glands
 Glaucous, grey blueish green
 Glomerate, flowers growing close together in a globular form
 Glume, husk
 Granulated, beaded
 Hastate, halbert-shaped
 Hastate-sinuated, jagged halbert-shaped
 Herbaceous, succulent and tender, in position to woody
 Hermaphrodite flowers, containing both stamens and pistils
 Hirsute, rough with strong hairs
 Hispid, bristly
 Husk, dry semi-transparent membranes, forming the calyx and blossoms of grasses
 Hymenium, that part of a fungus which contains the reproductive organs
 Imbricated, tiled
 Impetfect flowers, such as want either anther or pistil, or both
 Incise, serrated, gashed
 Incrassated, thickened upwards
 Incumbent, leaning or resting against
 Incurved, bowing inwards
 Indented, hollowed or deeply scalloped
 Inflected, bent inwards
 Infundibuliform, funnel-shaped
 Internode, the space between the joints
 Intrafoliaceous, within the leaves
 Involucrum, the calyx of an umbel
 Involucret, a partial involucrum
 Involute, rolled inwards
 Interrupted, divided by intervals of smaller flowers
 Keeled, bent like the keel of a ship or boat
 Labiated, having lips
 Lacinated, jagged
 Lactescent, milky
 Lamellæ, the gills of a fungus
 Laminated, the flat surface of leaves lying close upon each other
 Lanceolate, spear-shaped
 Lanceolate-ovate, spear-egg-shaped
 Leaflet, or little leaf, one of the single leaves of a compound leaf
 Legumen, pod
 Lenticular, spherically convex on both sides
 Lid, a cover to the capsules of mosses
 Lignose, woody
 Limb, the upper flat broad part of the petal is called the limb
 Linear, strap-shaped
 Linear-lanceolate, strap spear-shaped
 Lineated, streaked
 Lip, the upper or under division of a gaping blossom
 Lobed, divided nearly half way down into lobes
 Lunated, crescent-shaped
 Lyrate, lyre-shaped
 Male flowers—flowers containing stamens but no pistils
 Marginate, bordered
 Mid-rib, the principal nerve in a leaf
 Mitriiform—mitre-formed
 Moniliform, necklace-shaped, like beads strung together
 Monopetalous, (flower) one petaled
 Monophyllous, one leaved

BOTANICAL TERMS.

Monospermous, one seeded
 Mucronated, sharp-pointed at the end
 Multangular, many-cornered
 Muricated, covered with sharp points
 Navicular, boat-shaped
 Nectary, honey cup, a part of a flower designed to secrete and contain honey
 Neutral flowers, without stamens or pistils, and producing no seeds
 Node, knot
 Nucule, a little nut
 Obconic, inversely conic
 Obcordate, inversely heart-shaped
 Obovate, inversely egg-shaped, that is, with the small end downwards
 Obsolete, indistinct
 Octofid, eight-cleft
 Olivaceous, having the qualities of olives
 Operculum, lid
 Orbiculate, round and flat
 Osseus, hard as bone
 Ovate, egg-shaped
 Ovate-lanceolate, egg-spear-shaped
 Palate, the inner part of the mouth of gaping blossoms
 Paleaceous, chafly
 Palmate, hand-shaped
 Panduriform, fiddle-shaped
 Panicle, an assemblage of flowers growing upon subdivided fruit stalks, as in oats and some grasses
 Papilionaceous, butterfly-shaped
 Papillose, pimpled
 Parasitical, growing on some other plant, not on the ground
 Partite, divided
 Pectinated, comb-like
 Pedate, bird-rooted
 Pedicle, a partial peduncle, or little fruit stalk
 Pedunculate, growing on a fruit stalk
 Peduncle, fruit stalk
 Peltate, when the stalk is fixed in the disk, instead of the margin
 Pendulous, hanging down
 Pentagonal, five-cornered
 Pentapetalous, five-petaled
 Pentaphyllous, five-leaved
 Perennial, continuing for several years
 Perfect flower, having both stamens and pistils
 Perforated leaf, full of small holes, very apparent when held up to the light
 Perfoliate, the stem passing through the leaf
 Perianth, cup or calyx
 Pericarp, seed vessel
 Perichæatial-leaves, leaves surrounding the base of the fruit stalk in mosses
 Peristome, the rim surrounding the mouth of the capsule in mosses
 Permanent, applied to calyxes, &c. remaining on the plant till the fruit is ripe
 Personate blossom, gaping
 Petaliform, resembling a petal
 Petals, the coloured leaves which constitute the blossom
 Petiolate, having leaf-stalks
 Petiole, a leaf-stalk
 Pileus, the cap of a fungus
 Pilose, hairy
 Pinnatifid, feather-cleft
 Pinnated, winged, a compound leaf formed

of several little leaves fastened to each side of it
 Pinnulate, when each pinna is subdivided
 Pistil, a part of the flower standing in the centre and composed of the germ, style, and summit
 Plicate, plaited
 Plumose, feathered
 Pod, a seed vessel
 Pollen, the dust contained in the anther of flowers
 Polypetalous, many-petaled
 Procumbent, trailing
 Proliferous, when one blossom grows out of another
 Pubescent, covered with soft wool or hair
 Punctated, dotted
 Quinate, growing in fives
 Raceme, a cluster of flowers, which is attached by a pedicle to a common stalk; as in currauts
 Rachis, the common stalk, or recept. to which the flowers of grasses, &c. are attached
 Radiate, compound flowers in which the florets in the centre differ from those of the circumference
 Radical, issuing immediately from the root
 Radii, the outer florets of a radiate compound flower
 Ramose, branched
 Receptacle, the base upon which the other parts of a flower are placed
 Reclining, bent downwards so that the point of the leaf is lower than the base
 Recurved, curved downwards
 Reflected, bent back
 Reniform, kidney-shaped
 Repens, creeping
 Replicated, folded or plaited
 Reticulated, veined like net-work
 Revolute, rolled back
 Retroflexed, distorted
 Rhomboid-triangular, three cornered diamond-shape
 Rhomboid-ovate, egg-diamond shaped
 Ringent, gaping
 Root-leaves, leaves proceeding immediately from the root without the intervention of a stem
 Rostrate, beaked
 Rotate, wheel-shaped
 Rugose, wrinkled
 Runcinate, notched, the notches pointing backwards
 Sagittate, arrow-shaped
 Salver-shaped, a blossom tubular at bottom, flat and expanding at top
 Scaber, rough like a file
 Scape, stalk
 Scions, shoots
 Scariosc, skinny
 Semibifid, half-cleft
 Semicylindrical, half a cylinder divided lengthwise
 Seminal leaves, arising immediately from the seed-lobes
 Serrated, toothed like a saw
 Serrulated, very minutely serrated
 Sessile, sitting
 Setaceous, bristle-shaped
 Setose, bristly
 Sexangular, six-sided
 Shaggy, rough with stiff hairs

CLASSES AND ORDERS.

Sheath, a membrane investing a stem or branch
 Shield, a circular kind of fructification of some lichens
 Shrubby, perennial with several woody stems
 Silicle, a little pod
 Silique, pod
 Simple, undivided
 Sitting, leaves having no leaf-stalk, or flowers without a fruit-stalk
 Spadix, sheathed fruit-stalk
 Spathe, sheath
 Spatulate, battle-dore-shaped
 Spike, sessile flowers placed alternately on each side of the fruit-stalk
 Spikelet, a little spike
 Spindle-shaped, gradually tapering
 Spinose, thorny
 Sporidia, small transparent bodies containing seeds
 Spur, shaped like the spur of a cock
 Squamose, scaly
 Stamens, long slender bodies placed in the flower cup round the pistil
 Standard, the upright petal of a butterfly-shaped blossom
 Stellate, starry, leaves surrounding the stem in a whirl
 Stem-leaves, growing immediately upon the stem
 Stigma, the summit of the pistil
 Stipes, the stalk of a fungus
 Stipitate, standing on a pedicle
 Stipulae, small leaves or scales at the base of the leaf stalk
 Stoliferous, putting forth suckers
 Strap-shaped, long and narrow
 Striated, scored with slender lines
 Style, the middle portion of the pistil, connecting the stigma with the germ
 Subcymose, somewhat tufted
 Subramose, a little branched
 Subserrated, somewhat serrated
 Subulate, awl-shaped
 Succulent, juicy
 Subsessile, almost sessile
 Sulfuricose, somewhat woody
 Summit, the top of the pistil
 Suture, seam
 Sword-shaped, long, narrow, and pointed

Tendrill, a spiral shoot
 Terminal, ending a branch or stem
 Ternate, leaves, growing three together from the same point
 Tessellate, chequered
 Thallus, the part which bears the fructification, in lichens
 Theca, the seed-vessel of Cryptogamic plants
 Tiled, one leaf or scale partly covering another
 Tomentose, cottony
 Trifid, three-cleft
 Trivalved, three-valved
 Truncate, lopped
 Tunicate, coated
 Turbinate, top-shaped
 Umbel, a composition of flowers, in which a number of slender fruit-stalks proceed from the same centre, like the spokes of an umbrella
 Uncinate, hooked at the end
 Undate, waved
 Undulated, waved
 Unequal florets, when those in the circumference of an umbel, are larger than those in the centre
 Ungulate, hoof-shaped
 Univalve, one-valved
 Urceolate, pitcher-shaped
 Vaginate, sheathed
 Valves, the several pieces which compose a capsule, also the leaflets composing the calyx and corolla, in grasses
 Veil, the calyx of mosses
 Ventricose, distended
 Verrucose, warty
 Verticillate, growing in whirls
 Vesicles, bladders
 Villous, soft-haired
 Volva, wrapper
 Whirls, leaves or flowers, surrounding the stem in a ring
 Wings, the lateral petals of a butterfly-shaped blossom
 Winged leaf, formed of many little leaves growing from each side the stalk
 Wing-cleft, a leaf cut deeply down the middle
 Woolly, clothed with a pubescence resembling wool

CLASSES AND ORDERS.

CLASSES.

Monandria, (from *μονος* one, and *ανδρ* a male) the first class, comprehending plants with one stamen only
 Diandria, (from *δύς* two, and *ανδρ* a male) plants with two stamens
 Triandria, (from *τρεῖς* three, and *ανδρ* a male) plants with three stamens
 Tetrandria, (from *τεσσαρις* four, and *ανδρ* a male) plants with four stamens
 Pentandria, (from *πεντη* five, and *ανδρ* a male) plants with five stamens
 Hexandria, (from *ἕξ* six, and *ανδρ* a male) plants with six stamens
 Heptandria, (from *ἑπτα* seven, and *ανδρ* a

male) plants with seven stamens
 Octandria, (from *οκτω* eight, and *ανδρ* a male) plants with eight stamens
 Enneandria, (from *εννεα* nine, and *ανδρ* a male) plants with nine stamens
 Decandria, (from *δεκα* ten, and *ανδρ* a male) plants with ten stamens
 Dodecandria, (from *δωδεκα* twelve, and *ανδρ* a male) plants with twelve stamens
 Icosandria, (from *εικοσι* twenty, and *ανδρ* a male) plants with twenty stamens
 Polyandria, (from *πολος* many, and *ανδρ* a male) plants with many stamens
 Didynamia, (from *δύς* two, and *δυναμις*

CLASSES AND ORDERS.

power) plants with four stamens, two longer and two shorter
Tetradynamia, (from *τεσσαρες* four, and *δυναμις* power) plants with six stamens, four longer and two shorter
Monadelphia, (from *μονος* one, and *αδελφος* a brotherhood) plants with the stamens all united
Diadelphia, from *δισ* two, and *αδελφος* a brotherhood) plants with the stamens in two bodies
Polyadelphia, (from *πολυσ* many, and *αδελφος* a brotherhood) plants with the stamens in three or more parcels
Syngenesia, (from *συν* together, and *γενεσις* generating) plants with the anthers united into a cylinder

Gynandria, (from *γυνη* a woman, and *ανδρ* a male) plants in which the stamens grow upon the pistil
Monœcia, (from *μονος* alone, and *οικος* a house) plants producing male and female flowers separate, on the same individual
Diœcia, (from *δισ* two, and *οικος* a house) plants producing male and female flowers on distinct individuals
Polygamia, (from *πολυσ* many, and *γαμος* a marriage) plants bearing hermaphrodite flowers, with male or female flowers, or both
Cryptogamia, (from *κρυπτω* to hide, and *γαμος* a marriage) plants in which the fructification is concealed

ORDERS.

Monogynia, (from *μονος* alone, and *γυνη* a female) plants with one pistil only
Digynia, (from *δισ* two, and *γυνη* a female) plants with two pistils
Trigynia, (from *τρεις* three, and *γυνη* a female) plants having three pistils
Tetragynia, (from *τεσσαρες* four, and *γυνη* a female) plants with four pistils
Pentagynia, (from *πεντε* five, and *γυνη* a female) plants with five pistils
Heptagynia, (from *επτα* seven, and *γυνη* a female) plants with seven pistils
Decagynia, (from *δεκα* ten, and *γυνη* a female) plants with ten pistils
Dodecagynia, (from *δωδεκα* twelve, and *γυνη* a female) plants with twelve pistils
Polygynia, (from *πολυσ* many, and *γυνη* a female) plants with many pistils
Gynnospermia, (from *γυμνος* naked, and *σπερμα* seed) plants with four naked seeds
Angiospermia, (from *αγγος* a vessel, and *σπερμα* seed) plants of the 14th class, in which the seeds are enclosed in a capsule
Siliculosa, (the dim. of *siliqua* a pod) plants of the 15th class, in which the seed vessels are generally roundish
Siliquosa, (from *siliqua* a pod) plants of the 15th class, in which the seed vessel is very long
Polygamia Æqualis, plants of the 19th class, in which all the florets are per-

fect, and the whole flower regular
Polygamia Superflua, plants of the 19th class, with perfect florets in the disk, and pistilliferous florets in the ray, both bearing seed
Polygamia Frustranea, plants of the 19th class, having perfect florets in the disk, producing seed, while those in the ray are imperfect, and without seed
Polygamia Monœcia, plants of the 23rd class, with perfect and imperfect flowers on the same individual
Filices, (Ferns) plants of the 24th class, bearing seeds on the back of the leaves.*
Musci, (Mosses) plants of the 24th class, with imperfect flowers, with the seeds in a capsule, often covered with a veil
Hepatica, plants of the 24th class, partaking of the characters of the Musci and Algæ
Algæ, plants of the 24th class, always aquatic
Lichenes, plants of the 24th class, with the fructification usually dispersed over the surface of the frond, or thallus. They are found chiefly on walls, stones, the bark of trees, or decayed wood
Fungi, plants of the 24th class, with no discernible flowers, but seeds in the gills, pores, cups, &c., holding the lowest rank in the vegetable kingdom.

* The last three genera placed under this Order are exceptions, and are by most botanists considered as not belonging to it, but forming three distinct Orders: the *Equisetaceæ*, *Lycopodineæ*, and *Marsileaceæ*.

PREFACE

TO THE FOURTH EDITION.

IN again presenting this little volume before the public, we are aware that it has disadvantages to encounter in the present fashion of undervaluing the system by which it is arranged. Even Science is under the dominion of fashion; but she, like the moon, is proverbial for her fickleness, and we do not despair of seeing the Linnean system again honoured by her patronage. It is too radically strong to sink for ever under the rude weapons aimed against it, and we hope ere long to see it go hand in hand with that which would be its *brother*, not its rival system. Both have their merits, both may be studied with advantage: their purposes are different, but not incompatible, as was shown long since by Mr. Bicheno.

According to the disciples of Jussieu, it would appear that the Linnean system was strangely limited: it would seem that accurately to ascertain the name of a plant, was to deprive ourselves of the power of acquiring any further knowledge concerning it. This is a singular notion. As well might we say that by taking the most direct road in travelling towards a foreign country, we became incapable of exploring it when we arrived; but were compelled to stand at the entrance, boasting of our familiarity with its inhabitants, and knowledge of its topography. As well might we say that a grammatical knowledge of a foreign language incapacitated us for reading the authors who had written in that language. The Linnean system is the grammar of the science, the Jussieuan is its literature. The student should commence with the former. Botany, however studied, is still the same science; it includes all that can be learned respecting the vegetable world. One may choose to travel in the dark, another may choose to furnish himself with a light to guide him; and, if he pleases, the former may value himself upon the difficulty he finds in groping his way, as upon a merit. The very purity and excellence of the Linnean system is made a subject of reproach; and because its rudiments are clear, and the student early finds himself a master of the means by which he works, he is ridiculed, as fancying himself in possession of knowledge which he has not. The undervaluers of Linneus have a curious mode of comparing the systems. By the Linnean, say they, a man may know an infinity of names, but no more; while by the natural method he cannot ascertain one plant without acquiring much knowledge respecting it. The fact is, that the one system proceeds from names to things, the other from things to names. To us it seems that the degree of knowledge necessarily preceding the ascertaining of a plant, is a defect. So thought Mr. Roscoe: "Is it no disadvantage," says he, "on discovering an unknown plant to be under the necessity, before we proceed to its further investigation, of ascertaining in what manner it commenced its growth, and whether it rose from the seed with one or with two cotyledons, without any cotyledon whatever? To whom are we to apply for this information? or are we to turn round to ascertain the primary distinction by

PREFACE TO THE FOURTH EDITION.

the sensible appearance, and instead of saying that the plant rose from one cotyledon, and therefore is a grass ; that it is a grass, and therefore rose from one cotyledon ?”

A student of the Linnean system will for a time confine himself to ascertaining the names of plants ; having acquired the power of doing this with facility, he passes onwards with rapid strides. It is said that the fastest walkers commence the exercise at a moderate pace ; so is it with the disciple of Linneus. The reproach against the system, that its followers know nothing but names, is an unjust one. It is not to the system, but to its superficial students, that the reproach applies ; and if fewer of Jussieu’s disciples are found to possess a very limited knowledge, it is, perhaps, because such persons are deterred by the difficulties of his method, from even attempting the study.

It has been asserted that Linneus contemplated the discovery of a natural method, and considered an artificial system as merely introductory to it. Very true,—but he did not mean that the latter was to be superseded by it. It was to continue to be the introductory means of studying the science—the rudimental part of it. What else does he mean by the following passage ?—

“ Natural orders cannot constitute a method without a key. In distinguishing plants, the artificial method alone is of any avail ; a natural method being scarcely, if at all, possible. Natural orders are useful in acquainting us with the nature of plants, but an artificial method is necessary to their discrimination.”

It has been said that Linneus, while he demonstrated plants by his own artificial system in his public lectures, developed the principles by which he was guided in the construction of his natural orders, in his conferences with his more distinguished pupils. What can more clearly prove that what is treated now as the *extent* of Linnean botany, was at all times considered only as its commencement ?

Much has been effected in favour of the Jussieuan method, by the use of the word *natural* ; but it would puzzle Solomon to discover in what respect his method is more natural than that of his predecessor. Mr. Roscoe, in the admirable papers before mentioned, has very clearly shown that both are equally artificial, and that the Linnean is greatly superior in many respects. The method has doubtless been considerably improved since those papers were written, but we see not that it is a jot the more natural. We would recommend that the Linnean system should be followed up by the study of the Jussieuan, not because it is a natural method, but because it is a definite mode of studying the physiological part of the science, and because the *attempt* to arrange plants according to their natural affinities necessarily accustoms the student to consider those affinities, and tends to prepare the way for a natural method.

Would our limits permit, we would willingly reprint the whole of Mr. Roscoe’s papers on the merits of the two systems : we must content ourselves with referring such of our readers as may not be acquainted with them to the “ Transactions of the Linnean Society” for 1810, or to the “ Philosophical Magazine” for 1830, in which they were reprinted.

May 1st, 1834.

CLASS I.

MONANDRIA.

ORDER I. MONOGYNIA.

* *Seeds naked.*

- 1 SALICORNIA. *Cal.* ventricose, entire. *Cor.* 0. *Stam.* 1 or 2. *Seed* 1,
in the bottom of the calyx.
2 HIPPURIS. *Cal.* a slight border. *Cor.* 0. *Seed* 1, inferior.
Valeriana 1. *Alchemilla* 3.

** *Seeds capsular.*

- 3 CHANA. *Berry* many-seeded. *Style* 0.
4 ZOSTERA. *Caps.* 1-seeded. *Spadix* flat, many-flowered. *Drupa.*
nut with one kernel. *Stig.* 2.
Salix occasionally.

ORDER II. DIGYNIA.

- 5 CALLITRICHE. *Cal.* 0. *Petal* 2, inferior. *Seeds* 4, naked, margi-
nate on one side. *Flowers*, some monœcious.

CLASS I. MONANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
1	SALICORNIA.	SAMPHIRE.					
	1 herbacea.....	marsh	Sea sh.	apetal.	8,9	A.	415
	2 procumbens ..	procumbent.....	Salt mar.....		8	A.	2475
	3 radicans	creeping-rooted ..	Sea sh.		9	P.	1691
	4 fruticosa.....	shrubby	Sea sh.!		8,9	P.	2467
2	HIPPURIS.	MARE'S-TAIL.					
	1 vulgaris	common	Ditches	apetal.	5,6	P.	763
3	CHARA.	CHARA.					
	1 vulgaris	common	Pools	apetal.	7	A?	336
	2 hispida	prickly	Ditches		7,8	A.	463
	3 flexilis	smooth	Ditches		4,8	A.	1070
	4 translucens....	transparent	Pools!		6,7	A.	1855
	5 nidifica	proliferous	S.W.dit.....		7,8	A.	1703
	6 gracilis	slender	Pools!		9	A.	2140
4	ZOSTERA.	GRASS WRACK					
	1 marina	common	Sea sh.	apetal.	8,9	P.	467

ORDER II. DIGYNIA.

5	CALLITRICHE.	WATER-STAR-WORT.					
	1 verna	vernal	Ditches	white	4,5	A.	722
	2 autumnalis....	autumnal	Lakes		6,10	A.	.....

CLASS I. MONANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

1. SALICORNIA. *Chenopodeæ*. R. BR.

- 1 Herbaceous, erect ; internodes obconic. joints compressed, notched : spikes tapering.
- 2 Herbaceous, procumbent ; internodes obconic. branches simple : spikes tapering : 2 stamens.
- 3 Woody, procumbent ; internodes nearly cylind ; joints compressed, notched : spikes oblong : 2 stamens.
- 4 Woody, ascending ; joints and internodes cylind : spikes nearly sessile, cylind. obtuse.

2. HIPPURIS. *Haloragææ*. R. BR.

- 1 L. verticillate, linear : Fl. sessile, one in the bosom of each leaf.

3. CHARA. *Naiades*. JUSS.

- 1 Striated without prickles ; leaves 0. whorled branches tapering, with internal partitions : bractæas 4. together.
- 2 Furrowed : leaves 0. whorled branches with internal partitions : bractæas verticillate : stem prickles bristly, deflexed.
- 3 Smooth, transparent, without prickles : leaves 0. whorled branches cylind. obtuse, mucronulated, without internal partitions : bractæas 0.
- 4 Smooth, transparent, without prickles : leaves 0. whorled branches simple, cylind. obtuse, mucronulated, with transverse internal partitions : bractæas 0.
- 5 Smooth, transparent, without prickles : leaves 0. whorled branches simple, cylind. elongated, without internal partitions : anther sometimes stalked : bractæas unequal.
- 6 Smooth, transparent, shining, without prickles : branches dichotomous, acute : leaves 0. bractæas 0.

4. ZOSTERA. *Fluviales*. RICH.

- 1 Caps. sessile : L. alternate, linear, long, flaccid : stem slightly compressed.

ORDER II. DIGYNIA.

5. CALLITRICHE. *Haloragææ*. R. BR.

- 1 L. opposite : Fl. axillary, solitary, sessile.
- 2 L. triple-ribbed ; the uppermost crowded, obovate : margin of the seeds obtuse.

CLASS II.

DIANDRIA.

ORDER I. MONOGYNIA.

* *Fl. inferior, 1-pet. regular.*

6 LIGUSTRUM. Cor. 4-cleft. Berry 4-seeded.

7 FRAXINUS. Cor. 0. or 4-parted. Caps. compressed, 2-seeded
Fl. some female.

** *Fl. inferior, 1-pet. irregular, capsular.*

9 VERONICA. Cor. 4-parted, wheel-shaped. Caps. 2-celled.

10 PINGUICULA. Cor. ringent, spurred. Caps. 1-celled. Cal. 5-cleft.

11 UTRICULARIA. Cor. ringent spurred. Caps. 1-celled. Cal. 2-leaved.

*** *Fl. inferior, 1-pet. irregular: seeds naked.*

13 LYCOPUS. Cor. nearly equal, 4-cleft, one lobe notched. Stam.
distant, simple. Seeds retuse.

14 SALVIA. Cor. ringent. Filum. fixed transversely on a little pedicle.

**** *Fl. superior.*

8 CIRCEA. Cor. 2-pet. Cal. of 2. seg. Caps. 2-celled. seeds solitary.

***** *Fl. apetalous, or 4-petalled.*

12 LILY. Cor. 0. Cal. 1-leaved. Caps. 1-seeded.

15 CLADIUM. Cor. 0. Glumes chaffy and sheathing; the outer ones
empty. Drupa, without bristles at the base.

*Salicornia 2, 3. Fraxinus 1. Schœnus 4. Carex. Lepidium 2.
Coronopus 2.*

ORDER II. DIGYNIA.

16 ANTHOXANTHUM. Cal. glume 2-valved, 1-flowered. Cor. glume
2-valved, awned. Seed 1.

Hierochloe. n. 41.

CLASS II. DIANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
6	LIGUSTRUM.	PRIVET.					
	1 vulgare.....	common	Hedges	white	5,6	S.	764
7	FRAXINUS.	ASH.					
	1 excelsior	common	Woods	apetal.	4,5	T.	1692
	2 heterophylla..	simple-leaved	Woods!	apetal.	4,5	T.	2476
8	CIRCLEA.	ENCHANTERS' NIGHTSHADE					
	1 luteiana	common	Sha. pla.	reddish	6,7	P.	1056
	2 alpina	mountain	Moi.sh.pl	reddish	7,8	P.	1057
9	VERONICA.	SPEEDWELL.					
	*						
	1 spicata	spiked	Chal. pas.	blue	7-9	P.	2
	2 hybrida	welsh	Mount.!	blue	7,8	P.	673
	3 fruticulosa ..	shrubby	Sc. alps	flesh	7	P.	1028
	4 saxatilis	blue rock.....	Sc. alps	blue	7	P.	1027
	5 alpina	alpine	Sc. alps	blue	7,8	P.	484
	6 serpyllifolia ..	smooth	Mea. pas.	blue	5,6	P.	1075

	7 Beccabunga..	Brooklime	Rivulets	blue	6,7	P.	655
	8 anagallis	water	Marshes	blue	7	P.	781
	9 scutellata ..	marsh	W.sp.bgs	flesh	7,8	P.	782
	10 officinalis	common	Bar. gro.	blue	5,6	P.	765
	11 hirsuta	hairy	Sc. heaths	blue	6	P.	
	12 Chamædrys ..	Germander.....	Mea. pas.	blue	5,6	P.	623
	13 montana	mountain	Moi. wo.	blue	5,6	P.	766

	14 agrestis.....	procumbent.....	Cult. gr.	blue	4-9	A.	783
	15 arvensis	wall.....	Old wa.	blue	5	A.	734

CLASS II. DIANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

6. LIGUSTRUM. *Oleinae*. R. Br.

- 1 L. elliptic-lanceolate, obtuse, mucronulated.

7. FRAXINUS. *Oleinae*. R. Br.

- 1 Leaf. serrated: Fl. destitute of calyx and corolla.
- 2 L. both simple and compound, with tooth-like serratures.

8. CIRCÆA. *Onagrea*. Juss.

- 1 Stem erect: L. ovate, denticulate, opaque, downy.
- 2 Stem ascending: cordate, serrated, shining: cal. membranous.

9. VERONICA. *Scrophularinae*. R. Br.

* *Spikes or clusters terminal.*

- 1 L. opposite, bluntish, crenato-serrulated; very entire at the apex: stem ascending, simple.
- 2 L. opposite, elliptic, obtuse, unqually crenato-serrated: stem nearly erect.
- 3 Clusters elongated, many-flow: L. elliptic-lanceolate: stems erect: caps. ovate, 4-valved.
- 4 Corymb. few-flow. L. elliptical: stems diffuse: caps. ovate, 4-valved.
- 5 Corymb. somewhat spiked: L. ovate, smooth, slightly serrated: cal. ciliate: stem ascending, simple.
- 6 Raceme somewhat spiked: L. ovate, slightly crenate, 3-nerved, smooth: caps. obcordate, shorter than the style.

** *Spikes or clusters lateral.*

- 7 L. elliptical, flat: stem creeping.
- 8 Racemes opposite: L. lanceolate, serrated: stem erect.
- 9 Racemes alternate: fruit-stalks reflexed: L. linear, denticulate.
- 10 Spikes pedunc: L. opposite, rough: stem procumbent.
- 11 L. elliptic-lanceolate, slightly serrated, rather hairy: stems ascending: caps. abrupt, undivided.
- 12 Racemes lateral: L. ovate, sessile, rugged, inciso-serrated: stem hairy bifariously.
- 13 Racemes elongated, filiform, few-flow: L. ovate, petioled, serrated: stem hairy all round.

*** *Flowers solitary.*

- 14 L. ovate, inciso-serrated, shorter than the pedunc: stems procumbent: seeds pitcher-shaped.
- 15 L. ovate, inciso-serrated; floral leaves lanceolate, longer than the pedunc: stem erect.

CLASS II. DIANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	VERONICA.	SPEEDWELL.					
	16 hederifolia ..	ivy-leaved	Cnl&w.g.	blue	4,5	A.	784
	17 triphyllos	fingered	San. fi.!	blue	4	A.	26
	18 verna	vernal	San. fi.	blue	4	A.	25
10	PINGUICULA.	BUTTERWORT.					
	1 lusitanica	pale.....	Bogs ..	lilac	6,7	P.	145
	2 vulgaris	common	Bogs ..	violet	5,6	P.	70
	3 grandiflora ..	large-flowered....	Ir. bogs	blue	5,6	P.	2184
11	UTRICULARIA.	HOODED MILFOIL.					
	1 vulgaris	greater	Stag. wa.	yellow	6,7	P.	253
	2 intermedia ..	intermediate	Ir. bogs	yellow	7	P.	2489
	3 minor	lesser	Bogs! ..	yellow	7	P.	254
12	LEMNA.	DUCK-WEED.					
	1 trisulca	ivy-leaved	Stag. wa.	.....	6	A.	926
	2 minor	lesser	Stag. wa.	.....	6,7	A.	1095
	3 gibba	gibbous	Stag. wa.	.....	6,7	A.	1233
	4 polyrrhiza....	greater	Ditches	.....	7,8	A.	2458
13	LYCOPUS.	WATER-HOREHOUND.					
	1 europæus	common	Riv. ban.	white	7,8	P.	1105
14	SALVIA.	CLARY.					
	1 pratensis	meadow	Dry pas.!	violet	7	P.	153
	2 verbenaca	wild english	Pas. ..	violet	6-10	P.	154
15	CLADIUM.	TWIG-RUSH.					
	1 Mariscens	prickly	Bog. pl.	apetal.	7,8	P.	*950
ORDER II. DIGYNIA.							
16	ANTHOXANTHUM.	VERNAL-GRASS.					
	1 odoratum	sweet-scented	Mea. pas.	.....	5	P.	647

CLASS II. DIANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

VERONICA.

- 16 L. cordate, flat, 5-lobed: cal. segments cordate: seeds pitcher-shaped.
 17 L. uppermost, with fingered divisions: pedunc. longer than the cal:
 seeds flat.
 18 L. pinnatifid, uppermost lanceolate, undivided: pedunc. shorter than
 the cal: stem straight.

10. PINGUICULA. *Lentibulariæ*. R. Br.

- 1 Nect. obtuse, shorter than the petal: scape villous: caps. globose.
 2 Nect. cylind. acute, the length of the petal: caps. ovate.
 3 Nect. cylind. acute, as long as the petal, which is reticulated;
 upper lip dilated: caps. ovate.

11. UTRICULARIA. *Lentibulariæ*. R. Br.

- 1 Nect. conical: scape few-flw: upper lip of the cor. the length of the
 palate, reflexed at the sides.
 2 Nect. conical: scape 3-flw: upper lip of the cor. flat, twice as long
 as the palate: L. crowded, in 3 deep-forked segments.
 3 Nect. keeled, very short, obtuse, deflexed: cor. gaping, palate nearly
 flat.

12. LEMNA. *Pistiaceæ*. Rich.

- 1 L. petioled, lanceolate, proliferous.
 2 L. sessile, flattish on both sides: roots solitary.
 3 L. sessile, somewhat convex, hemispherical beneath: roots solitary.
 4 L. sessile, convex beneath: roots crowded.

13. LYCOPUS. *Labiataæ*. Juss.

- 1 L. sinuato-serrated.

14. SALVIA. *Labiataæ*. Juss.

- 1 L. cordate-oblong, crenate; upper embracing the stem: bractæ very
 small: cor. helmet glutinous.
 2 L. serrated, sinuated, smoothish: cor. narrower than the calyx.

15. CLADIUM. *Cyperaceæ*. De C.

1. Panicle repeatedly compound, leafy: spikes capitate: stem round:
 L. prickly at the margin and keel. *Schævus. Eng. Bot.*

ORDER II. DIGYNIA.

16. ANTHOXANTHUM. *Gramineæ*. Juss.

- 1 Spike ovate-oblong: Fl. longer than their awns, somewhat pedunc.

CLASS III.

TRIANDRIA.

ORDER I. MONOGYNIA.

* *Fl. superior.*

- 17 VALERIANA. Cor. 5-cleft, gibbous at the base. Seed 1, with a feathery radiating crown.
- 18 FEDIA. Cor. 5-cleft, protuberant at the base. Caps. crowned with the toothed calyx, without valves, of 1-3 fertile cells. Seeds solitary.
- 19 CROCUS. Cor. 6-parted, equal, tube longer than the limb. Stig. convolute.
- 20 TRICHONEMA. Cor. 6-parted, equal, tube shorter than the limb. Filam. downy. Stig. very slender, deeply divided.
- 21 IRIS. Cor. 6-parted, alternate petals reflexed. Stig. petaliform.

** *Fl. inferior, glumose. Seed 1. (Grass-like.)*

- 22 SCHOENUS. Cor. 0. Glumes clustered; outer ones barren. Style simple at the base, deciduous. Seed roundish.
- 23 RHYNCHOSPORA. Cor. 0. Spikes few-flow. Glumes imbricated all round; outer smaller, barren. Seed beaked.
- 24 CYPERUS. Cor. 0. Glumes 2-rowed, imbricated. Style simple at the base, deciduous. Seed beardless.
- 25 SCIRPUS. Cor. 0. Glumes imbricated on every side. Style simple at the base, deciduous.
- 26 ELEOCHARIS. Cor. 0. Glumes imbricated all round. Seed crowned and articulated with the dilated hardened base of the style.
- 27 ERIOPHORUM. Cor. 0. Glumes imbricated on every side. Seed beset with many very long hairs.
- 28 NARDUS. Cal. 0. Cor. glume 2-valved.
Juncus 4. 5. 16.

ORDER II. DIGYNIA. (True Grasses.)

* *Calyxes 1-flow. scattered.*

- 32 KNAPPIA. Cal. 2-valved, truncated. Cor. 2-valved; valves unequal, very hairy, awnless.
- 31 ALOPECURUS. Cal. 2-valved. Cor. 1-valved, simple at the apex, awned at the base. Styles combined.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

- 30 PHILEUM. *Cal.* 2-valved, linear, acuminate, sessile. *Cor.* 2-valved, awnless, included in the calyx. *Seed* loose.
- 29 PHALARIS. *Cal.* 2-valved; valves keeled, equal, including a double corolla.
- 33 POLYPOGON. *Cal.* 2-valves, awned at the apex. *Cor.* included, outer valve awned at the apex. *Seed* loose.
- 34 MILIUM. *Cal.* 2-valved, ventricose, larger than the corolla. *Stig.* villous. *Seed* coated with the hardened corolla.
- 35 AGROSTIS. *Cal.* 2-valved; valves acute, shorter than the corolla. *Cor.* membranous, hairy at the base, unchanged. *Stig.* plumose. *Seed* loose.
- 36 CYNODON. *Cal.* 2-valved; valves equal, lanceolate, shorter than the corolla. *Cor.* 2-valved; valves unequal, compressed. *Seed* coated with the hardened corolla.
- 49 SPARTINA. *Cal.* 2-valved; valves lanceolate, clasping. *Cor.* 2-valved; valves rather unequal. *Nect.* 0. *Seeds* loose. *Styles* combined.
- 53 STIPA. *Cal.* 2-valved. *Cor.* awn terminal, jointed at its base.
- 55 LAGURUS. *Cal.* 2-valved; valves fringed, with terminal feathery awns. *Cor.* outer glume 3-awned.
- 37 DIGITARIA. *Cal.* 2 or 3-valved; valves unequal, close-pressed, awnless. *Cor.* 2-valved; valves unequal, depressed, awnless. *Seed* coated with the hardened corolla.
Arundo 2. 3. 4. 5. *Melica* 1.

** *Calyx* 2, or 3-flowered, scattered, 2-valved.

- 39 AIRA. *Florets* without a rudiment between them. *Cor.* unchanged. *Seed* loose.
- 42 MELICA. *Rudiment* of a third flower between the florets. *Seed* coated with the hardened corolla.
- 40 HOLCUS. *Cor.* awned; one floret barren. *Cal.* keeled. *Seed* coated with the hardened corolla.
- 38 PANICUM. One *floret* neuter: *Cor.* of the perfect one awnless. *Cal.* ribbed. *Seed* coated with the hardened corolla.
- 41 HIEROCHLOE. *Florets* 3, central one perfect, with 2 stamens; lateral ones barren, with 3. *Cor.* permanently membranous. *Seeds* loose. *Styles* distinct.
- 43 SESLERIA. *Florets* 2 or 3, all perfect. *Cor.* outer valve toothed; inner cloven. *Seed* loose. *Styles* combined.

*** *Calyx* many-flowered, scattered.

- 47 BRIZA. *Cor.* awnless, tumid, expanded, concave, without a keel. *Seed* depressed, growing to the corolla.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

- 45 *POA*. Cor. valves ovate, rather acute, awnless. Seed loose, elliptic, oblong.
- 44 *GLYCERIA*. Cor. awnless, cylind. furrowed, ribbed, abrupt, not keeled. Seed loose, cylind. oblong.
- 46 *TRIODIA*. Cor. orbicular, obscurely ribbed, deeply eloven, with an intermediate point. Seed loose, depressed.
- 48 *DACTYLIS*. Cor. awned at the summit, keeled, compressed; inner valve folded, 2-ribbed. Cal. compressed, taper-pointed, unequal. Seed loose, oblong.
- 51 *FESTUCA*. Cor. awned at the summit, or pointed; keeled, nearly cylind: inner valve flat, with 2 downy ribs. Cal. concave, acute, unequal. Seed loose, oblong.
- 50 *CYNOSURUS*. Spikelets in pairs; one neuter. Cor. awned at the summit, keeled, concave; inner valve flat, 2-ribbed. Cal. awned, equal. Seed loose, elliptic-oblong.
- 52 *BROMUS*. Cor. awned at the back, eloven, concave; inner valve flat, with 2 bristly ribs. Seed elliptic-oblong, united to the inner valve.
- 54 *AVENA*. Cor. awned at the back, eloven, nearly cylind; inner valve flat, ovate. Seed elliptic-oblong, united to the hard outer valve.
- 56 *ARUNDO*. Cor. surrounded with long permanent hairs. Flor. 1 or many.

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

- 57 *LOLIUM*. Cal. 1-leaved, fixed, many flow.
- 58 *ROTBOLLIA*. Cal. 1-leaved, sometimes 2-parted, imperfectly 2-flow. Fl. alternate, on a jointed rachis.
- 61 *TRITHEUM*. Cal. 2-valved, solitary, many flowered. Rachis wavy, toothed alternately on each side.
- 59 *ELYMUS*. Cal. 2-valved, lateral, aggregate, with 2 or more florets.
- 60 *HORDEUM*. Cal. 2-valved, lateral, 1-flow. growing 3-together; only the central flower perfect.

ORDER III. TRIGYNIA.

- 62 *MONTIA*. Cal. 2-leaved. Cor. 1-pet. Caps. 3-valved, 3-seeded.
- 64 *POLYCARPON*. Cal. 5-leaved. Pet. 5. Caps. 3-valved, many-seeded.
- 63 *HOLOSTEUM*. Cal. 5-leaved. Pet. 5, jagged. Caps. nearly cylind. opening at the apex, with 6 teeth, many-seeded.

CLASS III. TRIANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
17	VALERIANA.	VALERIAN.					
	1 rubra	red	Old wa.	rose..	6-9	P.	1531
	2 dioica	marsh	Marshes	flesh..	6	P.	628
	3 officinalis....	great wild	Marshes	flesh..	6	P.	698
	4 pyrenaica	heart-leaved	Sc.Wds.	rose..	6,7	P.	1591
18	FEDIA.	CORN-SALLAD					
	1 olitoria	common	Corn fi.	blue	4,6	A.	811
	2 dentata.....	oval-fruited	Corn fi.!	pur-ish	6,7	A.	*1370
19	CROCUS.	CROCUS.					
	1 sativus§	saffron.....	Meadow	violet	9	P.	343
	2 vernus	spring.....	Meadow	violet	3	P.	344
	3 reticulatus§ ..	net-rooted	Meadow	bl.t yel	3	P.	.....
	4 nudiflorus....	naked-flowering ..	Meadow	violet	10	P.	491
20	TRICHONEMA.	TRICHONEMA.					
	1 Bulboeodium .	channel-leaved ..	Guernsey	blue	3,4	P.	*2549
21	IRIS.	IRIS.					
	1 Pseudacorus..	yellow.....	Moi.pla.	yellow	7	P.	578
	2 foetidissima ..	stinking	Sha. pla.	dullpur	5,6	P.	596
22	SCHENUS.	BOG-RUSH.					
	1 nigricans	black	Tur.bogs	.....	6	P.	1121
23	RHYNCHOSPORA.	BEAK-RUSH					
	1 alba	white	Tur.bogs	.....	7,8	P.	*785

CLASS III. TRIANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

17. VALERIANA. *Valerianæa*. DE C.

- 1 Fl. monandrous, spurred: L. lanceolate, nearly entire.
- 2 Fl. triandrous, dioecious: L. radical ovate; stem pinnatifid.
- 3 Fl. triandrous: L. all pinnate: leaf. lanceolate, almost uniform.
- 4 Fl. triandrous: L. of the stem cordate, serrated, petioled, the uppermost pinnate.

18. FEDIA. *Valerianæa*. DE C.

- 1 Fl. triandrous, stem dichotomous: L. linear-tongue-shaped, obtuse.
- 2 Fl. triandrous: stem dichotomous, with axillary flowers: L. linear-tongue-shaped: fruit ovate, ribbed: crown erect.

19. CROCUS. *Iridea*. JUSS.

- 1 Stig. projecting, three-parted: segments linear.
- 2 Stig. inclosed, trifid: lobes wedge-shaped, incised: cor. tube hairy at the mouth.
- 3 Stig. inclosed, trifid: cor. three outer segments recurved: coat of the bulb strongly reticulated.
- 4 Stig. inclosed, trifid: with many-cleft laciniated pencil-form lobes: Fl. leafless.

20. TRICHONEMA. *Iridea*. JUSS.

- 1 Stalk short, mostly 1-flowered: L. linear, channelled, recurved. *Ixia*. Eng. Bot.

21. IRIS. *Iridea*. JUSS.

- 1 Cor. beardless: inner segments less than the stigma, erect: L. ensiform: seeds angular.
- 2 Cor. beardless: inner segments greatly spreading: stem 1-angled: L. ensiform: seeds globose.

** *Fl. inferior, chaffy.* Seed 1.

22. SCHÆNUS. *Cyperaceæ*. DE C.

- 1 Culm cylind. naked: head ovate: involuere 2-leaved, one valve subulate, longer.

23. RHYNCHOSPORA. *Cyperaceæ*. DE C.

- 1 Heads abrupt: Fl. diandrous: L. tapering: seed bristly at the base. *Schænus*. Eng. Bot.

CLASS III. TRIANDRIA.

ORDER I. MONOGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
RHYNCHIOSPORA. BEAK-RUSH						
2 fusca	brown	Bogs!	.....	8	P.	*1575
CYPERUS. GALANGALE.						
1 longus	sweet	Mar.!	.....	7	P.	1309
2 fuscus	brown	Wet mea!	.....	9	A.	.....
SCIRPUS. CLUB-RUSH.						
*						
1 cæspitosus ..	sealy-stalked	Tu.heath	.....	7	P.	1029
2 pauciflorus ..	chocolate-headed .	Sc. bogs	.....	8	P.	1122
3 fluitans.....	floating	Ditches	.....	6-8	P.	216
**						
4 lacustris	bull-rush	Rivers	.....	7,8	P.	666
5 glaucus	glaucous	Salt mar.	.....	7,8	P.	2321
6 Holoschœnus.	round clust.headed	Sea sh.!	.....	9,10	P.	1612
7 setaceus	bristly-stalked....	San.w.pl.	.....	7,8	A.	1693
8 caricinus	compresed	Moi.meal.	.....	7	P.	*791
9 rufus	brown	Salt mar.	.....	6,7	P.	*1010

10 triquetet	triangular	Mar.	.....	8	P.	1694
11 carinatus	blunt-edged	Riv.ban.	.....	8	P.	1983

CLASS III. TRIANDRIA. ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

RHYNCHOSPORA.

- 2 Heads ovate-oblong: Fl. triandrous: L. thread-shaped: seed with three bristles at the base. *Schævus. Eng. Bot.*

24. CYPERUS. *Cyperaceæ* DE C.

- 1 Culm 3-sided, leafy: umbel leafy, decompound: pedunc. naked: spikes alternate.
2 Culm 3-sided: umbel compound, with three unequal leaves beneath: spikes crowded, spreading every way: stig. 3.

25. SCIRPUS. *Cyperaceæ*. DE C.

* *Spike single.*

- 1 Culm cylind. striated, sheathed, encompassed with numerous scales at the base: spike term. outer glumes largest, with leafy points.
2 Culm cylind. striated, sheathed at the base: spike term. few-flow. longer than the outer glumes.
3 Culm leafy, flaccid, floating: pedunc. alternate, naked: spikes solitary, term. few-flow.

** *Spikes many: culm cylindrical.*

- 4 Culm naked: pan. cymose, decompound, term. spikes ovate.
5 Culm naked, glaucous: pan. cymose, not higher than the bractea: spikes ovate: stig. 2.
6 Culm naked: heads clustered, pedunc. or sessile: bracteas unequal: L. channelled: seed without bristles.
7 Culm naked, setaceous: spikes sometimes in pairs, sessile, surmounted by a leafy bractea: seed furrowed, without bristles.
8 Culm leafy at the base: spikes aggregate, 2-ranked, many-flow: L. flat, with rough edges and keel: seed 6-bristled at the base. *Schævus. Eng. Bot.*
9 Culm leafy at the base: spikes aggregate, 2-ranked, few-flow: L. channelled, smooth, without a keel: seed without bristles. *Schævus. Eng. Bot.*

*** *Culm 3-sided: panicle naked.*

- 10 Culm erect, naked, acuminate: spikes lateral, sessile, or peduncled: stig. 2. seed smooth.
11 Culm naked, triangular upwards: pan. cymose, term: bractea pungent, channelled, erect: stig. 2.

CLASS III. TRIANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	SCIRPUS. *****	CLUB-RUSH.					
	12 maritimus....	salt-marsh	Salt mar.....	.....	7,8	P.	542
	13 sylvaticus....	wood	Moi.s.p.....	.....	6,7	P.	919
26	ELEOCHARIS.	SPIKE-RUSH.					
	1 palustris	creeping	Mar. ....	.....	6,7	P.	*131
	2 multicaulis ..	many-stalked	Tu. bgs. ....	.....	7	P.	*1187
	3 acicularis	least	Moi.hea.....	.....	8	P.	*749
27	ERIOPHORUM. *	COTTON-GRASS.					
	1 vaginatum ..	hare's-tail	Moors .....	.....	3,4	P.	873
	2 capitatum....	round-headed	Sc.mou. ....	.....	8	P.	2387
	3 alpinum	alpine	Sc. bogs .....	.....	6,7	P.	311

	4 polystachion..	broad-leaved	Bogs .....	.....	4	P.	563
	5 pubescens....	downy-stalked ..	Marshes .....	.....	4,5?	P.	.....
	6 angustifolium.	common	Bogs .....	.....	4	P.	564
	7 gracile	slender	Se.mou. ....	.....	7	P.	2402
28	NARDUS.	MAT-GRASS.					
	1 stricta	common	Moi.hea.....	.....	7	P.	290
	ORDER II. DIGYNIA.						
29	PHALARIS.	CANARY-GRASS.					
	1 canariensis §..	manured	Uncul.pl.....	.....	6-8	A.	1310

CLASS III. TRIANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

SCIRPUS.

**** *Culm 3-sided: panicle leafy.*

- 12 Pan. term. leafy. Spikes conglomerate: glumes torn, with an intermediate point: stig. 3.
 13 Culm leafy, eyme term: pedunc. sheathed at the base, superdecompound: spikes crowded.

26. ELEOCHARIS. *Cyperaceæ*. DE C.

- 1 Culm round: root creeping: stig. 2: seed lenticular, most convex at one side. *Scirpus*. Eng. Bot.
 2 Culm round: root fibrous: stig. 3: seed acutely triangular, as well as the permanent base of the style. *Scirpus*. Eng. Bot.
 3 Culm quadrangular: stig. 3: seed numerously furrowed, without bristles at the base: filam. permanent. *Scirpus*. Eng. Bot.

27. ERIOPHORUM. *Cyperaceæ*. DE C.* *Spike solitary.*

- 1 Culms sheathed, cylind: 3-sided at the apex: spike ovate: glumes membranous.
 2 Culm sheathed, entirely cylind: spike roundish: glumes membranous.
 3 Culm triangular, naked above the leaves, which are shorter than their sheaths: spike oblong-ovate: glumes firm, strongly keeled.

*** *Spikes several.*

- 4 Culms cylind: L. flat: stalks of the spikes smooth: hairs thrice the length of the spike.
 5 Culm angular upwards: L. flat: stalks of the spikes downy: hairs twice the length of the spikes.
 6 Culms cylind: L. channelled, 3-sided at the apex: stalks of the spikes smooth: hairs four times the length of the spikes.
 7 Culms compressed towards the top: L. 3-sided, channelled above: spikes pedunc. longer than the bractea: hairs twice the length of the spike.

28. NARDUS. *Gramineæ*. JUSS.

- 1 Spike setaceous, straight: L. thrice the length of their sheaths.

ORDER II. DIGYNIA.

29. PHALARIS. *Gramineæ*. JUSS.

- 1 Pan. ovate, spike-like: cal. glumes boat-shaped, entire: outer cor. 2-valved, naked.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	PHALARIS. CANARY-GRASS.						
	2 arundinacea ..	reed.....	Ditches		7	P.	402
30	PHLEUM. CAT'S-TAIL-GRASS.						
	1 pratense	common	Mea.pas.	6-10	P.	1076	
	2 alpinum	alpine	Sc. alps.	7	P.	519	
	3 asperum	rough	Dry field.!	7	A.	*1077	
	4 Boehmeri	purple-stalked ..	San.& ch.!	7	P.	*459	
	5 Michelii	Michelian	Sc.mou.!	7	P.	2265	
	6 arenarium....	Sca	San. fi.	5,6	A.	*222	
31	ALOPECURUS. FOX-TAIL-GRASS.						
	1 pratensis	meadow	Mead.	5	P.	759	
	2 alpinus.....	alpine	Sc. mou.	7	P.	1126	
	3 agrestis.....	slender	Road side	7	A.	848	
	4 bulbosus	bulbous	Salt mar.!	7	P.	1249	
	5 geniculatus ..	floating	Ponds dit.	7	P.	1250	
	6 fulvus	orange-spiked	Ponds	7	P.	1467	
32	KNAPPIA. KNAPPIA.						
	1 agrostidea....	early	San. pl.!	3,4	A.	1127	
33	POLYPOGON. BEARD-GRASS.						
	1 monspeliensis .	annual	Salt mar.	7,8	A.	*1704	
	2 littoralis	perennial.....	Salt mar.	8	P.	*1251	

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

PHALARIS.

- 2 Pan. upright with spreading branches: Fl. crowded, leaning one way: outer cor. 2-valved, hairy.

30. PHLEUM.

- 1 Spike cylind. very long: glumes ciliate on the back, longer than the awns.
 2 Spike ovate-cylind: glumes ciliate on the back: awns the length of the glumes.
 3 Pan. cylind. spike-like: glumes naked, thickening upward: culm branched. *P. paniculatum*. Eng. Bot.
 4 Pan. nearly cylind: spike-like: glumes linear-lanceolate, their inner margin abrupt: stem simple. *Phalaris*. Eng. Bot.
 5 Pan. nearly cylind: spike-like: glumes lanceolate, taper-pointed, hairy, fringed: cor. oblong, hairy: inner valve cloven.
 6 Spike ovate-lanceolate, blunt: glumes lanceolate, fringed: cor. shortened, crenated. *Phalaris*. Eng. Bot.

31. ALOPECURUS.

- 1 Culm erect, smooth: spike somewhat lobed: cal. glumes united at their base, villous, shorter than the awn of the corolla.
 2 Culm erect, smooth: spike ovate: cal. glumes downy, obliquely abrupt, nearly as long as the awns of the corolla.
 3 Culm erect, roughish: spike very simple, attenuated: glumes nakedish, united at their base; keel dilated.
 4 Culm erect: spike very simple, attenuated: cal. glumes separate, linear, pointed, villous: root bulbous.
 5 Culm ascending, geniculate: spike somewhat lobed, cylind: glumes combined at the base, retuse, hairy, shorter than the awn: cor. notched.
 6 Culm bent at the joints: spike somewhat lobed, cylind: glumes combined at the base, retuse, hairy, inclosing the awn: anth. roundish.

32. KNAPPJA.

- 1 *Agrostis minima*. Fl. Brit. 82.

33. POLYPOGON.

- 1 Awn much longer than the cal: root fibrous. *Agrostis panicea*, Eng. Bot.
 2 Awn not longer than the cal: root creeping. *Agrostis littoralis*, Eng. Bot.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
34	MILIUM.	MILLET-GRASS					
	1 effusum	spreading	Moi.sh.p.	.....	6,7	P.	1106
	2 lendigerum ..	panick.....	San. fi.	.....	8	A.	1107
35	AGROSTIS.	BENT-GRASS.					
	*						
	1 Spica-venti ..	silky	San. fi.	.....	6,7	A.	951
	2 canina	brown.....	Moi.pas.	.....	7	P.	1856
	3 setacea	bristly	Dry hea.	.....	7,8	P.	1188
	**						
	4 vulgaris	fine	Mea.pas.	.....	7,8	P.	1671
	5 alba	marsh	Marshes	.....	7,8	P.	1189
36	CYNODON.	DOG'S-TOOTH-GRASS.					
	1 Dactylon	creeping	Sea sh.	.....	7,8	P.	*850
37	DIGITARIA.	FINGER-GRASS					
	1 sanguinalis ..	cock's-foot	San. fi.!	.....	7,8	A.	*849
38	PANICUM.	PANICK-GRASS					
	1 verticillatum ..	rough	Moi. fi.!	.....	7,8	A.	874
	2 viride	green	San. fi.	.....	7,8	A.	875
	3 Crus-galli....	loose	Corn fi.!	.....	7	A.	876
39	AIRA.	HAIR-GRASS.					
	*						
	1 cristata.....	crested	Dry pas.	.....	7,8	P.	648
	2 aquatica	water	Pools	.....	5,6	P.	1557

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

34. MILIUM.

- 1 Fl. panicled, diffuse, awnless.
- 2 Pan. somewhat spiked: Fl. awned.

35. AGROSTIS.

* *Awned.*

- 1 Outer pet. with a very long straight stiff awn, beneath the apex: pan. spreading.
- 2 Cal. ovate, coloured: cor. naked: awn on the back incurved: culms prostrate, somewhat branched: stipula lanceolate.
- 3 Cal. lanceolate: cor. awned at the base: awn geniculate: L. radical setaceous: culm nearly erect: pan. close, oblong.

** *Awnless.*

- 4 Pan. spreading: branches divaricate, capillary: cal. equal, inner petal twice as short, retuse: culm erect: stipula abrupt.
- 5 Pan. condensed at the base of the main divisions: stalks rough: culm branched, creeping: Fl. heaped: calyx equal, lanceolate, keel bristly: stipula oblong, ribbed.

36. CYNODON.

- 1 Spikes 4 or 5 crowded together: cor. smooth. *Panicum. Eng. Bot.*

37. DIGITARIA.

- 1 L. somewhat hairy, as well as their sheaths: Fl. in pairs: cal. larger valve rough at the edges. *Panicum. Eng. Bot.*

38. PANICUM.

1. Pan. spiked, verticillate: spikelets in 4s: several bristles, rough with reversed teeth.
- 2 Pan. spiked, cylind. with prominent bristles, rough with erect teeth.
- 3 Pan. erect, branched, bristly: Fl. awned, unilateral: L. lanceolate, harsh, naked, without stipulæ: rachis mostly 5-angled.

39. AIRA.

* *Awnless.*

- 1 Pan. spiked: cal. longer than the pedunc: glumes all pointed.
- 2 Pan. spreading: Fl. awnless, smooth, obtuse, longer than the calyx: L. flat: stipula oblong.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	AIRA.	HAIR-GRASS.					

	3 <i>cæspitosa</i>	turfy	Moi.sh.p.		6,7	P.	1453
	4 <i>alpina</i>	smooth alpine	Sc. alps		6,7	P.	*2102
	5 <i>flexuosa</i>	waved mountain . .	Heaths		7	P.	1519
	6 <i>canescens</i>	grey	San. sho.		7	P.	1190
	7 <i>præcox</i>	early	Dry com.		5,6	A.	1296
	8 <i>caryophyllea</i> . .	silver	San. pas.		6,7	A.	812
40	HOLCUS.	SOFT-GRASS.					
	1 <i>lanatus</i>	meadow	Mea.pas.		6,7	P.	1169
	2 <i>mollis</i>	creeping	Sha.cops.		7,8	P.	1170
	3 <i>avenaceus</i> . .	oat-like	Mca.pas.		6,7	P.	813
41	HEROCHLOE.	HOLY-GRASS.					
	1 <i>borealis</i>	northern	Sc. val.		5,6	P.	.....
42	MELICA.	MELIC-GRASS.					
	1 <i>uniflora</i>	wood	Groves		5,6	P.	1058
	2 <i>nutans</i>	mountain	Mount.		6,7	P.	1059
	3 <i>cærulea</i>	purple	BogonM.		8	P.	750
43	SESLERIA.	MOOR-GRASS.					
	1 <i>cærulea</i>	blue	Mo.cha.h.		4-6	P.	1613

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

AIRA.

** *Awned.*

- 3 L. flat: pan. spreading: Fl. villous at the base, one of them on a hairy stalk: awn short, from the base of the outer valve.
- 4 L. involute, with very smooth sheaths: pan. close: Fl. awned, villous at the base, one on a smooth stalk: awn short, from near the top of the outer valve. *A. levigata. Eng. Bot.*
- 5 L. setaceous: culm almost naked: pan. spreading, trichotomous: pedunc. flexuose: awn from the middle of the outer valve, twisted.
- 6 L. setaceous: culm leafy: pan. compact: awns clubbed at the apex, not longer than the calyx, hairy at the joint.
- 7 L. setaceous: sheaths angular: pan. close, erect: flor. length of the calyx, both sessile; awn nearly twice as long, from the base of the valve.
- 8 L. setaceous: sheaths close: pan. trichotomous, divaricate: flor. sessile; awn twice as long, from above the middle of the valve.

34. HOLCUS.

- 1 Glumes villous: hermaph. floret awnless: male with a bowed-recurved awn: L. downy on both sides: root fibrous.
- 2 Glumes nearly equal, almost naked: inferior hermaph. floret awnless: male with a geniculate awn: root creeping.
- 3 Glumes unequal, smooth: hermaph. floret superior, scarcely awned: male with a geniculate refracted awn: L. rather harsh: root knotty.

41. HIEROCHLOE.

- 1 Pan. somewhat unilateral: pedunc. smooth: perfect flor. awnless; barren ones slightly awned. Nect. 2-parted: seg. unequal, linear, L. flat.

42. MELICA.

- 1 Pan. 1-rowed, branched: Fl. erect: spikelet with only one perfect floret.
- 2 Pan. compact, 1-rowed, almost simple: Fl. pendulous: spikelet with two perfect florets.
- 3 Pet. acute: pan. compact: Fl. erect, cylindrical.

43. SESLERIA.

- 1 Spike ovate-oblong, imbricated: bractea alternate: outer valve of the cor. 3-toothed.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
44	GLYCERIA.	SWEET-GRASS.					
	1 aquatica	reedy	Ditches	.....	7	P.	*1315
	2 fluitans	floating	Pools	.....	6,8	P.	*1520
	3 distans	reflexed	San. pl.	.....	7,8	P.	*986
	4 maritima	creeping sea	Sea sh.	.....	7-10	P.	*1140
	5 procumbens ..	procumbent sea ..	Sea sh.	.....	7,8	A.	*532
	6 rigida	hard	Wall.bks.	.....	6	A.	*1371
45	POA.	MEADOW-GRASS.					
	1 compressa ..	flat-stalked	Walls	.....	6-8	P.	365
	2 alpina	alpine	Se. alps.	.....	7,8	P.	1003
	3 laxa	wavy	Se. alps	.....	7	P.	*1123
	4 bulbosa	bulbous	San. pl.	.....	4-6	P.	1071
	5 trivialis	roughish	Mea.pas.	.....	6-10	P.	1072
	6 pratensis	smooth-stalked ..	Mea.pas.	.....	5,6	P.	1073
	7 annua	annual	Past.	.....	3-11	A.	1141
	8 glauca	glauceous	Mount.	.....	6,7	P.	1720
	9 nemoralis	wood	Woods	.....	6	P.	1265
46	TRIODIA.	HEATH-GRASS.					
	1 decumbens ..	decumbent	Spo. bogs	.....	7	P.	*792

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

44. GLYCERIA.

- 1 Pan. erect, branched, spreading: Fl. many, obtuse, 7-ribbed: Nect. cloven, acute. *Poa. Eng. Bot.*
- 2 Pan. oblong, branched, spreading: spikelets close-pressed: Fl. many, obtuse, 7-ribbed, with short intermediate ribs at the base. Nect. obtuse, tumid. *Poa. Eng. Bot.*
- 3 Pan. branched, spreading: branches finally reflexed: Fl. about 5: obtuse, 5-ribbed, polished: root fibrous. *Poa. Eng. Bot.*
- 4 Pan. branched, close; erect after flowering. Fl. about five: somewhat pointed, 5-ribbed: root creeping. *Poa. Eng. Bot.*
- 5 Pan. lanceolate, unilateral, 2-ranked, close, with rough stalks: the main one cylind. Fl. about five: bluntish, 5-ribbed. *Poa. Eng. Bot.*
- 6 Pan. lanceolate, unilateral, close, 2-ranked, with smooth stalks; the main one bordered: Fl. about seven: acute, scarcely ribbed. *Poa Eng. Bot.*

45. POA.

- 1 Pan. 1-rowed, compact: culm ascending, compressed: florets angular, united at their base by a web: root creeping.
- 2 Pan. diffuse: spikelet 4-flow. cordate: glumes ovate, rather falcate, free: lower stipulæ very short.
- 3 Pan. flexuose: spikelet 3-flow: glumes ovate, united at their base by a web: stipulæ all lanceolate. *P. flexuosa. Eng. Bot.*
- 4 Pan. slightly flexuose: spikelet 4-flow: Fl. hairy at the keel, united by a web: leaves serrulated: culm bulbous at the base.
- 5 Pan. diffuse: spikelet 3-flow: glumes lanceolate, 5-nerved, united at their base by a web: stipulæ elongated: root fibrous.
- 6 Pan. diffuse: spikelet 4-flow: glumes lanceolate, 5-nerved, united at their base by a web: stipulæ short, obtuse: root creeping.
- 7 Pan. divaricate: spikelet. ovate, 5-flow: flor. rather remote, 5-nerved, free; culm oblique, compressed.
- 8 Pan. spreading: spikelet. ovate, about 3-flow. glumes bluntish, silky at the keel, and lateral ribs, villous at the base: stipulæ very short.
- 9 Pan. and L. attenuated: spikelet. lanceolate, about 3-flow: glumes adute, indistinctly 5-nerved; silky at the keel, and lateral ribs: stipulæ very short, notched.

46. TRIODIA.

- 1 Pan. nearly simple, close, erect: Fl. 4. their middle tooth shortest: calyx-glumes smooth: stipula hairy. *Poa. Eng. Bot.*

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
47	BRIZA.	QUAKING-GRASS.					
	1 minor	small	Corn fi.!	.....	7	A.	1316
	2 media	common	Past.	.....	5,6	P.	340
48	DACTYLIS.	COCK'S-FOOT-GRASS.					
	1 glomerata....	rough	Mead.	.....	6-8	P.	335
49	SPARTINA.	CORD-GRASS.					
	1 stricta	twin-spiked.....	Sal. mar.	.....	8	P.	*380
50	CYNOSURUS.	DOG'S-TAIL-GRASS.					
	1 cristatus	crested	Past.	.....	6,7	P.	316
	2 echinatus	rough	San. gr.	.....	7	A.	1333
51	FESTUCA.	FESCUE-GRASS					
	1 ovina	sheep's	Dry pas.	.....	6	P.	585
	2 vivipara	viviparous	Sc.moun.	.....	7	P.	1355
	3 duriuscula ..	hard	Mea.pas.	.....	6,7	P.	470
	4 rubra	creeping	Mea.pas.	.....	7	P.	2056
	5 bromoides....	barren.....	Walls	.....	6	A.	1411
	6 Myurus	wall.....	Walls	.....	6,7	A.	1412
	7 uniglumis....	single-husked	Sea coast	.....	6	B.	1430
	8 gigantea	gigantic	Woods	.....	7,8	P.	1820
	9 calamaria....	reed-like	M.woods	.....	7	P.	1005
	10 loliacea.....	spiked	Moi.pas.	.....	6,7	P.	1821

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

47. BRIZA.

- 1 Spikel. triangular, 7-flow: cal. longer than the flor: stipulæ lanceolate, very long.
- 2 Spikel. ovate, 7-flow: cal. shorter than the flor: stipulæ very short, obtuse.

48. DACTYLIS.

- 1 Pan. distantly branched: Fl. in globular tufts, unilateral: eor. awned 5-ribbed, taper-pointed.

49. SPARTINA.

- 3 Spikes 2 or 3 erect, with smooth stalks: glumes downy, outer valve smallest. *Dactylis. Eng. Bot.*

50. CYNOSURUS.

- 1 Neuter spikelets awnless: spike simple, linear.
- 2 Neuter spikelets awned: spike compound, ovate.

51. FESTUCA.

- 1 Pan. 1-rowed, compact: flor. roundish, smooth at the base: culm square: L. folded, setaceous, rough.
- 2 Pan. 1-rowed, compact: flor. compressed, keeled, awnless, somewhat downy, as well as the calyx: culm, square: L. folded, setaceous, smooth.
- 3 Pan. 1-rowed, diffuse: flor. awned: culm cylind: stem leaves flat: root fibrous.
- 4 Pan. 1-rowed. flor. roundish, awned: L. downy above, more or less involute: root creeping.
- 5 Pan. 1-rowed, erect: flor. subulate, awned, rough at the apex: L. setaceous, shorter than the sheath: upper half of the culm naked.
- 6 Pan. 1-rowed, elongated, nodding: flor. subulate, awned, rough at the apex: L. awl-shaped, somewhat keeled, very short. Culm leafy to the top.
- 7 Pan. 1-rowed, erect, nearly simple: flor. subulate, compressed, awned: cal. 1-valve very short.
- 8 Pan. nodding, branched, lax, decomposed: flor. 3-6 ovate lanceolate, awned: L. ensiform, nerved: stipulæ auricled, stem-clasping.
- 9 Pan. 1-rowed, erect, much branched, compact: flor. oblong, angular, awnless, inner valve folded in the middle: L. ensiform, striated.
- 10 Spike 2-rowed, nodding: spikel. subsessile, linear-oblong: flor. cylind. nerveless, awnless, with 5 slight ribs at the top.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	FESTUCA.	FESCUE-GRASS					
	11 pratensis	meadow	Mea.pas.	.....	6,7	P.	1592
	12 clatior	tall	Moi.mea.	.....	6,7	P.	1593
	13 sylvatica	slender wood	Hedges	.....	7	P.	*729
	14 pinnata.	spiked heath	Heaths	.....	7	P.	*730
52	BROMUS.	BROME-GRASS.					
	1 secalinus	smooth rye	Corn fi.	.....	7-9	A.	1171
	2 velutinus	downy rye	Corn fi.!	.....	7	A.	*1884
	3 mollis	soft	Walls	.....	6	B.	1078
	4 racemosus. . . .	smooth	Mea.pas.	.....	6	A.B.	1079
	5 squarrosus § . .	corn	Corn fi.	.....	7	A.	1885
	6 arvensis	taper-field	Corn fi.!	.....	7	A.	1984
	7 erectus	upright perennial .	Chal.pas.	.....	7	P.	471
	8 asper.	hairy wood	Moi.s.p.	.....	7	A.B.	1172
	9 sterilis	barren	Rubbish	.....	6,7	A.	1030
	10 diandrus	upright annual . .	San. gr.	.....	6	A.	1006
53	STIPA.	FEATHER-GRASS.					
	1 pennata §	common	Alp. roc.	.....	6,7	P.	1356
54	AVENA.	OAT-GRASS.					
	1 fatua	wild haver	Corn fi.	.....	6-8	A.	2221
	2 strigosa	bristle-pointed . .	Corn fi.	.....	6,7	A.	1266

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

FESTUCA.

- 11 Pan. 1-rowed, rather upright, lax: spikelet. linear, compressed, rather obtuse: flor. cylind. indistinctly nerved: nect. 4-cleft: root fibrous.
- 12 Pan. subdiffuse, nodding, much branched, lax: spikelet. ovate-lanceolate, acute: flor. cylind. indistinctly nerved: nect. 4-cleft: root creeping.
- 13 Spike simple, nodding, 1-rowed: spikelet. sessile, roundish: awns longer than the glume: L. hairy: root fibrous. *Bromus. Eng. Bot.*
- 14 Spike simple, erect, 2-rowed: spikelet. sessile, roundish: awns shorter than the glume: L. nakedish: root ereeping. *Bromus. Eng. Bot.*

52. BROMUS.

- 1 Pan. spreading: pedunc. mostly simple: spikelet. ovate, 10-flow: flor. distinct, roundish: awns wavy: L. slightly hairy.
- 2 Pan. spreading: pedunc. nearly simple: spikelet. ovate-lanceolate, 10-15-flow: flor. somewhat imbricated, roundish, downy: L. slightly hairy. *B. multiflorus. Eng. Bot.*
- 3 Pan. erect, compact: pedunc. branched: spikelet. ovate: flor. imbricated, depressed, nerved, downy: L. and sheaths soft and downy.
- 4 Pan. rather erect, diffuse: pedunc. simple: spikelet. ovate, 6-flow: flor. imbricated, depressed, nerved, smooth: L. somewhat downy.
- 5 Pan. nodding: pedunc. simple: spikelet. ovate, 12-flow: flor. imbricated, depressed: awns divaricate: L. downy.
- 6 Pan. spreading: pedunc. branched drooping, half-whorled: spikelet. lanceolate, 8-flow: flor. elliptical, imbricated, depressed, with 2 close ribs on each side.
- 7 Pan. erect: pedunc. generally simple: flor. 8. loosely imbricated, lanceolate: L. radical, very narrow, with hairy ciliæ.
- 8 Pan. nodding, branched: flor. 8. lanceolate, roundish, almost nerveless, downy: L. uniform; lower hirsute.
- 9 Pan. nodding, generally simple: floret 7. lanceolate, nerved, furrowed: L. downy.
- 10 Pan. erect, spreading, scarcely branched: flor. lanceolate, nerved, furrowed, diandrous.

53. STIPA.

- 1 Awns feathery.

54. AVENA.

- 1 Panicked: spikelets pendulous: cal. about 3-flow: flor. all awned, hairy at the base, with an oblique scar: nerveless.
- 2 Pan. oblong, 1-rowed: cal. 2-flow: flor. tipped with a double bristle.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	AVENA.	OAT-GRASS.					
	3 pubescens....	downy.....	Chal. pas.		6	P.	1640
	4 pratensis	narrow leaved....	Chal. pas.		7	P.	1204
	5 alpina	great alpine	Se. alps		7	P.	2141
	6 flavescens	yellow.....	Mea. pas.		6,7	P.	952
55	LAGURUS.	HARE'S-TAIL-GRASS.					
	1 ovatus	oval spiked	Guernsey		6	A.	1334
56	ARUNDO.	REED.					
	1 Phragmites ..	common	Ditches		7	P.	401
	2 epigejos	wood	Moi. wo. !		7	P.	403
	3 Calamagrostis.	small	Moi. wo.		6,7	P.	2159
	4 stricta	smallest close	Se. mar.		6	P.	2160
	5 arenaria	sea	Sea coa.		7	P.	520
57	LOLIUM.	DARNEL.					
	1 perenne	perennial	Mea. pas.		6	P.	315
	2 temulentum ..	bearded	Corn fi.		7	A.	1124
	3 arvense.....	white	Corn fi.		7	A.	1125
58	ROTBOLLIA.	HARD-GRASS.					
	1 incurvata	sea	Sea coa.		8	A.	760
59	ELYMUS.	LYME-GRASS.					
	1 arenarius	upright sea	Sea coa.		7	P.	1672
	2 genieulatus ..	pendulous	Sea sh. !		7	P.	1586

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

AVENA.

- 3 Pan. generally simple, erect: eal. about 3-flow: partial stalks bearded: L. flat, downy: root somewhat creeping.
- 4 Spike erect: cal. about 5-flow: partial stalks hairy: L. involute, serrulated, naked; sheaths smooth.
- 5 Pan. erect: eal. about 5-flow: partial stalks bearded under each: L. serrulated, naked; sheaths rough: culm compressed.
- 6 Pan. much branched, lax: eal. about 3-flow. unequal: partial stalks hairy: L. flat, somewhat pubescent.

55. LAGURUS.

- 1 Spike ovate.

56. ARUNDO.

- 1 Cal. 5-flow: panicle lax.
- 2 Cal. 1-flow. longer than the cor: pan. erect: Fl. imbricated, crowded, 1-rowed: cor. awned at the back: L. lanceolate.
- 3 Cal. 1-flow. longer than the cor: pan. erect, diffuse: Fl. scattered, awn term. short: L. linear.
- 4 Cal. 1-flow. pointed, equal with the cor: pan. erect, close: cor. awned at the back.
- 5 Cal. 1-flow. longer than the cor: pan. spiked: Fl. erect, slightly awned: L. involute, pungent.

57. LOLIUM.

- 1 Cor. slightly awned: spikelet longer than the cal: flor. lanceolate.
- 2 Awns longer than the corolla: spikelet shorter than the calyx: flor. elliptical: culm rough on the upper part.
- 3 Spike scarcely awned: spikelet the length of the calyx: Fl. elliptical: culm very smooth.

58. ROTBOLLIA.

- 1 Spike cylind. subulate: cal. glumes combined below: flor. solitary: cor. awnless.

59. ELYMUS.

- 1 Spike erect, close: eal. lanceolate, the length of the spikelet: L. with a spinous point.
- 2 Spike bent downwards, lax; main stalk not winged: cal. setaceous, spreading, longer than the spikelet: L. with a spinous point.

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or situation.	Colour of the flower.	Time of flowering.	Duration.	Figure in English Botany.
	ELYMUS.	LYME-GRASS.					
	3 europæus	wood	Woods	.....	6	P.	1317
60	HORDEUM.	BARLEY.					
	1 murinum	wall.....	Rubbish	.....	6-8	A.	1971
	2 pratense	meadow	Moi.mea.	.....	6	P.	409
	3 maritimum ..	sea	Salt mar.	.....	6,7	A.	1205
61	TRITICUM.	WHEAT GRASS.					
	1 junceum	sea rushy	Sea sh.	.....	7	P.	814
	2 repens	couch or creeping.	Rubbish	.....	6-9	P.	909
	3 caninum	bearded	Chal.wo.	.....	7	P.	1372
	4 eristatum	crested	Sc. roc.!	.....	7	P.	2267
	5 loliaceum....	dwarf sea	Sea sh.	.....	6,7	A.	221
ORDER III. TRIGYNIA.							
62	MONTIA.	BLINKS.					
	1 fontana.....	water	Springs	white	4,5	A.	1206
63	HOLOSTEUM.	JAGGED CHICKWEED.					
	1 umbellatum ..	umbelliferous	Old w.!	white	4	A.	27
64	POLYCARPON.	ALL-SEED.					
	1 tetraphyllum..	four-leaved	San. pla.	white	5-8	A.	1031

CLASS III. TRIANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

ELYMUS.

- 3 Spike erect; main stalk winged: spikel. 2-flow. awned: invol. without streaks.

60. HORDEUM.

- 1 Flor. lateral male, awned: calyx glumes of the intermediate one lanceolate, fringed.
 2 Flor. lateral male, with shorter awns: cal. glumes all setaceous, rough.
 3 Flor. lateral male, with shorter awns; their inner calyx glume semi-ovate.

61. TRITICUM.

- 1 Cal. blunt, 5-flow: L. involute, with a spinous point: root creeping.
 2 Cal. lanceolate, many-nerved, 5-flow: flor. sharp-pointed: L. flat: root creeping.
 3 Cal. pointed, about 5-nerved, 4-flow: flor. awned: L. flat: root fibrous.
 4 Cal. elliptical, awned, keeled: flor. awned: spikel. 2-rowed, close: culm simple.
 5 Cal. obtuse, many-flow: spike simple, 1-rowed: flor. awnless: culm branched: root fibrous.

ORDER III. TRIGYNIA.

62. MONTIA. *Portulacææ*. JUSS.

- 1 Much branched, smooth: L. opposite, spatulate, entire.

63. HOLOSTEUM. *Caryophyllææ*. JUSS.

- 1 Fl. in umbels: stam. various in number: L. ovate, acute.

64. POLYCARPON. *Illecebrææ*. R. BR.

- 1 Much branched: L. opposite, often in double pairs.

CLASS IV.

TETRANDRIA.

ORDER I. MONOGYNIA.

* *Fl.* 1-pet. 1-seeded, superior.

65 DIPSACUS. *Cal.* common many-leaved; proper superior, 1-leaved, eup-shaped, crowning the seed.

66 SCABIOSA. *Cal.* common many-leaved; proper double, superior, crowning the seed.

** *Fl.* 1-pet. 2-seeded, superior.

70 RUBIA. *Cor.* campanulate. *Fruit* pulpy.

69 GALIUM. *Cor.* flat. *Fruit* dry.

68 ASPERULA. *Cor.* tubular. *Fruit* without a crown.

67 SHERARDIA. *Cor.* tubular. *Fruit* crowned with the calyx. *Seed* 3-toothed.

*** *Fl.* 1-pet. many-seeded, inferior.

71 EXACUM. *Cor.* salver-shaped. *Stam.* shorter than the limb. *Caps.* 2-celled, opening at the apex.

72 PLANTAGO. *Cor.* refracted. *Caps.* 2 or 4-celled, not round. *Stam.* very long.

73 CENTUNCULUS. *Cor.* tubular. *Caps.* 1-celled, not round. *Stam.* enclosed.

Some Gentianæ.

**** *Fl.* 4-petalled.

75 EPIMEDIUM. *Nect.* 4, ineumbent on the petals, saek-like. *Pod* many-seeded, superior, 1-celled. *Cal.* eadueous.

76 CORNUS. *Nect.* 0. *Drupe* an inferior 2-celled nut. *Cardamine*, 2. *Senebiera*, 2.

***** *Fl.* apetalous.

77 PARIETARIA. *Cal.* 4-leaf, inferior. *Seed* covered with the elongated calyx. *Stam.* elastic. *Fl.* some female, whose calyx remains unchanged.

78 ISANDIA. *Cal.* 4-leaf, superior. *Caps.* quadrangular, 4-celled, crowned with the calyx.

74 SANGUISORBA. *Cal.* 4-leaf, superior, eol. *Stam.* dilated upwards. *Caps.* quadrangular, 1-celled, not bursting.

79 ALEHEMILLA. *Cal.* 8-leaf. *Seed* 1-2. naked.

CLASS IV. TETRANDRIA.

ORDER II. DIGYNIA.

- 80 BUFFONIA. Cor. 4-pet. Caps. 2-valved, 2-seeded.
Alchemilla. Gentiana. Cuscuta.

ORDER III. TETRAGYNIA.

- 81 ILEX. Cor. 1-4-pet. wheel-shaped. Berry 4-seeded. Style. 0. Fl. some male.
- 85 MOENCHIA. Pet. 4. Caps. 1-celled, 1-valved, 8-toothed. Cal. 4-leaved.
- 84 SAGINA. Pet. 4. Caps. 1-celled. Cal. 4-leaved.
- 87 RADIOLA. Pet. 4. Caps. 8-celled, 8-valved. Cal. many-cleft.
- 86 TILLÆA. Pet. 3-5. Caps. many, many-seeded.
- 82 POTAMOGETON. Pet. 4. Cal. 0. Seed 4, naked, sessile.
- 83 RUPPIA. Pet. 0. Cal. 0. Seed 4, pedicelled.
Cerastium.
-

CLASS IV. TETRANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
65	DIPSACUS.	TEASEL.					
	1 fullonum ♂ ..	fullers	Hedges	purple	7	B.	2080
	2 sylvestris	wild	Moi. hed.	purple	7	B.	1032
	3 pilosus	small	Moi. pla.	white	8,9	B.	877
66	SCABIOSA.	SCABIOUS.					
	1 succisa	devil's bit	Past. ..	violet	8-10	P.	878
	2 arvensis	field	Corn fi.	purple	7	P.	659
	3 columbaria ..	small	Dry pas.	purple	6-8	P.	1311
67	SHERARDIA.	FIELD MADDER.					
	1 arvensis	blue	Corn fi.	blue	6-8	A.	891
68	ASPERULA.	WOODRUFF.					
	1 odorata	sweet	Woods	white	5	P.	755
	2 cynanchica ..	small	Chal. so.	blush	6,7	P.	33
69	GALIUM.	BED-STRAW.					
	*						
	1 cruciatum	cross-wort	Bushy pl.	yellow	5	P.	143
	2 palustre	white-water	Moi. mea.	white	7	P.	1857
	3 Witheringii ..	Rough Heath	Heaths	white	7	P.	2206
	4 saxatile	smooth heath	Heaths	white	6-8	P.	815
	5 uliginosum ..	rough marsh	Marshes	white	8	P.	1972
	6 erectum	upright marsh	Moi. pas.	white	6,7	P.	2067
	7 cinereum	grey	Scotland	white	8	P.	.....
	8 aristatum	bearded	Sc. hills	white	7,8	P.	.....

CLASS IV. TETRANDRIA.

ORDER 1. MONOGYNIA.

SPECIFIC CHARACTER.

65. DIPSACUS. *Dipsacæ*. Juss.

- 1 L. connate, serrated: chaff recurved: invol. reflexed.
- 2 L. opposite, serrated: chaff straight: invol. inflexed, longer than the head.
- 3 L. petioled, appendiculate: invol. deflexed, equal to the head.

66. SCABIOSA. *Dipsacæ*. Juss.

- 1 Cor. 4-cleft equal: L. stem toothed: heads almost globular.
- 2 Cor. 4-cleft radiating: L. pinnatifid, incised: stem rough.
- 3 Cor. 5-cleft radiating: L. radical ovate or lyrate, crenate: stem leaves pinnatifid: segm. linear.

67. SHERARDIA. *Rubiaceæ*. Juss.

- 1 L. all whorled: Fl. terminal.

68. ASPERULA. *Rubiaceæ*. Juss.

- 1 L. eight together, lanceolate: Fl. in tufts, peduncled: fruit bristly.
- 2 L. linear, four together; upper very unequal: Fl. all 4-cleft: fruit smooth.

69. GALIUM. *Rubiaceæ*. Juss.

* *Fruit smooth.*

- 1 L. in fours, ovate, hairy: stem simple above, hairy: pedunc. axillary, 2-leaved.
- 2 L. in fours, obovate, unequal, obtuse: stems diffuse, branched above.
- 3 L. in fives, spreading, lanceolate, awned, ciliate: stem slightly branched, upright, rough with reversed hooks.
- 4 L. in sixes, obovate, obtuse, mucronate: stem much branched, prostrate, smooth: fruit granulated.
- 5 L. in sixes, lanceolate, edges rough, like the stem, with reversed prickles; mucronate, stiff; cor. larger than the fruit.
- 6 L. about 8-together, lanceolate, aculeato-serrulated forward, mucronate: stem flaccid, slightly hairy under each joint. Fr. smooth and even: cor. taper-pointed.
- 7 L. 6-8 together, linear, mucronate, aculeato-serrulated forwards. Stem weak, much branched, smooth: Fr. smooth: cor. taper-pointed.
- 8 L. 6 together, stalked, lanceolate, flat, reticulated, mucronate, with minute marginal prickles: stem branched, smooth: seeds smooth, kidney-shaped, separated: cor. taper-pointed.

CLASS IV. TETRANDRIA.

ORDER I. MONOGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
GALIUM.	BED-STRAW.					
9 verrucosum ..	warty-fruited	Corn fi.!	yellow	6-8	A.	2173
10 tricornne	corn	Chal. fi.	cream	7	A.	1641
11 spurium	smooth-seeded ..	Corn fi.!	green	6,7	A.	1871
12 pusillum	least	Mount.	white	7,8	P.	74
13 verum	yellow	Bushy pl.	yellow	7,8	P.	660
14 Mollugo	great hedge	Hedges	white	7,8	P.	1673
15 anglicum	wall	walls ..	yellow	6,7	A.	384

16 boreale	cross-leaved	Mount.	white	7	P.	105
17 Aparine	goose-grass	Hedges	white	5-8	A.	816
70 RUBIA.	MADDER.					
I peregrina	wild	Bushy pl.	yellow	6,8	P.	851
71 EXACUM.	GENTIANELLA					
1 filiforme	least	San.mar.	yellow	7	A.	235
72 PLANTAGO.	PLANTAIN.					
1 major	greater	Mea.pas.....		5-9	P.	1558
2 media	hoary	Mea.pas.....		5-8	P.	1559
3 lanceolata ..	ribwort	Mea.pas.....		6,7	P.	507
4 maritima	sea	Sea coast.....		8,9	P.	175
5 Coronopus ..	buck's-horn	San. gr.		6-8	A.	892

CLASS IV. TETRANDRIA.

ORDER 1. MONOGYNIA.

SPECIFIC CHARACTER.

GALIUM.

- 9 L. in sixes, lanceolate, with marginal prickles pointing forward : pedunc. axillary, 3-flow : fruit warty, drooping.
- 10 L. about 8-together, lanceolate ; margin and stem aculeate backwards : pedunc. axillary, 3-flow : fruit granulated, nodding.
- 1 L. about 8-together ; margin and stem prickled backward : pedunc. axillary, eymose : fruit smooth, erect.
- 2 L. 8-together, linear-lanceolate, mucronate, very entire, subpubescent : pedunc. dichot : fruit very smooth.
- 13 L. 8-together, linear, furrowed, very entire, rough : Fl. panicle, heaped : Fr. smooth.
- 4 L. 8-together, elliptical, rather obtuse, mucronate, margin rough : Fl. panicle, divaricate : cor. thick-tipped : seeds smooth.
- 5 L. about 6-together, lanceolate, mucronate, margin and stem rough : pedunc. bifid : fruit granulated.

** *Fruit hispid.*

- 6 L. in fours, lanceolate, 3-nerved, smooth : stem erect : Fr. rough with hooked bristles.
- 7 L. 8-together, lanceolate, keeled, rough : prickles pointing backwards : stem flaccid : Fr. bristly.

70. RUBIA. *Rubiaceæ.* Juss.

- 1 L. generally in fours, elliptical, shining and smooth on their upper surface : Fl. 5-cleft.

71. EXACUM. *Gentianæ.* Juss.

- 1 L. sessile : stem filiform dichot : pedunc. elongated.

72. PLANTAGO. *Plantagenæ.* Juss.

- 1 L. ovate, smoothish, shorter than the petiole : scape cylind : spike with imbricated flow : seeds numerous.
- 2 L. ovate, pubescent, longer than the petioles : scape cylind : spike cylind : seeds solitary.
- 3 L. lanceolate, acute at each end, woolly at the base : spike ovate, naked : scape angular.
- 4 L. linear, mostly entire, channelled, woolly at the base : spike cylind. scape cylind.
- 5 L. linear, pinnato-dentate : scape cylind.

CLASS IV. TETRANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
73	CENTUNCULUS	CHAFF-WEED.					
	1 minimus	small	Moi.s.he.	flesh	6,7	A.	531
74	SANGUISORBA	BURNET.					
	1 officinalis	great	Mea.pas.	purple	6,7	P.	1312
	2 media	oblong.....	Sc. pas.	purple	7	P.	.....
75	EPIMEDIUM.	BARRENWORT					
	1 alpinum	alpine	M.thick !	blood	5	P.	438
76	CORNUS.	CORNEL.					
	1 sanguinea....	wild.....	Chal. so.	white	6	S.	249
	2 Suecica.....	dwarf	M.al.pas.	purple	6,7	P.	310
77	PARIETARIA.	PELLITORY OF THE WALL.					
	1 officinalis	common	Walls ..	green	6-9	P.	879
78	ISNARDIA.	ISNARDIA.					
	1 palustris	marsh	Ponds ..	green	7	A.	.....
79	ALCHEMILLA.	LADIES' MANTLE.					
	1 vulgaris	common	Dry pas.	green	6-8	P.	597
	2 alpina	alpine	Rocks ..	green	7	P.	244
	3 arvensis	field	San. fi.	green	5-8	A.	1011

ORDER II. DIGYNIA.

80	BUFFONIA.	BUFFONIA.					
	1 tenuifolia † ..	slender	Sea coa.!	white	6	A.	1313

ORDER III. TETRAGYNIA.

81	ILEX.	HOLLY.					
	1 Aquifolium ..	common	Hedges	white	5	T.	496

CLASS IV. TETRANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

73. CENTUNCULUS. *Primulaceæ*. VENT.

- 1 L. ovate: Fl. axillary, sessile.

74. SANGUISORBA. *Rosaceæ*. JUSS.

- 1 Spikes ovate.
2 Spikes cylindrical.

75. EPIMEDIUM. *Berberideæ*. DE C.

- 1 L. twice ternate.

76. CORNUS. *Caprifoliaceæ*. JUSS.

- 1 Branches erect: L. ovate, green on both sides: cymes naked, flat.
2 Herbaceous: branches in pairs: umb. axillary, peduncled, involucred: nerves of the leaves almost all separate.

77. PARIETARIA. *Urticææ*. JUSS.

- 1 L. lanceolate-ovate, 1-nerved from the base: segm. of the invol.
7. ovate, 3-flowered: stem rather upright.

78. ISNARDIA.

- 1 Herb floating: stems bluntly 4-angled: L. ovate, entire: Fl. axillary, solitary, sessile.

79. ALCHEMILLA. *Rosaceæ*. JUSS.

- 1 L. lobed, plaited.
2 L. digitate, serrated, silky beneath.
3 L. flat, trilobate, incised.

ORDER II. DIGYNIA.

80. BUFFONIA. *Caryophylleæ*. JUSS.

- 1 L. opposite, awl-shaped.

ORDER III. TETRAGYNIA.

81. ILEX. *Ilicineæ*. BRONG.

- 1 L. ovate, acute, spinous, and wavy: Fl. axillary, somewhat cymose.

CLASS IV. TETRANDRIA. ORDER III. TETRAGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
82	POTAMOGETON. POND-WEED.						
	1 natans	broad-leaved	Rivers..	green	7	P.	1822
	2 heterophyllum	various-leaved.....	Ditches	green	7-9	P.	1285
	3 perfoliatum ..	perfoliate.....	Rivers..	purple	7,8	P.	168
	4 densum	close-leaved	Ditches	green	6	P.	397
	5 fluitans.....	long-leaved.....	Ditches	reddish	7-9	P.	1286
	6 lucens	shining	Ditches	green	6,7	P.	376
	7 lanecolatum ..	lanceolate	Wel.lake	olive	7,8	P.	1985
	8 crispum	curled	Rivulets	reddish	6,7	P.	1012
	9 compressum ..	flat-stalked	Rivulets	green	6,7	P.	418
	10 cuspidatum ..	pointed-leaved ..	Ponds ..	green	7	P?	.....
	11 gramineum ..	grassy.....	Ditches	green	7	P.	2253
	12 pusillum	small	Ditches	green	7	P.	215
	13 pectinatum ..	fennel-leaved	Ditches	olive	7	P.	323
83	RUPPIA.	RUPPIA.					
	1 maritima	sea	Sal. dit.	.....	7-9	P?	136
84	SAGINA.	PEARL-WORT.					
	1 procumbens ..	procumbent	Rubbish	white	5-8	P.	880
	2 maritima	sea	Sea coa.	.....	5-8	A.	2195
	3 apetala	annual small flow.	Rubbish	white	5,6	A.	881
85	MCENCHIA.	MCENCHIA.					
	1 crecta	upright	Grav.pa.	white	5	A.	*609
86	TILLÆA.	TILLÆA.					
	1 muscosa	mossy	San. hea.	pellu.	5,6	A.	116
87	RADIOLA.	FLAX-SEED.					
	1 millegrana ..	thyme-leaved	San. pl.	white	7,8	A.	893

CLASS IV. TETRANDRIA. ORDER III. TETRAGYNIA.

SPECIFIC CHARACTER.

82. POTAMOGETON. *Fluviales*. VENT.

- 1 L. upper oblong-ovate, petioled, floating; lower-linear, sessile.
- 2 L. inferior membran. linear-lanceolate, sessile: floating ones elliptical, petioled: pedunc. clavated.
- 3 L. cordate, embracing the stem, all immersed.
- 4 L. ovate, acuminate, opposite, crowded: stem dichot: spike 4-flow.
- 5 L. inferior lanceolate, acute, membran: upper ones elliptic-lanceolate, somewhat coriaceous.
- 6 L. ovate-lanceolate, flat, attenuated into petioles, repeatedly 3-ribbed: spike many-flow. compact.
- 7 L. lanceolate; membranous, entire, tapering at the base: spike ovate, dense, few flow.
- 8 L. lanceolate, alternate, undulated, serrated; upper opposite.
- 9 L. linear, obtuse: stem compressed.
- 10 L. linear, obliquely pointed; many-ribbed; 3 principal ribs; all distinct: stem compressed.
- 11 L. linear-lanceolate, alternate, sessile, broader than the stipulæ: stem cylind. forked: pedunc. from the forks: scarcely longer than the spikes.
- 12 L. linear, opposite or alternate, much narrower than the stipula, spreading from the base: stem cylind: pedunc. axillary; many times longer than the spikes.
- 13 L. setaceous, parallel, approximate, 2-rowed, sheathing at the base: spikes interrupted.

83. RUPPIA. *Fluviales*. VENT.

- 1 L. setaceous, immersed.

84. SAGINA. *Caryophyllææ*. JUSS.

- 1 Stems procumbent, smooth: petals very short.
- 2 Stems almost erect, divaricated, smooth: L. obtuse, without bristles: petals obsolete.
- 3 Stems almost upright, pubescent: petals indistinct: L. bristly.

85. MENCHIA. *Caryophyllææ*. JUSS.

- 1 Stem erect, mostly 1-flow: cal. leaflets acute: petals entire. *Sagina*.
Eng. Bot.

86. TILLÆA. *Crassulaceæ*. DE C.

- 1 Stems procumbent: Fl. sessile, mostly 3-cleft.

87. RADIOLA. *Lineæ*. DE C.

- 1 Stem dichotomous: L. ovate.

CLASS V.

PENTANDRIA.

ORDER I. MONOGYNIA.

* *Fl. 1-pet. inferior, 2-4-seeded. (Rough leaved.)*

- 97 ECHINUM. Cor. throat naked, irregular. Stig. 2-parted.
 92 PULMONARIA. Cor. throat naked, funnel-shaped. Cal. prismatic, 5-cleft.
 89 LITHOSPERMUM. Cor. throat naked, funnel-shaped. Cal. 5-parted.
 93 SYMPHYTUM. Cor. closed with awl-shaped converging valves; limb bell-shaped.
 94 BORAGO. Cor. closed with awl-shaped or notched valves; wheel-shaped.
 96 LYCOPSIS. Cor. closed with concave obtuse valves, funnel-shaped, with a doubly-bent tube.
 95 ASPERUGO. Cor. closed with concave obtuse valves, salver-shaped. Cal. of the fruit compressed, lamellæ sinuated.
 91 CYNOGLOSSUM. Cor. half closed with rounded valves, funnel-shaped. Seed depressed, imperforate, fixed laterally.
 90 ANCHUSA. Cor. closed with concave obtuse valves, funnel-shaped, tube straight, tumid below. Seed hollowed out at the base.
 88 MYOSOTIS. Cor. half closed with rounded valves, salver-shaped: lobes obtuse. Seeds perforated at the base, borne by the calyx.

** *Fl. 1-pet. inferior, seeds capsular.*

- 03 ANAGALLIS. Caps. 1-celled, cut round. Cor. wheel-shaped. Stam. hairy.
 02 LYSIMACHIA. Caps. 1-celled, 10-valved, globose. Cor. wheel-shaped.
 99 CYCLAMEN. Caps. 1 celled, pulpy within. Cor. wheel-shaped, reflexed. Stig. acute.
 98 PRIMULA. Caps. 1-celled, mouth 10-cleft. Cor. salver-shaped, throat pervious, tube cylind. Stig. globose.
 01 HOTTONIA. Caps. 1-celled, 5-toothed. Cor. salver-shaped. Stam. standing on the throat. Stig. globose. Cal. 5-parted.
 00 MENYANTHES. Caps. 1-celled. Cor. hairy. Stig. 2-cleft.
 114 DATURA. Caps. 2-celled, 4-valved. Cor. funnel-shaped. Cal. deciduous.
 115 HYOSCYAMUS. Caps. 2-celled, covered with a lid. Cor. funnel-shaped. Stig. capitate.

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

- 113 VERBASCUM. *Caps.* 2-celled. *Cor.* wheel-shaped, irregular. *Stig.* simple. *Stam.* declining, bearded.
- 118 ERYTHRÆA. *Caps.* 2-celled. *Cor.* salver-shaped. *Anth.* becoming spiral.
- 105 CONVULVULUS. *Caps.* 2 or 3-celled. *Seed* 2. *Cor.* bell-shaped, plaited. *Stig.* 2.
- 106 POLEMONIUM. *Caps.* 3-celled. *Cor.* 5-parted, tube closed by 5 valves. *Stam.* between the valves.
- 104 AZALEA. *Caps.* 5-celled. *Cor.* bell-shaped. *Stam.* from the receptacle. *Stig.* capitate. *Anth.* with 2 pores.
- 128 VINCA. *Follicles* 2, erect. *Cor.* salver-shaped, twisted. *Seed* simple.
- 117 SOLANUM. *Berry* 2-celled. *Cor.* wheel-shaped. *Anth.* with 2 pores.
- 116 ATROPA. *Berry* 2-celled. *Cor.* bell-shaped. *Stam.* distant, incurved. *Anth.* cordate.

*** *Fl.* 1-pet. superior.

- 119 SAMOLUS. *Caps.* 1-celled, with 5 recurved valves. *Cor.* funnel-shaped, 5-cleft, with intermediate scales.
- 109 JASIONE. *Caps.* imperfectly 2-celled, opening at the apex. *Cor.* wheel-shaped, 5-parted. *Stig.* club-shaped. *Anth.* united at the base.
- 108 PHYTEUMA. *Caps.* 2 or 3-celled, bursting laterally. *Cor.* wheel-shaped, 5-parted. *Stig.* 2 or 3-cleft.
- 110 LOBELIA. *Caps.* 2 or 3-celled. *Cor.* irregular, slit. *Stig.* capitate, hairy.
- 107 CAMPANULA. *Caps.* 2 or 3-celled, perforated. *Cor.* bell-shaped. *Stig.* 3-cleft, revolute.
- 120 LONICERA. *Berry* of 1 or more cells, many-seeded. *Cor.* irregular. *Rubia* 1.

**** *Fl.* 4 or 5-pet. inferior.

- 121 RHAMNUS. *Berry* 2-4-celled. *Cal.* funnel-shaped, bearing the corolla.
- 122 EUONYMUS. *Caps.* 4 or 5-celled. *Seed* in a pulpy covering. *Cal.* flat.
- 111 IMPATIENS. *Caps.* 5-celled, elastic. *Cal.* 2-leaved. *Cor.* irregular.
- 112 VIOLA. *Caps.* 1-celled, 3-valved. *Cal.* 5-leaved. *Cor.* irregular, spurred behind.

***** *Fl.* 5-pet. superior.

- 123 RIBES. *Berry* many-seeded. *Cal.* bearing the corolla. *Style* 2-cleft.
- 124 HEDERA. *Berry* 3-5-seeded, surrounded by the calyx. *Style* simple. *Pet.* broad at the base.

***** *Fl. incomplete.*

- 126 GLAUX. *Caps.* 5-seeded, superior. *Cal.* coloured, 1-leaved.
 125 ILLECEBRUM. *Caps.* 1-seeded, superior. *Cal.* 5-leaved, cartilaginous.
 127 THESIUM. *Drupa.* inferior, dry. *Cal.* stamiferous, 5-cleft.

ORDER II. DIGYNIA.

* *Fl. 1-pet. inferior.*

- 1135 SWERTIA. *Caps.* 1-celled. *Cor.* wheel-shaped, with 2 nectariferous pores at the base of each segment.
 1136 GENTIANA. *Caps.* 1-celled. *Cor.* tubular at the base, destitute of nectariferous pores.
 1134 CUSCUTA. *Caps.* 2-celled. *Cor.* bell-shaped.

** *Fl. 5-pet. inferior.*

Staphylea 1.

*** *Apetal. seeds solitary.*

- 1130 CHENOPODIUM. *Seed* lenticular, tunicated, superior.
 1132 SALSOLA. *Caps.* closed, imbedded in a fleshy calyx. *Seed* with a spiral embryo.
 31 BETA. *Seed* reniform, immersed in a fleshy calyx.
 29 HERNIARIA. *Caps.* closed, membranous, invested with the *calyx*.
Stam. with 5 imperfect intermediate filaments.
 33 ULMUS. *Caps.* closed, membranous, compressed, bordered, superior.
Polygonum 1.

**** *Fl. 5-pet. superior, 2-seeded. Umbelliferous.*

A. *Fruit a single or double globe.*

- 53 CORIANDRUM. *Cal.* broad, unequal. *Pet.* radiant. *Floral recept.* 0.
Fr. smooth, without ribs.

B. *Fruit beaked.*

- 44 SCANDIX. *Cal.* 0. *Pet.* unequal, undivided. *Fr.* bristly: *beak* much longer than the seeds. *Fl. recept.* 5-lobed, col.
 43 ANTHRISCUS. *Cal.* 0. *Pet.* equal, obcordate. *Fr.* scattered with prominent bristles: *beak* shorter than the seeds. *Fl. recept.* slightly bordered.
 45 CHAROPHYLLUM. *Cal.* 0. *Pet.* obcordate, unequal. *Fr.* smooth, without ribs: *beak* shorter than the seeds, angular. *Fl. recept.* wavy.

C. Fruit solid, prickly, without a beak.

- 137 ERYNGIUM. *Cal.* pointed. *Pet.* oblong, equal, inflexed, undivided. *Fl.* aggregate. *Fr.* ovate, with straight bristles. *Com. recept.* scaly.
- 138 SANICULA. *Cal.* acute. *Pet.* lanceolate, inflexed, nearly equal. *Fl.* separated, dissimilar. *Fr.* ovate, with hooked bristles.
- 139 ECHINOPHORA. *Cal.* spinous. *Pet.* obcordate, unequal. *Fl.* separated. *Fr.* ovate, imbedded in the enlarged armed *recept.* *Seed* solitary.
- 140 DAUCUS. *Cal.* obsolete. *Pet.* obcordate, unequal. *Fl.* separated. *Fr.* elliptic-oblong, compressed transversely. *Seeds* with 4 rows of flat prickles, and rough intermediate ribs.
- 141 CAUCALIS. *Cal.* broad, acute, unequal. *Pet.* obcordate, unequal. *Fl.* imperfectly separated. *Fr.* elliptic-oblong, compressed transversely. *Seeds* with 4 rows of ascending, awl-shaped, hooked prickles; the interstices prickly or rough.
- 149 SISON. *Cal.* obsolete or blunt. *Pet.* elliptical or obcordate, with an involute point. *Fl.* uniform, united. *Fl. recept.* 0. *Styles* short, thick. *Fr.* ovate, ribbed.
- 150 CICUTA. *Cal.* broad, acute. *Pet.* ovate, or cordate. *Fl.* uniform, united. *Fl. recept.* depressed, withering. *Fr.* nearly orbicular, cordate at the base, with 6 double ribs.
- 152 CONIUM. *Cal.* obsolete. *Pet.* obcordate. *Fl.* united. *Fl. recept.* dilated, depressed, wavy, permanent. *Styles* a little tumid at the base. *Fr.* ovate, 10-ribbed, wavy when unripe.
- 156 SMYRNIUM. *Cal.* small, acute. *Pet.* lanceolated, incurved;—or obcordate. *Fl.* partly barren. *Fl. recept.* 0. *Styles* tumid and depressed at the base. *Fr.* broader than long, sides concave, back 6-ribbed, interstices convex.
- 157 APIUM. *Cal.* obsolete. *Pet.* roundish, with an inflexed point. *Fl.* united. *Fl. recept.* thin, orbicular, wavy. *Styles* much swelled at the base. *Fr.* roundish, with 6 dorsal ribs, interstices flat.
- 158 ÆGOPodium. *Cal.* 0. *Pet.* obcordate, broad. *Fl.* united, all perfect, slightly radiant. *Fl. recept.* 0. *Styles* ovate at the base. *Fr.* elliptic-oblong, with equidistant ribs; interstices flattish.
- 162 MEUM. *Cal.* 0. *Pet.* obovate, with an inflexed point. *Fl.* united.

all perfect. *Fl. recept.* 0. *Styles* tumid at the base, short, recurved. *Fr.* elliptic-oblong, with equidistant ribs; interstices flattish.

- 163 CARUM. *Cal.* small, acute, often obsolete. *Pet.* obcordate. *Fl.* separated. *Fl. recept.* annular, thin, wavy, permanent. *Styles* tumid at the base. *Fr.* elliptic-oblong, with equidistant ribs; interstices convex.
- 166 CNIDIUM. *Cal.* 0. *Pet.* obovate, or obcordate. *Fl.* imperfectly separated. *Fl. recept.* annular, thin, wavy, erect; afterwards depressed. *Styles* hemispherical at the base; subsequently elongated, spreading, cylind. *Fr.* ovate, with equidistant ribs; interstices deep, concave; juncture contracted.
- 167 BUPLEURUM. *Cal.* 0. *Pet.* wedge-shaped, short, involute. *Fl.* all perfect. *Fl. recept.* 0. *Styles* short, broad and tumid at the base. *Fr.* ovate, obtuse, with acute, abrupt ribs; interstices flat; juncture contracted.
- 168 HYDROCOTYLE. *Cal.* 0. *Pet.* ovate, spreading, undivided. *Fl.* all perfect. *Fl. recept.* 0. *Styles* cylind. short, tumid at the base. *Fr.* nearly orbicular, angular, compressed; juncture very narrow.
- 142 TORILIS. *Cal.* short, broad, acute. *Pet.* obcordate. *Fl.* united. *Fr.* ovate. *Seeds* ribless, scattered with prominent, ascending, rigid prickles.

Myrrhis 1.

D. *Fruit solid, nearly round, unarmed, without wings.*

- 46 MYRRHIS. *Cal.* 0. *Pet.* obcordate, rather unequal. *Fl.* imperfectly separated. *Fl. recept.* 0. *Fr.* deeply furrowed.
- 47 BUNUM. *Cal.* small, acute, unequal. *Pet.* obcordate, unequal. *Fl.* imperfectly separated. *Fl. recept.* 0. *Fr.* slightly ribbed.
54. CENANTHE. *Cal.* large, lanceolate, acute, spreading. *Pet.* obcordate, radiant, very unequal. *Fl.* separated. *Fl. recept.* dilated, depressed. *Fr.* ribbed, spongy.
- 55 CRITHMUM. *Cal.* small, broad, acute, incurved. *Pet.* elliptical, acute, incurved, equal. *Fl.* united, all perfect. *Fl. recept.* 0. *Fr.* ribbed, coriaceous.
- 64 ATHAMANTA. *Cal.* lanceolate, acute, incurved. *Pet.* obcordate, equal. *Fl.* imperfectly separated. *Fl. recept.* 0. *Styles* short. *Fr.* ribbed, ovate, hairy.
- 65 PIMPINELLA. *Cal.* 0. *Pet.* obcordate. *Fl.* either united or diœcious. *Fl. recept.* 0. *Styles* capillary, as long as the fruit. *Fr.* ovate, ribbed, with convex interstices.

E. *Fruit solid, unarmed, without wings, compressed laterally, its transverse diameter being at least twice the breadth of the juncture.*

- 148 *Sium*. *Cal.* small, acute, unequal, or obsolete. *Pet.* obcordate, or ovovate, equal. *Fl.* uniform, united. *Fl. recept.* 0. *Styles* cylind. shorter than the petals. *Fr.* ovate, ribbed, furrowed.

F. *Fruit solid, unarmed, compressed transversely, the juncture being broader than the transverse diameter.*

- 151 *Æthusa*. *Cal.* very small, pointed. *Pet.* obcordate. *Fl.* all perfect, slightly radiant. *Fl. recept.* 0. *Seeds* ovate, convex, with 5 tumid, keeled ribs; interstices deep, angular; border 0.

- 159 *Imperatoria*. *Cal.* 0. *Pet.* obcordate. *Fl.* all perfect. *Fl. recept.* 0. *Seeds* orbicular, convex, notched at each end; with 3 dorsal ribs, and a dilated, flat, even border.

- 169 *Selinum*. *Cal.* small, pointed, spreading. *Pet.* obcordate, involute. *Fl.* perfect. *Fl. recept.* obsolete. *Seeds* elliptical, convex, with 3 dorsal ribs, and a dilated, flat, even border.

- 160 *Angelica*. *Cal.* 0. *Pet.* lanceolate, flattish, undivided, contracted at each end. *Fl.* perfect. *Fl. recept.* thin, wavy, narrow, permanent. *Seeds* elliptical, convex, with 3 dorsal wings, and a narrow, flat, even border.

- 161 *Ligusticum*. *Cal.* small, pointed, erect. *Pet.* elliptical, flattish, undivided, contracted at each end. *Fl.* perfect. *Fl. recept.* 0. *Seeds* oblong, convex, with 3 dorsal, and 2 marginal, equal wings.

G. *Fruit thin, and almost flat: compressed transversely, without dorsal wings.*

- 170 *Peucedanum*. *Cal.* pointed, ascending. *Pet.* obcordate. *Fl.* imperfectly separated. *Fl. recept.* 0. *Seeds* elliptical, convex, notched at each end, slightly 3-ribbed; interstices striated; border narrow, flat, entire.

- 171 *Pastinaca*. *Cal.* small, obsolete. *Pet.* lanceolate, involute. *Fl.* uniform, perfect. *Fl. recept.* orbicular, wavy, thin, concealing the calyx. *Seeds* elliptical, notched at the summit, with 3 dorsal, and 2 marginal ribs; border narrow, flat, thin, entire.

- 172 *Heracleum*. *Cal.* of 5 small, acute, evanescent teeth. *Pet.* obcordate, radiant. *Fl.* separated. *Fl. recept.* wavy, crenate, obtuse. *Seeds* obcordate, notched at the

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

- 173 *TORDYLIUM*. summit; with 3 dorsal ribs, 2 distant marginal ones, and 4 intermediate coloured abrupt lines, from the top; border narrow, entire, slightly tumid.
Cal. of 5. awl-shaped, unequal teeth. *Pet.* obovate, radiant. *Fl.* separated. *Fl. recept.* 0. *Seeds* orbicular, roughish, ribless; border tumid, wrinkled or crenate, naked or bristly.

ORDER III. TRIGYNIA.

* *Fl. superior.*

- 174 *VIBURNUM*. *Cor.* 5-cleft. *Berry* 1-seeded.
 175 *SAMBUCUS*. *Cor.* 5-cleft. *Berry* 3-seeded.

** *Fl. inferior.*

- 176 *STAPHYLEA*. *Cor.* 5-pet. *Caps.* inflated, 2 or 3 joined together.
 177 *TAMARIX*. *Cor.* 5-pet. *Caps.* 3-valved. *Seed* feathery.
 178 *CORRIGIOLA*. *Cor.* 5-pet. *Seed* 1, naked, triangular.
Chenopodium. Stellaria 2.

ORDER IV. TETRAGYNIA.

- 179 *PARNASSIA*. *Nect.* fringed with bristles terminated by globules.
Caps. 4-valved.

ORDER V. PENTAGYNIA.

- 181 *LINUM*. *Pet.* 5. *Caps.* 10-celled.
 182 *SIBBALDIA*. *Pet.* 5. *Seeds* 5, naked. *Cal.* in 10 segments.
 180 *STATICE*. *Pet.* 5. *Seed* 1, covered by the funnel-shaped calyx.
Cerastium 3. *Spergula*.

ORDER VI. HEXAGYNIA.

- 83 *DROSERIA*. *Pet.* 5. *Caps.* 3-valved, many-seeded.

ORDER VII. POLYGYNIA.

- 84 *MYOSURUS*. *Pet.* 5, with nectariferous tubular claws. *Seed* naked.
Cal. of 5 leaves, each spurred at the base.
Ranunculus.

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
88	MYOSOTIS. SCORPION-GRASS.						
	1 palustris	water	Wat. pl.	Fi. blue	6-8	P.	1973
	2 capitosa	tufted water	Wat. pl.	blue	5,6	B.P?	.....
	3 intermedia ..	trailing hairy	Dry sh. pl.	Fi. blue	4,5	P.	.....
	4 sylvatica	wood	Woods	blue	6,7	P.	.....
	5 alpestris	rock.....	Sc. mou.	blue	7,8	P.	*2559
	6 arvensis	field.....	Dry fi.	blue	6-8	A.	2558
	7 versicolor	yellow and blue ..	San. pl.	.....	4-6	A.	*480
89	LITHOSPERMUM. GROMWELL.						
	1 officinale	common	Chal. hill	yellow	5	P.	134
	2 arvense.....	corn	Corn fi.	white	5,6	A.	123
	3 purpuro-cæruleum	purple.....	Chal. so.!	purple	5	P.	117
	4 maritimum ..	sea	Sea sh.	purple	7,8	P.	*368
90	ANCHUSA. ALKANET.						
	1 officinalis	common	Sea coast	purple	6,7	P.	662
	2 sempervirens..	evergreen	Rubbish!	blue	5,6	P.	45
91	CYNOGLOSSUM. HOUNDS-TONGUE.						
	1 officinale	common	Rubbish	pur. red	6,7	B.	921
	2 sylvaticum ..	green-leaved	Sha. la.!	blue	6	B.	1642
92	PULMONARIA. LUNG-WORT.						
	1 officinalis	common	Woods!	blue	5	P.	118
	2 angustifolia ..	narrow-leaved....	Woods!	blue	5,6	P.	1628

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

88. MYOSOTIS. *Boragineæ*. Juss.

- 1 Cal. funnel-shaped, broad-toothed, rough with close bristles. Clusters leafless : cor. limb longer than the tube : root creeping.
- 2 Cal. funnel-shaped, broad-toothed : sprinkled with erect bristles. Clusters leafy at the base : cor. limb the length of the tube : root fibrous.
- 3 Cal. tube bell-shaped, clothed with hooked bristles ; segm. with straight upright hairs. Clusters leafless : root creeping : stems decumbent.
- 4 Cal. tube bell-shaped, clothed with hooked bristles ; segm. with straight upright hairs. Clusters with a leaf at the base : root fibrous : stems erect.
- 5 Cal. deeply cleft, clothed with upright hairs, lowermost incurved. Clusters leafless, forked at the base : root fibrous, tufted. *M. rupicola*. Eng. Bot.
- 6 Cal. cleft half way down, clothed with spreading hairs ; those of the tube hooked. Clusters leafless, with one remote axillary flower : root fibrous.
- 7 Cal. longer than the partial stalks, hairs of its tube hooked. Clusters on long naked stalks : root fibrous. *M. scorpioides*. Eng. Bot.

89. LITHOSPERUM. *Boragineæ*. Juss.

- 1 Seeds smooth : cor. scarcely exceeding the calyx : L. lanceolate, rather acute, veined.
- 2 Seeds rugose : cor. scarcely exceeding the calyx : L. obtuse, veinless.
- 3 Seeds smooth : cor. greatly exceeding the length of the calyx : L. lanceolate, acute, veinless.
- 4 Seeds keeled, smooth : L. ovate, glaucous, sprinkled with callous points. *Pulmonaria*. Eng. Bot.

90. ANCHUSA. *Boragineæ*. Juss.

- 1 Spikes imbricated, 1-rowed, bracteas ovate : L. lanceolate.
- 2 Pedunc. axillary, 2-leaved, capitate : L. ovate.

91. CYNOGLOSSUM. *Boragineæ*. Juss.

- 1 Stam. shorter than the cor : L. broad-lanceolate, downy, sessile.
- 2 Stam. shorter than the cor : L. spatulate-lanceolate, shining, partly naked, rough beneath.

92. PULMONARIA. *Boragineæ*. Juss.

- 1 Cal. nearly the length of the tube : L. ovate, rough.
- 2 Cal. nearly the length of the tube : L. all lanceolate, rough.

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
93	SYMPHYTUM.	COMFREY.					
	1 officinale	common	Wet pi.	cre + pur	5,6	P.	817
	2 tuberosum . .	tuberous-rooted . .	Moi.sh.p.	cream	7	P.	1502
94	BORAGO.	BORAGE.					
	1 officinalis § . .	common	Rubbish	blue	6,7	B.	36
95	ASPERUGO.	MADWORT.					
	1 procumbens . .	german	Rubbish !	blue	6,7	A.	661
96	LYCOPSIS.	BUGLOSS.					
	1 arvensis	small	Corn fi.	blue	6,7	A.	938
97	ECHIU.	VIPER'S BUGLOSS.					
	1 vulgare	common	Fields	blue	6,7	B.	181
98	PRIMULA.	PRIMROSE.					
	1 vulgaris	common	Woods	yellow	4,5	P.	4
	2 elatior	oxlip	Woods !	yellow	4	P.	513
	3 veris	cowslip	Mea.pas.	yellow	4,5	P.	5
	4 farinosa	bird's eye	Nor.pas.	red	6,7	P.	6
	5 Scotica	Scottish	Scotland	violet	7	P.	.....
99	CYCLAMEN.	SOW-BREAD.					
	1 hederifolium §.	ivy-leaved	Woods !	white	4,5	P.	*548
100	MENYANTHES.	BUCK-BEAN.					
	1 trifoliata	common	Wat.pla.	white	6,7	P.	495
	2 nymphaeoides .	fringed	Rivers !	yellow	7,8	P.	217
101	HOTTONIA.	WATER-VIOLET.					
	1 palustris	marsh	Ditches	pur-ish	6,7	P.	364

CLASS V. PENTANDRIA.

ORDER 1. MONOGYNIA.

SPECIFIC CHARACTER.

93. SYMPHYTUM. *Boragineæ*. JUSS.

- 1 L. ovate-lanceolate, decurrent.
- 2 L. ovate, slightly decurrent ; highest opposite.

94. BORAGO. *Boragineæ*. JUSS.

- 1 Cor. limb much longer than the tube, throat closed by a double row of valves, innermost awl-shaped, bearing the stamens.

95. ASPERUGO. *Boragineæ*. JUSS.

- 1 Calyx of the fruit flattened.

96. LYCOPSIS. *Boragineæ*. JUSS.

- 1 L. lanceolate, bristly : cal. erect when flowering.

97. ECHIU. *Boragineæ*. JUSS.

- 1 Stem tubercled, bristly : L. stem lanceolate, hispid ; spikes lateral, hairy, deflexed.

98. PRIMULA. *Primulaceæ*. VENT.

- 1 L. dentated, wrinkled : scape 1-flow : limb. of the cor. flat.
- 2 L. dentated, wrinkled, contracted towards the middle : scape many-flow : limb. of the cor. flat.
- 3 L. dentated, wrinkled, contracted towards the middle : scape many-flow : limb. of the cor. concave.
- 4 L. dentated : even, powdery beneath : limb. of the cor. flat : stig. undivided.
- 5 L. crenate, smooth, powdery : limb. of the cor. flat : stig. 5-cleft.

99. CYCLAMEN. *Primulaceæ*. VENT.

- 1 Cor. retroflexed : L. cordate, angular, denticulate, nerves and foot-stalks rough. *C. europæum*. Eng. Bot.

100. MENYANTHES. *Gentiana*. JUSS.

- 1 L. ternate : cor. very plumose on the upper surface.
- 2 L. cordate, waved, floating : cor. ciliated.

101. HOTTONIA. *Primulaceæ*. VENT.

- 1 Stem many-flow : peduncles in whorls.

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
102	LYSIMACHIA.	LOOSESTRIFE.					
	*						
	1 vulgaris	yellow	Wat. sh.	yellow	7	P.	761
	2 thyrsoflora	tufted	Bog. pl.!	yellow	7	P.	176
	**						
	3 nemorum	wood	Moi.sh.p.	yellow	5-9	P.	527
	4 Nummularia ..	moneywort	Bog. pas.	yellow	6,7	P.	528
103	ANAGALLIS.	PIMPERNEL.					
	1 arvensis	scarlet.....	Fi.Ro.si.	scarlet	6,7	A.	529
	2 cærulea	blue	Corn fi.!	blue	6,7	A.	1823
	3 tenella	bog	Boggy pl.	rose	7,8	P.	530
104	AZALEA.	AZALEA.					
	1 procumbens ..	trailing	Sc. moun.	rose	7	S.	865
105	CONVOLVULUS	BINDWEED.					
	1 arvensis	small	Fi.Ro.si.	pink	6,8	P.	312
	2 sepium	great	Moi.hed.	white	7,8	P.	313
	3 Soldanella ..	sea	Sea sh.	flesh	6,7	P.	314
106	POLEMONIUM.	JACOB'S-LADDER.					
	1 cæruleum	blue	Bushy p.!	blue	6	P.	14
107	CAMPANULA.	BELL-FLOWER					
	1 rotundifolia ..	round-leaved	Heaths	blue	8,9	P.	866
	2 patula	spreading	Pastures!	violet	7,8	B.	42
	3 Rapunculus ..	rampion	Hedge b.	purple	7,8	P.	283
	4 persicifolia ..	peach-leaved	Sc. wds.	white	7	P.	.....
	5 latifolia.....	giant	Sha. m. p.	purple	7,8	P.	302

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

102. LYSIMACHIA. *Primulaceæ*. VENT.* *Peduncles many-flow.*

- 1 Panicked, racemes term: L. ovate-lanceolate, acute.
- 2 Racemes lateral, axillary, peduncled.

** *Peduncles 1-flow.*

- 3 L. ovate, acute: Fl. solitary: stem procumb: stem. smooth.
- 4 L. somewhat cordate: Fl. solitary: stem creeping: stem. glandular.

103. ANAGALLIS. *Primulaceæ*. VENT.

- 1 L. ovate, dotted beneath: stem procumbent: cor. minutely notched.
- 2 L. lanceolate-ovate, dotted beneath: stem erect: cor. strongly crenate.
- 3 L. roundish, rather acute, petioled: stem creeping: stigma acute.

104. AZALEA. *Ericææ*. JUSS.

- 1 Branches diffuse, procumbent: L. opposit, revolute, very smooth.

105. CONVULVULUS. *Convolvulaceæ*. JUSS.

- 1 L. arrow-shaped, lobes acute: pedunc. mostly 1-flow: bractæas minute, remote from the flower.
- 2 L. arrow-shaped, lobes truncated: pedunc. square, 1-flow: bractæas cordate, close to the calyx.
- 3 L. kidney-shaped, pedunc. 1-flow. with membranous angles: stems procumbent.

106. POLEMONIUM. *Polemoniaceæ*. JUSS.

- 1 L. pinnated: Fl. erect: cal. longer than the tube of the corolla: root fibrous.

107. CAMPANULA. *Campanulaceæ*. JUSS.

- 1 L. radical kidney-shaped, serrated; those of the stem linear, entire.
- 2 L. straight; radical lanceolate-oval: pan. spreading: cal. denticulated. Stem with several fringed angles.
- 3 L. waved; radical lanceolate-oval: pan. compact. Cal. entire: stem angular, hairy below.
- 4 L. smooth, slightly serrated; radical obovate; stem linear-lanceolate, sessile, remote. Stem round, smooth, few-flow.
- 5 L. ovate-lanceolate: stem very simple, cylind: pedunc. 1-flow: fruit drooping.

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	CAMPANULA.	BELL-FLOWER					
	6 rapunculoides.	creeping	Woods !	blue	7,8	P.	1369
	7 Trachelium ..	nettle-leaved	Woods	violet	7	P.	12
	8 glomerata....	clustered.....	Chal. pa.	violet	7,8	P.	90
	9 hybrida	corn	Chal. fi.	violet	8	A.	375
	10 hederacea	ivy-leaved	Moi.sh.pl!	blue	6-8	P.	73
108	PHYTEUMA.	RAMPION.					
	1 orbiculare....	round-headed	Chal. pa.!	violet	8	P.	142
109	JASIONE.	SHEEP'S-SCABIOUS.					
	1 montana	common	San. pas.	blue	6,7	A.	882
110	LOBELIA.	LOBELIA.					
	1 Dortmanna ..	water	Lakes ..	blue	7	P.	140
	2 urens	acid	Heaths!	blue	8,9	P.	953
111	IMPATIENS.	BALSAM.					
	1 Noli me tangere	yellow.....	W.sh.pl!	yellow	7,8	A.	937
112	VIOLA.	VIOLET.					
	1 hirta	hairy	Chal. so.	blue	4	P.	894
	2 odorata.....	sweet	Sha. pl.	purple	3,4	P.	619
	3 palustris	marsh	Mos.bog	blue	4	P.	444
	4 canina	dog	Heaths	blue	4-8	P.	620
	5 lactea	cream-coloured ..	M. hea.	cream	5	P.	445
	6 flavicornis....	yellow-spurred ..	Pas. ..	blue	5,6	P.	.....
	7 tricolor	pansy	Cult.gr.	yel. pu.	5-9	A.	1287

CLASS V. PENTANDRIA.

ORDER 1. MONOGYNIA.

SPECIFIC CHARACTER.

CAMPANULA.

- 6 L. cordate-lanceolate : stem branched : Fl. scattered, 1-rowed, nodding : cal. reflexed.
- 7 Stem angular : L. cordate-lanceolate, sharply serrated : cal. hispid : pedunc. axillary, few-flow.
- 8 Stem angular, simple : Fl. sessile, in a terminal head : L. ovate, crenate.
- 9 Stem often branched at the base, straight : L. oblong, crenate, undulated : cor. shorter than the calyx : caps. prismatic.
- 10 L. cordate, 5-lobed, petioled, smooth : stem lax.

108. PHYTEUMA. *Campanulaceæ*. JUSS.

- 1 Head roundish : L. crenate ; radical ones cordate.

109. JASIONE. *Lobeliaceæ*. JUSS.

- 1 L. oblong, bluntish, wavy, sessile, alternate.

110. LOBELIA. *Lobeliaceæ*. JUSS.

- 1 L. linear 2-celled, very entire : stem nearly naked.
- 2 Stem rather upright : L. lower obovate, denticulated ; uppermost lanceolate, serrated : Clusters terminal.

111. IMPATIENS. *Balsamineæ*. RICH.

- 1 Pedunc. many-flow. solitary : L. ovate : joints of the stems swelling.

112. VIOLA. *Violaceæ*. JUSS.

- 1 Stemless : L. cordate, rough with hairs, as well as their petioles : cal. obtuse : lateral pet. with a hairy central line.
- 2 Stemless : scyons creeping : L. cordate, smoothish, as well as their petioles : cal. obtuse : lateral pet. with a hairy central line.
- 3 Stemless : L. kidney-shaped, smooth : root creeping : lateral pet. with a hairy central line.
- 4 Stem when becoming adult, ascending, channelled : L. oblong-cordate : cal. acute : stip. serrated : bract. awl-shaped, entire.
- 5 Stem ascending, cylind. : L. ovate-lanceolate : stip. inciso-serrated : bract. lanceolate, somewhat serrated.
- 6 Stem ascending, woody, angular, branched : L. cordate, coriaceous, smooth : Cal. leaves lanceolate : stip. and bract. fringed.
- 7 Stem angular, diffuse : L. oblong, deeply crenate : stip. lyrate, pinatifid : bract. obsolete.

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	VIOLA.	VIOLET.					
	8 lutea	yellow mountain . .	M. pas.	yellow	5-9	P.	721
113	VERBASCUM.	MULLEIN.					
	1 Thapsus	great	Chal. so.	yellow	7,8	B.	549
	2 Lychnitis	white	Chal. so.	cream	7,8	B.	58
	3 pulverulentum	yellow hoary	Bor. of fl.	gold-co	7	B.	487
	4 nigrum	black	Chal. so.	yellow	7,8	P.	59
	5 virgatum	large-flowered	Grav. pl.!	yellow	8	B.	550
	6 Blattaria	moth	Grav. pl.!	yellow	7	A.	393
114	DATURA.	THORN-APPLE					
	1 Stramonium §.	common	Rubbish	white	7	A.	1288
115	HYOSCYAMUS.	HENBANE.					
	1 niger	common	Chal. so.	straw	7	A.	591
116	ATROPA.	DEADLY-NIGHTSHADE.					
	1 Belladonna . .	common	Rubbish	violet	6	P.	592
117	SOLANUM.	NIGHTSHADE.					
	1 Dulcamara . .	woody	Hedges	violet	6,7	S.	565
	2 nigrum	common	Rubbish	white	6-9	A.P.	566
118	ERYTHRÆA.	CENTAURY.					
	1 Centaurium . .	common	Grav. pa.	rose	7,8	A.	417
	2 littoralis	dwarf-tufted	Sea coa.	rose	6	A.	2305

SPECIFIC CHARACTER.

VIOLA.

- 8 Stem triangular, simple: L. ovate, crenate, ciliated: stip. lobed palmate: bract. minute, scarcely toothed: spur, the length of the calyx.

113. VERBASCUM. *Solanææ*. Juss.

- 1 L. decurrent, woolly on both sides: stem simple.
 2 L. oblong-wedge-shaped, almost naked on the upper surface: stem angular, paniced.
 3 L. ovate-oblong, slightly serrated, powdery on both sides: stem. cylind. paniced.
 4 L. oblong-cordate, petioled, crenate, undulated, sometimes pubescent.
 5 L. oblong-lanceolate, dentate, sessile: radical ones somewhat lyrate, pubescent: stem branched: Fl. clustered, almost sessile.
 6 L. embracing the stem, oblong, smooth, serrated, radical sinuated: pedunc. 1-flow. solitary: pedunc. longer than the bracteas.

114. DATURA. *Solanææ*. Juss.

- 1 Pericarps spinous, erect, ovate: L. ovate, smooth, sinuated.

115. HYOSCYAMUS. *Solanææ*. Juss.

- 1 L. embracing the stem, sinuated: Fl. sessile.

116. ATROPA. *Solanææ*. Juss.

- 1 Stem herbaceous: L. ovate, entire: Fl. solitary.

117. SOLANUM. *Solanææ*. Juss.

- 1 Stem unarmed, shrubby, flexuose: upper leaves hastate: racemes cymose.
 2 Stem unarmed, herbaceous: L. ovate, dentate, waved: umbels lateral, nodding.

118. ERYTHRÆA. *Gentianææ*. Juss.

- 1 Stem dichotomously paniced: L. ovate-lanceolate: cal. shorter than the tube; seg. partly combined by a membrane.
 2 Stem simple, straight: L. linear-obovate, obscurely 3-ribbed: cal. as long as the tube; teeth awl-shaped: Fl. corymbose, nearly sessile.

CLASS V. PENTANDRIA.

ORDER 1. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	ERYTHRÆA.	CENTAURY.					
	3 latifolia.....	broad-leaved	Sea sh.	rose	7	A.	.....
	4 pulchella	dwarf-branched ..	Sea coa.	rose	8,9	A.	458
119	SAMOLUS.	BROOKWEED.					
	1 Valerandi....	common	Wa. grav.	white	7	P.	703
120	LONICERA.	HONEYSUCKLE					
	1 Caprifolium ..	pale perfoliate....	Woods!	yellow	5,6	S.	799
	2 Periclymenum	common	Hedges	yellow	6-10	S.	800
	3 Xylosteum ..	upright	Woods!	yellow	7	S.	916
121	RHAMNUS.	BUCKTHORN.					
	1 catharticus ..	purgings	Hedges	green	5,6	S.	1629
	2 Frangula	alder-leaved	Woods	white	5	S.	250
122	EUONYMUS.	SPINDLE-TREE					
	1 europæus	common	Hedges	white	5	S.	362
123	RIBES.	CURRENT.					
	*						
	1 rubrum.....	common	Riv. ban.	yell-ish	5	S.	1289
	2 petraeum	rock.....	Nor. wds!	reddish	5	S.	705
	3 spicatum	acid mountain....	Nor. wds!	green	5	S.	1290
	4 alpinum	tasteless mountain	Nor. wds!	green	4,5	S.	704
	5 nigrum.....	black	Moi. hed.!	green	5	S.	1291
	**						
	6 Grossularia ..	rough gooseberry .	Hedges	gr. + fle.	4	S.	1292

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

ERYTHRÆA.

- 3 Stem 3-cleft at the top. Cal. as long as the tube. Fl. in dense forked tufts: L. broadly elliptical, 5 or 7-ribbed.
- 4 Stem winged, much branched on all sides: L. ovate: cal. segments awl-shaped, shorter than the tube: Fl. solitary, stalked.

119. SAMOLUS. *Primulaceæ*. VENT. §

- 1 L. obtuse: raceme many-flow: pedicels furnished with bracteas.

120. LONICERA. *Cuprifoliaceæ*. JUSS.

- 1 Fl. ringent, whorled, term: L. deciduous; upper united and perfoliate.
- 2 Heads ovate, imbricated, term: L. all distinct, deciduous: Fl. ringent.
- 3 Stalks 2-flow: berries distinct: L. entire, downy.

121. RHAMNUS. *Rhamneæ*. JUSS.

- 1 Spines term: Fl. 4-cleft, dioecious: L. ovate, serrated: stem erect: berry 4-seeded. Style 4-cleft.
- 2 Unarmed: Fl. hermaph. L. very entire, smooth: berry 2-seeded. Style simple.

122. EUONYMUS. *Celastrineæ*. R. BR.

- 1 Fl. mostly 4-cleft: pet. acute: branches smooth.

123. RIBES. *Grossulaceæ*. JUSS.* Unarmed. *Currants*.

- 1 Racemes smooth, pendulous: Fl. flattish: pet. obcordate.
- 2 Racemes hairy, erect: fruit pendulous: pet. obtuse, bract. shorter than the flower-stalks: Stem erect.
- 3 Spikes erect: Fl. nearly sessile: pet. oblong; bract. shorter than the flower-stalks.
- 4 Racemes erect: bract. longer than the flower-stalks: L. shining beneath: stem erect.
- 5 Racemes, hairy, pendulous, with a separate flower-stalk at the base of each. Fl. oblong.

** Prickly. *Gooseberries*.

- 6 Prickles 1-3. under each bud: branches otherwise smooth, spreading: pedunc. 1-flow: bract. separate: fruit hirsute: cal. seg. reflexed, shorter than the tube.

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
124	HEDERA.	IVY.					
	1 Helix	common	Wds. Wa	green	10	S.	1267
125	ILLECEBRUM.	KNOT-WEED.					
	1 verticillatum ..	whorled	Boggy pl.	white	7	P.	895
126	GLAUX.	SALT-WEED.					
	1 maritima	black	Salt mar.	flesh	6,7	P.	13
127	THESIUUM.	BASTARD-TOAD-FLAX.					
	1 linophyllum ..	flax-leaved	Chal. pa.	white	7	P.	247
128	VINCA.	PERIWINKLE.					
	1 minor	lesser	Bushy pl!	violet	5	P.	917
	2 major	greater	Wet grov.	blue	5	P.	514

ORDER II. DIGYNIA.

129	HERNARIA.	RUPTURE-WORT.					
	1 glabra	smooth	San. gr.	green	7,8	P.	206
	2 hirsuta	hairy	San. gr.!	green	7,8	P.	1379
130	CHENOPODIUM.	GOOSE-FOOT.					
	*						
	1 BonusHenricus	perennial	Rubbish	green	5,6	P.	1033
	2 urbicum	upright	Dung hill	green	8,9	A.	717
	3 rubrum.....	red	Dung hill	green	8	A.	1721
	4 botryodes	many clustered ..	Sea sh.	reddish	8,9	A.	2247
	5 murale	nettle-leaved	Rubbish	green	8,9	A.	1722

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

124. HEDERA. *Caprifoliaceæ*. JUSS.

- 1 L. some ovate, some lobed.

125. ILLECEBRUM. *Illecebreæ*. R. BR.

- 1 Fl. whorled, without braeteas : stems procumbent.

126. GLAUX. *Primulaceæ*. VENT.

- 1 Stem erect, leafy : Fl. solitary, axillary.

127. THESIIUM. *Santalaceæ*. R. BR.

- 1 Spike branched : braeteas ternate : L. linear-lanceolate : tube of the calyx very short.

128. VINCA. *Apocynææ*. JUSS.

- 1 Stems procumb : L. elliptic-lanceolate, margin smooth : Fl. peduncled : calyx segments lanceolate.
2 Stems uprightish : L. ovate, ciliate : Fl. peduncled ; calyx segments setaceous, elongated.

ORDER II. DIGYNIA.

129. HERNIARIA. *Illecebreæ*. R. BR.

- 1 Herbaceous : leaves and calyx smooth.
2 Herbaceous : leaves and calyx hairy.

130. CHENOPODIUM. *Chenopodeæ*. VENT.

* *Leaves angular.*

- 1 L. triangular, arrow-shaped, entire : spikes term. compound, leafless.
2 L. triangular, denticulated : spikes crowded, very straight, approximate to the stem, very long, almost leafless.
3 L. rhomboid-triangular, sinuate-dentate : spikes erect, compound, leafy.
4 L. triangular, somewhat toothed, upper ones bluntish : spikes erect, compound, rounded, leafy.
5 L. ovate, shining, acute, dentate : panicles much branched, cymose, leafless.

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	CHENOPODIUM. GOOSE-FOOT.						
	6 hybridum	maple-leaved	Rubbish	green	8	A.	1919
	7 album	white	Rubbish	green	7,8	A.	1723
	8 ficifolium	fig-leaved	Dung hill	green	8	A.	1724
	9 glaucum	oak-leaved	Rubbish	green	8	A.	1454
	**						
	10 olidum	stinking	Rubbish	green	8	A.	1034
	11 polyspermum .	round-leaved	Rubbish	green	7,8	A.	1480
	12 acutifolium ..	sharp-leaved	Uncul.gr.	green	7,8	A.	1481
	13 maritimum ..	sea	Salt mar.	green	7,8	A.	633
131	BETA.	BEEF.					
	1 maritima	sea	Sea coast	green	8	P.	285
132	SALSOLA.	SALTWORT.					
	1 Kali	prickly	Sea shore	flesh	7	A.	634
	2 fruticosa	shrubby	Sea shore	green	7,8	S.	635
133	ULMUS.	ELM.					
	1 campestris ..	common	Hedges	brown	3,4	T.	1886
	2 suberosa	cork-barked	Hedges	reddish	3	T.	2161
	3 major §	dutch	Hedges	brown	3	T.	2542
	4 montana	broad-leaved	Woods	brown	3,4	T.	1887
	5 glabra	wych	Hedges	brown	3	T.	2248

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

CHENOPODIUM.

- 6 L. cordate, angular-dentate, acuminate: panicles much branched, subeymose, divaricate, leafless.
- 7 L. rhomboid-ovate, jagged, entire towards the base, uppermost oblong, entire: seeds smooth.
- 8 L. hastate-sinuated, jagged, entire towards the base; uppermost oblong, entire: seeds dotted.
- 9 L. all oblong with deeply waved edges, glaucous beneath: spikes leafless, clustered. Seeds minutely dotted.

** *Leaves entire.*

- 10 L. rhomboid-ovate: spikes conglomerate, leafless.
- 11 L. ovate: stem prostrate: clusters cymose, divaricate, leafless.
- 12 L. ovate, acute: stem erect: clusters spiked, compound, erect, elongated, leaf: lowermost, in strong plants, cymose, leafless.
- 13 L. awl-shaped semicylind: Fl. axillary, sessile.

131. BETA. *Chenopodea*. VENT.

- 1 Stems decumb. Fl. in pairs: calyx-segments entire at the keel.

132. SALSOLA. *Chenopodea*. VENT.

- 1 Herbaceous, decumbent: L. awl-shaped, spinous-pointed, rough: cal. marginate.
- 2 Shrubby erect: L. semicylind: rather obtuse, spineless.

133. ULMUS. *Ulmaceae*. MIRB.

- 1 L. doubly-serrated, scabrous, unequal at the base: Fl. subsessile, 4-cleft: fruit oblong, deeply cloven, naked.
- 2 L. pointed, doubly serrated, rough, unequal at the base: Fl. peduncled 4 or 5-cleft: fruit round, deeply cloven, naked: branches spreading: bark corky.
- 3 L. unequally-serrated, rough, unequal at the base: Fl. subsessile, 4-cleft: fruit obovate, slightly cloven, naked; branches drooping: bark corky.
- 4 L. doubly-serrated, acuminate, round, unequal at the base: Fl. peduncled, 5 or 6-cleft: fruit round, slightly cloven, naked: branches drooping.
- 5 L. doubly serrated, smooth, unequal at the base: Fl. subsessile, 5-cleft: fruit oblong, naked, deeply cloven.

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
134	CUSCUTA.	DODDER.					
	1 europæa	greater	On thistl.	pellu.	8,9	A.	378
	2 Epithymum ..	lesser	On shrub.	pellu.	8	P?	55
135	SWERTIA.	FELWORT.					
	1 perennis §	marsh	Alp. mar.	purple	8	P.	1441
136	GENTIANA.	GENTIAN.					
	1 Pneumonanthe	marsh	Moi. hea.	blue	8,9	P.	20
	2 acaulis §	dwarf	Mount.	blue	5,7	P.	1594
	3 verna	spring	Mount.!	blue	4	P.	493
	4 nivalis	small alpine	Sc. alps	blue	8	A.	896
	5 Amarella	autumnal	Chal. pa.	purple	8,9	A.	236
	6 campestris ..	field	Grav. pa.	purple	9,10	A.	237
	UMBELLIFEROUS PLANTS.						
137	ERYNGIUM.	ERYNGO.					
	1 maritimum ..	sea	Sea sh.	blue	7,8	P.	718
	2 campestre	field	Pas. ! ..	blue	7,8	P.	57
138	SANICULA.	SANICLE.					
	1 europæa	wood	Woods	cream	5	P.	98
139	ECHINOPHORA	PRICKLY-SAMPHIRE.					
	1 spinosa†	common	Sea coast	white	7	P.	2413
140	DAUCUS.	CARROT.					
	1 Carota	wild	Bor. of fi.	white	6,7	B.	1174
	2 maritimus	sea coast	Sou. coa.	white	7,8	B.	2560

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

134. CUSCUTA. *Convolvulaceæ*? Juss.

- 1 Fl. nearly sessile : cor. throat naked : stig. acute.
- 2 Fl. sessile : stam. with minute crenate scales at the base : stig. acute.

135. SWERTIA. *Gentianæ*. Juss.

- 1 Cor. 5-cleft : radical leaves ovate.

136. GENTIANA. *Gentianæ*. Juss.

- 1 Cor. bell-shaped, 5-cleft : Fl. peduncled : L. linear.
- 2 Cor. 5-cleft, bell-shaped solitary : stem 4-angular, scarcely the length of the flower.
- 3 Cor. 5-cleft, salver-shaped, crenate : segments toothed at the base : L. ovate, crowded.
- 4 Cor. funnel-shaped, 5-cleft, with notched intermediate segments : cal. angles equal, acute : stem many-flow.
- 5 Cor. 5-cleft salver-shaped ; throat bearded : cal. segments nearly equal.
- 6 Cor. 4-cleft salver-shaped ; throat bearded : outer calyx-segments larger.

UMBELLIFEROUS PLANTS. *Umbelliferae*. Juss.

137. ERYNGIUM.

- 1 L. radical roundish, plaited, spinous : heads peduncled : Recept. scales 3-cleft.
- 2 L. embracing the stem, pinnatifid. Recept. scales undivided.

138. SANICULA.

- 1 L. radical simple, deeply lobed. Fl. nearly sessile.

139. ECHINOPIORA.

- 1 Leaflets awl-shaped, spinous pointed, entire.

140. DAUCUS.

- 1 L. pinnatifid, with linear-lanceolate segments : umbels with one central, neutral, blood-red flower ;—when in seed concave. Seed-bristles slender.
- 2 L. pinnatifid, with rounded segments, succulent. Umbels when in seed convex. Seed-bristles flattened.

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
141	CAUCALIS.	BUR-PARSLEY.					
	1 daucoides	small	Chal. fi.	reddish	6	A.	197
	2 latifolia	great	Chal. fi.!	pink	7	A.	198
142	TORILIS.	HEDGE-PARSLEY.					
	1 Anthriscus ..	upright	Hedges	white	7	A.	*987
	2 infesta	spreading	Road-si.	cream	7	A.	*1314
	3 nodosa	knotted	Bor. of fi.	white	5,6	A.	*199
143	ANTHRISCUS.	BEAKED-PARSLEY.					
	1 vulgaris	common	Waste gr.	white	5	A.	*818
144	SCANDIX.	SHEPHERD'S-NEEDLE.					
	1 Pecten-Veneris	common	Cul. fi.	white	6,8	A.	1397
145	CHÆROPHYLLUM.	CHERVIL.					
	1 sativum §	garden	Waste gr.	white	6	A.	.....
	2 sylvestre	wild	Hedges	white	4,5	P.	752
146	MYRRHIS.	CICELY.					
	1 odorata	sweet	Mou. pas.	white	5	P.	*697
	2 temulenta	rough	Sha. pl.	white	6,7	P.	*1521
	3 aurea	tawny-seeded	Scotland	cream	6	P.	*2103
	4 aromatica	broad-leaved	Scotland!	white	6	P.	.....
147	BUNIUM.	EARTH-NUT.					
	1 flexuosum	common	Past. ..	white	5,6	P.	988

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

141. CAUCALIS.

- 1 Umbels trifid, naked : umbellets 3-seeded : partial bract. 3 : L. more than doubly compound.
- 2 Umbels trifid, with membranous bracteas : umbellets 5-seeded : L. pinnate, serrated.

142. TORILIS.

- 1 Umbels many-cleft, crowded : bract. several. Leaf. pinnatifid : branches nearly upright. *Caucalis. Eng. Bot.*
- 2 Umbels many-cleft, crowded : general bract. few or none : partial many. Leaf. pinnatifid : branches spreading. *Caucalis. Eng. Bot.*
- 3 Umbels lateral, simple, nearly sessile : stem prostrate. Fr. partly granulated. *Caucalis. Eng. Bot.*

143. ANTHRISCUS.

- 1 L. triply pinnate, pinnatifid. Fr. ovate, twice the length of its beak. *Scandix. Eng. Bot.*

144. SCANDIX.

- 1 Umbels simple, solitary, or in pairs : bract. jagged : Pet. inflexed at the point. Fr. with a long bristly-edged beak.

145. CHÆROPHYLLUM.

- 1 Umbels sessile, lateral : bracteas lanceolate.
- 2 Umbels term. pedunc : bracteas ovate, membranous.

146. MYRRHIS.

- 1 Seeds with sharp prominent angles ; roughish towards the summit. *Scandix. Eng. Bot.*
- 2 Seeds furrowed, nearly smooth. Stem rough, swelled under each joint. *Cherophyllum. Eng. Bot.*
- 3 Seeds ribbed, col : stem slightly swelled, angular, hairy : L. pointed, pinnatifid : general bracteas few ; partial deflexed. *Cherophyllum. Eng. Bot.*
- 4 Seeds ribbed. Styles elongated. Leaflets ovate, acute, serrated undivided.

147. BUNIUM.

- 1 Stem tapering and zig-zag at the base : styles nearly upright. Fr. beaked : general bracteas 1-3.

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
148	SIUM.	WATER-PARSNEP.					
	1 latifolium	broad-leaved	Rivulets	white	7,8	P.	204
	2 angustifolium .	narrow-leaved ..	Rivulets	white	7,8	P.	139
	3 nodiflorum ..	procumbent	Rivulets	white	7,8	P.	639
	4 repens	creeping	Bog. mea.	white	6-8	P.	1431
	5 inundatum ..	least	Ditches	white	5	P?	*227
	6 verticillatum ..	whorled	Salt mar.	white	7,8	P.	*395
149	SISON.	HONE-WORT.					
	1 Amomum	hedge	Mo. chal.	white	8	A.B?	954
	2 segetum	corn	Chal. fi.!	white	8	A.B?	228
150	CICUTA.	COWBANE.					
	1 virosa	water	Ditches	white	8	P.	479
151	ÆTHUSA.	FOOL'S-PARSLEY.					
	1 Cynapium ..	common	Corn fi.	white	7,8	A.	1192
152	CONIUM.	HEMLOCK.					
	1 maculatum ..	common	Hedges	white	6,7	B.	1191
153	CORIANDRUM.	CORIANDER.					
	1 sativum §	common	Fields	white	6	A.	67
154	CENANTHE.	WATER-DROP-WORT.					
	1 fistulosa	common	Ditches	flesh	7,8	P.	363
	2 pimpinelloides	parsley	Salt mar.	white	7	P.	347
	3 peucedanifolia	sulphur wort	Ditches	white	6	P.	348

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

148. SIUM.

- 1 L. pinnate : leaf. oblong lanceolate, equally serrated.
- 2 L. pinnate : leaf. unequally lobed and serrated : umbels peduncled, opposite the leaves : stem erect.
- 3 L. pinnate : leaf. ovate, equally serrated : umbels nearly sessile, opposite the leaves : stem procumbent.
- 4 L. pinnate : leaf. roundish, deeply toothed : umbels peduncled, opposite the leaves : stem creeping.
- 5 L. pinnate, cut ; lowermost in many compound, capillary segments. Umbels 5-flow. in pairs. *Sison. Eng. Bot.*
- 6 Leaf. whorled, capillary, many-cleft. *Sison. Eng. Bot.*

149. SISON.

- 1 L. pinnate ; uppermost ternate : umbels erect, about 4-rays : bases of the styles globose.
- 2 L. pinnate : leaf. roundish, numerous : umbels drooping variously : bases of the styles dilated, depressed.

150. CICUTA.

- 1 L. bi-ternate : Leaf. linear-lanceolate, decurrent.

151. ÆTHUSA.

- 1 L. uniform : leaf. wedgc-shaped, decurrent, with lanceolate seg.

152. CONIUM.

- 1 Stem polished and spotted, much branched.

153. CORIANDRUM.

- 1 The two hemispherical seeds making one uniform globe : leaf. of the lower leaves wedge-shaped.

154. CENANTHE.

- 1 Stoloniferous : stem leaves pinnate, filiform, fistulous : general bracteas mostly wanting.
- 2 Radical leaf. wedge-shaped, cloven ; those on the stem linear, very entire, elongated : general bracteas, many, linear.
- 3 Leaf. all linear : general bracteas none : knobs of the root sessile, elliptical.

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	CENANTHE.	WATER-DROP-WORT.					
	4 crocata	hemlock	Ditches	white	7	P.	2313
	5 phellandrium.	fine-leaved	Rivulets	white	6,7	B.	*684
155	CRITHMUM.	SAMPHIRE.					
	1 maritimum ..	sea	Sea sh.	white	8	P.	819
156	SMYRNIUM.	ALEXANDERS.					
	1 Olusatrum ..	common	Rocks ..	gre-ish	5	B.	230
157	APIUM.	PARSLEY.					
	1 graveolens ..	smallage	Ditches	gre-ish	8,9	B.	1210
158	LEGOPODIUM.	GOAT-WEED.					
	1 Podagria	common	Mo.sh.pl.	white	5,6	P.	940
159	IMPERATORIA	MASTERWORT.					
	1 Ostruthium ..	great	Scot.meat.	flesh	6	P.	1380
160	ANGELICA.	ANGELICA.					
	1 Archangelica §	garden	Wat. pl.!	green	6,9	B.	2561
	2 sylvestris	wild	Wat. pl.	flesh	7	P.	1128
161	LIGUSTICUM.	LOVAGE.					
	1 Scoticum	Scottish	Nor. coa.	reddish	7	P.	1207
	2 Cornubiense..	Cornish	Cornwall	white	7	P.	683
162	MEUM.	SPIGNET.					
	1 athamanticum.	bald-money	Nor.pas.	yell-ish	5,6	P.	2249
	2 Fœniculum ..	common fennel ..	Cha.clif.	goldco.	7,8	B.	1208
163	CARUM.	CARAWAY.					
	1 Carni §	common	Mea.pas.	white	6	B.	1503

x Goutweed.
[See in Botany]

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

CENANTHE.

- 4 Leaf. all wedge-shaped, many-cleft, nearly equal.
 5 Segments of the leaves divaricated. Fr. ovate, with 5 broad ribs.
Phellandrium. Eng. Bot.

155. CRITHMUM.

- 1 Leaf. lanceolate, fleshy: bractes ovate.

156. SMYRNIUM.

- 1 Stem-leaves ternate, petioled, serrated.

157. APIUM.

- 1 Leaf. of the stem-leaves wedge-shaped: stem furrowed: partial bractes 0.

158. AEGOPODIUM.

- 1 L. radical bi-ternate; uppermost, ternate, ovate.

159. IMPERATORIA.

- 1 L. bi-ternate, undivided or 3-lobed, rough-edged: pedunc. alternate.

160. ANGELICA.

- 1 Terminal leaflet lobed.
 2 Leaflets equal, ovate, serrated.

161. LIGUSTICUM.

- 1 L. bi-ternate.
 2 L. radical decomposed, cut; those on the stem ternate, lanceolate, entire: furrows of the seed indistinct.

162. MEUM.

- 1 Leaf. in many setaceous segments: bractes both general and partial.
 2 L. tri-pinnate: leaf. awl-shaped, drooping: bractes 0.

163. CARUM.

- 1 Stem branched: partial bractes 0.

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
164	ATHAMANTA.	STONE-PARSLEY					
	1 Libanotis	mountain	Cha. hills!	white	8	P.	138
165	PIMPINELLA.	BURNET-SAXIFRAGE.					
	1 saxifraga	common	Chal. pas.	white	7,8	P.	407
	2 magna	greater	Chal. so.	white	7,8	P.	408
	3 dioica	dwarf	Rocks!	cream	5,6	P.	1209
166	CNIDIUM.	PEPPER-SAXIFRAGE.					
	1 Silaus	Meadow	Moi. mea.	yell-ish	8,9	P.	2142
167	BUPLEURUM.	HARE'S-EAR.					
	1 rotundifolium.	common	Cha. fi.	yellow	7	A.	99
	2 Odonites	narrow-leaved....	Rocks ..	cream	7	A.	2468
	3 tenuissimum ..	slender	Salt mar.	yell-ish	8,9	A.	478
168	HYDROCOTYLE.	WHITE-ROT.					
	1 vulgaris	common	Mo. hea.	white	5,6	P.	751
169	SELINUM.	MILK PARSLEY					
	1 palustre	marsh	Marshes	white	7	B-P!	229
170	PEUCEDANUM.	SULPHURWORT.					
	1 officinale	sea	Sal. mar.!	buff ..	7-9	P.	1767
171	PASTINACA.	PARSNIP.					
	1 sativa	common	Bor. of fi.	yellow	7	B.	556
172	HERACLEUM.	COW-PARSNIP					
	1 Spondylium ..	common	Bor. of fi.	white	7	B.	939
173	TORDYLIUM.	HARTWORT.					
	1 officinale § ..	small	Cult. gr.!	white	6,7	A.	2440

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

164. ATHAMANTA.

- 1 L. bi-pinnate, cut: umbels hemispherical.

165. PIMPINELLA.

- 1 L. pinnate: leafl. of the radical ones roundish, of the uppermost in linear segments.
 2 L. pinnate: leafl. ovate, serrated, somewhat cut; terminal one 3-lobed.
 3 Leafl. all nearly linear: umbels paniced: Fl. diœcious.

166. CNIDIUM.

- 1 Leafl. deeply pinnatifid; their segments opposite, decurrent. General bractœas 1 or 2.

167. BUPLEURUM.

- 1 General bractœas wanting: L. perfoliate.
 2 Partial bractœas 5: acute, 3-ribbed; general 3-4: branches widely spreading: umbels stalked. L. lanceolate.
 3 Umbels simple, alternate, 3-flowered, with 5. awl-shaped bractœas.

168. HYDROCOTYLE.

- 1 L. orbicular, peltate, smooth, cloven at the base: umbels aggregate: Fl. nearly sessile.

169. SELINUM.

- 1 Milky: L. tri-pinnate: leafl. pinnatifid: rays of the umbel rough: ribs of the seeds broad and obtuse.

170. PEUCEDANUM.

- 1 L. 5 times 3-cleft: leafl. linear, undivided, flat: bractœas linear.

171. PASTINACA.

- 1 L. simply pinnate: downy beneath.

172. HERACLEUM.

- 1 L. pinnate: leafl. pinnatifid, cut, serrated.

173. TORDYLIUM.

- 1 Partial bractœas about as long as the flowers: leafl. ovate, cut, crenate: radiant pet. in pairs, with very unequal lobes.

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
TORDYLIUM.	HARTWORT.					
2 maximum....	great	Banks!	reddish	6,7	A.	1173

ORDER III. TRIGYNIA.

174	VIBURNUM.	GUELDER-ROSE.					
	1 Lantana	mealy	Hedges	white	5	S.	331
	2 Opulus.....	common	Moi. pl.	white	6	S.	332
175	SAMBUCUS.	ELDER.					
	1 Ebulus.....	dwarf	Wa. gr.	red ..	7	P.	475
	2 nigra.....	common	Hedges	white	6	T.	476
176	STAPHYLEA.	BLADDER-NUT					
	1 pinnata.....	pinnate	Hedges!	white	6	S.	1560
177	TAMARIX.	TAMARISK.					
	1 gallica	French	So. coast	pink	7	S.	1318
178	CORRIGIOLA.	STRAPWORT.					
	1 littoralis	sand	So. coast	white	7,8	A.	668

ORDER IV. TETRAGYNIA.

179	PARNASSIA.	GRASS OF PARNASSUS.					
	1 palustris	common	Bogs ..	white	8-10	P.	82

ORDER V. PENTAGYNIA.

180	STATICE.	SEA-LAVENDER.					
	1 Armeria	thrift	Sea coast	rose..	7,8	P.	226
	2 Limonium ..	common	Mud.sh.	blue..	7,8	P.	102
	3 reticulata	matted	Mud.sh.	blue..	7,8	P.	328

CLASS V. PENTANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

TORDYLIUM.

- 2 Leaf. lanceolate, deeply serrated and notched : Fl. somewhat radiant ; outermost pet. of 2 equal lobes : stem rough with close deflexed bristles.

ORDER III. TRIGYNIA.

174. VIBURNUM. *Caprifoliaceæ*. Juss.

- 1 L. cordate, serrated, veiny, tomentous beneath.
- 2 L. lobed : petioles glandular.

175. SAMBUCUS. *Caprifoliaceæ*. Juss.

- 1 Cymes 3-parted : stipulæ leafy : stem herbaceous.
- 2 Cymes 5-parted : leaf. ovate, serrated : stipulæ obsolete.

176. STAPHYLEA. *Celastrinæ*. R. Br.

- 1 L. pinnate : styles and capsules 2-together.

177. TAMARIX. *Portulacææ*. Juss.

- 1 Fl. pentandrous : lateral clusters numerous : L. lanceolate, spurred, acute : branches smooth.

178. CORRIGIOLA. *Ilecebreæ*. R. Br.

- 1 Stems numerous, prostrate.

ORDER IV. TETRAGYNIA.

179. PARNASSIA. *Saxifragææ*. Juss.

- 1 L. cordate : Nectaries many-bristled.

ORDER V. PENTAGYNIA.

180. STATICE. *Plumbaginææ*. Juss.

- 1 Scape simple, headed : L. linear : calyx-awns minute.
- 2 Scape paniced, cylind : spikes level-topped : L. smooth, nerveless, awned at the apex.
- 3 Scape paniced, prostrate, zigzag, dotted : lower branches barren : L. wedge-shaped, awnless.

CLASS V. PENTANDRIA.

ORDER V. PENTAGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the flower.	Time of Flowering.	Duration.	Figure in English Botany.
181	LINUM. *	FLAX.					
	1 usitatissimum .	common	Corn fi.	blue..	7	A.	1357
	2 perenne	perennial.....	Cha. hil.	blue..	6,7	P.	40
	3 angustifolium .	narrow-leaved....	San. pas.	purple	7	P.	381
	**						
	4 catharticum ..	purgin.....	Dry pas.	white	6-8	A.	382
182	SIBBALDIA.	SIBBALDIA.					
	1 procumbens ..	proeumbent	Se. alps	yellow	7	P.	897

ORDER VI. HEXAGYNIA.

183	DROSER.	SUN-DEW.					
	1 rotundifolia ..	round-leaved	Tu. bogs	white	7,8	P.	867
	2 longifolia	long-leaved.....	Tu. bogs	white	7,8	P.	868
	3 anglica.....	great	Tu. bogs!	white	7,8	P.	869

ORDER VII. POLYGYNIA.

184	MYOSURUS.	MOUSE-TAIL.					
	1 minimus	common	Corn fi.	yellow	5	A.	435

CLASS V. PENTANDRIA.

ORDER V. PENTAGYNIA.

SPECIFIC CHARACTER.

181. LINUM. *Linea*. DE C.* *Leaves alternate.*

- 1 Leaf. of the cal. ovate, acute, 3-nerved: pet. crenate: L. lanceolate, alternate: stem mostly solitary.
- 2 Leaf. of the cal. obovate, obtuse, about 5-nerved, smooth: stems numerous, ascending: L. linear-lanceolate.
- 3 Leaf. of the cal. elliptical, about 3-nerved, acuminate as well as the capsules: L. linear-lanceolate 3-nerved: stems numerous.

** *Leaves opposite.*

- 4 L. obovate-lanceolate: stem dichotomous above: petals acute.

182. SIBBALDIA. *Rosacea*. JUSS.

- 1 Leaflets wedge-shaped, 3-toothed.

ORDER VI. HEXAGYNIA.

183. DROSERA. *Droseracea*. JUSS.

- 1 L. depressed, nearly orbicular, radical; petioles hairy: scape bearing a simple raceme.
- 2 L. obovate, erect, radical: scape bearing a simple raceme.
- 3 L. oblong, obtuse, radical: Fl. with 8-styles; caps. 4-valved.

ORDER VII. POLYGYNIA.

184. MYOSURUS. *Ranunculacea*. JUSS.

- 1 L. entire, linear.

CLASS VI.

HEXANDRIA.

ORDER 1. MONOGYNIA.

* *Fl. furnished with calyx and corolla.*

202 FRANKENIA. Cor. 5-pet. Cal. 1-leaved, inferior. Caps. 1-celled, many-seeded.

201 BERBERIS. Cor. 6-pet. Cal. 6-leaved, inferior. Berry 2-seeded.

203 PEPLIS. Cor. 6-pet. Cal. with 6 deep segments, and 6 intermediate plaits. Caps. 2-celled.

Lythrum 2.

** *Fl. without a calyx, superior.*

186 LEUCOJUM. Cor. 6-pet. bell-shaped. Stam. equal.

185 GALANTHUS. Cor. 6-pet; 3 inner petals shorter, emarginate.

187 NARCISSUS. Cor. 6-pet. Nect. bell-shaped, bearing the petals, inclosing the stamina.

*** *Fl. without a calyx, inferior.*

197 CONVALLARIA. Cor. 6-cleft. Berry 3-celled. Stig. 3-cornered.

193 HYACINTHUS. Cor. 6-cleft, with inflated tube. Stam. uniform. Caps. 3-celled. Seeds globose.

196 ASPARAGUS. Cor. 6-parted. Berry 3-celled. Stig. 3.

188 ALLIUM. Cor. 6-pet. Pet. ovate, sessile. Stam. awl-shaped, flattened. Stig. acute. Seeds angular.

194 ANTHERICUM. Cor. 6-pet. Stam. filiform. Stig. obtuse. Seeds angular.

195 NARTHECIUM. Cor. 6-pet. spreading. Seeds tapering at each end. Stam. hairy.

191 ORNITHOGALUM. Cor. 6-pet. Stam. dilated at the base.

192 SCILLA. Cor. 6-pet. Stam. filiform.

189 FRITILLARIA. Cor. 6-pet. each with a nectariferous hollow at the base.

190 TULIPA. Cor. bell-shaped, 6-pet. Style 0. Seeds flat.

198 ACORUS. Cor. 6-pet. Spadin many-flow. Style 0. Seeds ovate, oblong.

**** *Fl. apetalous.*

199 JUNCUS. Cal. 6-leaved. Cor. 0. Caps. superior, 3-valved, 3-celled, many-seeded.

200 LUCIOIA. Cal. 6-leaved. Cor. 0. Caps. superior 3-valved, 1-celled, 3-seeded.

Peplis 1. Polygonum.

ORDER II. DIGYNIA.

- 204 OXYRIA. *Cal.* 2-leaved. *Pet.* 2. *Seed* 1, compressed, winged.

ORDER III. TRIGYNIA.

- 207 SCHEUCHZERIA. *Cal.* 0. *Pet.* 6. *Caps.* 3 inflated. *Seeds* solitary.
209 COLCHICUM. *Cal.* a spathe. *Cor.* 6-cleft, with a tube from the
root. *Caps.* 3, inflated. *Seeds* numerous.
208 TRIGLOCHIN. *Cal.* 3-leaved. *Pet.* 3. *Caps.* opening at the base,
with 3 valves.
205 RUMEX. *Cal.* 3-leaved. *Pet.* 3. *Seed* 1, 3-cornered.
206 TOFIELDIA. *Cal.* 3-cleft. *Pet.* 6. *Caps.* 3. many-seeded.
Elutine.

ORDER IV. POLYGYNIA.

- 210 ALISMA. *Cal.* 3-leaved. *Pet.* 3. *Caps.* numerous, aggregate, 1
or 2-seeded.
-

CLASS VI. HEXANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
185	GALANTHUS.	SNOW-DROP.					
	1 <i>nivalis</i>	common	Mead.!	white	2	P.	19
186	LEUCOJUM.	SNOW-FLAKE.					
	1 <i>æstivum</i>	summer	Moi. mea!	white	5	P.	621
187	NARCISSUS.	NARCISSUS.					
	1 <i>poeticus</i>	poetic	San. hea.!	white	5	P.	275
	2 <i>biflorus</i>	pale	San. fi.	sulphur	4,5	P.	276
	3 <i>Pseudo-narcis-</i> <i>sus</i>	daffodil	Woods	yellow	3	P.	17
188	ALLIUM.	GARLICK.					
	* 1 <i>Ampeloprasum</i>	great round-headed	Sun. lil.!	purple	7	P.	1657
	2 <i>arenarium</i> . .	sand	M. woods	red	7	P.	1358
	3 <i>carinatum</i> . .	mountain	Rocks . .	ochre	7	P.	1658
	** 4 <i>oleraceum</i>	streaked field	Corn fi.	green	7	P.	488
	5 <i>vineale</i>	crow	Chal. so.	blush	7	P.	1974
	*** 6 <i>ursinum</i>	broad-leaved	Woods	white	5,6	P.	122
	7 <i>Schoenoprasum</i>	chive	Mea. pas.!	flesh	6	P.	2441
189	FRITILLARIA.	FRITILLARY.					
	1 <i>Meleagris</i>	common	Moi. pas.	purple	4	P.	622
190	TULIPA.	TULIP.					
	1 <i>sylvestris</i>	wild	Chalk pits	yellow	4	P.	63

CLASS VI. HEXANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

185. GALANTHUS. *Amaryllideæ*. R. Br.

- 1 Inner pet. tipped with green.

186. LEUCOJUM. *Amaryllideæ*. R. Br.

- 1 Spathe many-flow. style club-shaped: pet. uniform dashed with green.

187. NARCISSUS. *Amaryllideæ*. R. Br.

- 1 Spathe 1-flow: nect. depressed, very short, membranous, crenate: L. obtusely keeled, margin reflexed.
 2 Spathe 2-flow: nect. very short, membranous, crenate: L. acutely keeled, margin inflexed.
 3 Spathe 1-flow: nect. bell-shaped, erect, curled, indistinctly 6-lobed, equalling the ovate petals.

188. ALLIUM. *Asphodeleæ*. R. Br.

* *Stem leaves flat.*

- 1 Umbel globose without bulbs: 3 alternate stam. 3-cleft: pet. rough on the back.
 2 Umbel bearing bulbs: sheaths cylind: spathe blunt: 3 alternate stam. 3-cleft: pet. roughish on the keel.
 3 Umbel bulbiferous: stam. all awl-shaped. spathe acute.

** *Stem leaves cylindrical.*

- 4 Umbel bulbiferous: L. rough, channelled, furrowed beneath: stam. simple, awl-shaped.
 5 Umbel bulbiferous: 3 alternate stamens 3-cleft.

*** *Scape naked.*

- 6 Scape semicylind: L. lanceolate, petioled: umb. flat-topped: stam. simple.
 7 Scape cylindrical, as long as the leaves: L. cylindrical, somewhat tapering: stam. simple.

189. FRITILLARIA. *Liliaceæ*. Juss.

- 1 L. all alternate: stem 1-flow: nectary linear: pet. points inflexed.

190. TULIPA. *Liliaceæ*. Juss.

- 1 Fl. solitary, somewhat nodding: L. lanceolate: stigma obtuse, triangular: stam. hairy at the base.

CLASS VI. HEXANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or situation.	Colour of the flower.	Time of Flowering.	Duration.	Figure in English Botany.
191	ORNITHOGALUM. STAR OF BETHLEHEM.						
	1 luteum	yellow	Woods!	yellow	4	P.	21
	2 pyrenaicum ..	tall	Pasture !	gre-ish	6,7	P.	499
	3 umbellatum ..	common	Mea. pas.	white	4,5	P.	130
	4 nutans	drooping	Dry mea.!	white	5	P.	1997
192	SCILLA.	SQUILL.					
	1 verna	vernal	Rocks ..	blue	4	P.	23
	2 bifolia	two-leaved	Woods!	blue	3,4	P.	24
	3 autumnalis ..	autumnal	Dry past.	rose	9	P.	78
	4 nutans	hare-bell	Woods	blue	5	P.	377
193	HYACINTHUS.	HYACINTH.					
	1 racemosus ..	starch	San. fi.	blue	5	P.	1931
194	ANTHERICUM.	SPIDER-WORT.					
	1 serotinum....	mountain	Wel. mo.!	white	6	P.	793
195	NARTHECIUM.	ASPHODEL.					
	1 ossifragum ..	Lancashire	Tu. bogs	yellow	7,8	P.	535
196	ASPARAGUS.	SPERAGE.					
	1 officinalis	common	Sea coast	gre-ish	8	P.	339
197	CONVALLARIA	SOLOMON'S SEAL.					
	1 majalis	lily of the valley..	Woods	white	5	P.	1035
	2 verticillata ..	narrow-leaved....	Woods !	white	6	P.	128

SPECIFIC CHARACTER.

191. ORNITHOGALUM. *Asphodeleæ*. R. Br.

- 1 Stem angular, 2-leaved: pedunc. umbellate, simple.
- 2 Raceme very long: filaments all dilated: pedunc. when in flower, spreading, equal; when in fruit, approaching the scape.
- 3 Fl. corymbose: pedunc. surpassing the scape: filam. tapering, very entire.
- 4 Fl. pendulous on one side: filam dilated, cohering, bell-shaped, cloven; alternate ones longer.

192. SCILLA. *Asphodeleæ*. R. Br.

- 1 Bulb coated: corymb. hemispherical, few-flow: bract. lanceolate, obtuse: L. linear, channelled, numerous.
- 2 Bulb coated: Fl. somewhat corymbose, nearly erect, without bract: L. generally 2, lanceolate.
- 3 L. linear: Fl. somewhat corymbose: pedunc. without bract. ascending, the length of the flowers.
- 4 L. linear: spike nodding: Fl. drooping, bell-shaped, somewhat cylind. reflexed at the points: bract. in pairs.

193. HYACINTHUS. *Asphodeleæ*. R. Br.

- 1 Fl. ovate, 6-furrowed; the upper ones sessile, barren: L. linear, channelled, loosely spreading.

194. ANTHERICUM. *Asphodeleæ*. R. Br.

- 1 L. semicylind: those on the stem dilated at their base; stem mostly 1-flow.

195. NARTHECIUM. *Juncææ*. DE C.

- 1 L. ensiform: cluster uninterrupted: bract. one at the base, the other above the middle, of each partial stalk.

196. ASPARAGUS. *Asphodeleæ*. R. Br.

- 1 Stem herbaceous, unarmed, nearly erect, cylind: L. setaceous, soft: stipulæ mostly solitary.

197. CONVALLARIA. *Smilacææ*. R. Br.

- 1 Stalk naked semicylind: Fl. spiked, pedicelled, nodding.
- 2 L. verticillate, linear-lanceolate.

CLASS VI. HEXANDRIA.

ORDER I. MONOGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
CONVALLARIA SOLOMON'S SEAL.						
3 Polygonatum .	angular	Mount.!	white	5,6	P.	280
4 multiflora	common	Woods	white	5,6	P.	279
ACORUS. SWEET-FLAG.						
1 Calamus	common	Pools ..	green	6	P.	356
JUNCUS. RUSH.						
*						
1 acutus	great sharp	Sea coast		7	P.	1614
2 maritimus	sea	Salt mar.		8	P.	1725
3 glaucus	hard	Moi. pas.		7	P.	665
4 conglomeratus	common	Moi. pas.		7	P.	835
5 effusus	soft	Moi. pas.		7	P.	836
6 filiformis	least	Lakes		8	P.	1175
7 arcticus	arctic	Scotland !		7,8	P.	.....
**						
8 trifidus	three-leaved	Se. alps		7	P.	1482
9 squarrosus ..	moss	San.hea.		6,7	P.	933
10 compressus ..	round-fruited	Moi. pas.		7,8	P.	*934
11 cœnosus	mud	Sal.mar.		7,8	P.	.....
12 Gesneri.	slender	Sc. alps		7	P.	*2171
13 bufonius	toad	San.hea.		7,8	A.	802
14 uliginosus	little bulbous	San.hea.		6,7	P.	801
15 subverticillatus	whorl-headed	Bog. pl.		7,8	P.	.....

SPECIFIC CHARACTER.

CONVALLARIA.

- 3 L. alternate, embracing the stem: stem angular: pedunc. axillary, mostly 1-flow: stam. smooth.
- 4 L. alternate, embracing the stem: stem cylind: pedunc. axillary, many-flow: stam. downy.

198. ACORUS. *Aroideæ*. JUSS.

- 1 Scape with a very long leaf-like point above the flowers.

199. JUNCUS. *Junceæ*. DE C.* *Culms naked*.

- 1 Culm cylind: pan. term: bract. spinous: caps. roundish, bluntly pointed.
- 2 Culm cylind: pan. term. proliferous: bract. spinous, erect: caps. oblong.
- 3 Culm straight, glaucous: pan. lateral, erect: caps. elliptical, acute.
- 4 Culm straight: pan. lateral, conglobate: caps. retuse: Fl. triandrous.
- 5 Culm straight: pan. lateral, loose, thrice-compound: caps. obtuse.
- 6 Culm filiform, nodding: pan. lateral, mostly simple: caps. roundish.
- 7 Culm straight: pan. near the summit, few-flow: caps. oblong.

** *Culms leafy*.

- 8 Culm terminated by 3 flowers and 3 bracteas.
- 9 L. radical, channelled: pan. term. compound, with cymose branches.
- 10 Culm compressed: L. linear, incurved at the edges: pan. cymose, term: caps. obovate, longer than the obtuse calyx. *J. bulbosus* Eng. Bot.
- 11 L. linear, channelled: pan. cymose, term. caps. obovate, as long as the calyx.
- 12 L. slightly channelled: pan. forked, racemose: calyx-leaves lanceolate, taper-pointed, 3-ribbed, longer than the caps. *J. gracilis* Eng. Bot.
- 13 L. angular, channelled: pan. forked, racemose: calyx-leaves lanceolate, taper-pointed, membranous, 2-ribbed, longer than the capsule.
- 14 Culm bulbous at the base: L. setaceous, channelled: heads lat. and term. about 2-flow. caps. obtuse, rather longer than the calyx.
- 15 Culm trailing: L. setaceous, channelled, slightly jointed: pan. forked: heads lat. and term. about 5-flow. whorled: caps. obtuse, rather longer than the calyx.

CLASS VI. HEXANDRIA.

ORDER 1. MONOGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
JUNCUS.	RUSH.					
16 capitatus	dense-headed	San. gr.!	.....	5-7	A?	.....
17 biglumis	two-flowered	Alp. rills	.....	8	P.	398
18 triglumis	three-flowered	Alp. rills	.....	7	P.	899
19 castaneus	clustered alpine ..	Sc. Highl.	.....	6,7	P.	900
20 acutiflorus ..	sharp flowered ..	Moi. pas.	.....	6	P.	2143
21 lampocarpus ..	shining-fruited ..	Moi. pas.	.....	6-8	P.	2143
22 obtusiflorus ..	blunt-flowered ..	Marshes	.....	7,8	P.	2144
23 polycephalus..	many-headed	Sc. alps	.....	....	P.	.....
LUCIOLA.	WOOD-RUSH.					
1 pilosa	hairy	Groves	.....	3,4	P.	*736
2 Forsteri	narrow-leaved....	Gr. Thick.	.....	5	P.	*1293
3 sylvatica	great	Woods	.....	5	P.	*737
4 campestris ..	field	Bar. past.	.....	4,5	P.	*672
5 congesta	many-headed	Tu. bogs.	.....	6	P.	.....
6 spicata	spiked	Sc. alps	.....	7	P.	*1176
7 arcuata.....	curved.....	Sc. mou.	.....	7	P.	.....
BERBERIS.	BARBERRY.					
1 vulgaris	common	Bushy pl.	yellow	5,6	S.	49

SPECIFIC CHARACTER.

JUNCUS.

- 6 L. setaceous, channelled: heads 1-2. lat. and term: stam. 3: cal. keeled, bristle-pointed, twice as long as the capsule.
- 7 Culm simple: L. flat: heads solitary of 2 unilateral flowers, surmounted by a leafy bractea.
- 8 Culm simple: L. flat: heads solitary, term. 3-flow. with oblong bractea.
- 19 Culm simple: L. keeled, flat, sheathing at the base: heads term. mostly in pairs, many-flow: with leafy bract: eaps. twice the length of the calyx.
- 20 L. knotty-jointed, somewhat compressed: culm jointless: pan. repeatedly forked, dense: cal. leaves sharp pointed.
- 21 L. knotty-jointed, compressed: culm jointless: pan. erect, compound forked: inner calyx-leaves bordered: caps. coloured. polished.
- 22 L. and stem knotty-jointed, cylind: pan. divaricated: cal. leaves blunt, as long as the capsule.
- 23 L. jointed, awl-shaped: pan. erect, twice or thrice forked: heads many-flow: calyx-leaves lanceolate, acute, shorter than the capsule.

200. LUCIOLA. *Juncæa*. DE C.

- 1 L. hairy: pan. cymose, divaricated: Fl. lateral, solitary: eaps. pointed: crest of the seeds hooked.
- 2 Pan. cymose, erect: Fl. solitary: eaps. pointed: crest of the seeds straight, obtuse.
- 3 Pan. cymose, decompound: Fl. and bract. aggregate: eaps. pointed: crest of the seeds obsolete.
- 4 Pan. of 3 or 4. partly stalked clusters: eaps. obtuse, with a small point, shorter than the calyx: seeds stalked, without a crest: L. flat.
- 5 Pan. of numerous clusters, partly stalked: caps. obtuse, with a small point, as long as the calyx: seeds stalked, without a crest: L. flat, rough-edged.
- 6 Pan. dense, compound, lobed, drooping: caps. oblong, with a small point: crest of the seeds obsolete: L. of the stem channelled.
- 7 Pan. somewhat umbellate, partly compound, with drooping branches: heads globose, few-flow: bract. membranous, fringed: caps. oblong: L. channelled.

201. BERBERIS. *Berberidea*. VENT.

- 1 Fl. in pendulous clusters; pet. entire: spines 3-cleft: serratures of the leaves bristly.

CLASS VI. HEXANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
202	FRANKENIA.	SEA-HEATH.					
	1 lævis	smooth	Salt mar.	flesh	7	P.	205
	2 pulverulenta..	powdery	Sea coast!	reddish	7,8	A	2222
203	PEPLIS.	PURSLANE.					
	1 Portula	water	Wat. pl.	red ..	7,8	A.	1211
ORDER II. DIGYNIA.							
204	OXYRIA.	MOUNTAIN-SORREL.					
	1 reniformis....	kidney-shaped ..	Alp. bog	green	6	P.	*910
ORDER III. TRIGYNIA.							
205	RUMEX.	DOCK.					
	*						
	1 sanguineus ..	bloody-veined....	Sha. pla.		7	P.	1533
	2 crispus	curled	Rubble		6,7	P.	1998
	3 acutus	sharp	Wat. pl.		7	P.	724
	4 obtusifolius ..	broad-leaved	Rubble		7,8	P.	1999
	5 pulcher.....	fiddle	Grav. pa.		8	P.	1576
	6 maritimus....	golden.....	Salt mar.		7,8	P.	725
	7 palustris	yellow marsh	Marshes		7,8	P.	1932
	8 Hydrolapathum	great water.....	Riv. ban.		7,8	P.	2104
	* *						
	9 Acetosa	common sorrel ..	Mca. pas.		6	P.	127
	10 Acetosella ..	sheep's sorrel	Grav. pa.		6,7	P.	1674
206	TOFIELDIA.	TOFIELDIA.					
	1 palustris	Scottish	Bog on M.	gre-ish	8	P.	536

CLASS VI. HEXANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

202. FRANKENIA. *Frankeniaceæ*. St. HILAIRE.

- 1 L. linear, revolute, crowded, ciliate at the base : Fl. solitary.
- 2 L. obovate, abrupt, villous and mealy beneath.

203. PEPLIS. *Salicariæ*. Juss.

- 1 L. opposite, obovate, stalked : pet. wanting, or scarcely visible.

ORDER II. DIGYNIA.

204. OXYRIA. *Polygonææ*. Juss.

- 1 L. mostly radical, with ribs radiating from the petiole : Fl. whorled, drooping.

ORDER III. TRIGYNIA.

205. RUMEX. *Polygonææ*. Juss.

* *Flowers hermaphrodite.*

- 1 Valves entire, oblong, one at least bearing a grain : L. cordate-lanceolate.
 - 2 Valves ovate, entire, all grained : L. lanceolate, undulated, acute.
 - 3 Valves oblong, somewhat toothed, all grained : L. cordate-oblong, acuminate : racemes leafy.
 - 4 Valves toothed, one chiefly grained : radical leaves cordate, obtuse : stem rather rough.
 - 5 Valves toothed, one chiefly grained : radical leaves fiddle-shaped : stem smooth, divaricated.
 - 6 Valves deltoid, fringed with bristly teeth, grained : L. linear ; whorls crowded.
 - 7 Valves lanceolate, grained, toothed at the base : L. linear-lanceolate, whorls distant.
 - 8 Valves ovate, entire, indistinctly grained : L. lanceolate, acute.
- ** *Flowers diœcious.*
- 9 L. oblong, arrow-shaped : valves grained.
 - 10 L. lanceolate, hastate : valves grainless.

206. TOFIELDIA. *Melanthaceæ*. R. Br.

- 1 Petals obovate, obtuse.

CLASS VI. HEXANDRIA.

ORDER III. TRIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
207	SCHEUCHZERIA.	SCHEUCHZERIA.					
	1 palustris	marsh	Sp. bogs!	brown	6	P.	1801
208	TRIGLOCHIN.	ARROW GRASS					
	1 palustre	marsh	Wet. mea.	gre-ish	6,7	P.	366
	2 maritimum ..	sea	Salt. mar.	gre-ish	5-8	P.	255
209	COLCHICUM.	MEADOW-SAFFRON.					
	1 autumnale ..	common	Mead...	purple	9	P.	{ 133 1432

ORDER V. POLYGYNIA.

210	ALISMA.	WATER-PLANTAIN.					
	1 Plantago	greater	Pools ..	purple	7	P.	837
	2 Damasonium ..	star-headed	Ditches	white	6,7	P.	1615
	3 natans	floating	Alp. Lak.!	white	7,8	P.	775
	4 ranunculoides.	small	Tu. bogs	purple	8	P.	326
	5 repens	creeping	Wel. lak.	purple	9,10	P.	.....

CLASS VI. HEXANDRIA.

ORDER III. TRIGYNIA.

SPECIFIC CHARACTER.

207. SCHEUCHZERIA. *Juncagineæ*. RICHARD.

1

208. TRIGLOCHIN. *Juncagineæ*. RICHARD.

- 1 Caps. 3-celled, almost linear, tapering at the base: root fibrous.
 2 Caps. 6-celled, ovate: root somewhat woody.

209. COLCHICUM. *Melanthaceæ*. R. BR.

- 1 L. flat, lanceolate, erect: segment of the corolla oblong.

ORDER V. POLYGYNIA.

210. ALISMA. *Alismaceæ*. JUSS.

- 1 L. ovate, acute: caps. obtusely triangular.
 2 L. cordate-oblong: Fl. with 6-styles: caps. 6, awl-shaped, spreading in a star.
 3 L. elliptical, obtuse: pedunc. solitary: caps. striated.
 4 L. linear-lanceolate: caps. 5-cornered, incurved, collected into globular heads: stem none,
 5 L. lanceolate: caps. compressed, acute, numerous, in a globular head: stems prostrate, creeping.

CLASS VII.

HEPTANDRIA.

ORDER I. MONOGYNIA.

II TRIENTALIS. <i>Cal.</i> 7-leaved. <i>Cor.</i> 7-parted, equal, flat. <i>Caps.</i> 7-valved. <i>Seeds</i> tunicated.
--

CLASS VII. HEPTANDRIA.

ORDER I. MONOGYNIA.

211

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
TRIENTALIS.	TRIENTALIS.					
I europæa	chickweed	Nor. wds.	white	5,6	P.	15

CLASS VII. HEPTANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

211. TRIENTALIS. *Primulaceæ*. VENT.

1 L. obtuse, obovate-oblong ; the lowermost very obtuse.

CLASS VIII.

OCTANDRIA.

ORDER I. MONOGYNIA.

* *Fl. complete.*

- 220 ACER. *Pet.* 5. *Cal.* 5-cleft, inferior. *Caps.* 1-seeded, winged.
213 EPILOBIUM. *Pet.* 4. *Cal.* 4-cleft, superior. *Caps.* 4-celled.
Seeds feathered.
212 OENOTHERA. *Pet.* 4. *Cal.* 4-cleft, superior. *Caps.* 4-celled.
Seed naked. *Anth.* linear.
214 CHLORA. *Cor.* 8-parted. *Cal.* 8-leaved, inferior. *Caps.* 1-celled.
215 VACCINIUM. *Cor.* 1-pet. *Cal.* 4-toothed, superior. *Seed* vessel a
Berry.
216 MENZIESIA. *Cor.* 1-pet. *Cal.* 1-leaved, inferior. *Seed* vessel a
Capsule.
218 ERICA. *Cor.* 1-pet. *Cal.* 4-leaved, inferior. *Seed* vessel a *Capsule.*
217 CALLUNA. *Cor.* 1-pet. *Cal.* double; each of 4 leaves, inferior.
Seed vessel a *Capsule.*
Monotropa.

** *Fl. apetalous.*

- 219 DAPHNE. *Cal.* col. 4-cleft, inferior. *Berry* 1-seeded.

(DIGYNIA.)

Polygonum. Chrysosplenium. Scleranthus.

ORDER III. TRIGYNIA.

- 221 POLYGONUM. *Cal.* 5-parted, col. inferior. *Cor.* 0. *Seed* 1, naked.

ORDER IV. TETRAGYNIA.

- 223 ADOXA. *Cal.* half-inferior. *Cor.* 4 or 5-cleft. *Caps.* covered with
the calyx. *Seeds* 4-bordered.
222 PARIS. *Cal.* 4-leaved. *Pet.* 4. *Berry* superior. *Seeds* numerous,
globose.
224 ELATINE. *Cal.* 4-leaved. *Pet.* 4. *Caps.* superior, 4-celled. *Seeds*
oblong.
Sagina 2. *Rhodiola.*

CLASS VIII. OCTANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
212	OENOTHERA.	EVENING PRIMROSE.					
	1 biennis	common	San. sh.	yellow	7,9	B.	1534
213	EPILOBIUM.	WILLOW HERB					
	*						
	1 angustifolium	rose bay	Mead...	red pur	7,8	P.	1947
	**						
	2 hirsutum	great hairy	Wat. pl.	pink	7	P.	838
	3 parviflorum ..	small flowered ..	Wat. pl.	purple	7	P.	795
	4 montanum ..	broad smooth	Dry sh. pl	purple	7	P.	1177

	5 roseum	pale smooth	Marshes!	rose ..	7	P.	693
	6 tetragonum ..	square stalked ..	Marshes	purple	7	P.	1948
	7 palustre	marsh	Marshes	purple	7	P.	346
	8 alsinifolium ..	chickweed leaved	Sc. alps	rose ..	7	P.	2000
	9 alpinum	alpine	Alp. riv.	red ...	6,7	P.	2001
214	CHLORA.	YELLOW WORT.					
	1 perfoliata	common	Chal. so.	yellow	7,8	A.	60
215	VACCINIUM.	BILBERRY.					
	*						
	1 Myrtillus	bleaberry	Heaths	red ..	5	S.	456
	2 uliginosum ..	great	M. heath	flesh .	4,5	S.	581
	**						
	3 Vitis Idæa ..	cowberry	M. heath	flesh .	6	S.	598
	4 Oxycoccus ..	cranberry	Tu. bogs	rose ..	6	P.	319

CLASS VIII. OCTANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

212. OENOTHERA. *Onagariæ*. Juss.

- 1 L. ovate-lanceolate, flat: stem rough, somewhat hairy: stam. regular: pet. undivided.

213. EPILOBIUM. *Onagariæ*. Juss.

* *Fl. irregular.*

- 1 L. scattered, linear-lanceolate, veined, smooth: Fl. unequal: stam. declined.

** *Fl. regular. Stig. deeply 4-cleft.*

- 2 L. half embracing the stem, ovate-lanceolate, hairy: stem much branched, root creeping.
3 L. sessile, lanceolate, pubescent: stem nearly simple, woolly: root fibrous.
4 L. petioled, ovate, toothed: stem cylind.

*** *Fl. regular. Stig. undivided.*

- 5 L. petioled, ovate, toothed; stem erect, obscurely 4-angled.
6 L. lanceolate, sessile, finely toothed: stem square.
7 L. sessile, lanceolate, somewhat denticulated: stem cylind.
8 L. petioled, ovate, acute, toothed: root creeping: stem decumbent, 4-angular.
9 L. opposite, elliptic-lanceolate, obtuse, mostly entire: stem decumbent at the base: few-flow.

214. CHLORA. *Gentianæ*. Juss.

- 1 L. perfoliate: pan. forked, many-flow. elegant.

215. VACCINIUM. *Vacciniæ*. DE C.

* *Leaves deciduous.*

- 1 Pedunc. 1-flow: L. ovate, serrated: stem angular: cal. wavy, nearly entire.
2 Pedunc. 1-flow: L. obovate, very entire, smooth: branch cylind.

** *Leaves evergreen.*

- 3 Racemes term. nodding: L. obovate, revolute, denticulated, dotted beneath: cor. bell-shaped.
4 L. ovate, very entire, revolute, acute: stems creeping, filiform, smooth: Fl. term: cor. deeply 4-cleft.

CLASS VIII. OCTANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or situation.	Colour of the flower.	Time of flowering.	Duration.	Figure in English Botany.
216	MENZIESIA.	MENZIESIA.					
	1 cærulea	Scottish	Heaths!	red ..	6,7	S.	2469
	2 Polifolia	Irish	Mount.	purple	6,7	S.	*35
217	CALLUNA.	LING.					
	1 vulgaris	common	Bar. gr.	rose..	6,7	S.	*1013
218	ERICA.	HEATH.					
	1 Tetralix	cross-leaved	Moi.hea.	blush	7,8	S.	1014
	2 cinerea.....	fine-leaved	Heaths	purple	7-10	S.	1015
	3 vagans.....	Cornish	Heaths	red ..	7,8	S.	3
	4 ciliaris.....	ciliated	Boggygr.	red ..	6,7	S.	.....
219	DAPHNE.	MEZEREON.					
	1 Mezereum ..	spurge-olive	Woods!	rose..	3,4	S.	1331
	2 Laureola	spurge-laurel....	Woods	green	3	S.	119
220	ACER. [nus§	MAPLE.					
	1 Pseudo-plata-	sycamore	Hedges	green	5	T.	303
	2 campestre ...	common	Hedges	green	5,6	T.	304

ORDER III. TRIGYNIA.

221	POLYGONUM.	PERSICARIA.					
	*						
	1 amphibium ..	amphibious	Ditches	rose..	7,8	P.	436
	2 Persicaria ...	spotted	Ditches	rose..	7,8	A.	765
	3 lapathifolium.	pale-flowered....	Dunghill	gre-ish	7,8	A.	1382
	4 Hydropiper..	biting.....	Wat. pl.	red ..	9	A.	989

CLASS VIII. OCTANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

216. MENZIESIA. *Ericææ*. Juss.

- 1 L. linear, obtuse, with cartilaginous teeth : pedunc. term. aggregate, simple : Fl. 5-cleft, decandrous.
- 2 L. ovate, revolute, downy beneath : racemes term. leafy, many-flow. *Erica Dabeoci*, Eng. Bot.

217. CALLUNA. *Ericææ*. Juss.

- 1 L. arrow-shaped, closely imbricated : Fl. in long, unilateral clusters. *Erica vulgaris*, Eng. Bot.

218. ERICA.

- 1 Anth. horned : style nearly concealed : cor. ovate : L. in fours, ciliated : Fl. in round heads.
- 2 Anth. crested : style a little protruded : stig. capitate : cor. ovate : L. in threes.
- 3 Anth. simple, deeply cloven ; protruded as well as the style : cor. bell-shaped : L. in fours : Fl. axillary, crowded.
- 4 Anth. simple, bifid, included : cor. ovate, inflated : L. 4 in a whorl, ciliate, glandulose : Fl. in terminal unilateral racemes.

219. DAPHNE. *Thymeleææ*. Juss.

- 1 Fl. sessile in threes on the stems : L. lanceolate, deciduous.
- 2 Racemes axillary, about 5-flow. drooping : L. lanceolate, smooth, evergreen : cal. obtuse.

220. ACER. *Acerineææ*. Juss.

- 1 L. 5-lobed, unequally serrated : clusters pendulous.
- 2 L. 5-lobed, obtuse, notched : clusters corymbose, erect.

ORDER III. TRIGYNIA.

221. POLYGONUM. *Polygoneææ*. Juss.* *Digynous*.

- 1 Fl. pentandrous, styles 2, united half-way up : spike ovate.
- 2 Fl. hexandrous : styles 2, united half-way up : spikes ovate-oblong, erect : pedunc. smooth : stip. fringed.
- 3 Fl. hexandrous : styles distinct : pedunc. rough : stip. not fringed : seeds concave on both sides.
- 4 Fl. hexandrous : styles 2, united half-way up : L. lanceolate, undulated, spotless : clusters lax, nodding : stem erect.

CLASS VIII. OCTANDRIA.

ORDER III. TRIGYNIA.

LINNÉAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
POLYGONUM.	PERSICARIA.					
5 minus	small creeping ..	Wat.com	red ..	9	A.	1043
**						
6 Bistorta	snakeweed	Mea.pas.	rose..	6	P.	509
7 viviparum ..	alpine bistort....	Alp.pas.	rose..	6,7	P.	669
8 aviculare	knotgrass	Rubble	gre-ish	4-10	A.	1252
9 Fagopyrum §.	buck-wheat	Corn fi.	flesh	7,8	A.	1044
10 Convolvulus .	black bind-weed .	Corn fi.	white	6-8	A.	941

ORDER IV. TETRAGYNIA.

222	PARIS.	HERB PARIS.					
	1 quadrifolia ..	common	Woods	green	5	P.	7
223	ADOXA.	MOSCHATELL.					
	1 Moschatellina	tuberous.....	Sha. pl.	green	4,5	P.	453
224	ELATINE.	WATERWORT.					
	1 tripetala	small	Mar.Lak!	white	7,8	A.	955

CLASS VIII. OCTANDRIA.

ORDER III. TRIGYNIA.

SPECIFIC CHARACTER.

POLYGONUM.

5 Fl. hexandrous: styles combined: L. linear-lanceolate, flat: clusters lax, filiform, almost erect: stem trailing at the base.

** *Trigynous*.

6 Stem quite simple, single spiked: L. ovate, undulated, decurrent into the petiole.

7 Stem quite simple, single spiked: L. lanceolate, margin revolute.

8 Fl. axillary: L. elliptic-lanceolate, margin rough: nerves of the stip. remote: stems procumb. herbaeous.

9 L. heart-arrowshaped: stem almost upright, smooth: angles of the seeds equal.

10 L. heart-arrowshaped: stem angular, twining: segments of the calyx obtusely keeled.

ORDER IV. TETRAGYNIA.

222. PARIS. *Smitaceæ*. R. BR.

1 Stem simple: L. four, ovate: Fl. solitary.

223. ADOXA. *Saxifrageæ*. JUSS.

1 L. bi-ternate, lobed.

224. ELATINE. *Caryophylleæ*. JUSS.

1 L. in pairs, rough with minute points: Fl. mostly 3-cleft.

CLASS IX.

ENNEANDRIA.

ORDER 1. HEXAGYNIA.

25 BUTOMUS. *Cal.* 0. *Pet.* 6. *Caps.* 6, many-seeded.

CLASS IX. ENNEANDRIA.

ORDER 1. HEXAGYNIA.

225

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
BUTOMUS. FLOWERING RUSH						
1 umbellatus ..	common	Ditches	rose ..	6,7	P.	651

CLASS IX. ENNEANDRIA.

ORDER 1. HEXAGYNIA.

SPECIFIC CHARACTER.

225. BUTOMUS. *Butomea*. RICHARD.

CLASS X.

DECANDRIA.

ORDER I. MONOGYNIA.

* *Fl. many-petalled.*

226 MONOTROPA. *Pet.* 8 or 10; 4 or 5 outer ones gibbous at the base.

229 PYROLA. *Pet.* 5. *Antheræ* 2-celled, with 2-pores.

** *Fl. 1-pet. equal.*

227 ANDROMEDA. *Cor.* ovate. *Caps.* 5-celled.

228 ARBUTUS. *Cor.* ovate, pellucid at the base. *Berry* 5-celled.
Vaccinium 1, 2. *Menziesia* 1.

ORDER II. DIGYNIA.

232 SCLERANTHUS. *Cor.* 0. *Cal.* 1-leaved. *Seeds* 2.

230 CHRYSOSPLENIUM. *Cor.* 0. *Cal.* coloured. *Caps.* 2-beaked, many-seeded.

231 SAXIFRAGA. *Pet.* 5. *Cal.* 5-parted. *Caps.* 2-beaked, many-seeded.

233 SAPONARIA. *Pet.* 5. *Cal.* 1-leaved, tubular, without angles, naked at the base. *Caps.* oblong.

234 DIANTHUS. *Pet.* 5. *Cal.* 1-leaved, tubular, scaly at the base. *Caps.* oblong.

ORDER III. TRIGYNIA.

237 ARENARIA. *Caps.* 1-celled. *Pet.* entire, spreading.

236 STELLARIA. *Caps.* 1-celled. *Pet.* 2-parted, spreading.

238 CHERLERIA. *Caps.* 1-celled. *Nectariferous Glands* 5 at the base of the stamina. *Pet.* 0.

235 SILENE. *Caps.* imperfectly 3-celled. *Pet.* 2-cleft, with claws. *Cal.* 1-leaved.

- 9 COTYLEDON. *Caps.* 5. *Nect.* of 5 scales at the base of the germen.
Cor. 1-pet.
- 10 SEDUM. *Caps.* 5. *Nect.* of 5 scales at the base of the germen.
Cor. 5-pet.
- 1 OXALIS. *Caps.* 5-celled, angular. *Seeds* 2, coated. *Pet.* united
at the base.
- 3 LYCHNIS. *Caps.* 5 or 1-celled, many-seeded. *Cal.* tubular, mem-
branous.
- 2 AGROSTEMMA. *Caps.* 1-celled. *Cal.* tubular, coriaceous.
- 4 CERASTIUM. *Caps.* 1-celled. *Pet.* 2-cleft. *Cal.* 5-leaved.
- 5 SPERGULA. *Caps.* 1-celled. *Pet.* entire. *Cal.* 5-leaved.
Stellaria 6, 7. *Adora.* *Rhodiola.*

CLASS X. DECANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
226	MONOTROPA.	BIRD'S-NEST.					
	1 Hypopitys ..	yellow.....	Woods	straw	6	P.	69
227	ANDROMEDA.	ANDROMEDA.					
	1 polifolia	marsh	Nor. bogs	flesh	6	S.	713
228	ARBUTUS.	ARBUTUS.					
	1 Unedo	strawberry tree ..	Ir. rocks.	blush	9	T.	2377
	2 alpina	black alpine	Se. moun.	white	5	S.	2030
	3 Uva-ursi	red trailing	Alp. hea.	flesh	6	S.	714
229	PYROLA.	WINTER-GREEN.					
	1 rotundifolia ..	round-leaved	Woods !	white	7,8	P.	213
	2 media	intermediate	Woods !	white	6	P.	1945
	3 minor	lesser	M. woods	reddish	7	P.	158
	4 secunda	serrated	M. woods	white	7	P.	517
	5 uniflora.....	single-flowered ..	Alp. wo.!	white	7	P.	146
ORDER II. DIGYNIA.							
230	CHRYSOSPLENIUM.	GOLDEN SAXIFRAGE.					
	1 alternifolium .	alternate-leaved ..	Wt. sh. p !	yellow	5	P.	54
	2 oppositifolium.	opposite-leaved ..	Wet sh. p.	yellow	5	P.	490
231	SAXIFRAGA.	SAXIFRAGE.					
	*						
	1 Geum	kidney-leaved	Ir. moun.	white	6	P.	1561
	2 hirsuta	hirsute	Ir. moun.	purple	6	P.	2322
	3 umbrosa	Loudon-pride	Mount.	flesh	6	P.	663
	4 stellaris.....	starry	Alp. riv.	white	6,7	P.	167

CLASS X. DECANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

226. MONOTROPA. *Pyroleæ*?

- 1 Fl. lateral, with 8-stamens: term. with 10.—in a drooping cluster.

227. ANDROMEDA. *Ericææ*. Juss.

- 1 Pedunc. aggregate, term: L. alternate, lanceolate, revolute, glaucous beneath.

228. ARBUTUS. *Ericææ*. Juss.

- 1 Stem arboreous: L. smooth, obtusely serrated: pan. term: berries many-seeded.
 2 Stems procumb: L. wrinkled, serrated: clusters term.
 3 Stems procumb: L. very entire: clusters term.

229. PYROLA. *Pyroleæ*?

- 1 Stamens ascending: pistil declining: raceme many-flow: cal. as long as the stamens.
 2 Stam inflexed: style curved downwards, elongated: stalk spiral: Fl. pendulous: cal. shorter than the stamens.
 3 Stam. inflexed: pistil straight: stig. 5-lobed, pointless, without a ring.
 4 Raceme unilateral: style straight: stig. 5-lobed: L. ovate, acute, serrated.
 5 Peduncle 1-flowered: stig. with 5-pointed rays.

ORDER II. DIGYNIA.

230. CHRYSOSPLENIUM. *Saxifrageæ*. Juss.

- 1 L. alternate.
 2 L. opposite.

231. SAXIFRAGA. *Saxifrageæ*. Juss.

* *Leaves undivided: stem almost naked.*

- 1 L. reniform, notched: petioles linear channelled, much longer than the leaves: caps. superior.
 2 L. oval, with sharp, cartilaginous notches: petioles linear, much longer than the leaves: caps. superior.
 3 L. obovate, with sharp, cartilaginous notches; tapering at the base into dilated flat petioles: caps. superior.
 4 L. wedge-shaped, coarsely serrated; tapering and entire at the base: pan. few-flow: caps. superior.

CLASS X. DECANDRIA.

ORDER II. DIGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
SAXIFRAGA.	SAXIFRAGE.					
5 nivalis	clustered alpine ..	Sc. alps	white	7	P.	440

6 oppositifolia ..	purple	Alp. roc.	purple	4	P.	9
7 Hirculus	yellow marsh	Tu. bogs!	yellow	8	P.	1009
8 aizoides	yellow mountain ..	Alp. riv.	yellow	7,8	P.	39

9 granulata	white meadow ..	San. pas.	white	5	P.	500
10 cernua	drooping bulbous .	Sc. alps.	white	7	P.	664
11 rivularis	alpine brook	Alp. riv.	white	6,7	P.	2275
12 tridactylites ..	reef-leaved	Walls ..	white	5	A.	501
13 muscoides ..	mossy alpine	Nor. mou.	yellow	5	P.	.....
14 pygmæa	dwarf alpine	Sc. alps!	yellow	6,7	P.	*2314
15 cæspitosa	tufted alpine	Wel. alps	cream	5,6	P.	794
16 hirta	hairy alpine	Sc. alps	white	5,6	P.	2291
17 affinis	involute alpine ..	Ir. mou.	white	5,6	P.	.....
18 platypetala ..	broad-petalled ..	Wa.-Scot	white	6	P.	2276
19 incurvifolia ..	curve-leaved	Ir. moun.	white	....	P.	.....
20 denudata	smooth Grampian .	Sc. High.	white	....	P.	.....
21 hypnoides	mossy	Wal. Roc	white	5,6	P.	454
22 elongella	long-stalked	Sc. alp.	white	6	P.	2277
23 leptophylla ..	narrow spreading .	Wel. mou.	white	....	P.	.....

CLASS X. DECANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

SAXIFRAGA.

- 5 L. obovate, serrated; tapering and entire at the base: cluster capitate, few-flow: cal. spreading: caps. half inferior.

*** Leaves undivided. Stem leafy.*

- 6 Branches 1-flow: L. opposite, imbricated, fringed: pct. ovate.
 7 Stem erect: L. alternate, lanceolate, naked: cal. reflexed, obtuse, fringed: caps. superior.
 8 Stem decumbent at the base: L. alternate, linear, with fringe-like teeth: cal. spreading: caps. half superior: Fl. recept: depressed.

**** Leaves lobed.*

- 9 Stem leafy: L. reniform, lobed: root granulated: germ. half inferior.
 10 Stem with aggregate axillary bulbs: L. palmate, stalked: pct. obovate: germ. superior.
 1 Stem few-flow: L. palmate, stalked: uppermost spatulate: root fibrous: germ. half inferior.
 2 L. wedge-shaped, with 3 or 5 segm. uppermost undivided: pedunc. 1-flow. alternate: germ. inferior.
 3 L. linear, obtuse, smooth, 3 ribbed: undivided, or with 2 small lateral lobes: pct. nearly linear: cal. almost naked.
 4 L. linear abrupt, smooth, undivided: pet. obovate, scarcely longer than the obtuse glandular calyx.
 5 L. radical crowded 3 or 5-cleft, obtuse, veiny, fringed; lowermost undivided: Fl. 1-5 or more: pet. rounded, 3-ribbed: cal. obtuse: germ. half inferior, hairy.
 6 L. radical rather crowded, 3 or 5-cleft, pointed, veiny, fringed: cal. acute: pet. obovate, 1-ribbed: germ. half inferior.
 7 L. 3-5-cleft, lobes linear, pointed: cal. segm. awl-shaped, channelled, pointed, recurved: pet. oblong: edges inflexed.
 8 L. 3-5-cleft; lobes bristle-pointed: cal. segm. ovate, pointed, erect: pet. nearly orbicular, flat, with many lateral veins.
 9 L. 3-5-cleft: segm. lanceolate, obtuse, incurved: cal. segm. ovate, acute: pet. roundish, slightly cloven.
 10 L. 3-5-cleft; segm. awl-shaped, bristle-pointed, smooth: cal. segm. lanceolate, minutely pointed: pet. obovate, cloven.
 11 L. radical 3-5-cleft; uppermost undivided; all bristle-pointed, fringed: cal. segm. ovate, pointed: pet. obovate: stig. nearly smooth.
 12 L. 3-5-cleft: bristle-pointed, fringed: pedunc. very long: cal. pointed: pet. obovate.
 13 L. 3-5-cleft, segm. linear-lanceolate, acute, widely spreading: cal. oblong, ovate: pet. spatulate, undivided.

CLASS X. DECANDRIA.

ORDER II. DIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	SAXIFRAGA.	SAXIFRAGE.					
	24 lætevirens....	bright green	Sc. alps	white	....	P.	.....
	25 pedatifida	pedatifid	Sc. alps	white	5,6	P.	2278
232	SCLERANTHIUS	KNAWEL.					
	1 annuus	annual.....	San fi.	green	7	A.	851
	2 perennis	perennial.....	San. hea.!	green	8-11	P.	352
233	SAPONARIA.	SOAPWORT.					
	1 officinalis	common	Hedges	blush	8,9	P.	1060
234	DIANTHUS.	PINK.					
	*						
	1 Armeria	Deptford.....	Grav.pas.	red ..	7,8	A.	317
	2 prolifer	proliferous	Grav.pa.!	purple	7	A.	956
	* *						
	3 Caryophyllus .	clove	Walls	flesh	7	P.	214
	4 deltoides	maiden	Grav.pas.	blush	7-10	P.	61
	* * *						
	5 cæsius	mountain.....	Rocks!	blush	6,7	P.	62

ORDER III. TRIGYNIA.

235	SILENE.	CATCHFLY.					
	1 anglica	English	San. fi.	white	6,7	A.	1178
	2 quinquevulnera	variegated	San. fi.	blood	6,7	A.	86
	3 nutans	Nottingham	Cal. roc.	white	6,7	P.	465

CLASS X. DECANDRIA.

ORDER II. DIGYNIA.

SPECIFIC CHARACTER.

SAXIFRAGA.

- 1 L. 3-5-cleft: segm. linear, acute: shoots long and trailing: cal. lanceolate, pointed: pet. spatulate, slightly cloven.
- 2 L. radical reniform, divided in a pedate manner into 7-lobes: pan. level-topped, many-flow: cal. superior; segm. linear-lanceolate, as long as the capsule.

232. SCLERANTHUS. *Illecebreæ*. R. BR.

- 1 Cal. of the fruit spreading, acute: stems spreading.
- 2 Cal. of the fruit closed, obtuse: stems procumbent.

233. SAPONARIA. *Caryophyllæ*. JUSS.

- 1 Cal. cylind. L. elliptic-lanceolate.

234. DIANTHUS. *Caryophyllæ*. JUSS.

* *Flowers aggregate.*

- 1 Fl. fascicled: cal. scales lanceolate, downy, equal to the tube: pet. serrated.
- 2 Fl. capitate: cal. scales ovate, blunt, beardless, membranous, surpassing the tube.

** *Flowers solitary: stem many-flow.*

- 3 Cal. scales almost rhomboid, very short: pet. crenate, beardless.
- 4 Cal. scales mostly 2, ovate-lanceolate, acute: L. rather obtuse, somewhat pubescent: pet. crenate, smooth.

*** *Stem 1-flowered, herbaceous.*

- 5 Cal. scales roundish, short: pet. crenate, pubescent: L. rough in the margin.

ORDER III. TRIGYNIA.

235. SILENE. *Caryophyllæ*. JUSS.

- 1 hairy, viscid: pet. notched: Fl. lateral, erect, alternate: lower ones when in fruit, divaricated or reflexed.
- 2 hairy: pet. roundish, very entire: Fl. lateral, alternate, erect, as well as the capsules: cal. shaggy.
- 3 Fl. pan. 1-rowed, drooping: pet. cloven, segments linear, with an acute cloven scale: L. lanceolate, pubescent.

CLASS X. DECANDRIA.

ORDER III. TRIGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	SILENE.	CATCHFLY.					
	4 inflata	bladder	Pas. Ro. si	white	7	P.	*164
	5 maritima	sea	Sea sh.	white	8,9	P.	957
	6 Otites	Spanish	Grav. so.!	yell-ish	7,8	P.	*85
	7 conica	corn	San. fi.	rose ..	7	A.	922
	8 noctiflora	night-flowering ..	San. fi.	blush	7	A.	291
	9 Armeria §	Lobel's	Fi. Walls	rose ..	7,8	A.	1398
	10 acaulis	moss	Sc. alps	rose ..	6,7	P.	1081
236	STELLARIA.	STITCHWORT.					
	1 nemorum	wood	Moi. wo.	white	5,6	P.	92
	2 media	com. chickweed ..	Cult. gr.	white	4-10	A.	537
	3 holostea	greater	Gr. Hed.	white	5	P.	511
	4 graminea	lesser	San. so.	white	5	P.	803
	5 glauca	glaucous marsh ..	Moi. mea.	white	6,7	P.	825
	6 uliginosa	bog	Rivulets	white	6	A.	1074
	7 cerastoides ..	alpine	Sc. alps	white	6	P.	911
	8 scapigera	many-stalked	Sc. rivul.	white	6	P.	1269
237	ARENARIA.	SANDWORT.					
	1 peploides	sea	Sea shore	white	6,7	P.	189
	2 trinervis	plantain-leaved ..	Mo. sh. pl.	white	5,6	A.	1483
	3 serpyllifolia ..	thyme leaved	Walls	white	6,7	A.	923
	4 tenuifolia	fine leaved	San. fi.	white	6	A.	219
	5 verna	vernal	Mount.	white	5-8	P.	512

CLASS X. DECANDRIA.

ORDER III. TRIGYNIA.

SPECIFIC CHARACTER.

SILENE.

- 4 Fl. pan. drooping: pet. semibifid, almost naked: cal. smooth, with reticulated veins, stem erect. *Cucubalus Behen*, Eng. Bot.
- 5 Fl. mostly solitary, term. pet. bifid, crowned: cal. smooth, with reticulated veins: stem decumb: L. lanceolate.
- 6 Fl. pan. diœcious: pet. linear, undivided, naked: L. spatulate, roughish. *Cucubalus*, Eng. Bot..
- 7 Stem dichot: pet. bifid, crowned: L. soft: cal. in fruit conical, with 30 furrows.
- 8 Stem dichot: pet. eleven, bluntly crowned: cal. with 10 hairy ribs; teeth as long as its tube.
- 9 Pan. dichot. level-topped, many-flow: pet. notched, acutely crowned: L. smooth: caps. not longer than its stalk.
- 10 L. linear, ciliated at the base: pedunc. solitary, term. 1-flow: pet. crowned: cal. smooth.

236. STELLARIA. *Caryophylleæ*. Juss.

- 1 L. lower cordate, petioled; upper ovate, sessile: pan. dichot.
- 2 L. ovate: stems procumb. with a hairy, alternate, lateral line.
- 3 L. lanceolate, serrulated: pet. obcordate: cal. nerveless.
- 4 L. linear-lanceolate, very entire: pan. term. divaricated: cal. 3-nerved, nearly equal to the petals.
- 5 L. linear-lanceolate, very entire, glaucous: pedunc. erect: cal. 3-nerved, shorter than the petals.
- 6 L. elliptic-lanceolate, very entire, callous at the apex. Fl. irregularly panicled, lateral or term: pet. shorter than the calyx.
- 7 L. elliptic-oblong, obtuse: stems with a hairy lateral line; generally 2-flow: cal. 1-nerved, pubescent: pedunc. downy.
- 8 Stem shorter than the pedunc: L. linear-lanceolate, rough-edged: cal. 3-nerved, the length of the petals.

237. ARENARIA. *Caryophylleæ*. Juss.

- 1 L. ovate, acute, fleshy: cal. obtuse, nerveless.
- 2 L. ovate, acute, petioled, nerved: cal. keel rough, indistinctly 3-nerved.
- 3 L. ovate, almost sessile, rough: cal. hairy, 3 outermost leaves 5-nerved.
- 4 L. awl-shaped, acute: stem panicled: caps. erect, 3-valved: pet. lanceolate, shorter than the calyx.
- 5 L. awl-shaped, rather obtuse: stem panicled: pet. obovate, shorter than the cal: cal. 3-nerved, nerves remote, equal.

CLASS X. DECANDRIA.

ORDER III. TRIGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
ARENARIA.	SANDWORT.					
6 rubella	little red	Sc. High.	blush	6	P.	.....
7 fastigiata	flat topped	Sc. moun.	white	6	A.	1744
8 ciliata	fringed	Ir. moun.	white	8,9	P.	1745
9 rubra	purple.....	San. fi.	purple	7,8	A.	852
10 marina	sea spurrey	Sea coast	purple	6,7	A.	958
CHERLERIA.	CHERLERIA.					
1 sedoides	dwarf	Sc. alps	yell-ish	7	P.	1212

ORDER IV. PENTAGYNIA.

COTYLEDON.	NAVELWORT.					
1 Umbilicus ..	common	Sha. roc.	yell-ish	6,7	P.	325
2 lutea.....	greater yellow ..	Moi. roc.!	yellow	6,7	P.	1522
SEDUM.	STONECROP.					
*						
1 Telephium ..	Orpine	Bor. of fi.	purple	8	P.	1319
**						
2 dasyphyllum .	thick-leaved	Walls ..	white	6	P.	656
3 anglicum	English	Rocks ..	white	7	A.	171
4 acre	biting	Walls ..	yellow	6	P.	839
5 sexangulare ..	insipid	Walls!	yellow	6,7	P.	1946
6 villosum	hairy	Mo. al.pl.	white	6,7	P.	394
7 album	white	Rocks!	white	7	P.	1578

CLASS X. DECANDRIA.

ORDER III. TRIGYNIA.

SPECIFIC CHARACTER.

ARENARIA.

- 5 L. awl-shaped, obtuse: stems 1-flow: calyx-leaves longer than the petals; with 3 equal ribs.
- 7 L. awl-shaped: stem erect eorymbose: pet. very short: cal. nerves lateral, dilated.
- 8 L. spatulate, fringed at the base: stems prostrate, branched downy: Fl. term. solitary: cal. 5 or 7-nerved.
- 9 L. linear, mucronulated: stip. membranous, sheathing: seeds compressed, angular, roughish.
- 10 L. semicylind. fleshy, awnless: stip. membranous, sheathing: seeds compressed, marginate, smooth.

238. CHERLERIA. *Caryophylleæ*. Juss.

1

ORDER IV. PENTAGYNIA.

239. COTYLEDON. *Crassulaceæ*. DE C.

- 1 L. peltate, erenate: stem mostly simple: Fl. pendulous, bracteas entire: root tuberous.
- 2 L. erenate-toothed: lower ones peltate: stem spiked, mostly simple: Fl. erect: root creeping.

240. SEDUM. *Crassulaceæ*. Juss.

* *Leaves flat.*

- 1 L. flattish, serrated: eorymb. leafy: stem erect.

** *Leaves cylindrical.*

- 2 L. ovate, obtuse, fleshy, sessile; the lower ones opposite: stem weak: pan. glutinous.
- 3 L. alternate, ovate, fleshy, spurred at the base: eyme bifid, smooth.
- 4 L. alternate, somewhat ovate, fleshy, spurred at the base: eyme trifid, leafy.
- 5 L. subternate, somewhat cylind. obtuse, fleshy, sessile, spreading, spurred at the base, imbricated in 6-rows: eyme trifid, leafy.
- 6 L. alternate, linear, flattish: somewhat hairy as well as the peduncle: stem erect.
- 7 L. oblong, cylind. obtuse, spreading, smooth: pan. much branched.

CLASS X. DECANDRIA.

ORDER IV. PENTAGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	SEDUM.	STONECROP.					
	8 reflexum	yellow.....	Walls ..	yellow	7	P.	695
	9 glaucum	glaucous.....	Bar. san.	yellow	7,8	P.	2477
	10 rupestre	rock	Rocks!	yellow	7	P.	170
	11 Forsterianum .	Forster's.....	Wel.roc.	yellow	7	P.	1802
241	OXALIS.	WOOD SORREL					
	1 Acetosella ..	common	Groves	flesh	4,5	P.	762
	2 corniculata ..	yellow procumb...	Mo.sh.pl.	yellow	5-10	P.	1726
242	AGROSTEMMA.	COCKLE.					
	1 Githago	corn	Corn fi.	purple	6,7	A.	741
243	LYCHNIS.	CAMPION.					
	1 Flos-Cuculi..	ragged robin	Moi.me.	rose ..	6	P.	573
	2 Viscaria	German catchfly..	Rocks!	rose ..	5,6	P.	788
	3 alpina	alpine.....	Sc. roc.	rose ..	6,7	P.	2254
	4 dioica	red or white	Mo.sh.pl.	red or w	5-9	P.	1579-80
244	CERASTIUM.	MOUSE-EAR CHICKWEED					
	1 vulgatum	broad leaved	San. pl.	white	4,5	A.	789
	2 viscosum	narrow leaved....	Pasture	white	5-9	P.	790
	3 semidecandrum	little	Walls ..	white	4,5	A.	1630
	4 tetrandrum ..	tetrandrous.....	San. sh.	white	5,6	A.	*166
	5 arvense.....	field	Fields ..	white	5-8	P.	93
	6 alpinum	alpine.....	W. alps	white	6,7	P.	472
	7 latifolium	broad rough	W. alp	white	6	P.	473
	8 aquaticum ..	water	Wat. pl.	white	7	P.	538

SPECIFIC CHARACTER.

SEDUM.

- L. subulate, scattered, spurred at the base; lowermost recurved: Fl. somewhat cymose: cal. segm. ovate.
- L. glaucous, subulate, scattered, spurred at the base; those of the branches filiform: Fl. cymose: cal. segm. lanceolate.
- L. glaucous, subulate, erect, 5-rowed, crowded, spurred at the base: Fl. somewhat cymose: cal. segm. elliptical.
- L. semicylind. spreading, clustered in many rows, spurred at the base: Fl. cymose: cal. short, rounded.

241. OXALIS. *Oxalideæ*. DE C.

- Scape 1-flow: L. ternate, obcordate, hairy: root scaly-jointed: stam. simple.
- Stem branched, diffuse: pedunc. umbelliferous: petioles with stip. at the base: stam. monadelphous.

242. AGROSTEMMA. *Caryophylleæ*. JUSS.

- Hairy: cal. surpassing the corolla: petals undivided, without teeth.

243. LYCHNIS. *Caryophylleæ*. JUSS.

- 1 Pet. 4-cleft: fruit roundish, 1-celled: stem rough with deflexed bristles.
- 2 Pet. slightly-cloven: fruit 5-celled: L. ciliate at the base.
- 3 Pet. bifid: Fl. corymbose: Fr. 5-celled: L. linear-lanceolate.
- 4 Fl. diœcious: pet. cloven, crowned with 4 teeth: fruit 1-celled.

244. CERASTIUM. *Caryophylleæ*. JUSS.

- 1 Hairy, viscid, tufted: L. ovate: pet. equal to the cal: Fl. longer than their peduncles.
- 2 Hairy, viscid, diffuse: L. lanceolate-oblong.
- 3 Hairy, viscid: Fl. pentandrous: pet. notched.
- 4 Hairy, somewhat viscid: Fl. 4-cleft, tetrandrous: pet. obcordate, shorter than the calyx. *Sagina cerastoides*, Eng. Bot.
- 5 L. linear-lanceolate, obtuse, fringed at the base: pet. twice as long as the calyx.
- 6 L. elliptical, naked or hairy: pan. dichotomous, few-flow. furnished with bracteæ: caps. oblong, recurved.
- 7 L. elliptical, rough: pedunc. term. simple, mostly solitary: caps. ovate.
- 8 L. cordate, sessile: pedunc. lateral, solitary, fruit drooping: caps. ovate, mouth 5-toothed: pet. bifid.

CLASS X. DECANDRIA.

ORDER IV. PENTAGYNIA.

245

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
SPERGULA.	SPURREY.					
1 arvensis	rough seeded corn	San. fi.	white	6,7	A.	1535
2 nodosa	knotted	San. hea.	white	7,8	P.	694
3 saginoides ..	smooth awl shaped	Sc. alps	white	6	P.	2105
4 subulata	ciliated awl shaped	San. hea.	white	7,8	P.	1082

CLASS X. DECANDRIA.

ORDER IV. PENTAGYNIA.

SPECIFIC CHARACTER.

245. SPERGULA. *Caryophylleæ*. JUSS.

- L. verticillate: pedunc. of the fruit, reflexed: seeds kidney-shaped, rough.
- L. opposite, subulate, smooth; uppermost tufted: cal. nerveless.
- L. opposite, subulate, awnless, naked: pedunc. solitary, very long, smooth.
- L. opposite, subulate, awned, fringed: pedunc. solitary, very long, somewhat hairy.

CLASS XI.

DODECANDRIA.

ORDER I. MONOGYNIA.

- ASARUM. Cor. 0. Cal. 3-cleft, superior. Caps. 6-celled.
LYTHRUM. Pet. 6. Cal. 12-cleft, inferior.

ORDER II. DIGYNIA.

- AGRIMONIA. Pet. 5, inserted in the calyx. Seeds 2, in the bottom of the calyx.

ORDER III. TRIGYNIA.

- RESEDA. Pet. many-cleft. Caps. 1-celled, gaping.

(TETRAGYNIA.)

Tormentilla 1.

ORDER IV. DODECAGYNIA.

- SEMPERVIVUM. Pet. 12. Cal. 12-parted. Caps. 12.

CLASS XI. DODECANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
246	ASARUM.	ASARABACCA.					
	1 europæum ..	common	Nor.wds!	purple	5	P.	1083
247	LYTHRUM.	LYTHRUM.					
	1 Salicaria	purple	Riv. ban.	purple	7,8	P.	1061
	2 hyssopifolium	hyssop leaved ..	Wat. pl.!	purple	8	A.	292

ORDER II. DIGYNIA.

248	AGRIMONIA.	AGRIMONY.					
	1 Eupatoria ..	common	Bor. of fi.	yellow	6,7	P.	1335

ORDER III. TRIGYNIA.

249	RESEDA.	MIGNONETTE.					
	1 Luteola	dyers' weed	Wastegr.	yellow	7	A.	320
	2 lutea	wild	Chal. soil	yellow	7,8	A.	321
	3 fruticulosa ..	shrubby	Hedges	.....	6	B.or P.....	

ORDER IV. DODECAGYNIA.

250	SEMPERVIVUM.	HOUSE-LEEK.					
	1 tectorum	common	Roofs ..	rose?	7	P.	1320

CLASS XI. DODECANDRIA.

ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

246. ASARUM. *Aristolochiæ*. Juss.

- 1 L. 2, reniform, obtuse.

247. LYTHRUM. *Salicariæ*. Juss.

- 1 L. opposite, cordate-lanceolate : Fl. spiked, dodecandrous.
2 L. alternate, linear-lanceolate : Fl. axillary, solitary, hexandrous.

ORDER II. DIGYNIA.

248. AGRIMONIA. *Rosaceæ*. Juss.

- 1 Stem leaves pinnate : terminating leaf. petioled : fruit hispid.

ORDER III. TRIGYNIA.

249. RESEDA. *Resedaceæ*? DE C.

- 1 L. lanceolate, entire, flat : calyx 4-cleft.
2 L. all trifid ; lowermost pinnatifid : calyx 6-cleft.
3 L. pinnate, waved, glaucous : calyx 5-cleft : petals 5, nearly equal, trifid.

ORDER IV. DODECAGYNIA.

250. SEMPERVIVUM. *Crassulaceæ*. DE C.

- 1 L. fringed : offsets spreading : edges of the pet. hairy, entire.

CLASS XII.

ICOSANDRIA.

ORDER I. MONOGYNIA.

- 1 PRUNUS. *Cal.* inferior, 5-cleft. *Pet.* 5. *Drupa* with an entire nucleus.
Mespilus 1.

ORDER II. PENTAGYNIA.

- 2 MESPILUS. *Cal.* superior, 5-cleft. *Pet.* 5. *Apple* with 2-5 bony single-valved capsules. *Seeds* 2.
3 PYRUS. *Cal.* superior, 5-cleft. *Pet.* 5. *Apple* with 2-5 membranous 2-valved capsules. *Seeds* 2.
4 SPIRÆA. *Cal.* inferior, 5-cleft. *Pet.* 5. *Caps.* 2-valved, many-seeded.

ORDER III. POLYGYNIA.

- 55 ROSA. *Cal.* 5-cleft. *Recept.* fleshy, urn-shaped, contracted at the mouth, at length berried, many-seeded. *Pet.* 5.
56 RUBUS. *Cal.* 5-cleft. *Berry* superior, compound, granules 1-seeded. *Pet.* 5.
59 TORMENTILLA. *Cal.* 8-cleft. *Pet.* 4. *Seeds* naked, awnless. *Recept.* dry, obsolete.
61 DRYAS. *Cal.* 8-10-cleft. *Pet.* 5 or 8. *Seeds* downy, with a long feathery awn.
57 FRAGARIA. *Cal.* 10-cleft. *Seeds* naked, smooth, fixed to a berry-like, deciduous receptacle.
58 POTENTILLA. *Cal.* 10-cleft. *Seeds* naked, wrinkled, awnless. *Recept.* dry, obsolete.
60 GEUM. *Cal.* 10-cleft. *Seeds* with a jointed awn. *Recept.* columnar.
62 COMARUM. *Cal.* 10-cleft. *Seeds* naked, smooth; fixed upon an ovate, spongy, downy, permanent receptacle.
Spiræa 2, 3.

CLASS XII. ICOSANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the flower.	Time of Flowering.	Duration.	Figure in English Botany.
251	PRUNUS.	CHERRY.					
	1 Padus	bird	Woods	white	5	T.	1383
	2 Cerasus	common	Woods	white	5	T.	706
	3 domestica § ..	common plum....	Hedges	white	5	T.	783
	4 insititia.....	bullace	Hedges	white	4	T.	841
	5 spinosa	sloe	Hedges	white	3,4	S.	842

ORDER II. PENTAGYNIA.

252	MESPILUS.	MEDLAR.					
	1 Oxyacantha ..	Hawthorn	Hedges	wh. red	5,6	S.	.....
	2 germanica ..	common	Hedges	white	5	T.	1523
	3 Cotoneaster ..	dwarf quince-leav.	Wel. roc.	palered	7	S.	.....
253	PYRUS.	PEAR.					
	1 communis....	common	Woods	white	4,5	T.	1784
	2 Malus	apple or crab	Woods	white	5	T.	179
	3 torminalis....	wild service	Woods	white	4,5	T.	*298
	4 domestica	true service	M. woods	cream	5	T.	350
	5 aucuparia	mountain-ash	M. woods	white	5	T.	*337
	6 pinnatifida ..	bastard mount. ash	Sc. mou.	white	5	T.	2331
	7 Aria	white Beam	M. woods	white	5	T.	1858
254	SPIRÆA.	SPIRÆA.					
	1 salicifolia	willow-leaved	Moi. hed.	rose ..	7	S.	1468
	2 Filipendula ..	dropwort	M. past.	white	7	P.	284
	3 Ulmaria	meadow-sweet ..	Moi. mea.	cream	6,7	P.	960

CLASS XII. ICOSANDRIA. ORDER 1. MONOGYNIA.

SPECIFIC CHARACTER.

251. PRUNUS. *Rosaceæ*. Juss.

- 1 Fl. in pendulous racemes: L. deciduous, with two glands at the base on the under surface.
- 2 Umbels almost sessile: L. ovate-lanceolate, folded when young, downy beneath.
- 3 Pedunc. solitary or in pairs: L. lanceolate-ovate, convolute: branches spineless.
- 4 Pedunc. in pairs: L. lanceolate-ovate, convolute, downy beneath: branches ending in a spine.
- 5 Pedunc. solitary: L. lanceolate, smooth: branches spinous.

ORDER II. PENTAGYNIA.

252. MESPILUS. *Pomaceæ*. Juss.

- 1 Spinous: L. obtuse, mostly trifid, serrated, smooth: styles about 2.
- 2 Unarmed: L. lanceolate, tomentous beneath: Fl. solitary, nearly sessile, terminal: styles 5.
- 3 Unarmed: L. elliptic-obovate, entire, downy beneath: germen smooth: styles 3-4.

253. PYRUS. *Pomaceæ*. Juss.

- 1 L. ovate, serrated: peduncles corymbose.
- 2 L. ovate-oblong, serrated: Umbels simple, sessile.
- 3 L. somewhat cordate, serrated, 7-lobed, lower lobes divaricating: Fl. corymbose. *Cratægus*, Eng. Bot.
- 4 L. pinnate, downy beneath: leaf. serrated towards the point: Fl. panicled: Fr. obovate.
- 5 L. pinnate, smooth: Fl. corymbose: styles about 3: Fr. globular. *Sorbus*, Eng. Bot.
- 6 L. pinnatifid, or semi-pinnate, downy beneath: Fl. corymbose: styles about 3.
- 7 L. ovate, cut, serrated, streaked, tomentous beneath: Fl. corymbose: styles 2 to 4.

254. SPIRÆA. *Rosaceæ*. Juss.

- 1 L. lanceolate, obtuse, serrated, smooth: racemes term. compound.
- 2 L. interruptedly pinnate; leaf. uniform, serrated, smooth: stem herbaceous: Fl. cymose, with many styles.
- 3 L. interruptedly pinnate, tomentous beneath; terminal leaflet largest and lobed: stem herbaceous: Fl. cymose, with many styles.

CLASS XII. ICOSANDRIA.

ORDER III. POLYGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
ROSA.	ROSE.					
* 1 cinnamomea ♂.	cinnamon	Woods!	rose ..	5	S.	2388
2 rubella	red fruited dwarf..	Sea sh.!	blush	7	S.	2521
3 spinosissima..	Burnet	San. hea.	white	7	S.	187
4 involuta	Dr. Walker's	Sc. Isles	blush	6	S.	2068
5 Doniana	Don's	Thickets	blush	6	S.	.....
6 gracilis	slender	M. wood !	rose ..	6,7	S.	*583
7 Sabini	Sabinian	Highl. va.	rose ..	6,7	S.	.....
**						
8 villosa	apple	Nor.mou.	red ..	6	S.	*2459
9 tomentosa....	downy-leaved....	Hedges	rose ..	6,7	S.	990

10 Sherardi	Round-headed ..	Hedges	rose ..	6,7	S.	.....
11 rubiginosa ..	sweet briar	Chal.ban.	rose ..	6,7	S.	991
12 micrantha....	small flow. s. briar	Thickets	pale ..	6,7	S.	2490

SPECIFIC CHARACTER.

255. ROSA. *Rosacea*. JUSS.

* *Branches bristly. Prickles mostly slender, nearly straight.*

Pedunc. bracteated, smooth : cal. mostly simple : Fr. globose : bristles deciduous : leaf. oblong, simply serrated, downy, glaucous beneath.

Pedunc. and stem bristly : bract. 0 : cal. simple, bristly : Fr. globose : prickles straight, scattered : leaf. elliptical, smooth, simply serrated.

Pedunc. smooth : bract. 0 : cal. simple, smooth : Fr. globose, abrupt, somewhat depressed : prickles straight, unequal, intermixed with glandular bristles : leaf. roundish, smooth, simply serrated.

Pedunc. bristly : bract. 0 : cal. bristly : Fr. globular, bristly : stem bristly and prickly : leaf. elliptical, doubly serrated ; their veins hairy beneath : pet. convolute.

Pedunc. globular fr. and simple cal. bristly : bract. 0 : stem bristly and prickly, like the downy petioles : leaf. elliptical, doubly serrated, hairy on both sides : pet. spreading.

Pedunc. mostly in pairs, bristly, often bracteated : branches, globular fr. and simple cal. bristly : larger prickles curved, mostly 2-together : leaf. doubly serrated, hairy on both sides. *R. villosa*. Eng. Bot.

Pedunc. aggregate, bristly, often bracteated : branches, globular fr. and pinnate cal. bristly : prickles scattered, straightish : leaf. doubly serrated, nearly smooth, with hairy ribs.

** *Branches without bristles. Prickles nearly straight.*

Fr. globose, depressed, partly bristly : cal. slightly compound. Leaf. roundish, bluntish, all over downy. *R. mollis*. Eng. Bot.

Fr. elliptical, bristly : cal. copiously pinnate : prickles slightly curved : leaf. ovate, acute, more or less downy.

*** *Branches without bristles. Prickles hooked, compressed.*

Styles distinct.

Fr. globular, abrupt, bristly : cal. copiously pinnate. Leaf. elliptical, acute, downy on both sides.

Fr. obovate, bristly towards the base : cal. pinnate : smaller, straighter prickles interspersed with the larger : leaf. elliptical, doubly serrated, hairy ; clothed beneath with rust-coloured glands.

Fr. elliptical, bristly, contracted at the summit : cal. pinnate, deciduous : stem straggling : leaf. ovate, doubly serrated, hairy ; glandular beneath.

CLASS XII. ICOSANDRIA.

ORDER III. POLYGYNYA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
ROSA.	ROSE.					
13 Borreri	Borrer's	Hedges	blush	7	S.	*2579
14 cæsia	glaucous leaved..	Highl.va.	flesh .	7	S.	2367
15 sarmentacea..	straggling	Hedges	flesh .	.....	S.	.....
16 bractescens ..	large floral leaved	Hedges!	flesh .	.....	S.	.....
17 dumetorum ..	thicket	Hedges	blush	.....	S.	.....
18 Forsteri	downy-ribbed ..	Hedges	red ..	6,7	S.	.....
19 Hibernica ..	Irish	Ir.thick.	blush	6-11	S.	2196
20 canina	dog	Hedges	flesh .	6	S.	992

21 systyla.....	rough stalked ..	Thickets	flesh .	7	S.	*1895
22 arvensis	white field	Hedges	white	6,7	S.	188
RUBUS.	BRAMBLE.					
*						
1 fruticosus ..	Blackberry	Hedges	blush	7,8	S.	715
2 plicatus	plaited-leaved ..	Hedges	white	7	S.	.....

CLASS XII. ICOSANDRIA.

ORDER III. POLYGYNIA.

SPECIFIC CHARACTER.

ROSA.

- 1 Fr. elliptical, smooth : pedunc. aggregate, hairy : cal. copiously, often doubly pinnate, deciduous. Leaf. ovate, doubly-serrated, hairy ; without glands. *R. dumetorum*. Eng. Bot.
- 4 Fr. elliptical, smooth : pedunc. smooth, solitary : cal. sparingly pinnate. Leaf. elliptical, doubly serrated, glaucous, hairy beneath ; without glands.
- 5 Fr. broadly elliptical, naked : pedunc. aggregate, smooth or minutely bristly : cal. strongly pinnate. Leaf. ovate, doubly serrated, very smooth.
- 6 Fr. globose, smooth : pedunc. aggregate, sometimes hairy : cal. pinnate, with entire leaflets. Leaf. ovate, almost simply serrated ; downy beneath : bract. rising above the fruit.
- 7 Fr. elliptical, smooth, as tall as the bracteas : pedunc. aggregate, slightly hairy : cal. copiously pinnate, cut. Leaf. simply serrated, hairy on both sides.
- 8 Fr. elliptical, smooth : pedunc. aggregate, smooth : cal. copiously, somewhat doubly pinnate. Leaf. simply serrated, smooth above ; ribs hairy beneath.
- 9 Fr. nearly globular, smooth : pedunc. smooth : cal. pinnate, with entire appendages, permanent. Leaf. elliptical, simply serrated ; ribs hairy beneath.
- 20 Fr. ovate, smooth or rather bristly : pedunc. aggregate, smooth or rather bristly : cal. pinnate, deciduous. Leaf. simply serrated, pointed, quite smooth.

**** Branches without bristles. Prickles hooked, compressed.

Styles combined.

- 21 Fr. ovate-oblong, smooth : pedunc. glandular : cal. pinnate, deciduous. Leaf. simply serrated : Fl. recept. conical. *R. collina*. Eng. Bot.
- 22 Fr. globose or elliptical, smooth : pedunc. glandular : cal. pinnate, deciduous. Leaf. simply serrated : Fl. recept. slightly convex.

256. RUBUS. *Rosaceæ*. Juss.

* Stem shrubby, angular.

- 1 Stems furrowed : prickles hooked : L. quinate, downy beneath : leaf. petioled : cal. reflexed, unarmed.
- 2 Stems angular, nearly erect : prickles deflexed : leaf. 3 or 5, petioled, ovate, plaited ; hoary beneath : cal. reflexed, unarmed.

CLASS XII. ICOSANDRIA.

ORDER III. POLYGYNIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
RUBUS.	BRAMBLE.					
3 rhamnifolius..	buckthorn-leaved..	Hed. Wds	white	7,8	S.	715
4 leucostachys..	white-clustered..	Woods	wh. red	7,8	S.	.....
5 glandulosus..	glandular	Hedges	white	7,8	S.	.....
6 nitidus.....	smooth shining ..	Woods	blush	7,8	S.	.....
7 affinis	ovate hairy	Hedges	white	7,8	S.	.....
8 suberectus ..	red-fruited	Woods	white	7,8	S.	2572

9 idæus	raspberry	M. woods	white	5,7	S.	2442
10 corylifolius ..	hazel-leaved	Hedges	white	7	S.	827
11 cæsius	dewberry	Bor. of fi.	white	6,7	S.	826
*						
12 saxatilis	stone	Nor. wds.	white	6	P.	2233
13 arcticus	dwarf crimson ..	Sto. moor!	rose ..	5,6	P.	1585
14 Chamæmorus.	cloud-berry	Alp. bogs	white	6	P.	716
FRAGARIA.	STRAWBERRY.					
1 vesca	wood	Gr. Thick	white	5,6	P.	1524
2 elatior	hautboy	Woods!	white	6,9	P.	2197

CLASS XII. ICOSANDRIA. ORDER III. POLYGYNIA.

SPECIFIC CHARACTER.

RUBUS.

- Stems furrowed; barren ones arched: prickles deflexed, straight: L. ternate or quinate: leaf. obovate or cordate, pointed; hoary beneath: cal. spreading.
- 4 Stems downy: prickles deflexed: slightly hooked: L. ternate or quinate: leaf. ovate or cordate, pointed, jagged; hoary beneath: calyx reflexed, unarmed, minutely glandular.
- 5 Branches and footstalks rough with hairs and glandular bristles: prickles deflexed, partly hooked: leaf. 3 or 5, downy beneath: pan. and cal. prickly and hairy, with copious glandular bristles.
- 6 Stems spreading, smooth; prickles hooked: leaf. 3 or 5, hairy beneath: pan. and cal. rather prickly, without bristles.
- 7 Stems reclining, nearly smooth: prickles hooked: leaf. 1, 3 or 5, ovate-cordate, pointed; loosely hairy beneath: cal. hoary, unarmed.
- 8 Stems ascending, smooth: branches roundish: prickles deflexed: leaf. 3, 5 or 7, ovate-cordate, pointed, minutely hairy beneath: clusters simple, hairy, prickly, on lateral leafy branches: cal. slightly hairy, unarmed.

*** Stems shrubby, round.*

- 9 Stems erect, smooth, with downy branches: prickles straight, slender: L. pinnate: leaf. 3 or 5, ovate, angular, downy beneath: clusters prickly: Fl. pendulous.
- 10 Stems spreading: barren ones somewhat angular: prickles straight, deflexed: leaf. 3 or 5, cordate; finely hairy beneath: pan. and reflexed cal. minutely glandular.
- 11 Stems prostrate, glaucous, prickly, bristly; prickles deflexed: leaf. 3, hairy beneath; lateral ones lobed, externally: cal. embracing the fruit.

**** Stem herbaceous.*

- 12 Stems ascending, prickly, with prostrate runners: L. ternate: pan. few-flow: cal. of the fruit converging, unarmed.
- 13 Stem unarmed, 1 or 2-flow, L. ternate: leaf. serrated.
- 14 Stem unarmed, 1-flow, L. simple, plaited, lobed: cal. scgm. ovate.

257. FRAGARIA. *Rosaceæ*. Juss.

- 1 Hairs of the foot-stalks spreading; those of the pedicles close-pressed, silky.
- 2 Hairs of the petioles and pedunc. all widely spreading, somewhat deflexed.

CLASS XII. ICOSANDRIA.

ORDER III. POLYGYNIA.

	LINNEAN NAMES.	LINNEAN NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
258	POTENTILLA.	CINQUEFOIL.					
	*						
	1 fruticosa	shrubby	M.bus.pl.	yellow	6	S.	88
	2 anserina	silver weed	Moi. mea.	yellow	6,7	P.	861
	3 rupestris	rock.....	Alp. roc.!	white	6,7	P.	2058
	**						
	4 argentea	hoary	Grav.pa.	yellow	6	P.	89
	5 alpestris	golden.....	Sc. alps	yellow	7	P.	*561
	6 verna	spring	High pas.	yellow	4,5	P.	37
	7 opaca	saw leaved	Sc. alps	yellow	6	P.	2449
	8 alba	white	W. alps	white	7,8	P.	1384
	9 reptans.....	common creeping .	Mea. pas.	yellow	6-8	P.	862

	10 tridentata	threc-toothed	Sc. alps	white	5,6	P.	2389
	11 Fragariastrum.	strawberry-leaved .	Bar. pas.	white	3,4	P.	*1785
259	TORMENTILLA	TORMENTIL.					
	1 officinalis	common	Bar. pas.	yellow	6,7	P.	863
	2 reptans	trailing	Mea. pas.	yellow	6,7	P.	864
260	GEUM.	AVENS.					
	1 urbanum	common	Woods	yellow	5-8	P.	1400
	2 rivale	water	Moi. mea.	reddish	6,7	P.	106

CLASS XII. ICOSANDRIA. ORDER III. POLYGYNIA.

SPECIFIC CHARACTER.

258. POTENTILLA. *Rosaceæ*. Juss.* *Leaves pinnate.*

Leafl. entire, hairy: stem shrubby.

L. interruptedly pinnate, serrated, silky beneath: stem ereeping: pedune. 1-flow. axillary.

L. lyrate-pinnate, in sevens, fives, and threes: leafl. ovate, serrated, hairy: stem erect.

** *Leaves digitate.*

L. quinate, wedge-shaped, jagged, downy beneath: stem erect.

Radial leaves quinate, wedge-shaped, deeply serrated in the upper half; hairy, somewhat membranous; those on the stem ternate: stem almost erect. *P. aurea*. Eng. Bot.

Radial leaves quinate, wedge-shaped, serrated, marked with lines, fringed, somewhat coriaceous: stem-leaves ternate: stem reclining: eal. segm. partly 3-ribbed.

L. radical of 7 hairy, linear wedge-shaped, serrated leafl: stems decumbent, with opposite ternate leaves.

L. quinate, silky beneath, converging-serrated at the apex: stems filiform, procumb: receptacle very hairy.

L. quinate, obovate, serrated: stem. creeping: pedune. 1-flow: axillary.

*** *Leaves ternate.*

1 L. ternate, wedge-shaped, smooth above, hairy beneath, trifid at the tips: stem panieled, erect: seeds even.

1 L. ternate, obovate, serrated, hairy: stems prostrate: seeds corrugated, hairy at the scar. *Fragaria*. Eng. Bot.259. TORMENTILLA. *Rosaceæ*. Juss.

1 Stem rather erect, branched: L. almost sessile: stipulæ cut.

2 Stem prostrate, simple: L. petioled: stipulæ undivided.

260. GEUM. *Rosaceæ*. Juss.

1 L. ternate: radical somewhat lyrate: stipulæ roundish, cut: Fl. erect: awns hooked, naked.

2 Radial leaves lyrate: stipulæ ovate, acute, cut: Fl. nodding: awns twisted, feathered.

CLASS XII. ICOSANDRIA.

ORDER III. POLYGYNIA.

261

DRYAS. MOUNTAIN AVENS.

l octopetala

common

Alp. hea.

white

7,8

P.

451

262

COMARUM.

MARSH CINQUEFOIL.

l palustre

common

Sp. bogs

purple

6,7

P.

712

LINNEAN NAMES.

ENGLISH NAMES.

Soil
or
Situation.Colour
of the
Flower.Time of
Flowering.

Duration.

Figure
in English
Botany.

CLASS XII. ICOSANDRIA. ORDER III. POLYGYNIA.

SPECIFIC CHARACTER.

261. DRYAS. *Rosaceæ*. JUSS.

Eight-petalled : L. simple, serrated, downy beneath.

262. COMARUM. *Rosaceæ*. JUSS.

CLASS XIII.

POLYANDRIA.

ORDER 1. MONOGYNIA.

* 4-petalled.

- 266 PAPAVER. *Cal.* 2-leaved. *Caps.* 1-celled, opening with pores under the crown of the stigma.
264 CHELIDONIUM. *Cal.* 2-leaved. *Silique* 1-celled. *Seeds* crested.
265 GLAUCIUM. *Cal.* 2-leaved. *Silique* 2 or 3-celled. *Seeds* dotted.
263 ACTÆA. *Cal.* 4-leaved. *Berry* 1-celled. *Seeds* flat, placed in a double order.
Cistus 1. occasionally.

** 5-petalled.

- 270 CISTUS. *Caps.* 3-10-valved, opening at the apex. *Cal.* 5-leaved, 2-leaflets smaller than the rest.
269 TILIA. *Caps.* 5-valved, opening at the base, coriaceous. *Cal.* 5-parted, deciduous.
Delphinium 1.

*** Many-petalled.

- 267 NYMPHÆA. *Berry* many-celled, with a bark-like coat. *Cal.* 4-5-leaved, larger than the petals. *Pet.* inserted into the germen. *Stig.* bearing the *Nectary*.
268 NUPHAR. *Berry* many-celled. *Cal.* 5-6-leaved. *Pet.* inserted with the stamens into the recept. and bearing honey at their backs.

ORDER II. PENTAGYNIA.

- 271 PÆONIA. *Cal.* 5-leaved. *Pet.* 5. *Style* 0. *Caps.* many-seeded.
272 DELPHINIUM. *Cal.* 0. *Pet.* 5; uppermost spurred. *Nect.* 2-cleft, sessile, in the spur.
Reseda 1. *Helleborus.* 1, 2.
273 ACONITUM. *Cal.* 0. *Pet.* 5; uppermost hooded. *Nect.* 2 recurved, stalked, under the hood.
274 AQUILEGIA. *Cal.* 0. *Pet.* 5. equal. *Nect.* 5, spurred below.
275 STRATIOTES. *Spatha* 2-leaved. *Perianthium* superior, 3-cleft. *Pet.* 3. *Berry* of 6 or more cells.

CLASS XIII. POLYANDRIA. ORDER III. POLYGYNIA.

- 8 THALICTRUM. *Cal.* 0. *Pet.* 4-5. imbricated. *Seeds* tailless.
7 CLEMATIS. *Cal.* 0. *Pet.* 4-8. valvular, or folded in at the edges.
Seeds tailed. *Recept.* capitate.
6 ANEMONE. *Cal.* 0. *Pet.* 5-15, imbricated. *Seeds* numerous.
2 HELLEBORUS. *Cal.* 0. *Pet.* 5. persisting. *Nect.* tubular, 2-lipped.
Follicles 3-4.
3 CALTHA. *Cal.* 0. *Pet.* 5. *Nect.* 0. *Follicles* 5-10.
1 TROLLIUS. *Cal.* 0. *Pet.* 5-15, deciduous. *Nect.* flattened.
0 RANUNCULUS. *Cal.* 5-leaved. *Pet.* 5, or more, with a nectariferous
claw. *Seeds* numerous, naked.
9 ADONIS. *Cal.* 5-leaved. *Pet.* 5-15, destitute of nectaries. *Seeds*
numerous, naked.
-

CLASS XIII. POLYANDRIA.

ORDER 1. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
263	ACTÆA. HERB-CHRISTOPHER.						
	1 spicata	common	M. wo. !	white	5,6	P.	918
264	CHELIDONIUM	CELANDINE.					
	1 majus	common	Sha. la.	yellow	5,6	P.	1581
265	GLAUCIUM.	HORN-POPPY.					
	1 luteum	yellow	San. sh.	yellow	7,8	B.	*8
	2 phoeniceum§ .	scarlet	San. fi.	red ..	6,7	A.	1433
	3 violaceum....	violet	Chal. fi.!	violet	5,6	A.	*201
266	PAPAVER.	POPPY.					
	*						
	1 hybridum	round rough-headed	Chal. fi.!	scarlet	7	A.	43
	2 Argemone ..	long rough-headed	Corn fi.	scarlet	6,7	A.	643
	**						
	3 dubium.....	long smooth-headed	San. fi.	scarlet	6,7	A.	644
	4 Rhœas.....	common red	Corn fi.	scarlet	6,7	A.	645
	5 somniferum ..	white	San. fens	white	7	A.	2145
	6 cambricum ..	yellow.....	Mo. sh. pl.	yellow	6	P.	66
267	NYMPHÆA.	WATER-LILY.					
	1 alba	white	Riv. &c.	white	7	P.	160
268	NUPHAR.	YELLOW WATER-LILY.					
	1 lutea.....	common	Pools, &c.	yellow	7	P.	*159
	2 pumila	least	Alp. lak.	yellow	7	P.	2292

CLASS XIII. POLYANDRIA. ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

263. ACTÆA. *Ranunculaceæ spuria*. Juss.

Cluster ovate : pet. the length of the stamens.

264. CHELIDONIUM. *Papaveraceæ*. Juss.265. GLAUCIUM. *Papaveraceæ*. Juss.

Stem smooth : L. on the stem wavy : silique covered with roughish tubercles. *Chelidonium Glaucium*. Eng. Bot.

1 Stem hispid : L. on the stem pinnatifid, jagged : silique bristly.

2 L. bipinnatifid, linear, smooth : stem smooth : siliques 3-valved.

Chelidonium Hybridum. Eng. Bot.

266. PAPAVER. *Papaveraceæ*. Juss.

* *Capsules hispid*.

Caps. almost globular, furrowed : cal. hairy : stem leafy, many-flow. L. bipinnatifid.

2 Caps. club-shaped, ribbed : cal. hairy : stem leafy, many-flow. L. bipinnatifid.

** *Capsules smooth*.

3 Caps. oblong, angular : stem many-flow. hairy : bristles on the peduncle appressed : L. bipinnatifid.

4 Caps. almost globular : stem many-flow. bristly : all the bristles spreading : L. pinnatifid, jagged : stig. many-rayed.

5 Cal. smooth : L. embracing the stem, jagged, glaucous.

6 Caps. oblong, beaked : stem many-flow. smoothish : L. pinnate, jagged, petioled.

267. NYMPHÆA. *Nymphaeaceæ*. DE C.

1 L. cordate, very entire, even beneath : pet. elliptic-oblong : stig. 16-cleft, recurved : root horizontal.

268. NUPHAR. *Nymphaeaceæ*. DE C.

1 Cal. 5-leaved : stig. entire : petioles 2-edged : L. heart-shaped, with the lobes approximating. *Nymphaea*. Eng. Bot.

2 Cal. 5-leaved : stig. toothed : petioles 2-edged : L. heart-shaped, with the lobes rather distant.

CLASS XIII. POLYANDRIA.

ORDER I. MONOGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
269	TILIA.	LIME-TREE.					
	1 europæa	common	Woods	yell-ish	7	T.	610
	2 grandifolia ..	broad-leaved	Woods	yell-ish	6,7	T.	.....
	3 parvifolia	small-leaved	Woods	yell-ish	8	T.	1705
270	CISTUS.	CISTUS.					
	1 marifolius	hoary dwarf	Alp.roc.!	yellow	5,6	S.	396
	2 guttatus	spotted flowered ..	San. pas.!	yellow	6,7	A.	544
	3 ledifolius	ledum-leaved	San. pas.!	yellow	6,7	A.	2414
	4 surrejanus ..	dotted leaved	Chal.hil.!	yellow	7,8	S.	2207
	5 Helianthemum	common dwarf ..	Grav.ban	yellow	7,8	S.	1321
	6 tomentosus ..	downy.....	Sc. alps	yellow	7	S.	2208
	7 polifolius	white mountain ..	downs !	white	6,7	S.	1322

ORDER II. PENTAGYNIA.

271	PÆONIA.	PÆONY.					
	1 corallina	entire leaved	Sev. isles	crimso.	5,6	P.	1513
272	DELPHINIUM.	LARKSPUR.					
	1 Consolida	field	San. fi.	violet	6,7	A.	1839

CLASS XII. POLYANDRIA. ORDER I. MONOGYNIA.

SPECIFIC CHARACTER.

269. TILIA. *Tiliaceæ*. Juss.

Cymes many-flow : nect. 0. L. twice the length of the petioles, cordate ; ramification of their veins villous beneath : caps. coriaceous, downy.

- 2 Umbels 3-flow. nect. 0. L. cordate, downy ; origin of their veins woolly : branches hairy : woody, downy, turbinate, 5-angled.
- 3 Umbels compound, many-flow. Nect. 0. L. smooth above ; glaucous beneath, with scattered, as well as axillary, hairy blotches : caps. roundish, brittle, nearly smooth.

270. CISTUS. *Cistineæ*. Juss.

- 1 Shrubby : without stip : L. opposite, petioled, oblong, flat, tomentous beneath.
- 2 Herbaceous : without stip : L. opposite, lanceolate, 3-nerved.
- 3 Herbaceous : with stip. downy . L. lanceolate : peduncles erect, opposite to the leaves ; shorter than the calyx.
- 4 Shrubby : procumbent, with stip : L. ovate-oblong, hairy, and dotted beneath : pet. lanceolate.
- 5 Shrubby : procumbent, with fringed stip : L. elliptic-oblong, hoary with hairs beneath : calyx-ribs bristly ; its outer leaves lanceolate, fringed.
- 6 Shrubby : procumbent, with hoary stip : L. elliptic-oblong, snow white, with starry pubescence beneath : cal. hoary ; ribs hairy : outer leaves obtuse.
- 7 Shrubby : procumbent, with stip : pubescence starry : L. oblong, revolute, white and downy beneath : cal. hairy ; its outer leaves fringed.

ORDER II. PENTAGYNIA.

271. PÆONIA. *Ranunculaceæ*. Juss.

- 1 L. biternate : leaf. ovate, undivided, smooth ; seed-vessels downy, recurved.

272. DELPHINIUM. *Ranunculaceæ*. Juss.

- 1 Caps. solitary : nect. 1-leaved : stem subdivided, spreading.

CLASS XIII. POLYANDRIA. ORDER II. PENTAGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
273	ACONITUM.	WOLF'S-BANE.					
	1 Napellus	common	Wat. pl.	purple	6,7	P.	.....
274	AQUILEGIA.	COLUMBINE.					
	1 vulgaris	common	Mea.pas.	violet	7	P.	297
275	STRATIOTES.	WATER-SOLDIER.					
	1 aloides	common	Ditches	white	7	P.	379

ORDER III. POLYGYNIA.

276	ANEMONE.	ANEMONE.					
	1 Pulsatilla	pasque flower	Chal. pa.	violet	4,5	P.	51
	2 nemorosa	wood	Woods	white	4	P.	355
	3 apennina	blue mountain ..	Woods!	blue	4	P.	1062
	4 ranunculoides.	yellow wood	Woods!	yellow	4	P.	1484
277	CLEMATIS.	TRAVELLER'S JOY.					
	1 Vitalba.....	common	Hedges	white	7	S.	612
278	THALICTRUM.	MEADOW-RUE.					
	1 alpinum	alpine	Alp. pas.	white	6	P.	262
	2 minus	lesser	Chal.pa.	pur-ish	6,7	P.	11
	3 majus	greater	M. thick.	gre-ish	6,7	P.	611
	4 flavum	common	Moi. mea.	cream	7	P.	367

CLASS XIII. POLYANDRIA. ORDER II. PENTAGYNIA.

SPECIFIC CHARACTER.

273. ACONITUM. *Ranunculaceæ*. Juss.

- 1 Pet. upper arched at the back ; lateral hairy inside : germ. 3. smooth :
L. 5-cleft, cut ; segm. linear, furrowed above.

274. AQUILEGIA. *Ranunculaceæ*. Juss.

- 1 Nect. incurved, scarcely equal to the petals : stem and leaves smooth :
caps. hairy.

275. STRATIOTES. *Hydrocharideæ*. Juss.

- 1 L. ensiform, channelled, with a prominent rib, and sharp marginal
prickles.

ORDER III. POLYGYNIA.

276. ANEMONE. *Ranunculaceæ*. Juss.

- 1 Stalk 1-flow : petals 6, erect : involucre in many linear segments :
L. bipinnate, cut : seeds tailed.
- 2 Stalk 1-flow : pet. 6, elliptical : invol. 3-leaved ; leaf. ternate or
quinate, lobed, and cut, petioled : seeds tailless.
- 3 Stalk 1-flow : invol. 3-leaved : leaf. ternate, petioled : seeds tailless :
petals lanceolate, numerous.
- 4 Stalk mostly 2-flow : invol. 3-leaved, almost sessile, deeply cut :
seeds tailless : petals 5, elliptical.

277. CLEMATIS. *Ranunculaceæ*. Juss.

- 1 L. pinnate : leaf. cordate : petioles twining : pan. forked ; not longer
than the leaves.

278. THALICTRUM. *Ranunculaceæ*. Juss.

- 1 Stem very simple, almost naked : cluster simple, terminal.
- 2 L. bipinnate ; leaf. ternate, trifid, glaucous : Fl. paniced, drooping :
stem zigzag : stip. rounded.
- 3 L. tripinnate ; leaf. ternate, lobed, glaucous beneath : branches of the
pan. crowded, somewhat umbelled : Fl. drooping : stip. crescent-
shaped, notched.
- 4 L. bipinnate ; leaf. trifid : stem furrowed : pan. much branched, com-
pact : Fl. erect.

CLASS XIII. POLYANDRIA. ORDER III. POLYGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
279	ADONIS. PHEASANT'S EYE.						
	1 autumnalis ..	corn	Corn fi.	crimso.	5-10	A.	308
280	RANUNCULUS. CROWFOOT.						
	*						
	1 Flammula ..	lesser spear-wort..	Wat. pl.	yellow	6-9	P.	387
	2 Lingua	great spear-wort ..	Mud. dit.	yellow	7	P.	100
	3 gramineus ..	grassy	Alp. mca.	yellow	5,6	P.	2306
	4 Ficaria	pilewort	Bush. pl.	yellow	3,4	P.	584
	**						
	5 auricomus ..	wood	Bush. pl.	yellow	4,5	P.	624
	6 sceleratus	water	Wat. pl.	yellow	6-8	A.	681
	7 alpestris	alpine	Alp. riv.!	white	5	P.	2390
	8 bulbosus	bulbous	Mea. pas.	yellow	5	P.	515
	9 hirsutus	pale hairy	Rubble	yellow	6-10	A.	1504
	10 repens	creeping	Mea. pas.	yellow	6-8	P.	516
	11 acris	upright meadow ..	Mea. pas.	yellow	6,7	P.	652
	12 arvensis	corn.....	Corn fi.	yellow	6	A.	135
	13 parviflorus ..	small flowered ..	Grav. pl.	yellow	5,6	A.	120
	14 hederaceus ..	ivy-leaved	Wat. pl.	white	5,8	P.	2003
	15 aquatilis	white floating	Ditches	white	5,6	P.	101
281	TROLLIUS. GLOBE-FLOWER.						
	1 europæus	common	Mo.sh.pl.	yellow	5,6	P.	28

CLASS XIII. POLYANDRIA. ORDER III. POLYGYNIA.

SPECIFIC CHARACTER.

279. ADONIS. *Ranunculacea*. Juss.

Petals about 8, obcordate: fruit ovate: stem branched.

280. RANUNCULUS. *Ranunculacea*. Juss.

* *Leaves simple.*

- 1 L. ovate-lanceolate, rather obtuse, petioled: stem declining: root fibrous.
- 2 L. lanceolate, acuminate, nearly sessile, serrated: stem erect, many-flow: root fibrous.
- 3 L. linear-lanceolate, many-nerved, sessile: stem erect, few-flow. very smooth: root tuberous.
- 4 L. cordate, angular, petioled, shining: pet. many, elliptic-oblong.

** *Leaves lobed, or cut.*

- 5 Radical leaves reniform, 3-parted, crenate: stem leaves digitate, linear: stem many-flow: calyx coloured.
- 6 Lower leaves palmate; upper digitate: fruit oblong: stem erect, hollow, much branched: cal. hairy, reflexed.
- 7 L. smooth, subcordate, 3-parted, lobed: stem mostly 1-flow. with one lanceolate entire leaf: cal. smooth, reflexed.
- 8 Cal. reflexed: pedunc. furrowed: stem erect, many-flow: L. compound: root bulbous.
- 9 Cal. reflexed, acuminate: stem erect, many-flow. hairy: L. ternate: root fibrous: seeds tuberculated.
- 10 Cal. spreading: pedunc. furrowed: runners creeping: L. compound.
- 11 Cal. spreading: pedunc. cylind: L. 3-parted-many-cleft; upper ones linear: stem erect, covered with close hairs.
- 12 Seeds prickly: L. 3-cleft-decompound; segments linear: stem erect, much branched, many-flow.
- 13 Seeds prickly; prickles hooked: L. simple; segments acute, hairy: stem diffuse.
- 14 L. reniform-roundish, 3 or 5 lobed, very entire, smooth: stem creeping: seeds wrinkled.
- 15 L. under-water capillary; those above somewhat peltate, lobed, notched: seeds wrinkled.

281. TROLLIUS. *Ranunculacea*. Juss.

- 1 Pet. about 15, converging: nectaries 5-10, the length of the stamina.

CLASS XIII. POLYANDRIA. ORDER III. POLYGYNIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
282	HELLEBORUS.	HELLEBORE.					
	1 viridis	green	Woods!	green	4,5	P.	200
	2 fætidus	stinking	Cha. pa.	green	3,4	P.	613
283	CALTHA.	MARSH-MARYGOLD.					
	1 palustris	common	Marshes	yellow	3-5	P.	506
	2 radicans	creeping	Scotland	yellow	5,6	P.	2175

CLASS XIII. POLYANDRIA. ORDER III. POLYGYNIA.

SPECIFIC CHARACTER.

282. HELLEBORUS. *Ranunculaceæ*. Juss.

Stem many-flow. leafy : L. digitate : petals spreading.

Stem many-flow. leafy : L. pedate : petals converging.

283. CALTHA. *Ranunculaceæ*. Juss.

L. cordate : stem erect.

L. triangular, subcordate, sharply crenate : stem creeping.

CLASS XIV.

DIDYNAMIA.

ORDER 1. GYMNOSPERMIA.

* *Calyxes mostly 5-cleft.*

- 297 LEONURUS. *Anth.* sprinkled with honey dots. *Cor.* upper lip shaggy.
289 GLECHOMA. *Anth.* each pair forming a cross. *Cor.* upper lip cloven.
288 MENTHA. *Filaments* distant, straight. *Cor.* nearly regular, 4-cleft.
285 TEUCRIUM. *Cor.* upper lip 2-parted, lobes remote.
284 AJUGA. *Cor.* upper lip very small, and shorter than the *stam.*
293 BETONICA. *Cor.* upper lip flat, ascending, tube cylind. incurved.
Stam. as long as the throat.
290 LAMIUM. *Cor.* throat toothed on both sides.
291 GALEOPSIS. *Cor.* lower lip with two hollow prominences at the base in front.
292 GALEOBDOLOM. *Cor.* lower lip 3-cleft, segments acute.
294 STACHYS. *Cor.* lower lip reflexed at the sides. *Stam.* reflected to the sides, after shedding their pollen.
286 NEPETA. *Cor.* lower lip crenate, throat with the margin reflexed.
295 BALLOTA. *Cal.* 10-striated. *Cor.* upper lip arched, shaggy.
296 MARRUBIUM. *Cal.* 10-striated. *Cor.* upper lip straight, 2-cleft.
287 VERBENA. *Cal.* 1 tooth truncated. *Cor.* nearly equal, curved.

** *Calyxes 2-lipped.*

- 302 SCUTELLARIA. *Cal.* when in fruit covered with a lid.
300 THYMUS. *Cal.* throat closed with soft hairs. *Cor.* upper lip flat, notched.
301 MELITTIS. *Cal.* wider than the tube of the corolla. *Cor.* upper lip flat. *Anth.* crossed.
298 CLINOPODIUM. *Involutrum* many-leaved, collecting the calyxes. *Cal.* many-ribbed.
299 ORIGANUM. *Calyxes* collected, by imbricated bractæ, into a spicate, 4-angular cone; ribless.
303 PRUNELLA. *Filaments* all 2-forked at the apex.

CLASS XIV. DIDYNAMIA. ORDER II. ANGIOSPERMIA.

* *Calyxes 4-cleft.*

- LATHRÆA. Caps. 1-celled. Gland under the germen.
BARTSIA. Caps. 2-celled. Seeds angular.
RHINANTHUS. Caps. 2-celled. Seeds compressed flat, imbricated.
MELAMPYRUM. Caps. 2-celled. Seeds 2, gibbous, shining.
EUPHRASIA. Caps. 2-celled. Seeds striated. Anth. spinous.

** *Calyxes 5-cleft.*

- LIMOSELLA. Caps. imperfectly 2-celled. Cor. bell-shaped, nearly equal.
SCROPHULARIA. Caps. 2-celled. Cor. reversed, tube inflated; lip with an intermediate segment within.
SIBTHORPIA. Caps. 2-celled, with transverse partitions. Cor. nearly wheel-shaped. Stam. each pair approximate.
DIGITALIS. Caps. 2-celled. Cor. bell-shaped, ventricose beneath: Stam. bent.
ANTIRRHINUM. Caps. 2-celled. Cor. mouth closed by the palate, spurred, or bulging at the base, behind.
PEDICULARIS. Caps. 2-celled. Seeds mucronate. Cor. personate; helmet compressed.
LINNÆA. Berry 3-celled, dry. Cor. bell-shaped. Cal. double; innermost superior.

*** *Cal. 2-leaved.*

- OROBANCHE. Cal. leaflets lateral, lobed. A gland under the germen. Caps. 1-celled, with 4 receptacles.

CLASS XIV. DIDYNAMIA. ORDER I. GYMNOSPERMIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
284	AJUGA.	BUGLE.					
	1 reptans	common	Moi. wo.	blue	5	P.	489
	2 pyramidalis ..	pyramidal	Sc. mount	purple	5,6	P.	1270
	3 alpina	alpine	Mount.!	blue	7	P.	477
	4 Chamæpitys..	ground pine	San. fi.	yellow	4,5	A.	77
285	TEUCRIUM.	GERMANDER.					
	1 Scorodonia ..	wood	Woods	yellow	7	P.	1543
	2 Scordium	water	Marshes!	purple	7,8	P.	828
	3 Chamædrys ..	wall	Old walls	purple	7	P.	680
286	NEPETA.	CAT-MINT.					
	1 Cataria	common	Road si.	white	7	P.	137
287	VERBENA.	VERVAIN.					
	1 officinalis	common	Road si.	purple	7	P.	767
288	MENTHA.	MINT.					
	1 sylvestris	horse	Wat. pl.	lilac	8,9	P.	686
	2 rotundifolia ..	round-leaved	Moi. pl.	reddish	8,9	P.	446
	3 viridis	spear	Marshes	purple	8	P.	2424
	4 piperita	pepper	Wat. pl.	purple	8,9	P.	687
	5 citrata	bergamot	Wat. pl. !	red ..	7-9	P.	1025
	6 hirsuta	hairy	Wat. pl.	lilac	8,9	P.	447 { 448
	7 acutifolia	frag. sharp leaved.	Wat. pl. !	lilac	9!	P.	2415

CLASS XIV. DIDYNAMIA. ORDER I. GYMNOSPERMIA.

SPECIFIC CHARACTER.

284. AJUGA. *Labiatae*. Juss.

Smooth : stem solitary : scyons creeping : cor. lower lip 4-lobed.
 Hairy : whorls crowded into a pyramidal form, many flowered : radical leaves very large, obovate, crenate, obtuse : cor. upper lip cleft.
 Stem simple : L. almost smooth, unequally toothed, uppermost entire : whorls rather remote, many-flowered : scyons 0.
 Stem diffuse, branched : L. 3-lobed, linear, entire : Fl. axillary, solitary, shorter than the leaves.

285. TEUCRIUM. *Labiatae*. Juss.

L. cordate, serrated, petioled : clusters lateral, 1-rowed : stem erect.
 L. oblong, sessile, toothed-serrated : Fl. axillary, in pairs, peduncled : stem diffuse.
 L. somewhat ovate, petioled, deeply crenate : Fl. axillary, peduncled, ternate : stem cylind. hairy.

286. NEPETA. *Labiatae*. Juss.

Fl. spiked : whorls somewhat pedicelled : L. petioled, cordate, dentate-serrated, finely downy.

287. VERBENA. *Verbenaceae*. Juss.

Tetrandrous : spikes filiform, panicled : L. deeply jagged : stem mostly solitary.

288. MENTHA. *Labiatae*. Juss.

Spikes villous, scarcely interrupted : L. toothed-serrated, chiefly downy beneath : bractæ awl-shaped : cal. hairy.
 Spikes hirsute, interrupted : L. elliptical, obtuse, wrinkled, crenate, villous beneath : bractæ lanceolate.
 Spikes interrupted : L. sessile, lanceolate, acute, naked : bractæ setaceous and somewhat hairy, as well as the calyx teeth.
 Spikes obtuse, interrupted below : L. petioled, somewhat ovate, smoothish : cal. very smooth at the base.
 Spikes capitate, very obtuse : L. petioled, cordate, naked on both sides : cal. and pedicels very smooth on every part.
 Fl. capitate, or whorled : L. petioled, ovate : cal. hairy : pedicels with hairs pointing backwards.
 Fl. whorled : L. ovate-lanceolate, acute at each end : cal. hairy on every part : hairs of the pedicels recurved.

CLASS XIV. DIDYNAMIA. ORDER I. GYMNOSPERMIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	MENTHA.	MINT.					
	8 rubra	tall red	Wat. pl.	purple	9	P.	1413
	9 gentilis	bushy red	Wat. pl.!	purple	8	P.	2118
	10 gracilis	narrow leaved	Wat. pl.	purple	8,9	P.	*449
	11 arvensis	corn	Corn fi.	lilac	6-9	P.	2119
	12 agrestis	rugged field	Corn fi.	purple	8,9	P.	2120
	13 Pulegium	penny-royal	Wet com.	purple	9	P.	1026
289	GLECHOMA.	GROUND-IVY.					
	1 hederacea	common	Hed. ban.	blue	4,5	P.	853
290	LAMIUM.	DEAD-NETTLE.					
	1 album	white	Waste gr.	white	5-9	P.	768
	2 maculatum	spotted	Banks!	purple	4	P.	2550
	3 purpureum	red	Waste gr.	purple	5	A.	769
	4 incisum	cut-leaved	San. fi.	rose . .	5	A.	1933
	5 amplexicaule	henbit	San. fi.	rose . .	2-6	P.	770
291	GALEOPSIS.	HEMP-NETTLE.					
	1 Ladanum	red	Chal. fi.	rose . .	8,9	A.	884
	2 villosa	downy	San. fi.!	yellow	7,8	A.	2353
	3 Tetrahit	common	Corn fi.	white	7,8	A.	207
	4 versicolor	large flowered	San. fi.	yellow	7,8	A.	667
292	GALEOBDOLO.	WEASEL-SNOUT.					
	1 luteum	yellow	Mo. sh. pl.	yellow	5	P.	787

--- XIV. DIDYNAMIA. ORDER I. GYMNOSPERMIA. ---

SPECIFIC CHARACTER.

MENTHA.

- Fl. whorled : L. ovate : stem erect, zigzag : pedicels and calyx very smooth : teeth hairy.
- Fl. whorled : L. ovate : stem much branched, spreading : cal. at the base, and pedicels, smooth.
- Fl. whorled : L. lanceolate, nearly sessile : stem much branched, erect : cal. at the base, and pedicels, very smooth. *M. Gentilis*, E. B.
- Fl. whorled : L. ovate : stem much branched : cal. bell-shaped, hairy on every part : hairs horizontally spreading.
- Fl. whorled : L. somewhat cordate, deeply serrated, rugose : stem erect : cal. hairs horizontal.
- Fl. whorled : L. ovate : stem prostrate : pedicels and calyx downy on every part : teeth fringed.

289. GLECHOMA. *Labiatae*. Juss.

L. kidney-shaped, crenate.

290. LAMIUM. *Labiatae*. Juss.

- L. cordate, pointed, petioled : whorls 20-flow : cal. tube shorter than its teeth.
- L. cordate, pointed, deeply serrated : whorls 10-flow : cal. tube curved, as long as its teeth.
- L. cordate, blunt, petioled ; uppermost crowded : cor. tube within bearded at the base.
- L. cordate, dilated, petioled, irregularly cut ; uppermost crowded : cor. tube internally naked.
- Floral leaves sessile, embracing the stem, blunt.

291. GALEOPSIS. *Labiatae*. Juss.

- Stem-internodes equal : L. lanceolate, subserrated, hairy ; helmet of the cor. indistinctly crenate.
- Stem-internodes equal : L. ovate-lanceolate, serrated, villous : helmet of the cor. deeply notched.
- Stem hispid : internodes thicker above : cor. twice as long as the calyx : helmet straightish.
- Stem hispid : internodes thicker above : cor. thrice as long as the calyx : helmet inflated.

292. GALEOBDOLON. *Labiatae*. Juss.

.....

CLASS XIV. DIDYNAMIA. ORDER I. GYMNOSPERMIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
293	BETONICA.	BETONY.					
	1 officinalis	wood	Woods	purple	7,8	P.	1142
294	STACHYS.	WOUNDWORT.					
	1 sylvatica	hedge	Hedges	blood	7,8	P.	416
	2 ambigua	ambiguous	N. of Sco.	purple	9	P.	2089
	3 palustris	marsh	Mo. mea.	purple	8	P.	1675
	4 germanica	downy.....	Chal. fi.	purple	7	P.	829
	5 arvensis	corn	Corn fi.	purple	7,8	A.	1154
295	BALLOTA.	BLACK-HOREHOUND.					
	1 nigra	stinking	Hedges	purple	7,8	P.	46
296	MARRUBIUM.	WHITE-HOREHOUND.					
	1 vulgare.....	aromatic	Rubble	white	7	P.	410
297	LEONURUS.	MOTHERWORT					
	1 Cardiaca	common	Grav. ba.	white	7,8	P.	286
298	CLINOPODIUM	BASIL.					
	1 vulgare.....	wild	Grav. ba.	rose ..	8	P.	1401
299	ORIGANUM.	MARJORAM.					
	1 vulgare.....	common	Chal. wo.	rose ..	7,8	P.	1143
300	THYMUS.	THYME.					
	1 Serpyllum ..	wild	Heaths	purple	7,8	P.	1514
	2 Acinos	basil	Cult. fi.	violet	7,8	A.	411
	3 Calamintha ..	common calamint ..	Bor. of fi.	violet	7,8	P.	1676
	4 Nepeta.....	lesser calamint ..	Chal. hill	blue	8	P.	1414

CLASS XII. DIDYNAMIA. ORDER I. GYMNOSPERMIA.

SPECIFIC CHARACTER.

293. BETONICA. *Labiatae*. Juss.

- 1 Spike interrupted : middle segment of the lower lip of the corolla notched.

294. STACHYS. *Labiatae*. Juss.

- 1 Whorls 6-flow : L. cordate, petioled : stem solid.
 2 Whorls 6-flow : L. oblong, petioled, cordate at the base : stem hollow.
 3 Whorls 6-10-flow : L. linear-lanceolate, half embracing the stem.
 4 Whorls many-flow : L. crenate, silky, woolly beneath : stem woolly.
 5 Whorls 6-flow : stem feeble : L. cordate, blunt, crenate, somewhat hairy.

295. BALLOTA. *Labiatae*. Juss.

- 1 L. ovate, undivided, serrated : cal. dilated above, somewhat truncated ; teeth spreading.

296. MARRUBIUM. *Labiatae*. Juss.

- 1 Calyx-teeth 10, setaceous, hooked.

297. LEONURUS. *Labiatae*. Juss.

- 1 Upper leaves lanceolate, 3-lobed or entire.

298. CLINOPODIUM. *Labiatae*. Juss.

- 1 Whorls hairy : bract. setaceous : pedicels branched : L. indistinctly serrated.

299. ORIGANUM. *Labiatae*. Juss.

- 1 Spikes roundish, paniced, clustered, smooth : invol. ovate, longer than the calyx : cal. throat hairy.

300. THYMUS. *Labiatae*. Juss.

- 1 Fl. capitate : stems decumb : L. flat, ovate, blunt, fringed at the base.
 2 Whorls 6-flow : pedunc. simple : stem ascending, branched : L. acute, serrated : calyx gibbous.
 3 Pedunc. axillary, many-flow, forked : L. ovate, blunt, slightly serrated, hairy : stem hairy : hairs in the mouth of the calyx, not prominent.
 4 Pedunc. axillary, many-flow, forked-corymbose : L. ovate, blunt, serrated, smoothish : stem somewhat hairy : hairs in the mouth of the calyx prominent.

CLASS XIV. DIDYNAMIA. ORDER I. GYMNOSPERMIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or situation.	Colour of the flower.	Time of Flowering.	Duration.	Figure in English Botany.
301	MELITTIS.	BASTARD-BALM.					
	1 <i>Melissophyllum</i>	reddish	Woods	flesh.	5,6	P.	577
	2 <i>grandiflora</i> ..	purple and white	Woods	white	5	P.	636
302	SCUTELLARIA.	SKULL-CAP.					
	1 <i>galericulata</i> ..	common	Wat. pl.	blue	7,8	P.	523
	2 <i>minor</i>	lesser	Moi. hea.	pink	7,8	P.	524
303	PRUNELLA.	SELF-HEAL.					
	1 <i>vulgaris</i>	common	Mea. pas.	violet	7,8	P.	961
ORDER II. ANGIOSPERMIA.							
304	BARTSIA.	BARTSIA.					
	1 <i>alpina</i>	alpine	Alp. rivu!	purple	7	P.	361
	2 <i>viscosa</i>	yellow viscid ...	Marshes!	yellow	7,8	A.	1045
	3 <i>Odontites</i> ..	red	Mea. pas.	rose ..	7,8	A.	1415
305	RHINANTHUS.	YELLOW-RATTLE.					
	1 <i>Crista-galli</i> ..	common	Mea. pas.	yellow	6	A.	657
	2 <i>major</i>	large bushy	Corn fi.	yellow	7	A.	.....
306	EUPHRASIA.	EYE-BRIGHT.					
	1 <i>officinalis</i>	common	Pastures	white	7-9	A.	1416
307	MELAMPYRUM.	COW-WHEAT.					
	1 <i>cristatum</i>	crested	Corn fi.!	yellow	7	A.	44
	2 <i>arvense</i>	purple	Corn fi.	yellow	7	A.	53
	3 <i>pratense</i>	common	Woods	yellow	7,8	A.	113
	4 <i>sylvaticum</i> ..	wood	M. woods	yellow	7,8	A.	304
308	LATHRÆA.	FOOTH-WORT.					
	1 <i>Squamaria</i> ..	greater	Dry wo.	purple	4	P.	50

CLASS XIV. DIDYNAMIA. ORDER I. GYMNOSPERMIA.

SPECIFIC CHARACTER.

301. MELITTIS. *Labiatae*. Juss.

- 1 Calyx 3-lobed.
- 2 Calyx 4-lobed.

302. SCUTELLARIA. *Labiatae*. Juss.

- 1 L. cordate-lanceolate, crenate, wrinkled : Fl. axillary.
- 2 L. cordate-ovate, entire : Fl. axillary.

303. PRUNELLA. *Labiatae*. Juss.

- 1 L. all ovate-oblong, petioled.

ORDER II. ANGIOSPERMIA.

304. BARTSIA. *Scrophularineae*. Juss.

- 1 L. opposite, cordate-ovate, bluntly serrated : stem square ; root creeping.
- 2 L. serrated ; upper alternate : Fl. lateral, distant : stem round : root fibrous.
- 3 L. lanceolate, serrated ; upper alternate : Fl. racemose, 1-rowed : stem square, branched ; root fibrous.

305. RHINANTHUS. *Scrophularineae*. Juss.

- 1 Upper lip of the cor. arched : cal. smooth : L. lanceolate, serrated.
- 2 L. linear-lanceolate, upper ones especially acuminate : Fl. in crowded spikes : cal. glabrous ; style a little exserted : seeds with a narrow membranous border.

306. EUPHRASIA. *Scrophularineae*. Juss.

- 1 L. ovate, streaked, finely toothed.

307. MELAMPYRUM. *Scrophularineae*. Juss.

- 1 Spikes 4-angular : bract. cordate, imbricated, compact, toothed.
- 2 Spikes conical, lax : bract. lanceolate, pinnatifid : cal. teeth longer than the tube : cor. closed.
- 3 Fl. lateral, 1-rowed : L. in distant pairs : cor. closed : lip extended.
- 4 Fl. lateral, 1-rowed : L. in distant pairs : cor. open : lip deflexed.

308. LATHRÆA. *Orobanchae*. VENT.

- 1 Stem very simple : Fl. pendulous ; lower lip trilid.

CLASS XIV. DIDYNAMIA. ORDER II. ANGIOSPERMIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
309	PEDICULARIS.	LOUSE-WORT.					
	1 palustris	marsh	Boggy m.	purple	6,7	P ?	399
	2 sylvatica	pasture	M. hea.	rose ..	6,7	P.	400
310	ANTIRRHINUM.	TOAD-FLAX.					
	*						
	1 Cymbalaria §.	ivy-leaved	Old walls	violet	5-11	P.	502
	2 spuria	round-leaved	Corn fi. !	yellow	7-9	A.	691
	3 Elatine	sharp-pointed . . .	Corn fi.	yellow	7-9	A.	692
	**						
	4 repens	creeping	Chal.hil. !	blue	7-9	P.	1253
	5 Linaria	common	Hedges	yellow	6,7	P.	{ 658 3260
	6 minus	least	San. fi.	violet	6-8	A.	2014
	7 majus §	great	Old walls	rose ..	7,8	P.	129
	8 Orontium ..	lesser	San. fi.	flesh .	7,8	A.	1155
311	SCROPHULARIA.	FIGWORT.					
	1 nodosa	knotty-rooted . . .	Woods	blood	7	P.	1544
	2 aquatica	water	Wat. pl.	blood	7	P.	854
	3 Scorodonia ..	balm-leaved	Sou.riv. !	purple	7,8	P.	2209
	4 vernalis	yellow	Sh.pl. !	yellow	4,5	B.	567
312	DIGITALIS.	FOX-GLOVE.					
	1 purpurea	purple	Hed. ban.	purple	6,7	P.	1297
313	LINNÆA.	LINNÆA.					
	1 borealis	two-flowered	Dr.s.wds!	flesh .	5,6	P.	433
314	SIBTHORPIA.	MONEYWORT.					
	1 europæa	cornish	Wetsh.p.	yellow	7,8	P.	619

CLASS XIV. DIDYNAMIA. ORDER II. ANGIOSPERMIA.

SPECIFIC CHARACTER.

309. PEDICULARIS. *Scrophularineæ*. Juss.

- 1 Stem solitary, branched: cal. ovate, hairy, ribbed, in 2 notched lobes.
- 2 Stems many, simple, spreading: cal. oblong, angular, smooth, in 5 notched segments.

310. ANTIRRHINUM. *Scrophularineæ*. Juss.

* *Leaves dilated: stems procumbent.*

- 1 L. cordate, 5-lobed, alternate, smooth.
- 2 L. ovate, downy, alternate.
- 3 L. hastate, alternate; lowermost ovate, opposite.

** *Leaves narrower: stems erect.*

- 4 L. linear, glaucous, whorled or scattered: stem panicled: cal. smooth, the length of the spur.
- 5 L. linear-lanceolate, crowded: stem spiked: cal. smooth, shorter than the spur.

Var. β . Fl. regular, pentandrous. with 5-spurs. *Peloria*.

- 6 L. mostly alternate, lanceolate, obtuse, pubescent: stem much branched, spreading: cal. longer than the spur.
- 7 Fl. spiked: cal. obtuse, villous; cor. with a rounded prominence at the base.
- 8 Fl. loosely spiked: cal. digitate, longer than the corolla.

311. SCROPHULARIA. *Scrophularineæ*. Juss.

- 1 L. cordate, acute, 3-nerved at the base: stem with acute angles.
- 2 L. cordate, petioled, decurrent, obtuse: stem winged.
- 3 L. cordate, doubly-seriated, tomentous beneath: raceme leafy.
- 4 L. cordate, doubly-serrated, pubescent: pedunc. axillary, solitary, dichotomous, leafy: cor. without an interior lobe.

312. DIGITALIS. *Scrophularineæ* Juss.

- 1 Cal. leaf. ovate, acute: cor. obtuse, upper lip entire: L. pubescent.

313. LINNÆA. *Caprifoliaceæ*. Juss.

- 1

314. SIBTHORPIA. *Scrophularineæ*. Juss.

- 1 L. kidney-shaped, somewhat peltate, crenate.

CLASS XIV. DIDYNAMIA. ORDER II. ANGIOSPERMIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
315	LIMOSELLA.	MUDWORT.					
	1 aquatica	little	Mud. pl.	flesh	7,8	A.	357
316	OROBANCHE.	BROOM-RAPE.					
	*						
	1 major	greater	Uncul. pl.	pur-ish	6,7	P.	421
	2 elatior	tall	Clover fi.	yell-ish	6-8	P.	568
	3 minor	lesser	Clover fi.	pur-ish	7,8	A?	422
	4 rubra	red fragrant	lr. roc.	pur-ish	7,8	P.	1786
	**						
	5 cærulea	purple.....	Sea co.	violet	7	P.	423
	6 ramosa	branched.....	Hemp fi.	bluish	8,9	A.	184

CLASS XIV. DIDYNAMIA. ORDER II. ANGIOSPERMIA.

SPECIFIC CHARACTER.

315. LIMOSELLA. *Scrophularineæ*. JUSS.

- 1 L. lanceolate, somewhat spatulate: petioles twice as long as the peduncles.

316. OROBANCHE. *Orobancheæ*. VENT.

* *Bractææ solitary.*

- 1 Stem simple: cor. inflated; segments of the lower lip acute, equal: stam. smooth: style pubescent.
 2 Stem simple: cor. tubular; segments of the lower lip acute, equal: stam. pubescent: style smooth.
 3 Stem simple: cor. tubular; middle segment of the lower lip lobed: stam. fringed: style smooth.
 4 Stem simple: cor. tubular; segments of the lower lip blunt, equal: stam. fringed at the base: style partially hairy.

** *Bractææ by threes.*

- 5 Stem simple: upper lip of the corolla bifid, incised; lower in three equal segments: style downy.
 6 Stem branched: upper lip of the corolla, bifid; lower equally 3-lobed; segments obtuse, very entire: style smoothish.

CLASS XV.

TETRADYNAMIA. *Crucifereæ*. JUSS.

ORDER I. SILICULOSA.

* *Silicles without valves.* .

- 330 CAKILE. *Silicle* deciduous, 4-angular, 2-jointed: each joint 1-seeded.
331 CRAMBE. *Silic.* deciduous, 2-jointed: upper joint nearly globular, 1-seeded; lower joint abortive, like a pedicle.
327 SENEIERA. *Sicil.* nearly entire, compressed, wrinkled, 2-celled.

** *Silicles 2-valved, entire, or nearly entire.*

- 317 VELLA. *Silic.* tumid, with the leafy ovate style projecting, twice as long as the valves.
329 ISATIS. *Silic.* deciduous, bordered, 1-celled, 1-seeded. *Filam.* simple.
318 SUBULARIA. *Silic.* oval: valves tumid, many-seeded: cotyledons linear.
323 HUTCHINSIA. *Silic.* elliptical; valves keeled. *Seeds* 2 in each cell. *Filam.* simple.
319 DRABA. *Silic.* oval; valves flattish. *Cells* many-seeded. *Seeds* without a margin. *Filam.* simple.
320 ALYSSUM. *Silic.* nearly round; valves flattish. *Cells* 1-2-seeded. *Filam.* often toothed.
321 CAMELINA. *Silic.* entire, obovate, smooth; valves tumid, many-seeded. *Filam.* simple.
326 COCHLEARIA. *Silic.* nearly entire, ovate or roundish, rugose, many-seeded; valves tumid.

*** *Silicles 2-valved, emarginate or notched.*

- 322 LEPIDIUM. *Silic.* elliptical; valves boat-shaped. *Cells* 1-seeded, *Pet.* equal.
328 IBERIS. *Silic.* obcordate; valves boat-shaped, winged. *Cells* 1-seeded. *Pet.* unequal.
325 THLASPI. *Silic.* obcordate, compressed; valves boat-shaped, often winged. *Cells* many-seeded. *Filam.* simple.
324 TEESDALIA. *Silic.* obcordate; valves boat-shaped. *Cells* 2-seeded. *Filam.* with a scale at the inside, near the base.

CLASS XV. TETRADYNAMIA. ORDER II. SILIQUOSA.

* *Calyx closed.*

- 55 RAPHANUS. *Silique* valveless, jointed, swelling. *Seeds* globular.
 1 ARABIS. *Silique* linear, crowned by the sessile stig; valves veined or ribbed. *Seeds* 1-rowed.
 2 TURRITIS. *Silique* long, 2-edged; valves ribbed or keeled. *Seeds* 2-rowed.
 6 BARBAREA. *Silique* squate-2-edged. *Seeds* 1-rowed. *Glands* within the shorter filam.
 7 ERYSIMUM. *Silique* 4-angular. *Seeds* without a margin. *Stig.* capitate, often 2-lobed.
 8 CHEIRANTHUS. *Silique* compressed or 2-edged. *Cal.* with 2 opposite leaf. pouched at the base. *Stig.* 2-lobed, lobes spreading or capitate.
 9 MATTHIOLA. *Silique* round or compressed, crowned by the stig: *Stig.* 2-lobed, lobes thickened at the back. *Filam.* long, dilated. *Cal.* with 2 opposite leaf. pouched at the base.
 40 HESPERIS. *Silique* angular. *Stig.* nearly sessile, with converging lobes. *Glands* within the shorter filam. *Pet.* oblique. *Cal.* with 2 opposite leaf. pouched at the base. *Seeds* not bordered.
 43 BRASSICA. *Silique* roundish, with a beak barren or 1-seeded. *Seeds* globular.
 32 DENTARIA. *Silique* linear, bursting elastically from the base; valves flat, plain, narrower than the partition. *Stig.* notched. *Seeds* on flat dilated stalks.

** *Calyx spreading.*

- 33 CARDAMINE. *Silique* linear, bursting elastically from the base; valves flat, plain, narrower than the partition. *Stig.* entire. *Seeds* on capillary stalks.
 35 SISYMBRIUM. *Silique* roundish or angular. *Cal.* open or somewhat erect. *Stig.* capitate, notched.
 34 NASTURTIUM. *Silique* roundish, oblique; valves concave, neither ribbed nor keeled. *Cal.* equal at the base. *Stig.* obtuse, notched.
 44 SINAPIS. *Silique* roundish, with a prominent partition. *Cal.* spreading horizontally. *Seeds* nearly globular.

CLASS XV. TETRADYNAMIA. ORDER I. SILICULOSA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
317	VELLA.	CRESS-ROCKET					
	1 annua §.....	annual	San. fi.!	yellow	6	A.	1442
318	SUBULARIA.	AWL-WORT.					
	1 aquatica	water	Alp. lake	white	7	A.	732
319	DRABA.	WHITLOW-GRASS.					
	1 aizoides	yellow alpine	Rocks ..	yellow	3,4	P.	1271
	2 verna	common	Walls ..	white	3,4	A.	586
	3 hirta	simple-haired	Alp. roc.	white	5,6	P.	1338
	4 incana	twisted podded ..	Alp. roc.	white	5,6	B.	388
	5 muralis	speedwell leaved..	Wal.Mts!	white	5	A.	912
320	ALYSSUM.	ALYSSUM.					
	1 maritimum ..	sweet	Sea co.!	white	8,9	P.	1729
321	CAMELINA.	GOLD OF PLEASURE.					
	1 sativa §.....	common	Corn fi.	yellow	6	A.	*1254
322	LEPIDIUM.	PEPPER-WORT					
	1 latifolium	broad leaved	Salt mar.	white	7	P.	182
	2 rudérale	narrow leaved....	Sea co.	.....	6	A.	1595
	3 campestre....	hoary field	Fields ..	white	7	A.	*1385
	4 hirtum	hairy	Fields!	white	6	P.	*1803
323	HUTCHINSIA.	HUTCHINSIA.					
	1 petraea	rock.....	Rocks ..	white	3,4	A.	*111

CLASS XV. TETRADYNAMIA. ORDER I. SILICULOSA.

SPECIFIC CHARACTER.

317. VELLA.

L. doubly pinnatifid: silicles pendulous.

318. SUBULARIA.

L. awl-shaped.

319. DRABA.

Scape naked: pet. notched, twice the length of the cal: L. lanceolate, rigid, keeled, fringed.

Scapes naked: pet. bipartite: L. lanceolate, slightly cut, hairy.

Scape 1-leaved: pet. entire: silic. elliptic-oblong: L. lanceolate, somewhat toothed, ciliate; hairs simple.

Stem-leaves numerous, hoary, with interwoven starry hairs: silic. oblong, oblique, longer than the hairy partial stalks.

Stem branched: L. cordate, toothed, hairy: silic. elliptical, obtuse, flat, shorter than the partial stalks.

320. ALYSSUM.

Stem somewhat shrubby, much branched, spreading: L. lanceolate, acute, entire, hoary, with close-pressed hairs: stam. simple: seeds solitary.

321. CAMELINA. *Hort. Kew.*

ALYSSUM, *Eng. Bot.*

Silic. obovate, bordered, twice as long as the style: L. lanceolate, arrow-shaped: stig. simple.

322. LEPIDIUM.

L. ovate, lanceolate, undivided, serrated.

2 Fl. diandrous, apetalous: L. lower pinnatifid, toothed; upper linear, very entire.

3 Silic. scaly, bordered at the top: style very short: stem-leaves arrow-shaped, toothed. *Thlaspi*, *Eng. Bot.*

4 Silic. hairy, bordered at the top: style long: stem leaves arrow-shaped, slightly toothed. *Thlaspi*, *Eng. Bot.*

323. HUTCHINSIA. *Hort. Kew.*

LEPIDIUM, *Eng. Bot.*

1 L. pinnate, entire: pet. shorter than the cal: stig. sessile.

CLASS XV. TETRADYNAMIA. ORDER I. SILICULOSA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
324	TEESDALIA.	TEESDALIA.					
	1 nudicaulis...	naked stalked ..	Grav. pa.	white	5	A.	*327
325	THILASPI.	MITHRIDATE MUSTARD.					
	1 arvense	penny cress	Corn fi.!	white	6,7	A.	1659
	2 perfoliatum ..	perfoliate	Ston. pas!	white	4,5	A.	2354
	3 alpestre	alpine	M. past.	white	6,7	P.	81
	4 Bursa-pastoris	shepherd's purse .	Road si.	white	3-11	A.	1485
326	COCHLEARIA.	SCURVY GRASS					
	1 officinalis...	common	Sea shore	white	5	A.	551
	2 groenlandica.	greenland	Sc. alps	flesh .	8	A.	2403
	3 anglica	english	Sea shore	white	5	A.	552
	4 danica	danish	Sea sho.!	white	5,6	A.	696
	5 Armoracia...	horse-radish	Wat. pl.!	white	5	P.	2323
327	SENEBIERA.	WART-CRESS.					
	1 Coronopus...	common	Road si.	white	6-8	A.	1660
	2 didyma	lesser	Rubble	white	7	A.	*248
328	IBERIS.	CANDY-TUFT.					
	1 amara	bitter	Chal. fi.!	white	7	A.	52
329	ISATIS.	WOAD.					
	1 tinctoria	dyers'	Corn fi.!	yellow	7	B.	97
330	CAKILE.	SEA-ROCKET.					
	1 maritima	common	Sea shore	purple	6-9	A.	*231

CLASS XV. TETRADYNAMIA. ORDER 1. SILICULOSA.

SPECIFIC CHARACTER.

324. TEESDALIA. *Hort. Kew.*IBERIS, *Eng. Bot.*

Petals unequal.

325. THLASPI.

Silic. orbicular, compressed, smooth: L. oblong, toothed, smooth: stem erect.

Silic. obcordate: stem leaves sagittate-cordate, embracing the stem: stem branched: style very short.

Silic. obovate, retuse: stem leaves arrow-shaped: stems simple: style extended.

Hair: silic. triangular-obcordate: radical leaves pinnatifid.

326. COCHLEARIA.

L. radical roundish; on the stems oblong, somewhat sinuated: silic. globose.

L. kidney-shaped, fleshy, entire; uppermost oblong: silic. globular.

L. radical ovate, entire; on the stems lanceolate, toothed, sessile: silic. elliptical, reticulated with veins.

L. all deltoid, petioled: silicles elliptical, reticulated with veins.

L. radical, oblong, creuate; on the stems lanceolate, cut or entire.

327. SENEBIERA.

Silic. entire, crested with little sharp points: style extended: corymb. few-flow: L. pinnatifid, subdivided.

Silic. notched, didymous, with reticulated wrinkles: style obsolete: corymb. many-flow. *Lepidium, Eng. Bot.*

328. IBERIS.

Herbaceous: L. lanceolate, acute, slightly toothed: Fl. in oblong clusters.

329. ISATIS.

L. radical, crenate; on the stem sagittate: silic. bluntish, smooth.

330. CAKILE. *Hort. Kew.*BUNIAS, *Eng. Bot.*

Silic. with 2-edged joints; the upper ones sagittate: L. fleshy. pinnatifid, obtuse.

CLASS XV. TETRADYNAMIA. ORDER I. SILICULOSA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
331	CRAMBE.	SEA-KALE.					
	1 maritima	common	Sea shore	white	5,6	P.	924

ORDER II. SILIQUOSA.

332	DENTARIA.	CORAL-WORT.					
	1 bulbifera	bulbiferous	Mo.sh.pl!	purple	4,5	P.	309
333	CARDAMINE.	LADIES' SMOCK.					
	* 1 bellidifolia ..	daisy-leaved	Se.alps!	white	8	P.	2355
	**						
	2 impatiens	impatient.....	Alp. roc.	white	5,6	A.	80
	3 hirsuta	hairy	Moi.sh.p.	white	3-6	A.	492
	4 pratensis	meadow	Mea. pas.	purple	4,5	P.	776
	5 amara	bitter	Wat.pl.!	white	4,5	P.	1000
334	NASTURTIIUM.	WATER-CRESS.					
	1 officinale	common	Rivulets	white	6,7	P.	*855
	2 sylvestre	creeping rocket ..	Wat.pl.	yellow	6-9	P.	*2324
	3 terrestre	annual rocket	Wat.pl.	yellow	6-9	A.	*1747
	4 amphibium ..	amphibious.....	Riv.ban.	yellow	6-8	P.	*1840
335	SISYMBRIUM.	ROCKET.					
	1 officinale	hedge-mustard ..	Waste gr.	yellow	6,7	A.	*735
	2 Sophia	flix-weed.....	Waste gr.	yellow	7,8	A.	963
	3 Irio	London	Walls ..	yellow	7,8	A.	1c31

CLASS XV. TETRADYNAMIA. ORDER I. SILICULOSA.

SPECIFIC CHARACTER.

331. CRAMBE.

L. sinuated, undulated, glaucous, smooth as well as the stem: longer filaments toothed.

ORDER II. SILIQUOSA.

332. DENTARIA.

Lower leaves pinnate; upper simple, with axillary bulbs.

333. CARDAMINE.

* *Leaves simple.*

L. simple, ovate, entire; radical ones about one-third the length of the petioles: style short, conical.

** *Leaves pinnate.*

Leafl. lanceolate, cut or entire: stipulæ ciliated.

L. without stipulæ; leafl. roundish-oblong, cut, petioled.

L. without stipulæ: radical leafl. roundish, toothed; stem ones lanceolate: pet. with a tooth upon the claw.

L. without stipulæ; radical leafl. roundish; stem ones toothed-angular: stem taking root at the base: style obliquely elongated.

334. NASTURTIUM.

SISYMBRIUM. *Eng. Bot.*

L. pinnate: leafl. roundish, heart-shaped, wavy.

L. pinnate: leafl. lanceolate, deeply serrated: root creeping.

L. pinnatifid, unequally toothed: root simple: pet. shorter than the cal: silique curved.

L. oblong, pinnatifid or serrated: pet. longer than the cal: root fibrous: silique elliptical.

335. SISYMBRIUM.

Silique close-pressed to the stalk, awl-shaped, downy: L. runcinate, hairy; stem rough with deflexed bristles. *Erysimum. Eng. Bot.*

L. doubly pinnatifid, slightly hairy: pet. less than the calyx.

L. runcinate, toothed, naked: stem smooth: siliques erect.

CLASS XV. TETRADYNAMIA. ORDER II. SILIQUOSA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
336	BARBAREA.	WINTER-CRESS.					
	1 vulgaris	yellow rocket	Rubbish	yellow	5-8	P.	*443
	2 præcox	early	Brooks!	yellow	4-10	B.	*1129
337	ERYSIMUM.	HEDGE-MUSTARD.					
	1 Alliaria	garlick.....	Hedges	white	5-7	A.	796
	2 cheiranthoides	treacle.....	Fields ..	yellow	7	A.	942
	3 orientale	hare's ear	Cliffs ..	white	6	A.	*1804
338	CHEIRANTHUS	WALL FLOWER					
	1 fruticulosus ..	wild	Old walls	yellow	4-6	S.	1934
339	MATTHIOLA.	STOCK.					
	1 incana	hoary shrubby....	Cliffs !..	purple	5,6	S.	*1935
	2 sinuata	sea	Sea shore	violet	8	B.	*462
340	HESPERIS.	DAME'S VIOLET.					
	1 Matronalis ..	common	Pasture!	rose ..	5,6	P.	731
341	ARABIS.	WALL-CRESS.					
	1 thaliana	common	Walls ..	white	3,4	A.	901
	2 stricta	Bristol rock	Rocks ..	cream	5	P.	614
	3 hispida	alpine rock	Alp. roc.	purple	6,7	P.	*469
	4 Turrita	tower	Walls !	sulphur	5	B.	178

CLASS XV. TETRADYNAMIA. ORDER II. SILIQUOSA.

SPECIFIC CHARACTER.

336. BARBAREA.

ERYSIMUM. *Eng. Bot.*

Lower leaves lyrate; terminal lobe roundish; upper obovate, toothed.
 Lower leaves lyrate; upper pinnatifid; segm. linear-oblong, entire.

337. ERYSIMUM.

L. heart-shaped, broadly toothed, stalked.

L. lanceolate, slightly toothed, roughish with close forked bristles:
 siliques erect: pedicles when in fruit spreading.

L. elliptic-heart-shaped, obtuse, clasping the stem, smooth, entire;
 radical ones obovate. *Brassica. Eng. Bot.*

338. CHEIRANTHUS.

L. lanceolate, acute, hoary beneath, with very simple appressed
 pubescence: stem shrubby, branches angular: style prominent.

339. MATTHIOLA.

CHEIRANTHUS. *Eng. Bot.*

L. lanceolate, obtuse, entire, hoary: siliques without glands: stem
 shrubby, upright, branched.

2 L. downy, glandular, obtuse, sinuated: those on the branches entire:
 siliques rough with prominent glands: stem herbaceous,
 spreading.

340. HESPERIS.

1 Stem erect: L. ovate-lanceolate, toothed: petals obtuse: partial
 flower-stalks the length of the calyx.

341. ARABIS.

1 L. hairy, more or less toothed; radical ones petioled: stem branched:
 siliques ascending: stam. not much shorter than the petals.

2 L. toothed, obtuse, rough; radical ones somewhat lyrate: stems
 hispid: petals erect: cal. smooth.

3 Radical leaves runcinate-lyrate, rough; stem ones lanceolate: pet.
 spreading: root branched at the crown. *Cardamine hastulata.*
Eng. Bot.

4 L. embracing the stem: siliques bent backward, flat, linear, with an
 incrassated margin: flower-stalks the length of the calyx; each
 with a leafy bractæ.

CLASS XV. TETRADYNAMIA. ORDER II. SILIQUOSA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
ARABIS.	WALL-CRESS.					
5 ciliata	fringed	Ir.shores!	white	7,8	B.	*1746
6 hirsuta	hairy	Rocks ..	white	5	P.	*587
TURRITIS.	TOWER-MUSTARD.					
1 glabra	smooth	Grav. pa.	white	5,6	A.	777
BRASSICA.	CABBAGE.					
1 campestris ..	field.....	Fields ..	yellow	6,7	A.	2234
2 Napus	rape.....	Dit. ban.	yellow	5	B.	2146
3 Rapa	turnip	Corn fi.	yellow	4	B.	2176
4 oleracea	sea	Cliffs ..	yellow	5,6	B.	637
5 monensis	dwarf sea	Sea shore	yellow	6,7	P.	*962
SINAPIS.	MUSTARD.					
1 arvensis	charlock	Corn fi.	yellow	5	A.	1748
2 alba	white	Corn fl.	yellow	6	A.	1677
3 nigra.....	common	Bor. of fi.	yellow	6,7	A.	969
4 tenuifolia	fine-leaved	Walls ..	yellow	6-10	P.	*525
5 muralis.....	sand	San. pl.	yellow	8-10	A.	*1090
RAPHANUS.	RADISH.					
1 Raphanistrum	wild	Corn fi.	yellow	6,7	A.	856
2 maritimus....	sea	Sea co.	yellow	5,6	B.	1643

CLASS XV. TETRADYNAMIA. ORDER II. SILIQUOSA.

SPECIFIC CHARACTER.

ARABIS.

- L. somewhat toothed, smooth, fringed, bearded; radical ones obovate; the rest elliptical, half clasping the stem: stem simple. *Turritis alpina*. Eng. Bot.
- L. rough: stem hairy, hairs simple and spreading: siliques erect with slightly keeled valves. *Turritis*. Eng. Bot.

342. TURRITIS.

- L. radical, toothed, rough; on the stem entire, smooth and embracing.

343. BRASSICA.

- Root and stem slender: L. cordate, acuminate, glaucous, embracing the stem; lower ones lyrate, toothed, somewhat rough.
- 1 Root caulescent, fusiform: L. smooth; upper cordate-lanceolate, embracing the stem; lower ones lyrate, toothed.
- 2 Root caulescent, orbicular, depressed, fleshy: radical leaves lyrate, rough; those on the stem very entire, smooth.
- 3 Root caulescent, cylind. fleshy: L. all smooth, glaucous, waved or lobed: silique without a beak.
- 5 L. pinnatifid: lobes oblong, unequally toothed: stem smooth: siliques 4-angular; beak simple, 2-3-seeded. *Sisymbrium*. Eng. Bot.

344. SINAPIS.

- 1 Siliques many-angled, rugged, longer than the 2-edged beak: L. ovate, somewhat lyrate.
- 2 Siliques hispid, rugged, spreading, shorter than the 2-edged beak: L. lyrate.
- 3 Siliques smooth, square, appressed to the stem: upper leaves linear-lanceolate, entire, smooth; lower, lyrate.
- 4 Siliques linear, erect, on spreading stalks, slightly beaked: seeds 2-ranked: L. lanceolate, acute, pinnatifid or bipinnatifid: stem smooth. *Sisymbrium*. Eng. Bot.
- 5 Siliques linear, ascending, on spreading stalks, slightly beaked: seeds 2-ranked: L. sinuated, smooth: stem rough with reflexed bristles. *Sisymbrium*. Eng. Bot.

345. RAPHANUS.

- 1 Siliques jointed, striated, 1-celled: L. simply lyrate.
- 2 Siliques jointed, deeply furrowed, 1-celled: L. radical, interruptedly lyrate, serrated.

CLASS XVI.

MONADELPHIA.

ORDER I. PENTANDRIA.

- 46 *ERODIUM*. *Pistil* 1. *Cal.* 5-leaved. *Cor.* 5-pet. *Fruit* 5-grained, beaked; beak spirally twisted, bearded on the inside.
Lysimachia 1. *Linum*, *Geranium* 8.

ORDER II. DECANDRIA.

- 47 *GERANIUM*. *Pistil* 1. *Cal.* 5-leaved. *Cor.* 5-pet. regular. *Fruit* 5-grained, beaked; beak recurved, naked, simple.
Oxalis. *Spartium*. *Genista*. *Anthyllis*. *Ulex*. *Ononis*.

ORDER III. POLYANDRIA.

- 50 *LAVATERA*. *Pistils* many. *Cal.* double, outer 3-cleft. *Caps.* whorled, 1-seeded.
49 *MALVA*. *Pistils* many. *Cal.* double, outer 3-leaved. *Caps.* whorled, 1-seeded.
48 *ALTHÆA*. *Pistils* many. *Cal.* double, outer 9-cleft. *Caps.* whorled, 1-seeded.

CLASS XVI. MONADELPHIA. ORDER I. PENTANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
ERODIUM.	STORK'S-BILL.					
1 cicutarium ..	hemlock	Road si.	purple	6-8	A.	1768
2 moschatum ..	musky	M. past.	purple	6,7	A.	902
3 maritimum ..	sea	San. sh.	flesh	5-9	P.	646

ORDER II. DECANDRIA.

GERANIUM.	CRANE'S-BILL.					
1 phæum.....	dusky	M. thick.	blood	5,6	P.	322
2 nodosum	knotty	Mount.!	purple	5,8	P.	1091
3 sylvaticum ..	wood	M. thick.	purple	6,7	P.	121
4 pratense	crowfoot-leaved ..	Mea. pas.	blue	6,7	P.	404
5 robertianum ..	stinking	Ban. Wal.	purple	5-10	A.	1486
6 lucidum	shining	Stony pl.	rose ..	5-8	A.	75
7 molle	dove's foot	Waste gr.	purple	4-8	A.	778
8 pusillum	small-flowered ..	Waste gr.	purple	6-9	A.	385
9 pyrenaicum ..	mountain	Mea. pas.	purple	6,7	P.	405
10 rotundifolium .	round-leaved	Waste gr.	rose ..	6,7	A.	157
11 dissectum	jagged-leaved	Waste gr.	purple	5,6	A.	753
12 columbinum..	long-stalked	Chal. ban.	rose ..	6,7	A.	259
13 sanguineum ..	bloody.....	Rocks ..	blood	7-9	P.	272

CLASS XVI. MONADELPHIA. ORDER I. PENTANDRIA.

SPECIFIC CHARACTER.

346. ERODIUM. *Geraniaceæ*. Juss.

Stems procumbent, hairy: pedunc. many-flow: L. pinnate; leaf. sessile, pinnatifid, cut: stam. simple.

Stems depressed, hairy: pedunc. many-flow: L. pinnate; leaf. almost sessile, elliptical, unequally cut: perfect stam. toothed at the base.

Pedunc. about 3-flow: L. simple, cordate, cut, crenate, rough: stems depressed, hairy.

ORDER II. DECANDRIA.

347. GERANIUM. *Geraniaceæ*. Juss.

Pedunc. 2-flow. panicled, erect: cal. somewhat awned: caps. keeled, hispid at the base, wrinkled at the summit: stam. hairy.

2 Pedunc. 2-flow: L. opposite, 5 or 3-lobed, serrated: caps. even, downy all over.

3 Pedunc. 2-flow. somewhat corymbose: L. 5-7 lobes, deeply notched, and serrated: caps. all hairy: stam. subulate, fringed.

4 Pedunc. 2-flow: L. 5-7 parted, notched and serrated: caps. all hairy: stam. deltoid at the base.

5 Pedunc. 2-flow: L. somewhat pedate, pinnatifid, 5-angled: cal. 10-angled: caps. rugose.

6 Pedunc. 2-flow: L. 5-lobed, roundish: cal. pyramidal, transversely wrinkled: caps. wrinkled, 3-keeled.

7 Pedunc. 2-flow. alternate, opposite the leaves: L. roundish, lobed, downy: caps. wrinkled, smooth: seeds without dots.

8 Pedunc. 2-flow: L. reniform, palmate, cut, downy: caps. even, hairy: seeds smooth: anthers only 5.

9 Pedunc. 2-flow: pet. twice as long as the cal: L. reniform, lobed: caps. even, slightly pubescent: seeds smooth.

0 Pedunc. 2-flow: petals entire: L. reniform, cut, downy: caps. hairy: seeds reticulated.

1 Pedunc. 2-flow: petals notched: L. 5-parted, laciniated: caps. hairy: seeds reticulated.

2 Pedunc. 2-flow. thrice as long as the leaves: L. 5-parted, many-cleft: caps. smooth: seeds reticulated.

13 Pedunc. 1-flow: L. 5-7-parted: lobes 3-cleft, roundish: caps. bristly at the apex: seeds minutely wrinkled.

CLASS XVI. MONADELPHIA. ORDER III. POLYANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
348	ALTHÆA.	MARSH-MALLOW.					
	1 officinalis	common	Salt mar.	flesh	7-9	P.	147
349	MALVA.	MALLOW.					
	1 sylvestris	common	Waste pl.	purple	5-8	P.	671
	2 rotundifolia ..	dwarf	Road si.	flesh	6-9	A.	1092
	3 moschata	musk	Bor. of fi.	rose ..	7,8	P.	754
350	LAVATERA.	TREE MALLOW					
	1 arborea.....	sea	Sea cliff!	purple	7-10	B.	1841

CLASS XVI. MONADELPHIA. ORDER III. POLYANDRIA.

SPECIFIC CHARACTER.

348. ALTHÆA. *Malvaceæ*. Juss.

L. simple, downy, slightly 5-lobed.

349. MALVA. *Malvaceæ*. Juss.

Stem erect, herbaceous : L. 7-lobed, acute : pedunc. and petioles hairy.

Stems prostrate : L. cordate-orbicular, 5-lobed : fruit stalks declining.
L. radical, reniform, cut ; on the stem 5-parted, pinnate-multifid : cal. hairy, its outer leaves linear-lanceolate.350. LAVATERA. *Malvaceæ*. Juss.

Stem arborescent : L. 7-angled, downy, plaited : pedunc. axillary, crowded, 1-flow.

CLASS XVII.

DIADELPHIA.

ORDER I. HEXANDRIA.

- 351 FUMARIA. *Cal.* 2-leaved. *Cor.* ringent, gibbous at the base, nectariferous. *Filam.* with 3 anthers.

ORDER II. OCTANDRIA.

- 352 POLYGALA. *Cal.* 5-leaved; 2 leaf. wing-like, coloured. *Cor.* standard cylindrical. *Pod* obcordate, 2-celled. *Seeds* solitary, crested.

ORDER III. DECANDRIA.

* *Stam.* all connected, or monadelphous; tube frequently cleft above.

- 353 SPARTIUM. *Filam.* united in one undivided tube: *Stig.* lateral linear, hairy. *Legume* flat.

- 354 GENISTA. *Pistil* depressing the keel. *Standard* reflexed. *Stig.* terminal.

- 355 ULEX. *Cal.* 2-leaved. *Pods* scarcely longer than the calyx.

- 357 ANTHYLLIS. *Cal.* turgid, inclosing the pod.

- 356 ONONIS. *Cal.* 5-parted. *Pods* rhomboid, sessile. *Standard* striated.

** *Stigma* or style, pubescent, (without the marks of the first division.)

- 359 OROBUS. *Style* linear, almost cylindrical. *Stig.* downy above.

- 358 PISUM. *Style* triangular, and downy above.

- 360 LATHYRUS. *Style* flat and downy above.

- 361 VICIA. *Style* bearded under the stigma.

- 362 ERVUM. *Stigma* capitate, pubescent on every part.

*** *Pod* 2-celled, (without the marks of the first and second divisions.)

- 365 ASTRAGALUS. *Pod* 2-celled, gibbous.

**** *Pod* generally 1-seeded, (without the marks of the former divisions.)

- 367 TRIFOLIUM. *Pod* scarcely longer than the calyx, 1 or many-seeded, not opening, deciduous. *Flow.* capitate.

- 367* MELILOTTUS. *Legume* 1 or few-seeded, indehiscent, longer than the calyx. *Petals* distinct, deciduous.

CLASS XVII. DIADELPHIA. ORDER III. DECANDRIA.

*** Pod either jointed, or spiral, (without the marks of the former divisions.)*

HEDYSARUM. *Pod* joints compressed, 1-seeded. *Keel* very obtuse.

ORNITHOPUS. *Pod* jointed, bowed, cylindrical; joints 1-seeded.
Keel rounded.

HIPPOCREPIS. *Pod* compressed, membranous incurved; one edge
with many curved notches.

MEDICAGO. *Pod* spiral, compressed, somewhat membranous. *Pistil*
pressing down the keel.

****** Pod 1-celled, many-seeded, (without the marks of the former
divisions.)*

LOTUS. *Pod* cylindrical, spongy within. *Wings* converging longi-
tudinally upwards. *Filum*, partly dilated.

CLASS XVII. DIADELPHIA.

ORDER I. HEXANDRIA.

351

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
FUMARIA.	FUMITORY.					
1 solida	solid bulbous	Groves	pur-ish	4,5	P.	1471
2 lutea	yellow	Old walls!	yellow	5	P.	588
3 officinalis	common	Cult. gr.	rose ..	5-8	A.	589
4 parviflora	small flowered ..	Corn fi.	rose ..	8,9	A.	590
5 capreolata ..	ramping	Corn fi.!	flesh	6-9	A.	943
6 claviculata ..	white climbing ..	Thickets	white	6,7	A.	103

ORDER II. OCTANDRIA.

352

POLYGALA.	MILK-WORT.					
1 vulgaris	common	Dry pas.	blue	6,7	P.	76

ORDER III. DECANDRIA.

353

SPARTIUM.	BROOM.					
1 scoparium ..	common	Dry hills	yellow	5,6	S.	1339

354

GENISTA.	GREEN-WEED.					
1 tinctoria	dyer's	Dry pas.	yellow	7,8	S.	44
2 pilosa	hairy	San. hea.!	yellow	5&9	S.	208
3 anglica	needle	Moi. hea.	yellow	5,6	S.	132

355

ULEX.	FURZE.					
1 europæus	common	San. hea.	yellow	5,&c	S.	742
2 nanus	dwarf	Dry hea.	yellow	8-10	S.	743

CLASS XVII. DIADELPHIA. ORDER I. HEXANDRIA.

SPECIFIC CHARACTER.

351. FUMARIA. *Fumariaceæ*. DE C.

Stem simple, erect: L. biternate: bract. palmate, longer than the pedunc.

Pods almost cylind. shorter than the pedunc: stems angular: bract. minute: spur very short, rounded.

Cluster lax: pods 1-seeded, globose, notched: stem diffuse: leaf. with dilated segments.

Cluster lax: pods 1-seeded, globose, acuminate: stem diffuse: leaf. with linear channelled segments.

Cluster lax: pods 1-seeded, globose: stem climbing: petioles twisted: leaf. wedge-shaped, lobed.

Pods lanceolate, undulated: stem climbing: petioles tendrilled.

ORDER II. OCTANDRIA.

352. POLYGALA. *Polygalææ*. JUSS.

Fl. racemose, crested: bract. 3. at the base of each pedunc. deciduous: wings about equal to the corolla: stems herbaceous, simple, partly procumbent: L. linear lanceolate.

ORDER III. DECANDRIA. *Leguminosææ*. JUSS.

353. SPARTIUM.

L. ternate, or solitary: branches thornless, angular: pod. fringed.

354. GENISTA.

L. lanceolate, smooth: branches cylind. striated, erect, thornless.

L. obovate-lanceolate, obtuse, hairy beneath: stem tubercled, decumbent, without thorns: cal. and pedunc. silky.

Spines simple: flowering branches without spines: L. ovate-lanceolate.

355. ULEX.

Calyx-teeth indistinct, converging: bract. ovate, loose: branches erect.

Calyx-teeth lanceolate, spreading: bract. minute, close-pressed: branches reclining.

CLASS XVII. DIADELPHIA. ORDER III. DECANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
356	ONONIS.	REST HARROW					
	1 arvensis	common	Bar. pas.	rose ..	6-8	P.	682
357	ANTHYLLIS.	KIDNEY-VETCH.					
	1 vulneraria ..	lady's finger	Chal. pas.	yellow	6-8	P.	104
358	PISUM.	PEA.					
	1 maritimum ..	sea	Sea shore	blue	7	P.	1046
359	OROBUS.	BITTER VETCH					
	1 tuberosus	heath	Heaths	purple	5,6	P.	1153
	2 niger	black	M. pas.!	purple	6,7	P.	.....
	3 sylvaticus....	wood	M. wo!	cream	5,6	P.	518
360	LATHYRUS.	LATHYRUS.					
	* 1 Aphaca	yellow vetchling..	San fi.!	yellow	6-8	A.	1167
	2 Nissolia	crimson grassy ..	Bushy pl.	erimso.	5	A.	112
	* * 3 hirsutus	rough podded	Bor. of fi.!	purple	7	A.	1255
	* * * 4 pratensis	yellow meadow ..	Mea. pas.	yellow	7,8	P.	670
	5 sylvestris	narrow-leaved....	Moi. wo.	purple	7,8	P.	805
	6 latifolius	everlasting pea ..	Woods!	rose ..	7,8	P.	1108
	7 palustris	marsh	Moi. wo.	blue	7,8	P.	169
361	VICIA.	VETCH.					
	* 1 sylvatica	wood	Moi. wo.	white	7,8	P.	79
	2 Cracca	tufted	Hedges	violet	7,8	P.	1168
	* * 3 sativa	common	Corn fi.	purple	5,6	A.	334

CLASS XVII. DIADELPHIA. ORDER III. DECANDRIA.

SPECIFIC CHARACTER.

356. ONONIS.

Stem hairy : branches at length spinous : Fl. solitary, or in pairs :
L. generally simple, entire behind.

357. ANTHYLLIS.

Herbaceous : L. pinnate, unequal : heads of flowers in pairs.

358. PISUM.

Petioles flattish above : stem angular, stip. sagittate : peduncles
many-flow.

359. OROBUS.

L. pinnate, elliptic-lanceolate : stip. semi-sagittate, toothed at the
base : stem simple, erect.

L. pinnate : leaf. elliptic-lanceolate : stip. linear-awl-shaped, sim-
ple, entire : stem branched, angular, erect.

Stems decumbent, hirsute, branched : leaf. numerous.

360. LATHYRUS.

* *Peduncles 1-flowered.*

Tendrils leafless : stip. sagittate-cordate.

Pedunc. mostly 1-flow : L. simple, without tendrils : stip. awl-
shaped.

** *Peduncles 2-flowered.*

Tendrils 2-leaved ; leaf. linear-lanceolate : pods hairy : seeds rough.

*** *Peduncles many-flow.*

Tendrils 2-leaved, mostly simple ; leaflets lanceolate.

Tendrils 2-leaved ; leaflets ensiform : stem winged.

Tendrils 2-leaved : leaflets elliptical : stem winged.

Tendrils many-leaved : stip. lanceolate, acuminate.

361. VICIA.

* *Pedunc. elongated, many-flow.*

Leaf. elliptical : stip. lunate, toothed.

Fl. imbricated : leaf. lanceolate, pubescent : stip. semi-sagittate,
mostly entire.

** *Flowers axillary, almost sessile.*

Pods mostly in pairs, nearly erect : lower leaves blunt : stip. marked :
seeds smooth, orbicular.

CLASS XVII. DIADELPHIA. ORDER III. DECANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	VICIA.	VETCH.					
	4 angustifolia ..	narrow-leaved ..	Grav. pas	crimso.	6	A ?	.....
	5 lathyroides ..	spring.....	Fallow fi.	blue	4,5	A.	30
	6 lutea	rough-podded ..	Sea shore	yellow	8	P.	481
	7 hybrida	hairy flowered yel.	Thickets!	yellow	6,7	P.	482
	8 lævigata	smooth-podded ..	Sea sh.!	purple	7,8	P.	483
	9 sepium	bush	Hedges	blue	5,6	P.	1515
	10 bythynica ..	rough-podded ..	Bush.pl.!	purple	7,8	P.	1842
362	ERVUM.	TARE.					
	1 tetraspermum	smooth	Corn fi.	purple	6,7	A.	1223
	2 hirsutum	hairy	Corn fi.	blue	6-8	A.	970
363	ORNITHOPUS.	BIRD'S-FOOT.					
	1 perpusillus ..	common	Dry pas.	reddis.	5	A.	369
364	HIPPOCREPIS.	HORSE-SHOE-VETCH.					
	1 comosa.....	tufted	Chal. hil.	yellow	5-8	P.	31
365	HEDYSARUM.	SAINTFOIN.					
	1 Onobrychis..	common	Chal.pas.	rose ..	6,7	P.	96
366	ASTRAGALUS.	MILK-VETCH.					
	1 glycyphyllos.	sweet	Chal. wo.	yellow	6	P.	203
	2 hypoglottis ..	purple mountain .	San. hea.	purple	6,7	P.	274
	3 uralensis	hairy mountain ..	Sc. alps	purple	7	P.	466
	4 campestris ..	yellowishmountain	Highlan.	varieg.	7	P.	2522

CLASS XVII. DIADELPHIA. ORDER III. DECANDRIA.

SPECIFIC CHARACTER.

VICIA.

Pods solitary : Leaf. linear; lower ones obcordate : stip. with a pale depression beneath : seeds orbicular, smooth.

Pods with a blackish depression beneath, solitary, smooth : L. about 3-pair; lowermost blunt : seeds tubercled : tendrils simple, shorter than the leaflets.

Pods solitary, hairy, reflexed : stems diffuse : stip. coloured : standard smooth.

Pods solitary, reflexed, hairy : standard villous : leaf. abrupt : stip. ovate, unstained.

Pods solitary, reflexed, smooth : stems nearly erect : L. very smooth : stip. cloven, unstained.

Pods on stalks, about four together, erect, smooth : leaf. ovate, obtuse : upper ones gradually smaller.

Pods on stalks, solitary, erect, rough : leaf. 2-pair, elliptic-lanceolate : stip. toothed, laterally.

362. ERVUM.

Pedunc. 2-flow : pods smooth, 4-seeded : leaf. oblong, obtuse.

Pedunc. many-flow : pods hairy, 2-seeded : leaf. abrupt.

363. ORNITHOPUS.

L. pinnate : Fl. capitate, accompanied by a leaf : pods incurved, beaded.

364. HIPPOCREPIS.

Pods umbellate, rough; their joints neither dilated, nor bordered.

365. HEDYSARUM.

1 L. pinnate : pods 1-seeded, aculeate : wings of the cor. as long as the calyx : stem elongated.

366. ASTRAGALUS.

1 Caulescent, prostrate : pods almost triangular, bowed : L. longer than the peduncle : leaf. ovate.

2 Caulescent, prostrate : Fl. capitate : pods ovate, hairy, channelled on the back, hooked at the apex : leaf. blunt.

3 Stemless : stalk erect, longer than the leaves : pods oblong, inflated, villous, erect : leaf. ovate, acute, silky : cal. silky.

4 Stemless : stalk ascending : leaf. lanceolate, acute : pods ovate, inflated, villous, erect.

CLASS XVII. DIADELPHIA.

ORDER III. DECANDRIA.

367

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
TRIFOLIUM.	TREFOIL.					
*						
1 ornithopodioides	bird's foot	Bar. hea.	reddis.	6,7	A.	1047
2 repens	white clover	Meadow	white	5-9	P.	1769
3 suffocatum ..	suffocated	Sea shore	pink	6,7	A.	1049
**						
4 subterraneum	subterraneous ..	Bar. hea.	white	5	A.	1048
5 ochroleucum .	sulphur-coloured .	Dry past.	sulphr	6,7	P ?	1224
6 pratense	common red clover	Mea. pas.	purple	5-9	P.	1770
7 medium	zigzag	Dry past.	purple	7	P.	190
8 maritimum ..	teasel-headed	Salt mar.	purple	6,7	A.	220
9 stellatum	starry-headed ..	So. coast !	purple	7,8	A.	1545
10 arvense	hare's foot	San. fi.	flesh .	7,8	A.	944
11 scabrum	rough	San. fi.	white	5,6	A.	903
12 glomeratum ..	round-headed	Grav. pa.	rose ..	6	A.	1063
13 striatum	soft-knotted	Bar. gro.	purple	6	A.	1843

14 fragiferum ..	strawberry-headed	Moi. pas.	flesh .	7,8	P.	1050

15 procumbens ..	hop	Dry past.	yellow	6,7	A.	945
16 minus	lesser yellow	Grav. gr.	yellow	6,7	A.	1256
17 filiforme	slender yellow ..	Grav. pas.	yellow	6,7	A.	1257

CLASS XVII. DIADELPHIA. ORDER III. DECANDRIA.

SPECIFIC CHARACTER.

367. TRIFOLIUM.

* *Flowers capitate. Seeds several.*

Pods naked, 8-sceded, mostly 3-together, twice as long as the calyx: stems declining.

Heads globose: Fl. somewhat stalked: pods 4-seeded: stems creeping, solid.

Heads sessile, lateral, roundish: pod concealed, 2-seeded: calyx-teeth lanceolate, acute, recurved, longer than the corolla.

** *Calyxes generally villous. Seeds single.*

Heads villous, about 4-flow: involucre central, reflexed, rigid, star-like, embracing the fruit.

Head villous: stem erect, pubescent: lower leaf. obcordate: lower tooth of the calyx very long.

Spikes dense: stems ascending: cor. unequal: cal. with four of the teeth equal: stip. awned.

Spikes loose: stems flexuose, branched: cor. nearly equal: stip. linear, awl-shaped: calyx teeth, 2 upper the shortest.

Spikes hairy, globose: cal. teeth leafy, at length spreading: stip. lanceolate: leaf. obovate.

1 Spikes hairy: stip. elliptical: cal. teeth longer than the corolla; after flowering, dilated, leafy, reticulated, and spreading: tube closed; stem diffuse: leaf. obcordate.

2 Spikes very villous, cylind: stip. lanceolate, bristle-pointed: calyx-teeth setaceous, longer than the cor: leaf. obovate-linear.

3 Heads sessile, lateral, ovate: calyx-teeth unequal, lanceolate, rigid, finally recurved: stems procumbent.

4 Heads hemispherical, sessile, lateral, smooth: calyx-teeth cordate, reflexed, veiny: stems prostrate.

5 Heads sessile, lateral and terminal, ovate: cal. elliptical, hairy, furrowed; teeth setaceous: stems procumbent.

*** *Calyxes inflated, ventricose.*

6 Heads roundish: cal. inflated, 2-toothed, reflexed: stems creeping.

**** *Standards deflexed, at length scarious.*

7 Spikes oval, imbricated: standard deflexed, permanent, furrowed: stems procumbent: leaf. obovate: common petiole longest at the base.

8 Spikes hemispherical: pedunc. straight: standard nearly smooth: stems prostrate: common petiole shortest at the base.

9 Spikes of few-flow. lax: pedunc. waved: standard smooth: stems prostrate: leaf. all nearly sessile.

CLASS XVII. DIADELPHIA.

ORDER III. DECANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
TRIFOLIUM.	TREFOIL.					
18 resupinatum .	reversed.....	Meadows	.....	7	A.	.....
367* MELILOTUS.	MELILOT.					
1 officinale	common	Bushy pl.	yellow	6,7	A.	1340
2 leucantha....	white-flowered ..	Corn fi.	white	7,8	A?	.....
368 LOTUS.	BIRD'S-FOOT TREFOIL.					
1 corniculatus .	common	Pasture.	yellow	6-8	P.	2090
2 major	greater	Wet s. gr.	yellow	7,8	P.	2091
3 decumbens ..	spreading	Meadows	yellow	7	P.	.....
4 angustissimus	slender	Sea co.	yellow	5,6	A.	925
369 MEDICAGO.	MEDICK.					
1 sativa §	lucerne	Mea. pas.	violet	6,7	P.	1749
2 falcata	yellow	Bor. of fi.	yellow	7	P.	1016
3 lupulina	non-such	Pasture	yellow	5-8	A.	971
4 maculata	spotted	Grav. pas.	yellow	5,6	A.	*1616
5 muricata	flat-toothed	Sea co.	yellow	5,5	A.	.....
6 minima	little bur	San. fi.!	yellow	5,6	A.	.....

CLASS XVII. DIADELPHIA. ORDER III. DECANDRIA.

SPECIFIC CHARACTER.

TRIFOLIUM.

Heads hemispherical, at length globose : cor. resupinate : cal. after flowering membranaceous, reticulated, inflated, hairy, acute ; 2 of the teeth longer, patent : leaflets ovate : stem prostrate.

367*. MELILOTUS.

Clusters unilateral : pods 2-seeded, rugose, acute, hairy : stem erect : stip. awl-shaped.

* Pods 2-seeded, ovate wrinkled : racemes lax : cor. twice as long as the calyx : keel and wings shorter than standard : stem erect.

368. LOTUS.

- 1 Heads depressed, few-flow : stems decumbent, pithy : pods cylind. spreading : claw of the standard obovate : flam. all dilated.
- 2 Heads depressed, many-flow : stems erect, hollow : pods cylind. drooping : claw of the standard linear : shorter flam. not dilated.
- 3 Heads few-flow : stems recumbent, nearly solid : pods cylind. 2-edged : cal. hairy ; its teeth shorter than the tube.
- 4 Fl. solitary or in pairs : stems much branched, prostrate, hollow : pods 2-edged, slender : cal. loosely hairy ; teeth fringed, twice the length of the tube.

369. MEDICAGO.

- 1 Clusters upright : pods twisted : stem erect, smooth.
- 2 Clusters upright ; pods lunate : stem procumbent.
- 3 Spikes ovate : pods reniform, veiny, wrinkled, 1-seeded : stem procumbent.
- 4 Pedunc. 2 or 3-flow : leaf. obcordate, spotted : stip. dilated : pods spiral, depressed, fringed with long bristles. *M. polymorpha*, *Eng. Bot.*
- 5 Pedunc. 2 or 3-flow : stip. deeply toothed, hairy : leaf. obovate, hairy : pods depressed, with short radiating teeth. *Pluk. Phyt. t. 113. f. 6.*
- 6 Pedunc. many-flow : stip. half-ovate, undivided : leaf. obovate, hairy : pods orbicular, hairy, with divaricated hooked spines. *Flor. Dan. t. 211.*

CLASS XVIII.

POLYADELPHIA.

ORDER 1. POLYANDRIA.

B70 HYPERICUM. *Cal.* 5-parted, inferior. *Pet.* 5. *Filam.* in 3 or 5
sets, united at the base. *Caps.* many-seeded.

CLASS XVIII. POLYADELPHIA. ORDER I. POLYANDRIA.

370

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Potany.
HYPERICUM.	ST. JOHN'S WORT.					
1 calycinum ..	large-flowered....	Thick.	yellow	7-9	S.	2017
2 Androsamum.	tutsan.....	Woods	yellow	7,8	S.	1225
3 quadrangulum	square.....	Moi, mea.	yellow	7,8	P.	370
4 perforatum ..	perforated	Bushy pl.	yellow	7,8	P.	295
5 dubium	imperforated	M. thick.	yellow	7,8	P.	296
6 humifusum ..	trailing	Pastures	yellow	7	P.	1226
7 montanum ..	mountain	Chal. so.	yellow	7	P.	371
8 barbatum	bearded	Se. thick.	yellow	9,10	P.	1986
9 hirsutum	hairy	Chal. ban.	yellow	6,7	P.	1156
10 pulchrum....	small upright	Woods	yellow	7	P.	1227
11 elodes	marsh	Sp. bogs	yellow	7,8	P.	109

CLASS XVIII. POLYADELPHIA. ORDER I. POLYANDRIA.

SPECIFIC CHARACTER.

370. HYPERICUM. *Hypericineæ*. Juss.

- Styles 5: fl. solitary: stem shrubby, branched, square: cal. segments blunt: L. oblong.
- Styles 3: caps pulpy: stem shrubby, 4-angular, compressed.
- Styles 3: stem quadrangular, herbaceous: L. with pellucid dots: leaf. of the calyx lanceolate.
- Styles 3: stem 2-edged: L. obtuse, with pellucid dots: leaf. of the calyx lanceolate.
- Styles 3: stem obsoletely quadrangular: L. obtuse, with few dots: leaf. of the calyx elliptical.
- Styles 2: fl. somewhat cymose: stem 2-edged, prostrate: L. elliptical, smooth: leaf. of the calyx ovate.
- Styles 3: cal. with glandular serratures: stem erect, cylindrical, smooth: L. ovate, naked, clasping the stem.
- Styles 3: cal. and pet. fringed, and dotted: L. ovate, smooth, clasping the stem, dotted and glandular: stem erect, slightly angular.
- Styles 3: cal. with glandular serratures: stem erect, cylindrical: L. ovate, pubescent.
- Styles 3: cal. with glandular serratures: stem cylindrical: L. embracing the stem, cordate, smooth.
- Styles 3: stem cylind. creeping, villous as well as the leaves, which are roundish: panicle few-flow: leaf. of the calyx obtuse, glandular.

CLASS XIX.

SYNGENESIA. *Compositæ*. Juss.

ORDER I. POLYGAMIA ÆQUALIS.

* *Florets all ligulate.*

- 10 HYPOCHÆRIS. *Receptacle* chaffy. *Pappus* plumose. *Cal.* somewhat imbricated.
- 12 CICHORIUM. *Recept.* somewhat chaffy. *Pappus* chaffy, shorter than the seeds. *Cal.* calyceled.
- 19 CREPIS. *Recept.* roughish. *Pappus* simple, mostly stipitate. *Cal.* calyceled, scales deciduous, tumid.
- 18 HIERACIUM. *Recept.* nearly naked, dotted. *Pappus* simple, sessile. *Cal.* imbricated, ovate.
- 7 APARGIA. *Recept.* naked, dotted. *Pappus* plumose, sessile. *Cal.* double; innermost imbricated.
- 2 PICRIS. *Recept.* naked. *Pappus* plumose. *Seed* transversely furrowed. *Cal.* double; innermost equal; outer lax.
- 11 TRAGOPOGON. *Recept.* naked. *Pappus* stipitate, plumose. *Cal.* simple, many-leaved.
- 76 LEONTODON. *Recept.* naked. *Pappus* stipitate, simple. *Cal.* imbricated, double; scales of the outermost lax.
- 74 LACTUCA. *Recept.* naked. *Pappus* stipitate, simple. *Cal.* imbricated, cylindrical; margin membranous.
- 75 PRENANTHES. *Recept.* naked. *Pappus* nearly sessile, simple. *Cal.* calyceled. *Florets* in a single row.
- 73 SONCHUS. *Recept.* naked. *Pappus* simple, sessile. *Cal.* imbricated, ventricose.
- 31 LAPSANA. *Recept.* naked. *Pappus* 0. *Cal.* calyceled; inner leaflets equal, channelled.

** *Florets all tubular, divaricating at the apex.*

- 88 CARLINA. *Cal.* ventricose; outer scales spinous; inner coloured, polished, radiant. *Recept.* chaffy. *Pappus* plumose.
- 83 ARCTIUM. *Cal.* globular; scales spinous, hooked, inflexed.
- 85 CARDUUS. *Cal.* ventricose, imbricated; scales spinous. *Recept.* hairy. *Pappus* deciduous, capillary, rough.
- 86 CNICUS. *Cal.* ventricose, imbricated; scales spinous. *Recept.* hairy. *Pappus* deciduous, plumose.
- 87 ONOPORDUM. *Cal.* ventricose: scales spreading, spinous. *Recept.* honey-combed, somewhat chaffy,
- 84 SERRATULA. *Cal.* nearly cylindrical, imbricated; scales not prickly. *Pappus* permanent.

Centaurea 1.

CLASS XIX. SYNGENESIA. ORDER I. POLYGAMIA ÆQUALIS.

*** *Florets all tubular, erect, parallel, dense, flattish at top.*

- 390 EUPATORIUM. *Recept.* naked. *Pappus* rough. *Cal.* oblong, imbricated. *Style* semibifid, projecting.
 391 CHRYSOCOMA. *Recept.* naked. *Pappus* rough. *Cal.* imbricated, hemispherical. *Style* scarcely longer than the florets.
 389 BIDENS. *Recept.* chaffy. *Pappus* rough backwards. *Cal.* many-leaved. *Cor.* sometimes radiated.
 392 DIOTIS. *Recept.* chaffy. *Pappus* 0. *Cal.* imbricated, hemispherical. *Florets* with 2 spurs which border the seed.
Tanacetum. *Senecio* 1. *Aster* 1. *Anthemis* 2.

ORDER II. POLYGAMIA SUPERFLUA.

* *Discoid. Corolla of the marginal florets obsolete.*

- 393 TANACETUM. *Recept.* naked. *Seeds* crowned. *Cal.* hemispherical, imbricated. *Florets* of the radius 3-cleft, obsolete, sometimes none.
 396 CONYZA. *Recept.* naked. *Pappus* rough. *Cal.* imbricated, roundish. *Florets* of the radius 3-cleft.
 395 GNAPHALIUM. *Recept.* naked. *Cal.* imbricated; scales filmy, coloured. *Florets* of the circumference awl-shaped. *Pappus* rough, or feathery.
 394 ARTEMISIA. *Recept.* naked or villous. *Pappus* 0. *Cal.* imbricated, scales rounded, converging. *Florets* of the circumference subulate, entire.
Tussilago 2, 3.

** *Radiate. Florets of the radius ligulate.*

- 405 BELLIS. *Recept.* naked, conical. *Pappus* 0. *Cal.* hemispherical, scales equal. *Seeds* obovate.
 408 MATRICARIA. *Recept.* naked, almost cylindrical. *Pappus* 0. *Cal.* flattish, imbricated with scales, scarioso at the margin.
 406 CHRYSANTHEMUM. *Recept.* naked, rather convex. *Pappus* 0. *Cal.* hemispherical, imbricated, with scales dilated, and membranous at the margin.
 407 PYRETHRUM. *Recept.* naked. *Pappus* marginate. *Cal.* hemispherical, imbricated, with sharpish scales scarioso at the margin.
 404 DORONICUM. *Recept.* naked. *Pappus* simple. *Seeds* of the radius awnless. *Cal.* scales in a double order, equal, longer than the disk.

.XIX.SYNGENESIA. ORD.II.POLYGAMIA SUPERFLUA.

- 92 INULA. *Recept.* naked. *Pappus* simple. *Cal.* imbricated. *Cor.* of the radius linear, very numerous. *Antheræ* with 2-bristles at the base.
- 97 ERIGERON. *Recept.* naked. *Pappus* simple. *Cal.* imbricated. *Cor.* of the radius linear, very narrow, numerous.
- 91 SOLIDAGO. *Recept.* naked, pitted. *Pappus* simple. *Cal.* imbricated with converging scales. *Florets* of the radius about 5.
- 90 ASTER. *Recept.* naked. *Pappus* simple. *Cal.* imbricated, lowermost scales spreading. *Florets* of the radius more than ten.
- 99 SENEIO. *Recept.* naked. *Pappus* simple. *Cal.* cylindrical, many-leaved, equal, ealyced; scales dead at the tip.
- 98 TUSSILAGO. *Recept.* naked. *Pappus* simple. *Cal.* simple, many-leaved, equal, somewhat membranous, ventricose at the base. *Seeds* obovate, compressed.
- 93 CINERARIA. *Recept.* naked. *Pappus* simple. *Cal.* simple, many-leaved, equal, cylindrical. *Seeds* 4-angular.
- 99 ANTHEMIS. *Recept.* chaffy. *Pappus* scarcely marginate. *Cal.* hemispherical; scales nearly equal. *Florets* of the radius numerous, oblong.
- 10 ACHILLEA. *Recept.* chaffy. *Pappus* 0. *Cal.* ovate, imbricated, unequal. *Florets* of the radius 5-10, roundish, or obcordate.

Bidens 2.

ORDER III. POLYGAMIA FRUSTRANEA.

- 11 CENTAUREA. *Recept.* bristly. *Pappus* simple, or feathery; rarely wanting. *Cor.* of the radius funnel-shaped, irregular, longer than those of the disk, without styles or stamens.

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA ÆQUALIS.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the flower.	Time of Flowering.	Duration.	Figure in English Botany.
371	TRAGOPOGON.	GOAT'S-BEARD.					
	1 pratensis	yellow	Past. ..	yellow	6	B.	434
	2 porrifolius ..	salsafy, or purple ..	Moi. mea.	purple	5,6	B.	638
372	PICRIS.	OX-TONGUE.					
	1 echioides	bristly	Bor. of fi.	yellow	6,7	A.	972
	2 hieracioides ..	hawkweed	Bor. of fi.	yellow	7,8	B.	196
373	SONCHUS.	SOW-THISTLE.					
	1 cæruleus	blue	Alp. pas.!	blue	7,8	P.	2425
	2 palustris	tall marsh	Riv. ban.	yellow	7,8	P.	935
	3 arvensis	corn	Corn fi.	yellow	8	P.	674
	4 oleraceus	common	Fields ..	yellow	7-9	A.	843
374	LACTUCA.	LETTUCE.					
	1 virosa	strong-scented ..	Chal. ban.	yellow	8,9	B.	1957
	2 Scariola	prickly	Rubble !	yellow	8	B.	268
	3 saligna	least	Chal. ban.	yellow	8	B.	707
375	PRENANTHES.	WALL-LETTUCE.					
	1 muralis	ivy-leaved	Chal. wo.	yellow	7	P.	457
376	LEONTODON.	DANDELION.					
	1 Taraxacum ..	common	Mea. pas.	yellow	4-7	P.	510
	2 palustre	marsh	Moi. pas.	yellow	6,7	P.	553
377	APARGIA.	HAWKBIT.					
	1 hispida	rough	Chal. pas.	yellow	7	P.	*554

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA ÆQUALIS.

SPECIFIC CHARACTER.

371. TRAGOPOGON.

- 1 Calyx about equal to the corolla : L. entire, keeled, acuminate, dilated at the base : pedunc. cylind.
- 2 Cal. half as long again as the cor. : L. entire, straight : pedunc. thicker upwards.

372. PICRIS.

- 1 L. waved ; upper ones heart-shaped, clasping the stem : cal. outer of 5 broad prickly scales : pappus stipitate.
- 2 Stem erect, rough : L. lanceolate, wavy ; radical ones toothed : Fl. corymbose : cal. lax : outer much shorter than the inner : pappus sessile : stem rough.

373. SONCHUS.

- 1 Pedunc. and cal. bristly, racemose : L. somewhat lyrate ; terminal lobe large, deltoid.
- 2 Pedunc. and cal. bristly, somewhat umbellate : L. runcinate, sagittate at the base, rough in the margin.
- 3 Pedunc. and cal. bristly, somewhat umbellate : L. runcinate, denticulated, cordate at the base : root creeping.
- 4 Pedunc. tomentous : calyx smooth : L. runcinate, toothed.

374. LACTUCA.

- 1 L. horizontal, denticulated, prickly on the keel.
- 2 L. vertical, sinuated, denticulated, prickly on the keel.
- 3 L. hastate-linear or pinnatifid, sessile, prickly on the keel.

375. PRENANTHES.

- 1 Florets five : L. runcinate.

376. LEONTODON.

- 1 Outer scales of the calyx reflexed : L. runcinate, toothed, smooth.
- 2 Outer scales of the calyx shorter, erect, ovate : L. sinuated, toothed, almost smooth.

377. APARGIA.

HEDYPNOIS, *Eng. Bot.*

- 1 Stalks 1-flow : L. runcinate, rough : florets hairy at their orifice, glandular at the apex.

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA EQUALIS.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
APARGIA.	HAWKBIT.					
2 hirta.....	simple-haired	Grav. pa.	yellow	7,8	P.	*555
3 Taraxaci	alpine	Sc. alps	yellow	8	P.	*1109
3 autumnalis ..	autumnal	Mea. pas.	yellow	8	P.	*830
HIERACIUM.	HAWKWEED.					
*						
1 alpinum	alpine single flow.	Alp. roc.	yellow	7	P.	1110
2 Pilosella	mouse-ear	Dry past.	yellow	5-7	P.	1093
**						
3 dubium	branch. mouse-ear	Hills! ..	yellow	7,8	P.	2332
4 Auriculaꝯ....	orange mouse-ear .	Mount.	yellow	7	P.	2368
5 aurantiacum..	great orange	Sc. wo.	orange	7	P.	1469

6 murorum	wall	Rocks ..	yellow	6,7	P.	2082
7 maculatum ..	stained-leaved....	Wel. mou	yellow	6-8	P.	2121
8 sylvaticum ..	wood	Chal. pl.	yellow	6-8	P.	2031
9 pulmonarium .	lungwort.....	Sc. roc.	yellow	7	P.	2307
10 Lawsoni	glaucous hairy ..	N. of Eug.	yellow	7	P.	2083
11 paludosum ..	succory lea. mount	Wat. pl.	yellow	7	P.	1094
12 molle	soft leaved	Sc. wo.	yellow	7,8	P.	2210
13 cerinthoides ..	honey-wort-leaved	Sc. roc.	yellow	8	P.	2378
14 villosum	shaggy alpine	Alp. roc.	lem. col	8	P.	2379
15 Halleri.....	Hallerian	Sc. mon.	yellow	7,8	P.	.....

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA AQUALIS.

SPECIFIC CHARACTER.

APARGIA.

- 2 Stalks 1-flow. cal. smoothish, scaly at the base: L. lanceolate, toothed, rough: seeds, outer row crowned with scales only.
- 3 Stalks mostly 1-flow, tumid and hairy at the summit: L. runcinate, smooth: calyx hairy.
- 4 Stalks branched: pedicels scaly: L. lanceolate, toothed or pinnatifid, nearly smooth.

378. HIERACIUM.

* *Stalk radical, naked, 1-flow.*

- 1 E. oblong, entire, toothed: calyx hairy.
- 2 L. elliptical, very entire, downy beneath: stolons creeping.

** *Stalk radical, naked, many-flow.*

- 3 L. elliptic lanceolate, mostly very entire, hairy, rather glaucous beneath: stolons creeping: calyx bristly.
- 4 L. lanceolate, entire, hairy: stolons scarcely as long as the leaves: calyx shaggy.
- 5 L. elliptical, entire: stalk hairy: calyx shaggy.

*** *Stem leafy.*

- 6 Stem corymbose, 1-leaved: L. cordate-ovate, waved, toothed backwards, chiefly at the base.
- 7 Stem hollow, cymose, many-leaved: L. ovate-lanceolate, with teeth, pointing forward.
- 8 Stem simply racemose, solid: L. ovate-lanceolate, toothed, chiefly at the base; teeth pointing forward.
- 9 Stem corymbose, solid, few-leaved: L. lanceolate, deeply toothed; teeth pointing forward.
- 10 Stem branched, few-leaved: L. radical stalked, elliptic-lanceolate, decurrent, glaucous, fringed, nearly entire.
- 11 Stem angular, hollow, smooth, corymbose: L. cordate, embracing the stem, toothed, smooth: calyx rough.
- 12 Stem angular, hollow, downy, corymbose: L. lanceolate, obsoletely toothed, hairy, embracing the stem; lower ones petioled.
- 13 Stem corymbose, solid: L. hairy, somewhat toothed; upper ones ovate, half clasping the stem; radical ones elliptic-oblong, with shaggy fringed peduncles.
- 14 Stem leafy, hollow, shaggy: L. hairy, wavy, and toothed: cal. hairy: seeds angular.
- 15 Stem erect, 1-2-flow. slightly leafy: L. hairy; lower ones obovate-oblong, stalked, toothed; upper lanceolate, smaller: cal. shaggy.

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA EQUALIS.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	THIERACIUM.	HAWKWEED.					
	16 sabaudum ..	shrubby broad leav.	Groves	yellow	8,9	P.	349
	17 denticulatum .	small-toothed	Sc. wo.	yellow	7-9	P.	2122
	18 prenanthoides .	rough-bordered ..	Sc. wo.	yellow	8,9	P.	2235
	19 umbellatum ..	narrow-leaved	Sha. pl.	yellow	8,9	P.	1771
379	CREPIS.	HAWK'S-BEARD.					
	1 fætida	stinking	Chal. pa.!	yellow	6,7	B.	406
	2 pulchra	small-flowered ..	Sc. roc.!	yellow	6-9	A.	2325
	3 tectorum	smooth	Pasture	yellow	6-9	A.	1111
	4 biennis	rough	Chal. pa.	yellow	6,7	B.	149
380	HYPOCHÆRIS.	CAT'S-EAR.					
	1 maculata	spotted	Chal. hil.	yellow	7	P.	225
	2 glabra	smooth	San. hea.	yellow	6-8	A.	575
	3 radicata	long-rooted	Mea. pas.	yellow	6-8	P.	831
381	LAPSANA.	NIPPLE-WORT.					
	1 communis ..	common	Cult. gr.	yellow	6,7	A.	844
	2 pusilla	little	Grav. fi.	yellow	6	A.	*95
382	CICHORIUM.	SUCCORY.					
	1 Intybus	wild	Grav. so.	blue	7,8	P.	539
383	ARCTIUM.	BURDOCK.					
	1 Lappa	common	Wa. gr.	purple	7,8	B.	1228

CLASS XIX. SYNGENESIA. ORD. 1. POLYGAMIA ÆQUALIS.

SPECIFIC CHARACTER.

HIERACIUM.

- 16 Stem erect, many-flow : L. ovate-lanceolate, toothed, half embracing the stem, rough beneath.
- 17 Stem erect, solid, many-flow : L. sessile, elliptic-lanceolate, finely toothed, smoothish, glaucous beneath : pedunc. downy.
- 18 Stem erect, solid, many-flow : L. embracing the stem, somewhat toothed, rough at the edge ; upper ones cordate : pedunc. downy.
- 19 Stem erect, somewhat umbellate : L. linear, slightly toothed, scattered : nearly smooth, as well as the calyx.

379. CREPIS.

- 1 L. runcinate-pinnatifid, hairy : petioles toothed : stem hairy : calyx tomentous.
- 2 L. downy, toothed ; those on the stem somewhat arrow-shaped : stem panicled, corymbose : cal. pyramidal, smooth.
- 3 L. radical runcinate ; those on the stem embracing, lanceolate, toothed : stem smooth : calyx rough : pappus sessile.
- 4 L. runcinate-pinnatifid, rough ; forepart of the lobes toothed : calyx bristly, somewhat tomentous.

380. HYPOCHÆRIS.

- 1 Stem solitary, nearly naked, mostly simple : L. ovate-oblong, entire, toothed.
- 2 Almost smooth : cal. oblong, imbricated : stems branched, somewhat leafy : L. dentate-sinuated : pappus of the marginal seeds sessile.
- 3 L. runcinate, obtuse, rough : stems branched, naked, smooth : peduncles scaly : pappus stalked.

381. LAPSANA.

- 1 Cal. when in fruit angular : stem panicled : L. ovate, stalked, toothed : peduncles filiform.
- 2 Stemless : stalks subdivided, swelling and hollow at top : L. obovate, rough-edged, toothed. *Hyoseris minima*. Eng. Bot.

382. CICHORIUM.

- 1 Fl. in pairs ; both nearly sessile : L. runcinate.

383. ARCTIUM.

- 1 L. cordate, without prickles, petioled : cal. without cottony down.

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA EQUALIS.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
ARCTIUM.	BURDOCK.					
2 <i>Bardana</i>	woolly-headed ..	Wa. gr.	purple	7,8	B.	2478
SERRATULA.	SAW-WORT.					
1 <i>tinctoria</i>	common	Woods	purple	7,8	P.	38
2 <i>alpina</i>	alpine	Alp. roc.	purple	7,8	P.	599
CARDUUS.	THISTLE.					
*						
1 <i>nutans</i>	musk	Grav. fi.	purple	7,8	A.	1112
2 <i>acanthoides</i> ..	welted.....	Wa. gr.	purple	6,7	A.	973
3 <i>tenuiflorus</i> ..	slender flowered ..	Banks ..	rose ..	6,7	A.	412
**						
4 <i>marianus</i>	milk	Banks ..	purple	6-8	A.	976
CNICUS.	PLUME-THISTLE.					
*						
1 <i>lanceolatus</i> ..	spear	Banks ..	erimso.	6,9	B.	*107
2 <i>palustris</i>	marsh	Moi.pas.	erimso.	7,8	B.	*974
**						
3 <i>arvensis</i>	creeping	Road si.	purple	7	P.	*975
4 <i>Forsteri</i>	branching	Bog. wds.	erimso.	7,8	P.	.....
5 <i>eriphorus</i> ..	woolly-headed ..	Chal.pas.	purple	8	B.	*386
6 <i>tuberosus</i>	tuberous	Thickets!	purple	8	P.	2562
7 <i>heterophyllus</i> .	melancholy	M. Alp.p.	purple	7,8	P.	*675

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA ÆQUALIS.

SPECIFIC CHARACTER.

ARCTIUM.

- 2 L. cordate, without prickles, pectioled, nearly entire: cal. interwoven with cottony down.

384. SERRATULA.

- 1 L. serrated, finely ciliated, lyrate-pinnatifid; terminal lobe largest: florets uniform: pappus roughish.
2 Cal. somewhat downy, ovate: L. undivided, woolly beneath: pappus plumose.

385. CARDUUS.

* *Leaves decurrent.*

- 1 L. interruptedly decurrent, spinous: flow. drooping: cal. scales lanceolate, spreading upwards.
2 L. sinuated, spinous: cal. globular, somewhat peduncled: scales linear, recurved.
3 L. sinuated, spinous, tomentous: cal. almost cylindrical, aggregate, sessile: scales lanceolate, somewhat recurved.

** *Leaves sessile.*

- 4 L. embracing the stem, wavy, spinous; radical ones pinnatifid: cal. scales leafy, channelled, bent backward, spinous at the margin.

386. CNICUS.

* *Leaves decurrent, winging the stem.*

- 1 L. pinnatifid, hispid; segments divaricated: cal. ovate, villous: stem hairy, furrowed. *Carduus. Eng. Bot.*
2 L. pinnatifid, toothed, spinous, rough: Fl. aggregate: cal. ovate, clustered, with minute spines. *Carduus. Eng. Bot.*

** *Leaves sessile.*

- 3 L. pinnatifid, spinous: stem panicled: cal. ovate, outer scales spinous: root creeping, tuberous. *Carduus. Eng. Bot.*
4 L. slightly decurrent, pinnatifid, spinous; downy beneath: stem panicled, hollow: calyx ovate, rather cottony; outer scales spinous.
5 L. bifariously pinnatifid, spinous, rough; alternate segments erect: cal. globose, villous. *Carduus. Eng. Bot.*
6 L. pinnatifid, lobed, fringed with prickles; lower ones on long stalks: stem unarmed, generally 1-flow: cal. minutely spinous.
7 L. embracing the stem, lanceolate, ciliated, entire or laciniated, tomentous beneath: Fl. mostly solitary, pedunculated. *Carduus. Eng. Bot.*

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA ÆQUALIS.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	CNICUS..	PLUME-THISTLE.					
	8 pratensis	meadow	Moi. pas.	purple	6	P.	*177
	9 acaulis	dwarf	Grav. pas.	purple	7,8	P.	*161
387	ONOPORDUM.	COTTON-THISTLE.					
	1 Acanthium ..	common	Grav. ba.	purple	7	B.	977
388	CARLINA.	CARLINE-THISTLE.					
	1 vulgaris	common	Dry pas.	pur-ish	6	B.	1144
389	BIDENS.	BUR-MARYGOLD.					
	1 tripartita	trifid	Wat. pl.	yellow	8,9	A.	1113
	2 cernua	nodding	Ditches	yellow	9	A.	1114
390	EUPATORIUM.	HEMP-AGRIMONY.					
	1 cannabinum..	common	Wat. pl.	rose ..	7,8	P.	428
391	CHRYSOCOMA.	GOLDY-LOCKS.					
	1 Linosyris	flax-leaved	Sea cliffs!	yellow	8,9	P.	2505
392	DIOTIS.	COTTON-WEED					
	1 maritima	sea	Sea sho.!	yellow	8,9	P.	141

ORDER II. POLYGAMIA SUPERFLUA.

393	TANACETUM.	TANSY.					
	1 vulgare.....	common	Road si.	yellow	7,8	P.	1229
394	ARTEMISIA.	WORMWOOD.					
	1 campestris ..	field	San. fi.!	brown	8	P.	338

CLASS XIX. SYNGENESIA. ORD. I. POLYGAMIA ÆQUALIS.

SPECIFIC CHARACTER.

CNICUS.

8 L. lanceolate, wavy or lobed; ciliated, woolly beneath: stem nearly naked, 1-flow: calyx villous: scales tapering: inner coloured.
Carduus. Eng. Bot.

9 Stalks radical, 1-flow. shorter than the smooth calyx. *Carduus. Eng. Bot.*

387. ONOPORDUM.

1 L. ovate-oblong, sinuated, woolly on both sides: calyx-scales awl-shaped, spreading.

388. CARLINA.

1 Stem many-flow. corymbose: Fl. terminal: outer calyx-scales pin-natifid; inner whitish.

389. BIDENS.

1 L. 3-cleft: bract. unequal: awns of the seeds 2 or 3, erect.

2 L. lanceolate, serrated: Fl. drooping, bract. nearly equal, entire: awns of the seed about 4, erect.

390. EUPATORIUM.

1 L. 3-5-lobed; the middle lobe longest.

391. CHRYSOCOMA.

1 Herbaceous: L. linear, smooth: calyx scales loosely spreading.

392. DIOTIS.

1 Pedunc. corymbose: L. oblong, obtuse, crenated, very woolly.

ORDER II. POLYGAMIA SUPERFLUA.

393. TANACETUM.

1 L. bipinnatifid, deeply serrated, naked.

394. ARTEMISIA.

1 L. many-cleft, linear: stems procumbent before flowering, rod-like.

CLASS XIX. SYNGENESIA. ORDER II. POLYG. SUPERFLUA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or situation.	Colour of the flower.	Time of Flowering.	Duration.	Figure in English Botany.
ARTEMISIA.	WORMWOOD.					
2 maritima	drooping sea	Sea shore	brown	8	P.	1706
3 gallica	upright sea	Mud. sh.	brown	8	P.	*1001
4 Absinthium ..	common	Rubble	yellow	8	P.	1230
5 vulgaris	mugwort	Rubble	pur-ish	8	P.	978
6 cærulescens†.	blueish mugwort ..	Sea shore	yellow	8	P.	2426
GNAPHALIUM.	CUD-WEED.					
※						
1 luteo-album ..	jersey	Sandy pl.	yellow	7,8	A.	1002
※※						
2 margaritaceum	American	Moi. mca.	white	8	P.	2018
3 dioicum	mountain	Dry pas.	blush	6,7	P.	267
※※※						
4 sylvaticum ..	highland	Alp. pas.	yell-ish	8	P.	913
5 rectum	upright wood	San. pas.	yell-ish	8	P.	124
6 supinum	dwarf	Sc. alps	yell-ish	7	P.	1193
7 uliginosum ..	marsh	Wat. pl.	yell-ish	8	A.	1194
8 gallicum	narrow leaved	San. fi.!	yell-ish	7,8	A.	2369
9 minimum	least	San. pas.	yell-ish	7	A.	1157
10 germanicum ..	common	San. fi.	yell-ish	7,8	A.	946

CLASS XIX. SYNGENESIA. ORDER II. POLYG. SUPERFLUA.

SPECIFIC CHARACTER.

ARTEMISIA.

- 2 L. downy pinnatifid; the uppermost undivided: racemes drooping: recept. naked: Fl. oblong, sessile.
- 3 L. downy, pinnatifid; the radical ones capillary; the uppermost undivided: racemes erect: recept. naked: Fl. oblong. *A. maritima.* Eng. Bot.
- 4 L. many-parted, hoary with silky down: Fl. hemispherical, pendulous: recept. hairy.
- 5 L. pinnatifid, flat, eut, tomentous beneath: racemes simple: Fl. ovate: recept. naked.
- 6 L. hoary; those on the stem lanceolate, entire, tapering at the base; lowermost many-cleft: Fl. cylindrical: recept. naked.

395. GNAPHALIUM.

* *Calyx yellow.*

- 1 Herbaceous: L. half-embracing the stem, linear-oblong, waved, woolly on both sides; lowermost obtuse: Fl. clustered.

Calyx white or reddish.

- 2 L. linear lanceolate, acuminate, alternate, cottony: stem branched above: corymb. fastigiate.
- 3 L. radical spatulate, pointed, entire: shoots procumb: stem very simple: corymb. simple, terminal: Fl. dioecious: pappus plumose, various.

*** *Calyx brown.*

- 4 Stem simple, erect: Fl. spiked: L. lanceolate, narrower at the base, woolly on both sides.
- 5 Stem erect: panicle many-flow: L. linear-lanceolate, almost naked on the upper surface, silky beneath.
- 6 Stem decumb. very simple, racemose, few-flow: L. linear-lanceolate, tomentous on both sides.
- 7 Stem much branched, diffuse: Fl. crowded, terminating: L. linear-lanceolate, tomentous.
- 8 Stem erect, branched: L. linear, revolute, acute: Fl. subulate, crowded, axillary.
- 9 Stem erect, branched: L. lanceolate, acute, flat: Fl. conical, somewhat crowded, lateral and terminal.
- 10 Stem erect, proliferous: L. lanceolate: heads globose, many-flow, lateral and terminal: calyx-seales bristle-pointed.

CLASS XIX. SYNGENESIA. ORDER II. POLYG. SUPERFLUA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
396	CONYZA.	SPIKENARD.					
	1 squarrosa	plowman's	Chal. pas.	yellow	7,8	B.	1195
397	ERIGERON.	FLEA-BANE.					
	1 canadensis ..	canada	Rubble	yellow	8,9	A.	2019
	2 acris	blue	Grav. pas.	blue	7.8	B.	1158
	3 alpinus	alpine	Alp. rills	purple	7	P.	464
	4 uniflorus	pale mountain ..	Highlan.	purple	7	P.	2416
398	TUSSILAGO.	COLT'S-FOOT.					
	1 Farfara	common	Moi. pl.	yellow	3,4	P.	429
	2 Petasites	butter-bur	Moi. mea.	flesh	4	P.	431
399	SENECIO.	RAG-WORT.					
	*						
	1 vulgaris	common groundsel	Rubble	yellow	1-12	A.	747
	**						
	2 viscosus	stinking	Chal. ba.	yellow	7-10	A.	32
	3 lividus	green-scaled	Bar. hea.	yellow	9,10	A.	2515
	4 sylvaticus	mountain	Bushy pl.	yellow	7	A.	748

	5 squalidus	inelegant.	Walls ..	yellow	6-10	A.	600
	6 tenuifolius ..	hoary	Woods	yellow	7,8	P.	574
	7 Jacobæa	common	Dry past.	yellow	7,8	P.	1130
	8 aquaticus	marsh	Marshes	yellow	7,8	P.	1131

	9 paludosus	fen	Fens ! ..	yellow	6,7	P.	650
	10 saracenicus ..	broad-leaved	Moi. pl.!	yellow	7,8	P.	2211

CLASS XIX. SYNGENESIA. ORDER II. POLYG. SUPERFLUA.

SPECIFIC CHARACTER.

396. CONYZA.

- 1 L. ovate-lanceolate, downy, crenate: stem herbaceous, corymbose: calyx-scales, leafy, recurved.

397. ERIGERON.

- 1 Stem hairy, panicle, many-flow: L. lanceolate; lowermost toothed.
- 2 Stem racemose: pedunc. mostly 1-flow: L. lanceolate, or tongue-shaped, sessile.
- 3 Stems mostly 1-flow: calyx rather hairy: flor. of the radius spreading.
- 4 Stems mostly 1-flow: cal. woolly: flor. of the radius erect, somewhat tubular.

398. TUSSILAGO.

- 1 Scape 1-flow, scaly: L. cordate, angular, toothed: Fl. radiant.
- 2 Panicle ovate: flor. almost all hermaph. with united anthers: L. cordate, unequally toothed; 3-ribbed at the base.

399. SENECIO.

* *Flowers all flosculous.*

- 1 Fl. scattered: L. pinnate-sinuated, embracing the stem, toothed.

** *Flowers radiate, radius constantly revolute.*

- 2 L. pinnatifid, viscid: calyx-scales lax, almost as long as the inner: stem much branched, spreading.
- 3 L. embracing the stem, lanceolate, pinnatifid, toothed: scales of the cal. short, with pale points.
- 4 L. sessile, pinnatifid, lobed, toothed: calyx-scales short: stem erect, straight, corymbose.

*** *Flowers radiate, radius spreading: leaves pinnatifid.*

- 5 Rays elliptical, very entire: L. pinnatifid; segments somewhat linear, distant.
- 6 L. pinnatifid, somewhat revolute, paler and pubescent beneath: stem erect, cottony.
- 7 L. lyrate-bipinnatifid, divaricated, toothed, smooth: stem erect: rays oblong, toothed: seeds of the disk silky.
- 8 Rays elliptical: L. lyrate, serrated; lowermost obovate, entire: seeds smooth.

**** *Flowers radiate, radius spreading: leaves undivided.*

- 9 Fl. corymbose: L. lanceolate, tapering, acutely serrated, somewhat villous beneath: stem straight, and hollow.
- 10 Fl. corymbose: L. lanceolate, serrated, smoothish: stem solid.

CLASS XIX. SYNGENESIA. ORDER II. POLYG. SUPERFLUA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
400	ASTER.	STAR-WORT.					
	1 Tripolium ..	sea	Sea shore	blue	8,9	P.	87
401	SOLIDAGO.	GOLDEN-ROD.					
	1 Virgaurea ..	common	Woods	yellow	7-9	P.	301
402	INULA.	INULA.					
	1 Helenium ..	elecampane.....	Moi. mea.	yellow	7,8	P.	1546
	2 dysenterica ..	common flea-bane.	Wat. pl.	yellow	8	P.	1115
	3 pulicaria	small flea-bane ..	Moi. hea.	yellow	9	A.	1196
	4 crithmoides ..	samphire leaved ..	Salt mar.	yellow	8	P.	68
403	CINERARIA.	FLEA-WORT.					
	1 palustris	marsh	Marshes	yellow	6,7	P.	151
	2 integrifolia ..	mountain	Chal. pa.	yellow	5-7	P.	152
404	DORONICUM.	LEOPARD'S-BANE.					
	1 Pardalianches.	great	M. pas.!	yellow	5	P.	630
405	BELLIS.	DAISY.					
	1 perennis	common	Pasture	white	3-12	P.	424
406	CHRYSANthemUM.	OX-EYE.					
	1 Leucanthemum	great white	Pasture	white	6,7	P.	601
	2 segetum	yellow corn.....	Corn fi.	yellow	6-8	A.	540
407	PYRETHRUM.	FEVERFEW.					
	1 $\frac{1}{2}$ Parthenium ..	common	Rubble	white	6,7	P.	1231

CLASS XIX. SYNGENESIA. ORDER II. POLYG. SUPERFLUA.

SPECIFIC CHARACTER.

400. ASTER.

- 1 L. lanceolate, entire, fleshy, smooth, obscurely 3-nerved : calyx-scales somewhat membranous, obtuse : fl. corymbose.

401. SOLIDAGO.

- 1 Stem somewhat zig-zag, angular : racemes panicled, erect, crowded : L. partly serrated.

402. INULA.

- 1 L. embracing the stem, ovate, wrinkled and downy beneath : calyx-scales ovate, leafy.
- 2 L. embracing the stem, cordate oblong, downy : stem woolly, panicled : calyx-scales setaceous, hairy.
- 3 L. embracing the stem, undulated : stem much branched, hairy : Fl. hemispherical : radius very short.
- 4 L. linear, fleshy, generally 3-pointed : calyx smooth.

403. CINERARIA.

- 1 Fl. corymbose : L. broad-lanceolate, toothed or sinuated : stem villous leafy, hollow.
- 2 Stem erect, terminating in an imperfect umbel : bract. lanceolate : L. shaggy ; radical ones elliptical, obscurely toothed : the rest lanceolate.

404. DORONICUM.

- 1 L. cordate, denticulated ; radical ones petioled : those on the stem embracing.

405. BELLIS.

- 1 Scape naked, root creeping.

406. CHIRYSANTHEMUM.

- 1 L. embracing the stem, oblong, obtuse, cut, pinnatifid at the base ; radical ones obovate, petioled.
- 2 L. embracing the stem, glaucous, laciniated upwards, toothed at the base.

407. PYRETHRUM.

- 1 L. petioled, compound, flat : leaf. ovate, cut : pedunc. branched, corymbose : stem erect : rays shorter than the diameter of the disk.

CLASS XIX. SYNGENESIA. ORDER II. POLYG. SUPERFLUA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
	PYRETHRUM.	FEVERFEW.					
	2 inodorum	corn	Dry fi.	white	8,9	A.	676
	3 maritimum ..	sea	Sea sho.!	white	7,8	P.	979
408	MATRICARIA.	MAY-WEED.					
	1 Chamomilla..	wild chamomile ..	Road si.	white	5,7	A.	1232
409	ANTHEMIS.	CHAMOMILE.					
	*						
	1 maritima	sea	Sea coa.!	white	7	A.	2370
	2 nobilis	common	Grav. pas.	white	8,9	P.	980
	3 arvensis	corn	Dry fi.	white	6,7	A.B?	602
	4 Cotula	stinking	Corn fi.	white	6,7	A.	1772
	**						
	5 tinetoria	ox-eye.....	Stony pl.!	yellow	7,8	B?	1472
410	ACHILLEA.	YARROW.					
	1 Ptarmica	sneeze-wort.....	Moi. pl.	white	7,8	P.	757
	2 serrata	serrated	Derbysh.!	yellow	8	P.	2531
	3 Millefolium ..	common	Pasture	white	6,8	P.	758
	4 tomentosa....	woolly.....	Sc. pas.	yellow	8	P.	2532
ORDER III. POLYGAMIA FRUSTRANEA.							
411	CENTAUREA.	KNAPWEED.					
	*						
	1 Jacea	brown radiated ..	Pastures !	purple	8,9	P.	1678

CLASS XIX. SYNGENESIA. ORDER II. POLYG. SUPERFLUA.

SPECIFIC CHARACTER.

PYRETHRUM.

- 2 L. sessile, pinnate, in many capillary segments: stem branched, spreading: crown of the seeds entire.
- 3 L. sessile, bipinnate, fleshy, awnless, convex above, keeled beneath: crown of the seeds lobed: stems diffuse.

408. MATRICARIA.

- 1 L. pinnate, smooth: leaf. linear, entire or laciniated: radius spreading: calyx-scales dilated, bluntish.

409. ANTHEMIS.

* *Radius white.*

- 1 L. bipinnatifid, acute, fleshy, somewhat hairy beneath: stem prostrate: calyx rather tomentous.
- 2 L. bipinnate-semicylind, acute, rather downy: scales of the receptacle scarious, scarcely the length of the florets.
- 3 Recept. conical; scales lanceolate, acute, keeled, projecting; L. bipinnatifid, hairy: seeds crowned with a 4-angular border.
- 4 Recept. conical; scales setaceous: seeds without any crown or border: L. bipinnatifid, slightly hairy.

** *Radius yellow, like the disk.*

- 5 L. bipinnatifid, serrated, downy beneath: stem corymbosc, erect: seeds crowned with a membranous undivided border.

410. ACHILLEA.

- 1 L. lanceolate, acuminate, sharply serrated, smooth.
- 2 L. linear-lanceolate, sessile, downy, deeply-serrated, laciniated at the base: corymb. nearly simple.
- 3 L. bipinnatifid, hairy; segments linear, toothed, mucronated: stems furrowed.
- 4 L. bipinnatifid, woolly; segments crowded, linear, acute: corymb. repeatedly compound.

ORDER III. POLYGAMIA FRUSTRANEA.

411. CENTAUREA.

* *Calyx-scales jagged or fringed.*

- 1 Calyx scales membranous, lacerated: the lower ones pinnatifid: L. linear-lanceolate; radical ones broader, toothed: Fl. radiant: pappus short, in a simple row.

CLASS XIX. SYNGENESIA. ORD. II. POLYG. FRUSTRANEA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
CENTAUREA.	KNAPWEED.					
2 nigra	black lesser	Pastures	purple	6-8	P.	278
3 Cyanus	blue bottle	Corn fi.	blue	7,8	A.	277
4 Scabiosa	greater	Corn fi.	purple	7,8	P.	56
**						
5 Isnardi	Jersey	Jersey ..	purple	7,8	P.	2256

6 Calcitrapa ..	common star-thistle	Grav. so.	rose ..	7,8	A.	125
7 solstitialis	yellow star-thistle.	Fields!	yellow	7,9	A.	243

CLASS XIX. SYNGENESIA. ORD. III. POLYG. FRUSTRANEA.

SPECIFIC CHARACTER.

CENTAUREA.

- 2 Calyx-scales ovate, with capillary erect fringe: lower leaves lyrate-angular; uppermost ovate: Fl. discoid: pappus short, tufted.
- 3 Calyx-scales serrated: L. linear, very entire; lowermost toothed towards the base.
- 4 Calyx-scales fringed, ovate: L. pinnatifid; segments lanceolate, a little hairy, somewhat toothed.
- ** *Calyx-scales palmate-spinous.*
- 5 L. lyrate-toothed, roughish, slightly embracing the stem: Fl. sessile, terminal.
- *** *Spines of the Calyx compound.*
- 6 Fl. lateral, sessile: L. pinnatifid, toothed: stem divaricate-spreading, hairy.
- 7 Fl. solitary, terminal: L. decurrent, spineless, lanceolate; radical ones lyrate.

CLASS XX.

GYNANDRIA.

ORDER I. MONANDRIA. *Orchideae.* Juss.

* *Anther of two distinct vertical cells, fixed to the summit of the column.*

- 412 ORCHIS. *Lip or Nectary with a posterior spur.*
413 ACERAS. *Nect. plane, without a spur. Cal. converging.*
414 OPHRYS. *Cal. spreading. Nect. convex, without a spur.*
415 HERMINIUM. *Cal. spreading. Pet. 3-lobed. Nect. flat, without a spur.*

** *Anther parallel to the stigma, of two cells, close together, permanent.*

- 416 GOODYERA. *Cal. spreading, embracing the base of the nect. which is pouched, without a spur beneath, and undivided above. Column without wings. Pet. converging.*
417 NEOTTIA. *Cal. converging; embracing the base of the flat nect. which is without a spur. Pet. converging. Column without wings.*
418 LISTERA. *Cal. spreading. Nect. without a spur, nearly flat. Column without wings. Pet. spreading.*

*** *Anther terminal, inserted, permanent.*

- 419 EPIPACTIS. *Nect. without a spur, tumid beneath, contracted in the middle, undivided at the end.*

**** *Anther a terminal deciduous lid.*

- 420 MALAXIS. *Nect. without a spur, sessile, embracing the column with its concave base. Pet. spreading.*
421 CORALLORRHIZA. *Nect. unconnected with the column; spurred, or stalked at the base. Pet. spreading.*

ORDER II. DIANDRIA.

- 422 CYPRIPEDIUM. *Nect. ventricose, inflated. Cal. and Pet. spreading. Column with a terminal, dilated appendage.*

ORDER III. HEXANDRIA.

- 423 ARISTOLOCHIA. *Cal. of 1 leaf. Cor. 0. Stig. 6-lobed. Caps. 6-celled.*

CLASS XX. GYNANDRIA.

ORDER 1. MONANDRIA.

412

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
ORCHIS.	ORCHIS.					
*						
1 bifolia	butterfly	Woods	white	6	P.	22
2 pyramidalis ..	pyramidal	Chal. so.	crimso.	7	P.	110
3 Morio	meadow	Mea. pas.	purple	5,6	P.	2059
4 mascula	early purple	Shady pl.	purple	4,5	P.	631
5 ustulata	dwarf	Chal. dow	purple	6	P.	18
6 fusca	brown	Chal. hil.	bro-ish	5	P.	*16
7 militaris	military	Chal. soil	purple	5	P.	1873
8 tephrosanthos.	Monkey	Chal. soil!	ash col.	5	P.	.....
9 hircina	lizard	Chal. wo.!	purple	7	P.	*34
**						
10 viridis	frog.....	Mea. pas.	gre-ish	6,7	P.	*94
11 albida	white	Sun. hil.	white	6	P.	*505

12 latifolia	marsh	Moi. mea.	rose ..	5,6	P.	2308
13 maculata	spotted palmate ..	Woods	flesh	6,7	P.	632
14 conopsea	fragrant	Mea. pas.	purple	6	P.	10
ACERAS.	MAN-ORCHIS.					
1 anthropophora	green	Chal. pas.	gre-ish	6	P.	*29

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SPECIFIC CHARACTER.

412. ORCHIS.

* *Bulbs undivided.*

- 1 Lip lanceolate, entire; half the length of its long spur: lateral calyx-leaves spreading downward: bulbs oval, taper-pointed.
- 2 Lip of the nectary in three, equal, entire segments, 2-horned above: spur elongated, filiform: bulbs oval.
- 3 Lip 4-cleft, crenate: spur obtuse, ascending: cal. converging, many-nerved: bulbs oval.
- 4 Lip. 4-cleft, crenate: spur obtuse: calyx-leaves 3-ribbed; 2 lateral ones reflexed upwards: bulbs oval.
- 5 Lip 4-cleft, rough with points: spur obtuse, very short: cal. converging: L. lanceolate: bulbs oval.
- 6 Lip 5-cleft, rough; segments dilated: spur one-third the length of the germen: cal. converging, obtuse: L. elliptic-oblong: bulbs oval. *O. militaris*, Eng. Bot.
- 7 Lip 5-cleft, rough: the middle lobes dilated, rounded: spur half the length of the germen: cal. converging, tapering: bulbs oval.
- 8 Lip 5-cleft: 4 segments equal, narrow, thread-shaped: spur obtuse; not half the length of the germen: cal. converging, tapering: bulbs oval. *Bichenos*, Trans. Linn. Soc. xii. p. 33.
- 9 Lip 3-cleft, downy; middle segment very long, linear, twisted, emarginate: cal. converging: bulbs globose. *Satyrium*, Eng. Bot.

** *Bulbs clustered, tapering.*

- 10 Bulbs clustered, divided: lip linear, 3-toothed; the middle tooth smallest: spur very short, emarginate. *Satyrium*, Eng. Bot.
- 11 Bulbs clustered in three pairs: lip 3-cleft: segments acute, middle one largest: spur one-third the length of the germen. *Satyrium*, Eng. Bot.

*** *Bulbs palmated.*

- 12 Lips convex, 3-cleft. crenate: spur conical: bract. longer than the flowers: stem hollow.
- 13 Lip 3-lobed, crenate, flat: spur cylind. shorter than the germen.
- 14 Lip in 3 entire segments: spur slender. twice as long as the germen: cal. spreading.

413. ACERAS. Hort. Kew.

OPHRYs, Eng. Bot.

- 1 Lip longer than the germen.

CLASS XX. GYNANDRIA.

ORDER I. MONANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
414	HERMINIUM.	MUSK-ORCHIS.					
	1 monorchis ..	small	Chal. ban.	gre-ish	6,7	P.	*71
415	OPHRYS.	OPHRYS.					
	1 muscifera	fly	Chal. pas.	purple	6	P.	64
	2 apifera	bee	Chal. pas.	purple	7	P.	383
	3 arachnites	late spider	Chal. pas.	blush	7	P.	.....
	4 aranifera	spider	Chal. soil	green	4	P.	65
	5 fucifera	drone	Chal. hills	green	5,6	P.	.....
416	GOODYERA.	GOODYERA.					
	1 repens	creeping	Alp. wo.!	flesh	7	P.	*289
417	NEOTTIA.	LADY'S TRACES.					
	1 spiralis	sweet	Mea. pas.	white	8,9	P.	*541
	2 gemmipara ..	proliferous	Ir. coast	white	7	P.	.....
418	LISTERA.	TWAY-BLADE.					
	1 ovata	common	Gro. Mea.	green	6	P.	*1548
	2 cordata	heart-leaved	M. hea.	green	7	P.	*358
	3 Nidus avis ..	bird's nest	Chal. wo.	brown	5,6	P.	*48

CLASS XX. GYNANDRIA.

ORDER 1. MONANDRIA.

SPECIFIC CHARACTER.

414. HERMINIUM. *Hort. Kew.*OPHRYS, *Eng. Bot.*

- 1 L. radical two, lanceolate.

415. OPHRYS.

- 1 Lip 4-lobed, elongated, rather downy; disk polished: pet. linear: column obtuse.
- 2 Lip inflated, villous, 5-cleft; terminal segment awl-shaped, recurved: cal. coloured: column with a hooked point.
- 3 Lip longer than the calyx, dilated, tumid, 5-lobed; lobes inflexed; terminal one flattened: cal. coloured: column with a hooked point: pet. deltoid, downy.
- 4 Lip the length of the calyx, tumid, hairy, rounded, 4-lobed: lobes reflexed: column acute, incurved: cells of the anther near together: pet. linear, smooth.
- 5 Lip longer than the calyx, obovate, hairy, undivided, with a spreading wavy margin: column bluntly pointed, incurved: pet. roughish, ovate at the base.

416. GOODYERA. *Hort. Kew.*SATYRIUM, *Eng. Bot.*

- 1 L. ovate: spike spiral: point of the nectary elongated, deflexed.

417. NEOTTIA. *Swartz.*

- 1 L. ovate, petioled: spike spiral, 1-rowed: lip ovate, entire: bract. downy, tumid. *Ophrys. Eng. Bot.*
- 2 L. lanceolate, as high as the stalk: spike 3-ranked, spiral: bract. smooth.

418. LISTERA. *Hort. Kew.*OPHRYS, *Eng. Bot.*

- 1 L. elliptical, opposite: nect. with 2 linear-oblong, nearly parallel lobes: column with a posterior hood.
- 2 L. heart-shaped, opposite: nect. 4-lobed.
- 3 Stem with scaly sheaths, without leaves: lip bifid; lobes spreading.

CLASS XX. GYNANDRIA.

ORDER I. MONANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
419	EPIPACTIS.	HELLEBORINE					
	1 latifolia	broad-leaved	M. woods	pur-ish	7,8	P.	*269
	2 purpurata....	purple-leaved	Sha. pl.!	pur-ish	6	P.	.....
	3 palustris	marsh	Marshes	pur-ish	7,8	P.	*270
	4 grandiflora ..	white	Chal.wds.	white	6	P.	*271
	5 ensifolia	narrow-leaved....	M. woods!	white	5,6	P.	*494
	6 rubra	purple.....	M. woods!	purple	6	P.	*437
420	MALAXIS.	TENDER-TWAY-BLADE					
	1 paludosa	marsh	Tur. bogs	yellow	7	P.	72
	2 Loeselii	lily-leaved	San. mar.	yellow	7	P.	*47
421	CORALLORRIZA.	CORAL-ROOT.					
	1 innata	spurless	Sc. wo.!	gre-ish	5-7	P.	*1547

ORDER II. DIANDRIA.

422	CYPRIPEDIUM	LADIES'-SLIPPER.					
	1 Calceolus....	common	Woods!	purple	6	P.	1

ORDER III. HEXANDRIA.

423	ARISTOLOCHIA.	BIRTH-WORT.					
	1 Clematitis ..	common	Woods	yellow	7,8	P.	398

CLASS XX. GYNANDRIA.

ORDER I. MONANDRIA.

SPECIFIC CHARACTER.

419. EPIPACTIS. *Hort. Kew.*

- 1 L. ovate, embracing the stem : Fl. drooping : lip very entire, acuminate, shorter than the calyx. *Serapias, Eng. Bot.*
- 2 L. ovate-lanceolate: bract. linear, twice as long as the flowers : lip shorter than the calyx : germen downy.
- 3 L. lanceolate, embracing the stem : Fl. drooping : lip crenate, obtuse, equal to the petals, with a notched protuberance on the disk. *Serapias, Eng. Bot.*
- 4 L. elliptic-lanceolate : bract. longer than the germen : Fl. sessile, erect : lip obtuse, scarcely equal to the calyx : with elevated lines on the disk. *Serapias, Eng. Bot.*
- 5 L. lanceolate: bract. much shorter than the germen : Fl. sessile, erect : lip obtuse, half as long as the calyx ; with elevated lines on the disk. *Serapias, Eng. Bot.*
- 6 L. lanceolate : bract. longer than the germen : Fl. sessile, erect : lip acute, marked with elevated undulating lines. *Serapias, Eng. Bot.*

420. MALAXIS.

- 1 Stem 5-sided: L. about 4, spatulate, rough at the apex: Fl. reversed: lip concave, acute, entire, erect, half the length of the calyx.
- 2 Stem 3-sided: L. 2, ovate-lanceolate: lip obovate, recurved, channelled, undivided, longer than the calyx. *Ophrys, Eng. Bot.*

421. CORALLORHIZA. *Haller.**Ophrys, Eng. Bot.*

- 1 Neet. spur short, not distinct from the slightly 3-lobed lip: root copiously branched.

ORDER II. DIANDRIA.

422. CYPRIPEDIUM. *Orchideæ. Juss.*

- 1 Stem leafy: lobe of the column elliptical, blunt, channelled: lip compressed, shorter than the flat petals.

ORDER III. HEXANDRIA.

423. ARISTOLOCHIA. *Aristolochiæ. Juss.*

- 1 L. cordate: stem erect: Fl. axillary, crowded, erect: cal. unilateral.

CLASS XXI.

MONOECIA.

ORDER I. MONANDRIA.

- 424 EUPHORBIA. . . *Involucrum* with numerous *barren fl.* and one *fertile*.
Bar. fl. Cal. 0. Cor. 0.
Fert. fl. Cal. 0. Cor. 0. Caps. 3-lobed. Styles 3.
cloven.[✶]
- 425 ZANNICHELLIA. *Invol.* 0. Bar. fl. Cal. 0. Cor. 0.
Fert. fl. Cal. 1-leaved. Cor. 0. Germ. 4, or
more. Seeds 4, stalked. Stig. peltate.
Callitriche. Chara? Zostera? Typha minor.

ORDER II. DIANDRIA

Carex.

ORDER III. TRIANDRIA.

- 427 SPARGANIUM. . Bar. fl. Cal. 3-leaved. Cor. 0.
Fert. fl. Cal. 3-leaved. Cor. 0. *Drupe* juice-
less, 1-seeded.
- 428 CAREX. Bar. fl. *Catkin* imbricated. Cal. glume 1-valved.
Cor. 0.
Fert. fl. *Catkin* imbricated. Cal. glume 1-valved.
Cor. a hollow permanent glume, investing the
loose seed.
- 429 KOBRESIA. *Catkin* with opposite scales imbricated in two rows.
Bar. fl. Cal. inner scale. Cor. 0.
Fert. fl. Cal. outer scale. Cor. 0. Stig. 3.
Seed 1, naked.
- 426 TYPHA. Bar. fl. *Catkin* hairy. Cal. 0. Cor. 0. *Anth.*
about 3, on each filament.
Fert. fl. *Catkin* hairy. Seed 1 on a hairy stalk.
Amaranthus.

- 30 LITTORELLA... Bar. fl. *Cal.* 4-leaved. *Cor.* 4-cleft. *Stam.* capillary, very long.
 Fert. fl. *Cal.* 0. *Cor.* unequally 3-4-cleft. *Style* very long. *Nut.* 1-celled.
- 33 URTICA..... Bar. fl. *Cal.* 4-leaved. *Cor.* 0. *Nect.* central, cup-shaped. *Stam.* length of the calyx.
 Fert. fl. *Cal.* 2-leaved. *Cor.* 0. *Seed* 1, superior, polished.
- 32 BUXUS..... Bar. fl. *Cal.* 3-leaved. *Pet.* 2. Rudiment of a *germen*.
 Fert. fl. *Cal.* 4-leaved. *Pet.* 3. *Styles* 3. *Caps.* 3-beaked, 3-celled. *Seeds* 2.
- 31 ALNUS..... Bar. fl. *Cal.* scale of a catkin, permanent, 3-flow. *Cor.* 4-parted.
 Fert. fl. *Cal.* scale of a catkin, permanent, 2-flow. *Cor.* 0. *Styles* 2. *Seeds* compressed, without wings.
Eriocaulon. Myrica.

ORDER V. PENTANDRIA.

- 34 XANTHIUM. . . Bar. fl. *Cal.* common imbricated; many-flow. with intermediate scales. *Cor.* monopetalous, funnel-shaped, 5-cleft.
 Fert. fl. *Cal.* 2-leaved, 2-flowered. *Cor.* 0. *Drupe* spurious, muricated, bifid. *Nut.* 2-celled.
- 35 AMARANTHUS. Bar. fl. *Cal.* 3 or 5-leaved. *Cor.* 0. *Stam.* 3 or 5.
 Fert. fl. *Cal.* 3 or 5-leaved. *Cor.* 0. *Styles* 2-3. *Caps.* 1-celled, splitting all round. *Seed* 1.
- 36 BRYONIA. . . . Bar. fl. *Cal.* 5-toothed. *Cor.* 5-cleft. *Filam.* 3. *Anth.* 5.
 Fert. fl. *Cal.* 5-toothed. *Cor.* 5-cleft. *Style* 3-cleft. *Berry* inferior. *Seeds* few.
Fagus. Quercus. Atriplex.

ORDER VI. HEXANDRIA.

- 37 ERIOCAULON... Common *cal.* imbricated, many-flow.
 Bar. fl. in the middle. *Cor.* 4-6-parted. *Stam.* 3-4-6.
 Fert. fl. in the circumference. *Pet.* 4-6. *Style* 1.
Caps. superior, 2-3-lobed. *Seeds* solitary.
Rumex. Quercus.

CLASS XXI. MONOECIA. ORDER VII. POLYANDRIA.

- 439 MYRIOPHYLLUM. Bar. fl. *Cal.* 4-leaved. *Pet.* 4. *Stam.* 8.
Fert. fl. *Cal.* 4-leaved. *Pet.* 4. *Stig.* 4, sessile.
Seeds 4.
- 442 POTERIUM Bar. fl. *Cal.* 3-leaved. *Cor.* 4-parted. *Stam.* 30 to 50.
Fert. fl. *Cal.* 3-leaved. *Cor.* 4-parted. *Pist.* 1-2.
Nut. 1-2-celled, corticated.
- 440 SAGITTARIA. . . Bar. fl. *Cal.* 3-leaved. *Pet.* 3. *Stam.* about 24.
Fert. fl. *Cal.* 3-leaved. *Pet.* 3. *Pist.* numerous.
Seeds numerous, bordered.
- 438 CERATOPHYLLUM. Bar. fl. *Cal.* many-parted. *Cor.* 0. *Stam.* 16-20.
Fert. fl. *Cal.* many-parted. *Cor.* 0. *Stig.* almost
sessile. *Drupe* compressed.
- 444 FAGUS. Bar. fl. in a *catkin*. *Cal.* in several segments. *Cor.*
0. *Stam.* 5-20.
Fert. fl. *Cal.* double; outer inferior, prickly, 2-3-
flow. inner superior, 5-6-cleft. *Cor.* 0. *Styles*
5-6. *Nuts* 2-3. invested with the outer calyx.
- 443 QUERCUS. . . . Bar. fl. in a *catkin*. *Cal.* in several segments. *Cor.* 0.
Stam. 8. or more.
Fert. fl. *Cal.* double; outer inferior, scaly, undi-
vided; inner superior, 6-cleft. *Cor.* 0. *Style* 1.
Nut solitary, invested, at its base, with the outer
calyx.
- 447 CORYLUS. . . . Bar. fl. in a *catkin*. *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 coriaceous outer calyx.
- 446 CARPINUS. . . . Bar. fl. in a *catkin*. *Cal.* a roundish scale. *Cor.* 0.
Stam. 10 or more.
Fert. fl. *Cal.* double; outer inferior, of several de-
ciduous scales; inner superior, 3-cleft. *Cor.* 0.
Styles 2. *Nut* ovate, angular, naked.
- 445 BETULA Bar. fl. in a *catkin*. *Cal.* a ternate scale. *Cor.* 0.
Stam. 10-12.
Fert. fl. in a *catkin*. *Cal.* a peltate scale, 3-cleft,
3-flow. *Cor.* 0. *Styles* 2. *Nut* winged, deciduous.
- 441 ARUM. Common *cal.* a sheathing leaf, enclosing a common
stalk, naked above. *Cor.* 0.
Bar. fl. *Stam.* numerous, in a dense ring, sur-
mounted by another ring of abortive filaments.
Fert. fl. *Germ.* numerous, in a dense ring, below the
stamens. *Styles* 0. *Stig.* downy. *Berry* with
several seeds.

CLASS XXI. MONOECIA. ORDER VIII. MONADELPHIA.

#48 PINUS. Bar. fl. in a *catkin*, naked. Stam. numerous, on a common stalk.

Fert. fl. in a *catkin* of close, rigid 2-lipped, 2-flow. scales.

Seeds 2. to each scale, winged.

Typha?

CLASS XXI. MONOECIA.

ORDER I. MONANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
EUPHORBIA.	SPURGE.					
* 1 Peplis	purple	Sea coa.	purple	7-9	A.	2002
** 2 Peplus	petty	Cul. gr.	yell-ish	7,8	A.	959
3 exigua	dwarf	Corn fi.	tawny	7	A.	1336
*** 4 Lathyris	caper	Dry st.pl!	purple	5,6	B.	2255
**** 5 Portlandica ..	Portland	Sea sh.	yellow	8	P.	441
6 paralia	sea	Sea sh.	yellow	8,9	P.	195
7 helioscopia ..	sun	Corn fi.	yellow	8,9	A.	883
8 stricta	warty	Corn fi.!	yellow	7,8	A.	*333
***** 9 Esula	leafy-branched ..	Sha. wds.!	tawny	7	P.	1399
10 Cyparissias ..	Cypress	Gro Thick	yellow	6,7	P.	840
11 Hiberna	Irish	Wds. Fi.	pur-ish	6	P.	1337
12 amygdaloides .	wood	Wds. Gro	yellow	3,4	P.	256
13 Characias....	red shrubby	Bus. M. pl	purple	3,4	S.	442
425 ZANNICHELLIA.	HORNED-POND-WEED.					
I palustris	common	Stag. wa.	.....	7	A.	1844

CLASS XXI. MONOECIA.

ORDER I. MONANDRIA.

SPECIFIC CHARACTER.

424. EUPHORBIA. *Euphorbiaceæ*. JUSS.* *Dichotomous*.

- 1 L. entire, semi-cordate: involucre solitary, axillary: stems procumbent: caps. smooth.

** *Umbels trifid*.

- 2 Umb. trifid: dichotomous: bract. ovate: L. very entire, obovate, petioled: nect. lunate: seeds dotted.
 3 Umb. trifid: dichotomous: bract. lanceolate: L. linear: nect. horned: seeds wrinkled.

*** *Umbels quadrifid*.

- 4 Umb. 4-cleft, dichot: L. opposite, 4-ranked, sessile, entire, cordate at the base.

**** *Umbels 5-cleft*.

- 5 Umb. 5-cleft: dichot: bract. nearly cordate, concave: L. linear-obovate, acute, smooth, spreading: nect. 4: caps. rough-angled.
 6 Umb. mostly 5-cleft, bifid: bract. cordate-reniform: L. concave, imbricated upwards: nect. 5: caps. nearly smooth.
 7 Umb. 5-cleft, trifid, dichot: bract. and L. obovate serrated: nect. 4. undivided: caps. smooth.
 8 Umb. 4 or 5-cleft, trifid dichot: L. lanceolate, serrated: nect. 4. rounded, entire: caps. warty: seeds smooth.

***** *Umbel of 6 or more branches*.

- 9 Bract. nearly cordate: L. uniform: nect. rhomboid, with 2 horns: caps. smooth.
 10 Bract. somewhat cordate: L. of the stem, lanceolate: of the lateral branches, linear: nect. lunate: caps. nearly smooth.
 11 Bract. ovate: L. obtuse: stem simple: nect. reniform, pointless: caps. warty, erect.
 12 Many axillary stalks beneath the umbels: bract. rounded, perfoliate: L. obtuse, hairy: caps. smooth.
 13 Many axillary crowded stalks beneath the umbels: bract. pointed, perfoliate: L. lanceolate, downy: caps. hairy.

425. ZANNICHELLIA. *Fluviales*. VINT.

- 1 Anth. 4-celled: stig. entire.

CLASS XXI. MONOECIA.

ORDER III. TRIANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
426	TYPHA.	REED-MACE.					
	1 latifolia	great	Ditches .....	.....	7	P.	1455
	2 angustifolia ..	lesser	Pools! .....	.....	6,7	P.	1456
	3 minor	dwarf	Marshes! .....	.....	7	P.	1457
427	SPARGANIUM.	BUR-REED.					
	1 ramosum	branched	Ditches .....	.....	7,8	P.	744
	2 simplex	unbranched	Stag. wa. ....	.....	7,8	P.	745
	3 natans	floating	Fens ..	.....	7	P.	273
428	CAREX.	SEDGE.					
	*						
	1 dioica	separate headed ..	Sp. bogs .....	.....	5,6	P.	543
	2 Davalliana ..	prickly ditto	Marshes! .....	.....	5,6	P.	2123
	3 pulicaris	flea	Marshes .....	.....	6	P.	1051
	4 pauciflora	few-flowered	Bo. on M. ! .....	.....	6	P.	2041
	**						
	5 stellulata	little prickly	Marshes .....	.....	5,6	P.	806
	6 curta	white	Pools ..	.....	6	P.	1386
	7 elongata	elongated	Marshes .....	.....	6	P.	1920
	8 ovalis	oval spiked	Marshes .....	.....	6	P.	306
	9 tenella	slender-headed ..	Mo. sh. pl! .....	.....	.....	.....	.....

CLASS XXI. MONOECIA.

ORDER III. TRIANDRIA.

SPECIFIC CHARACTER.

426. TYPHA. *Typhaceæ*. Juss.

- 1 L. somewhat convex beneath: catkin continuous: recept. hoary.
- 2 L. semicylindrical-flattish, equal with the culm: bar. and fert. catkins a little distant: recept. scaly.
- 3 L. linear, convex beneath: catkins a little distant; barren one leafy; fertile short and turgid; often interrupted: anth. nearly solitary: recept. naked.

427. SPARGANIUM. *Typhaceæ*. Juss.

- 1 L. 3-sided at the base, their sides concave: common peduncle branched: stigma linear.
- 2 L. 3-sided at the base, their sides flat: common pedunc. simple: stig. linear.
- 3 L. floating, flat; concave at the base: common pedunc. simple: stig. ovate, very short: ball of bar. fl. mostly solitary.

428. CAREX. *Cyperaceæ*. Juss.

* *Catkin single, simple.*

- 1 Catkin diœcious: fruit ovate, nerved, ascending, serrulated at the margin: root creeping.
- 2 Catkin diœcious: fruit lanceolate-triangular, nerved, deflexed; angles scabrous at the apex: root tufted.
- 3 Catkin androg; the barren fl. uppermost: fruit spreading, reflexed, polished, tapering at both ends: stig. 2.
- 4 Catkin androg: few flow. the barren fl. uppermost: fruit spreading, deflexed, awl-shaped: stigmas 3.

** *Spike compound, androgynous.*

- 5 Spikelets about 3, remote: bar. fl. inferior, fruit divaricated, acuminate, entire at the mouth.
- 6 Spikelets about 6, elliptical, rather remote, scarcely bracteated: glumes ovate, rather acute, membranous; about as long as the ovate, tumid, smooth fruit.
- 7 Spikelets numerous, oblong, rather distant, naked: fruit ovate-oblong, tapering, bifid, recurved, many ribbed, longer than the glumes.
- 8 Spikelets about 6, oval, approximate, alternate; with a bract. under the lowermost: Fr. lanceolate, rough-edged, striated, nearly entire; length of the scales.
- 9 Spikelets 3, bracteated, distant, minute, about 3-flow: Fr. elliptical, convex at each side: smooth, with a blunt, entire beak: stam. 2.

CLASS XXI. MONOECIA.

ORDER III. TRIANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
CAREX.	SEDGE.					
10 remota	remote	Mo. sh. pl.		5,6	P.	832
11 axillaris	axillary clustered .	Bogs !		5,6	P.	993
12 incurva	curved	San. sh. !		7,8	P.	927
13 arenaria	sea	San. sh.		6	P.	928
14 intermedia	soft brown	Marshes		5,6	P.	2042
15 divisa	bracteated marsh .	Salt mar.		5,6	P.	1096
16 muricata	greater prickly . .	Moi. pas.		5,6	P.	1097
17 divulsa	grey	Mo. sh. pl.		5	P.	629
18 vulpina	great spiked	Wat. pl.		5	P.	307
19 teretiuscula	lesser panicled . .	Bogs		5	P.	1065
20 paniculata	great panicled	Bogs		6	P.	1064

21 digitata	fingered	Woods !		5	P.	615
22 clandestina	dwarf silvery	Sun. roc.		5	P.	2124

23 pendula	great pendulous . .	Mot. wds.		5-7	P.	2315

SPECIFIC CHARACTER.

CAREX.

- 10 Spikelets solitary, remote, almost sessile: bract. very long, surmounting the culm: Fr. ovate, with a slightly eloven beak.
- 11 Spikelets several, remote, sessile: bract. elongated: Fr. ovate; its beak deeply cloven.
- 12 Spikelets heaped into a head; the lower ones fertile: bract. membranous: culm roundish, smooth: L. channelled.
- 13 Spikelets crowded, spiked; upper ones chiefly of barren, lower of fertile florets: bract. membranous; the lower ones leafy: culm triangular: L. flat: Fr. winged.
- 14 Spikelets crowded into a common spike; lower and upper ones fertile; the intermediate barren: culm triangular, erect.
- 15 Spike once or twice compound: spikelet all androg: fertile florets inferior, the most numerous: bract. leafy, erect: fruit appressed: root creeping.
- 16 Spike oblong, prickly: Fr. divaricated, rough-edged, pointed, eloven: root fibrous.
- 17 Spike elongated, often branching at the base; lower spikelet remote: Fr. erect, smooth-edged, roughish at the eloven point of the beak: root fibrous.
- 18 Spike thrice compound, compact, obtuse: Fr. divaricated, with a notched, rough-edged beak: glumes pointed, angles of the culm compressed, very sharp.
- 19 Spike twice or thrice compound, compact: Fr. spreading, gibbous; with a tapering, serrated beak: culm triangular, with convex interstices.
- 20 Spike thrice compound, branched, panicled, acute, interrupted: Fr. spreading, with an abrupt serrated beak: culm sharply triangular, with flat interstices.

*** *Bar. and fert. fl. in separate catkins: bar. catkin solitary: bract. membranous. Stig. 3.*

- 21 Bract. scarcely leafy, sheathing: spikes linear, lax, erect; barren one shorter: fertile 2-3: L. flat.
- 22 Bract. scarcely leafy, sheathing: fertile catkins remote, few flow, inclosed in the sheath: L. channelled.

*** *Bar. and fert. flör. in separate catkins: 1 barren catkin, rarely 2. Bract. leaf-like, and generally sheathing.*

- 23 Sheaths nearly equal to the pedunc: fertile spikes cylind. very long, nodding: Fr. greatly crowded, ovate, beaked.

CLASS XXI. MONOECIA.

ORDER III. TRIANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany
CAREX.	SEDGE.					
24 strigosa	loose pendulous ..	Gro. thick	.....	4,5	P.	994
25 sylvatica	pendulous wood ..	Woods	.....	5,6	P.	995
26 depauperata ..	starved wood	Woods!	.....	5,6	P.	1098
27 Mielichoferi ..	loose spiked rock..	Alp. roc.	.....	8	P.	2293
28 speirostachya .	dense-short-spiked.	Sc. mars.	.....	7,8	P.	.....
29 phœostachya .	short brown-spiked	Highl. roc	.....	6	P.	.....
30 capillaris	capillary.....	Sc. mount.	.....	7,8	P.	2069
31 rariflora	loose alpine	Sc. alps	.....	7	P.	2516
32 Pseudo-cyperus	bastard-cyperus ..	We. sh. pl	.....	6	P.	242
33 limosa	green and gold ..	Sp. bogs	.....	6,7	P.	2043
34 ustulata	scorched alpine ..	Alp. riv.	.....	7	P.	2404
35 atrata	black	Alp. n. ea.	.....	6,7	P.	2044
36 pulla	russet	Sc. mount.	.....	7	P.	2045
37 pallescens ..	pale.....	Moi. past.	.....	5,6	P.	2185
38 flava.....	yellow.....	Bogs ..	.....	5,6	P.	1294

SPECIFIC CHARACTER.

CAREX.

- 4 Sheaths nearly equal to the pedunc : spikes filiform, lax, a little nodding : Fr. lanceolate, triangular, ribbed.
- 5 Sheaths not half the length of the pedunc : spikes filiform, rather loose, nodding : Fr. ovate, triangular, beaked, without ribs.
- 6 Sheaths much shorter than the pedunc : fertile spikes remote, erect, few-flow : Fr. inflated, ribbed, with a notched beak.
- 7 Sheaths not half the length of the pedunc : fertile spikes 3, distant, erect, lax : Fr. triangular, tumid, rough-edged : its beak cloven, membranous at the summit.
- 8 Sheaths shorter than the pedunc : fertile spikes about 3, distant, ovate, dense, many-flow. erect : Fr. ovate, triangular, ribbed, smooth, with a deeply cloven beak, membranous at the orifice.
- 9 Sheaths shorter than the pedunc : fertile spikes 2, distant, ovate, erect : Fr. ovate, triangular, smooth, with a cloven beak : scales of the barren spikes acute ; of the fertile ones obtuse.
- 10 Common sheath much shorter than the pedunc : fertile spikes ovate, lax, drooping : Fr. triangular, pointed, ribless, membranous at the tip : root fibrous.
- 11 Sheaths scarcely any : fertile spikes few-flow. lax, drooping : Fr. obovate, bluntly triangular, slightly pointed, ribless : root creeping.
- 12 Sheaths scarcely any : fertile spikes cylind. pendulous, many-flow : Fr. spreading, furrowed, with a cloven beak.
- 13 Sheaths scarcely any : fertile spikes ovate, pendulous, many-flow : Fr. elliptical, compressed, ribbed, smooth-edged, without a beak : root creeping.
- 14 Sheaths scarcely any : fertile spikes ovate, pendulous : Fr. elliptical, smooth, compressed, beaked, with rough edges : root tufted, somewhat creeping.
- 15 Sheaths scarcely any : spikes ovate, peduncled, pendulous ; the terminal one with many barren flowers below : Fr. elliptical, smooth, with a notched beak : stam. 2-3.
- 16 Sheaths none : fertile spikes ovate ; the lower one peduncled : Fr. elliptical, inflated, with a short emarginate beak : stig. 2.
- 17 Sheaths very short : fertile spikes cylind. peduncled ; when in fruit, pendulous : Fr. obovate, triangular, tumid, obtuse, with a minute abrupt beak.
- 18 Sheaths nearly equal to the pedunc : fertile spikes roundish : Fr. triangular, beaked, curved downwards : culm smoothish.

CLASS XXI. MONOECIA.

ORDER III. TRIANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
CAREX.	SEDGE.					
39 Oederi	Oederian	Wet.com.	.....	7	P.	1773
40 fulva	tawny	Marshes	.....	6,7	P.	1295
41 extensa	long-bracteated ..	Sea coast	.....	6	P.	833
42 distans	loose	Marshes	.....	6	P.	1234
43 binervis	green ribbed	Dry hea.	.....	6	P.	1235
44 præcox	vernal	Dry past.	.....	4	P.	1099
45 pilulifera	round-headed	Heaths	.....	4,5	P.	885
46 tomentosa	downy-fruited	Mea! ..	.....	6	P.	2046
47 panicea	pink-leaved	Moi. past.	.....	5,6	P.	1505
48 recurva	glaucous leath ..	Heaths	.....	5,6	P.	{ 1506 2236
49 rigida	rigid	Mount.	.....	6,7	P.	2047
50 cæspitosa	tufted bog	Bogs ..	.....	5	P.	1507
51 stricta	glaucous straight- leaved	Marshes	.....	4	P.	914

SPECIFIC CHARACTER.

CAREX.

- Sheaths and pedunc. very short: fertile spikes roundish-ovate: Fr. globose, triangular, direct, smooth, with a straight, cloven beak: culm smooth.
- 2 Sheaths tubular, elongated, shorter than the pedunc: fertile spikes ovate: scales pointless: Fr. ovate, triangular, smooth, with a straight, cloven, rough-edged beak: culm rough.
- Sheaths and pedunc. very short: bract. long and spreading: fertile spikes elliptic-oblong, near together: scales somewhat awned: Fr. ovate, triangular, with a short, smooth, cloven beak: culm very smooth.
- 2 Sheaths tubular, elongated, nearly equal to the pedunc: fertile spikes elliptic-oblong, very remote: scales pointed: culm smooth.
- 3 Sheaths tubular, elongated, shorter than the pedunc: fertile spikes cylind. remote, partly compound, scales pointed: Fr. with 2 principal nerves.
- 4 Sheaths nearly equal to the pedunc: spikes ovate, approximate: scales of the fertile ones pointed: Fr. pear-shaped, downy, with an abrupt, entire point.
- 5 Sheaths 0: fertile spikes 2-3 sessile, crowded, roundish: scales pointed: Fr. triangular, roundish, downy, with a short, cloven beak.
- 5 Sheaths very short: fertile spikes 1-2, almost sessile, cylind. obtuse: scales acute: Fr. globose, slightly triangular, densely downy, with a short, cloven beak.
- 7 Sheaths elongated, about half the length of the pedunc: fertile spikes 1-2, rather lax, remote: Fr. tumid, smooth, cloven at the summit, culm smooth, obtusely triangular.
- 3 Sheaths short: fertile spikes 2-3, cylind. pendulous, on very long recurved stalks: Fr. elliptical, triangular, roughish, obtuse, emarginate.
- 9 Sheaths 0: fertile spikes ovate; the lowermost peduncled: bract. and L. lanceolate, recurved: Fr. triangular, somewhat compressed, with a short abrupt beak: stig. 2.
- 0 Sheaths 0: fertile spikes cylind. obtuse, erect, the lowermost rarely peduncled: L. and auricled bract. linear, erect: Fr. permanent, elliptical, flat, many-ribbed, with a short, abrupt beak: stig. 2.
- 1 Sheaths 0: fertile spikes nearly sessile, erect, cylind. elongated, acute: L. reticulated at the base: Fr. elliptical, flat, with a cloven beak; deciduous: stig. 2.

CLASS XXI. MONOECIA.

ORDER III. TRIANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
CAREX.	SEDGE.					

52 acuta	slender-spiked ..	Wat. pl. ....	.....	5	P.	580
53 paludosa	lesser common ..	Wat. pl. ....	.....	5	P.	807
54 riparia	great common....	Riv. ban. ....	.....	4,5	P.	579
55 lævigata	smooth stalk beak.	Bogs .. ....	.....	5	P.	1387
56 vesicaria	short-spik'd bladder	Marshes .....	.....	5	P.	779
57 ampullacea ..	slend. beaked blad.	Bogs .. ....	.....	5	P.	780
58 hirta	hairy	Wat. pl. ....	.....	5,6	P.	685
59 secalina	rye	Sc. valleys .....	.....	6,7?	P.	.....
60 stictocarpa ..	dotted	Sc. Highl. ....	.....	6,7?	P.	.....
61 angustifolia ..	narrow-leaved....	Sc. mar. ....	.....	6?	P.	.....
62 filiformis	slender-leaved....	Bogs! .. ....	.....	6	P.	904
429 KOBRESIA.	KOBRESIA.					
1 caricina	sedgy	M. alp. pl. ....	.....	8	P.	*1410

ORDER IV. TETRANDRIA.

430 LITTORELLA.	SHORE-WEED.					
1 lacustris	plantain	Wet. sa. p.	white	6	P.	468

CLASS XXI. MONOECIA.

ORDER III. TRIANDRIA.

SPECIFIC CHARACTER.

CAREX.

***** *Bar. and fert. flor. in separate spikes. Barren spikes 2 or more.*

- 2 Spikes filiform: drooping in flower; erect, in fruit: Fr. elliptical, obtuse, with an undivided beak: stig. 2.
- 3 Spikes cylind. rather blunt, erect; fertile ones with taper-pointed scales: Fr. ovate, triangular, compressed, emarginate.
- 4 Spikes erect: scales acuminate: Fr. ovate, tumid, with a deeply cloven beak.
- 5 Spikes cylind; fertile ones peduncled: scales acuminate: sheaths very long: Fr. triangular, with a cloven beak.
- 6 Fertile spikes cylind. short, abrupt, on short stalks: scales lanceolate, acute: sheaths 0: Fr. ovate, inflated, with an elongated, cloven beak.
- 7 Fertile spikes cylind. elongated, almost sessile: scales lanceolate, acute: sheaths 0: Fr. globose, inflated, with a linear, cloven beak.
- 8 Herbage hairy: fertile spikes ovate, cylind. remote: scales awned: sheaths nearly equal to the pedunc: Fr. hairy, tumid, with a deeply cloven beak: culm rough-edged.
- 9 Fertile spikes ovate-cylind. the lower one very remote: scales acute: sheaths as long as the pedunc: Fr. ovate, compressed, rough-edged, concave at the inner side; with an elongated, linear, cloven beak: culm smooth.
- 10 Fertile spikes 2, ovate, peduncled: scales pointed: sheaths scarcely any: Fr. obovate, obtuse, pointless, finely dotted.
- 11 Fertile spikes 1-2, ovate, peduncled: scales obtuse: sheaths 0: Fr. ovate, smooth, compressed, with a short, abrupt beak: L. linear, channelled.
- 12 Fertile spikes ovate: scales pointed: sheaths nearly equal to the pedunc: Fr. ovate, hairy, with a deeply cloven beak: L. linear, channelled, smooth.

429. KOBRESIA. Willd. *Cyperaceæ*. Juss.

- 1 Spikes aggregate, crowded, alternate. *Schænus monoicus*. Eng. Bot.

ORDER IV. TETRANDRIA.

430. LITTORELLA. *Plantagineæ*. Juss.

- 1 L. linear.

CLASS XXI. MONOECIA.

ORDER IV. TETRANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
431	ALNUS.	ALDER.					
	1 glutinosus ..	common	Wat. pl.	.....	3	T.	*1508
432	BUXUS.	BOX.					
	1 sempervirens .	common	Chal. hil.	yellow	4	S.	1341
433	URTICA.	NETTLE.					
	1 pilulifera	Roman	Rubbish	.....	6,7	A.	148
	2 urens	small	Cult. gr.	.....	6-10	A.	1236
	3 dioica	great	Was gr.	.....	7,8	P.	1750

ORDER V. PENTANDRIA.

434	XANTHIUM.	BUR-WEED.					
	1 strumarium ..	small	Dunghill!	green	8,9	A.	2544
435	AMARANTHUS.	AMARANTH.					
	1 Blitum	wild	Dunghill!	.....	8	A.	2212
436	BRYONIA.	BRYONY.					
	1 dioica	red-berried	Hedges	white	5-9	P.	439

ORDER VI. HEXANDRIA.

437	ERIOCAULON.	PIPEWORT.					
	1 septangulare..	jointed	Ir. coa.	white	8	P.	733

CLASS XXI. MONOECIA. ORDER IV. TETRANDRIA.

SPECIFIC CHARACTER.

431. ALNUS. *Amentaceæ*. JUSS.

- 1 L. roundish, somewhat wedge-shaped, waved, serrated, glutinous, downy at the branching of the veins beneath. *Betula Alnus*. Eng. Bot.

432. BUXUS. *Euphorbiaceæ*. JUSS.

- 1 L. ovate, convex, with footstalks downy at the edges: anth. ovate-arrow-shaped.

433. URTICA. *Urticææ*. JUSS.

- 1 L. opposite, ovate, serrated, with transverse ribs: fertile flowers in globular heads.
 2 L. opposite, elliptical, about 5-nerved: clusters nearly simple.
 3 L. opposite, heart-shaped: clustered in pairs, very much branched, mostly diœcious: roots creeping.

ORDER V. PENTANDRIA.

434. XANTHIUM. *Compositæ*. JUSS.

- 1 Stem thornless: L. heart-shaped, 3-nerved at the base.

435. AMARANTHUS. *Amaranthaceæ*. JUSS.

- 1 Fl. in small lateral tufts, 3-cleft, triandrous: L. ovate: stem diffuse.

436. BRYONIA. *Cucurbitaceæ*. JUSS.

- 1 L. palmate, rough on both sides with callous points: Fl. diœcious.

ORDER VI. HEXANDRIA.

437. ERIOCAULON. *Restiaceæ*. R. BR.

- 1 Flor. 4-cleft: caps. 4-celled: stem with about 7 angles, many times taller than the channelled, taper-pointed leaves: Fl. convex: outer calyx-scales empty, rounded, smooth.

CLASS XXI. MONOECIA. ORDER VII. POLYANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
438	CERATOPHYLLUM. HORNWORT.						
	1 demersum ..	common	Ditches	.....	8,9	P.	947
	2 submersum ..	unarmed	Ditches !	.....	9	P.	679
439	MYRIOPHYLLUM. WATER-MILFOIL.						
	1 spicatum	spiked	Ditches	reddish	7,8	P.	83
	2 verticillatum ..	whorled	Ponds ..	green	7	P.	218
440	SAGITTARIA. ARROW-HEAD.						
	1 sagittifolia ..	common	Rivers ..	white	7,8	P.	84
441	ARUM. CUCKOW-PINT						
	1 maculatum ..	common	Shady pl.	.....	5	P.	1298
442	POTERIUM. GARDEN-BURNET.						
	1 Sanguisorba ..	common	Chal. hil.	green	7	P.	860
443	QUERCUS. OAK.						
	1 Robur	common British ..	Woods	.....	4	T.	1342
	2 sessiliflora ..	sessile fruited	Woods	.....	4,5	T.	1845
444	FAGUS. BEECH AND CHESNUT.						
	1 Castanea	Chesnut	Woods	.....	5	T.	886
	2 sylvatica	common beech ..	Chal. wds	.....	4,5	T.	1846
445	BETULA. BIRCH.						
	1 alba	common	M. woods	.....	4,5	T.	2198
	2 nana	dwarf	Sc. mount.	.....	5	S.	2326
446	CARPINUS. HORN-BEAM.						
	1 Betulus	common	Woods	.....	5	T.	2032

CLASS XXI. MONOECIA. ORDER VII. POLYANDRIA.

SPECIFIC CHARACTER.

438. CERATOPHYLLUM. *Ceratophylleæ*. DE C.

- 1 Fruit 3-spined : calyx-segments notched at the extremity.
- 2 Fruit spineless : calyx-segments acute, entire.

439. MYRIOPHYLLUM. *Haloragææ*. R. BR.

- 1 Fl. in whorled, interrupted, leafless spikes.
- 2 Fl. all axillary.

440. SAGITTARIA. *Alismaceæ*. JUSS.

- 1 L. arrow-shaped, acute.

441. ARUM. *Aroideæ*. JUSS.

- 1 Stemless : L. halberd-shaped, very entire : common stalk of the flowers, club-shaped, obtuse.

442. POTERIUM. *Rosaceæ*. JUSS.

- 1 Thornless : stem somewhat angular.

443. QUERCUS. *Cupuliferæ*. RICH.

- 1 L. deciduous, oblong, broadest towards the end ; their sinuses rather acute ; angles obtuse : pedunc. of the fruit elongated.
- 2 L. petioled, deciduous, oblong ; their sinuses opposite, and rather acute : fruit sessile.

444. FAGUS. *Cupuliferæ*. RICH.

- 1 L. lanceolate, sharply serrated, smooth beneath : prickles of the outer calyx compound, and entangled : stig. 6.
- 2 L. ovate, obtusely serrated : prickles of the outer calyx simple : stig. 3.

445. BETULA. *Amentaceæ*. JUSS.

- 1 L. ovate, acute, somewhat deltoid, unequally serrated, smoothish.
- 2 L. orbicular, crenate, reticulated beneath.

446. CARPINUS. *Cupuliferæ*. RICH.

- 1 Bract. of the fruit flat, oblong, serrated, with two lateral lobes : L. ovate, pointed, doubly serrated.

CLASS XXI. MONOECIA. ORDER VII. POLYANDRIA.

447

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
CORYLUS.	HASEL.					
1 Avellana	common	Woods	.....	3,4	T.	723

ORDER VIII. MONADELPHIA.

448

PINUS.	FIR.					
1 sylvestris	Scotch	Scot. alp. ....	.....	5	T	2460

CLASS XXI. MONOECIA. ORDER VII. POLYANDRIA.

SPECIFIC CHARACTER.

447. CORYLUS. *Cupulifera*. RICH.

- 1 Stip. ovate, obtuse: L. roundish, heart-shaped, pointed: young branches hairy: cal. shorter than the neet.

ORDER VIII. MONADELPHIA.

448. PINUS. *Conifera*. JUSS.

- 1 L. in pairs, rigid: cones when young stalked, recurved: crest of the anth. very small.

CLASS XXII.

DIOECIA.

ORDER I. MONANDRIA.

Several *salices*.

ORDER II. DIANDRIA.

- 449 *SALIX*.....Barren Plant, *Catkin* imbricated. *Cal.* a scale.
Cor. 0. *Nectary* 1 or more glands at the base of
the stamina. *Stam.* 1 to 5.
Fertile plant, *Catkin* imbricated. *Cal.* and *Nect.*
as in the barren flowers. *Cor.* 0. *Stig.* 2. *Caps.*
superior, 1-celled, 2-valved. *Seeds* tufted.

ORDER III. TRIANDRIA.

- 450 *EMPETRUM*....Barren plant, *Cal.* 3-parted. *Pet.* 3. *Stam.* ea-
pillary, 3 to 9.
Fertile plant, *Cal.* 3-parted. *Pet.* 3. *Stig.* 9.
Berry superior, 9-seeded.
451 *RUSEUS*.....Barren plant, *Cal.* 6-leaved. *Cor.* 0. *Nect.* ovate,
tubular, bearing the stamina within.
Fertile plant, *Cal.* *Cor.* and *Nect.* as in the bar-
ren flower. *Stam.* 0. *Style* 1. *Berry* superior,
3-celled. *Seeds* in pairs.

Valeriana dioica, and some *salices*.

ORDER IV. TETRANDRIA.

- 453 *HIPPOPHAE*....Barren plant, *Cal.* 2-parted. *Cor.* 0.
Fertile plant, *Cal.* tubular, 2-cleft. *Style* 1. *Berry*
superior, 1-seeded. *Seed* oblong, with a double
tunic.

CLASS XXII. DIOECIA.

ORDER IV. TETRANDRIA.

- 454 MYRICA Barren plant, *Cal.* scale of a catkin, concave. *Cor.* 0.
 Fertile plant, *Cal.* scale of a catkin, concave. *Cor.* 0.
Styles 2. *Berry* superior, 1-seeded.
- 452 VISCUM Barren plant, *Cal.* 0. *Pet.* 4. dilated and co-
 hering at their base, resembling a calyx. *Anth.*
 sessile, fixed to the petals.
 Fertile plant, *Cal.* submarginate. *Pet.* 4. dilated
 at the base. *Style* 0. *Berry* inferior, 1-seeded.
- Rhamnus* 1. *Euonymus* 1. *Urtica* 3.

ORDER V. PENTANDRIA.

- 455 HUMULUS Barren plant, *Cal.* 5-leaved. *Cor.* 3. *Anth.* with
 2 pores at the apex.
 Fertile plant, *Cal.* scale of a catkin, oblique, entire.
Cor. 0. *Styles* 2. *Seed* 1, coated, winged with
 the calyx.
- Ribes* 4. *Pimpinella* 3. *Bryonia* 1. *Salix* 5, 19.

ORDER VI. HEXANDRIA.

- 456 TAMUS Barren plant, *Cal.* 0. *Cor.* 6-parted.
 Fertile plant, *Cal.* 6. *Cor.* 6-parted. *Style* 3-cleft.
Berry inferior, 3-celled. *Seeds* 2 together.
- Rumex* 9, 10.

ORDER VII. OCTANDRIA

- 458 RHODIOLA Barren plant, *Cal.* 4-parted. *Pet.* 4. *Nect.* 4.
 notched.
 Fertile plant, *Cal.* *Pet.* and *Nect.* the same.
Pist. 1. *Caps.* 4. many-sceded.
- 457 POPULUS Barren plant, *Cal.* scale of a catkin, torn. *Cor.*
 turbinatc, oblique, entire.
 Fertile plant, *Cal.* and *Cor.* the same. *Stig.* 4-8.
Caps. superior, 1-celled, 2-valved. *Seeds* tufted.

ORDER VIII. ENNEANDRIA.

- 459 MERCURIALIS. Barren plant, *Cal.* 3-parted. *Cor.* 0. *Stam.* 9
 to 12. *Anth.* of 2 globosc cells.
 Fertile plant, *Cal.* and *Cor.* the same. *Styles* 2.
Caps. 2-lobed, 2-celled. *Seeds* solitary.

CLASS XXII. DIOECIA. ORDER VIII. ENNEANDRIA.

- 460 HYDROCHARIS. Barren plant, *Cal.* 3-cleft. *Pet.* 3. *Filam.* 3 of the interior beaked.
Fertile plant, *Cal.* and *Pet.* the same. *Styles* 6.
Caps. 6-celled, many-seeded, inferior.
Empetrum 1.

ORDER IX. DECANDRIA.

Silene 9. *Lychnis* 4.

ORDER X. ICOSANDRIA.

Rubus 14. *Fragaria* 2.

ORDER XI. POLYANDRIA.

Stratiotes 1. *Populus* 1, 3, 4.

ORDER XII. MONADELPHIA.

- 461 JUNIPERUS.... Barren plant, *Cal.* scales of a catkin. *Cor.* 0.
Stam. 3.
Fertile plant, *Cal.* scales of a catkin, fewer, finally pulpy, united into a *Berry* with 3 *Seeds*.
462 TAXUS Barren plant, *Cal.* 0. *Cor.* 0. *Stam.* numerous.
Anth. peltate, lobed.
Fertile plant, *Cal.* cup-shaped, very entire. *Cor.* 0.
Style 0. *Seed* 1, enclosed in the pulpy, unconnected calyx.
Salix 25, 26.

CLASS XXII. DIOECIA.

ORDER II. DIANDRIA.

449

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
SALIX.	WILLOW.					
*						
1 triandra	long-leaved	Hedges		5-8	T.	1435
2 Hoffmanniana.	short-leaved	Riv. side		5	S.	
3 lanceolata . .	sharp-leaved	Meadows		4,5	T.	4536
4 amygdalina . .	broad-leaved	Marshes		4,5	S.	1636
5 pentandra	sweet	Riv. ban.		5,6	T.	1805
6 nigricans	dark broad-leaved.	Fens Wds		4	S.	1213
7 phylicifolia . .	tea-leaved	Sc. High.		5	S.	1958
8 Borreriana . .	dark upright	Se. High.		5	S.	
9 nitens	shining-leaved . .	Se. mou.		4	S.	
10 Davalliana . .	Davallian	Sc. High.		5	S.	
11 Wulfeniana . .	Wulfenian	Se. valleys		4,5	S.	
12 tetrapla	four-ranked	Sc. High.		5	S.	
13 bicolor	shining dark-green	Woods		4,5	S.	1806
14 tenuifolia	thin-leaved	Riv. ban.		5,6	S.	2186

SPECIFIC CHARACTER.

449. SALIX. *Amentaceæ*. Juss.* *Adult leaves serrated, smoothish.*

- L. linear-oblong; rather unequally sloping at the base: *stam.* 3: germ. stalked, ovate, compressed, smooth: *stig.* nearly sessile.
- L. ovate-oblong; slightly rounded at the base: *stam.* 3: germ. stalked, ovate, compressed, smooth: *stig.* nearly sessile.
- 3. L. lanceolate, tapering towards each end: *petioles* decurrent: germ. stalked, ovate, smooth: *style* as long as the stigmas.
- 4. L. ovate, rounded and unequal at the base: *stam.* 3: germ. ovate, compressed, smooth; its stalk almost as long as the scale: *stig.* nearly sessile: young branches furrowed.
- 5. L. ovate, pointed, crenate, glandular: *petioles* glandular at the summit: *stam.* 5 or more, hairy at the base: germ. ovate, tapering, smooth, nearly sessile.
- 6. L. elliptic-lanceolate, acute, crenate, with a downy rib above; glaucous beneath: *stam.* 2, thrice the length of the hairy scales: germ. lanceolate, downy, on a short downy stalk.
- 7. L. elliptic-lanceolate, with wavy serratures; glaucous beneath: *stip.* glandular on the inner side: germ. lanceolate, stalked, silky: *style* twice the length of the stigmas: branches trailing.
- 8. L. lanceolate, with shallow, even serratures; glaucous beneath: *stip.* obsolete: branches upright: scales of the catkins acute, shaggy.
- 9. L. elliptical, acute, unequally serrated; glaucous beneath, minutely downy, with a downy midrib above: *stip.* obsolete: branches spreading: catkins nearly sessile, with acute, shaggy scales.
- 10. L. obovate-lanceolate, finely serrated, or minutely toothed, tapering at each end; rather glaucous beneath: *petioles* midrib, and young branches downy: catkins with small rounded scales: caps. lanceolate, smooth.
- 11. L. obovate, or elliptical, somewhat pointed, glaucous beneath: catkins dense, with hairy scales, longer than the stalks of the awl-shaped germen: *style* longer than the stigmas.
- 12. L. elliptic-oblong, pointed; glaucous, with prominent veins, beneath: *stip.* semi-cordate: scales shorter than the hairy stalks of the ovate-oblong, smooth germen: *style* as long as the stigmas.
- 13. L. elliptic-oblong, acute; glaucous beneath: *petioles* dilated at the base: *stip.* pointed, serrated: scales obtuse, hairy; half as long as the densely downy, ovate, long-stalked germen.
- 14. L. elliptical, acute, glaucous beneath: *stip.* small or none: scales hairy: caps. ovate, smooth, on a short, smooth stalk.

CLASS XXII. DIOECIA.

ORDER II. DIANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
SALIX.	WILLOW.					
15 malifolia	apple-leaved	Thickets	.....	4	S.	1617
16 petiolaris	dark long-leaved..	Marshes	.....	4	S.	1147
17 vitellina	yellow	Marshes	.....	5	T.	1389
18 decipiens	varnished	Woods	.....	5	T.	1937
19 fragilis	crack	Marshes	.....	4,5	T.	1807
20 Russelliana ..	Bedford	Wetwds.	.....	4,5	T.	1808
21 purpurea	bitter purple	Low mea.	.....	3	S.	1388
22 Helix	rose.....	Marshes	.....	3,4	T.	1343
23 Lambertiana .	Boyton	Wet mea.	.....	3,4	T.	1359
24 Forbiana	basket osier.....	Osier ho.	.....	4	S.	1344
25 rubra	green osier	Osier ho.!	.....	4,5	T.	1145
26 Croweana....	Crowe's	Wet mea.	.....	4,5	S.	1146
27 prunifolia	plum-leaved	Sc. High.	.....	4,5	S.	.....
28 vacciniifolia ..	bilberry-leaved ..	Sc. High.	.....	4	S.	.....
29 venulosa	veiny-leaved	Sc. High.	.....	4,5	S.	1362

SPECIFIC CHARACTER.

SALIX.

- 1 L. elliptic-oblong, toothed, waved, thin, and crackling: stip. cordate, about equal to the petioles: scales obovate, bearded: germ. lanceolate, smooth, on a short, smooth stalk.
- 2 L. lanceolate, glaucous beneath; somewhat unequal at the base: stip. lunate, toothed: catkins lax: scales hairy, shorter than the stalks of the ovate, silky germens: stig. divided, sessile.
- 3 L. lanceolate, acute, with cartilaginous serratures; glaucous, and somewhat silky beneath: stip. minute, lanceolate, deciduous, smooth: germ. sessile, ovate-lanceolate, smooth: scales linear-lanceolate, acute, fringed at the base, longer than the pistil.
- 4 L. lanceolate, pointed: floral ones partly obovate and recurved: petioles somewhat glandular: germ. tapering, stalked, smooth: style longer than the cloven stigmas: branches smooth, highly polished.
- 5 L. ovate-lanceolate, pointed: petioles glandular: germ. ovate, abrupt, nearly sessile, smooth: scales oblong, about equal to the stamens and pistils: stig. cloven, longer than the style.
- 6 L. lanceolate, tapering at each end: petioles glandular, or leafy: germ. tapering, stalked, longer than the scales: style as long as the stigmas.
- 7 Decumbent: L. partly opposite; obovate-lanceolate; narrow at the base: stam. 1: stig. short, ovate, nearly sessile.
- 8 Erect: L. partly opposite, oblong-lanceolate, pointed: linear towards the base: stam. 1: style nearly as long as the linear divided stigmas.
- 9 Erect: L. partly opposite: obovate-lanceolate, pointed, rounded at the base: stip. 0: stam. 1: stig. ovate, obtuse, notched, short, nearly sessile.
- 10 Erect: L. alternate, with small stipulæ, lanceolate-oblong, rounded at the base; glaucous beneath: stam. 1: style nearly as long as the linear divided stigmas.
- 11 L. linear-lanceolate, elongated, acute; green on both sides: stam. combined below: stig. ovate, undivided.
- 12 L. elliptical, glaucous beneath: stam. combined below.
- 13 L. broadly ovate, glaucous beneath: stem much branched: caps. ovate, shaggy, like the scales, with silky hairs.
- 14 Decumbent: L. lanceolate-ovate, glaucous and silky beneath: caps. ovate, silky.
- 15 Erect: L. ovate; reticulated with prominent veins above; glaucous beneath: caps. ovate, silky.

CLASS XXII. DIOECIA.

ORDER II. DIANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
SALIX.	WILLOW.					
30 myrsinites....	green whortle-leav.	Sc. High.	.....	5,6	S.	1360
31 Dicksoniana..	broad leaved moun- tain	Sc. High.	.....	4	S.	1390
32 carinata	keeled-leaved	Sc. High.	.....	4	S.	1363
33 Arbuscula ..	little tree.....	Sc. High.	.....	4	S.	1366
34 livida	livid dwarf	Sc. Low.!	.....	.....	S.	.....
35 herbacea	least	Mount.	.....	6	S.	1907
**						
36 reticulata	wrinkled	Mount.	.....	6	S.	1908

37 glauca	glaucous.....	Sc. High.	.....	5	S.	1810
38 Stuartiana ..	small-leav. shaggy	Sc. High.	.....	7,8	S.	2586
39 arenaria	downy mountain..	Sc. moun.	.....	5,6	S.	1809
40 lanata	woolly broad-leav.	Sc. High.	.....	.....	S.	.....
41 argentea	silky sand	Sea sh.	.....	5	S.	1364
42 foetida	fishy	Moi. lea.	.....	5	S.	1962
43 repens	common dwarf ..	San. lea.	.....	5	S.	183

SPECIFIC CHARACTER.

SALIX.

Young branches hairy: L. elliptical, veiny, polished on both sides: germ. stalked, downy: caps. awl-shaped.

L. elliptical, acute, slightly toothed, glaucous beneath: catkins ovate, short, erect: germ. stalked, ovate, silky: stig. nearly sessile.

L. ovate, finely toothed, minutely veined, folded into a keel: catkins cylind. with rounded, hairy scales: germ. sessile, ovate, silky.

Branches downy: L. lanceolate, acute, obscurely toothed, glaucous beneath, silky when young: catkins ovate, erect: germ. stalked, ovate-lanceolate, silky.

L. elliptic-oblong, obscurely toothed, livid beneath: stip. 0: germ. nearly cylind. downy; its stalk twice as long as the scale: stig. nearly sessile.

L. orbicular, reticulated with veins, shining on both sides: germ. stalked, ovate-lanceolate, smooth.

*** Adult leaves entire, nearly smooth.*

L. orbicular, somewhat elliptical, obtuse, coriaceous, with reticulated veins; glaucous beneath: germ. sessile, downy.

**** Leaves all shaggy, woolly, or silky.*

L. nearly entire, elliptic-lanceolate; woolly and snow-white beneath: petioles decurrent: germ. sessile, ovate, woolly.

L. nearly entire, ovate-lanceolate, acute; shaggy above, densely silky, somewhat cottony, beneath: style as long as the almost sessile, woolly germen: stig. capillary, deeply divided, as long as the style.

L. nearly entire, ovate, acute; reticulated above; veiny and densely woolly beneath: style as long as the sessile, woolly germen: stig. linear, divided, the length of the style.

L. roundish-ovate, pointed, entire; shaggy on both sides; glaucous beneath: germ. sessile, oblong, smooth: style 4 times as long as the blunt, divided stig.

Erect: L. elliptical, entire, somewhat revolute, with a recurved point: silky and shining beneath, as well as the branches: germ. ovate-lanceolate, its stalk silky: style not longer than the stigmas.

Recumbent: L. elliptical, nearly entire, with a recurved point; glaucous and silky beneath: germ. ovate-lanceolate, on a silky stalk.

Stem depressed, with short upright branches: L. elliptic-lanceolate, straight, somewhat pointed, nearly entire; glaucous and silky beneath: stip. 0: germ. stalked, ovate, downy: caps. smooth.

CLASS XXII. DIOECIA.

ORDER II. DIANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the flower.	Time of Flowering.	Duration.	Figure in English Botany.
SALIX.	WILLOW.					
44 fusca	brownish dwarf ..	Nor. hea.	.....	5	S.	1960
45 prostrata	early prostrate....	Heaths	.....	3,4	S.	1959
46 incubacea	trailing silky	San. mea.	.....	5	S.	.....
47 Doniana	rusty-branched ..	Scotland	.....	5	S.	.....
48 rosmarinifolia .	rosemary-leaved ..	Moi. san.	.....	4	S.	1365
49 cinerea	grey sallow	Moi. wds.	.....	4	T.	1897
50 aurita	trailing sallow ..	Moi. wds.	.....	4,5	S.	1487
51 aquatica	water sallow	Swamps	.....	4	T.	1437
52 oleifolia	olive-leaved	Hedges	.....	3	T.	1402
53 cotinifolia....	quince-leaved	Woods	.....	4	S.	1403
54 hirta	hairy-branched ..	Hedges	.....	4,5	T.	1404
55 rupestris	silky rock	Sc. rocks	.....	5	S.	2342
56 Andersoniana.	green mountain ..	Nor. wds.	.....	4,5	S.	2343

CLASS XXII. DIOECIA.

ORDER II. DIANDRIA.

SPECIFIC CHARACTER.

SALIX.

- 4 Erect, much branched: L. elliptic-oblong, acute, flat, with a few glandular teeth; glaucous and silky beneath: stip. 0: germ. sessile, nearly smooth, tapering into an elongated style.
- 5 Prostrate, with long straight branches: L. elliptic-oblong, convex, toothed, with a curved point, glaucous, silky, and veiny beneath: stip. 0: germ. stalked, ovate, silky: style shorter than the stig.
- 6 Recumbent: L. elliptic-lanceolate, pointed, nearly entire; convex above, with prominent reticulated veins; glaucous and silky beneath: catkins ovate-oblong: germ. silky, on long stalks: caps. smooth.
- 7 Erect: L. obovate-lanceolate, partly opposite, acute: livid and silky beneath: catkins cylind. germ. stalked, silky, longer than the bearded scales.
- 8 Erect: L. linear-lanceolate, acute, straight, entire; silky beneath: catkins ovate, recurved: germ. stalked, lanceolate, silky.
- 9 Erect: L. lower entire; upper serrated, obovate-lanceolate; glaucous downy, and reticulated with veins beneath: stip. half-shaped, serrated: germ. silky; its stalk half as long as the lanceolate scales.
- 0 Branches trailing: L. obovate, obtuse, with a small hooked point; convex, somewhat serrated; hairy and reticulated on both sides: stip. roundish, convex, toothed: germ. silky, stalked: stig. nearly sessile.
- 1 Erect: L. obovate, slightly serrated, flat, minutely downy, rather glaucous beneath: stip. rounded, toothed: germ. silky, stalked: stig. nearly sessile.
- 2 Erect; branches spreading: L. obovate-lanceolate, flat, acute, rather rigid, minutely toothed; glaucous, reticulated, and hairy beneath: stip. small, notched, rounded: catkins oval.
- 3 Erect; branches spreading, downy: L. roundish, slightly toothed; glaucous and downy, with rectangular veins, beneath: style as long as the linear, notched stigmas.
- 4 Erect; branches hairy: L. elliptic-cordate, pointed, crenate; downy on both sides: stip. semi-cordate, flat, toothed, nearly smooth.
- 5 Trailing; branches downy: L. obovate, acute, flat, serrated; silky on both sides: stip. hairy: germ. stalked, awl-shaped, silky: style as long as the blunt undivided stigmas.
- 6 Upright; branches downy: L. elliptical, acute, finely notched, rather downy; paler beneath: stip. half ovate, nearly smooth: germ. smooth, stalked: style cloven, longer than the cloven stigmas.

CLASS XXII. DIOECIA.

ORDER II. DIANDRIA.

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
SALIX.	WILLOW.					
57 Forsteriana ..	glaucous mountain	Sc. wds.	.....	5	T.	2344
58 sphacelata ..	withered-pointed..	Sc. High.	.....	4,5	T.	1233
59 caprea	great round-leaved	Dry wds.	.....	4	T.	1488
60 acuminata ..	long-leaved.....	Moi. wds.	.....	4	T.	1434
61 viminalis	common osier	Wet mea.	.....	4	T.	1898
62 Smithiana ..	silky osier	Meadows	.....	4,5	S.	1509
63 stipularis	auricled osier	Hedges	.....	3	S.	1214
64 alba	common willow ..	Moi. pl.	.....	5,7	T.	2430

ORDER III. TRIANDRIA.

450	EMPETRUM.	CRAKEBERRY.				
	1 nigrum	black	M. hea.	reddish	5	S. 526
451	RUSCUS.	BUTCHER'S BROOM.				
	1 aculeatus	common	Bush. hc.	purple	3,4	P. 560

CLASS XXII. DIOECIA.

ORDER II. DIANDRIA.

SPECIFIC CHARACTER.

SALIX.

- 7 Erect; branches downy: L. obovate, acute, crenate, downy; glaucous beneath: stip. vaulted: germ. stalked, awl-shaped, silky: style as long as the blunt, notched stigmas.
- 8 Erect: L. elliptic-obovate, veiny; downy on both sides; discoloured at the point: stip. semi-cordate, toothed, erect: germ. stalked, ovate-lanceolate, silky: stig. notched, longer than the style.
- 9 Erect: L. roundish-ovate, pointed, serrated, waved; pale and downy beneath: stip. lunate, catkins oval: germ. stalked, ovate, silky: stig. nearly sessile, undivided: caps. swelling.
- 10 Erect: L. lanceolate-oblong, pointed, wavy, finely-toothed; glaucous and downy beneath: stip. half ovate, then reniform: catkins cylind: germ. stalked, ovate, hairy: style as long as the undivided stigmas.
- 11 Branches straight and slender: L. linear-lanceolate, taper-pointed, entire, wavy; white and silky beneath: germ sessile: style as long as the linear undivided stigmas.
- 12 L. lanceolate, pointed, wavy, toothed; soft above; whitish and silky beneath: stip. lunate, minute: catkins ovate: germ stalked: style shorter than the linear, cloven stigmas.
- 13 L. lanceolate, pointed, wavy, obscurely crenate; soft above; white and downy beneath: stip. large, stalked, semi-cordate: neet. cylind: germ. ovate, nearly sessile, as well as the linear undivided stigmas.
- 14 L. elliptic-lanceolate, pointed, serrated; silky on both sides: the lower serratures glandular: stam. hairy: germ. smooth, nearly sessile: stig. deeply cloven: scales rounded.

ORDER III. TRIANDRIA.

450. EMPETRUM. *Empetrea*. NUTT.

- 11 Stem and branches procumbent: L. slightly elliptical.

451. RUSCUS. *Smilacea*. R. BR.

- 1 L. ovate, with a sharp horny point, flowering on the upper side, without a leaflet.

CLASS XXII. DIOECIA.

ORDER IV. TETRANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
452	VISCUM.	MISSELTOE.					
	1 album	common	On Trees	gre-ish	5	S.	1470
453	HIPPOPHAE.	SALLOW-THORN.					
	1 rhamnoides ..	common	Sea coast	green	5	S.	425
454	MYRICA.	GALE.					
	1 Gale	sweet	Sp. bogs	.....	5	S.	562

ORDER V. PENTANDRIA.

455	HUMULUS.	HOP.					
	1 Lupulus	common	Hedges	yellow	7	P.	427

ORDER VI. HEXANDRIA.

456	TAMUS.	BLACK-BRYONY.					
	1 communis ..	common	Hedges	gre-ish	6	P.	91

ORDER VII. OCTANDRIA.

457	POPULUS.	POPLAR.					
	1 alba	abele, or white ..	Moi. wo.		3	T.	1618
	2 canescens	grey	Wat. pl.		3	T.	1619
	3 tremula	aspen, or trembling	Moi. wo.		3,4	T.	1909
	4 nigra	black	Wat. pl.		3	T.	1910
458	RHODIOLA.	ROSE-ROOT.					
	1 rosea	common	Alp. rock	yellow	5,6	P.	508

CLASS XXII. DIOECIA.

ORDER IV. TETRANDRIA.

SPECIFIC CHARACTER.

452. VISCUM. *Loranthææ*. Juss.

- 1 L. obovate-lanceolate, obtuse: stem dichotomous, with sessile intermediate heads of about 5 flowers.

453. HIPPOPHAE. *Elæagnææ*. Juss.

- 1 L. linear-lanceolate, scattered.

454. MYRICA. *Amentaceæ*. Juss.

- 1 L. lanceolate, slightly serrated; tapering and entire at the base: scales of the catkins pointed.

ORDER V. PENTANDRIA.

455. HUMULUS. *Urticææ*. Juss.

- 1 L. cordate, serrated; undivided or 3-lobed.

ORDER VI. HEXANDRIA.

456. TAMUS. *Smilacææ*. R. Br.

- 1 L. heart-shaped, undivided, acute.

ORDER VII. OCTANDRIA.

457. POPULUS. *Amentaceæ*. Juss.

- 1 L. somewhat heart-shaped, lobed, toothed, tomentous and snow-white beneath: fertile catkins ovate: stig. 4.
 2 L. roundish, deeply waved, toothed, tomentous and hoary beneath: fertile catkins cylind: stig. 8.
 3 L. nearly orbicular, toothed, smooth on both sides: petioles compressed: young branches hairy: stig. 4. erect, auricled at the base.
 4 L. deltoid, pointed, serrated, smooth on both sides: catkins eyvind. lax: stig. 4, simple, spreading.

458. RHODIOLA. *Crassulacææ*. DE C.

- 1 L. obovate, pointed, fleshy, glaucous.

CLASS XXII. DIOECIA. ORDER VIII. ENNEANDRIA.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or situation.	Colour of the flower.	Time of Flowering.	Duration.	Figure in English Botany.
459	MERCURIALIS.	MERCURY.					
	1 perennis	perennial.....	Woods	green	4,5	P.	1872
	2 annua	annual	Rubbish	green	7-9	A.	559
460	HYDROCHARIS.	FROG-BIT.					
	1 Morsus ranæ .	common	Ditches	white	7	P.	808
ORDER IX. MONADELPHIA.							
461	JUNIPERUS.	JUNIPER.					
	1 communis....	common	Heaths	.....	5	S.	1100
	2 nana.....	dwarf alpine	Mount.	.....	5	S.	.....
462	TAXUS.	YEW.					
	1 baccata.....	common	M. woods	.....	3,4	T.	746

CLASS XXII. DIOECIA. ORDER VIII. ENNEANDRIA.

SPECIFIC CHARACTER.

459. MERCURIALIS. *Euphorbiaceæ*. Juss.

- 1 Stem quite simple: L. rough: root creeping.
- 2 Stem cross-branching: L. smooth: bar. fl. spiked: root fibrous.

460. HYDROCHARIS. *Hydrocharideæ*. Juss.

- 1 L. entire, kidney-shaped.

ORDER IX. MONADELPHIA.

461. JUNIPERUS. *Conifera*. Juss.

- 1 L. 3-together, spreading, tipped with a spine, longer than the berry: stem erect.
- 2 L. 3-together, tipped with a spine; somewhat imbricated, curved; the length of the oval, ripe fruit: stem recumbent.

462. TAXUS. *Conifera*. Juss.

- 1 L. approximate. 2-ranked, linear, flat: recept. of the barren flowers globular.

CLASS XXIII.

POLYGAMIA.

ORDER I. MONOECIA.

- 53 ATRIPLEX. Androgynous fl. *Cal.* 5-parted, inferior. *Cor.* 0.
Stam. 5. *Style* cloven. *Seed* 1, depressed.
Fertile fl. *Cal.* 2-leaved, inferior. *Cor.* 0. *Style*
cloven. *Seed* 1, compressed.

CLASS XXIII. POLYGAMIA.

ORDER I. MONOECIA.

463

LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Colour of the Flower.	Time of Flowering.	Duration.	Figure in English Botany.
ATRIPLEX.	ORACHE.					
1 portulacoides .	shrubby	Mud. sh.	.....	7,8	S.	261
2 laciniata	frosted sea	San. sh.	.....	7	A.	165
3 patula	spreading	Dunghill	.....	6-8	A.	936
4 angustifolia ..	narrow-leaved	Rubbish	.....	6,8	A.	1774
5 erecta	upright	Fields !	.....	8	A.	2223
6 littoralis	grass-leaved	Mud. sh.	.....	8,9	A.	708
7 pedunculata ..	stalked sea	Salt mar.!	.....	8-9	P.	232

CLASS XXIII. POLYGAMIA.

ORDER I. MONOECIA.

SPECIFIC CHARACTER.

463. ATRIPLEX. *Chenopodea*. DE C.

- 1 Stem shrubby: L. opposite, obovate-lanceolate: Fl. mostly monoecious.
- 2 Stem herbaceous, spreading: L. deltoid, angular and toothed, scaly beneath.
- 3 Stem herbaceous, spreading: L. deltoid-lanceolate, somewhat halbert-shaped: calyx of the seeds more or less muricated on the disk.
- 4 Stem herbaceous, spreading: L. lanceolate, entire: lowermost somewhat hastate: calyx of the seeds hastate, slightly warty at the sides.
- 5 Stem herbaceous, erect: L. ovate-lanceolate; lower ones sinuated: calyx of the seed muricated on every side.
- 6 Stem herbaceous, erect: L. all linear, entire, toothed, or sinuated: calyx of the seed muricated, sinuated.
- 7 Stem herbaceous, flexuose, divaricating: L. obovate, entire: fertile fl. peduncled, wedge-shaped.

CLASS XXIV.

CRYPTOGAMIA.

ORDER 1. FILICES. *Ferns.*

Frond with either dorsal, terminal, axillary, or radical fructification.

* *Capsules aggregate, on the back of a leafy frond, bivalve, each bound with an elastic ring, contrary to the valves.*

- 464 POLYPODIUM. *Caps. in roundish, scattered masses. Cover none.*
- 465 ASPIDIUM. *Caps. in roundish, scattered masses. Cover nearly orbicular, fixed by the centre, separating all round.*
- 466 CYSTEA. *Caps. in roundish, scattered masses. Cover orbicular, concave, fixed by a lateral point underneath; finally reflexed and jagged.*
- 472 WOODSIA. *Caps. in roundish, scattered masses. Cover roundish, fixed by a central stalk under each mass. The margin in numerous, deep, capillary, incurved segments.*
- 467 ASPLENIUM. *Caps. in linear, scattered masses. Cover linear, separating at the side towards a midrib or vein.*
- 468 SCOLOPENDRIUM. *Caps. in nearly linear, twin, scattered masses, between 2 parallel veins. Covers 2, linear, opposite, folding one over the other.*
- 469 BLECHNUM. *Caps. in linear, solitary masses, close to the midrib. Cover linear, flat, bursting towards the rib.*
- 470 PTERIS. *Caps. in linear masses, near the margin. Cover from the inflexed margin of the frond; wavy, continuous, bursting inwards.*
- 471 ADIANTUM. *Caps. on the back of each rounded, reflexed, marginal, distinct cover, in small, roundish, central masses.*
- 473 TRICHOMANES. *Caps. in oblong masses, imbedded in the margin of the frond. Cover pitcher-shaped, 1-leafed, opening outwards.*
- 474 HYMENOPHYLLUM. *Caps. in roundish masses, imbedded in the margin of the frond. Cover marginal, 2-valved, compressed, opening outwards.*
- ** *Capsules, or seeds, without any distinct elastic ring.*
- 479 EQUISETUM. *Catkins terminal. Seeds separately embraced by 4 spiral filaments, presumed to bear pollen.*
- 477 OPHIOGLOSSUM. *Spike 2-ranked. Caps. 2-valved, imbedded.*
- 475 OSMUNDA. *Cluster branched. Caps. globular, stalked, 2-valved, naked, with a striated protuberance.*
- 476 BOTRYCHIUM. *Common stalk compound. Caps. globular, naked, simple, sessile, 2-valved.*

CLASS XXIV. CRYPTOGRAMIA.

ORDER 1. FILICES.

- 78 LYCOPodium. *Caps.* axillary, solitary, compressed, 2-valved.
- 480 PILULARIA. *Common receptacle* 4-celled, concealing many barren and fertile *florets*. *Seeds* coated.
- 481 ISOETES. *Common receptacle* 1-celled, in the base of the *frond*. *Seeds* rough.
-

CLASS XXIV. CRYPTOGRAMIA.

ORDER 1. FILICES.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
464	POLYPODIUM.	POLYPODY.				
	1 vulgare.....	common	Sha. banks, &c.	5-10	P.	1149
	2 Phlegopteris	pale mountain....	Mountains ..	6,7	P.	2224
	3 Dryopteris	three-branched ..	Shady hills ..	7	P.	616
	4 calcareum	rigid	Calca. rocks	7	P.	1525
465	ASPIDIUM.	SHIELD-FERN.				
	1 Lonchitis	rough alpine	Alp. rocks ..	5,6	P.	*797
	2 Thelypteris	marsh	Marshes! ..	7	P.	*1018
	3 Oreopteris	heath	Heaths	7	P.	*1019
	4 Filix mas	male	Shady places	6,7	P.	1458
	5 cristatum	lesser-crested	Boggy hea...	7,8	P.	2125
	6 aculeatum	common prickly ..	Shady places	6	P.	1562
	7 angulare	angular-leaved ..	Shady places	7	P.	.....
	8 lobatum	close-leaved	Shady places!	6	P.	1563
	9 spinulosum	crested	Marshes! ..	6,7	P.	1460
	10 dilatatum	great-crested	Wet shady pl.	6-8	P.	1461
	11 dumetorum	thicket.....	Bushy places	7	P.	.....

SPECIFIC CHARACTER.

464. POLYPODIUM.

- 1 Frond deeply pinnatifid; lobes oblong, somewhat serrated, obtuse : root scaly.
- 2 Frond pinnate; leaf. lanceolate, pointed, pinnatifid, united at their base; the lower pair reflexed: ribs and veins hairy. *Sori* marginate.
- 3 Frond 3-branched, bipinnate, spreading-reflexed; lobes obtuse, somewhat crenate: root filiform: scattered, distinct.
- 4 Frond 3-branched, bipinnate, erect, somewhat rigid; lobes obtuse, slightly crenate. *Sori* confluent.

465. ASPIDIUM.

- 1 Frond linear-lanceolate, pinnate; leaf. somewhat lunate, bristly serrated, bent downwards: stalks scaly. *Polypodium. Eng. Bot.*
- 2 Frond pinnate; leaf. pinnatifid, somewhat crenate, smooth, with ovate lobes. *Sori* globular, finally confluent: cover central, lax: root trailing. *Polypodium. Eng. Bot.*
- 3 Frond pinnate; leaf. pinnatifid, entire, with resinous glands beneath. *Sori* nearly marginal, finally confluent: root tufted. *Polypodium. Eng. Bot.*
- 4 Frond bipinnate; leaf. obtuse serrated: stalk scaly. *Sori* near the midrib: cover orbicular.
- 5 Frond pinnate; leaf. pinnatifid, acute; lobes ovate, blunt, crenate, sharply toothed: stalk scaly at the base. *Sori* half way between the midrib and margin: cover orbicular.
- 6 Frond bipinnate; leaf. ovate, somewhat lunate, fringed with spines; hairy beneath: common stalk scaly: cover orbicular, flat.
- 7 Frond bipinnate; leaf. ovate, obtuse, stalked, fringed with bristly serratures; and having a lateral lobe at the base: lowermost partly pinnatifid: stalk scaly: ribs shaggy: cover orbicular, umbilicated.
- 8 Frond bipinnate; leaf. elliptical, decurrent, slightly lunate, serrated; lower pair very large: stalk scaly: cover orbicular, umbilicated.
- 9 Frond triangular, bipinnate; leaf. elliptical, decurrent, pinnatifid, tipped with small spines: stalks scaly at the base: ribs zig-zag: cover orbicular, with a lateral notch.
- 0 Frond bipinnate; leaf. pinnatifid, deeply serrated, tipped with small spines: stalk scaly: cover reniform, tumid: finally orbicular, with a lateral notch.
- 1 Frond bipinnate; leaf. pinnatifid; lobes with sharp, terminal, prickly teeth: stalk scaly: cover orbicular, flat, with a deep notch.

CLASS XXIV. CRYPTOGRAMIA.

ORDER 1. FILICES.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
	ASPIDIUM.	SHIELD-FERN.				
	12 <i>Felix fœmina</i> ..	female	Wet shady pl.	6,7	P.	1459
	13 <i>irriguum</i>	brook	Wet shady pl.	6,7	P.	2199
466	CYSTEA.	BLADDER-FERN.				
	1 <i>fragilis</i>	brittle	Shady rocks	6,7	P.	*1587
	2 <i>dentata</i>	toothed	Alpine rocks	7	P.	*1588
	3 <i>augustata</i>	mountain	Shady rocks	6,7	P.	.....
	4 <i>regia</i>	laciniated	Walls & rocks!	6	P.	*163
467	ASPLENIUM.	SPLEEN WORT.				
	1 <i>Trichomanes</i> ..	com. maiden hair.	Shady rocks	3, 11	P.	576
	2 <i>viride</i>	green maiden hair.	Alp. rocks ..	6,7	P.	2257
	3 <i>marinum</i>	sea	Marit. rocks	6-10	P.	392
	4 <i>septentrionale</i> ..	forked	Rocks	6-10	P.	1017
	5 <i>alternifolium</i> ..	alternate-leaved ..	Scotch rocks!	6-10	P.	2258
	6 <i>Ruta-muraria</i> ..	wall-rue	Shady rocks	6-10	P.	150
	7 <i>Adiantum nigrum</i>	black maiden hair.	Shady places	6-10	P.	1950
	8 <i>lanceolatum</i>	lanceolate	Rocks & walls	6-10	P.	240
	9 <i>fontanum</i>	smooth rock	Shady rocks!	6-9	P.	*2024
468	SCOLOPENDRIUM.	HART'S-TONGUE.				
	1 <i>vulgare</i>	common	Moi. sh. pl.	7	P.	1150
	2 <i>Ceterach</i>	scaly	Calc. rocks ..	3-12	P.	1244

CLASS XXIV. CRYPTOGRAMIA.

ORDER I. FILICES.

SPECIFIC CHARACTER.

ASPIDIUM.

- 2 Frond bipinnate; leaf. pinnatifid, serrated, pointless: stalk smooth; cover oblong, finally reniform, jagged.
- 3 Frond lanceolate, pinnate; leaf. deeply pinnatifid, cut, toothed: stalk quadrangular: cover oblong; finally reniform, jagged.

466. CYSTEA.

- 1 Frond oblong-lanceolate, bipinnate; leaf. ovate, acute, pinnatifid, cut, or serrated: midribs bordered. Sori crowded: cover irregularly torn. *Cyathea. Eng. Bot.*
- 2 Frond oblong-lanceolate, bipinnate; leaf. ovate, obtuse, bluntly toothed, partly pinnatifid: partial midribs bordered. Sori crowded, finally confluent. *Cyathea. Eng. Bot.*
- 3 Frond oblong, bipinnate: leaf. lanceolate, decurrent, wavy, or pinnatifid, with linear, acute, partly cloven segments. Sori scattered; permanently distinct.
- 4 Frond lanceolate, bipinnate; leaf. deeply pinnatifid, with oblong, blunt, partly notched segments: partial stalks winged. Sori many, scattered, permanently distinct. *Cyathea. Eng. Bot.*

467. ASPLENIUM.

- 1 Frond pinnate; leaf. roundish, crenate: midrib coloured, polished, keeled.
- 2 Frond pinnate; leaf. roundish, crenate: midrib flattened beneath.
- 3 Frond pinnate; leaf. ovate, oblique, serrated, blunt, unequal and wedge-shaped at the base.
- 4 Frond wing-3-cleft; segments alternate, linear, jagged at the tops.
- 5 Frond pinnate; leaf. alternate, wedge-shaped, erect, notched at the tops.
- 6 Frond alternately twice compound; leaf. rhomboid-wedge-shaped, spreading, notched at the tops.
- 7 Frond somewhat deltoid, alternately thrice pinnate; leaf. lanceolate, sharpish, deeply serrated.
- 8 Frond lanceolate, alternately twice pinnate; leaf. obovate, deeply and sharply serrate: principal midrib not bordered.
- 9 Frond linear-lanceolate, bipinnate: leaf. wedge-shaped, sharply toothed: midribs all bordered. *Adiantum. Eng. Bot.*

468. SCOLOPENDRIUM.

- 1 Frond oblong, smooth, cordate at the base: stalk shaggy.
- 2 Frond pinnatifid, lanceolate, scaly beneath.

CLASS XXIV. CRYPTOGRAMIA.

ORDER I. FILICES.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
469	BLECHNUM.	BLECHNUM.				
	1 boreale	northern	Heaths	7	P.	1159
470	PTERIS.	BRAKE.				
	1 aquilina	common	Hea. and wo.	7	P.	1679
	2 crispa	rock	Stony hills ..	7	P.	1160
471	ADIANTUM.	MAIDEN-HAIR.				
	1 Capillus Veneris	true	Rocks !	5,9	P.	1564
472	WOODSIA.	BRISTLE FERN.				
	1 ilvensis	oblong	Alpine rocks	7-9	P.	.....
	2 hyperborea	round-leaved	Alpine rocks !	6	P.	*2023
473	TRICHOMANES.	HAIR-FERN.				
	1 brevisetum.	short styled	Moist rocks !	5,6	P.	*1417
474	HYMENOPHYLLUM.	FILMY-FERN.				
	1 Tunbridgense ..	Tunbridge	Moist rocks ..	5,6	P.	162

475	OSMUNDA.	OSMUND ROYAL.				
	1 regalis	common	Boggy places	6,7	P.	209
476	BOTRYCHIUM.	MOONWORT.				
	1 Lunaria	common	Mount. pas..	6	P.	*318
477	OPHIOGLOSSUM.	ADDER'S-TONGUE.				
	1 vulgatum	common	Moist pas. ..	5	P.	108

CLASS XXIV. CRYPTOGRAMIA. ORDER 1. FILICES.

SPECIFIC CHARACTER.

469. BLECHNUM.

- 1 Frond pinnate, pectinate, smooth ; leaf. linear, bluntish, entire, scarcely dilated at the base.

470. PTERIS.

- 1 Frond thrice pinnate ; leaf. lanceolate, bluntish ; the lowermost pinnatifid ; the uppermost smaller ; term. ones large, undivided.
 2 Frond twice or thrice pinnate ; barren leaf. wedge-shaped, cut : fertile ones elliptical, blunt, convex.

471. ADIANTUM.

- 1 Frond alternately twice-compound ; leaf. stalked, wedge-shaped, lobed : covers transversely oblong.

472. WOODSIA.

Brown, Trans. Linn. Soc. vol. xi.

- 1 Leaf. oblong, pinnatifid, with oblong segments.
 2 Leaf. bluntly triangular, pinnatifid, with rounded segments. *Polypodium. Eng. Bot.*

473. TRICHOMANES.

- 1 Frond thrice pinnatifid, lobed, smooth ; segm. linear, entire : stalk winged : covers oblong. *Hymenophyllum. Eng. Bot.*

474. HYMENOPHYLLUM.

- 1 Frond bipinnatifid, smooth ; segments and covers serrated : fruct. solitary, from the upper edge of the lowermost of the secondary segments.

*** Capsules, or seeds, without any distinct elastic ring. Habit various.*

475. OSMUNDA.

- 1 Leaf. oblong, nearly entire ; dilated, and somewhat auricled at the base : clusters paniced, terminal.

476. BOTRYCHIUM.

- 1 Leaf solitary, pinnate : leaf. fan-shaped, notched. *Osmunda. Eng. Bot.*

477. OPHIOGLOSSUM.

- 1 Leaf ovate, veinless, about as tall as the spike.

CLASS XXIV. CRYPTOGRAMIA.

ORDER I. FILICES.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
478	LYCOPODIUM.	CLUB-MOSS.				
	1 clavatum	common	Heaths	7,8	P.	224
	2 Selaginoides....	prickly	Wet alp. hea.	8	P.	1148
	3 inundatum	marsh	Turfy bogs ..	6,7	P.	239
	4 Selago	fir	Wet alp. hea.	6-8	P.	233
	5 annotinum	interrupted	Alp. heaths..	6-8	P.	1727
	6 alpinum	savine-leaved	Alp. bogs ..	8	P.	234
479	EQUISETUM.	HORSE-TAIL.				
	1 sylvaticum	branched wood ..	Moist sha. pl.	4,5	P.	1874
	2 fluviatile	great water	Watery places	4	P.	2022
	3 arvense.....	corn	Moist fields	3,4	P.	2020
	4 palustre	marsh	Spongy bogs	6,7	P.	2021
	5 limosum	smooth naked	Watery places	6,7	P.	929
	6 hyemale	rough	Moist woods	7,8	P.	915
	7 variegatum	variegated	Scot.&Ireland	7-11	P.	1987
480	PILULARIA.	PILLWORT.				
	1 globulifera	creeping	Gravelly hea.	6,7	P.	521
481	ISOETES.	QUILLWORT.				
	1 lacustris	European	North. lakes	5,6	P.	1084

CLASS XXIV. CRYPTOGRAMIA. ORDER I. FILICES.

SPECIFIC CHARACTER.

478. LYCOPODIUM.

- 1 Stem creeping: branches ascending: L. scattered, incurved, with thready points: spikes 2-3 cylind. stalked; with dilated membranous scales.
- 2 Stems recumbent, branched; shorter than the solitary, ascending, tumid spikes: L. scattered, lanceolate, fringed; floral ones larger.
- 3 Stems depressed, creeping, slightly branched: L. scattered, linear-lanceolate, pointless, entire: spikes solitary: scales dilated at the base.
- 4 Stems erect, forked, level-topped: L. in 8 rows, uniform, lanceolate, pointless, entire, slightly spreading.
- 5 Stems recumbent at the base: branches erect; annually proliferous at the summit: L. scattered, in 5 rows, lanceolate, acute, slightly serrated; floral ones broader than long, imbricated.
- 6 Stems prostrate: branches erect, clustered, forked, level-topped: L. in 4 rows, acute, keeled: scales ovate-lanceolate, flat.

479. EQUISETUM.

- 1 Branches compound, curved downwards, smooth.
- 2 Barren stems branched on all sides; branches roughish, angular: flowering stems unbranched, with many crowded sheaths, deeply toothed.
- 3 Barren stems with angular, roughish branches: flowering stems unbranched; their sheaths distant; deeply toothed.
- 4 Stem furrowed, branched throughout, with a term. catkin: branches simple, erect, roughish, with simple angles.
- 5 Stem partly naked, striated, smooth as well as the branches: catkin term. elliptical.
- 6 Stem naked, very rough, somewhat branched at the base: sheaths whitish, black at the base and top: teeth deciduous: catkin term.
- 7 Stem naked, very rough, branched at the base: sheaths black, with white membranous, lanceolate teeth: catkin term.

480. PILULARIA.

- 1 Stem creeping: L. filiform.

481. ISOETES.

- 1 Fronds bluntly quadrangular, with 4 longitudinal cells.

CLASS XXIV. CRYPTOGRAMIA.

ORDER II. MUSCI.

The reproductive organs of the Mosses are of two kinds: the one, a capsule, with a lid, and a central axis, called the columella, to which the seeds are attached; the other, a minute spherical body concealed in the axils. Plants leafy.

TRIBE I. EVAGINULATI.

Caps. sessile; its recept. stalked; without perichætal leaves.

A. Peristome none.

482 SPHAGNUM. *Caps. sessile; mouth naked; lid deciduous.*

TRIBE II. VAGINULATI OLOCARPI.

Caps. stalked; with perichætal leaves; not valvular.

** Fruit-stalks terminal.*

483 PHASCUM. *Caps. entire. Recept. sessile. Lid persistent. Calyptra shorter than the capsule, dimidiate.*

484 SCHISTOSTEGA. *Caps. dehiscent, naked at the mouth. Lid lacinated, with deciduous segments.*

485 GYMNOSTOMUM. *Caps. dehiscent, naked at the mouth. Calyptra dimidiate.*

B. Peristome simple.

** Fruit-stalk terminal. Capsules dehiscent.*

486 HYMENOSTOMUM. *Peristome destitute of teeth, but having an inner horizontal membrane, perforated in the middle.*

487 TETRAPHIS. *Peristome of 4 erect teeth.*

488 ENCALYPTA. *Peristome of 16 teeth. Calyptra cylindrico-campanulate, entirely covering the capsule.*

489 GRIMMIA. *Peristome of 16 entire or perforated, rarely cleft teeth. Calyptra mitriform.*

- 490 WEISSIA. *Peristome* of 16 entire equi-distant teeth. *Calyptra* dimidiata.
- 491 DIERANUM. *Peristome* of 16 bifid equi-distant teeth. *Calyptra* dimidiata.
- 492 TRIENOSTOMUM. *Peristome* of 16 equal teeth divided to the base, or 32 in pairs. *Calyptra* mitriform.
- 493 CINCLIDOTUS. *Peristome* of 32 filiform twisted teeth, anastomosing at their base. *Calyptra* mitriform.
- 494 TORTULA. *Peristome* of 32 filiform twisted teeth, more or less united at the base. *Calyptra* dimidiata.
- 495 DIDYMODON. *Peristome* of 16 bifid equi-distant teeth. *Calyptra* dimidiata.
- 496 SPLACHNUM. *Peristome* of 8 double teeth. *Caps.* with an evident apophysis. *Columella* exerted, capitate. *Calyptra* mitriform.
- 497 CONOSTOMUM. *Peristome* of 16 teeth, united at the tips, but separated at the base.

** *Fruit-stalk lateral. Capsules dehiscent.*

- 498 PTEROGONIUM. *Peristome* of 16 entire equi-distant teeth. *Calyptra* dimidiata.

C. *Peristome double.*

* *Fruit-stalk terminal.*

- 499 ORTHOTRICHUM. *Peristome* mostly double; outer one of 16 teeth approaching in pairs; inner one (if any) of 8-16 ciliary processes. *Calyptra* mitriform. *Columella* capitate.
- 500 ZYGODON. *Peristome* double or simple: teeth in pairs. *Calyptra* hooded.
- 501 DIPHYSCIUM. *Peristome*, outer with 16 teeth: teeth obscure. *Caps.* subsessile.
- 502 BUXBAUMIA. *Stem* none. *Caps.* oblique, gibbous. *Peristome*—outer one of many filiform processes; inner one of a conical, plicate membrane. *Calyptra* mitriform.
- 503 FUNARIA. *Peristome* oblique, outer and inner ones each of 16 teeth; opposite to each other.
- 504 BARTRAMIA. *Caps.* subglobose. *Peristome*—outer one of 16 teeth; inner one a membrane cleft into 16 bifid segments. *Calyptra* dimidiata.
- 505 POHLIA. *Peristome*—teeth separate, acute; membrane with 16 processes, which are entire at the end without ciliae.
- 506 BRYUM. *Peristome*—outer of 16 teeth; inner one of a membrane cut into 16 equal segments, with filiform processes often placed between them. *Calyptra* dimidiata.

- 507 POLYTRICHUM. *Peristome*—outer one of 32 or 64 equi-distant incurved teeth; inner one of a dense horizontal membrane connected with the outer teeth. *Calyptra* dimidiate.
- ** *Fruit-stalk lateral. Caps. lateral.*
- 508 ANICTANGIUM. *Caps.* naked at the mouth. *Calyptra* mitriform.
- 509 FISSIDENS. *Peristome* simple; teeth bifid. *Calyptra* smooth.
- 510 LEUCODON. *Peristome* simple, with bifid processes.
- 511 FONTINALIS. *Peristome* double: outer one of 16 teeth; inner one of 16 ciliary processes formed by transverse bars into a reticulated cone. *Calyptra* mitriform.
- 512 ANOMODON. *Peristome* double: the first of 16 teeth; the second of 16 ciliary processes arising from the teeth. *Calyptra* dimidiate.
- 513 NECKERA. *Peristome* double: outer one of 16 teeth; inner one of 16 ciliary processes connected only at the base by a short membrane. *Calyptra* dimidiate.
- 514 DALTONIA. *Peristome* double: membrane figured, with 16 ciliary and reflexed teeth.
- 515 HOOKERIA. *Peristome* double: outer one of 16 teeth; inner one of a membrane cut into 16 entire segments. *Calyptra* mitriform.
- 516 LESKEA. *Peristome* double: membrane with 16 entire processes: teeth erect or reflexed. *Calyptra* hooded.
- 517 HYPNUM. *Peristome* double: outer one of 16 teeth; inner one of a membrane cut into 16 equal segments, often with filiform processes between them. *Calyptra* dimidiate.

TRIBE III. VAGINULATI SCHISTOCARPI.

Caps. stalked, with perichæatial leaves, valvular.

- 518 ANDREA. *Capsule* 4-valved: valves cohering at the apex, and adhering to the persistent lid.

CLASS XXIV. CRYPTOGRAMIA.

ORDER II. MUSCI.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
482	SPHAGNUM.	BOG-MOSS.				
	<i>l obtusifolium</i>	broad-leaved	Bogs	6	P.	*1405
483	PHASCUM.	EARTH-MOSS.				
	<i>l subulatum</i>	awl-leaved	Dry banks ..	3-5	A.	2177
484	SCHISTOSTEGA.	SCHISTOSTEGA				
	<i>l pennata</i>	feathery	Banks	3-5	....	*2219
485	GYMNOSTOMUM.	BEARDLESS-MOSS.				
	<i>l truncatulum</i>	truncate	Banks	1-12	....	1975
486	HYMENOSTOMUM.	HYMENOSTOMUM.				
	<i>l microstomum</i> ..	small-mouthed ..	Banks	3,4	A.	*2215
487	TETRAPHIS.	FOUR-TOOTHED-MOSS.				
	<i>l pellucida</i>	pellucid	Dry banks ..	1-12	A.	1020
488	ENCALYPTA.	EXTINGUISHER-MOSS.				
	<i>l vulgaris</i>	common	Wall-tops ..	1-12	A.	*558
489	GRIMMIA.	GRIMMIA.				
	<i>l pulvinata</i>	cushion	Housetops ..	1-12	P.	1728

SPECIFIC CHARACTER.

TRIBE I. EVAGINULATI.

482. SPHAGNUM.

Branches tumid: L. ovate, obtuse. *Sph. latifolium*. Eng. Bot.
For 3 other species, see Eng. Bot. 1406. 1498. 2392.

TRIBE II. VAGINULATI OLOCARPI.

483. PHASCUM.

L. awl-shaped, straight; their nerve disappearing below the point.
For 10 other species see Hooker's Musc. Brit. and Eng. Bot.

484. SCHISTOSTEGA.

Gymnostomum pennatum. Eng. Bot.

485. GYMNOSTOMUM.

L. ovate, pointed, flat, entire: lid obliquely rostrate.
For 13 other species, see Musc. Brit. and Eng. Bot.

486. HYMENOSTOMUM.

L. broadly subulate; margin involute; above flexuose, crisped when dry: caps. elliptical, contracted at the mouth; lid subulate, incurved. *Gymnostomum microstomum*. Eng. Bot.

487. TETRAPHIS.

1 Stems elongated: L. ovate-acuminate; those of the perichæcium lanceolate: caps. cylindrical.
For another species, see Eng. Bot. 1422.

488. ENCALYPTA.

1 Stems short: L. oblong, obtuse; their nerve produced a little beyond the summits: caps. cylind. smooth: calyptra entire at the base. *Bryum extincorium*. Eng. Bot.
For 3 other species, see Eng. Bot. Musc. Brit. and Grev. Cryp. Fl.

489. GRIMMIA.

1 Stems short, cushion-shaped: L. narrow elliptical; their margins recurved, hair-pointed: caps. ovate, striated, drooping: lid conical, acuminate.
For 6 other species, see Musc. Brit.

CLASS XXIV. CRYPTOGRAMIA.

ORDER II. MUSCI.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
490	WEISSIA.	WEISSIA.				
	I controversa	disputed	Banks	1-12	P.	*1367
491	DICRANUM.	FORK-MOSS.				
	I heteromallum ..	silky heath	Moist banks	3-5	A.	1272
492	TRICHOSTOMUM	TRICHOSTOMUM.				
	I canescens.....	hoary	Heaths	1-12	P.	2534
493	CINCLIDOTUS.	CINCLIDOTUS.				
	I fontinaloides....	water	Streams	5-8	P.	*557
494	TORTULA.	TORTULA.				
	I muralis.....	wall	Everywhere	1-12	P.	2033
495	PTEROGONIUM.	PTEROGONIUM				
	1 Smithii.....	Smith's	Trees	1-12	P.	1326
496	DIDYMODON.	DIDYMODON.				
	1 purpureum	1 purple	Moist rocks	1-12	P.	{ 2357 2294 2414 2533
497	SPLACHNUM.	GLAND-MOSS.				
	1 ampullaceum ..	bottle-headed	Bogs, &c. ..	5-10	A.	144

SPECIFIC CHARACTER.

490. WEISSIA.

- 1 Stems nearly simple: L. linear, awl-shaped: caps. ovate-elliptical: lid rostrate. *Grimmia*, Eng. Bot.
For 18 other species, see *Musc. Brit. and Grev. Cryp. Fl.*

491. DICRANUM.

- 1 Stems branched: L. capillary, leaning one way, 1-nerved, dilated at the base: caps. ovate, somewhat drooping: lid with a long beak.
For 22 other species, see *Musc. Brit. and Eng. Bot.*

492. TRICHOSTOMUM.

- 1 L. ovate-lanceolate, nerveless, channelled, with a pellucid point, slightly serrated: caps. ovate: teeth of the peristome long, filiform: lid subulate.
For 8 other species, see *Musc. Brit. and Eng. Bot.*

493. CINCLIDOTUS.

- 1 *Fontinalis minor*. Eng. Bot.

494. TORTULA.

- 1 Stem simple, short: L. linear-oblong, their margins recurved; hair-pointed: caps. oblong: lid conical, acuminate.
For 10 other species, see *Musc. Brit. and Eng. Bot.*

495. PTEROGONIUM.

- 1 Stems much branched; branches pinnate, incurved by drying: L. entire: fruitstalks short: lid rostrate.
For 2 other species, see Eng. Bot. 1085, 2297.

496. DIDYMODON.

- 1 Stems scarcely branched: L. lanceolate, carinate; their margins recurved, entire: caps. elliptical, oblique, furrowed when dry, lid conical. *Dicranum*, Eng. Bot.
For 9 other species, see *Musc. Brit. and Grev. Cryp. Fl.*

497. SPLACHNUM.

- 1 L. ovate-lanceolate, acute, serrated: apophysis inversely flagon-shaped, twice as wide as the capsule.
For 6 other species, see *Hooker's Musc. Brit. and Eng. Bot.*

CLASS XXIV. CRYPTOGRAMIA.

ORDER II. MUSCI.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
498	CONOSTOMUM.	CONE-MOUTHED-MOSS.				
	I boreale.....	alpine	Scotch alps..	6-8	P.	*1135
499	ORTHOTRICHUM	BRISTLE MOSS.				
	1 crispum	curled	Trees	4-7	P.	996
500	ZYGODON.	ZYGODON.				
	I conoideum	club-fruited	Trees!.....	3,4	....	*1239
501	DIPHYSCIUM.	DIPHYSCIUM.				
	I foliosum	leafy	Woods	3-6	A.	*329
502	BUXBAUMIA.	BUXBAUMIA.				
	1 aphylla.....	leafless	Fir wood....	5-8	A.	1596
503	FUNARIA.	CORD-MOSS.				
	1 hygrometrica ..	yellow twisting ..	Everywhere	10-4	A.	*342
504	BARTRAMIA.	BARTRAMIA.				
	1 pomiformis	apple	Heaths	4-8	P.	998
505	POHLIA.	POHLIA.				
	1 inclinata	inclined	Wet sand ..	5-9	P.	} *1572 *1528
506	BRYUM.	BRYUM.				
	1 androgynum....	androgynous	Banks.....	3-5	P.	*1238

SPECIFIC CHARACTER.

498. CONOSTOMUM.

L. lanceolate, acuminate, keeled, slightly toothed. *Grimmia conostoma*. Eng. Bot.

499. ORTHOTRICHUM.

Stem branched: L. linear, much curled when dry: fruitstalks elongated: caps. striated: peristome with 8 ciliary processes.
For 9 other species, see *Musc. Brit. and Eng. Bot.*

500. ZYGODON.

Mnium conoideum, Eng. Bot.

501. DIPHYSCIUM.

Buxbaumia foliosa. Eng. Bot.

502. BUXBAUMIA.

Caps. on a granulated stalk, rising from a hairy bulb.

503. FUNARIA.

L. concave, entire, ovate: nerve excurrent: fruitstalk curved, flexuose.
Bryum, Eng. Bot.
For 2 other species, see *Musc. Brit.*

504. BARTRAMIA.

L. awl-shaped, serrated, with the nerve reaching to the tip, twisted when dry.
For 5 other species, see *Musc. Brit. and Eng. Bot.*

505. POHLIA.

L. ovate, acuminate, margins slightly recurved: nerves running beyond the points: caps. elongated, pyriform, pendulous. *Bryum*. Eng. Bot.—For 3 other species, see *Musc. Brit.*

506. BRYUM.

Stems nearly simple: L. lanceolate, serrated, with the margins recurved: caps. nearly erect, sulcated: lid conical. *Mnium*. Eng. Bot.
For 21 other species, see *Musc. Brit. and Eng. Bot.*

CLASS XXIV. CRYPTOGRAMIA.

ORDER II. MUSCI.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
507	POLYTRICHUM. 1 undulatum	HAIR-MOSS. undulated	Shady banks	8-11	P.	1220
508	ANICTANGIUM. 1 ciliatum	ANICTANGIUM ciliate	Ir. mountains	6-10	P.	*1179
509	FISSIDENS. 1 bryoides	FISSIDENS. bryum-like	Moist banks	3-5	..	{ *625 *1368 *1662
510	LEUCODON. 1 sciuroides	WHITE-TOOTH. squirrel tail.....	Trees	5-8	P.	*1903
511	FONTINALIS. 1 antipyretica	WATER-MOSS. nerveless	Rivers.....	6-8	P.	359
512	ANOMODON. 1 curtispiculum ..	ANOMODON. pendulous	Rocks & trees	4-7	P.	*1444
513	NECKERA. 1 pumila	NECKERA. pigmy	Trees!	3-5	....	1443
514	DALTONIA. 1 heteromalla	DALTONIA. short-stalked	Trees	3-8	P.	*1180
515	HOOKEA. 1 lucens	HOOKEA. shining	Moist banks	4-7	P.	1902

CLASS XXIV. CRYPTOGRAMIA.

ORDER II. MUSCI.

SPECIFIC CHARACTER.

507. POLYTRICHUM.

- 1 L. lanceolate, undulated, serrated; their nerve winged: caps. cylind. curved: lid awl-shaped.

For 9 other species, see Musc. Brit. and Eng. Bot.

508. ANICTANGIUM.

- 1 L. ovate, elongated, pellucid at the points; those of the perichæetium lacinated at the extremity.—*For another species, see Eng. Bot.*

509. FISSIDENS.

- 1 Fruit-stalks terminal: perichæetial leaves resembling the cauline ones.

510. LEUCODON.

- 1 L. closely imbricated, ovate-cordate, acuminate, striated: caps. oblong. *Dicranum, Eng. Bot.*

511. FONTINALIS.

- 1 L. nerveless, for the most part complicate-carinate.

For 2 other species, see Eng. Bot. 1861, 2432.

512. ANOMODON.

- 1 L. ovate, pointed, serrulated, even, spreading: fruitstalks as long as the perichæetium: caps. ovate. *Neckera, Eng. Bot.*

For another species, see Eng. Bot. 265.

513. NECKERA.

- 1 L. in 2 rows, ovate, slightly undulated, margin recurved: fruitstalks scarcely longer than the perichæetial leaves.

For 2 other species, see Eng. Bot. 617, and Grev. Cryp. Fl.

514. DALTONIA.

- 1 L. ovate, acute: caps. sessile, immersed: calypt. nearly entire. *Neckera, Eng. Bot.*

For another species, see Eng. Bot. 2564.

515. HOOKERIA.

- 1 L. ovate, entire, obtuse, nerveless.—*For another species, see Musc. Brit.*

CLASS XXIV. CRYPTOGRAMIA.

ORDER II. MUSCI.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
516	LESKEA.	LESKEA.				
	1 complanata	flattened	Trees	3,4	P.	*1492
517	HYPNUM.	FEATHER-MOSS.				
	1 riparium	water	Ditch banks	5-11	P.	2060
518	ANDREÆA.	ANDREÆA.				
	1 nivalis	snowy	Rocks	6-8	P.	2507

CLASS XXIV. CRYPTOGRAMIA.

ORDER II. MUSCI.

SPECIFIC CHARACTER.

516. LESKEA.

- 1 L. oblong, apiculate, entire, nerveless: caps. ovate, erect: lid rostrate.
For 9 other species, see Hypnum, Eng. Bot. and Grev. Crypt. Fl.

517. HYPNUM.

- 1 L. ovate-lanceolate, acuminate, entire, the nerve reaching nearly to the summit: caps. oblong, drooping: lid conical.
For 52 other species, see Eng. Bot. and Grev. Crypt. Fl.

TRIBE III. VAGINULATI SCHISTOCARPI.

518. ANDREÆA.

- 1 Stems slightly branched: L. lanceolate, loosely imbricated, somewhat sickle-shaped: perichætil similar to cauline.
For 3 other species, see Musc. Brit.

CLASS XXIV. CRYPTOGRAMIA.

ORDER III. HEPATICÆ.

Herb frondose ; not submersed. Capsules without a lid.

- 119 JUNGERMANNIA. *Caps.* 4-valved, supported on a peduncle longer than the calyx. *Valves* free.
- 120 MARCHANTIA. *Caps.* on the under surface of a common peltate, pedunculate receptacle. *Anthems* imbedded in the disk of distinct peltate pedunculate, or sessile receptacles.
- 121 RICCIA. *Caps.* spherical, immersed in the frond (not opening,) crowned with the style.
- 122 ANTHOCEROS. *Caps.* stalked, linear, 2-valved, with a central axis to which the seeds are attached.
- 123 TARGIONIA. *Caps.* globose, nearly sessile, included in a perianth of 2 concave valves; opening irregularly at the extremity, and filled with spiral filaments.
- 124 SPHEROCARPUS. *Caps.* minute, spherical, seated upon obpyriform receptacles; and filled with minute seeds unmixed with filaments.

CLASS XXIV. CRYPTOGRAMIA. ORDER III. HEPATICÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Duration.	Figure in English Botany.
519	JUNGERMANNIA.	JUNGERMANNIA.				
	1 asplenoides	Asplenium-like ..	Moist woods	1-12	P.	1788
520	MARCHANTIA.	MARCHANTIA.				
	1 polymorpha	variable	Moist rocks	11-2	P.	210
521	RICCIA.	RICCIA.				
	1 glauca	glaucous	Rocks	12-3	A.	2546
522	ANTHOCEROS.	ANTHOCEROS.				
	1 punctatus	dotted	Damp places	3-5	A.	1537
523	TARGIONIA.	TARGIONIA.				
	1 hypophylla	flat-leaved	Wet places ..	11-4	P.	287
524	SPIRÆOCARPUS.	SPIRÆOCARPUS.				
	1 terrestris	earth	Damp places	11-2	A.	299

CLASS XXIV. CRYPTOGRAMIA. ORDER III. HEPATICÆ.

SPECIFIC CHARACTER.

519. JUNGERMANNIA.

- 1 L. obovate, ciliate, toothed, somewhat recurved: fruit terminal and lateral: calyptra oblong, compressed, oblique.
For 80 other species, see Eng. Bot. and Hook. Jung.

520. MARCHANTIA.

- 1 Recept. of the capsule 10-cleft; that of the anthers pedunculate.
For 3 other species, see Eng. Bot. 503. 504. 2545.

521. RICCIA.

- 1 Frond small, oblong, somewhat divided: segments 2-lobed at the end: fleshy, glaucous, dotted.
For 3 other species, see Eng. Bot. and Dick. Plant. Cryp.

522. ANTHOCEROS.

- 1 Fronds multifid, lobed, sinuated: caps. subulate, half bifid.
For 2 other species, see Eng. Bot. and Dill. Mus.

523. TARGIONIA.

- 1 Frond flat, imbricated, lobed; lobes rounded, retuse.

524. SPHÆROCARPUS.

- 1 Frond simple, ovate: caps. pyriform, clustered at the base of the frond.
-

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

Aquatic plants, submersed. Caps. or tubercles variously situated ;
or seeds naked, or immersed in the frond.

TRIBE I. DIATOMÆ.

Bodies of various forms, flat, crystalline, separating into fragments.

- 525 ACHNANTHES. *Frond stalked, vexilliform.*
526 DIATOMA. *Filaments jointed, transparent, rigid, simple, united in pairs longitudinally; at length separating into articulations cohering by their alternate angles.*
527 FRAGILLARIA. *Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.*
528 MELOSEIRA. *Filaments jointed, contracted at the joints, fragile, and easily separating.*
529 DESMIDIUM. *Filaments transversely striated, mucous, flexible, green, half separated into articulations, and in that state pinnatifid.*
530 SCHIZONEMA. *Filaments bead-like, composed of narrow cohering filaments, inclosing elliptical seeds, into which they are finally dissolved.*

TRIBE II. NOSTOCHINÆ.

Individuals numerous, globular or filiform, suspended in a gelatine of a definite form.

- 531 PALMELLA. *Small gelatinous plants, filled with solitary seeds un-mixed with filaments.*
532 ECHINELLA. *A rounded gelatine crowned with elliptical, radiant, corpuscles.*
533 ALCYONIDIUM. *A spongy, fleshy, lobed frond filled with seeds.*
534 NOSTOC. *Composed of curved, moniliform, simple filaments, lying irregularly in a gelatinous nidus.*
535 CORYNEPHORA. *A gelatinous, roundish, puckered frond, filled with jointed filaments bearing club-shaped processes.*
536 RIVULARIA. *A gelatinous, subglobose frond, filled with filaments radiating from a common centre, continuous, placed on a globule, and marked with annulations inside.*

- 37 CHÆTOPHORA. Elongated or globose, gelatinous: substance composed of branched, articulated *filaments*.
- 38 SCYTHYMENIA. A coriaceous stratum, composed of fibres and seeds mingled together.

TRIBE III. CONFERVOIDÆ.

Filaments jointed externally or internally, separate, and not combined in any definite form.

- 39 BYSSOCLADIUM. *Filaments* like cobwebs, scattered externally with seed-vessels.
- 40 MYCINEMA. *Filaments* membranous, opaque, tenacious, coloured.
- 41 CHIROOLEPUS. *Filaments* rigid, nearly solid, opaque, crumbling into powder, uneven.
- 42 TRENTPOHLIA. *Filaments* flexible, coloured, bearing *capsules* generally proceeding from the last *articulation*, which is inflated.
- 43 SCYTONEMA. Plant not gelatinous, coriaceous. *Filaments* short, forming dense tufts, internally beaded, or filled with annular transverse bodies.
- 44 STIGONEMA. *Filaments* coriaceous, naked, continuous, marked inside with dots disposed in rings.
- 45 PROTONEMA. *Filaments* very minute, somewhat jointed, rooting.
- 46 HYGROCROCIS. *Filaments* cobweb-like, transparent, obsoletely articulated, floating in a shapeless gelatine, or in a coloured membrane.
- 47 LEPTOMITUS. *Filaments* transparent, or slightly coloured, cobweb-like, obsoletely articulated, separate, erect, not entangled.
- 48 MESOGLOIA. Frond filiform, cylindrical, gelatinous, with compact, moniliform branches, radiating from a pith, and bearing *capsules*.
- 49 BATRACHOSPERMUM. Frond filiform, gelatinous, sending out from the primary filament, moniliform, gemmiferous branches.
- 50 DRAPARNALDIA. *Filaments* green, jointed, gelatinous: branches pencil-formed, fascicled. *Fructification* in a granular mass in the articulations of the main filaments.
- 51 OSCILLATORIA. Gelatinous. *Filaments* simple, continuous, membranous, filled internally with transverse parallel striæ.
- 52 CALOTHRIX. *Filaments* destitute of a mucous matrix, stiffish, straight, motionless; with a continuous tube annulated inside.

- 553 LYNGBYA. *Filaments* without a mucous matrix, freely floating, flexible, motionless, with a continuous tube annulated inside.
- 554 BANGIA. *Filaments* capillary, mostly simple, tubular, continuous. Fructification composed of granules disposed in regular transverse series or strata.
- 555 ZYGHEMA. *Filaments* jointed, simple, gelatinous, compressed, fragile, separating at the joints.
- 556 MOUGEOTIA. *Filaments* articulated, connected like a net, with granules irregularly placed, and *capsules* attached to the angles of the meshes.
- 557 HYDRODICTYON. *Filaments* articulated, connected like a net. *Articulations* viviparous, including young individuals.
- 558 CONFERVA. *Filaments* uniform, jointed, membranous, simple or branched, mostly green. *Granules* scattered in the articulations.
- 559 BULBOCHETE. First *filament* articulated; sending out from the apex of the articulations, an accessory branchlet. *Capsules* alternating with the accessory branchlets.
- 560 NITELLA. *Filaments* composed of a single tube, membranous, jointed, with whorled branches. *Organs of fructification* two-fold and separate:—the first, *nucules* spirally striated, without bracteas, and not crowned; the second, coloured globules.
- 561 CHARA. *Filaments* spirally striated, jointed, with whorled branches. *Organs of fructification* two-fold, and close together:—the first, *nucules* spirally striated, bracteated, and crowned; the second, coloured globules.
- 562 CERAMIMUM. *Filaments* jointed, somewhat dichotomous, red, articulations veined or pellucid. *Capsules* with an involucre of short branchlets.
- 563 GRIFFITHSIA. *Filaments* jointed, branched, rose-red. *Articulations* marked with a broad tube-like line; the joints pellucid. Pedunculated *capsules* on the branchlets.
- 564 CHLIOSPORA. *Filaments* obsoletely articulated, rosy, covered by axillary, articulated, fruit-bearing branches, which either include a globe of *seeds*, or change to a lanceolate receptacle covered with bristles, among which the seeds nestle.
- 565 POLYSIPHONIA. *Filaments* jointed, longitudinally striated, with internal parallel tubes. *Capsules* double, ovate; and *granules* in swollen branchlets.

- 466 RYTIPHLÆA. *Frond* flattened, distichous, transversely striated, becoming black when dry, with incurved, withered scales. *Fruit* two-fold: the first, spherical capsules with pear-shaped sporidia; the second, lanceolate pods, with roundish sporidia.
- 467 ECTOCARPUS. *Filaments* jointed, branched, dingy brown. *Fruit*—lanceolate pods, or ovate capsules, solitary or racemose.
- 468 SPHACELLARIA. *Filaments* jointed, branched, olivaceous, distichous, or dichotomous: apex of the branches withered or crystalline, abrupt. *Fruit*—granules in the apex; or capsules.
- 469 CLADOSTEPHUS. Olivaceous. *Main filaments* opaque, not articulated; branches jointed, mostly whorled with branchlets. *Fructification*—capsules.

TRIBE IV. ULVACEÆ.

- Frond* membranous, continuous, tubular or flattened, never ribbed; green, or, very rarely, purple. *Fruit*—a heap of seeds, either naked, or forming scattered granules.
- 570 VAUCHERIA. *Filaments* dichotomous, or irregularly branched, rigid. *Fructification*—a granulated mass within the frond, and external dark vesicles variously situated.
- 571 CODIUM. *Frond* spongy, of a determinate figure, formed of filaments closely packed, which are tubular and continuous, and coloured by a granular green powder.
- 572 BRYOPSIS. *Root* small, buckler-shaped. *Filaments* tubular, continuous, aggregate, branched, pinnate, or imbricated with branchlets. *Fructification*—a dark internal granular mass.
- 573 SOLENIA. *Frond* tubular, membranous, with a striated, areolated surface. *Sporidia* very minute and compact.
- 574 ULVA. *Root* buckler-shaped. *Frond* plane ribless, fan-shaped, or wedge-shaped, or linear and dichotomous. *Fructification* naked, immersed; granules distributed in 4's, throughout the frond.
- 575 PORPHYRA. *Frond* flat, purple, with the membrane of equal texture. *Fruit* two-fold:—the first, masses of oval sporidia collected in a disorderly manner; the second, two parallel lines marked on each side by a globule.

TRIBE V. FLORIDEÆ.

*Fron*d coriaceous or membranous, flat or filiform, continuous, purple or pink. *Sporidia* purple, enclosed in capsules, or clustered in masses.

- 576 POLYIDES. *Fron*d filiform, fastigiate, cartilaginous, softish, composed of radiating fibres. *Fruit*—spongy warts composed of fibres supporting *sporidia*.
- 577 PTILOTA. *Root* buckler-shaped. *Fron*ds compressed or flat, pinnate. *Fructification*—a cluster of naked granules surrounded by a linear cleft involucre.
- 578 RHODOMELA. *Fron*d either flat or foliaceous, and ribbed or filiform. *Fruit* two-fold:—the first, *lomenta* filled longitudinally with globules; the second, capsules containing pear-formed, sessile *sporidia*.
- 579 CHONDRIA. *Fron*d continuous, gelatinoso-cartilaginous. *Fructification* double: naked granules immersed in the substance of the branchlets and external tubercles.
- 580 SPHEROCOCCUS. *Root* buckler-shaped. *Fron*d membranous or cartilaginous. *Fructification* uniform: tubercles or capsules.
- 581 HALYMENIA. *Fron*d flat or tubular, somewhat membranous. *Fruit*—dot-like tubercles half immersed in the lamina of the frond.
- 582 BONNEMAISONIA. *Fron*d filiform, compressed, pectinate, ciliate. *Fruit*—capsules with pear-shaped *sporidia*, fastened together like a chain.
- 583 DELESSERIA. *Root* buckler-shaped. *Fron*d flat, membranous, with or without ribs. *Fructification* double:—tubercles and clusters of naked and immersed granules.

TRIBE VI. FUCOIDEÆ.

*Fron*d coriaceous or rarely membranous, continuous, flat or filiform, olive-green. *Sporidia* black, enclosed in capsules, which are either ovate, surrounded by a transparent border, and nestling in a peculiar receptacle; or pear-shaped and immersed in the frond.

- 584 LEMNEA. *Fron*d filiform, uneven, tubular. Chains of *sporidia* adhering to the inner surface of the filament, pectinated, moniliform.
- 585 CHORDARIA. *Root* buckler-shaped. *Fron*d filiform, cartilaginous, olive-coloured. *Fructification*—club-shaped, concentric filaments, constituting the whole frond.

- 86 SCYTOSIPHON. *Root* buckler-shaped. *Fron*d filiform, tubular, somewhat coriaceous. *Fructification*—naked pear-shaped granules covering the whole frond.
- 87 SPOROCHNUS. *Root* mostly buckler-shaped. *Fron*d flat, with distichous branches mostly bearing delicate pencil-like tufts of confervoid filaments.
- 88 HALISERIS. *Fron*d flat, linear, ribbed, membranous. *Capsules* heaped in masses.
- 89 ENCELMIUM. *Fron*d tubular or bladdery, dotted. *Fruit*—the tips of the frond filled with a black sporaceous matter.
- 90 ZONARIA. *Root* downy. *Fron*d flat, ribless, fan-shaped, or wedge-shaped, or linear and dichotomous. *Fructification*—adhering tubercles, collected into parallel lines on the frond.
- 91 LAMINARIA. *Root* fibrous. *Stipes* dilated into a flat frond. *Fructification*—naked granules forming irregular groups.
- 92 LICHINA. *Frouds* minute, tufted. *Fructification*—solitary tubercles with a pore.
- 93 FURCELLARIA. *Fron*d cylindrical; *fructification* concealed in its swollen extremities: *capsules* in the centre, and pyriform granules in the circumference.
- 94 FUCUS. *Root* buckler-shaped. *Fron*d flat or compressed (rarely filiform) dichotomous. *Fructification*—tubercles contained in a common receptacle, and filled with seeds and filaments.
- 95 CYSTOSIRA. *Root* buckler-shaped. *Stipes* cylindrical. Lower leaves flat, upper ones filiform, with pinnate vesicles. *Fructification*—tubercles in hollow receptacles which have several cells.

CLASS XXIV. CRYPTOGAMIA.

ORDER IV. ALGÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Figure in English Botany.
525	ACHNANTHES.	ACHNANTHES.			
	1 longipes	long-stalked	Sea coast	7	*2488
526	DIATOMA.	DIATOMA.			
	1 flocculosum	floccose	Ditches	6-8	*1761
527	FRAGILLARIA.	FRAGILLARIA.			
	1 pectinalis	silvery	On wat. plants	3	*1611
528	MELOSEIRA.	MELOSEIRA.			
	1 nummuloides	necklace	Salt marshes	3	2287
529	DESMIDIUM.	DESMIDIUM.			
	1 Swartzii	pinnatifid	Still waters . .	6-8	*2464
530	SCHIZONEMA.	SCHIZONEMA.			
	1 Smithii	Smith's	Sea coast	5-8	*2101
531	PALMELLA.	PALMELLA.			
	1 protuberans	lobed	Rocks	3-11	*2583
532	ECHINELLA	ECHINELLA.			
	1 articulata	jointed	Lakes	6, 7	*1378
533	ALCYONIDIUM.	ALCYONIDIUM.			
	1 diaphanum	transparent	Ocean	6-8	*263

SPECIFIC CHARACTER.

TRIBE I. DIATOMEÆ.

525. ACHNANTHES.

Articulations with one dot: stem long. *Conferva. Eng. Bot.*

526. DIATOMA.

Filaments striated: articulations nearly equal in diameter with parallel striæ. *Conferva. Eng. Bot.*—For 4 other species, see *Eng. Bot.*

527. FRAGILLARIA.

Filaments tapering, very rigid, with parallel, transverse, dense striæ. *Conferva. Eng. Bot.*

528. MELOSEIRA.

Filaments unequal, containing nearly circular moniliform globules in rows.

529. DESMIDIUM.

Filaments finally pinnatifid, traversed by a longitudinal green streak: articulations 2-toothed. *Conferva. Eng. Bot.*

530. SCHIZONEMA.

Filaments somewhat branched, tufted, acute: granules parallel, clustered. *Conferva. Eng. Bot.*
For other species, see *Grev. Crypt. &c.*

TRIBE II. NOSTOCHINÆ.

531. PALMELLA.

1 Frond thick, angular, lobed: granules elliptical. *Ulva. Eng. Bot.*
For other species, see *Eng. Bot. &c.*

532. ECHINELLA.

1 Corpuscles radiant, lanceolate, jointed. *Conferva. Eng. Bot.*

533. ALCYONIDIUM.

1 Branches elongated. *Ulva. Eng. Bot.*
For another species, see *Eng. Bot. 1626.*

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Soil or Situation.	Time of Flowering.	Figure in English Botany.
534	NOSTOC.	NOSTOC.			
	1 commune	common	Damp places	5-8	*461
535	CORYNEPHORA.	CORYNEPHORA.			
	1 marina	marine	Sea shore ..	8	*1956
536	RIVULARIA.	RIVULARIA.			
	1 atra	dark	Sea plants ..	10	1798
537	CHÆTOPHORA.	CHÆTOPHORA.			
	1 tuberculosa	warty	Ditches	9	*2366
538	SCYTHYMENIA.	SCYTHYMENIA.			
	1 rupestris	rock	Rocks	6-8	2194
539	BYSSOCLADIUM.	BYSSOCLADIUM.			
	1 fenestrale	window	On windows	1-12	.....
540	MYCINEMA.	MYCINEMA.			
	1 arachnoideum	cobweb	Dead trees ..	1-12	.....
541	CHROOLEPUS.	CHROOLEPUS.			
	1 ebeneus.....	ebony	Rocks.....	1-12	*702
542	TRENTEPOHLIA.	TRENTEPOHLIA.			
	1 purpurea	purple.....	Rocks.Sea co.	1-12	*192

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

SPECIFIC CHARACTER.

534. NOSTOC.

- 1 Frond expanded, deformed, plaited, wavy. *Tremella. Eng. Bot.*

535. CORYNEPHORA.

- 1 *Rivularia tuberiformis. Eng. Bot.*

536. RIVULARIA.

- 1 Frond hemispherical, hard : filaments dense, branched by apposition.
For 2 other species, see *Eng. Bot.*

537. CHÆTOPHORA.

- 1 Frond tubercular, hollow : filaments distributed in many little orbs.
Rivularia. Eng. Bot.

538. SCYTHYMENIA.

- 1 The only species.

TRIBE III. CONFERVOIDEÆ.

539. BYSSOCLADIUM.

- 1 Filaments appressed, very minute, short, radiant, cobweb-like, branched, sinuous, wavy.

540. MYCINEMA.

- 1 Filaments thin, entangled in a cobweb-like membrane : branches scattered : articulations of various lengths.
For 4 other species, see *Dill. Confervæ.*

541. CHROOLEPUS.

- 1 Filaments tufted, branched, erect, rigid, obtuse, somewhat cartilaginous : articulations as broad as long. *Byssus nigra. Eng. Bot.*

542. TRENTÉPOHLIA.

- 1 Filaments dichotomous, tufted, minute, entangled : articulations about twice as long as broad. *Byssus. Eng. Bot.*
For 2 other species, see *Eng. Bot.*

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
543	SCYTONEMA.	SCYTONEMA.			
	1 comoides	tufted	Ocean	10	*1700
544	STIGONEMA.	STIGONEMA.			
	1 atrovirens.....	dark green	Rocks	6-8	.....
545	PROTONEMA.	PROTONEMA.			
	1 cryptarum	vault	Caverns	5-8	*2588
546	HYGROCROCIS.	HYGROCROCIS.			
	1 typhlodema.....	Gum Arabic	In sol. Gum Arabic	1-12	.....
547	LEPTOMITUS.	LEPTOMITUS.			
	1 lacteus	milky	Pools	11-3	.....
548	MESOGLOIA.	MESOGLOIA.			
	1 Hudsoni	Hudson's	Ocean	8-11	*1627
549	BATRACHOSPERMUM.	BATRACHOSPERMUM.			
	1 vagum	turfy .....	.....	.....	.....
	β tenuissimum	very slender	Ditches	5	*690
550	DRAPARNALDIA.	DRAPARNALDIA.			
	1 plumosa	feathery	Rivulets	6-8	*2087
551	OSCILLATORIA.	OSCILLATORIA.			
	1 tenuissima	very fine	Warm springs	6-8	*2584

SPECIFIC CHARACTER.

543. SCYTONEMA.

- 1 Tuft loose : filaments flexuose : branches solitary, remote, ascending.
Conferva. Eng. Bot.
For other species, see Eng. Bot.

544. STIGONEMA.

- 1 Filaments rigid, branched : branches slender : granules disposed in rings.

545. PROTONEMA.

- 1 Filaments dichotomous : branches divaricating, acuminate : articulations thrice as long as broad. *Conferva. Eng. Bot.*
For 6 other species, see Eng. Bot.

546. HYGROCROCIS.

- 1 Filaments somewhat branched, entangled in an olive-green pellicle : articulations as broad as long.—*For other species, see Dillw. Conf.*

547. LEPTOMITUS.

- 1 Filaments at every joint, branched, and clustered in a shapeless, gelatinous mass : articulations very long.

548. MESOGLOIA.

- 1 Frond virgate, with all the branches divaricating. *Ulva rubra. Eng. Bot.*

549. BATRACHOSPERMUM.

- 1 Frond dichotomous, cylindrical, equal : branches thickened at the end.
 β Frond setaceous, minute. *Conferva atra. Eng. Bot.*

550. DRAPARNALDIA.

- 1 Pencils of branches lanceolate, acute, erect. *Conferva lubrica. Eng. Bot.*—*For 2 other species, see Eng. Bot. and Dillw. Conf.*

551. OSCILLATORIA.

- 1 Filaments transparent, very fine, tufted, entangled in nearly parallel lines. *Conferva. Eng. Bot.*
For several other species, see Eng. Bot. and Dillw. Conf.

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
552	CALOTHRIX.	CALOTHRIX.			
	1 nivea	snowy	Sulph. springs	1-12	.....
553	LYNGBYA.	LYNGBYA.			
	1 muralis	wall	Damp earth	1-12	1554
554	BANGIA.	BANGIA.			
	1 atropurpurea	dark purple	Marine rocks	5-8	.....
555	ZYGNEMA.	ZYGNEMA.			
	1 crueiatum	crossed	Ditches	6-8	*2463
556	MOUGEOTIA,	MOUGEOTIA.			
	1 cæruleseens	blueish	Ditches	7	*2457
557	HYDRODICTYON.	HYDRODICTYON			
	1 utrieulatum	bladdery	Rivers & lakes	6-9	*1687
558	CONFERVA.	CONFERVA.			
	1 rivularis	rivulet.....	Rivers.....	4-8	1654
	β <i>Anglica</i>	<i>English</i>	Ditches	4-8	.....
559	BULBOCHÆTE.	BULBOCHÆTE.			
	1 setigera	setigerous	Lakes. Rivers	8-11	.....
560	NITELLA.	NITELLA.			
	1 græilis.....	slender	Pools	9	*2140
561	CHARA.	CHARA.			
	1 hispida.....	hispid	Ponds	7,8	465

SPECIFIC CHARACTER.

552. CALOTHRIX.

- 1 Filaments very fine, rigid, snow-white, packed in a dull yellow tuft.
For 6 other species, see Eng. Bot. and Dillw. Conf.

553. LYNGBYA.

- 1 Filaments stiffish, curved, wavy, thickish, with lax rings.

554. BANGIA.

- 1 Filaments dark purple, straight: bands 5-dotted.

555. ZYGNEMA.

- 1 Articulations twice as long as broad: stellæ roundish: fruit spherical.
Conferva. Eng. Bot.—For 7 other species, see Eng. Bot. and Dillw. Conf.

556. MOUGEOTIA.

- 1 Filaments purple-blue: seed-vessels of the crosses of the filaments green.
Conferva. Eng. Bot.—For another species, see Dillw. Conf.

557. HYDRODICTYON.

- 1 Spots 5-cornered. *Conferva reticulata. Eng. Bot.*

558. CONFERVA.

- 1 Filaments simple, capillary, very long, straight, equal: articulations grain-bearing, 2 or 4 times as long as broad; shining when dry.
 β Articulations half as long as broad.
For many other species, see Eng. Bot. and Dillw. Conf.

559. BULBOCHETE.

- 1 The only species.

560. NITELLA.

- 1 Stem slender, long: branches acute, forked: fruit solitary. *Chara. Eng. Bot.—For 4 other species, see Loudon's Ency. Plants.*

561. CHARA.

- 1 Stem twisted, furrowed, strigose: strigæ reflexed: bract. aculeate.
For another species, see Eng. Bot. 336.

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
562	CERAMIIUM.	CERAMIIUM.			
	1 tetragonum	square.....	Ocean	6-8	1690
563	GRIFFITHSIA.	GRIFFITHSIA.			
	1 multifida	multifid	Sea shore ..	7	*1816
564	CHÆTOSPORA.	CHÆTOSPORA.			
	1 Wiggii	Wigg's	Sea shore ..	6-8	*1165
565	POLYSIPHONIA.	POLYSIPHONIA.			
	1 parasitica	parasitical	On Fuci	5-8	*1429
566	RYTIPHILÆA.	RYTIPHILÆA.			
	1 tinctoria	dyer's	Ocean.....	1-12	.....
567	ECTOCARPUS.	ECTOCARPUS.			
	1 siliculosus	podded	Ocean.....	3-5	.....
568	SPHACELLARIA.	SPHACELLARIA.			
	1 racemosa	racemose	Sea shore ..	2	.....
569	CLADOSTEPHUS.	CLADOSTEPHUS.			
	1 spongiosus	spongy	Ocean.....	6-8	*2427

SPECIFIC CHARACTER.

562. CERAMIIUM.

- 1 Filaments branched, virgate: primary articulations twice as long as broad.

For 20 other species, see Eng. Bot. and Dillw. Conf.

563. GRIFFITHSIA.

- 1 Filaments branched: branchlets subternate, distant, short, multifid: articulations much longer than broad. *Conferva. Eng. Bot.*

For 4 other species, see Eng. Bot.

564. CHÆTOSPORA.

- 1 *Fucus. Eng. Bot.*

565. POLYSIPHONIA.

- 1 Filaments bipinnate, veiny, rigid: pinnae and pinnules alternate: articulations rather short.

For several other species, see Eng. Bot. and Dillw. Conf.

566. RYTIPHLÆA.

- 1 Frond somewhat cartilaginous, compressed, transversely bipinnate: pinnules in fruit incurved.

567. ECTOCARPUS.

- 1 Filaments nearly separate: branches erect, subulate; articulations rather long than broad: pods linear-subulate.

For 3 other species, see Eng. Bot. and Dillw. Conf.

568. SPHACELLARIA.

- 1 Filaments twice or thrice dichotomous: articulations as long as broad: tubercles ovate, racemose, on branched peduncles.

For 5 other species, see Eng. Bot. and Dillw. Conf.

569. CLADOSTEPHIUS.

- 1 Setæ simple, densely imbricated. *Conferva. Eng. Bot.*

For another species, see Eng. Bot. 1718.

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
570	VAUCHERIA. 1 dichotoma	VAUCHERIA. dichotomous	Ditches	5-8	*932
571	CODIUM. 1 tomentosum	CODIUM. downy	Ocean	6	*712
572	BRYOPSIS. 1 plumosa	BRYOPSIS. feathery	Ocean	9	*2375
573	SOLENTA. 1 compressa	SOLENTA. compressed	Ocean	5-8	*1739
574	ULVA. 1 lactuca	ULVA. Green laver	Ocean	5-10	1551
575	PORPHYRA. 1 laciniata	PORPHYRA. torn	Sea shore ..	6-8	.....
576	POLYIDES. 1 lumbricalis	POLYIDES. worm-like	Ocean	11	*1738
577	PTIOTA. 1 plumosa	PTIOTA. feathery	Sea shore ..	.....	.....
578	RHODOMELA. 1 dentata	RHODOMELA. toothed	Sea shore ..	6-8	*1241

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

SPECIFIC CHARACTER.

TRIBE IV. ULVACEÆ.

570. VAUCHERIA.

- 1 Filaments setaceous, dichotomous, fastigate : caps. globose, sessile, solitary. *Conferva*. Eng. Bot.
For other species, see Eng. Bot. and Dillw. Conf.

571. CODIUM.

- 7 Frond dichotomous, fastigate, cylindrical. *Fucus*. Eng. Bot.
For another species, see Eng. Bot. 2183.

572. BRYOPSIS.

- 1 Filaments branched, naked below, pinnate in the middle : branchlets opposite, nearly simple, approximating.

573. SOLENIA.

- 1 Frond tubular, lined, latticed, branched, filiform, compressed : branches simple, tapering at the base.

574. ULVA.

- 1 Frond obovate, or lanceolate, flat, wavy, laciniate-erisp.
For 2 other species, see Lou. Ency. Pl.

575. PORPHYRA.

- 1 Frond flat, with numerous dilated segments.

TRIBE V. FLORIDEÆ.

576. POLYIDES.

- 1 *Fucus rotund*. Eng. Bot.

577. PTILOTA.

- 1 Frond pinnate; pinnules pectinate, cut. *Fucus*. Eng. Bot.

578. RHODOMELA.

- 1 Frond flat, obsoletely ribbed, alternately bipinnatifid : pinnae linear-wedge-shaped : pinnules cut : caps. pitcher-shaped. *Fucus*. Eng. Bot.—*For 4 other species, see Eng. Bot.*

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
579	CHONDRIA.	CHONDRIA.			
	1 pusilla	dwarf	Marine rocks	6-8	.....
580	SPHÆROCOCCUS.	SPHÆROCOCCUS.			
	1 ruber	red	Ocean	11-2	*1053
581	HALYMENIA.	HALYMENIA.			
	1 edulis	true	Ocean	8-10	*1307
582	BONNEMAISONIA.	BONNEMAISONIA.			
	1 asparagoides	asparagus-like	Sea shore ..	7-11	*571
583	DELESSERIA.	DELESSERIA.			
	1 sanguinea.....	blood-coloured	Ocean.....	1-5	*1041
584	LEMANIA.	LEMANIA.			
	1 fluviatilis	fluviatile	On stones in rivers	6-8	.....
585	CHORDARIA.	CHORDARIA.			
	1 flagelliformis	flagelliform	Ocean.....	6-8	*1222
586	SCYTOSIPHON.	SCYTOSIPHON.			
	1 filum	cord	Ocean	6-8	.....
587	SPOROCHNUS.	SPOROCHNUS.			
	1 pedunculatus	stalked	Sea shore ..	6-8	*545

SPECIFIC CHARACTER.

579. CHONDRIA.

- 1 Frond compressed, filiform, somewhat contracted here and there : fructification either minute tubercles, or scattered seed-vessels in small branches.—*For 8 other species, see Eng. Bot.*

580. SPHÆROCOCCUS.

- 1 Stem scarcely any : laminæ chained, obsoletely ribbed, wedge-shaped, 2-forked or lanceolate : caps. rugose, sessile in the disk of the frond. *Fucus. Eng. Bot.*—*For many other species, see Lou. Ency. Pl.*

581. HALYMENIA.

- 1 Frond fleshy, flat, simple, wedge-shaped ; tapered at the base into a footstalk ; rounded at the end. *Fucus. Eng. Bot.*
For 6 other species, see Lou. Ency. Pl.

582. BONNEMAISONIA.

- 1 Frond filiform, compressed, much branched : branchlets setaceous, distichous, simple, pectinate on each side. *Fucus. Eng. Bot.*

583. DELESSERIA.

- 1 Stem distinct : L. ovate, stalked, entire, ribbed : nerves transverse parallel. *Fucus. Eng. Bot.*

TRIBE VI. FUCOIDEÆ.

584. LEMANIA.

- 1 Filaments simple papillose ; papillæ usually ternate : articulations 5 times as long as broad.

585. CHORDARIA.

- 1 Frond much branched : branchlets virgate, somewhat distichous, spreading at the base. *Fucus. Eng. Bot.*

586. SCYTOSIPHON.

- 1 Frond quite simple.

587. SPOROCHNUS.

- 1 Recept. elliptical, lateral, as long as the peduncle. *Fucus. Eng. Bot.*
For other species, see Eng. Bot. and Turner's Fuci.

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
588	HALISERIS.	HALISERIS.			
	1 polypodioides	Polypody-like	Ocean	1-12	*1758
589	ENCÆLIUM.	ENCÆLIUM.			
	1 bullosum	blistered	Sea coast . .	6-8	*2570
590	ZONARIA.	ZONARIA.			
	1 multifida	multifid	Ocean	8	*1913
591	LAMINARIA.	LAMINARIA.			
	1 agarum	perforated	Ocean	6-8	.....
592	LICHINA.	LICHINA.			
	1 pygmæa	dwarf	Roc. on coast	6-8	*1332
593	FURCELLARIA.	FURCELLARIA.			
	1 fastigiata	fastigate	Ocean	9-5	*824
594	FUCUS.	FUCUS.			
	1 serratus	serrated	Ocean	3-10	*1221
595	CYTOSEIRA.	CYTOSEIRA.			
	1 ericoides	heath-like	Ocean	6-9	*1968

CLASS XXIV. CRYPTOGRAMIA.

ORDER IV. ALGÆ.

SPECIFIC CHARACTER.

588. HALISERIS.

- 1 Frond linear, dichotomous, entire ; sori heaped about the ribs. *Fucus*
Eng. Bot.

589. ENCÆLIUM.

- 1 Frond inflated, club-shaped. *Ulva. Eng. Bot.*

590. ZONARIA.

- 1 Frond dichotomous, entire : segments long, slender, acute. *Ulva.*
Eng. Bot.—For 2 other species, see *Eng. Bot.*

591. LAMINARIA.

- 1 Stalk running through the lamina, which is riddled with holes.
For 5 other species, see *Eng. Bot. and Turn. Fuci.*

592. LICHINA.

- 1 Frond flat, with spherical tubercles. *Fucus. Eng. Bot.*
For another species, see *Eng. Bot. 2575.*

593. FURCELLARIA.

- 1 *F. lumbricalis. Eng. Bot.*

594. FUCUS.

- 1 Frond dichotomous, ribbed, serrated : recept. solitary, flat, serrated.
For other species, see *Eng. Bot.*

595. CYSTOSEIRA.

- 1 L. densely spiny all over : vesicles elliptical, somewhat term. crown,
solitary : recept. warty, from the inflated base of the spines.
Fucus. Eng. Bot.—For other species, see *Eng. Bot.*

CLASS XXIV. CRYPTOGRAMIA.

ORDER V. LICHENES.

Fructification in shields, tubercles or warts, in whose disk the seeds are lodged.

TRIBE I. IDIOTHALAMI.

Receptacle composed of a substance different from the frond, and discoloured.

** Receptacles without a border, or nucleus.*

- 596 SPILOMA. Plant crustaceous, spreading, flat, adnate, uniform. *Fructification* composed of minute bodies, collected into a shapeless mass.
- 597 SOLORINA. Plant leafy, coriaceous, veiny beneath. *Recept.* adnate, roundish, covered with a membrane, and containing a solid cellular parenchyma.

*** Receptacles bordered.*

- 598 LECIDEA. Plant various, crustaceous, spreading, uniform or leafy. *Recept.* shield-shaped, sessile, surrounded by a cartilaginous membrane, disk flat.
- 599 CALICIUM. Plant crustaceous, flat, adnate, uniform. *Recept.* cup-shaped, sessile or stalked, cartilaginous, containing a powdery mass, either flat or convex.
- 600 GYROPHORA. Plant leafy, coriaceous or cartilaginous, peltate, mostly monophyllous, free beneath. *Recept.* roundish, sessile, concentrically plaited, covered with a blackish membrane.
- 601 ENDOCARPON. Plant crustaceous, adnate, of some determinate figure; or leafy and peltate. *Fructification* globose, enclosed in the substance of the plant; composed of a *nucleus* covered with a thin membrane, furnished with a slightly prominent orifice.

TRIBE II. CÆNOTHALAMI.

Receptacle in part composed of the substance of the plant.

* *Recept. wart-like.*

- 602 THELOTREMA. Plant crustaceous, cartilaginous, flat, adnate, uniform. *Recept.* bordered, furnished with a wide pore, and containing a *nucleus* within a double covering.
- 603 PYRENULA. Plant crustaceous, adnate, uniform. *Fructification*, a cellular globular *nucleus*, with a thick cartilaginous black covering.
- 604 VARIOLARIA. Plant crustaceous, flat, spreading, adnate, uniform. *Recept.* formed from the crust, bordered, white, inclosing a naked *nucleus*.
- ** *Recept. shield-like, sessile, the disk differently coloured from the border, which is formed from the crust.*
- 605 URCEOLARIA. Plant crustaceous, spreading, adnate, uniform; disk of the *recept.* concave, coloured, immersed in the crust.
- 606 LECANORA. Plant crustaceous, spreading, adnate, flat, uniform. *Recept.* thick, sessile, the disk plano-convex, coloured: border thickish, somewhat free.
- 607 PARMELIA. Plant leafy, coriaceous-membranaceous, spreading, appressed, lobed and stellate, variously divided, fibrous beneath. *Recept.* attached by the centre: disk concave, coloured.
- 608 BORRERA. Plant cartilaginous, jagged into branches, which are channelled beneath, and fringed. Disk of the *recept.* coloured.
- 609 CETRARIA. Plant cartilagino-membranaceous, lobed, smooth on both sides. *Recept.* obliquely attached to the margin; disk coloured, plano-concave; border inflexed.
- 610 STICTIA. Plant leafy, coriaceous-cartilaginous, lobed, downy beneath, scattered with hollow spots. *Recept.* fixed by the centre; disk flat, coloured.
- 611 PELTIDEA. Plant leafy, coriaceous, spreading, lobed, with downy veins beneath. *Recept.* closely attached to the upper margin of the *frond*; border very thin.
- 612 NEPHROMA. Plant leafy, coriaceous, membranaceous, lobed; separate, and naked or woolly, beneath. *Recept.* formed of the ascending lengthened lobes of the *thallus*, surrounded by an elevated, inflexed margin.

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

- 613 ROCCELLA. Plant coriaceous, cartilaginous, branched, laciniated, cylindrical or flat, erect or pendulous, woolly inside. *Recept.* thick, growing into the *thallus*; disk plano-convex, surrounded by an elevated, sessile margin, which contains a compact black powdery mass.
- 614 EVERNIA. Plant branched, laciniate, angular or compressed, pendulous or somewhat erect, with a central filament within. *Recept.* sessile; disk concave, coloured.
- *** *Recept. in little heads or globules, terminating the branches, or the stalk-like processes of the frond; or scattered, sessile, and emarginate.*
- 615 CENOMYCE. Plant somewhat cartilaginous, leafy, laciniate, rarely uniform. *Recept.* convex, attached by the edge, to hollow stalk-like processes, and bearing thick coloured masses of *fructification*.
- 616 BÆOMYCES. Plant crustaceous, spreading, flat, adnate. *Recept.* on short, soft, solid stalk-like processes; solid, convex, emarginate, reflexed at the margin, coloured.
- 617 ISIDIUM. Plant crustaceous, flat, spreading, adnate, uniform. *Recept.* on very short stalk-like processes, circular, convex, solid, terminal, disk inclosed by a border, formed from the process which supports it.
- 618 STEREOCAULON. Plant shrubby, cartilaginous, branched. *Recept.* turbinate, solid, sessile, flat above, at length subglobose, with a border formed from the frond.
- 619 SPILÆNOPHORON. Plant cartilaginous, fibrous within, solid, shrubby, branched. *Recept.* nearly globular, terminal, formed of the frond, inclosing a black round seed-bearing ball, bursting by a torn orifice.

TRIBE III. HOMOTHALAMI.

Recept. entirely formed of the substance of the frond, and of the same colour.

- 620 ALFECTORIA. Plant cartilaginous, branched; branches filiform, hollow, and fibrous within; prostrate or pendulous. *Recept.* shield-like, thick, sessile, bordered.
- 621 RAMALINA. Plant cartilaginous, fibrous, and nearly solid within, branched, somewhat shrubby. *Recept.* shield-like, thick, somewhat stalked and peltate, flat, bordered.
- 622 CORNICULARIA. Plant cartilaginous, fibrous and nearly solid within, branched, shrubby. *Recept.* circular, terminal, obliquely peltate, at length convex, somewhat inflated; border dentate.

- 523 USNEA. Plant branched, filiform, mostly pendulous, with central elastic fibres. *Recept.* circular, terminal, flat, pel-tate, often fringed at the edge.
- 524 COLLEMA. Plant subgelatinous, homogenous, crustiform, leafy or somewhat branched, cartilaginous or membranaceous when dry. *Recept.* shield-like, bordered; the disk sometimes differing in colour, when dry.

TRIBE IV. ATHALAMI.

Lichenes of which the fructification is not known.

- 525 LEPRARIA. Plant crustaceo-pulverulent, spreading, adnate, uni-form.

TRIBE V. PSEUDO-LICHENES.

Recept. black, horny, imbedded. Seeds in slender tubular cells, lying in a pulp, not spontaneously emitted.

- 526 OPEGRAPHIA. Plant crustaceous, flat, expanded, adnate, uniform. *Recept.* oblong, sessile, covered with a dark cartila-ginous membrane, inclosing a solid parenchyma: disk linear, edged on each side.
- 527 VERRUCARIA. Plant crustaceous, flat, expanded, adnate, uniform. *Recept.* somewhat globose, growing into the *thallus*, double coated: the outer coat thick and somewhat earilaginous with a little pimple or perforation above: the inner fine and membranaceous. *Kernel* glo-bular, cellular.
- 528 PORINA. Plant crustaceous, flat, expanded, adnate, uniform. *Re-cept.* wart-like, formed out of the *thallus*: fructifica-tion imbedded within its substance. *Kernel* roundish, cellular; in a thin envelope; with a coloured orifice, thicker at the surface of the wart.
- 529 ARTHONIA. Plant crustaceous, flat, expanded, adnate, uniform. *Recept.* innate, shapeless, covered with a dark, carti-laginous membrane, and containing a solid uniform kernel.
- 530 GRAPHIS. Plant crustaceous, flat, expanded, adnate, uniform. *Recept.* linear, immersed in the *thallus*; with a carti-laginous border surrounding the linear cellular *kernel*, but leaving it naked at the top and bottom.

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
596	SPILOMA. 1 tumidulum	SPILOMA. tumid	Bark of trees	1-12	2151
597	SOLORINA. 1 crocea	SOLORINA. saffron coloured	Alp. hea. ! ..	3-8	*489
598	LECIDEA. 1 lurida	LECIDEA. lurid	Scotch alps ..	6-8	*1329
599	CALICIUM. 1 curtum	CALICIUM. short stalked	Dead wood ..	11-2	2503
600	GYROPHORA. 1 cylindrica	GYROPHORA. cylindrical	Rocks	3-5	*522
601	ENDOCARPON. 1 smaragdulum	ENDOCARPON. emerald	Rocks	6-8	*1512
602	THELOTREMA. 1 lepadinum	THELOTREMA. covered	Holly bark ..	1-12	*678

CLASS XXIV. CRYPTOGAMIA. ORDER V. LICHENES.

SPECIFIC CHARACTER.

TRIBE I. IDIOTHALAMI.

596. SPILOMA.

- 1 Crust somewhat earilaginous, whitish: recept. tumid, oblong, red; finally brown.

For 11 other species, see Eng. Bot.

597. SOLORINA.

- 1 Thallus green, lobed, veiny and saffron-coloured beneath: recept. tumid, brown. *Lichen. Eng. Bot.*

598. LECIDEA.

- 1 Crust imbricated, greenish brown, with roundish erenate lobes, pale beneath: recept. flat, at length becoming convex, black. *Lichen, Eng. Bot.*

For 65 other species, see Eng. Bot.

599. CALICIUM.

- 1 Crust filmy, very thin, whitish: recept. black, with black, prominent, loose powder.

For 16 other species, see Eng. Bot.

600. GYROPHORA.

- 1 Frond greenish gray, lobed, fringed with black hairs: recept. flattish, with concentric, and plaited lines. *Lichen proboscideus, Eng. Bot.*

For 7 other species, see Eng. Bot.

601. ENDOCARPON.

- 1 Thallus depressed, peltate, flat, roundish, entire, greenish yellow: orifices depressed, reddish-brown. *Lichen, Eng. Bot.*

For 9 other species, see Eng. Bot.

TRIBE II. CÆNOTHALAMI.

602. THELOTREMA.

- 1 Crust cream-coloured, polished: warts somewhat conical, within flesh-coloured, with a thin inflexed edge. *Lichen inclusus, Eng. Bot.*

For 2 other species, see Loudon's Ency. Pl.

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
603	PYRENULA. 1 nigrescens	PYRENULA. blackish	Rocks	1-12	*1499
604	VARIOLARIA. 1 velata	VARIOLARIA. veiled	Ash trees ..	8-10	2062
605	URCEOLARIA. 1 Acharii	URCEOLARIA. Acharian	Stones!	1-12	1087
606	LECANORA. 1 tartarea	LECANORA. cudbear	Rocks	1-12	*156
607	PARMELIA. 1 glomulifera	PARMELIA. warted.....	Trunks of trees	3-5	*293
608	BORRERA. 1 ciliaris	BORRERA. fringed	Trunks of trees	1-12	*1352
609	CETRARIA. 1 islandica	CETRARIA. Iceland-moss	Rocky places	1-12	*1330

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

SPECIFIC CHARACTER.

603. PYRENULA.

- 1 Crust somewhat tessellated, unequal, brownish black : warts spreading at the base, depressed, somewhat wrinkled. *Ver. umbrina. Eng. Bot.*—For 2 other species, see *Eng. Bot.* 2455. 2153.

604. VARIOLARIA.

- 1 Crust smooth, white, plaited in rays : warts polished, compressed, tumid : kernel covered with a thin powdery skin.
For 8 other species, see *Eng. Bot.*

605. URCEOLARIA.

- 1 Crust smooth, a little cracked, pale brick-coloured : shields reddish.
Lichen. Eng. Bot.
For 5 other species, see *Eng. Bot.*

606. LECANORA.

- 1 Crust granulated, whitish : recept. flattish, flesh-coloured, with an elevated white border inflexed, at length waved. *Lichen. Eng. Bot.*
For 45 other species, see *Eng. Bot.*

607. PARMELIA.

- 1 Thallus rigid, glaucous green, bearing dark green tufted excrescences ; tawny and downy beneath ; the lobes waved and lacinated. *Recept. reddish-brown, margin wrinkled. Lichen. Eng. Bot.*
For 36 other species, see *Eng. Bot.*

608. BORRERA.

- 1 Thallus greenish glaucous grey ; seg. linear, jagged, fringed, channelled beneath : recept. elevated, brownish black. *Lichen. Eng. Bot.*
For 6 other species, see *Eng. Bot.*

609. CETRARIA.

- 1 Thallus olive-brown, paler beneath ; segments multifid, channelled, smooth, dentate-ciliate : fertile branches spreading : recept. flat, appressed ; margin elevated, entire. *Lichen. Eng. Bot.*
For 4 other species, see *Eng. Bot.*

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
610	STICTA.	STICTA.			
	I pulmonacea	lung-wort	Trees	1-12	*572
611	PELTIDEA.	PELTIDEA.			
	I scutata	shielded	On earth	6-8	*1834
612	NEPHROMA.	NEPHROMA.			
	I parilis	chocolate	Stones	1-12	*2360
613	ROCCELLA.	ORCHALL.			
	I tinctoria	dyer's	Mariti. rocks!	1-12	*211
614	EVERNIA.	EVERNIA.			
	I prunastri	Stag's Horn	Heaths	1-12	*859
615	CENOMYCE.	CENOMYCE.			
	I endiviæfolia	endive-leaved	Dry places . . .	11-2	*2361
616	BÆOMYCES.	BÆOMYCES.			
	I roseus	pink	M. heaths . . .	6-8	*374

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

SPECIFIC CHARACTER.

610. STICTA.

- 1 Frond olive-green, cellular, reticulated; lobes laciniated, abrupt: recept. mostly marginal, bright chesnut; margin wrinkled.
Lichen. Eng. Bot.

For 6 other species, see Eng. Bot.

611. PELTIDEA.

- 1 Frond spreading, brownish grey, beneath pale, veiny: lobes oblong, with crisped and powdery edges: recept. ascending, nearly flat, dark brown. *Lichen. Eng. Bot.*

For 8 other species, see Loudon's Ency. Pl.

612. NEPHROMA.

- 1 Thallus lobed, livid brown, beneath naked, blackish: recept. brown.
Lichen. Eng. Bot.

For another species, see Eng. Bot. 305.

613. ROCCELLA.

- 1 Shrubby, solid, cylind. glaucous, somewhat branched, rather erect: recept. scattered, elevated; disk flat, as broad as the border.
Lichen Roccella. Eng. Bot.

For another species, see Eng. Bot. 728.

614. EVERNIA.

- 1 Thallus greenish white, leafy, much branched, pitted and rugged, very white beneath: recept. with a bright brown disk. *Lichen. Eng. Bot.*

615. CENOMYCE.

- 1 Thallus large, deeply lobed: seg. multfid, waved, crenate, crisped, yellowish green above, white beneath: recept. simple, marginal, reddish brown. *Lichen. Eng. Bot.*

For 19 other species, see Loudon's Ency. Pl.

616. BÆOMYCES.

- 1 Crust uniform, warty, whitish, with short cylind. stalks: recept. flesh-coloured. *Lichen Bæomyces. Eng. Bot.*

For 3 other species, see Eng. Bot.

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
617	ISIDIUM.	ISIDIUM.			
	1 corallinum	white coral crusted..	Sto. and rocks	8-11	*1541
618	STEREOCAULON.	STEREOCAULON.			
	1 paschale*	crisp	Mic. rocks ..	1-12	*282
619	SPHÆROPHORON.	SPHÆROPHORON.			
	1 coralloides	coralloid	Rocks	1-12	*115
620	ALECTORIA.	ALECTORIA.			
	1 jubata	rock hair	Fir-trees . . .	11-2	*1880
621	RAMALINA.	RAMALINA.			
	1 fraxinea	ashen	Branches ..	1-12	*1781
622	CORNICULARIA.	CORNICULARIA.			
	1 tristis	dingy	Alp. rocks ..	1-12	*720
623	USNEA.	USNEA.			
	1 florida	flowering	Old trees . . .	11-2	*872

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

SPECIFIC CHARACTER.

617. ISIDIUM.

- 1 Crust tartareous, whitish, papillary, uneven, with a leafy grey margin: recept. brownish. *Lichen. Eng. Bot.*
For 4 other species, see Eng. Bot.

618. STEREOCAULON.

- 1 Thallus greenish grey, with numerous crowded branches, and rough with granulated excrescences: recept. scattered, terminal, dark brown. *Lichen. Eng. Bot.*

619. SPILEROPHORON.

- 1 Thallus yellowish grey; branches cylind. elongated, divaricating: recept. smooth. *Lichen. Eng. Bot.*
For 2 other species, see Eng. Bot. 114. 2474.

TRIBE III. HOMOTHALAMI.

620. ALECTORIA.

- 1 Thallus shining, livid brown, very much branched; branches filiform, compressed at their divarications, pendulous or in tufts: recept. dark, with an entire border. *Lichen. Eng. Bot.*
For another species, see Eng. Bot. 2040.

621. RAMALINA.

- 1 Thallus flat, linear, lacinated, greyish white, smooth, but wrinkled and pitted: ultimate branches attenuated: recept. mostly marginal, flat, pale flesh-coloured. *Lichen. Eng. Bot.*
For 4 other species, see Eng. Bot.

622. CORNICULARIA.

- 1 Thallus somewhat compressed, smooth, blackish, distichously dichotomous: branches fastigate, black above: recept. flattish, blackish, margined and toothed. *Lichen. Eng. Bot.*
For 4 other species, see Eng. Bot.

623. USNEA.

- 1 Frond much branched, erect, greenish grey; branches spreading, simple: recept. very broad, radiated. *Lichen. Eng. Bot.*
For 2 other species, see Eng. Bot.

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
624	COLLEMA.	COLLEMA.			
	1 nigrum.....	blaek	Cale. rocks ..	.....	*1161
	2 tenax	tough	Moist places ..	.....	2349
	3 palmatum	palmated.....	Sandy soil ..	5-8	*1635
	4 Burgessii	Burgess's	Trees	1-12	*300
	5 nigreseens	blackish	Trees	1-12	*345
	6 lacerum	lacerated.....	On earth	3-5	*1982
625	LEPRARIA.	LEPRARIA.			
	1 ochraeea	oehre-coloured	Old trees....	11-2	2408
626	OPEGRAPHIA.	OPEGRAPHIA.			
	1 nimbosa	cloudy.....	Old trees....	1-12	2346
627	VERRUCARIA.	VERRUCARIA.			
	1 punctiformis.....	dot-shaped	Ash trees ..	1-12	*2412
628	PORINA.	PORINA.			
	1 pertusa.....	pierced	Trunks of tr.	8-10	*677

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

SPECIFIC CHARACTER.

624. COLLEMA.

- 1 Crust black ; lobes of the circumference cut, crenate ; central granular, a little branched : recept. black-edged, finally convex. *Lichen. Eng. Bot.*
- 2 Imbricated : lobes thick, flattish, somewhat palmate : recept. depressed, with an entire border, reddish.
- 3 Thallus greenish brown, with distinct thick turgid lobes, somewhat palmate : recept. reddish. *Lichen. Eng. Bot.*
- 4 Frond leafy, green, somewhat imbricated, with round sinuated curled lobes, woolly beneath : recept. brown, flattish, with a curled border. *Lichen. Eng. Bot.*
- 5 Frond leafy, with broad membranous, blistered, round lobes, dull green : recept. clustered, reddish brown. *Lichen. Eng. Bot.*
- 6 Frond leafy, membranous, very thin, blueish brown ; lobes dilated, finely jagged and fringed : recept. scattered, concave, red, with a pale border. *Lichen. Eng. Bot.*

TRIBE IV. ATHALAMI.

625. LEPRARIA.

- 1 Crust not discernible : fructification of an ochrey-yellow, collected into thin scattered patches.
For 3 other species, see Eng. Bot.

TRIBE V. PSEUDO-LICHENES.

626. OPEGRAPHIA.

- 1 Crust cracked, unequal, very white : recept. clustered, minute, oblong, turgid ; disk closed.
For 9 other species, see Loudon's Ency. Pl.

627. VERRUCARIA.

- 1 Crust thin, polished, brown : recept. minute, without orifices : kernel white. *Lichen. Eng. Bot.*
For 10 other species, see Loudon's Ency. Pl.

628. PORINA.

- 1 Crust smooth, greyish white : recept. waxy, flesh-coloured, with black orifices. *Lichen. Eng. Bot.*

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

	LINNEAN NAMES.	ENGLISH NAMES.	Situation or Place of Growth.	Time of Flowering.	Figure in English Botany.
629	ARTHONIA. 1 Swartziana	ARTHONIA. Swartzian	Bark of trees	1-12	2079
630	GRAPHIS. 1 scripta	GRAPHIS. written	Smooth bark	1-12	1813

CLASS XXIV. CRYPTOGRAMIA. ORDER V. LICHENES.

SPECIFIC CHARACTER.

629. ARTHONIA.

- 1 Crust thin, membranous, scaly, cracked, cream-coloured: recept. black, depressed, roundish, wavy, rather uneven.

For 4 other species, see Eng. Bot.

630. GRAPHIS.

- 1 Crust somewhat shining, greyish, bordered with black: recept. simple or branched; disk narrow.

For 4 other species, see Eng. Bot.

CLASS XXIV. CRYPTOGRAMIA.

ORDER VI. FUNGI.

Subdivision 1. *Mitrati*.

Recept. never closed. Hymenium neither margined nor discoid.

- 633 *HELVELLA*.* *Pileus* somewhat membranaceous, irregular, smooth on each surface, deflexed at the sides. *Hymenium* occupying the whole outer surface.
- 634 *MORCHELLA*.† *Pileus* lacunose, confluent with the stipes either at the margin or a little above it. *Hymenium* occupying the whole outer surface.

Subdivision 2. *Cupulati*.

Recept. shaped like a reversed bell; equal. Hymenium discoid, when young somewhat closed, surrounded by the margin of the receptacle.

- 635 *PEZIZA*. *Pileus* mostly fleshy, sessile or stipitate, more or less cup-shaped, sometimes becoming flat, when old.

Division 3. *TREMELLINI*.

Hymenium confounded with a gelatinous receptacle. Sporidia separate. Asci none.

- 636 *TREMELLA*. *Recept. fructifying in all directions; without papillæ. Sporidia nearly emerging.*

Division 4. *SCLEROTIACEÆ*.

Hymenium confounded both with the fleshy receptacle, and the sporidia. Asci none.

- 637 *SCLEROTIUM*. Subglobose, or without regular form within, homogeneous, vesiculose, fleshy, or horny. *Seeds* not known.

TRIBE II. GASTEROMYCETES.

Fungus entirely closed, and bearing sporidia in the centre, thus forming an uterus.

Division 1. *ANGIOCASTRÆ*.

Uterus finally bursting forth, apart from the receptacle. Sporidia lodged in the receptacle.

* Some of the species are used for purposes of cookery; more especially the *H. esculenta*, which is frequently substituted for the *Morel*.

† Few of the fungi are so precious in the eyes of the epicure as the *Edible Morel*, *M. esculenta*. The French, however, are possessed of a species in yet higher estimation, *M. deliciosa*.

CLASS XXIV. CRYPTOGRAMIA.

ORDER VI. FUNGI.

Subdivision 1. *Phalloidea*.

Recept. open by the bursting of the uterus. Sporidia in a mucous layer.

- 638 PHALLUS. *Stipes issuing from a volva. Pileus furnished with large cells filled with a seed-bearing slime.*

Subdivision 2. *Tuberaceæ*.

Hymenium often grated with veins. Sporidia, at first, pulpy.

- 639 TUBER.* *Uterus marbled with veins inside. Sporidia stalked, scattered among the veins. Subterraneous.*

Subdivision 3. *Nidulariaceæ*.

Uterus filled with separate capsules.

- 640 NIDULARIA. *Involucrum simple. Capsule lenticular, fleshy, with sporidia in heaps in the middle.*

Subdivision 4. *Carpoboli*.

Capsule solitary.

- 641 PILOBOLUS. *Stipes or receptacle pellucid, watery. Involucrum a roundish vesicle, bursting elastically, placed on the apex of the receptacle.*

Division 2. PYRENOAMYCETES.

Sporidia disposed in asci, in regular rows.

Subdivision 1. *Sphæriacei*.

Involucrum closed, perforated by an orifice.

- 642 SPHÆRIA. *Recept. 0. Spherules sessile on the surface, or slightly immersed.*

Subdivision 2. *Cytispori*.

Asci none. Sporidia enclosed in a little bag or cell.

- 643 CYTISPORA. *Many celled: cells membranous, united at the ends.*

Subdivision 3. *Phacidiaei*.

Involucrum finally bursting, with an open disk. Asci erect, fixed.

- 644 PHACIDIUM. *Recept. 0. Involucra sessile, depressed, bursting from the centre towards the circumference in several acute segments.*

* Of this genus is the well known subterraneous luxury, called the *Truffle*: *T. cibarium*; of which dogs are usually employed as the caterers.

CLASS XXIV. CRYPTOGRAMIA.

ORDER VI. FUNGI.

Subdivision 4. *Xylomacei*.*Asei obsolete. Sporidia innate.*

- 645 XYLOMA. Black, horny. *Involucra* single, solitary and minute, or united and confluent; irregularly dehiscent.

Division 3. *Trichospenmi*.*Sporidia intermixed with little woolly tufts.*Subdivision 1. *Lycoperdinei*.*Uterus of a determinate figure; fleshy when young.*

- 646 LYCOPERDON. *Envelopes* membranaceous, scaly, with warts or soft spines, bursting irregularly at the apex, and containing a mass of seeds and woolly tufts.

Subdivision 2. *Trichocisti*.*Uterus regular, pulpy when young.*

- 647 TRICHIA. Minute, subglobose or irregular. *Envelope* single, membranaceous, bursting. *Filaments* involute, attached to the base, and expanding elastically.

Subdivision 3. *Fuliginoidei*.*Uterus shapeless, pulpy when young. Sporidia separated by woolly tufts.*

- 648 LYCOGALA. *Envelope* single, fragile, variously dehiscent. A few *filaments* mingled with the seeds.

Subdivision 4. *Liceoidi*.*Tufts obsolete.*

- 649 LICEA. *Envelope* sessile, fragile, enclosing a powdery mass of seeds unmixed with filaments.

Division 4. *Mucronoidi*.*Envelope formed of woolly tufts, loosely woven together. Sporidia in heaps.*

- 650 MUCON. *Envelope* stipitate, pellucid, at length opaque: pedicel simple or branched, tubular, articulated.

Division 5. *Perisporia*.*Envelope thin, somewhat membranous, bursting. Sporidia immersed.*

- 651 AMPHISPORIUM. Subglobose. *Seeds* naked, of two forms.

TRIPE III. HYPHOMYCETES.

Thallus tufted.

Division 1. CEPHALOTRICHI.

Recept. distinct, covered with woolly tufts, with sporidia scattered among them.

- 652 CERATIUM. Filaments short, pellucid, simple, attached to a membranous, plaited, simple or branched, filiform receptacle.

Division 2. STILBOIDEI.

Fibres grown together upon the receptacle. Sporidia enclosed in a separate naked head.

- 653 STILBUM. Minute: stipes slender, bearing a round solid head, which is at first pellucid and semi-fluid, finally more dense and opaque.

Division 3. INOMYCETES.

Fibres genuine, somewhat separated by divisions. Recept. none. Growing upon putrescent, organic matter.

Subdivision 1. Byssacei.

Opaque fibres bearing seeds inside; when fertile, jointed; when sterile, contiguous. Repelling moisture.

- 654 TORULA. Thallus composed of branched, rigid, fragile, moniliform, somewhat opaque filaments; the articulations minute, globose.

Subdivision 2. Mucedines.

Tufts pellucid, with partitions, bearing seeds on the outside.

- 655 SEPEDONIUM. Thallus formed of entangled filaments, spreading within putrifying fungi. Sporidia scattered, globose, (bright yellow.)

Division 4. PHYLLERIACEÆ.

Fibres spurious, contiguous, bearing seeds inside. Recept. none. Growing on living leaves.

- 656 RUBIGO. Fibres funnel-shaped, or club-shaped, twisted, situated in patches on sickly leaves.

CLASS XXIV. CRYPTOGRAMMA.

ORDER VI. FUNGI.

TRIBE IV. CONIOMYCETES.

Sporidia naked, without any heterogeneous receptacle.

Division 1. TUBERCULARIÆ.

Sporidia simple, scattered over the receptacle.

- 657 FUSARIUM. Minute, subglobose, naked, almost entirely formed of fusiform, free, jointless sporidia.

Division 2. ENTOPHYTÆ.

Sporidia separate, without a receptacle.

Subdivision 1. Stilbosporei.

Growing under the bark of dead plants.

- 658 STILBOSPORA. Black. Recept. none, or a powdery mass intermixed with naked sporidia, the whole bursting through the bark.

Subdivision 2. Hypodermia.

Parasites upon living plants.

- 659 CYLINDROSPORIUM. Very small; on the surface of living leaves. Sporidia pellucid, cylindrical, truncate, free, not divided.

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