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Vol 11.

Of the
Botanists Repository

Comprising,

Colour'd Engravings

of

New and Rare Plants

ONLY

With Botanical Descriptions &c.

in

Latin and English,

after the

Linnaean System,

by

Wm. Andrews

Botanical Painter & Engraver &c.



Mo. Bot. Garden
1904.

PLATE LXXIII.

DAPHNE PONTICA.

Pontic Spurge-Laurel.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

COROLLA monopetala, infundibuliformis. Tubus cylindraceus, imperforatus, limbo longior. Limbus quadrifidus; laciniis ovatis, acutis, planis, patentibus.

STAMINA. Filamenta octo, brevia, tubo inserta; alterna inferiora. Antheræ subrotundæ, erectæ, biloculares.

PISTILLUM. Germen ovatum. Stylus brevissimus. Stigma capitatum, depresso-planum.

PERICARPIUM. Bacca subrotunda, unilocularis.

SEMEN unicum, subrotundum, carnosum.

EMPALEMENT, none.

BLOSSOM one petal, funnel-shaped. Tube cylindrical, closed at the base, longer than the border. Border four-cleft; segments egg-shaped, sharp, flat, and spreading.

CHIVES. Eight short threads, fixed to the tube; four alternately lower than the others. Tips roundish, upright, with two cells.

POINTAL. Seed-bud egg-shaped. Shaft very short. Summit a low, smooth knob.

SEED-VESSEL. A roundish berry, of one cell.

SEED, single, roundish, and fleshy.

SPECIFIC CHARACTER.

Daphne, pedunculus axillaribus, bifloris; foliis obovatis, nitidis.

Spurge-laurel, the fruit stalks growing from the base of the leaves, with two flowers each; leaves inversely egg-shaped, and shining.

REFERENCE TO THE PLATE.

1. A Flower cut open, to shew the situation of the Chives.
2. The Pointal, (natural size).
3. A ripe Seed.

TOURNEFORT in his Voyage to the Levant, Vol. III. has described this plant under the name of, *Thymelæa Pontica Citrei foliis*; Dr. P. Pallas in his *Flora Rossica*, has likewise figured and described it, under the title it bears in the *Sp. Plan.* p. 511; from both of whom we learn, that it is a native of the coast of the Black Sea, and therefore perfectly hardy, at least sufficiently so to endure our climate. It is the handsomest in foliage of any species of the genus, having, like most of them, fragrant flowers; which begin to shew themselves with the first budding of the plant in spring, about the first week in March. Like our common Spurge-laurel it delights in shade, making a pretty evergreen shrub, about two feet in height; and grows best in a light loamy soil. Although this plant has been long known by name, it had not been seen in England till 1795, a year subsequent to its being sent in seeds to Messrs. Lee and Kennedy, Hammer-smith. It flowered for the first time here, in 1798; but our drawing was not made till this year, about the middle of April. It is propagated by the seed, or cuttings.



Daphne Pontica

PLATE LXXIV.

PERSOONIA LANCEOLATA.

Lance-shaped leaved Persoonia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

COROLLA. Petala quatuor, basin versus flaminifera, reflexa, apice incrassata.

Nectariae. Glandulae quatuor globosae, ad basin germinis.

STAMINA. Filamenta quatuor brevia, singula ex singuli petali medio enata. Antherae lineares, conniventes, demum reflexae.

PISTILLUM. Germen superum, ovatum. Stylus subulatus, glaber, persistens. Stigma obtusum, declinatum.

PERICARPIUM. Drupa subrotunda, monosperma.

SEMEN. Nux ossea, subrotunda, compressa.

EMPALEMENT, none.

BLOSSOM. Four petals, supporting the chives near the bottom, bent back, and thickened at the point.

Honey-cups. Four round glands at the base of the feed-bud.

CHIVES. Four short threads, one growing out of each petal about the middle. Tips linear, and approaching each other, then reflexed.

POINTAL. Seed-bud egg-shaped, and above. Shaft awl-shaped, smooth, and remaining. Summit blunt, and bent downward.

SEED-VESSEL. A pulpy berry, roundish, with one seed.

SEED. A hard, roundish nut, flattened.

SPECIFIC CHARACTER.

Persoonia foliis lanceolatis, acutis, enerviis, utrinque glabris; petiolis tortis; floribus axillaribus, flavis.

Persoonia with lance-shaped leaves, sharp pointed, without nerves, and smooth on both sides; foot-stalks twisted; the flowers grow at the lower part of the leaves, close to the stem, and yellow.

REFERENCE TO THE PLATE.

1. A Blossom.
2. One division of the Blossom with its Chive.
3. The Pointal (natural size).
4. The same (magnified).
5. The Receptacle, with the Honey-cups (magnified).
6. A Berry cut in two, the Seed taken out.
7. A ripe Seed.

Every step we make in the examen of plants, from that endless source for botanical research, New Holland; nature almost as constantly, presents us with a perfectly new face; such is the object of our present consideration. Dr. Smith, P. L. S. in the Linnæan Transactions, Vol. III p. 215, considering a new Genus as necessary for this tribe of plants, has named it in honour of C. H. Persoon, much noted for his works on the fungi. This is a handsome, spreading greenhouse plant, growing about five feet high, and covering itself with deep yellow blossoms. It is propagated by cuttings, or seeds, which come to maturity with us, and are produced in great numbers. J. Willson, Esq. of Islington, raised this species from seeds about the year 1791; from a specimen in whose collection our figure was taken, this year in July, and where it flowered for the first time last year, in the month of August, and is still in bloom, although many seeds are already perfected, from the flowers of last year.



Persoonia lanceolata

PLATE LXXV.

PHYSALIS PROSTRATA.

Trailing Winter-cherry.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CLAYX. Perianthium monophyllum, ventricosum, semi quinquefidum, pentagonum; laciniis acuminatis; persistens.

COROLLA. Monopetala, rotata. Tubus brevissimus. Limbus semiquinquefidus, magnus, plicatus.

STAMINA. Filamenta quinque, subulata, minima, conniventia. Antheræ erectæ, conniventes.

PISTILLUM. Germen subrotundum. Stylus filiformis, staminibus fere longior. Stigma obtusum.

PERICARPIUM. Bacca sub-globosa, bilocularis, intra calycem maximum, inflatum, clausum, pentagonum.

SEMINA plurima, reniformia, compressa.

EMPALEMENT. Cup one leaf, bellied, half five-cleft, and five-fided; the segments are tapered; permanent.

BLOSSOM, one petal, wheel-shaped. Tube very short. Border half five-cleft, large, and plaited.

CHIVES. Five threads, awl-shaped, very small, and approaching. Tips upright, and approaching.

POINTAL. Seed-bud roundish. Shaft thread-shaped, hardly longer than the chives. Summit blunt.

SEED-VESSEL. A roundish berry, two-celled, within a large, swelled, close-mouthed, five-fided cup.

SEEDS many, kidney-shaped, and flat.

SPECIFIC CHARACTER.

Physalis, ramosissima, prostrata, hispida; foliis subcarnosis; corollis cæruleis.

Winter Cherry, very branching, trailing, and hairy; leaves nearly fleshy; blossoms blue.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Flower cut open, with the Chives attached.
3. The Pointal (natural size).
4. A ripe Seed-vessel.

This beautiful species of Physalis, as a tender annual, should be sown early in March, on a strong hotbed; and kept, when potted, in the greenhouse, being impatient of cold or wet, and perishes if exposed to either. It is a native of Peru, South America, and has been figured by Professor Jacquin in his *Ic. Rar. 1. t. 38*; likewise by *Monf. l'Heritier* in his *Stirp. Nov. p. 43. t. 22*; and was first transmitted to England in the year 1782, by *Monf. Thoin*, from France. Although it has been cultivated here some years, it is but little known, owing to its great delicacy when young, being very liable to damp off in the hotbed.



Physalis peruviana

1

2

3

4

PLATE LXXVI.

PROTEA PINIFOLIA.

Pine-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 4-fida, seu 4-petala. Antheræ lineares, insertæ petalis infra apicem. Calyx proprius nullus. Sem. solitaria.

BLOSSOM four-cleft or of four petals. Tips linear, inserted into the petals below the ends. Cup. Proper, none. Seeds solitary. See PROTEA SPECIOSA. Plate XVII.

SPECIFIC CHARACTER.

Protea floribus simplicibus, racemoso-spicatis, glabris; foliis filiformibus, sparsis, glabris.

Protea with simple flowers, growing in branching spikes, and smooth; leaves thread-shaped, scattered, and smooth.

REFERENCE TO THE PLATE.

1. A Blossom complete.
2. One Petal of the Blossom, (magnified), with its Chive attached.
3. The Pointal and Seed-bud, (magnified).
4. A ripe Seed.

THE Pine-leaved Protea from the Cape of Good Hope, is rather a delicate plant; and is subject to be killed, if not kept in the driest, and warmest part of the greenhouse, being very susceptible of damps. It makes a very fine appearance when in bloom, growing to the height of two feet or more upright, and with few branches; every part of the plant, (which is uncommon in this genus,) is quite smooth and shining. This species of Protea is an inhabitant of our gardens, since the year 1780; when it was first introduced by William Forsyth, Esq. of Kenfington, but has been rarely seen to flower, as it is found but in few collections; owing to the difficulty of propagating it, by the only possible method in this country, cuttings. The soil it approves most, as do most of the Proteas, is a light loam. The drawing was taken at the Hammersmith nursery, from a plant which flowered there in August this year.



Protea pinifolia

PLATE LXXVII.

PERSOONIA LINEARIS.

Linear-leaved Persoonia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX nullus. Petala 4, basin versus stamini-
fera. Glandulæ 4, ad basin germinis.
Stigma obtusum. Drupa monosperma.

EMPALEMENT none. Petals four, supporting the
chives near the bottom. Four glands at the
base of the seed-bud. Summit blunt. A
pulpy berry with one seed.

See PERSOONIA LANCEOLATA. Pl. LXXIV.

SPECIFIC CHARACTER.

*Persoonia foliis linearibus, sub-villosis; floribus
flavis.*

Persoonia with linear leaves, a little hairy;
flowers yellow.

REFERENCE TO THE PLATE.

1. A flower complete.
2. One Petal of the flower, with its Chive, (magnified).
3. The Pointal, (natural size).
4. The same, (magnified).

THE Linear-leaved *Persoonia*, is indigenous to the same clime as the Lance-shaped leaved, given in our last number; grows to nearly the same height, and makes a handsome greenhouse plant, continuing to flower through the autumnal months; and producing good seeds. J. Robertson, Esq. of Stockwell, Surry, raised this species from seeds in the year 1794; with whom it flowered last year, for the first time in England; and for whose kind communication of a specimen in flower, (from which our drawing was made,) we beg our grateful acknowledgment. It is raised by seeds, or cuttings; and should be planted in peat earth.



Persea linearis

Persea linearis Linn. Sp. Pl. 1033. t. 103. f. 1.

PLATE LXXVIII.

IXORA PAVETTA.

Sweet Ixora.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quadripartitum, minimum, erectum, persistens.

COROLLA monopetala, infundibuliformis. Tubus cylindraceus, longissimus, tenuis. Limbus quadripartitus, planus; laciniis ovatis.

STAMINA. Filamenta quatuor, brevissima, in divisuris corollæ. Antheræ oblongæ.

PISTILLUM. Germen subrotundum, intra basin calycis. Stylus filiformis, longitudine tubi. Stigma bifidum.

PERICARPIUM. Bacca subrotunda, bilocularis.

SEMINA duo, hinc convexa, inde angulata.

EMPALEMENT. Cup with four divisions, very small, upright, and remaining.

BLOSSOM of one petal, funnel-shaped. Tube cylindrical, very long, and small. Border of four divisions and flat; the segments egg-shaped.

CHIVES. Four threads, very short, placed in the divisions of the blossom. Tips oblong.

POINTAL. Seed-bud roundish, in the bottom of the cup. Shaft thread-shaped, the length of the tube. Summit two-cleft.

SEED-VESSEL. A roundish berry, with two cells.

SEEDS, two, hollow on the inside, and angled without.

SPECIFIC CHARACTER.

Ixora foliis obtusis, undulatis, petiolatis, floribus fasciculatis, odoratis, sordide luteis.

Ixora with blunt, waved, leaves, having footstalks; flowers grow in bunches, are sweet scented, and of a dirty yellow.

REFERENCE TO THE PLATE.

1. The Empalement, (magnified).
2. A Blossom with the seed-bud attached, (natural size).
3. The same with the Empalement, (magnified).
4. The Pointal, (natural size).
5. The same, magnified.

To the Lady Dowager de Clifford are we indebted, for the introduction of this new species of *Ixora*, a native of the East Indies; her Ladyship having received it from thence, in the year 1796. It is a tender hot-house plant, growing to the height of a foot, or more, and very bushy; the bunches of flowers are very large, covering nearly the whole upper part of the plant, and are exceedingly fragrant. The blossoms begin to expand about the beginning of August, and continue to blow in succession, till the end of October. The only plant we have yet heard of, in England, is in her Ladyship's collection at Paddington; where it has flowered for the first time this year, and where our drawing was made. It is propagated like the other species of *Ixora*, by cuttings, and should be kept in rich earth.



Ixora pauciflora.

Pl. Ind. Arch. Bot. t. 1. p. 100. f. 1. 1815.

PLATE LXXIX.
CROWEA SALIGNA.

Willow-leaved Crowea.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquepartitum, laciniis ovatis.

COROLLA. Petala quinque, ovata, sessilia, erecto-patula.

STAMINA. Filamenta decem, plana, subulata, pilis intertextis connexa, pistillum obvolventia. Antheræ longitudinaliter filamentis e parte interiori adnatæ.

PISTILLUM. Germen superum. Stylus erectus, cylindricus, brevissimus, e basi germinis. Stigma capitatum.

PERICARPIUM. Capsulæ quinque, ovato-acuminatæ, extrorsum coalitæ, apicibus distantibus.

SEMINA solitaria, reniformia, glabra, arillata.

EMPALEMENT. Cup one leaf, with five divisions, the segments egg-shaped.

BLOSSOM. Five petals, egg-shaped, fitting close in the cup, upright and spreading.

CHIVES. Ten threads, flat and awl-shaped, interwove together by hairs, covering the pointal. Tips growing longitudinally from the inner part of the threads.

POINTAL. Seed-bud above. Shaft upright, cylinder-shaped, and very short, growing from the base of the seed-buds. Summit a knob.

SEED-VESSEL. Five capsules, pointedly-egg-shaped, joined on the outside, and distant at the ends.

SEEDS solitary, kidney-shape, smooth, and covered by an elastic coat.

SPECIFIC CHARACTER.

Crowea, foliis lanceolatis, utrinque glabris, integerrimis; floribus solitariis, axillaribus.

Crowea, with lance-shaped leaves, smooth on both sides, quite entire; flowers grow solitary from the bottom of the leaves close to the stem.

REFERENCE TO THE PLATE.

1. The Empalement.
2. The Chives.
3. One Chive detached, natural size.
4. The same magnified to shew the situation of the Tip.
5. The Pointal, natural size.
6. The same magnified.
7. A ripe Seed.

THE number of handsome flowering plants from New Holland, already figured in the Botanist's Repository; leads us to hope, the first, and indeed most generally prevailing opinion, that the insignificance of the flowers produced by the plants of that country, rendering them scarcely worth cultivation for ornament; must be nearly, if not quite done away: and we have reason to think, when farther explored, few countries will be able to stand a competition with it, for the singularity, variety, or beauty of its vegetable productions. The Willow-leaved Crowea we consider as one amongst the many strong arguments, to favour our opinion; it is rather a delicate plant, and should be kept in a dry and warm part of the greenhouse, where it will flower from the month of July, till November; growing three feet high, if planted in light sandy peat; and is easily propagated by cuttings. Although, this is the only species at present, in cultivation with us; there is little doubt from the number of handsome specimens of other species, which we have seen, in the different herbariums from Botany Bay; and from the character of the seeds, much resembling those of the Diosma, which are not subject to rapid decay; but we shall very soon be possessed of many more of this very beautiful Genus. Our drawing was made from the nursery at Hammer-smith, where it was raised from seeds, in the year 1790. The generic title of this plant, is derived from the name of an English botanist at Norwich, Mr. James Crowe, F. L. S. see Linn. Tran. Vol. IV. page 222.



Croton saligna

PLATE LXXX.
BUCHNERA FŒTIDA.

Stinking Buchnera.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinque-
 dentatum, scabrum, persistens.

COROLLA monopetala; tubus longissimus, fili-
 formis, arcuatus; limbus planus, quin-
 quefidus, æqualis; laciniis duabus supe-
 rioribus reflexis, tribus inferioribus corda-
 tis, subæqualibus.

STAMINA. Filamenta quatuor, brevissima, in
 fauce corollæ, quorum duo superiora extra
 prominentia. Antheræ oblongæ, obtusæ.

PISTILLUM. Germen ovato-oblongum. Stylus
 filiformis, longitudine tubi. Stigma ob-
 tusum.

PERICARPIUM. Capsula ovato-oblonga, acumi-
 nata, tecta, bilocularis, apice bifarium de-
 hiscens; dissepimentum contrarium.

SEMINA numerosa, angulata.

RECEPTACULUM medio dissepimenti adnatum.

EMPALEMENT. Cup one leaf, five-toothed, rough,
 and remaining.

BLOSSOM one petal; tube very long, thread-
 shaped, and arched; border flat, five-cleft,
 equal; the two upper divisions reflexed,
 the three under ones heart-shaped, nearly
 equal.

CHIVES. Threads four, very short, in the mouth
 of the blossom, of which the two upper
 protrude without. Tips oblong, blunt.

POINTAL. Seed bud oblong-egg-shaped. Shaft
 thread-shaped, the length of the tube.
 Summit blunt.

SEED-VESSEL. Capsule oblong-egg-shaped, ta-
 pered, covered, two cells, and splitting at
 the point in two; the partition opposite to
 the valves.

SEEDS numerous, and angular.

RECEPTACLE fixed to the middle of the partition.

SPECIFIC CHARACTER.

Buchnera, foliis laciniatis, oppositis, fœtidif-
 fimis; flores umbellulati, terminales.

Buchnera, with leaves appearing torn, oppo-
 site and very stinking; flowers terminate
 the branches in small umbels.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Flower cut open, to expose the situation of the Chives.
3. The Pointal magnified.
4. A ripe Seed-vessel.

THIS species of *Buchnera* is an annual, and a native of the Cape of Good Hope; from whence, it was introduced to England in the year 1795, by Messrs. Lee and Kennedy. It should be raised with other tender annuals in spring, and kept, either to ornament the greenhouse with them in pots, or planted in a warm part of the flower border, about the beginning of June. It will begin to flower about July, and generally has perfected seeds by September; although, it will continue to bloom till destroyed by the frost, as there is a constant succession of blossoms.



Buchnera foetida

Plantae horti botanici Lipsiensi
1793

PLATE LXXXI.
SOWERBIA JUNCEA.

Rush-like Sowerbia.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Involucrum hexaphyllum, multiflorum; foliolis erectis, scariosis, persistentibus.

COROLLA. Petala sex, infera, persistentia; laciniis ovatis, concavis.

STAMINA. Filamenta sex, sub-globosa, carnosa, germen cingens; ex quibus tria biantherifera, sterilibus tribus interstinctis. Antheræ geminæ, lineares, erectæ.

PISTILLUM. Germen superum. Stylus filiformis, longitudine staminum. Stigma simplex.

PERICARPIUM. Capsula obtusetrigona, oblonga, trilobularis, trivalvis.

SEMINA plura, angulata.

EMPALEMENT. Fence six-leaved, containing many flowers; the small leaves are upright, skinny, and permanent.

BLOSSOM. Six petals, beneath and remaining; segments egg-shape, and concave.

CHIVES. Six threads almost round, fleshy, surrounding the seed bud; of which three bear two chives, each parted by three sterile ones. Tips double, linear, and upright.

POINTAL. Seed-bud above. Shaft thread-shaped, the length of the chives. Summit simple.

SEED-VESSEL. Capsule bluntly three-sided, oblong, three-celled, three-valved.

SEEDS many, angular.

SPECIFIC CHARACTER.

Sowerbia, foliis teretibus, mucronatis; scapulo nudo, flexuoso; umbella globosa; floribus petiolis longissimis.

Sowerbia, with cylindrical leaves pointed at the ends; flower-stem naked and crooked; the umbel globular; flowers with very long foot-stalks.

REFERENCE TO THE PLATE.

1. The Fence.
2. A Blossom complete.
3. The Chives expanded.
4. The Pointal.

THE very great resemblance this plant bears in habit, to some species of the garlick and rush, led us, at first sight, to consider it of one of those Genera: but as Dr. Smith has in the fourth Volume of the Linn. Transf. p. 220, constituted it a new genus, from the construction of the chives, we make no scruple to follow such good authority. It is named after Mr. James Sowerby, so well known for his numerous botanical engravings, as attached to different works; but especially, for his excellent coloured plates of English plants. Messrs. Lee and Kennedy of Hammersmith, were the first, who raised this plant from seeds, received in 1792 from Botany Bay. Our drawing was taken in May 1798, the first time it flowered there; it is the full size of the plant, the flower-stem cut off, it being twice the length of the leaves. There is no smell to any part of the plant; but nevertheless, it is very desirable in the greenhouse, from the character of the flowers, which retain their colour with little change, till the seeds are perfected. To increase it, the roots may be parted early in spring, and should be planted in peat earth.



Sonchella unca

PLATE LXXXII.
BANKSIA SERRATA.
Sawed-leaved Banksia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER. *Schreb. Gen. Plant. 191.*

CALYX. Perianthium monophyllum, quadrifidum, inferum.

COROLLA monopetala; tubus cylindraceus, brevissimus; limbus longissimus, quadripartitus; laciniis linearibus, apice lanceolatis, interne foveola excavatis, acutis.

STAMINA. Filamenta nulla. Antheræ quatuor, lanceolatae, in foveola laciniarum corollæ sessiles.

PISTILLUM. Germen superum, minutum. Stylus filiformis, rigidus, corolla longior. Stigma pyramidatum, acutum.

PERICARPIUM. Capsula ovata, seu globosa, lignosa, unilocularis, bivalvis.

SEMINA duo, obovata hinc convexa inde plana, ala membranacea terminata.

Obs. In quibusdam speciebus feminibus interjectum est dissepimentum liberum, figura et magnitudine cavitatis loculamenti, coriaceo-lignosum, semibifidum. *Grætnér de fruct.*

Bankia foliis linearibus, in petiolum attenuatis, æqualiter serratis, apice truncatis cum mucrone.

SPECIFIC CHARACTER.

Bankia with linear leaves, tapering to the footstalks, equally sawed at the edge, appearing cut off at the end with a sharp point.

EMPALEMENT. Cup of one leaf, four-cleft and beneath.

BLOSSOM of one petal; tube cylindrical, and very short; border very long, of four divisions; segments linear, lance-shaped at the ends, having small holes on the inside, which are hollowed out and sharp.

CHIVES. Threads none. Tips four, lance-shaped, fitting close within the small holes of the segments of the blossom.

POINTAL. Seed-bud above and very small. Shaft thread-shaped, stiff, and longer than the blossom. Summit pyramidal, and sharp pointed.

SEED VESSEL. Capsule egg-shaped or globular, woody, one cell, two valves.

SEEDS two, inversely egg-shaped, convex on the one side and flat on the other, having a skinny wing at the end.

Obs. In some species there is found between the seeds a loose partition, the shape and size of the hollow of the cell, tough, woody, and half cleft in two. *Grætnér on fruits and seeds.*

REFERENCE TO THE PLATE.

1. A Flower, the summit not yet escaped from the Chives.
2. The same with the summit relieved; magnified, to shew more clearly the shape of the petals, and the singular situation of the Chives.
3. The Pointal, natural size.
4. A ripe Seed.

This species of *Bankia*, was the first to vegetate amongst the number of different seeds, which were received by Messrs. Lee and Kennedy, from Botany Bay in 1788; thus, has the pre-eminence of seniority here, to all the plants which have been introduced from thence, to Great Britain. From the living and dead specimens we have already seen, this Genus bids fair to rival *Protea* in the number of its different species; from which, nature seems to have marked but a slight line for Generic distinction. Our figure was taken from a plant now in flower in the greenhouse, (we believe for the first time in Europe,) at the agreeable retreat of J. Ord, Esq. Purser's-cross, Fulham, being nearly seven feet high; indeed, we have seen specimens which have attained to twelve feet, and more. It is increased by cuttings, and will grow in almost any earth. The cones to which the seed-vessels are fixed, something resemble those of the stone pine, but much larger, and the wood more hard: the seeds are inclosed in capsules which are placed at a considerable distance from each other, at irregular intervals; the spaces filled up with long harsh threads, and apparently abortive seed-vessels.



Banksia serrata

Del. et Sculp. J. G. Sowerby
 J. G. Sowerby sculp.

PLATE LXXXIII.
MORÆA TRICOLOR.

Three-coloured Moræa.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA hexapetala, patens; petala tria interiora patentia, angustiora.

STAMINA. Filamenta tria, brevia. Antheræ oblongæ.

PISTILLUM. Germen inferum, oblongum. Stylus simplex, brevissimus. Stigmata tria, bifida.

PERICARPIUM. Capsula trigona, trifurcata, trilocularis.

SEMINA plurima, rotunda.

EMPALEMENT. Sheaths of two valves.

BLOSSOM six petals, spreading; the three innermost petals are more spread out and narrower.

CHIVES. Three short threads. Tips oblong.

POINTAL. Seed-bud beneath and oblong. Shaft simple, and very short. Summits three, two-cleft.

SEED-VESSEL. Capsule three sided, three-furrowed, three cells.

SEEDS many, and round.

SPECIFIC CHARACTER.

Moræa scapo teriti; foliis radicalibus, lanceolatis, canaliculatis, scapo longiores; floribus terminalibus, tricoloratis.

Moræa with a round flower-stem; the leaves grow from the root, are lance-shaped, channelled, and longer than the flower stem; the flowers are terminal, and three-coloured.

REFERENCE TO THE PLATE.

1. An outer Petal of the Blossom.
2. An inner Petal of the same.
3. The Chives and Pointal; the petals being cut off, to expose the situation of the Chives hid under the summits.

To G. Hibbert, Esq. of Clapham Common, we owe the introduction of this beautiful little *Moræa*, he having received it from his collector at the Cape, in the spring of 1799. It is certainly a perfectly new species here, and we believe has not been seen to flower in Europe before; as it is not in the extensive Collections, of the Emperor of Germany; at least it is not to be found amongst the many figured by Professor Jacquin. The very short duration of the blossoms, at first, had determined us to name it specifically, fugax; but finding we were anticipated in that name, by Jacquin, in his Hortus. III. tab. 26, we have adopted that of tricolor. The drawing was made at Clapham this year, in October; although we conceive the regular season for its blowing would be, June, or July, if planted like other Cape bulbs in autumn. The only means of seeing this plant in perfection, is, by keeping it entirely from the air when near flowering, as it is too delicate to bear the least exposure; it begins to expand about twelve o'clock, and is quite decayed by three. From every appearance, without a supply from the Cape, this delicate little bulb will, (as many others have) be soon lost to this country.



Moraea tricolor

Moraea tricolor
L. f. 1. 1. 1. 1. 1. 1.

PLATE LXXXIV.

BUCHNERA PEDUNCULATA.

Solitary-flowered Buchnera.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

CALYX quinque-dentatus. Corollæ limbus quinquefidus, æqualis; lobis cordatis. Capsula bilocularis.

CUP five-toothed. The border of the blossom five-cleft, equal; the lobes heart-shaped. Capsule two-celled.

See BUCHNERA FÆTIDA. Pl. LXXX.

SPECIFIC CHARACTER.

Buchnera, foliis dentato-finuatis; floribus foliariis, pedunculis longissimis.

Buchnera, with leaves that are indentedly toothed; flowers solitary, with very long foot-stalks.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Flower cut open, magnified.
3. The Pointal.
4. A Capsule.

THIS is another beautiful little species of Cape Buchnera, and which, we can consider as little better than biennial; much similar, to some species of different genera from thence; such as, *Habenstreitia*, *Mahernia*, &c. For although they produce woody stems, yet the plants seldom last beyond the second year. From their short duration, it is necessary to keep up a succession yearly; which is done, by making cuttings of them early in spring. Our drawing represents the branch of a plant, in the collection of R. James, Esq. Grosvenor-place, taken in the month of July 1799. It is a very showy greenhouse plant, and should be potted in rich mould; if kept free from damps, will continue to flower till the end of November.



Buchnera pedunculata.

Handwritten text at the bottom right, likely a signature or date.

PLATE LXXXV.
MAHERNIA ODORATA.
Sweet Mahernia.

CLASS V. ORDER V.
PENTANDRIA PENTAGYNIA. Five Chives. Five Pointals.

GENERIC CHARACTER.

CALYX. Perianthium monopetalum, quinquefidum, campanulatum; dentibus subulatis, longioribus; persistens.

COROLLA. Petala quinque, cordata, oblonga, patentia, calyce duplo longiora.
Nectaria quinque, obcordata, pedicellata, germen cingentia, calyce breviora.

STAMINA. Filamenta quinque, capillaria, nectario infidentia, calyce breviora. Antheræ oblongæ, acuminatæ, erectæ.

PISTILLUM. Germen subpedicellatum, obovatum, quinquangulum. Styli quinque, setacei, erecti, longitudine petalorum. Stigmata simplicia.

PERICARPIUM. Capsula ovata, quinquelocularis, quinquevalvis.

SEMINA nonnulla, reniformia.

EMPALEMENT. Cup one leaf, five-cleft, bell-shaped; the teeth awl-shaped, and longer; remaining.

BLOSSOM. Five petals, heart-shaped, oblong, spreading, twice the length of the cup.
Honey-cups five, inversely heart-shaped, having little foot-stalks, embracing the seed-bud, shorter than the cup.

CHIVES. Five threads, hair like, fitting on the honey-cups, shorter than the cup. Tips oblong, tapered to a point, and upright.

POINTAL. Seed-bud supported on a very short foot-stalk, inversely egg-shaped, five-angled. Shafts five, like bristles, upright, the length of the petals. Summits simple.

SEED-VESSEL. Capsule egg-shaped, five cells, five valves.

SEEDS a few, kidney-shaped.

SPECIFIC CHARACTER.

Mahernia foliis lanceolatis, glabris, apice dentatis; pedunculis bifloris; corollis luteis, odoratissimis.

Mahernia with lance-shaped leaves, smooth and toothed at the end; foot-stalks bearing two flowers; the blossoms yellow and very sweet.

REFERENCE TO THE PLATE.

1. The cup, (natural size).
2. The Chives, Honey-cups, and Pointals, as they stand in the flower.
3. The same, with the Chives thrown back, as far as the slight junction of the honey-cups will permit, without tearing.
4. A Chive with its honey-cup, (magnified).
5. The Seed-bud and Pointals, (magnified).

MANY species of this Genus have, hitherto, been arranged as *Hermannias*, to which they are undoubtedly very nigh affined; in nothing essentially varying, but in the character of the chives, being, in this, placed on honey cups, which are wanting in the other; the same natural appearance however of the junction of the supporters of the tips, being common to both. From this small change of the identity of character, so necessary in our artificial system, they are thrown to a wide distance in classification; the one standing in the fifth, the other in the sixteenth class! The *Mahernia odorata* is from the Cape of Good Hope, and was sent in seeds to England about the year 1792. It is but a short-lived greenhouse plant, and must be raised every two years, at least, from cuttings; which should be made about the beginning of March, and placed on a gentle hot-bed, they will by this means become good sized plants by midsummer. The flavour of the blossoms is exactly that of the Jonquil, it continues to flower through the whole year, but is as yet to be found in few collections, although from its different attractions we have no doubt of seeing it soon in most. Rich earth, of old cow dung, and loam, seems to be the soil it most affects. Our drawing was made at the nursery Hammer-smith, in July 1799.



Mahonia odorata

PLATE LXXXVI.
BIGNONIA PANDORANA.

Norfolk Island Trumpet Flower.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

CALYX quinquefidus, cyathiformis.

COROLLA fauce campanulata, quinquefida, sub-
 tus ventricosa. Siliqua bilocularis. Se-
 mina membranaceo-alata.

EMPALEMENT, five-cleft, cup-shaped.

BLOSSOM bell-shaped at the mouth, five-cleft, and
 bellied beneath. A pod of two cells. Seed
 winged with a skinny membrane.

See Pl. XLIII. *Bignonia Leucoxylon.* Vol. I.

SPECIFIC CHARACTER.

Bignonia foliis pinnatis; foliolis lanceolatis,
 dentatis; caule volubili; floribus racemo-
 sis, terminalibus.

Trumpet Flower with winged leaves; the small
 leaves are lance-shaped, and toothed; a
 climbing stem; the flowers grow in bunches,
 and terminate the branches.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Flower cut open, to expose the situation of the Chives.
3. The Pointal, and Seed-bud, (magnified).
4. A Seed.

THIS species of Trumpet Flower, is a native of Norfolk Island in the Pacific Ocean, lying in 29 deg. 2 min. south lat.; therefore, must be kept with us as a greenhouse plant; and, as a creeper, may be placed to twine round the pillars, or to cover trellis work; being of quick growth (if planted in peat earth,) and flowering abundantly from the month of March, 'till June. It is easily increased by cuttings, made in the spring, or by suckers, which it frequently produces from the root. The plant from which our drawing was made, flowered (and we believe for the first time in England) in 1798, in the collection of J. Vere, Esq. Kenfington Gore.

Naturalists, when in detailing the history of the various articles passing under their review, should receive with caution, any matter which seems tending to the marvellous; but for the authenticity of the authority, from whence we are furnished with the account of the singularly pestiferous character of this plant, we can with confidence pledge ourselves. Colonel Paterfon, now commanding at Port Jackson, New Holland, sent the seeds from Norfolk Island, when he was stationed there, to Messrs. Lee and Kennedy HammerSmith, who first raised it, in the year 1793. The N. I. Trumpet Flower is, in its native soil, a deciduous plant; upon the return of the season, in which the young tendrils begin to shoot, and the leaves begin to appear; within fifteen, or twenty days, the whole plant is entirely covered with a white downy insect, of the genus *Aphis*, something similar to our blight; which, in a very short time from their first appearance on this plant, become so completely dispersed over every vegetable production, that scarce a green leaf is to be seen through the whole extent of the island. So great a plague was this insect thought to be, from its effects on vegetation, by those who were sent to colonize the island, that it was considered as one of the principal reasons for abandoning the settlement.



Bignonia pandorana.

Pl. Pandorana, Bignoniaceae
J. G. Smith del.

PLATE LXXXVII.

IXIA ARISTATA. *Var. atropurpurea.*

Ragged-sheathed Ixia. *Var. dark purple.*

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, patens, æqualis. Stigmata || BLOSSOM six divisions, spreading, and equal.
tria, erectiusculo-patula. || Summits three, nearly upright and spreading.
See Pl. XIV. Vol. I. *Ixia reflexa.*

SPECIFIC CHARACTER.

Ixia foliis falcatis, glabris, amplexicaulibus; || *Ixia* with scimitar-shaped leaves, smooth and
scapo sub-biflora; spathis laceris. || embracing the stem; flower-stem mostly
with two flowers; sheaths appearing torn.

REFERENCE TO THE PLATE.

1. The sheath.
2. A Flower cut open.
3. The Pointal, complete.

THIS truly specious *Ixia*, has at different periods long since, been seen in our exotic collections; but the delicacy of its root, and of consequence, the difficulty of preserving it, when out of flower, was, no doubt, the occasion of its having been as often lost to us for a time. To the Dutch we are indebted for the last introduction of it to this country, about four years since, amongst many others; from their immense collections of Cape bulbs at Haarlem. Although the root is particularly susceptible of wet, yet, by timely taking up the bulb, even before the upper part of the plant is decayed; and keeping it entirely free from moisture, till it is again planted in October, there will be little danger of its perishing. Our figure was taken in the month of June 1799, at Clapham, from a plant in the Collection of G. Hibbert, Esq. Light sandy peat, with a small portion of rotten old cow-dung, will give it the most vigorous growth.



Ixia aristata

2

3

Pl. 87. Ixia aristata. Linn. Sp. Pl. 1000. f. 1. 1753.
 Bot. Cap. 1797. t. 1. f. 100.
 Bot. Beechey. 1846. p. 100. f. 100.
 Bot. Mag. 1846. p. 100. f. 100.

PLATE LXXXVIII.
ERANTHEMUM PULCHELLUM.

Blue-flowered Eranthemum.

CLASS II. ORDER I.
DIANDRIA MONOGYNIA. Two Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quinquefidum, tubulosum, erectum, membranaceum, persistens.

COROLLA monopetala, infundibuliformis; tubus filiformis, longissimus. Limbus quinquepartitus, planus; laciniis obovatis, æqualibus.

STAMINA. Filamenta duo, ad basin spiralia, in fauce corollæ. Antheræ subovatae, compressæ, extra tubum.

PISTILLUM. Germen ovatum, compressum. Stylus filiformis, longitudine staminum. Stigmata duo, inæqualia, erecta.

PERICARPIUM. Capsula spatulata, compressa, bivalvis, bilocularis, dissipimento valvulis contrario.

SEMINA solitaria, lentiformia.

EMPALEMENT. Cup five cleft, tubular, upright, skinny, and remaining.

BLOSSOM one petal, funnel-shaped; tube thread-shaped, and very long. Border divided into five, and flat; the segments are inversely egg-shaped, and equal.

CHIVES. Two threads, spiral at the base, at the mouth of the blossom. Tips nearly egg-shaped, flattened, and without the tube.

POINTAL. Seed-bud egg-shaped and flattened. Shaft thread-shaped, the length of the chives. Summits two unequal, and upright.

SEED-VESSEL. Capsule spatula shape, flattened, two valves, two cells, the partition contrary to the valves.

SEEDS solitary, lentil shape.

SPECIFIC CHARACTER.

Eranthemum foliis lanceolato-ovatis, nervosis; floribus spicatis; bracteis lanceolatis, imbricatis.

Eranthemum with lance-shaped, oval, and strongly nerved leaves; the flowers grow in spikes; the floral leaves are lance-shaped, and tiled.

REFERENCE TO THE PLATE.

1. The Empalement, with its four small leaflets.
2. The Blossom cut open, to shew the part of insertion of the Chives.
3. One of the Chives, (magnified.)
4. The Pointal, (natural size.)
5. The same, (magnified.)
6. The Seed-bud.
7. A Seed.

ERANTHEMUM, although standing in our ancientest tables, as a name to different plants; must have been, hitherto, considered as a dead letter in all our modern ones, as attached to the tribe of plants it now titles: but perhaps, to none of the former more aptly could it have been applied; (especially this species, as the Greek word *Ἐράνθημον*, a compound of *Ἡρ* the spring, and *άνθew* to blossom, fairly indicates;) since the *E. pulchellum* first begins to flower in January, and continues to blossom till May. Linnæus in treating this Genus, acknowledges to have seen but one imperfect specimen; and from this circumstance, left the description of the seed-vessel, and seed, to be determined by future Botanists; as yet, that has not been accomplished, even by the indefatigable and accurate Schreber; indeed, had the character of the pointal been likewise omitted, it would have been as well; since, in place of one, the two unequal summits, (which might escape observation in a dried specimen, from their disproportion in length, and upright situation;) point out a stronger Generical distinction from *Justicia*, to which it much affines, than either, the regular shape of the limb of the blossom, or the situation of the chives. Our species is a native of the coast of Coromandel, in the East Indies, and was first received in seeds from Dr. Roxburg, at the Royal gardens Kew, in the year 1796. It is a most desirable plant, for although it has hitherto been kept in the hot-house, we have no doubt from its flowering and thriving there, with so little care, in any situation; but that it will soon be considered as a proper inhabitant of the greenhouse. It is with the greatest ease, and certainty, increased by cuttings. Our drawing was made this month, from a plant in flower at the Hammer-smith nursery.



Eranthemum pulchellum

PLATE LXXXIX.

GNIDIA LÆVIGATA.

Shining-leaved Gnidia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX infundibuliformis, 4-fidus. Petala quatuor, calyci inserta. Semen unum, subbaccatum.

Cup funnel-shaped, 4-cleft. Four petals fixed into the cup. One seed, something like a berry.

See *Gnidia pinifolia*, Pl. LII. Vol. I.

SPECIFIC CHARACTER.

Gnidia foliis oppositis, glabris, ovatis, quadrifariam imbricatis; floribus terminalibus, sessilibus, luteis.

Gnidia with opposite smooth egg-shaped leaves, forming four angles and tiled; flowers terminate the branches, fitting close to the stem, and yellow.

REFERENCE TO THE PLATE.

1. A Blossom complete.
2. The same cut open, with the Chives attached; the Pointal taken out.
3. The Seed-bud and Pointal, (magnified.)

THIS *Gnidia* is from the Cape of Good Hope, from whence it was first sent to England about the year 1783, by Mr. F. Masson to the Royal gardens Kew. It is a tender, and delicate greenhouse plant, very subject to be destroyed by the autumnal rains, or over watering during the winter. It is with great difficulty raised from cuttings, and its seeds seldom or ever, we believe, are perfected with us; from which circumstance, it is to be found in very few collections. Our drawing was made from a plant, in the possession of G. Hibbert, Esq. Clapham, about the middle of July 1799.



Gnidia laevigata

Gnidia laevigata (L.) DC.
C. B. Robinson

PLATE XC.
SEPTAS CAPENSIS.

Cape Septas.

CLASS VII. ORDER IV.

HEPTANDRIA HEPTAGYNIA. Seven Chives. Seven Pointals.

GENERIC CHARACTER.

CALYX. Perianthium septempartitum, patens, acutum, persistens.	EMPALEMENT. Cup of seven divisions, spreading, sharp-pointed, and remaining.
COROLLA. Petala septem, oblonga, æqualia, calyce duplo longiora.	BLOSSOM. Seven petals, oblong, equal, twice the length of the cup.
STAMINA. Filamenta septem, subulata, longitudine calycis. Antheræ subovatae, erectæ.	CHIVES. Seven threads, awl-shaped, the length of the cup. Tips nearly egg-shaped, and upright.
PISTILLUM. Germina septem, oblonga, deficientia in stylos subulatos, longitudine staminum. Stigmata obtusifuscula.	POINTAL. Seven seed-buds, oblong, and ending in awl-shaped shafts, the length of the Chives. Summits bluntish.
PERICARPIUM. Capsula septem, oblongæ, acutæ, parallelæ, univalves.	SEED-VESSEL. Seven capsules, oblong, sharp-pointed, parallel, and of one valve.
SEMINA plurima.	SEEDS many.

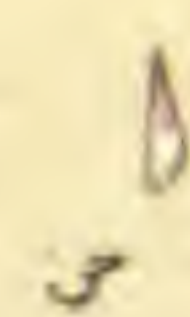
SPECIFIC CHARACTER.

Septas, foliis subrotundis, crenulatis, oppositis; glabris; radice tuberosa.	Septas with roundish leaves, slightly scolloped, opposite and smooth; root tuberous.
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REFERENCE TO THE PLATE.

1. The Empalement.
2. The Chives, and Pointals, (magnified).
3. One of the Pointals detached, (natural size).

WE are happy in having procured for the entertainment of our botanical friends, a specimen of so singular a plant as the Septas: which, from the conformity of its constituent generic characters in point of numbers, has given it the title it bears and forming for itself an order of plants, in which it stands alone. No plant is better known to botanists than Septas by name; but as yet, there exists only one miserable uncoloured figure of it; which is to be found in the Mantissa of Plukenet, tab. 340, fig. 9. The first plants seen of Septas in England, were purchased in roots from Holland, under the name of Saxifraga Tuberosa, by Messrs. Lee and Kennedy Hammermith. The beginning of August this year, a drawing was taken from a plant in the collection of G. Hibbert, Esq. Clapham, he having received some fine bulbs of it, in the spring, from his collector at the Cape. There are few plants rival Septas for beauty that are of equal size; it is herbaceous, should be removed from its pot when in a state of inaction, and dried like the Anemonie. The bulbs may be cut, or parted at the time of removal for propagation.



CAMELLIA JAPONICA. Var. flore pleno variegato.

Double-striped Camellia.

CLASS XVI. ORDER VI. *of Schreber's 8th ed.
of Gen. Plant.*

MONODELPHIA POLYANDRIA. Threads united. Many Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX imbricatus, polyphyllus; foliolis interioribus majoribus. || EMPALEMENT tiled, many leaved; the inner leaves the largest.

SPECIFIC CHARACTER OF VARIETY.

Camellia foliis brevioribus, latioribus; floribus plenis, variegatis. || *Camellia* with shorter and broader leaves; flowers double and striped.

In hopes that the subject will plead our excuse, in thus again, obtruding a kind of nonentity, in reference to the sexual system, on our scientific friends; and that a figure, of so rare, and beautiful a plant, would be agreeable to all; we have, once more, put by the etiquette of science, for the charms of beauty; yet for this deviation, we think an apology necessary, as it is undoubtedly not conformable to the plan of our undertaking.

This variety of the *Camellia Japonica*, is of the same date in our gardens, as the double white, and was introduced through the same medium. As yet this plant is found in but very few collections, and is sold at a very high price; not being of free growth, few cuttings, or grafts can be obtained. It has hitherto, been treated as a hothouse plant; but there is no doubt it is equally hardy with the common sort, upon which, all the plants we have as yet seen, and indeed those that were first imported from China, were grafted; an instance in proof, that horticulture must have, there, attained to a considerable degree of perfection, in the operative part: as well as, that possessing double flowering varieties, of their most beautiful plants, which are only produced by a series of cultivation, for ages; incontestably proves the antiquity of the art, (if any fresh proofs were necessary,) in that country. Our figure was made from a drawing taken partly, from a plant which flowered in August last year, in the collection of J. Hibbert, Esq. Clapham; and partly from one now (April) in full bloom, in the conservatory of R. H. James, Esq. Grosvenor-Place; the only ones we have as yet seen in flower; wherefore the time of flowering cannot as yet be fixed.



Camellia japonica.
Var. flore subregula

PLATE XCII.
CRINUM SPIRALE.
Spiral-stalked Asphodel Lily.

CLASS VI. ORDER I.
HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Involucrum spathæforme, bifolium, oblongum, umbelliferum, post dehiscen-
 tiam reflexum.

COROLLA monopetala, infundibuliformis. Tubus
 oblongus, cylindræus. Limbus sexparti-
 tus; laciniis lanceolato-linearibus, conca-
 vis, reflexis, quarum tres alternæ appendi-
 culo uncinato distinctæ.

STAMINA. Filamenta sex, subulata, e basi limbi,
 longitudine limbi, conniventia. Antheræ
 oblongæ, lineares, affurgentes, incumben-
 tes.

PISTILLUM. Germen inferum. Stylus filifor-
 mis, longitudine floris. Stigma trifidum,
 minimum.

PERICARPIUM. Capsula sub-ovata, trilocula-
 ris.

SEMINA plura.

EMPALEMENT. Fence sheath-shaped, two-leaved,
 oblong, bearing a small umbel, after split-
 ting being reflexed.

BLOSSOM one leaf, funnel-shaped. Tube ob-
 long, and cylindrical. Border divided into
 six segments, that are linearly lance-shaped,
 concave, and reflexed, of which three alter-
 nate ones are marked by a small claw hang-
 ing at the lower part.

CHIVES. Threads six, awl-shaped, growing from
 the lower part of the border, and of its
 length, and inclining together. Tips ob-
 long, linear, turned up at the ends, and
 lying on the threads.

POINTAL. Seed-bud beneath. Shaft thread-
 shaped, the length of the flower. Summit
 three-cleft, and very small.

SEED-VESSEL. Capsule nearly egg-shaped, three
 celled.

SEEDS many.

SPECIFIC CHARACTER.

Crinum foliis filiformibus; scapo filiformi, spi-
 rali.

Asphodel Lily, with thread-shaped leaves; flow-
 er-stem thread-shaped, and spiral.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Flower, cut open and magnified; to shew the point of insertion of the Chives, at the base of the border.
3. The Pointal and Seed-bud (magnified).
4. The Seed-bud cut transversely, and magnified; to shew the situation of the seeds in the cells, before the splitting of the outer coat, when matured.
5. The Seeds, as they appear after the bursting of the containing coat, and of their natural size.

THIS curious little plant, has been figured by professor Jacquin in his *Ic. rar.* 2. tab. 363, under the name of *Crinum Tenellum*; Thunberg, (who no doubt saw the living plant) in his *Prodromus*, p. 58, gave it first, the specific title of *Spiralis*, which to us seems the best possible, we have retained it; although, we differ from him as to the Genus, and which there is no doubt every botanist will, on the examination of the figure, with its appendages. That this plant should ever have been placed under *Hæmanthus*, by any botanist, is certainly matter of wonder, yet the point is too clear to be contended; scarce one of the essential constituent characters, of the genus, are to be found in our plant, and yet so perfectly in every part answering to *Crinum*. In *Hæmanthus*, the fence is composed of many leaves; the segments of the border, standing upright; the Chives longer than the blossom, and fixed into the tube; the Summit simple! &c. &c. We submit this, nevertheless, with deference to superior judgments, as a late publication of much repute, has this plant, under the Generic title we have rejected. The drawing was made in the beginning of March, this year, at Messrs. Lee and Kennedy's, Hammer-smith; by whom, it was received from the Cape of Good Hope in 1792. It is a very hardy bulb, requiring no more protection than a pit, to secure it from the frost. It increases but slowly by the root, but occasionally produces ripe seeds; and should be kept constantly in its pot, in a mixture of peat and loam.



Grinum spirale.

*Des. in the Bot. Garden, May 1 1750
by H. Burser, del. J. Wandelaar, sculp.*

PLATE XCIII.

ASTER REFLEXUS.

Reflexed-leaved Starwort.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

ESSENTIAL GENERIC CHARACTER.

RECEPT. nudum. Pappus simplex. Cor. radii
plures 10. Cal. imbricati squamæ interi-
ores patulæ.

RECEPT. naked. Feather simple. Florets of the
circumference 10 or more. Cup tiled, the
innermost scales spread outward.

See *Aster dentatus*, Pl. LXI.

SPECIFIC CHARACTER.

Aster fruticosus, foliis ovatis sub-imbricatis, re-
curvatis, serratis; floribus solitariis, termi-
nalibus, sessilibus.

Starwort with egg-shaped leaves, almost tiled,
bent backward and sawed; flowers grow
solitary, terminal, and sit close to the ends
of the branches.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Floret of the circumference.
3. The Pointal of the foregoing.
4. A Floret of the centre (magnified).
5. The Chives and Pointal of a floret of the centre (magnified).
6. The Shaft and Summit of the same (magnified).

THE singular merit of this pretty greenhouse plant, is, that its blossoms are still to be seen through the whole year; and is kept with as little care, as is required for any. It is with ease, and certainty, increased by cuttings, put in about the month of May; or by seeds, which it sometimes perfects by being kept from the rain in autumn. It is a plant known by name, to most botanists; but has not been introduced to us, till the year 1794, when it was received in seeds from the Cape, at the nursery Hammer-smith; where it has flowered, these two successive years, and where our figure was taken.



Aster reflexus.

Not to be taken for the white variety of the common aster

PLATE XCIV.
GALAXIA OVATA.

Oval-leaved Galaxia.

CLASS XVI. ORDER I.

MONADELPHIA TRIANDRIA. Threads united. Three Chives.

GENERIC CHARACTER.

CALYX. Spatha univalvis, membranacea, connivens.

COROLLA monopetala, supra; tubus filiformis, longus, erectus, apice paululum ampliat; limbus sexpartitus; laciniis obovatis, patentibus.

STAMINA. Filamenta tria, in cylindrum connata. Antheræ ovatæ.

PISTILLUM. Germen inferum, obtuse triangulare, glabrum. Stylus filiformis, staminibus paulo longior. Stigmata tria, filiformi-multipartita, patentia.

PERICARPIUM. Capsula oblongo-subcylindrica, trifurca, trilobularis, trivalvis.

SEMINA plurima, globosa, minima.

EMPALEMENT. Sheath of one valve, skinny, and closing.

BLOSSOM, one leaf, above; tube thread-shaped, long, upright, the upper part a little widened; border divided into six parts; segments inversely egg shaped and spreading.

CHIVES. Three threads forming a cylinder. Tips egg-shaped.

POINTAL. Seed bud beneath, obtusely triangular and smooth. Shaft thread-shaped, a little longer than the chives. Three summits, each divided into a number of small threads, and spreading.

SEED-VESSEL. Capsule of an oblong, and almost cylindrical shape, with three furrows, three cells, and three valves.

SEEDS numerous, globular, and small.

SPECIFIC CHARACTER.

Galaxia foliis ovatis margine ciliatis; corollis longissimis, arcuatis, flavis.

Galaxia with egg-shaped leaves, fringed at the edge; blossoms very long, bowed, and yellow.

REFERENCE TO THE PLATE.

1. The Sheath.
2. A Flower cut open, to shew where the threads are fixed to the tube of the blossom.
3. The Chives with the Pointal inclosed, the Blossom cut away.
4. The Pointal and Seed-bud.

ANY species of this Genus, must be interesting to the English botanist; as, till last year, not one was to be found, in any collection of this country. The *G. ovata* is figured in Cavanilles, Diff. 6. p. 340. t. 189; and described by Thunberg, in his *Nova Genera Plantarum*, p. 50. It is a most singular little plant, but we much fear will prove a fugitive to us; like the *Ferraria*, (to which in many particulars it very nearly affines,) its beauty is but of a few hours duration: indeed, so short is the period, that had not Mr. Hibbert taken a sketch of it, whilst in perfection; and from which our drawing was completed, we could not have accomplished a figure of it. As yet, the true season of its flowering cannot be ascertained; but, it was in the month of October, that the plant flowered last year 1779; the bulbs having been received, from the collector for the Clapham collection, still at the Cape, in the spring of the same year. The treatment for this, appears to be the same as that necessary for most Cape bulbs; light sandy peat, a little warmth when approaching to flower; and to be removed from the pot afterwards.



1



2



3



4

Galaxia ovata.

Publ. in the Bot. Novae Angliae May 1793.

PLATE XCV.
AMARYLLIS RADIATA.
Rayed Lily Daffodil.

CLASS VI. ORDER I.
HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spatha oblonga, obtusa, compressa, emarginata, marcescens.

COROLLA. Petala sex lanceolata.

Nectarium squamis sex, extra basin filamentorum, brevissimis.

STAMINA. Filamenta sex subulata. Antheræ oblongæ, incumbentes, assurgentes.

PISTILLUM. Germen inferum. Stylus filiformis, longitudine ferme et situ staminum. Stigma trifidum, tenue.

PERICARPIUM. Capsula subovata, trilobularis, trivalvis.

SEMINA plura.

EMPALEMENT. Sheath oblong, blunt, compressed, notched at the end, and withering.

BLOSSOM. Six lance-shaped petals.

Honey-cup, six scales from the base of the threads, very short.

CHIVES. Six awl-shaped threads. Tips oblong, fixed sideways to the threads, and turned up at the end.

POINTAL. Seed bud beneath. Shaft thread-shaped, almost the length and situation of the chives. Summit three-cleft, slender.

SEED-VESSEL. Capsule nearly egg-shaped, three cells, three valves.

SEEDS many.

SPECIFIC CHARACTER.

Amaryllis spatha multiflora; corollis revolutis, undulatis, lanceolatis; genitalibus deflexis, divergentibus, corolla triplo longioribus.

Lily Daffodil, with many flowers in the sheath; blossoms turned backward, waved and lance-shaped; the parts of fructification are bent downward, spread from the centre, and thrice the length of the blossom.

REFERENCE TO THE PLATE.

1. A Petal, with the Chive attached.
2. The Pointal and Seed-bud, the Petals cut off.

THIS species of Lily, certainly not a novelty to many as a plant, is nevertheless in its blossom, to most, quite so; for, though few collections are without it, yet we are pretty well assured, in no one has it flowered, at least for many years within the vicinity of London; except, in that of the Right Hon. the Marchioness of Rockingham, at Hillingdon near Uxbridge; for whose kind communication, (though personally unknown to her Ladyship,) of a most beautiful specimen, of which our figure conveys but a faint idea of the brilliancy; we can only thus, express our sincerest thanks. Mr. Greig, who had the goodness to bring the flower himself; informs us, the mode of his treating it is, to plant the bulbs in light sandy peat, and confine them to small pots, nearly half filled with broken tiles, and keep them on a shelf of the hothouse. It is a native of China, was introduced by the late Dr. Fothergill; and generally flowers, according to Mr. Greig, in the month of February, or March; and is increased abundantly from the root, by offsets.



Amaryllis radiata.

PLATE XCVI.
PUNICA GRANATUM. *Var. flore albo.*
White Pomegranate.

CLASS XII. ORDER I.
ICOSANDRIA MONOGYNIA. Twenty Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, campanulatum, quinquefidum, acutum, coloratum, persistens.

COROLLA. Petala quinque, subrotunda, erecto-patentia, calyci inserta.

STAMINA. Filamenta numerosa, capillaria, calyce breviora, calyci inserta. Antheræ oblongiusculæ.

PISTILLUM. Germen inferum. Stylus simplex, longitudine staminum. Stigma capitatum.

PERICARPIUM. Pomum subglobosum, magnum, coronatum calyce, novemloculare, dissipimentis membranaceis.

SEMINA plurima, angulata, succulenta. Receptaculum carnosum, fungulum loculamentum pericarpium bifariam dividens.

EMPALEMENT. Cup one leaf, bell-shaped, five-cleft, pointed, coloured, and remaining.

BLOSSOM. Five petals, roundish, upright and spreading, attached to the cup.

CHIVES. Threads numerous, hair like, shorter than the cup, and fixed to it. Tips nearly oblong.

POINTAL. Seed-bud beneath. Shaft simple, the length of the chives. Summit a knob.

SEED VESSEL. A large and nearly round apple, crowned by the cup, five-celled, the partitions skinny.

SEEDS numerous, angulated, and juicy. Receptacle fleshy, and dividing each cell of the seed-vessel into two.

SPECIFIC CHARACTER.

Punica foliis lanceolatis, caule arboreo.

|| Pomegranate with lance-shaped leaves, and tree-like stem.

DIFFERENCE IN VAR.

Punica Gra: Foliis majoribus, pallidioribus; floribus sub-albidis.

|| Pomegranate with larger and paler leaves; flowers nearly white.

REFERENCE TO THE PLATE.

1. A Flower cut open, to shew the insertion of the Petals and Chives, into the cup; with the situation of the Pointal.
2. The same shewn from the reverse side.

THIS handsome variety of the common Pomegranate, (for it cannot be considered as a species,) will, it is to be hoped, prove an agreeable addition to our gardens; though not as a fruit tree, yet as an ornamental plant, of the middling hardy class. Indeed we have little doubt of this, if we may judge by analogy, from its deciduous character, or from its natural affinities; as the other sorts of this species, viz. single red, double red, yellow flowered, and another new variety with large red blossoms and larger leaves, all endure our winters, with little, or no protection, in the southern, or western counties of the island; and are all natives of the same clime: from whence, no doubt, they, like the Orange-tree, &c. &c. have been originally transported; though at present considered as indigenous, to all the different countries on the coasts of the Mediterranean sea, where the single red is cultivated for its fruit; the agreeable acidity of which, is considered as a great luxury, in allaying the thirst occasioned by the intense heat, of those parching regions. In the month of April last year 1799, a fine branch, in full flower, was obligingly communicated by Lady Hume, from her select collection at Wormley Bury, Herts; from which our figure was taken, and where it was then flowering for the first time in England. Her Ladyship had received the plant, amongst a number of others, from China, in the year 1796. The fruit did not ripen, which we attribute to its being kept in the hothouse, to which situation, all plants coming from the East, are necessarily consigned on their first importation. The mode of increasing it is certain and easy, by cuttings, or layers; and it grows most luxuriant in light earth, composed of rotten leaves or rotten dung, and light sandy loam.



PLATE XCVII.
VACCINIUM FORMOSUM.
Red-twigg'd Whortle-berry.

CLASS VIII. ORDER I.
OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus. Corolla monopetala. Filamenta receptaculo inferta. Bacca quadriocularis, polysperma.

CUP superior. Blossom of one petal. Threads fixed to the receptacle. A berry with four cells, and many seeds.

See Vol. I. Pl. XXX. VACCINIUM ARCTOSTAPHYLLUS.

SPECIFIC CHARACTER.

Vaccinium racemis pedicellisq; bracteatis; foliis integerrimis, oblongis, acutis, glabris; calycibus adpressis; corollis sub-cylindraceutis, costatis; stigma sub-exserta; stamina decem.

Whortle-berry with floral leaves on the branch part of the bunch, as well as on the partial foot-stalks; leaves quite entire, oblong, pointed, and smooth; cups pressed to the blossom; blossoms nearly cylindrical, and ribbed; summit just without the blossom; ten chives.

REFERENCE TO THE PLATE.

1. The Blossom and Cup.
2. The Chives and Pointal, magnified.
3. The Seed-bud a little advanced, with the Cup upon it.
4. A nearly ripe Berry, cut transversely, magnified.

FROM the number of different new and old known species, of this genus, which we have been enabled to examine this spring; and of which drawings have been made, (a figure from one of them being intended to be given in each successive No. till they are finished;) we are more fully confirmed, in what was asserted in a former part of the work, that *V. Arctostaphyllum*, with the greater part of those plants, now known as *Vacciniums*, should be placed in *Decandria*. It is true, a certain latitude has been given by Linnæus, in an observation on the genus, by allowing, that a fourth in addition to the usual number is frequently found, in the different parts of the flower. But when so essential a part of the fructification is, with a very few exceptions, constant through a numerous genus, we cannot but think, in a system, founded chiefly on that basis, that in such case, the mere character of the fruit should give way to first principles; and that those with ten chives should be placed to *Andromeda*. Or, if the distinction of a dry, from a moist capsule, should be thought of sufficient weight, on which to form a new genus, those species, with ten chives, and berries, might be so arranged. Indeed, the difference in the general habit, of those with ten, from those with eight chives, would well warrant such an alteration. But such a change we have declined making, upon the grounds we have, and are determined to pursue; not to alter any established name, if even a little erroneous; but only to point out the error, or the apparent necessary alteration.

This species of Whortle-berry was first introduced, (according to the *Kew Catalogue*;) in 1770, by Mr. William Young, from N. America; and is consequently hardy enough to bear the severity of our common winters. It should be planted in sandy peat earth, on a dry, sheltered border. It is propagated by layers, which should be put down in spring, and taken off the succeeding summer. The leaves of this species are deciduous, when planted in the open ground; but, if kept in the greenhouse, where it will be found very ornamental, it becomes an evergreen. Our figure was made at the nursery, Hammer-smith, in May this year.



Vaccinium formosum

PLATE XCVIII.
PULTENÆA DAPHNOIDES.
Daphne-like Pultenæa.

CLASS X. ORDER I.
 DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, campanulatum, utrinque appendiculatum; ore quinquentato, acuto.

COROLLA papilionacea, pentapetala.
Vexillum sub-cordatum, erectum.
Alæ oblongæ, vexillo breviores.
Carina dipetala, petalis alis conformibus.

STAMINA. Filamenta decem, distincta, affurgentia, longitudine carinæ. Antheræ simplices, minimæ.

PISTILLUM. Germen ovato-oblongum. Stylus subulatus, magnitudine et situ staminum. Stigma acutum, recurvatum.

PERICARPIUM. Legumen subrotundum, apice mucronatum, uniloculare, bivalve.

SEMINA duo, sub-rotunda.

EMPALEMENT. Cup of one leaf, bell-shaped, having an appendage on each side; the mouth five-toothed, sharp.

BLOSSOM. Butterfly-shaped, five petals.
Standard nearly heart-shaped, upright.
Wings oblong, shorter than the standard.
Keel two petals, which are like those of the wings.

CHIVES. Ten threads, distinct, turned up at the ends, the length of the keel. Tips simple, very small.

POINTAL. Seed-bud oblong-egg-shaped. Shaft awl-shaped, the size and situation of the chives. Summit sharp-pointed and recurved.

SEED-VESSEL. Shell nearly round, with a sharp point on the end, of one cell and two valves.

SEEDS two, roundish.

SPECIFIC CHARACTER.

Pultenæa foliis alternis, obovatis, glabris, mucronatis; floribus terminalibus, capitatis.

Pultenæa with alternate leaves, inversely egg-shaped, smooth, with a sharp point at the ends; flowers terminate the branches growing in heads.

REFERENCE TO THE PLATE.

1. The Cup, with its two appendages, magnified.
2. The Standard of the Blossom.
3. One of the Wings of the Blossom.
4. The two Petals of the Keel.
5. The Chives and Pointal, natural size.
6. The same, magnified.
7. The Pointal.
8. The same, magnified.
9. A half-ripe Seed-vessel, with the Cup remaining attached, magnified.

FROM the number of species of this genus of plants, already in Britain, we may conclude, that it is one of the most extended in New South Wales; twelve distinct ones have already flowered, drawings of most of them we have, which will be brought forward in due course. Dr. Smith, in the third No. of New Holland Botany, has named this tribe of plants after Dr. R. Pulteney, F. R. and F. L. S. of Blandford, Dorsetshire; well known for his Sketches of the Progress of Botany in England. But there is little doubt, that although no such kind attention as this of Dr. Smith had been shewn, to perpetuate the name of Dr. Pulteney, he had, by his excellent life of Linnæus, insured his own to live for ever. The *Pultenæas*, in systematic order, rank after, but very close to *Sophora*; but are little allied in general habit, as are few plants from that country to those of any other. This species was first raised in 1792, in many gardens about the metropolis the same year; but did not flower till 1796. It is a hardy greenhouse plant, generally flowering about the month of May; but the blossom is of short duration. Sandy peat is the soil it most approves; and its increase is produced, either from seeds, which sometimes ripen with us, or from cuttings placed in gentle heat about the month of May. The drawing was made from a plant in the Hibbertian collection at Clapham, this year.



Pultenea Daphnoides

PLATE XCIX.

GLADIOLUS BLANDUS.

Large White-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA, sexpartita, ringens.

STAMINA adscendentia.

BLOSSOM, six divisions, gaping.

CHIVES ascending.

See Plate XI. Vol. I. GLAD. ROSEUS.

SPECIFIC CHARACTER.

Gladiolus foliis lineari-lanceolatis, nervosis, glabris; floribus spicatis, secundis, albidis, maximis; laciniis tribus inferioribus maculatis; stigmatibus sub-bilobis.

Gladiolus with linearly lance-shaped, strongly nerved, smooth leaves; flowers grow in spikes all from one side of the stem, white, and very large; the three lower segments of the limb are spotted; summits nearly two-lobed.

REFERENCE TO THE PLATE.

1. The Sheaths of the Empalement.
2. A Flower cut open, with the Chives attached.
3. The Seed-bud, Shaft, and Summits.

Of all the different species of so handsome a genus, no one is more desirable than this; as the root or plant is preserved with little care, and it rarely misses flowering; at the same time that the blossoms are of long duration, and not subject to injury from the weather; changing to a fine bluish colour, when approaching to decay. From the Kew Catalogue we learn, that the *G. Blandus* was first introduced, from the Cape of Good Hope, by Mr. F. Masson in 1774. It thrives in most sorts of earth, but sandy peat seems the most proper for this, as well as most Cape bulbs. Our figure was taken from a plant in the collection of G. Hibbert, Esq. Clapham, this year, the end of May.



Gladiolus blandus

PLATE C.
EMBOTHRIUM SERICEUM.
Silky Embothrium.

CLASS IV. ORDER I.
TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX nullus.

COROLLA. Petala quatuor, linearia, obliqua, apice latiore, subrotundo, concavo, stamini-fero; post fecundationem revoluta.

STAMINA. Filamenta quatuor, brevissima, in singulo petala singula, vel nulla. Antheræ oblongæ, intra cavitatem petali sitæ, majusculæ.

PISTILLUM. Germen lineare, ascendens, inflexum. Stylus nullus. Stigma subrotundum, antice planum, postice concavum, magnum.

PERICARPIUM. Folliculus teres, unilocularis.

SEMINA quatuor feu quinque, ovata, compressa, margine altero membrana alata.

EMPALEMENT none.

BLOSSOM. Four petals, linear, oblique; broad ended, roundish, concave, and supporting the chive; after the bursting of the tips they are rolled back.

CHIVES. Four threads, very short, one in each petal, or none. Tips oblong, placed in the hollow end of the petal, larger.

POINTAL. Seed-bud linear, ascending, and bent. Shaft none. Summit nearly round, the forepart flat, the hinder concave, large.

SEED-VESSEL. A cylindrical pod of one cell.

SEEDS four or five, egg-shaped, flattened, having a skinny wing at one edge.

SPECIFIC CHARACTER.

Embothrium foliis sub-ternatis, integerrimis, acutis, margine revolutis, subtus sericeis; spica recurva; fructu tuberculato, glabro.

Embothrium with leaves growing mostly three together, entire, pointed, rolled back at the edge, and silky beneath; spike bent downward; fruit tuberculated, not downy.

REFERENCE TO THE PLATE.

1. A Blossom complete.
2. A Petal of the Blossom, magnified.
3. The Seed-bud and Summit, magnified.
4. A ripe Seed-vessel.
5. A Seed.

WHEN the figure of this plant, or a variety of it, was published by Dr. Smith, in the third No. of his *New Holland Botany*, it had not then flowered in England; and from the leaves only, of the dried specimens, it was scarce possible to trace, amongst such a variety of new faces, this species of *Embothrium*. It nevertheless was in many collections, and in some, all the varieties, although it had not then flowered in any. About the end of the year 1791 the seeds of this plant, with many others, were received by Messrs. Lee and Kennedy, of Hammer-smith, transmitted to them from New South Wales, by Col. Paterson. As a hardy greenhouse plant, it will always be coveted, as it is seldom without flowers through the whole year. Our plant appears to differ sufficiently, from the three varieties given by the Doctor, to form a fourth; as the leaves on this are by no means constantly three together, but are often scattered. We have notwithstanding nearly copied his specific character. It should be planted in light sandy peat, and may be increased by cuttings, or by seeds, which occasionally ripen, whilst the plant is still in flower.



Embolium sericeum

PLATE CI.
 HYPOXIS STELLATA.
Star-flowered Hypoxis.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Gluma bivalvis.

COROLLA monopetala, supera; limbus sexpartitus, laciniis ovato oblongis, patentibus; persistens.

STAMINA. Filamenta sex, brevissima, capillaria. Antheræ oblongæ, petalis breviores.

PISTILLUM. Germen inferum, turbinatum. Stylus filiformis, longitudine staminum. Stigma obtusiusculum.

PERICARPIUM. Capsula oblongiuscula, basi angustior, coronata corolla persistente, trilocularis, trivalvis.

SEMINA plurima, subrotunda.

EMPALEMENT. Husk of two valves.

BLOSSOM one petal, superior; border of six divisions, segments oblong-egg-shaped, and spreading; permanent.

CHIVES. Six very short hair-like threads. Tips oblong, shorter than the petals.

POINTAL. Seed-bud beneath, turban-shape. Shaft thread-shaped, the length of the chives. Summit bluntish.

SEED-VESSEL. Capsule rather oblong, smaller at the base, crowned by the permanent blossom, three cells, three valves.

SEEDS many, roundish.

SPECIFIC CHARACTER.

Hypoxis scapo unifloro; foliis sub-linearibus, laxis, striatis; petalis basi maculatis.

Hypoxis with but one blossom on the flower-stem; leaves nearly linear, flexible, and scored; the petals spotted at the base.

REFERENCE TO THE PLATE.

1. The Chives and Pointal, cleared from the Blossom.
2. A Chive.
3. The Pointal.

THOUGH we have little doubt in referring this plant to the title under which we have figured it, and by which it has been long known to most botanists, at least by name; yet have we great ones, whether it ought in any wise to be considered as such. Thunberg, perhaps the only botanist, who has seen it in flower, thought so, and placed it to a genus he had named *Fabricia*. Certainly no one character of the genus *Hypoxis*, can be traced in the flower. The husk is of one valve, the petals not even close at the base, the threads flat, the summits three, and halbert-shaped, the shaft pillar-shape and short, &c. But, as upon our old plea, we do not choose to change generic names when long established, this plant, for us, must still remain an *Hypoxis*; tho' it could not now be placed, at any rate, to *Fabricia*, as that title is given to a family of plants, natives of New Holland. The star-flowered *Hypoxis* is a native of the Cape of Good Hope, is rather a tender bulb, and does not often flower. It was according to the Kew Catalogue first introduced to the Royal Gardens by Mr. F. Masson, in the year 1788; but as the time of flowering is not mentioned, we suppose it did not flower there. The root should, like other Cape bulbs, be removed from the pot after flowering, and replanted in October. It propagates itself pretty freely by offsets, if planted in light sandy peat, mixed with a little loam. The drawing was made in June, this present year, at the Hammersmith nursery.



Thalictrum flavum

PLATE CII.
EPIGÆA REPENS.
Creeping Epigæa.

CLASS X. ORDER I.
DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium duplex, approximatum, persistens.

P. exterius triphyllum; foliolis ovato-lanceolatis, acuminatis; exteriore majore.

P. interius quinquepartitum, erectum, exteriore paulo longius; foliolis lanceolatis, acuminatis.

COROLLA monopetala, hypocrateriformis; tubus cylindricus, intus hirsutus; limbus patens, quinquepartitus, lobis ovato-oblongis.

STAMINA. Filamenta decem, filiformia, longitudine tubi. Antheræ oblongæ, acutæ.

PISTILLUM. Germen globosum, villosum. Stylus filiformis, longitudine staminum. Stigma obtusum, subquinquefidum.

PERICARPIUM. Capsula sub-globosa, depressa, pentagona, quinquelocularis, quinquevalvis.

SEMINA plurima, subrotunda.

Receptaculum magnum quinquepartitum.

EMPALEMENT. Cup double, close together, and remaining.

Outer cup three-leaved; leaflets between lance and egg-shape, pointed; the outer one the largest.

Inner cup of five divisions, upright, a little longer than the outer; leaflets lance-shaped and pointed.

BLOSSOM one petal, salver-shaped; tube cylindrical, hairy within; the border spreading with five divisions, the segments of an oblong egg-shape.

CHIVES. Ten thread-shaped threads the length of the tube. Tips oblong, and tapered.

POINTAL. Seed-bud globular and hairy. Shaft thread-shaped, the length of the chives. Summit blunt, and slightly five-cleft.

SEED-VESSEL. Capsule nearly globular, flattened, five-fided, five cells, and five valves.

SEEDS many, roundish.

Receptacle large, of five divisions.

SPECIFIC CHARACTER.

Epigæa caulibus procumbentibus; foliis cordato-ovatis, integerrimis, reticulatis; corollis hypocrateriformibus.

Epigæa with stems that lay on the earth; leaves between heart and egg-shape, quite entire, and netted; blossoms salver-shaped.

REFERENCE TO THE PLATE.

1. The two Cups of the Empalement.
2. The inner Cup, disengaged from the outer.
3. A Blossom cut open, to shew its hairy interior.
4. The Chives and Pointal, as they stand in the Blossom.
5. The Pointal, (magnified).

THE *Creeping Epigæa* is the only species of the genus yet in Britain; it was first introduced by P. Collinson, Esq. in 1736, from N. America; where it is found in most parts, from Virginia, as far north as Canada. The flowers of this plant are extremely fragrant, and are produced from March till May. Hitherto, very few situations have been found congenial to its cultivation, or growth; indeed, so subject is it to perish from the moisture, or changeableness of atmosphere in our winter months, to which it is not subject in its native clime, being during that season covered with a deep snow; that unless an occasional supply had not been procured from America, the plant must, long ere this, have been lost to us. The soil which appears best adapted for its preservation, is a light sandy loam: if planted in the open air, it should have a sheltered situation, on a dry border; but the most likely mode to preserve it, is by keeping it as a greenhouse plant. It is with difficulty increased by cuttings, but may be divided at the root, with success, in March. Our figure was made at the nursery of Mess. Lee and Kennedy, Hammersmith, this year, in the month of April.



Epigaea repens

PLATE CIII.

PROTEA SPECIOSA, *nigra*.

Black-flowered Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 4-fida, seu 4-petala. Antheræ lineares, insertæ petalis infra apicem. Calyx proprius, nullus. Sem. solitaria.

BLOSSOM 4-cleft, or of 4 petals. Tips linear, inserted into the petals below the points. Cup proper, none. Seeds solitary. See *PROTEA FORMOSA*, Vol. I. Plate XVII.

SPECIFIC CHARACTER.

Protea foliis longis, lineari-lanceolatis; squamæ calycinæ interiores apice incurvatæ, barbatae, nigrae.

Protea with long leaves, between linear and lance-shaped; the inner scales of the empalement are turned inward at the end, bearded, and black.

REFERENCE TO THE PLATE.

1. A Blossom complete, as it stands in the Empalement.
2. The four Petals of the Flower thrown open, to shew the situation and character of the tips.
3. The Seed-bud, Shaft, and Summit.

It is to the curious and beautiful structure of the empalement, (the flowers being nearly concealed within it,) that this species of *Protea* owes its specific title, and for which it is so much admired. There are different varieties of it, which are considered by Thunberg, in his *Diff. de Prot.* of 1781, as distinct species; but which are certainly only varieties of one stock: we have drawings of two of these, the one flesh-coloured, the other white; and hope to be able to demonstrate as just, our postulatam, when the synonyms are given, as proposed, at the close of this volume. This plant was first introduced to the Royal Gardens at Kew, from the Cape of Good Hope, in 1786, by Mr. F. Masson: it flowers at a very early age, and when the stem is not more than two feet high, mostly from the centre or leading branch of the plant. It is propagated by cuttings, which should be put in about the end of May, three or four, at most, in a pot, filled with good stiff loam, which should be pressed hard to the lower end of the cuttings, and the pot placed under a hand-glass in the shade. When the plants are to be removed into separate pots, it will be necessary to add a small portion of peat earth to the loam, and place them in an airy and dry part of the greenhouse. These directions are necessary to be observed, in the culture of nearly every species of this extended genus. Our figure was taken in the month of July 1799, from a plant in the Hibbertian collection, Clapham-common.



Protea speciosa nigra



PLATE CIV.

LACHNÆA ERIOCEPHALA.

Woolly-headed Lachnæa.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, persistens; tubo longo, tenui; limbo quadripartito, inæquali; lacinia summa retrofracta, minima; laciniis reliquis tribus erectis; intermedia majore.

COROLLA nulla.

STAMINA. Filamenta octo capillaria, erecta, longitudine ferme floris. Antheræ simplices.

PISTILLUM. Germen ovatum. Stylus filiformis, germinis lateri infertus. Stigma capitatum, hispidum.

PERICARPIUM nullum. Fructus in fundo calycis.

SEMEN unicum, ovatum.

EMPALEMENT. Cup one leaf, remaining; tube long, slender; border of four divisions, unequal; the upper segment appearing broke back, and small; the three other segments are upright; the middle one the largest.

BLOSSOM none.

CHIVES. Eight hair-like threads, upright, almost the length of the flower. Tips simple.

POINTAL. Seed-bud egg-shaped. Shaft thread-shaped, fixed into the side of the seed-bud. Summit a hairy knob.

SEED-VESSEL none. The fruit is in the bottom of the cup.

SEED one, egg-shaped.

SPECIFIC CHARACTER.

Lachnæa capitulis solitariis, lanatis; foliis quadrifariam imbricatis.

Lachnæa with little bunches of flowers growing solitary and woolly; leaves are tiled on the stem, forming four regular angles.

REFERENCE TO THE PLATE.

1. The terminating Leaves of the branches, which inclose the small heads of flowers.
2. A Flower, magnified.
3. A Flower cut open, natural size, to shew the infertion of the Chives.
4. The Seed-bud and Pointal, magnified.

THE figure of this curious new plant was taken from a specimen most obligingly communicated by the Hon. Wm. Hen. Irby, from his valuable and extensive collection at the Parsonage, Farnham Royal, near Windsor, Bucks. The genus Lachnæa has hitherto, with us, remained in obscurity; as the L. Conglomerata has not as yet flowered, and the L. Erioccephala was not in our collections till within these five years; about which time it was introduced by Mess. Lee and Kennedy, Hammersmith, from the Cape of Good Hope. It differs but little in habit from Passerina Grandiflora, and until it flowered this year, was considered as a variety of that plant. May be propagated with ease by cuttings, and continues to flower from March till August. A mixture of peat and loam is the soil it most approves; but it is very susceptible of damp.



Pachnaea Erioccephala.

PLATE CV.

VACCINIUM CRASSIFOLIUM.

Thick-leaved Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus. Corolla monopetala. Filamenta receptaculo inserta. Bacca quadrilocularis, polysperma.

CUP superior. Blossom of one petal. Threads fixed to the receptacle. A berry with four cells, and many seeds.

See Vol. I. Pl. XXX. VACCINIUM ARCTOSTAPHYLLUS.

SPECIFIC CHARACTER.

Vaccinium foliis ovatis, serratis, rigidis, crassiusculis; floribus sub-umbellatis, terminalibus; calycibus adpressis; corollis campanulatis; stamina decem.

Whortle-berry with oval leaves sawed at the edges, stiff, and thickish; flowers grow nearly in umbels, at the end of the branches; cups pressed to the blossom; blossoms bell-shaped; ten chives.

REFERENCE TO THE PLATE.

1. Cup and Seed-bud, natural size.
2. A Blossom cut open.
3. The Chives and Seed-bud, the leaflets of the cup cut off, magnified.
4. The Pointal, magnified.

THIS species of Whortle-berry was introduced from Carolina, about the year 1794, by Mr. J. Frazer, nurseryman. It is another of those with ten chives, five cells in the berry, and five segments in the borders of the cup and blossom. It is an evergreen, and will live through a mild winter, on a warm border; but cannot resist the cold of a severe one, though a small degree of protection is sufficient for its preservation. As a greenhouse plant, it is very decorative, flowering about June; in which month this year our drawing was made, at the Hammersmith nursery, from a plant in that collection. The pabulum best calculated to preserve it in a flourishing state, is a mixture composed of sandy peat two parts, and light loam one part. To propagate it, the younger branches should be laid down about the end of May, and they will be rooted by the ensuing spring.



Vaccinium crassifolium

Pl. 103

PLATE CVI.
H O U S T O N I A C O C C I N E A.
Scarlet Houstonia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium minimum, quadridentatum, erectum, persistens.

COROLLA monopetala, infundibuliformis; tubus cylindræus, longus; limbus quadripartitus, patens, laciniis subrotundis.

STAMINA. Filamenta quatuor, in collo corollæ, minima. Antheræ simplices.

PISTILLUM. Germen superum, subrotundum, compressum. Stylus simplex, staminibus brevior. Stigma bifidum, acutum.

PERICARPIUM. Capsula subrotunda, didyma, supra transverse dehiscens, bilocularis, bivalvis; valvulis dissepimento oppositis.

SEMINA pauca, parva, ovata, dissepimento adhærentia.

EMPALEMENT. Cup very small, with four teeth, upright, and remaining.

BLOSSOM one petal, funnel-shaped; tube cylindrical, long; border of four divisions, spreading, segments roundish.

CHIVES. Four threads, fixed to the neck of the blossom, very small. Tips simple.

POINTAL. Seed-bud above, roundish, and flattened. Shaft simple, shorter than the chives. Summit split in two and sharp.

SEED-VESSEL. Capsule roundish, double, splitting transversely from the upper part, two cells, two valves; the valves opposite to the partition.

SEEDS a few, small, oval, adhering to the partition.

SPECIFIC CHARACTER.

Houstonia foliis ovatis, glabris, subternis; caulis debilis, suffruticosus; floribus terminalibus, coccineis.

Houstonia with oval, smooth leaves, growing mostly by threes; stem weak, rather shrubby; flowers terminate the branches, and are scarlet.

REFERENCE TO THE PLATE.

1. The Empalement and Pointal, the Blossom taken off.
2. The Blossom cut open, to shew its interior structure.
3. The Seed-bud and Pointal, the leaflets of the cup being removed, magnified.

THE *Houstonia coccinea* has been placed, by some late botanical authors, under the genus *Hedyotis*; but such authorities can have no weight with us, when opposed to an established name, a nearly general conformity in the essential generic characters; and though last, not the least in our estimation, the corroborating testimony of Sir J. Banks, Bart. P. R. S. &c. by whom it was sent to the Royal Gardens, Kew, in 1793. It is a native of Mexico, South America; and like the *Hememerises*,* *Fuchias*, *Chelones*, &c. of that country, is very subject to damp; but being partly herbaceous, the root is most frequently preserved, although the upper part has perished. Though it requires the protection of a greenhouse in winter, it may be made an ornamental plant for the flower borders in autumn, by putting single cuttings, in small pots filled with rich earth, into the heat of a hotbed, early in March, they will be fit to transplant into the open ground the latter end of June, and will flower about August, continuing to blossom till destroyed by the frost; or if taken up and put into large pots, will flower till Christmas. Our figure was taken from a beautiful plant, in the collection of R. H. James, Esq. Grosvenor-place, in 1799.

* These are the two species of an old genus, introduced into the *Bot. Mag. of Curtis*, under the titles of *Celsia liniaris* and *C. urticifolia*.



Houstonia coccinea

PLATE CVII.

ALLIUM GRACILE.

Sweet-scented Garlic.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spatha communis, subrotunda, marcescens, multiflora.

COROLLA. Petala sex, oblonga.

STAMINA. Filamenta sex, subulata, longitudine sæpe corollæ. Antheræ oblongæ, erectæ.

PISTILLUM. Germen superum, breve, subtrigonum, angulis linea insculptis. Stylus simplex. Stigma acutum.

PERICARPIUM. Capsula brevissima, lata, triloba, trilocularis, trivalvis.

SEMINA pauca, subrotunda.

EMPALEMENT. Spath common, roundish, withering, inclosing many flowers.

BLOSSOM. Petals six, oblong.

CHIVES. Six threads, awl-shaped, often the length of the blossom. Tips oblong, upright.

POINTAL. Seed-bud above, short, nearly three-sided, the angles marked by a line. Shaft simple. Summit pointed.

SEED-VESSEL. Capsule very short, broad, of three lobes, three cells, and three valves.

SEEDS a few, roundish.

SPECIFIC CHARACTER.

Allium scapo nudo, tereti, longissimo; foliis canaliculatis, linearibus; umbella multiflora; corollis albidis; staminibus subulatis, ad basin cum petalis definentibus in tubum.

Garlic with a naked flower-stem, cylindrical, and very long; leaves channelled, and linear; umbel many flowered; blossoms white; chives awl-shaped, terminating with the petals at the base in a tube.

REFERENCE TO THE PLATE.

1. The Blossom cut open.
2. One Petal of the Blossom and its Chive, magnified.
3. The Pointal and Seed-bud.
4. A Capsule with ripe Seeds.

FROM a plant in the collection of J. Vere, Esq. Kenfington Gore, our drawing was made, this year, early in the month of May; and from an accurate scrutiny, are inclined to think it might be considered as a new genus; for certainly it does not well affine to the one here assigned it, in several instances; but as our professed principles are, as rarely as possible, to increase the number of genera, we have retained it under *Allium*. The flowers of this plant are fragrant in the extreme, at night; so much so, that one is sufficient to scent a large room; the flavour something like the Heliotrope. Being a native of Barbadoes, from whence it was sent by Mr. J. Ellcock in 1791, to Messrs. Lee and Kennedy, Hammer-smith, it requires the heat of a hothouse, where, without the assistance of the bark bed, it will flower, and increase from the bulb abundantly.



Allium gracile

Allium gracile L.
L. 107

PLATE CVIII.

GERANIUM RENIFORME.

Kidney-shape-leaved Geranium.

CLASS XVI. ORDER IV.

*Of Suppl. System.
Veget. 1781.*

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque.
FRUCTUS rostratus, penta-coccus.

One POINTAL. Five Summits.

FRUIT furnished with long awns, five dry berries.

See GERANIUM GRANDIFLORUM. Pl. XII. Vol. I.

SPECIFIC CHARACTER.

Geranium foliis reniformibus, crenato-dentatis, tomentosis; floribus heptandris, subquaternis, purpureis; caule fruticoso, sub-carnoso.

Geranium with kidney-shaped leaves, between scolloped and toothed at the edges, and downy; flowers with seven fertile tips, grow mostly by fours, and are purple; stem shrubby, and almost fleshy.

REFERENCE TO THE PLATE.

1. The Empalement cut open, to shew its hollow structure.
2. The Chives and Pointal, natural size.
3. The Threads cut open, to shew their number, as well as the general number of fertile tips, magnified.
4. The Pointal and Seed-buds, magnified.

FROM the Hort. Cantab. published this year, by the accurate Mr. J. Donn, we learn that this fine species of Geranium was introduced to the Royal Gardens, Kew, about nine years since; yet, till within these two years, it has not been seen in any other collection. Our drawing was made in July 1799, from a plant in the Clapham collection. This Geranium must be treated rather as a dry-stove than as a common greenhouse plant, for it affines much to *G. Fulgidum*, and a few others, which are inhabitants of the sandy deserts of the more interior parts of Africa, and which require more heat than is proper for those from Table Mountain, or the vicinity of the Cape. It is propagated by cuttings made about the month of March, and placed under a small glass, either in a hotbed, or in the bark bed of the hothouse: it may be increased by the root likewise, and from seed which is sometimes perfected. A compost of cow-dung, at least two years old, one part, sea sand one part, and light loam two parts, is the most proper for many of the tenderer sorts of this genus.



Geranium reniforme

Published on the 1st of April 1840
by H. Smeaton & Co. Edinburgh

PLATE CIX.
CHRYSANTHEMUM TRICOLOR.
Three-coloured Corn-Marygold.

CLASS XIX. ORDER II.

SYNGENESIA, POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis hæmisphæricus, imbricatus; squamis arcte incumbens; interioribus per gradus majoribus, margine scariosis; intimis terminatis squama scariosa.

COROLLA. Composita radiata. Corullulæ hermaphroditæ tubulosæ, numerosæ, in disco; femineæ duodenis plures, in radio.

Propria hermaphroditis infundibuliformis, quinquefida, patula, longitudine calycis.

Femineis ligulata, oblonga, tridentata.

STAMINA. Hermaphroditis filamenta quinque, capillaria, brevissima. Anthera cylindracea, tubulosa, corolla fere brevior.

PISTILLUM. Hermaphroditis, germen ovatum. Stylus filiformis, staminibus longior. Stigmata duo, revoluta.

Femineis germen ovatum. Stylus filiformis, cum hermaphroditis æqualis. Stigmata duo, obtusa, revoluta.

PERICARPIUM nullum. Calyx immutatus.

SEMINA. Hermaphroditis solitaria, oblonga. Pappus nullus.
Femineis simillima hermaphroditis.

RECEPTACULUM nudum, punctatum, convexum.

EMPALEMENT. Common, hemispherical, tiled; scales lying close upon each other; the inner ones becoming gradually larger, skinny at the edge; the innermost terminating in a skinny substance.

BLOSSOM. Compound radiate. Florets with chives and pointals, of the centre, tubular and numerous; those with only pointals, of the ray, twelve or more.

Individuals with chives and pointals, funnel-shaped, five-cleft, open, the length of the cup.

Individuals with only pointals, ligulate, oblong, with three teeth.

CHIVES. Those with chives and pointals have five, hair-like, very short threads. Tips cylindrical and tubular, scarcely shorter than the blossom.

POINTAL. Seed-bud, where there are chives and pointals egg-shaped. Shaft thread-shaped, longer than the chives. Summits two, rolled back.

Seed-bud where there are only pointals egg-shaped. Shaft thread-shaped the length of those where there are chives and pointals. Summits two, blunt and rolled back.

SEED-VESSEL none. Cup unchanged.

SEEDS of those with chives and pointals solitary, oblong. Feather none.

Those where there are only pointals like the others.

RECEPTACLE naked, dotted, and convex.

SPECIFIC CHARACTER.

Chrysanthemum crithmi foliis; squamis exterioribus calycis carinatis; floribus solitariis, tricoloratis.

Corn-Marygold with sapphire-like leaves; the outer scales of the cup keel-shaped; the flowers grow solitary and are three-coloured.

REFERENCE TO THE PLATE.

1. An outer Scale of the Empalement.
2. An inner Scale of the Empalement.
3. A female Floret of the Circumference, with its Pointal.
4. An hermaphrodite Floret of the Center.
5. The above, magnified.
6. The Chives of an hermaphrodite Floret, magnified.
7. The Pointal of an hermaphrodite Floret, magnified.
8. The Receptacle, natural size.

MR. James Donn, Curator of the Botanic Gardens, Cambridge, through whose medium we possess this new species of *Chrysanthemum*, informs us, in his catalogue for 1800, that it is a native of the coast of Barbary, and from whence it was first received in 1797. The *C. Tricolor* is but of annual growth, should be raised on gentle heat about March, and may be either kept in pots, or planted in the open borders, where it will flower from July till October; but much of the brilliancy of the flowers will be lost, if treated in the last manner, as the least wet, or even the dew, will affect their colours. The seeds are perfected in less than a week, after the decay of the flower, and are produced in abundance. Our figure was taken from a plant in the Hammersmith nursery, which had been raised from seed, communicated by Mr. Donn to Messrs. Lee and Kennedy.



Chrysanthemum bicolor

PLATE CX.

PROTEA SPECIOSA, *latifolia*.

Broad-leaved shewy Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 4-fida, seu 4 petala. Antheræ lineares, infertæ petalis infra apicem. Calyx proprius, nullus. Semina solitaria.

BLOSSOM 4-cleft, or of 4 petals. Tips linear, inserted into the petals below the ends. Cup, proper, none. Seeds solitary.

See PROTEA FORMOSA, Pl. XVII. Vol. I.

SPECIFIC CHARACTER.

Protea foliis lanceolato-ovatis; squamæ calycinæ interiores barbatae, apice incurvatae, incarnatae.

Protea with leaves between oval and lance-shaped; the inner scales of the empalement are bearded, turned inward at the ends, and flesh coloured.

REFERENCE TO THE PLATE.

1. A Blossom complete, as it stands in the Empalement.
2. The same opened, to shew the situation of the Chives.
3. The Seed-bud and Pointal.

THE drawing of this magnificent plant was made at the nursery of Messrs. Grimwood and Wykes, Kenfington, this year, early in the month of August; as we were informed by Mr. Wykes it was then in flower for the first time in England. In the year 1786 it was sent, in seeds, to the royal gardens, Kew, by Mr. F. Masson, from the Cape of Good Hope; where certainly its beauty must be great; as, even there, amidst that world of beauties, it should be honoured with such a specific title; in which, considering it as only a variety of our *P. speciosa nigra*, we entirely agree with Willdenow; where the last synonym of that species, copied by him in his Sp. Pl. from Ray's *Historia Plantarum* of 1719, must have been taken from a plant of this variety. The treatment, and culture of this, and *P. speciosa nigra*, are exact in every thing.



Protea speciosa latifolia

Protea speciosa latifolia
by H. Adams & R. Hartmann

3 2 4

PLATE CXI.

GLADIOLUS STRIATUS.

Streaked-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens. Stamina adscendentia.

BLOSSOM six divisions, gaping. Chives ascending.

See GLADIOLUS ROSEUS, Plate XI. Vol. I.

SPECIFIC CHARACTER.

Gladiolus foliis lanceolato ensiformibus, scapo æquantibus; scapo subtrifloro, erecto; floribus erectis; corolla ringente, laciniis acutis, undulatis, medio striatis.

Gladiolus with leaves between lance and sword-shaped, the length of the flower-stem; generally three flowers on the stem; flowers grow upright; blossom gaping, the segments pointed, waved, and streaked in the middle.

REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement.
2. A Flower cut open with the Chives attached.
3. The Seed-bud and Pointal, natural size, one Summit detached, magnified.

THIS species of Cape Gladiolus was brought to us, from Holland, about the year 1788; it is a very hardy bulb, the flowers continuing perfect more than a week, and are not easily injured either by wind or rain. But the greatest merit of this plant is, that the blossoms are only produced when most of the other species of Ixiæ, Gladioli, &c. have done flowering; which is generally about the end of July. Before the stem decays, the bulb should be taken from the pot, and dried. The increase of this plant is not great, as seldom more than two roots are produced from the old one. Our drawing was made at the Hammer-smith nursery, in 1799. Willdenow has a Gladiolus from Jacquin's Icon. Rar. under the specific title here given to this, undoubtedly not the same plant; but as our name is that by which this species is in general known, and by which it came from Holland, we have not thought fit to alter it.



Gladiolus striatus

Published by J. B. Baillière & Co. London
by H. Adams & Co. Edinburgh

PLATE CXII.

VACCINIUM DUMOSUM.

Bushy Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus. Corolla monopetala. Filamenta receptaculo inferta. Bacca quadrilocularis, polysperma.

CUP superior. Blossom of one petal. Threads fixed to the receptacle. A Berry with four cells and many seeds.

See VAC. ARCTOSTAPHYLLOS, Pl. XXX. Vol. I.

SPECIFIC CHARACTER.

Vaccinium foliis ovatis, acutis, glabris; floribus solitariis, axillaribus; pedunculis longissimis, bracteatis; corollis urceolatis subalbidis; stamina decem.

Whortle-berry with oval, pointed, smooth leaves; flowers grow solitary from the foot-stalk of the leaves, close to the stem; foot-stalks of the flowers are very long, having floral leaves; blossoms pitcher-shaped, nearly white; ten chives.

REFERENCE TO THE PLATE.

1. A Flower complete.
2. The Cup and its Foot-stalk, with the floral Leaves.
3. The Seed-bud, Pointal, and Chives.
4. The same, magnified.
5. The Shaft and its Summit, magnified.

THIS species of Whortle-berry is a neat, compact, bushy shrub; and like all the rest of those which have ten chives, and the other parts consonant, can scarcely be considered as a hardy plant; for although it will live through a mild winter, if planted in a warm and dry situation, on an open border; yet it will in general be destroyed, by the severe frosts which happen late in spring. It should be planted in sandy peat earth, with a small portion of light loam; may be propagated by layers, which do not commonly root, sufficiently to be taken off, under two years from the time of their being put down. As a hardy green-house plant it is best preserved in a flourishing state, and will flower about the month of June; in which month, this year, our drawing was made, at the nursery of Messrs. Lee and Kennedy, by whom it was introduced from North America in the year 1783.



Vaccinium dumosum

Painted in the Bot. Garden, Oct. 1830
by H. Andrews & J. Smith

PLATE CXIII.
STRUTHIOLA IMBRICATA.

Tiled-leaved Struthiola.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus; nisi bractæas sub germine pro calyce assumas.

COROLLA monopetala, marcescens; tubus filiformis, elongatus; limbus quadripartitus, planus, tubo brevior; laciniis ovatis.

Nectarium, glandulæ quatuor, seu octo, ovatæ, fauci circumpositæ, penicillo proprio cinctæ.

STAMINA. Filamenta quatuor, brevissima, intra tubum occultata. Antheræ lineares.

PISTILLUM. Germen ovatum. Stylus filiformis, longitudine tubi. Stigma capitatum, hispidum.

PERICARPIUM coriaceum, ovatum, uniloculare.

SEMEN unicum, acutiusculum.

EMPALEMENT, none; unless you take the floral leaves at the base of the seed-bud for the cup.

BLOSSOM one petal, withering; tube thread-shaped, lengthened; border of four divisions, flat, shorter than the tube; segments egg-shaped.

Honeycup, four or eight oval glands, placed round the mouth of the blossom, each being surrounded by its brush of hairs.

CHIVES. Four threads, very short, hid within the tube. Tips linear.

POINTAL. Seed-bud egg-shaped. Shaft thread-shaped, the length of the tube. Summit, a hairy knob.

SEED-VESSEL leathery, egg-shaped, of one cell.

SEED one, a little pointed.

SPECIFIC CHARACTER.

Struthiola foliis ovato-acuminatis, concavis, imbricatis, glabris, margine ciliatis; glandulæ quatuor supra faucem.

Struthiola with oval leaves, tapering to a point, concave, tiled, smooth, and hairy at the edges; four glands upon the mouth of the blossom.

REFERENCE TO THE PLATE.

1. A Flower with its floral leaves, or cup.
2. The floral Leaves or Cup, magnified.
3. A Flower cut open, magnified.
4. The Seed-bud, Chives, and Pointal, magnified.

THE Genus Struthiola, from the few species yet known, has been but slightly considered. Linnæus, at the end of his Generic Character, affines it to Passerina; it is true, the habits of *S. virgata*, and *S. erecta*, which are undoubtedly only varieties of the same stock, and the only two he had seen, might lead to such a comment; but, from the seven species of which we have drawings, all taken from living plants, and which will be brought forward in due course, we consider them, as perfectly distinct, in more essential characters than merely the number of chives. The acute and diligent Willdenow, in his new edition of *Sp. Plant.* enumerates five species from Thunberg, &c.; but from his notes of observation, prefixed to each, he had not seen either living or dried specimens of any, but the two above named. The characters in which we observe this genus to differ from *Gnidia* and *Passerina*, are, first, a cup of two leaves, constant in every species we have examined, for they cannot be considered as floral leaves, being attached to the base of the blossom, and joined together at the bottom; secondly, the honeycup forming a complete cincture to the mouth of the flower, and upon which are seated, four, or eight, upright glands. This species of *Struthiola* was first raised in England, at the nursery, Hammer-smith, from the Cape of Good Hope, in the year 1794. It is a tender green-house plant, and very subject to be destroyed by wet; therefore, should be protected from too much rain in summer, and kept in an airy part of the house in winter. It is propagated by cuttings made in the month of May, or June, and should be planted in light, sandy peat, mixt with about one sixth part of loam. The flowers of this, as well as all the species we have seen, are extremely fragrant in the evening, beginning to smell with the setting sun, and continuing their flavour till morning. An agreeable peculiarity attendant on most plants of this natural order, and on every species of this genus, in particular, is, that they flower twice in the year, about the month of March, and again in September; in which month, last year, our drawing was made, from the Hibbertian collection, Clapham Common.



Struthiola imbricata

Published in the Act. Universitatis Cantabrigiae
by J. G. Edwards & H. G. Sowerby

PLATE CXIV.

GERANIUM QUINQUEVULNERUM.

Variiegated flowered Geranium.

CLASS XVI. ORDER IV.

*Of Suppl. System.
Veget. 1781.*

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque.
FRUCTUS rostratus, penta-coccus.

ONE POINTAL. Five summits.

FRUIT furnished with long awns, five dry berries.

See GERANIUM GRANDIFLORUM, Pl. XII. Vol. I.

SPECIFIC CHARACTER.

Geranium foliis hispida, multifida; floribus heptandris; pedunculis multifloris; petala atropurpurea, margine pallido; caule suffruticoso, spithamæo.

Geranium with hairy leaves many-cleft; flowers with seven fertile chives; foot-stalk, many flowers; petals dark purple, pale at the margin; stem half shrubby, grows a span high.

REFERENCE TO THE PLATE.

1. The Empalement, cut open as far as to the solid part.
2. The Chives and Pointal.
3. The Chives cut and spread open, magnified.
4. The Pointal, magnified.

THIS beautiful species of Geranium was raised by Mr. J. Armstrong, nurseryman of Northwamborough, Hants, from seeds received by him, in 1796, from the Cape of Good Hope. From a branch, in fine flower, brought to us, this year, in the month of June, by Mr. Dickinson, our drawing was made; who informs us, that the ordinary treatment of common Geraniums, is all that is required for this; that it is increased by cuttings, or from a division of the root, in spring. It has not, as yet, produced any perfect seed; although it has flowered abundantly these two years, from May till October. It has something the habit of *G. triste*, or the Night-smelling Geranium; but differs from that species, in having a short shrubby stem, the leaves shorter and harsher, and the flowers entirely without smell.



Geranium quinquevulnerum

PLATE CXV.

GERANIUM TOMENTOSUM.

Downy-leaved Geranium.

CLASS XVI. ORDER IV. *of Suppl. System. Veg.*
1781.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

See Geran. Grandiflorum,
Pl. XII. Vol. I.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque.

FRUCTUS rostratus, penta-coccus.

|| ONE POINTAL. Five Summits.

|| FRUIT furnished with long awns, five dry berries.

SPECIFIC CHARACTER.

Geranium foliis ovatis, plicatis, erectis, ferratis,
tomentosis; floribus pentandris; filamentis
duobus superioribus revolutis, ciliatis.

|| Geranium with egg-shaped leaves, plaited, up-
right, sawed, and downy; flowers with five
fertile chives; the two upper threads rolled
back and fringed.

REFERENCE TO THE PLATE.

1. The Empalement.
2. The Chives and Pointal, natural size.
3. The Chives cut open, magnified.
4. The Pointal, and Seed-bud

THE Downy-leaved Geranium, according to the Hort. Cantab. of Mr. Donn, introduced from the Cape of Good Hope, in the year 1794; is a dwarf growing, and rather delicate species, of this extended and very mutable tribe of plants; producing its flowers about the month of August. It is to be increased from the seeds, which sometimes ripen; or by cuttings, taken off in the month of March, and placed on a gentle hotbed; but if delayed to be made till much later, it will be found difficult to propagate by this mode. Less of dung and more loam, than is necessary for most Geraniums, will preserve this plant best through the winter; in which season, it should be kept in a dry and airy part of the greenhouse, to avoid the damps, which otherwise, often prove fatal to it.

That the charm of novelty, however erroneous or absurd, has found at all times its votaries, we have daily experience; therefore cannot wonder at, though we may regret its consequent influence on the many, who wish to signalize themselves, under its delusive banner. This observation naturally obtruded on our imagination, upon the perusal of the last Number of the Bot. Mag. where the Kidney-leaved *Crane's-bill* is mentioned as "*one of the rarest of the Geranium tribe;*" are we to understand Geranium in this place as a new title for a natural order of plants; or, as solely confined to one Genus? Poor Geranium! although thou hast been so long excluded from thy station, in scientific English, yet shalt thou not lose thy due weight, against all thy opponents, in pure descriptive English prose; and perhaps some day may be deemed, by the learned, worthy a place amongst English Genera. With Mr. Donn, we humbly conceive the old title *Crane's-bill*, as ill adapted to the three Genera of M. L'Heritier; and that, if new Latin names are to be foisted on us, for plants already well known, and settled, by that great master of the science, Linnæus; to whose opinion ours shall ever bow, English ones consonant, should be likewise adopted; and that Heron's-bill for *Erodium*, Stork's-bill for *Pelargonium*, and *Crane's-bill* for *Geranium*, will prove no greater puzzle to the English Botanist. Unfortunately we are, and have been, so attached to old fashions, that we still mean to continue the title *Geranium*, as it is apparently best understood; whether, in English or Latin, descriptive, or scientific; as long as the public shall continue so honourably to patronize the Botanist's Repository.



Geranium tomentosum

Geranium tomentosum
L. Sp. Pl. 1000. t. 10. f. 1.

PLATE CXVI.
GAULTHERIA PROCUMBENS.
Trailing Gaultheria.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium duplex, approximatum, persistens.

P. exterius diphyllum, brevius; foliis semi-ovatis, concavis, obtusis.

P. interius monophyllum, quinquefidum campanulatum; segmentis semiovatis.

COROLLA monopetala, ovata, semiquinquefida; limbo parvo, revoluta.

Nectarium corpusculis decem, subulatis, erectis, brevissimis, cingentibus germen intra stamina.

STAMINA. Filamenta decem, subulata, incurva, corolla breviora; receptaculo inserta. Antheræ bicornes; corniculis bifidis.

PISTILLUM. Germen subrotundum, depressum. Stylus cylindricus, longitudine corollæ. Stigma obtusum.

PERICARPIUM. Capsula subrotunda, obtusa, pentagona, depressa, quinque locularis, quinque valvis, undique tecta perianthio interiore transformato et enato in baccam subrotundam, coloratam, apice perviam.

SEMINA plurima, subovata, angulata, ossca.

EMPALEMENT. Cup double, close together, remaining.

Outer Cup two leaved, shorter; leaflets half egg-shaped, concave, and blunt.

Inner Cup one leaf, five-cleft, bell-shaped; segments half egg-shaped.

BLOSSOM one leaf, egg-shaped, slightly five-cleft; border small, rolled back.

Honey-cup ten small substances, awl-shaped, upright, very short, surrounding the seed-bud within the chives.

CHIVES. Ten threads, awl-shaped, turned inwards, shorter than the blossom; fixed into the receptacle. Tips two-horned; horns two cleft.

POINTAL. Seed-bud roundish and flattened; Shaft cylindrical, the length of the blossom. Summit obtuse.

SEED-VESSEL. Capsule roundish obtusely five-fided, flattened, five cells, five valves; covered on all sides by the inner cup, transformed and swelled to a roundish berry, coloured, open at top.

SEEDS many, nearly egg shaped, angular and hard.

SPECIFIC CHARACTER.

Gaultheria foliis ovatis, obtuse-dentatis, apice confertis; caulis flexuosus, filiformis.

Gaultheria with egg-shaped leaves, bluntly toothed, and crowded together at the top; stem grows zigzag and thread-shaped.

REFERENCE TO THE PLATE.

1. A Blossom complete.
2. The Empalement, natural size.
3. The Empalement, magnified.
4. The Chives as they stand on the receptacle, magnified.
5. The Pointal and seed-bud, with the surrounding honey-cup, magnified.
6. The inner Cup of the Empalement, when the fruit is ripe, natural size.
7. A seed vessel of the natural size when ripe, detached from its cup.
8. A ripe capsule, cut open transversely.

FROM the eighth Ed. of Miller's Dictionary, we learn that, this plant was cultivated at the Physic Gardens, Chelsea, in the year 1765. That so ornamental, and so easily propagated a plant as the *Gaultheria*, should have been so little noticed, or cultivated in our gardens, is rather singular; as, it is perfectly hardy in every exposure, an evergreen, and from the beautiful appearance of the fruit and flowers, which come in succession nearly through the whole year; must be considered, as one of our prettiest creeping or dwarf shrubs, for the front of the shrubbery borders, &c. as it never rises higher than six, or eight inches; forming a compact matted clump, which may be made to spread to a considerable extent, if planted in light sandy peat earth. The very curious conformation of the fruit, which is eatable, differing from every known Genus of plants; as well as, the peculiar property of the leaves; point out the *Gaultheria*, as a particular object for observation, and comment, to the experimental Botanist. In Canada, North America, where it is native, an infusion of the leaves is used as a substitute for tea; or a few of them, either dried, or plucked fresh from the plant, when mixt with the commonest bohea, communicate to it a flavour, equal to fine Hyson.



Mallotia procumbens

Mallotia procumbens
L. f. *Indica* & *Malabarica*

PLATE CXVII.
GENTIANA PURPUREA.
Purple flowered Gentian.

CLASS V. ORDER II.

PENTANDRIA DIGYNIA. Five Chives. Two Pointals.

GENERIC CHARACTER.

CALYX. Perianthium quinquepartitum, acutum, persistens; laciniis oblongis.
COROLLA. Petalum unicum, inferne tubulatum, imperforatum, superne quinquefidum, planum, marcescens; figura varia.
STAMINA. Filamenta quinque, subulata, corolla breviora. Antheræ simplices.
PISTILLA. Germen oblongum, cylindraceum, longitudine staminum. Styli nulli. Stigmata duo, ovata.
PERICARPIUM. Capsula oblonga, teres acuminata, apice leviter bifida, unilocularis, bivalvis.
SEMINA numerosa, parva. Receptacula duo, singula valvulæ longitudinaliter adnatæ.

EMPALEMENT. Cup five divisions, sharp and permanent; segments oblong.
BLOSSOM. Petal only one, lower part tubular, and close; upper part five-cleft, flat, withering, and variously shaped.
CHIVES. Five threads, awl-shaped, shorter than the blossom. Tips simple.
POINTALS. Seed-bud oblong, cylindrical, as long as the chives. Shafts none. Summits two, egg-shaped.
SEED-VESSEL. Capsule oblong, cylindrical, tapering, slightly cleft at the end, one-celled, and two valves.
SEEDS numerous and small. Receptacles two, joined to each valve longitudinally.

SPECIFIC CHARACTER.

Gentiana corollis campanulatis, 6-7 fidis, atropurpureis, punctatis, verticillatis; calycibus membranaceis, sub-spathaceis, truncatis.

Gentian with bell-shaped blossoms, 6-7 cleft, deep purple, dotted and whorled; empalement skinny, almost sheathed, and appearing cut off at the ends.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom, complete.
3. The same cut open, to shew the situation of the Chives.
4. Half the Seed-bud split longitudinally, to shew its interior structure.
5. A Seed-vessel, nearly ripe.

As a native of the Helvetian Alps, the Purple flowered Gentian is consequently, a hardy plant with us, requiring only to be planted in a light soil; may be increased from the seeds, which are produced in abundance, or by parting the root in autumn. The seeds are perfected, within a fortnight after the flower is decayed; and should be sown on light sandy peat, covering them very slightly, as soon as possible after they have been dried.

There appears a strange variety of opinions amongst Botanists concerning this, and two other species of Gentian, the Punctata and the Pannonica; which, as many have observed, although denied by others, are only varieties of each other; surely, a slight variation in height, the shape of the divisions of the border, or what is of less consequence, (as they vary, in that regard so much, on the same plant) their number; are not of sufficient weight to form a specific distinction.

This plant is said, in the Hort. Kew. to have been introduced in the year 1768 by Professor de Saussure: from what cause, we cannot judge, if it is so old an inhabitant, why it should not be more plentiful with us; as at present few collections possess it, and it is sold at a very high price. Our drawing was made at the Nursery, Hammer-smith.



Gentiana purpurea

PLATE CXVIII.

GLADIOLUS GRANDIFLORUS.

Large flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens.
STAMINA ascendentia.

BLOSSOM, six divisions, gaping.
CHIVES ascending.

See GLADIOLUS ROSEUS, Pl. XI. Vol. I.

SPECIFIC CHARACTER.

Gladiolus foliis ensiformibus nervosis; scapo
subtrifloro, longitudine foliorum; floribus
erectis, maximis; laciniis corollæ emargi-
natis, undulatis, striatis, sub-æqualibus.

Gladiolus with sword-shaped leaves, nerved;
flower-stem having mostly three flowers,
and of the length of the leaves; flowers
grow upright, and very large; the seg-
ments of blossom are notched at the ends,
waved, striped, and nearly of an equal
length.

REFERENCE TO THE PLATE.

1. The two sheaths of the Empalement.
2. The Blossom cut open, with the Chives attached.
3. The Pointal, and Seed-bud.

FROM the figures in the Collect. and Ic. rar. of Jacquin, we were led to think, this must be the same, or a strong variety of his *G. florabundus*; but, as his trivial name and specific character so ill accord with our plant, we have continued it under that, by which it was sent to England in 1788. It is a very free blowing bulb, and will live through the winter, with very little protection; flowering about June or July, and does not require to be removed from the pot, to prevent its rotting. Our drawing was taken in June this year, at the HammerSmith Nursery.



Gladiolus grandiflorus

Handwritten text, possibly a signature or date, located in the bottom right corner of the page.

PLATE CXIX.

STRUTHIOLA OVATA.

Oval-leaved Struthiola.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

*See Struthiola imbricata,
Pl. CXIII. Vol. II.*

ESSENTIAL GENERIC CHARACTER.

PERIANTHIUM diphyllum. Corolla tubulosa
4-fida; nectarium, glandulæ octo fauci
circumpositæ. Sem. 1. subbaccatum.

CUP two-leaved. Blossom tubular, 4-cleft; ho-
ney-cup, 8 glands placed round the mouth
of the blossom. One seed like a berry.

SPECIFIC CHARACTER.

Struthiola foliis ovatis, glabris; ramis glabris,
rugosis.

Struthiola with egg-shaped, smooth leaves;
branches smooth and wrinkled.

REFERENCE TO THE PLATE.

1. A Blossom, complete.
2. The Empalement, magnified.
3. The Blossom cut open, with the Chives attached, magnified.
4. The Pointal and seed-bud, magnified.

THIS species of Struthiola is described by Thunberg, in his Prodrômus, under the specific title it here bears, and was first introduced to us in the year 1794, in seeds received from the Cape of Good Hope, by Messrs. Lee and Kennedy, Hammer-smith. It is a very tender greenhouse plant, and very subject to be destroyed by damps, or too much moisture, even in summer; the flowers, (as are most of this natural order,) are extremely fragrant and continue in full perfection from March till June. The mode of propagation is by cuttings, made in May, which should be placed under a hand-glass in a pot of light loam, and shaded from the mid-day sun. It thrives best in a mixture of half peat and half loam. The drawing was made in the spring of 1798, from a plant in the Hibbertian Collection, Clapham; then in flower, for the first time in England.



Acruthiola ovata

Pl. in the bot. Garden, 1817

PLATE CXX.
FUCHSIA LYCIOIDES.

Box Thorn-like Fuchsia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum. Infundibuliforme, coloratum, superum marcescens; limbus quadripartitus.

COROLLA. Petala quatuor, sessilia, ore calycis inserta.

STAMINA. Filamenta octo, inæqualia, filiformia, erecta, tubo calycis inserta. Antheræ ovatae.

PISTILLUM. Germen inferum, ovatum. Stylus filiformis, erectus, longitudine staminum. Stigma tuberculatum.

PERICARPIUM. Bacca carnosâ, ovata, quadrilocularis.

SEMINA plura, parva, receptaculo columnari affixa.

EMPALEMENT. Cup one leaf, funnel-shaped, coloured, above and withering; border four divisions.

BLOSSOM. Four petals, fitting close on the mouth of the cup, into which they are inserted.

CHIVES. Eight threads, unequal, thread-shaped, upright, fixed into the tube of the cup. Tips egg-shaped.

POINTAL. Seed-bud beneath, egg-shaped. Shaft thread-shaped, upright, the length of the chives. Summit composed of small knobs.

SEED-VESSEL. A fleshy berry, egg-shaped, and four valves.

SEEDS many, small, affixed to a pillar-shaped receptacle.

SPECIFIC CHARACTER.

Fuchsia foliis ovatis undulatis, subternis; pedunculis unifloris, axillaribus; laciniis calycis reflexis.

Fuchsia with egg-shaped leaves, waved, and growing mostly by threes; foot-stalks with one flower growing from the insertion of the leaf, the segments of the cup reflexed.

REFERENCE TO THE PLATE.

1. A Flower cut open, to expose the insertion of petals and chives into the cup.
2. The Pointal, complete.
3. A ripe berry, natural size.

No plant perhaps ever excited such universal admiration, as the Scarlet *Fuchsia*; wherefore, the addition of a second species to our collections, of so fine a Genus, must be considered as a very agreeable acquisition. The Box Thorn-like *Fuchsia*, is a native of the North-west coast of America; and was first brought to England, in the year 1796: it is certainly, much more tender than the Scarlet *Fuchsia*, as the plant constantly perishes, as low as to the earth, if not preserved in the hothouse; but whether it is herbaceous the root surviving, we have not sufficient experience to determine. The increase is certain and easy, if cuttings are made, from the young shoots, early in March, and plunged in a hotbed, or in the bark of the hothouse, six or eight in a pot; from which they may be removed, about June, into large pots for flowering, which will be from August till November. Loam, with a small portion of rotten dung, is the soil it most approves.

The specific title we have adopted, is from the very great resemblance the plant bears to *Lycium afrum*, or the Box-Thorn; although we have some doubts, whether this species may not be the *F. triphylla* of Father Plumier. But as the *F. coccinea*, as well as this plant, has frequently the leaves growing by threes; we thought that, as it as yet had no specific title with us, the character of the plant would be best distinguished, by the name we have chosen.



Fuchsia lycioides

Fuchsia lycioides
Lamour.

PLATE CXXI.

GERANIUM CORTUSÆFOLIUM.

Cortusa-leaved Geranium.

CLASS XVI. ORDER IV. *of Suppl. System. Veg.*
1781.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus rostratus, penta-coccus.

One POINTAL. Five summits. Fruit furnished with long awns, five dry berries.

See GERANIUM GRANDIFLORUM, Pl. XII. Vol. I.

SPECIFIC CHARACTER.

Geranium foliis cordatis, sublobatis, ferratis, tomentoso-sericeis; petiolis longissimis, erectis; floribus umbellatis, odoratissimis, stipulis subulatis; caule robusto, subcaroso.

Geranium with heart-shaped leaves, slightly lobed, sawed, and covered with a downy pile; footstalks very long and upright; flowers grow in umbels, and are very sweet scented; leaf-pros awl shaped; stem stout, and rather fleshy.

REFERENCE TO THE PLATE.

1. The Empalement cut open.
2. The Chives and Pointal, natural size.
3. The same, magnified.
4. The Chives cut open, magnified.
5. The Seed-bud, and Pointal, magnified.

THE Cortusa-leaved Geranium is a tender plant, seldom growing to more than a foot in height; producing its blossoms, which are extremely fragrant, in erect bunches, from the summit of the branches, and must be protected, through the depth of winter, in the nothouse. The propagation is both slow and difficult, as it rarely perfects any seeds, and forms but few branches. The cuttings when taken off, which ought to be done about the end of May, should be exposed to the sun, till the part where cut has formed a tough coat over the wound, which will take place in two or three days; when they will not be so subject to rot from the moisture of the earth, as if planted when just taken from the plant. These instructions are necessary to be observed, in the propagation of all the thick-stemmed Geraniums, by cuttings. A mixture of sandy peat, with a small quantity of old rotten dung, will prove the best compost for preserving this plant. Our drawing was taken this year, in July, at the Hammermith nursery. A mistake has arisen with regard to the name of this species of Geranium; which was evidently not known to any botanist, antecedent to its being brought to England in 1786 by Mr. A. Hove, a native of Poland, from the south west coast of Africa, and found by him in about the 23d degree of south latitude. Professor Martyn, in his new edition of Miller's Dictionary, article Pelargonium 43, has taken for granted that this is the plant designed by Professor Jacquin, where he treats of *G. cortusæfolium*; giving the *G. tabulare* of Burman, Linnæus, &c. as synonymous to it; but undoubtedly, no such intention could be in the Professor, as the uniting these two plants, which are so entirely dissimilar; but only an unfortunate inclination to alter an old established name, for one, which he conceived more appropriate to a well known, common species; whence the confusion; the constant consequence of such useless alterations, whether generic or specific.



Geranium cortusae-folium



Gladiolus galeatus

W. & A. G. Smith
Delin. & Sculp. J. G. Smith

PLATE CXXIII.
THUNBERGIA FRAGRANS.
Twining Thunbergia.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

CALYX. Perianthium duplex; *exterius*, diphyllum, foliolis ovatis, concavis, longitudine fere tubi; *interius*, monophyllum, multipartitum, laciniis circiter duodecim, subulatis, perianthio exteriori triplo brevioribus.

COROLLA monopetala; tubus sensim ampliatus; limbus quinquefidus; laciniis æqualibus, ovatis, obtusissimis, tubo triplo brevioribus.

STAMINA. Filamenta quatuor, tubo supra basin inserta, inæqualia; duobus inferioribus brevioribus; duobus superioribus tubo breviora. Antheræ ovatæ, adnatæ.

PISTILLUM. Germen superum. Stylus filiformis, tubo paullo brevior, erectus. Stigma bilobum.

PERICARPIUM. Capsula globosa, rostrata, glabra, bilocularis, longitudinaliter dehiscens; rostrum compressum, fulcatum, lineare, obtusum; dissipimentum obovatum, emarginatum, sub apice foramine perforatum, lateribus membranaceum, persistens.

SEMINA in singulo loculamento bina, reniformia, rugosa, hinc convexa, inde concava sulco longitudinali.

EMPALEMENT. Cup double; the *outer one* two-leaved; leaflets egg-shaped and concave, nearly the length of the tube; the *inner one* one-leaved, many divisions, the segments about twelve, awl-shaped, thrice as short as the outer cup.

BLOSSOM, one petal; tube widening gradually; border five-cleft; segments equal, egg-shaped, very blunt, three times as short as the tube.

CHIVES. Four threads, fixed into the lower part of the tube, unequal; the two lowermost the shortest; the two uppermost shorter than the tube. Tips egg-shape, pressed to the threads.

POINTAL. Seed-bud above. Shaft thread-shape, a little shorter than the tube, and upright. Summit two lobed.

SEED-VESSEL globular, beaked, smooth, two celled, and splits longitudinally; beak flattened, awl-shaped, linear, and blunt; partition inversely egg-shaped, notched at the end, pierced with a hole at the top, skinny at the edges, and remaining.

SEEDS two in each cell, kidney-shaped, rough, convex on one side, and concave on the other by a longitudinal furrow.

SPECIFIC CHARACTER.

Thunbergia foliis ovato-acuminatis, sub-dentatis; corolla alba, hypocrateriformis, tubo compresso; caule volubili.

Thunbergia with egg-shaped, tapering leaves, a little toothed; blossom white, salver-shaped, the tube flattened; stem twining.

REFERENCE TO THE PLATE.

1. The outer cup of the Empalement.
2. The inner cup of the same, magnified.
3. A Blossom cut open, to shew the situation of the Chives.
4. The Shaft and Summit, natural size.
5. The Seed-bud, magnified.
6. A ripe Capsule.
7. A ripe Seed.

THE *Thunbergia*, here figured, is a native of the East Indies, from the Coromandel coast; was introduced to Britain in the year 1796, at the same time with the *Ixora pavetta*, by the Hon. Lady Dowager De Clifford. It is easily propagated, by cuttings, or from the seeds, which ripen with us: it should be kept in light, rich earth in the hothouse; where it will flower from May, till September; in which month this year our drawing was taken at Kensington Gore from a plant in the collection of James Vere, Esq. But although Dr. Roxburgh's reason for adopting the specific character he has given it, that the place where it grows is sweet scented, though the plant is not, seems rather a little strained, we have not thought it right to alter it; as unquestionably, any name would have been equally appropriate, since neither the flowers, or any part of the plant, root or branch, has the least scent.

The plant from which this genus was originally formed by the younger Linnæus in his *Sup. Plant.* P. 46, is a native of the Cape of Good Hope; and we have our doubts, whether this plant ought to be placed with it; for although it accords in the essential character, of a double cup, the only one thought necessary, by Linnæus, to divide it from *Barleria*; yet, from the number of parts in which it differs from his generic character, such as the shape of the blossom, the length of the pointal, the situation and shape of the chives, the very different shape of the seeds, &c. we are led to think, it ought to be considered as a distinct Genus. But in following such good authority as the able and learned Dr. Roxburg, it is to be hoped, we shall stand excused in continuing the same name he has assigned it, without alteration at least, if not without comment.



Thunbergia fragrans

Thunbergia fragrans
Linn. Sp. Pl. 1000. f. 10. t. 123. p. 1.

PLATE CXXIV.
HELICONIA PSITTACORUM.
Parrot-billed Heliconia.

CLASS V. ORDER I.
PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ communes partialesque alternæ, distinctæ, persistentes.

Perianthium nullum.

COROLLA. Petala tria, oblonga, canaliculata, erecta, acuta, æqualia.

Nectarium diphyllum; foliolo altero petalis subæquali; altero brevissimo, canaliculato, uncinato, opposito.

STAMINA. Filamenta quinque, linearia. Antheræ erectæ, longæ.

PISTILLUM. Germen inferum, triquetrum. Stylus staminibus fere brevior. Stigma longum, gracile, curvatum, capitulo terminali.

PERICARPIUM. Capsula oblonga, truncata, triquetra, trilobularis, trivalvis.

SEMINA solitaria, oblonga.

CALYX. Sheaths common and partial alternate, distinct, remaining.

Cup none.

BLOSSOM. Petals three, oblong, channelled, upright, pointed, equal.

Honeycup two leaved; one leaflet nearly the length of the petals; the other very short, channelled, hooked and opposite to the larger.

CHIVES. Five threads, linear. Tips upright and long.

POINTAL. Seed-bud beneath, three-sided. Shaft scarcely shorter than the chives. Summit long, slender, curved, and terminating in a small head.

SEED-VESSEL. Capsule oblong, appearing cut off at the end, three-sided, three cells, three valves.

SEEDS solitary, oblong.

* SPECIFIC CHARACTER.

Heliconia. Foliis glaberrimis, lanceolatis; inflorescentia glaberrima; spadice terminali flexuoso; spatheis multifloris, marginibus revolutis; nectario lanceolato, concavo, integro.

Heliconia with very smooth, lance-shaped leaves; the inflorescence quite smooth; stem terminating in a zig-zag form; sheaths containing many flowers and rolled back; honey-cup lance-shaped, concave, and entire.

REFERENCE TO THE PLATE.

1. The Blossom, with the three petals detached from the upper part of the Honey-cup, which is shewn in front with the smaller leaf inclosed within the larger.
2. The Chives, with the lower part of the Honey-cup, to shew their insertion at its base, and the smaller leaf of the Honey-cup in its place.
3. The smaller leaf of the Honey-cup, magnified.
4. The Shaft and Summit, the Summit detached magnified.
5. The Seed-bud, natural size.
6. The Seed-bud cut transversely, magnified.

The Parrot-billed Heliconia, a native of the continent of South America, as well as most of the West India Islands, was first received, in plants, from the island of St. Vincents, in the year 1797, by Thomas Evans, Esq. of Stepney; in whose collection it first flowered, in September 1798, when our drawing was taken. This plant requires a considerable degree of moisture and heat, as well as much root room and rich earth, to make it flower in perfection; as it seldom opens its blossoms freely without such treatment, and even with such assistance, they are to be seen but for a few hours in that state. It propagates from the roots, throwing up a number of suckers from the joints, which are formed at a considerable distance from the plant. The younger Linnæus in his *Sup. Plant.* of 1781, p. 158, has described this plant under our specific title, but different in some few points; which appear to arise more from his ideas of the various parts, than from any real difference in the plant itself. Swartz in his *Obs.* 98, gives sheaths to his plant, which Linnæus, we presume, denominates flower stem leaves, &c. yet we have no doubt, but they have both described the same plant; and perfectly agree with Willdenow and Martyn, that the *H. psittacorum* of both authors is the same, and have as little of this being the plant.



Heliconia psittacorum

VACCINIUM PARVIFLORUM.

Small flowered Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus. Corolla monopetala.
FILAMENTA receptacula inserta. Bacca quadri-
locularis, polysperma.

CUP superior. Blossom one petal
THREADS fixed to the receptacle. A berry with
four cells, and many seeds.

See VACCINIUM ARCTOSTAPHYLLOS, Pl. XXX. Vol. I.

SPECIFIC CHARACTER.

Vaccinium foliis lanceolatis, undulatis, venosis;
floribus racemosis; pedunculis longissimis,
bracteatis; corolla conica, striata. Stamina
decem.

Whortle-berry, with lance-shaped, waved, and
veined leaves; flowers grow in long bunches;
foot stalks of the flowers very long, having
floral leaves; blossom cone-shaped, and
streaked. Ten Chives.

REFERENCE TO THE PLATE.

1. A Blossom.
2. The Chives magnified.
3. The Seed-bud, Cup, and Pointal, the Summit detached, magnified.

THIS species of Whortle-berry was first brought, from North America, in the year 1784. It is one of those with ten chives, &c. and of the same nature with those we have already figured; for its treatment, and increase, we must therefore refer our readers to *V. formosum*, Pl. XCVII. Vol. II. The drawing was taken in May 1799, at the Hammermith nursery.



Vaccinium parviflorum

*Pin. in the Art. Pinus
by Th. de la Haye*

PLATE CXXVI.

HIBBERTIA VOLUBILIS.

Twining Hibbertia.

CLASS XIII. ORDER V.

POLYANDRIA PENTAGYNIA. Many Chives. Five Pointals.

GENERIC CHARACTER.

CALYX. Perianthium pentaphyllum; foliolis coriaceis, sub-ovatis, concavis, acutis, persistentibus.

COROLLA. Petala quinque, obcordata, calyce longiora.

STAMINA. Filamenta numerosa, filiformia, receptaculo fructificationis inserta. Antheræ lineares, erectæ, emarginatæ.

PISTILLA. Germina quinque, ovato-oblonga, definitia in stylos flexuosos, longitudine fere staminum. Stigmata simplicia, apice concava. Corpusculum subulatum, membranaceum in medio germinum, eorumque longitudine.

PERICARPIUM. Capsulæ quinque ovatæ, trigonæ, uniloculares, distinctæ.

SEMINA plurima, subrotunda.

EMPALEMENT. Cup five leaves; leaflets tough, nearly egg-shaped, concave, sharp, and remaining.

BLOSSOM. Five petals, inversely heart-shaped, longer than the cup.

CHIVES. Threads numerous, thread-shaped, fixed into the receptacle of the fructification. Tips linear, upright, notched at the ends.

POINTALS. Five seed-buds, between oblong and egg-shaped, terminating in zig-zagged shafts, nearly the length of the chives. Summits, simple, and hollowed at the top. A small awl-shaped, skinny substance in the middle of the seed-buds, and of their length.

SEED-VESSEL. Five capsules, egg shaped, three-sided, one celled, and distinct.

SEEDS many, roundish.

SPECIFIC CHARACTER.

Hibbertia foliis obtuse-ferratis, obovato-lanceolatis, floribus solitariis, sessilibus, foetidissimis.

Hibbertia with obtusely sawed leaves, between lance and inversely egg-shaped; flowers grow solitary, sitting close on the stem; very foetid.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A leaf of the blossom.
3. The Chives and Pointals.
4. One Chive, magnified.
5. Pointals apart, as they stand in the center of Chives.
6. The Pointals spread open, with the skinny substance which stands in their center.
7. One of the Pointals, magnified.
8. A Seed-bud, cut transversely.
9. A half ripe seed, magnified.

The *Hibbertia volubilis*, (as are the three species of which we have seen specimens,) is from New Holland, near Port Jackson; was raised from seeds in many different collections near London in the year 1792. It is a hardy green-house plant, and makes a very handsome climber, for trellis, or pillars in a conservatory. Its growth is very rapid, and its flowers which are very brilliant and specious, continue in succession from May till September. The increase is certain and easy from cuttings, made in the month of May, and placed on a gentle hotbed, or plunged in the bark-bed of the hothouse. It delights in a light sandy peat soil. Our drawing was made from a plant, in the collection of the Hon. Lady Dowager De Clifford, Paddington.

As hitherto this tribe of Plants has not been given to the public by any truly established name; (the different species having been erroneously titled *Dillenias*, which have many pointals,) and as we find it to differ, from any yet described Genus, we have named it after G. Hibbert, Esq. of Clapham Common, Surry; whose knowledge and fervor in botanical pursuits, as well as liberality in his endeavours to enrich our collections, from every quarter of the globe, but especially from the Cape of Good Hope, has not been exceeded by any; and we are well assured, no name deserves a place, on botanical record, more than that of **HIBBERT**.



Excoecaria volubilis

PLATE CXXVII.

JASMINUM GRACILE.

Slender-stemmed Jasmine.

CLASS II. ORDER I.

DIANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, tubulatum, oblongum; ore quinquedentato, erecto; persistens.

COROLLA monopetala, hypocrateriformis; tubus cylindraceus, longus; limbus quinquepartitus, planus.

STAMINA. Filamenta duo, brevia. Antheræ parvæ, intra tubum corollæ.

PISTILLUM. Germen subrotundum. Stylus filiformis, longitudine staminum. Stigma bifidum.

PERICARPIUM. Bacca ovalis, glabra, bilocularis seu bicapsularis.

SEMINA duo, magna, ovato-oblonga, arillata, hinc convexa, inde plana.

Obs. Figura floris acuminata et obtusa variat. Bacca in aliis simplex, in aliis dicocca.

EMPALEMENT. Cup one-leaved, tubular, oblong; five-toothed at the mouth, and upright; remaining.

BLOSSOM, one petal, salver-shaped; tube cylindrical, long; border five divisions, flat.

CHIVES. Threads two, short. Tips small, within the tube of the blossom.

POINTAL. Seed-bud roundish. Shaft thread-shaped, the length of the chives. Summit two-cleft.

SEED-VESSEL. Berry oval, smooth, two-celled or two-capsuled.

SEEDS two, large, oblong egg-shaped, each in its proper seed-coat, convex on one side, and flat on the other.

Obs. The flower varies in its character of tapering to a point, or in being blunt-ended. In some the berry is simple, in others double-seeded.

SPECIFIC CHARACTER.

Jasminum petiolis foliorum geniculatis; foliis ovatis, oppositis, nitidis, simplicibus; floribus umbellatis; laciniis corollæ obtusis, undulatis.

Jasmine with the foot-stalks of the leaves jointed; egg-shaped leaves, growing opposite, shining and simple; flowers grow in umbels; the segments of the blossom are blunt and waved.

REFERENCE TO THE PLATE.

1. The Cup.
2. A Blossom spread open, to expose the situation of the Chives.
3. The Shaft and Summit.
4. A ripe Berry.
5. The same cut transversely, to shew the cells and seeds.

THE plant here figured, we consider as a distinct species from the *J. simplicifolium* of Forster, which he describes as a native of the Friendly Isles, in the South Seas; and likewise from the *J. oblongum* of Burman, which is given (but with a query) as a synonym to the *J. simplicifolium* of the former Author by Willdenow, in his *Sp. Plant.* p. 38, Part I. In the year 1792, the seeds of this plant were received by Messrs. Lee and Kennedy, Hammersmith, with the *Bignonia pandorana*, and many others, communicated by Colonel Paterson, then commanding a detachment stationed for a time on Norfolk Island, where it is native. To the green-house it is a considerable acquisition, either for a climber, or otherwise, as it is rarely without blossoms from July, till the end of November; being rather more tender than many of its congeners, which are in general destined to that station; it should be placed as nigh the flue, in as dry and airy a part of it as possible. A light, sandy peat soil, without mixture, is the most congenial to its growth; and it is increased by cuttings, made in the month of March, put, from 12 to 20, according to the size of the pot, under a small bell-glass, in the before-named earth, and plunged either in the bark-bed of the hot-house, or in the heat of a common hot-bed.



Jasminum gracile

W. G. Smith del.

PLATE CXXVIII.

IXIA POLYSTACHIA. *Var. incarnata.*

Many-spiked Ixia. *Var. flesh-colour.*

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, æqualis.
STAMINA tria, erectiusculo-patula.

|| Blossom 6-petals, spreading, equal.
|| SUMMITS three, nearly upright and spreading.
|| See *IXIA REFLEXA*, Pl. XIV. Vol. I.

SPECIFIC CHARACTER.

Ixia foliis linearibus; scapo spicis pluribus; corollæ laciniis subreflexis, incarnatis.

|| *Ixia* with linear leaves; flower-stem with many
|| spikes of flowers; segments of the blossom
|| a little bent backwards, and flesh-coloured.

REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement.
2. A Blossom spread open.
3. The Pointal natural size, with one of the Summits detached, and magnified.

THIS fine variety of the Many-spiked *Ixia* was introduced to our collections from the Cape of Good Hope, about the year 1795, with the Reflex-flowered *Ixia* and many others, in bulbs, communicated by J. Pringle, Esq. to Messrs. Lee and Kennedy, Hammersmith; where our drawing was taken in April 1799. No particular care is required, for the culture or increase of this, other, than what is required for the generality of Cape *Ixias*.



polystachia.
var. incarnata.

Publ. in the Bot. Magazine

PLATE CXXIX.
GLORIOSA SUPERBA.
Superb Gloriosa.

CLASS V. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX nullus.

COROLLA. Petala sex, oblongo-lanceolata, undulata, longissima, totaliter reflexa.

STAMINA. Filamenta sex, subulata, corolla breviora, recto-patula. Antheræ incumbentes.

PISTILLUM. Germen globosum. Stylus filiformis, staminibus longior, inclinatus. Stigma triplex, obtusum.

PERICARPIUM. Capsula ovalis, triloba, trilocularis, trivalvis.

SEMINA plura, globosa, baccata, duplici serie disposita.

Obs. Affinis Erythronio.

EMPALEMENT, none.

BLOSSOM. Petals six, oblong-lance-shaped, waved, very long, totally bent back.

CHIVES. Six threads, awl-shaped, shorter than the blossom, spreading out at straight angles from the seed-bud. Tips sideways on the threads.

POINTAL. Seed-bud globular. Shaft thread-shaped, longer than the threads, inclined. Summit triple, blunt.

SEED-VESSEL. Capsule oval, three-lobed, three-celled, three-valved.

SEEDS many, globular, like berries, disposed in two rows.

Obs. The genus has an affinity to Erythronium, or Dog's-tooth Violet.

SPECIFIC CHARACTER.

Gloriosa foliis cirrhiferis.

|| *Gloriosa* with tendril-bearing leaves.

REFERENCE TO THE PLATE.

1. A leaf of the Blossom, with its Chive, as they are fixed together at the base.
2. The Seed-bud, Shaft and Summit; the petals of the blossom being cut off.

THE *Gloriosa superba*, a native of Guinea, as well as the coast of Malabar in the East Indies, is said to be every part poisonous. It is herbaceous, and the roots, which are formed upon the decay of the old one, should be taken from the pot in November, and kept in dry sand till the end of February, when they must be planted in rich earth, composed of one part old rotten dung, and two parts leaf mould or peat earth, then plunged in the bark-bed of a hot-house which is kept at pine heat, to insure their flowering the ensuing August.

Having received a most beautiful branch, of this magnificent plant from the collection of the Hon. the Marchioness of Rockingham, at Hillingdon, near Uxbridge; the impulse was too strong to be resisted, of giving a figure of it in the Bot. Rep. although against our general proposals, as this is certainly, neither a new, or rare plant; having been introduced so early as 1690, by Mr. Bentick. We therefore beg the indulgence of our friends, in this instance; for although the flower is common, and there are many figures of it, in different works, as, Rheede's Hort. Malab. Vol. 7. frut. scand. 107. t. 57. Plukenet's alma. 249. t. 116. f. 3. Commelin's hort. 1. p. 69. t. 35. &c. &c.; yet, as these may not be in the possession of many of the purchasers of our work, we hope it may prove agreeable.



Gloriosa superba

Handwritten text at the bottom right corner, likely a signature or date.

PLATE CXXX.
CERBERA UNDUATA.
Waved-leaved Cerbera.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium pentaphyllum, acuminatum; foliolis ovato-lanceolatis.

COROLLA monopetala, infundibuliformis; tubus clavatus; limbus magnus, quinquepartitus; laciniis obliquis, obtusis, latere altero magis gibbis; os tubi quinquangulare, quinque-dentatum, stellato-connivens.

STAMINA. Filamenta quinque, subulata, in medio tubi. Antheræ erectæ, conniventes.

PISTILLUM. Germen subrotundum. Stylus filiformis, brevis. Stigma capitatum, bilobum.

PERICARPIUM. Drupa maxima, subrotunda, carnosa, a latere sulco longitudinali excavata, punctisque duobus.

SEMEN. Nux bilocularis, quadrivalvis, retusa.

EMPALEMENT. Cup five leaved, tapering to a point; leaflets between egg and lance-shaped.

BLOSSOM one petal, funnel-shaped; tube club-shaped; border large, five divisions; segments oblique, obtuse, thicker edged on one side; mouth of the tube five-angled, five toothed, approaching together in the form of a star.

CHIVES. Five threads, awl-shaped, in the middle of the tube. Tips upright, and approaching.

POINTAL. Seed-bud roundish. Shaft thread-shaped, and short. Summit headed, two-lobed.

SEED-VESSEL. A large pulpy fruit, nearly round, fleshy, hollowed on the side by a longitudinal furrow, and with two punctures.

SEED. Nut two cells, four valves, and bluntly dented at the end.

SPECIFIC CHARACTER.

Cerbera foliis lanceolatis, utrinque attenuatis, undulatis; cymis ramosis, divaricatis, axillaribus.

Cerbera with lance-shaped leaves tapered to both ends, and waved; tufts of flowers branching into various directions, and growing from the foot-stalks of the leaves close to the stem.

REFERENCE TO THE PLATE.

1. The Empalement, magnified.
2. The Blossom cut open, with the Chives as they stand in the tube, magnified.
3. The Empalement, with the pointal after the blossom has fallen off, magnified.
4. The Seed-bud, magnified.

THIS conspicuously handsome plant was introduced by W. Forsyth, Esq. to the Chelsea Gardens in the year 1782, from the island of Bourbon, now the Isle de la Revolution, near the coast of Madagascar, in the Indian Ocean. It grows to a very considerable height, perfectly straight, and polished in the stem, something like the Bamboo Cane, from which appearance, till it flowered, it had gone by the name of the fishing-rod plant. It must be kept in the bark-bed of the hothouse in rich mould, and should be removed from its pot but seldom, the roots being extremely tender and brittle. The propagation is slow and difficult, as well from the great tendency the part has to rot, where cut, as from the unfrequency of its throwing out any side shoots from the stem. Our drawing was made in July this year, at the Hammersmith nursery; though we understand it flowered in the extensive collection of the Right Hon. the Earl of Tankerville at Walton-upon-Thames, some years since.

Having followed Willdenow, rather than Jacquin, in the Generic name of this plant, our reason is, each species which has hitherto been thrown to this Genus, since its first formation, might well make a distinct one; if every generic or even essential, character, was to be critically attended to. The fruit forming the principal essential character, a specimen of which we have seen, containing two large seeds like *C. Manghas*, determined us in our adoption.

The descriptions and figures of the two plants, given by Professor Jacquin in his *Icon. rar.* 2, and *Collect.* 4, under the genus *Ochrosia*, are, we conceive, only different specimens of our plant; and are both, as well as Dryander's critique on Gmelin (see *Linn. Transf.* Vol. II. p. 227) defective; neither of them having seen but *dried* specimens, without the fruit; as in this natural order of plants, the flowers being mostly fleshy, many of the principal characters are destroyed in the process of drying; and of course, in such case, must lead to error. Jacquin's character of *maculata*, quoted by Willdenow as a specific title, though he has rejected the Generic, we suppose, must have been taken from the small blotches on the lower, and which sometimes pervade the upper surface of the leaves, but found only when in the last state of decay, or when artificially dried to preserve them; as by the pressure necessarily employed to that end, the waved, and most ostensible character of the living plant, is done away. As to the *C. parviflora* of Forster being the same, as either, the *Ochrosia borbonica* or *O. maculata* of Jacquin, we must beg leave to dissent from the severe criticiser of Gmelin; upon whose authority, nevertheless, Willdenow has been led to exclude, even as a synonym, the *O. borbonica* of Prof. Jacquin, which perhaps, if it were not for the increasing of Genera, ought to be the name of the plant.



Coriaria undulata.

PLATE CXXXI.

GERANIUM LACINIATUM.

Ragged-leaved Geranium.

CLASS XVI. ORDER IV. *of Suppl. System. Veg. 1781.*

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus rostratus, penta-coccus.

ONE POINTAL. Five Summits. Fruit furnished with long awns, five dry berries.
See GERANIUM GRANDIFLORUM, Pl. XII. Vol. I.

SPECIFIC CHARACTER.

Geranium foliis radicalibus, integris laciniatisque, petiolis filiformibus; calycibus monophyllis; Staminibus quinque fertilibus; radice tuberosa.

Geranium with leaves growing from the root, entire and jagged, foot-stalks thread-shaped; cups one-leaved; five fertile chives; root tuberous.

REFERENCE TO THE PLATE.

1. The Empalement, with its tubular part laid open.
2. The Chives and Pointal, as they stand in the blossom, magnified.
3. The same cut open, and detached from the Pointal, magnified.
4. The Pointal, magnified.

THE Ragged-leaved Geranium may be considered as an herbaceous plant, for it rarely retains its leaves longer than September; and when in a state of inaction, should be watered but sparingly, otherwise the root will be subject to rot. It may be increased by parting the roots about March, which should be afterwards planted in rich mould, and placed on a shelf in the hot-house; where they will flower in May or June. From an imported plant, in the Hibbertian collection, our drawing was made this year.

A continual harping on the same subject, may perhaps appear rather tiresome; but, as almost every real new species of Geranium, which falls under our observation, seems to add a fresh proof of the futility of the new arrangement, we cannot forbear noticing it. This species, for instance, has every other essential generic character of Monsieur L'Heritier's Pelargonium, but unfortunately the most essential. Upon an accurate examination of a number of flowers, before they had expanded, (the only time when it can be truly ascertained), in no one instance, was there more than five tips to be found. Where to place it, with Erodium, or Pelargonium?



Geranium laciniatum

Pl. 111
by H. Schimper

PLATE CXXXII.

PROTEA LONGIFOLIA. *Nigra.*

Long-leaved Protea. Black flower.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 4-fida seu 4-petala. Antheræ lineares, infertæ petalis infra apicem. Calyx proprius nullus. Semina solitaria.

BLOSSOM 4-cleft or 4 petals. Tips linear, inserted into the petals below the point. Cup proper, none. Seeds solitary.

See PROTEA FORMOSA, Pl. XVII. Vol. I.

SPECIFIC CHARACTER.

Protea foliis sublinearibus, angustis, obliquis, rigidis, longissimis; squamis interioribus, calycis lanceolatis, erectis; florum plumis atro-purpureis.

Protea with leaves nearly linear, narrow, oblique, harsh and very long; the inner scales of the cup are lance-shaped and upright; the plume of flowers of a black-purple.

REFERENCE TO THE PLATE.

1. A Blossom complete, with the seed-bud attached.
2. The Petals of the flower opened, to shew the situation of the Tips.
3. The Seed-bud, Shaft and Summit.

THIS species of Protea, from the Cape of Good Hope, of which we have drawings of three varieties, is as yet, very scarce in this kingdom. The variety here figured, as well as the others of this species, have been hitherto considered as varieties of *P. speciosa*; with which, however, they have less connexion, than with *P. mellifera*; but from both they stand quite distinct. Wherefore, we have given them the specific title of *longifolia*, from the extreme length of their leaves, which are considerably longer, than could be expressed in the figure. We believe this is the first year it has flowered in England, or in any other collection, than the nursery, Hammersmith; where our drawing was made in November. It is most difficult, or indeed almost impracticable, to increase it, as it puts out no side shoots, and certainly damps off, if laid down, where it touches the earth.

From Boerhaave's having arranged this species of Protea, (See his Index to the Leyden Garden, Part 2. from P. 185 to 189,) with his *Lepidocarpodendrons*, after *fig. 187.* which is our *P. mellifera*; Willdenow has been led into an error; since he has given this plant, the 188 Fig. of Boerhaave, as a synonym to *P. speciosa*, which ought not to be so taken, unless we understand, that he meant all his *Lepidocarpodendrons* as only varieties of each other; the principal distinguishing feature, in *P. speciosa*, being the incurved and fringed character, of the inner scales of the empalement.



Protea longifolia nigra

Protea longifolia nigra
W. L. C. 1822

PLATE CXXXIII.

PROTEA LONGIFOLIA. *Ferruginoso-purpurea.*

Long-leaved Protea. Rusty-purple flower.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 4-fida seu 4-petala. Antheræ lineares, infertæ petalis infra apicem. Calyx proprius nullus. Semina solitaria.

BLOSSOM 4-cleft or four petals. Tips linear inserted into the petals below the point. Cup proper none. Seeds solitary.

See PROTEA SPECIOSA. Pl. XVII. Vol. I.

SPECIFIC CHARACTER.

Protea foliis sub-linearibus, angustis, obliquis, rigidis, longissimis; squamis interioribus calycis lanceolatis erectis; florum plumis ferruginoso-purpureis; conus subglobosus.

Protea with nearly linear leaves, narrow, oblique, harsh and very long; the inner scales of the cup are lance-shaped and upright; the plume of flowers are of a rusty-purple; the cone nearly globe-shaped.

REFERENCE TO THE PLATE.

1. A Blossom complete, with the seed-bud attached.
2. The Petals of the flower spread open, to expose the situation of the Tips.
3. The Seed-bud, Shaft and Summit.

THAT the attention of the scientific and other collectors and cultivators of exotics, in this kingdom, may be brought to a better acquaintance, with this fine, very extended, yet much neglected Genus; the species of which, now in Britain, amount to more than seventy, has been our chief aim, in endeavouring to lay before them, figures of some of the most rare and beautiful; one of which we deem the present.

This variety of Long-leaved Protea, is figured in Boerhaave's Index to the Leyden garden, Part 2. p. 186, as one of his Lepidocarpodendrons, and has been given, by Willdenow in his Sp. plant. Tom. I. p. 531. as a synonym of *P. speciosa*, quoted from Thunberg's prod. 27. Diff. de Prot.

The culture and treatment of this plant, is the same as *P. speciosa*, to which we refer our readers.

From a fine plant, in the Hibbertian collection, our drawing was taken in the month of July this year. It was introduced to us from the Royal Gardens at Schonbrun in Germany, communicated by the superintendant to Messrs. Lee and Kennedy, Hammer Smith, the seeds having been received from the collector for the Emperor, at the Cape.



Protea longifolia
Thunbergii parviflora

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Pl. in the Bot. Garden, Vol. 1
by J. B. Smith & J. G. Smith

PLATE CXXXIV.

IXIA CROCATA. *Var. nig. maculata.*

Crocus flowered Ixia. *Var. black spotted.*

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, æqualis.
STAMINA tria, erectiusculo-patula.

BLOSSOM 6-petals, spreading, equal.
CHIVES three, upright and spreading.
See *IXIA REFLEXA.* Pl. XIV. Vol. I.

SPECIFIC CHARACTER.

Ixia foliis falcatis, flaccidis; floribus alternis, sessilibus; petalis tribus exterioribus basi gibbis maculatisque.

Ixia with scimitar-shaped limber leaves; flowers grow alternate and close to the stem; the three outer petals are gouty and spotted at the base.

REFERENCE TO THE PLATE.

1. The two Spaths of the Empalement.
2. The Flower cut open and expanded, with the Chives attached.
3. The Seed-bud, Shaft and Summits, the Summits detached and magnified.

THIS variety of *Crocus*-flowered *Ixia* was introduced, according to the Kew Catalogue, Vol. I. p. 60, in the year 1774, by Mr. F. Masson, from the Cape of Good Hope, and there, is treated as a distinct species, under the name of *I. deusta*. From the number of drawings we possess of this tribe of plants, having nineteen distinct varieties of this one species, and in the close investigation we have given them, in their flowering, for a number of years; having found them to sport in colour, &c. from the same root, but much more so from seed; enables us decisively to place this plant as a variety to *I. crocata*. It is one of the most hardy of the Genus, and propagates itself by the root. The flowers are produced about May, in which month 1799, our drawing was taken, at the Hammersmith nursery; since, we have not seen it in any collection; which leads us to think it is not a free blower, as the roots are not scarce.



Iris crocata
var. nigra maculata

Bot. Tabern. 1753. p. 134.
Tab. 134. Fig. 1. 2. 3.

PLATE CXXXV.
MALVA REFLEXA.
Reflex-flowered Mallow.

CLASS XVI. ORDER VI. *of Schreb. Gen. Plant. 1789.*

MONADELPHIA POLYANDRIA. Threads united. Many Chives.

GENERIC CHARACTER.

CALYX. Perianthium duplex; *exterius* triphyllum, angustius; foliolis cordatis, acutis, persistentibus; *interius* monophyllum, semiquinquefidum, majus, latius, persistens.

COROLLA. Petala quinque, obcordata, præmorsa, plana, tubo staminum basi affixa.

STAMINA. Filamenta numerosa, infernè coalita in tubum, in hujus apice et superficie fecidentia et libera. Antheræ reniformes.

PISTILLUM. Germen orbiculatum. Stylus cylindraceus, brevis. Stigmata plurima, fetosa, longitudine styli.

PERICARPIUM. Capsula subrotunda, composita e loculamentis pluribus, (tot quot stigmata) bivalvibus, verticillatim inarticulatis circum receptaculum columnare, tandem dilabentibus.

SEMINA solitaria, rarius duo seu tria, reniformia.

EMPALEMENT. Cup double; *the outer* three-leaved, narrower; leaflets heart-shaped, sharp, and remaining; *the inner* one-leaf, half five-cleft, larger, broader, and remaining.

BLOSSOM. Five petals, inversely heart-shaped, appearing bit at the ends, flat, fixed to the tube of the chives at the base.

CHIVES. Threads numerous, united below into a tube, at its top and surface parted and loose. Tips kidney-shaped.

POINTAL. Seed-bud orbicular. Shaft cylindrical and short. Summits many, bristle-shaped, the length of the shaft.

SEED-VESSEL. Capsule roundish, composed of many cells (as many as there are tips) two-valved, forming a whorl round a columnar receptacle not jointed, at length falling off.

SEEDS solitary, seldom two or three, kidney-shaped.

SPECIFIC CHARACTER.

Malva foliis cuneiformibus, inequaliter incisobobatis; petalis reflexis.

Mallow with wedge-shaped leaves, unequally gashed into lobes; petals reflexed.

REFERENCE TO THE PLATE.

1. The Empalement, the inner and outer Cup separated from the Blossom.
2. A Blossom spread open.
3. The Chives and Pointal.
4. The Chives, the connecting tube cut open.
5. The Seed-bud, Shaft and Summit, magnified.

SOME light doubts, at first, arose in our minds, that this plant might be *M. virgata*, the 15th in Professor Martyn's new arrangement of Miller's Dictionary, vide art. *Malva*. But, from the extraordinary length of the branches of *M. virgata*, there described to be six feet and a half long, and only the thickness of a wheat straw at the base! with dark purple flowers; we cannot but consider this, which never rises to more than a foot and a half or two feet in the stem, with white flowers, excepting a small streak of red at the base of the petals, as a distinct and new species. It is a native of the Cape, and was received in seeds, from thence, in the year 1794. As a hardy green-house plant it is most ornamental; the blossoms, which are quite reflexed when full blown, being produced in succession from March till November, upon every part of the plant. It is increased by cuttings made in May, and placed under a hand-glass on a shady border. Light loam with a small mixture of peat, is the best soil to make it flourish.



Malva reflexa

PLATE CXXXVI.

GERANIUM CRASSIFOLIUM.

Thick-leaved Geranium.

CLASS XVI. ORDER IV. *of Suppl. System.
Veg. 1781.*

MONADELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata 5. Fructus rostratus,
penta-coccus.

|| ONE POINTAL. Five summits. Fruit furnished
with long awns, five dry berries.
|| See GERANIUM GRANDIFLORUM, Pl. XII. Vol. I.

SPECIFIC CHARACTER.

Geranium foliis acuminatis, lobato-pinnatis, sub-
carnosis, laciniis inequaliter dentatis; pe-
dunculis subquadrifloris; floribus pentan-
dris; petalis æqualibus, purpureis.

|| Geranium with leaves tapering to the point,
winged in lobes and rather fleshy, the seg-
ments unequally toothed; foot-stalks gene-
rally four flowers; the flowers have five fer-
tile tips; petals equal and purple.

REFERENCE TO THE PLATE.

1. The Empalement.
2. One Petal of the Blossom.
3. The Chives and Pointal.
4. The Chives, spread open.
5. The same, magnified.
6. The Pointal, magnified.

THE thick-leaved Geranium is a native of the island of Cyprus, and was introduced by Dr. Sibthorpe, on his return from visiting the Grecian islands, in the year 1788. It is, we think, no more than a biennial plant at best, as it seldom survives the second winter, and but rarely the first. If the seeds are sown in the month of March, the plants will flower the ensuing autumn, and generally produce ripe seeds, if kept in a sheltered and warm situation. This plant is unquestionably the true Erodium of L'Heritier, and those who admit of that innovation, being the one, apparently, upon which he formed his Generic distinction; as we believe, no other species, so denominated, has every constituent Essential part necessary to his Genus.



Geranium crassifolium

PLATE CXXXVII.

GLADIOLUS NANUS.

Dwarf Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens. Stamina adscendentia.

BLOSSOM six divisions, gaping. Chives ascending.

See GLADIOLUS ROSEUS. Plate XI. Vol. I.

SPECIFIC CHARACTER.

Gladiolus foliis lanceolatis, plicatis, pilosis; scapo toto florifero longitudine foliorum; corolla ringente, laciniis longissimis, divaricatis, undulatis; spatha trivalvi.

Gladiolus with lance-shaped leaves, plaited and hairy; flower-stem quite covered with flowers the length of the leaves; blossom gaping, the segments very long, spreading different ways and waved; sheath three valved.

REFERENCE TO THE PLATE.

1. The three valved Sheath.
2. A Blossom cut open and expanded, the Chives remaining attached.
4. The Seed-bud, Shaft and its Summits, one of them detached and magnified.

THE Hibbertian collection has furnished us with this extraordinarily handsome Gladiolus. Our drawing was taken at Clapham, in August this year, when we were informed by Mr. Hibbert that he had received the bulbs but a few months before, from his collector at the Cape. It has little likeness to any one of the Genus yet in England; but from the character of the leaves, we should incline to think, the treatment required for *Ixia plicata*, (of which species we have drawings of more than twenty varieties, known under the names of *I. villosa*, *I. rubro-cyanea*, *I. punicea*, *I. purpurea*, &c. &c.) that is to say, to be kept through the winter months, in more heat than is required for the generality of *Ixias* and *Gladioluses*.



Gladiolus nanus

Handwritten text, possibly a signature or date, located in the bottom right corner.

PLATE CXXXVIII.

VACCINIUM AMOENUM.

Broad-leaved Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus. Corolla monopetala.

FILAMENTA receptaculo inserta. Bacca quadri-
locularis, polysperma.

CUP superior. Blossom one petal.

THREADS fixed into the receptacle. A Berry
with four cells and many seeds.

See VAC. ARCTOSTAPHYLLOS, Pl. XXX. Vol. I.

SPECIFIC CHARACTER.

Vaccinium foliis utrinque acuminatis, subser-
rulatis, deciduis; floribus racemosis, pedun-
culis bracteatis, calycibus reflexis, corollis
eylindraccis. Stamina decem.

Whortle-berry with leaves tapering to both ends,
a little sawed at the edges and falling off;
flowers grow in long bunches, foot-stalks
with floral leaves, cups reflexed, blossoms
cylinder-shaped. Ten Chives.

REFERENCE TO THE PLATE.

1. A Flower complete.
2. The Empalement, with the floral leaves.
3. The Chives, magnified.
4. The Shaft and its Summit, magnified.
5. A nearly ripe Berry.
6. The same, cut transversely, magnified.

THIS very handsome species of Whortleberry was introduced, from North America, in the year 1765, by Mr. John Cree, Nurseryman, of Addlestone, amongst many others. It is a hardy plant, in our climate. This species inclines to a loamy, rather than a peat soil, and is propagated by suckers, which it throws up from the root, or from layers; which may be put down in May, and taken off the succeeding year. Its time of flowering is about June or July, in which latter month our drawing was made last year, at Messrs. Lee and Kennedy's, Hammersmith.



Vaccinium amoenum

PLATE CXXXIX.

STRUTHIOLA CILIATA. *Var. flore rubro.*

Fringed-leaved Struthiola. Var. red flowered.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

PERIANTHIUM diphyllum. Corolla tubulosa,
4-fida; Nectarium, glandulæ octo fauci cir-
cumpositæ.

SEMEN unum, subbaccatum.

CUP two-leaved. Blossom tubular, 4-cleft; Ho-
ney-cup, 8 glands placed round the mouth
of the blossom.

ONE SEED, like a berry.

See STRUTHIOLA IMBRICATA, Pl. CXIII. Vol. II.

SPECIFIC CHARACTER.

Struthiola foliis ovato-lanceolatis, mucronatis,
ciliatis, concavis, quadrifariam imbricatis;
glandulæ octo supra faucem; corolla ru-
bra.

Struthiolā with leaves between egg and lance-
shaped, pointed, fringed, concave and tiled
in four rows; eight glands upon the mouth
of the blossom, which is red.

REFERENCE TO THE PLATE.

1. A leaf, natural size, from one of the younger branches.
2. A Blossom, with its Cup, or floral leaves.
3. The Cup, magnified.
4. A Blossom cut open, and magnified.
5. The Seed bud, Shaft, and Summit, magnified.

THE two varieties of this species of Struthiola, the other with a white flower being intended for our next number, were introduced at the same time with the Struthiola imbricata, to which they much affine, in general habit. But, the strong distinction in the number and character of the glands, induced us to consider them of a distinct species; in this, they are eight, in S. imbricata there are but four; the leaves likewise not so closely set upon the stem, and they are much more fringed. For the culture and treatment of this, we must refer our readers to the directions, for managing the above named plant. We had our specimen, for the figure, from the Clapham collection in May 1800.



Struthiola ciliata.
 Var. flore rubro.

*Pl. in the Bot. Garden of ...
 by ...*

PLATE CXL.

VACCINIUM FRONDOSUM.

Obtuse-leaved Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus. Corolla monopetala. Filamenta receptaculo inserta. Bacca quadrilocularis, polysperma.

CUP superior, Blossom one petal. Threads fixed into the receptacle. A berry with four cells and many seeds.

See VAC. ARCTOSTAPHYLLOS, Pl. XXX. Vol. I.

SPECIFIC CHARACTER.

Vaccinium racemis foliosis; pedicellis bracteatis; corollis campanulatis; foliis obtusis, oblongis, subtus sub-glaucis, deciduis. Stamina decem.

Whortle-berry with small leaves on the flower-stems; foot-stalks of the flowers with leaflets; blossoms bell-shaped; leaves, obtuse, oblong, rather glaucous underneath and deciduous. Ten Chives.

REFERENCE TO THE PLATE.

1. The Empalement, natural size.
2. The Chives and Pointal, magnified.
5. A nearly ripe Berry cut transversely.

THE Obtuse-leaved Whortle-berry was introduced, according to the Kew Catalogue, Vol. II. p. 12, from North America, in the year 1770 by Mr. William Young; but nevertheless, although said to be an inhabitant of our gardens so long as 20 years, it is, we believe, known to very few cultivators. It is a deciduous shrub, growing to the height of about two or three feet; and will, in general, survive the inclemency of our winters.

It is increased with difficulty by layers, and the berries seldom ripen with us; light peat earth, with a small mixture of loam, it thrives in most. The drawing for our figure was taken, from the Hibbertian collection, in July 1800. This species has likewise ten Chives, five divisions of the cup, &c.



Vaccinium frondosum

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PLATE CXLI.
 CYANELLA CAPENSIS.
Cape Cyanella.

CLASS VI. ORDER I.
 HEXANDRIA MONOGYNIA Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX nullus.
 COROLLA. Petala sex, unguibus cohærentia, oblonga, concava, patula; tribus interioribus propendentibus.
 STAMINA. Filamenta sex, basi contigua, brevissima, patentiuscula; infimo declinato. Antherarum quinque oblongæ, curvatae, erectæ, apice dehiscentes, dentibus quatuor obtusis; altera vero declinata, maxima, apice bifida.
 PISTILLUM. Germen trigonum, obtusum. Stylus filiformis, declinatus, longitudine infimi staminis. Stigma acutiusculum.
 PERICARPIUM. Capsula subrotunda trifurcata, trilocularis, trivalvis.
 SEMINA plura, oblonga.

EMPALEMENT, none.
 BLOSSOM. Six petals, adhering by the claws, oblong, concave, spreading; the three interior ones hanging forwards.
 CHIVES. Threads six, contiguous at the base, very short, spreading a little; the lower one bent down. Five of the tips are oblong, curved, upright, splitting at the end, with four obtuse teeth; but the other is bent down, very large, and two-cleft at the end.
 POINTAL. Seed-bud three-sided, obtuse. Shaft thread-shaped, bent downward, and the length of the lower chive. Summit rather sharp-pointed.
 SEED-VESSEL. Capsule roundish, three-furrowed, three cells, three valves.
 SEEDS many, oblong.

SPECIFIC CHARACTER.

Cyanella caule folioso, paniculato; racemis divaricatis; foliis lanceolatis, undulatis; floribus cæruleis.

Cyanella with a leafy stem growing into a panicle; branches straddling; leaves lance-shaped, and waved; flowers blue.

REFERENCE TO THE PLATE.

1. The Chives and Pointal, natural size, the petals of the blossom cut away.
2. The Chives and Pointal, magnified.
3. The same thrown open, to shew their connection at the base.
4. The Pointal and Seed-bud, magnified.

THE Cape Cyanella has been long known in many herbariums, and to most botanists by name, but we much question whether a living plant has, till now, been seen in our gardens. The description, in his dictionary, of a plant cultivated by Miller in 1768, where he says, "the leaves are long, narrow, with a groove on the upper side, the peduncle arising immediately from the root, supporting one flower, of a fine blue colour;" surely can have no connection with our plant, but in the colour of its blossom. From every appearance of the plant, even in an abortive specimen, more than one flower must be produced, if any. It is enumerated, in the Kew Catalogue, as one of the species of Cyanella; but, we suppose, only from an accepted idea, that the plant described by Miller was the *C. capensis*; and, as having been cultivated in Britain, might be therefore introduced with propriety into the book, though it had never graced the garden; otherwise, if this plant, which is incontestably the true *C. capensis* of Linnæus, had ever been seen in the Royal Gardens, no affinity would have been traced to that of Miller.

A few small inaccuracies occur in the generic character of this Genus, which we have rectified; one is, that the inner, and not the outer petals, are those which hang forward; the others may be observed by those, who may consider them worthy notice. This species is a bulbous-rooted plant, flowering freely in the green-house; although the roots had been received, late in the season, from the collector for the Hibbertian Collection now at the Cape; which, perhaps, is the reason the flowers are produced at this time of the year (February). Mr. Allen informs us, that, it has had no other treatment, than what is given to Cape bulbs in general. From the swelled appearance of the seed-vessels we have little doubt of ripe seeds being produced.



Cyanella capensis.

PLATE CXLII.

GLADIOLUS CRISPUS.

Curled-leaved Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens. Stamina adscen-
dentia.

BLOSSOM six divisions, gaping. Chives ascend-
ing.

See GLADIOLUS ROSEUS. Plate XI. Vol. I.

SPECIFIC CHARACTER.

Gladiolus foliis ensiformibus, ad oras crispus;
floribus secundis, palidè rubris; laciniis
corollæ rotundatis; tubo gracili, longif-
fimo.

Gladiolus with sword shaped leaves, curled at
the edges; flowers point all one way, and
are of a pale red; segments of the blossom
rounded; tube slender, and very long.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Flower cut open, the Chives remaining attached.
3. The Seed-bud, Shaft, and Summit.

A Figure of this Gladiolus may be found in the Ic. rar. 2. of Professor Jacquin, t. 267, by those who possess that elegant and invaluable work. The plant from which our drawing was taken, and we believe the first that has been seen in Britain, flowered in the collection of G. Hibbert, Esq. Clapham Common, last year in the month of July. We do not perceive that the treatment of this plant, should differ from the rest of its congeners.



Gladiolus crispus

Del. et Sculp. J. Wandelaar fecit.

PLATE CXLIII.

LIMONIA TRIFOLIATA.

Three-leafletted Limonia.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, tri-seu quinquefidum, acutum, minimum, persistens.

COROLLA. Petala tria ad quinque, oblonga, obtusa, erecta, apice patentia.

STAMINA. Filamenta sex ad decem, subulata, erecta, corolla breviora. Antheræ lineares, erectæ.

PISTILLUM. Germen oblongum, superum. Stylus cylindraceus, longitudine staminum. Stigma capitatum, planum.

PERICARPIUM. Bacca ovata seu globosa, trilobularis; dissipimentis membranaceis.

SEMINA solitaria, ovata.

EMPALEMENT. Cup one leaf, three or five-cleft, pointed, very small, and remaining.

BLOSSOM. Petals from three to five, oblong, obtuse, upright, spreading at the end.

CHIVES. Threads from six to ten, awl-shaped, upright, shorter than the blossom. Tips linear, and upright.

POINTAL. Seed bud oblong and superior. Shaft cylindrical, the length of the Chives. Summit headed, and flat.

SEED-VESSEL. An oval, or globular berry with three cells; partitions skinny.

SEEDS solitary, and egg-shaped.

SPECIFIC CHARACTER.

Limonia foliis ternatis; spinis geminis, axillaribus.

Limonia with leaves composed of three leaflets; spines grow by pairs at the footstalks of the leaves close to the stem.

REFERENCE TO THE PLATE.

1. The Empalement, magnified.
2. The Chives and Pointal, magnified, as they stand in the Blossom.
3. The Pointal natural size.
4. The same, magnified.
5. A ripe berry.
6. A Seed.

THIS plant, a native of China, has since its introduction, as are most plants coming from thence, been cultivated with us as a hot-house plant; but from every natural affinity, we should be led to suppose it would endure our winters, in the green-house. As yet it is in few collections, and scarce; therefore, till it becomes more plenty, it will, most likely, not undergo that ordeal. Our drawing was taken from a branch in high perfection, communicated by Mr. Anderson, from the collection of J. Vere, Esq. Kenfington Gore, last year 1800, in the month of July; who informs us, he has been enabled to propagate it by cuttings, and that he keeps it in a mixture of loam and rotten dung.



Limonia trifoliata

PLATE CXLIV.

PROTEA LONGIFOLIA. *Var. cono turbinato.*

Long-leaved Protea. *Var. top-shaped cone.*

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 4-fida seu 4-petala. Antheræ lineares, insertæ petalis infra apicem. Calyx proprius nullus. Semina solitaria.

BLOSSOM 4-cleft or 4-petals. Tips linear, inserted into the petals below the point. Cup proper none. Seeds solitary.

See PROTEA FORMOSA, Pl. XVII. Vol. I.

SPECIFIC CHARACTER.

Protea foliis sublinearibus, angustis, obliquis, rigidis, longissimis; squamis interioribus calycis lanceolatis, erectis; florum plumis atro purpureis; conus turbinatus.

Protea with nearly linear leaves, narrow, oblique, harsh and very long; the inner scales of the cup are lance-shaped and upright; the plume of flowers are of a dark purple; the cone top-shaped.

REFERENCE TO THE PLATE.

1. A Blossom complete, with the seed-bud attached.
2. The Petals of the flower spread open, to shew the situation of the Tips.
3. The Seed-bud, Shaft and Summit.

THIS is the third variety of Long-leaved Protea, as mentioned p. 132, and equally scarce with the preceding ones. It was raised from seed at the same time with the other two, which were received by Messrs. Lee and Kennedy, Hammersmith, from the superintendant of the Imperial Gardens at Schonbrun. This variety, at present, is in no collection, that we know of, in England, but that of G. Hibbert, Esq. where our drawing was made, in the month of January 1801. The same unfortunate character attaches to this, as to the other varieties, from the great difficulty of increasing it; although, it flourishes in growth, if planted in a light, loamy soil.



Protea longifolia

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I N D E X

TO THE PLANTS CONTAINED IN VOL. II.

Plate 73	<i>Daphne pontica</i>	Pontic Spurge Laurel.....	Har.	Shrub.	March, April.
74	<i>Perfoonia lanceolata</i>	Lance-shape-leaved Perfoonia.....	G. H.	Shrub.	All Summer.
75	<i>Physalis prostrata</i>	Trailing Winter cherry.....	H. H.	Ann.	July, August.
76	<i>Protea pinifolia</i>	Pine-leaved Protea.....	G. H.	Shrub.	July, August
77	<i>Perfoonia linearis</i>	Linear-leaved Protea.....	G. H.	Shrub.	August, Sept.
78	<i>Ixora Pavetta</i>	Sweet Ixora.....	H. H.	Shrub.	August, Sept.
79	<i>Crowea saligna</i>	Willow leaved Crowea.....	G. H.	Shrub.	July till Nov.
80	<i>Buchnera fœtida</i>	Stinking Buchnera.....	G. H.	Ann.	August, Sept.
81	<i>Sowerbia juncea</i>	Rush-like Sowerbia.....	G. H.	Herb.	All Summer.
82	<i>Bankfia ferrata</i>	Sawed-leaved Bankfia.....	G. H.	Shrub.	March, April.
83	<i>Morœa tricolor</i>	Three-coloured Morœa.....	G. H.	Bulb.	May, June.
84	<i>Buchnera pedunculata</i>	Solitary-flowered Buchnera.....	G. H.	Shrub.	July till Nov.
85	<i>Mahernia odorata</i>	Sweet Mahernia.....	G. H.	Shrub.	All the year.
86	<i>Bignonia pandorana</i>	Norfolk Island Trumpet Flower.....	G. H.	Shrub.	March till June.
87	<i>Ixia arifata</i> . <i>Var. atro-purpurea</i>	Ragged sheathed Ixia. <i>Var. dark purple</i> ..	G. H.	Bulb.	May, June.
88	<i>Eranthemum pulchellum</i>	Blue-flowered Eranthemum.....	H. H.	Shrub.	Jan. till May.
89	<i>Gnidia lævigata</i>	Shining-leaved Gnidia.....	G. H.	Shrub.	July, August.
90	<i>Septas capensis</i>	Cape septas.....	G. H.	Herb.	May till August.
91	<i>Camellia japonica</i> . <i>Var. flo. pl. variegato</i> ..	Double-striped Camellia.....	G. H.	Shrub.	August till May.
92	<i>Crinum spirali</i>	Spiral-stalked Aſphodel Lily.....	G. H.	Bulb.	Jan. till April.
93	<i>Aster reflexus</i>	Reflex-leaved Starwort.....	G. H.	Shrub.	All the year.
94	<i>Galaxia ovata</i>	Oval-leaved Galaxia.....	G. H.	Bulb.	June, July.
95	<i>Amaryllis radiata</i>	Rayed Lily Daffodil.....	H. H.	Bulb.	Feb. March.
96	<i>Punica granatum</i> . <i>Var. flo. albo</i>	White Pomegranate.....	G. H.	Shrub.	April, May.
97	<i>Vaccinium formosum</i>	Red-twigged Whortle berry.....	Har.	Shrub.	May, June.
98	<i>Pultenœa daphnoides</i>	Daphne-like Pultenœa.....	G. H.	Shrub.	May, June.
99	<i>Gladiolus blandus</i>	Large white-flowered Gladiolus.....	G. H.	Bulb.	May.
100	<i>Embothrium sericeum</i>	Silky Embothrium.....	G. H.	Shrub.	All the year.
101	<i>Hypoxis stellata</i>	Star-flowered Hypoxis.....	G. H.	Bulb.	June, July.
102	<i>Epigœa repens</i>	Creeping Epigœa.....	Har.	Shrub.	April, May.
103	<i>Protea speciosa, nigra</i>	Black-flowered Protea.....	G. H.	Shrub.	July, August.
104	<i>Lachnœa Erioccephala</i>	Woolly-headed Lachnœa.....	G. H.	Shrub.	March till Aug.
105	<i>Vaccinium crassifolium</i>	Thick-leaved Whortle-berry.....	Har.	Shrub.	June, July.
106	<i>Houstonia coccinea</i>	Scarlet Houstonia.....	G. H.	Shrub.	August till Dec.
107	<i>Allium gracile</i>	Sweet-scented Garlic.....	H. H.	Bulb.	March till June.
108	<i>Geranium reniforme</i>	Kidney-shape-leaved Geranium.....	G. H.	Shrub.	July, August.
109	<i>Chrysanthemum tricolor</i>	Three-coloured Corn-Marygold.....	G. H.	Ann.	July till October.
110	<i>Protea speciosa, latifolia</i>	Broad-leaved shewy Protea.....	G. H.	Shrub.	August.
111	<i>Gladiolus striatus</i>	Streaked-flowered Gladiolus.....	G. H.	Bulb.	July, August.
112	<i>Vaccinium dumosum</i>	Bushy Whortle berry.....	Har.	Shrub.	June.
113	<i>Struthiola imbricata</i>	Tiled-leaved Struthiola.....	G. H.	Shrub.	March and Sept.
114	<i>Geranium quinquevulnerum</i>	Variiegated-flowered Geranium.....	G. H.	Shrub.	June, July.
115	<i>Geranium tomentosum</i>	Downy-leaved Geranium.....	G. H.	Shrub.	August.
116	<i>Gaultheria procumbens</i>	Trailing Gaultheria.....	Har.	Shrub.	March till Aug.
117	<i>Gentiana purpurea</i>	Purple-flowered Gentian.....	Har.	Herb.	July, August.
118	<i>Gladiolus grandiflorus</i>	Large-flowered Gladiolus.....	G. H.	Bulb.	June.
119	<i>Struthiola ovata</i>	Oval-leaved Struthiola.....	G. H.	Shrub.	March till June.
120	<i>Fuchsia lycioides</i>	Box Thorn-like Fuchsia.....	G. H.	Shrub.	August till Nov.
121	<i>Geranium cortusæfolium</i>	Cortufa-leaved Geranium.....	G. H.	Shrub.	July.
122	<i>Gladiolus galeatus</i>	Helmet-flowered Gladiolus.....	G. H.	Bulb.	May, June.
123	<i>Thunbergia fragrans</i>	Twining Thunbergia.....	H. H.	Shrub.	May till Sept.
124	<i>Heliconia pſittacorum</i>	Parrot billed Heliconia.....	H. H.	Shrub.	September.
125	<i>Vaccinium parviflorum</i>	Small-flowered Whortle berry.....	Har.	Shrub.	May, June.
126	<i>Hibbertia volubilis</i>	Twining Hibbertia.....	G. H.	Shrub.	May till Sept.
127	<i>Jasminum gracile</i>	Slender-stemmed Jasmine.....	G. H.	Shrub.	July till Nov.
128	<i>Ixia polystachia</i>	Many-spiked Ixia.....	G. H.	Bulb.	April.
129	<i>Gloriosa superba</i>	Superb Gloriosa.....	H. H.	Bulb.	August.
130	<i>Cerbera undulata</i>	Waved-leaved Cerbera.....	H. H.	Shrub.	July.
131	<i>Geranium laciniatum</i>	Ragged-leaved Geranium.....	G. H.	Shrub.	May, June.
132	<i>Protea longifolia, Nigra</i>	Long-leaved Protea. <i>Black flower</i> ..	G. H.	Shrub.	Novem. Decem.
133	<i>Protea longifolia, Ferruginoso-purpurea</i> ..	Long-leaved Protea <i>Rusty, purple flower</i> ..	G. H.	Shrub.	July, August.
134	<i>Ixia crocata, Var. nigra maculata</i>	Crocus-flowered Ixia. <i>Var. black spotted</i> ..	G. H.	Bulb.	May, June.
135	<i>Malva reflexa</i>	Reflex-flowered Mallow.....	G. H.	Shrub.	March till Nov.
136	<i>Geranium crassifolium</i>	Thick-leaved Geranium.....	G. H.	Ann.	August, Sept.
137	<i>Gladiolus nanus</i>	Dwarf Gladiolus.....	G. H.	Bulb.	May, June.
138	<i>Vaccinium amœnum</i>	Broad-leaved Whortle-berry.....	Har.	Shrub.	June, July.
139	<i>Struthiola ciliata, Var. flore rubro</i>	Fringed-leaved Struthiola. <i>Var. red-flowered</i>	G. H.	Shrub.	August.
140	<i>Vaccinium frondosum</i>	Obtuse-leaved Whortle-berry.....	Har.	Shrub.	June, July.
141	<i>Cyanella capensis</i>	Cape Cyanella.....	G. H.	Bulb.	May, June.
142	<i>Gladiolus crispus</i>	Curled leaved Gladiolus.....	G. H.	Bulb.	June, July.
143	<i>Limonia trifoliata</i>	Three-leaftletted Limonia.....	H. H.	Shrub.	August.
144	<i>Protea longifolia, Var. cono turbinato</i> ..	Long-leaved Protea. <i>Var. cone top-shaped</i> ..	G. H.	Shrub.	Nov. Dec.

ERRATA.

- Plate 73, Sp. Ch. pedunculus, lege, *pedunculis*.
 74, Gen. Ch. Nectariæ, lege, *Nectaria*.
 76, See P. speciosa, read, *formosa*.
 79, Gen. Ch. Pointal, for Seed-buds, read, *Seed-bud*.
 81, Gen. Ch. Chives, for bear two chives, each parted, read, *bear two tips each, parted, &c.*
 84, Descr. line 7, for plotted, read, *potted*.
 90, Gen. Ch. Pericarp. Capsula, lege, *Capsulæ*.
 91, English name, for Double-striped, read, *Double Striped*. Class, lege, *Monadelphia*.
 96, Seed-vessel, for five-celled, read, *nine celled*.
 106, Descr. line 5, for Hememeris, read, *Hemimeris*.
 120, Gen. Ch. Calyx, monophyllum. Infundibuliforme, lege, *monophyllum, infundibuliforme*. Post *superum*, adde (,) *superum*.
 130, Descr. line penult, for O borbonica, read, *O. borbonica*.
 131, Class, Monodelphia, lege, *Monadelphia*. From a singular oversight, in transcribing, this Erratum has been overlooked, and continued, with every Geranium.
 133, Sp. Ch. line 3, post *lanceolatis*, adde, (,)
 137, Sp. Ch. line 5, for three valved, read, *three-valved*. Descr. line 4, after *but*, put (,)