

**The Project Gutenberg eBook of The botanist's repository for  
new and rare plants; vol. 5**

This ebook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this ebook or online at [www.gutenberg.org](http://www.gutenberg.org). If you are not located in the United States, you will have to check the laws of the country where you are located before using this eBook.

Title: The botanist\'s repository for new and rare plants; vol. 5

Creator: active 1799-1828 Henry Cranke Andrews

Release date: January 1, 1 [eBook #73359]

Most recently updated: April 22, 2024

Language: English

\*\*\* START OF THE PROJECT GUTENBERG EBOOK THE  
BOTANIST\'S REPOSITORY FOR NEW AND RARE PLANTS; VOL. 5

\*\*\*

---

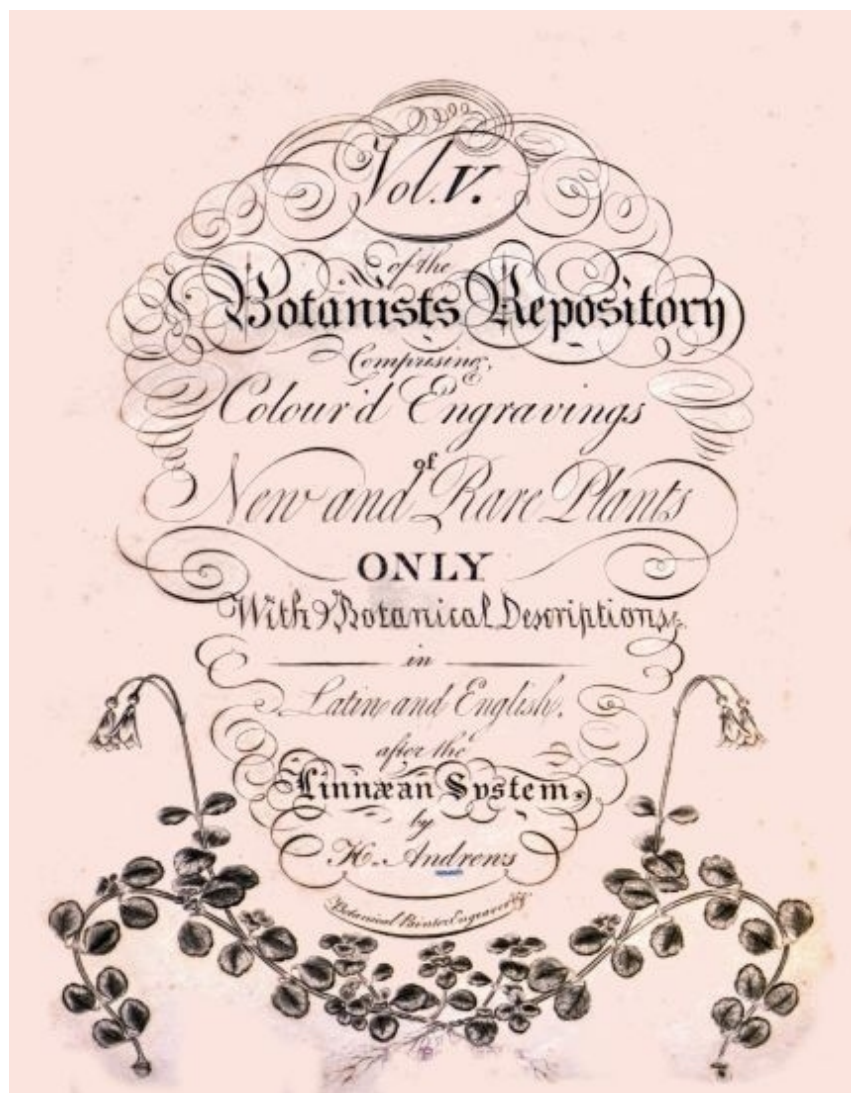
---

## INDEX

TO THE PLANTS CONTAINED IN VOL. V.

## ERRATA.

Alphabetical Index to the 1st. 2d. 3d. 4th. and 5th. Volume of  
the Botanist's Repository.



Vol. V.

*of the*  
Botanist's Repository

*Comprising*  
*Colour'd Engravings*

of

*New and Rare Plants*

ONLY

With Botanical Descriptions &c.

—*in*—

*Latin and English,*

*after the*

Linnæan System.

*by*

*H. Andrews*

*Botanical Painter Engraver, &c.*

---



PLATE CCLXXXIX.

PROTEA CORDATA.

*Heart-shape-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. Semina solitaria.

BLOSSOM four-cleft or four 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 cordatis.*

*Protea with heart-shaped leaves.*

REFERENCE TO THE PLATE.

1. A Floret before the petals have separated, natural size.
2. The same, magnified, after the bursting of the petals.
3. The Pointal and Seed-bud, natural size.

The Heart-shape-leaved *Protea* was introduced to Britain in the year 1792, from the Cape of Good Hope, by Messrs. Lee and Kennedy; at whose nursery it is now, this present month of March, 1803, in flower for the first time in this country. The plant is only found on the mountains of that part of the Cape called Hottentots Holland; the stem, in its native state, laying on the ground, seldom more than a foot in length, and the flowers proceeding from it near its base. It is rather delicate, should be kept in a very airy part of the green-house, and planted in a light loamy soil. It is propagated by cuttings, made in the month of April, and kept under a common hand-glass, the pot being plunged in a shady border.

Of this *Protea* there is a good figure in Thunberg's *Dissertatio de Protea*, Upsal, quarto edition, 1781, Plate 5, fig. 1.

Pl



*Protea cordata*

PLATE CCXC.

APONOGETON DISTACHYON.

*Broad-leaved Aponogeton.*

CLASS XI. ORDER IV.

*DODECANDRIA TETRAGYNIA.* Twelve Chives. Four Pointals.

GENERIC CHARACTER.

CALYX nullus, nisi squama spathacea externum latus floris cingens, simplex, sessilis, ovata, obtusa, integra, erecta, glabra, colorata.

COROLLA nulla.

STAMINA. Filamenta undecim ad novemdecim, superioribus floribus pauciora, intra spatham et capsulas inserta, subulata, glabra, alba, spatha multoties breviora. Antheræ erectæ, bifidæ.

PISTILLA. Germina plerumque quatuor, raro tria seu quinque. Styli nulli. Stigmata subulata, incurvata.

PERICARPIUM. Capsulæ quatuor, rarius tres seu quinque, ovatæ, subulato-acutæ, exteriore latere gibbæ, interiore planæ, glabræ, unilocularis.

SEMINA, in quacumque capsula tria, basi capsula affixa, sessilia, obovata, obtusissima, sub-compressa, glabra.

EMPALEMENT none, except a sheathing scale surrounding the outer side of the flower, simple, sitting close, egg-shaped, obtuse, intire, upright, smooth, coloured.

BLOSSOM none.

CHIVES. Threads eleven to nineteen, in the upper flowers fewer, inserted between the spathe and the capsules, awl-shaped, smooth, white, much shorter than the spathe. Tips upright, two-cleft.

POINTALS. Seed-buds often four, seldom three or five. Shafts none. Summits awl-shaped, turned inwards.

SEED-VESSEL. Capsules four, seldom three or five, egg-shaped, pointed, awl-shaped, unequally swelled on the outside, flat on the inner, smoothed, one-celled.

SEEDS in each capsule three, fixed to the base of it, sitting close, inversely egg-shaped, very blunt, rather flattish, smooth.

SPECIFIC CHARACTER.

*Aponogeton spica bifida*; foliis eliptico-lanceolatis, natantibus; bracteis integris; floribus polyandris.

*Aponogeton* with a two-branched spike; leaves eliptically lance-shaped, floating; floral leaves entire; flowers with many chives.

REFERENCE TO THE PLATE.

1. A Floret, with its floral leaf, magnified.
2. The Seed-buds and Summits, magnified.

This Genus of Plants in the Catalogue of the Kew Garden, is placed to the Class Heptandria, and perhaps, with as much propriety as where it now stands in Thunberg, Schreber, &c. for the number of chives in almost every floret differs in this, and all the other species, from six to twenty. It is there said to have been introduced to us in 1788 from the Cape of Good Hope by Mr. F. Masson. It is found near Cape Town in most of the brooks; is very sweet scented, and flowers from April till November. As an aquatic it is very desirable for those who cultivate those plants, the fragrance of the flowers being nearly equal to our *Nymphæa alba*, or White Water Lily; and this, added to the contrasted effect of the deep brown antheræ upon the pure white floral leaves, which indeed have the appearance of blossoms, give the whole an indescribable trait of beauty, peculiar to itself. Our figure was taken from a plant in the Hibbertian collection.



*Apogoneton distachyon*

*Pl. Ind. Arch. Bot. Paris. 1835.*  
*Apogoneton distachyon*

PLATE CCXCI.

SENECIO PSEUDO-CHINA.

*China-root Groundsel.*

CLASS XIX. ORDER II.

*SYNGENESIA POLYGAMIA SUPERFLUA.* Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis calyculatus, conicus, truncatus; squamis subulatis, plurimis, in cylindrum superne contractum, parallelis, contiguis, æqualibus, paucioribus basin imbricatim tegentibus, apicibus emortuis.

COROLLA. Composita, calyce altior; Corullulæ hermaphroditæ tubulosæ, numerosæ in disco; Feminæ ligulatæ in radio (si quæ adsint).

*Propria* hermaphroditi infundibuliformis; limbo reflexo, quinquefido.

*Femineis* (si quæ) oblonga, obsolete tridentata.

STAMINA. Hermaphroditis; filamenta quinque, capillaria, minima. Anthera cylindræa, tubulosa.

PISTILLUM utrisque; germen ovatum. Stylus filiformis, longitudine staminum. Stigmata duo, oblonga, revoluta.

PERICARPIUM nullum. Calyx conico-connivens.

SEMINA hermaphroditis solitaria, ovata. Pappus crinitus, longus. Feminæ similima hermaphroditis.

RECEPTACULUM nudum, planum.

EMPALEMENT. Common, double, conical, appearing cut off; scales awl-shaped, numerous, contracted above into a cylinder, parallel, contiguous, equal, the base tiled by a few scales, dead at the ends.

BLOSSOM. Compound, taller than the cup; Hermaphrodite florets tubular, numerous in the disk; Female florets (if there are any) tongue-shaped in the circumference.

*Hermaphrodite* florets funnel shaped, border reflexed, five-cleft.

*Female* florets (if any) oblong, obscurely three-toothed.

CHIVES. Of the hermaphrodite florets; five threads, hair-like, very small. Tips forming a tubular cylinder.

POINTAL in either; Seed-bud egg-shaped. Shaft thread-shaped, the length of the chives. Summits two, oblong, rolled back.

SEED-VESSEL none. Empalement closing into a cone.

SEEDS of hermaphrodite florets solitary, egg-shaped. Feather hairy, long. Females like the hermaphrodites.

RECEPTACLE naked, flat.

#### SPECIFIC CHARACTER.

*Senecio foliis sinuatis, integris, discoloribus; corollis purpureis; radice tuberosa.*

Groundsel with obtusely indented leaves entire and two-coloured; blossoms purple; root tuberous.

#### REFERENCE TO THE PLATE.

1. The Cup.
2. A Female floret, of the ray or circumference.
3. A Pointal of the female floret magnified.
4. An Hermaphrodite floret of the disk or centre.
5. The Chives and Pointal of an Hermaphrodite floret, magnified.

The roots of this plant were received at the same time with the double Camellias, China Roses, &c. from China, by the late J. Slater, Esq. of Laytonstone, Essex; we have, nevertheless, good reason to believe it was known formerly in our gardens; but has been certainly lost, for many years, to us. It is said to have been cultivated by James Sherrard, M. D. in 1732, as copied from Dellinens's *Hortus Elthamensis*, into the Kew Catalogue. Miller speaks of it as flowering freely, and perfecting its seeds; whereas, in the *Hort. Kew.* they omit its time of flowering, which, had it ever flowered there, would certainly have been noted. Our drawing was taken in the month of July last year, 1802, from a plant in the Hibbertian Collection, the first and only time we have ever seen it flower in England. It is propagated by the roots, which are large and fleshy; the plant is herbaceous, and should have but little water during the winter months, as the roots are very subject to rot; they are imported from India as a drug, under the name of China-root. Must be kept in the hot-house, and planted in rich earth.





*Senecio Psalido-China*

Det. ex the Herbario Bot. G. 1818.  
by H. Andersson & Bengtsson.



PLATE CCXCII.

GERANIUM UNDULATUM.

*Waved-flowered Geranium.*

CLASS XVI. ORDER IV.

*MONADELPHIA 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.

SPECIFIC CHARACTER.

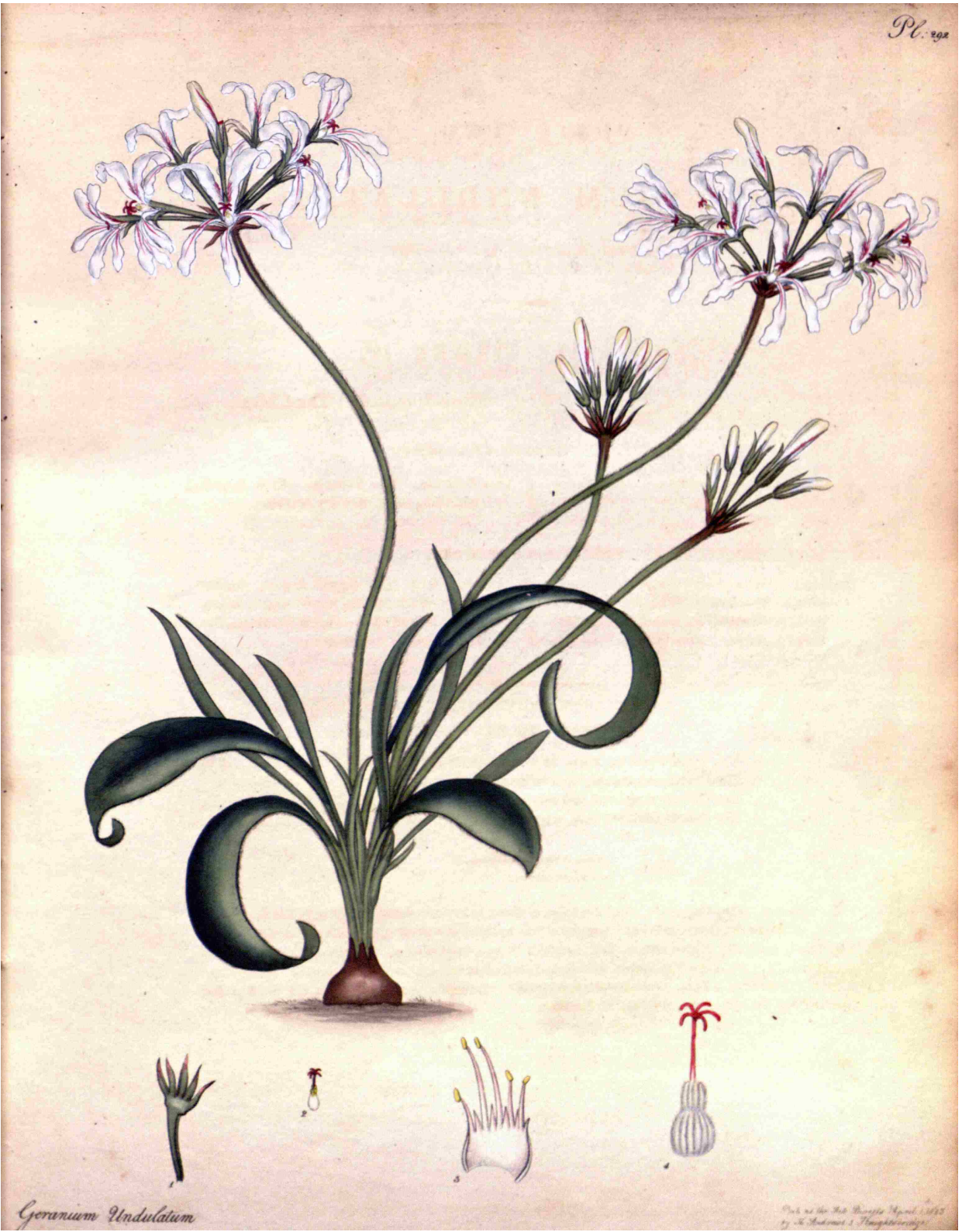
Geranium foliis lanceolatis ciliatis, sub-integris; petalis sub-æqualibus, sub-linearibus, undulatis; floribus umbellatis, pentandris; radice tuberosa.

Geranium with lance-shaped flowers, fringed nearly intire; petals almost equal, nearly linear, waved; flowers grow in umbels, five fertile chives; root tuberous.

REFERENCE TO THE PLATE.

1. The Empalement cut open, to shew its tubular structure.
2. The Chives and Pointal, natural size.
3. The Chives, magnified and cut open.
4. The Pointal and Seed bud, magnified.

This tuberous rooted Geranium, from the Cape of Good Hope, has some affinity with the *G. spathulatum*, as to the shape of the leaves; but the whole habit of the plant is so totally different, that we could not, with any degree of propriety, consider it as a variety of that species. Our figure was taken from a plant in the Hibbertian collection, to which it was introduced in the year 1800, by Mr. Niven. It flowers in June, and may be propagated by the root. The treatment is the same as that required for the rest, of this division, of the Genus.



*Geranium Undulatum*

Printed by W. B. Whipple, April 1, 1855  
by H. Anderson & Houghton & Co.

PLATE CCXCIII.

LACHNÆA PURPUREA.

*Purple-flowered Lachnæa.*

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX nullus. Corolla quadrifida; limbo inæquali. Semen unum, subbaccatum.

CUP none. Blossom four-cleft; border unequal. One seed, like a berry.

See LACHNÆA ERIOCEPHALA, Pl. CIV. Vol. II.

SPECIFIC CHARACTER.

Lachnæa capitulis solitariis; corollis glabris, purpureis; foliis trigonis, obtusis, quadrifariam imbricatis.

Lachnæa with solitary heads of flowers; blossoms smooth, purple; leaves three-sided, obtuse, tiled in four-rows.

REFERENCE TO THE PLATE.

1. One of the floral Leaves, which surround the head of flowers at the base.
2. A Flower complete.
3. A Blossom cut open, the lower part cut off, to shew the insertion of the Chives at the mouth.
4. The Pointal, natural size.
5. The same magnified.

This most singular genus of plants, in external appearance so resembling passerina, yet so perfectly distinct in the parts of fructification, is certainly amongst the handsomest of the natural order in which it ranks. The long slender chives which extend nearly to the length of the border of the blossom, independent of the singular retrofraction of one of its segments, give it a character, we think, decidedly sufficient on which to have formed the Genus. This is the third species known; it was introduced to the Hibbertian collection, in 1800, by Mr. Niven, from the Cape of Good Hope. It is a very delicate plant, subject to be destroyed by damps, flowers in July,

and may be increased by cuttings. It thrives best in a mixture of light sand and loam.

Thunberg, in his *Prod. Plant. Cap.* has referred the whole genus to *Passerina*.



*Pachycaule purpurea*

*Pl. 293*



PLATE CCXCIV.

PROTEA CANDICANS.

*Hoary-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. 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 apicibus tridentatis, eliptico-lanceolatis, obliquis, candidissimis; capitulis terminalibus; calyx imbricatus, squamis acutis; corollis luteis.*

*Protea* with leaves three-toothed at the ends, eliptically-lance-shaped, oblique and very hoary; heads of flowers terminal; cup tiled, scales pointed, blossoms yellow.

REFERENCE TO THE PLATE.

1. A Floret, the petals separated, natural size.
2. One of the Petals magnified.
3. The Pointal, and Seed-bud, natural size, the Summit detached, magnified.
4. The Empalement, natural size.

Our present plant is one of the rarest *Proteas* at this time in England; as, we believe, there has never been but one importation of the seeds from the Cape, and no one species of this numerous genus is with more difficulty propagated by cuttings. Its lower leaves are apt to suffer much from damps in winter; in consequence, the stem becomes bare till near the top; the plant grows about three feet high, and flowers in August, or September. Our figure was taken from the Hibbertian collection, where it flowered, in 1802, for the first time in Britain. We owe its introduction to Messrs. Lee and Kennedy,

Hammersmith, about the year 1790. We have our doubts of this plant being the *P. tomentosa* of Thunberg; for although he, in his description of that species, comes nigh many of the characters of *P. candicans*, yet his determining the leaves to be linear, and downy, and our having drawings, taken from two other species, approaching this in habit, yet nigher affined to *P. tomentosa*, we have retained his specific title for one of them, the other yet unnamed; which will both be given in due course.



*Ptelea candicans*

Painted by the artist, from a specimen of the plant, by Mr. J. Smith.



PLATE CCXCV.

PASSIFLORA AURANTIA.

*Norfolk Island Passion-Flower.*

CLASS XX. ORDER IV.

GYNANDRIA PENTANDRIA. Chives on the Pointal. Five Chives.

ESSENTIAL GENERIC CHARACTER.

TRIGYNA. Calyx 5-phyllus. Petala 5. Nectarium corona. Bacca pedicellata.

THREE styles. Cup 5-leaved. Petals 5. Honey-cup forming a crown. Berry standing on a foot-stalk.

See Pl. CCVII. PASSIFLORA MALIFORMIS. Vol. IV.

SPECIFIC CHARACTER.

Passiflora foliis trilobis, lobis oblongis obtusis, medio longiore; petiolis biglandulosus; nectario cylindraceo, denticulato; corolla aurantia.

Passion-Flower with three-lobed leaves; lobes oblong, obtuse, the middle one the longest; foot-stalks with two glands; honey-cup cylindrical and toothletted; blossom orange-coloured.

REFERENCE TO THE PLATE.

1. Exhibits the half of a flower as cut perpendicularly through the middle, with the whole of the Pointal and Chives in their place.

This species of Passion Flower, from Norfolk Island, was introduced to Britain in the year 1792, and was first raised, from seeds, at the Hammersmith Nursery. It is a greenhouse plant, loving heat and drought, thrives in a light sandy soil, and is readily increased by cuttings; which should be placed in the heat of the bark-bed in the hothouse, or cucumber hot-bed, in the month of April.

In the young state of the plant, the leaves are less harsh, appear rather scalloped than lobed, and much resemble in shape those of the Maiden-hair Fern, or *Adiantum Capillus-veneris*; whence the trivial name, *adiantifolia*, which it bears in most collections. But, as there can be no doubt of our present plant being that designed by Forster, in his *Prod. flor. insul. austral.* No. 326; of Cavanilles in his *Dissertationes classis Monadelphiae*, Diss. 10.

p. 457; and as lastly quoted by Willdenow, in his new Sp. Plant. Tom. 3, Part 1, p. 620; we have, without hesitation, adopted the specific title it there bears. As an addition to the very few handsome climbing plants fit to decorate the trellis-work of our modern greenhouses, or conservatories, this plant must be considered as a great acquisition; as the growth is rapid, the foliage of a fine green, and the flowering abundant.

Our figure was taken from a plant in the conservatory of the Hibbertian collection, Clapham common.



PLATE CCXCVI.

LACHENALIA ROSEA.

*Rose-coloured Lachenalia.*

CLASS VI. ORDER I.

*HEXANDRIA MONOGYNIA.* Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, infera; petalis tribus interioribus longioribus. Stamina erecta. Capsula subovata, trialata. Semina globosa.

BLOSSOM 6-divided, beneath; the three inner petals the longest. Chives erect. Capsule nearly egg-shaped, three-winged. Seeds globular.

See LACHENALIA PENDULA, Pl. XLI. Vol. I.

SPECIFIC CHARACTER.

*Lachenalia foliis binis, lanceolato-linearibus, obtusis; petalis interioribus longioribus; scapo lævi filiforme; corollis roseis.*

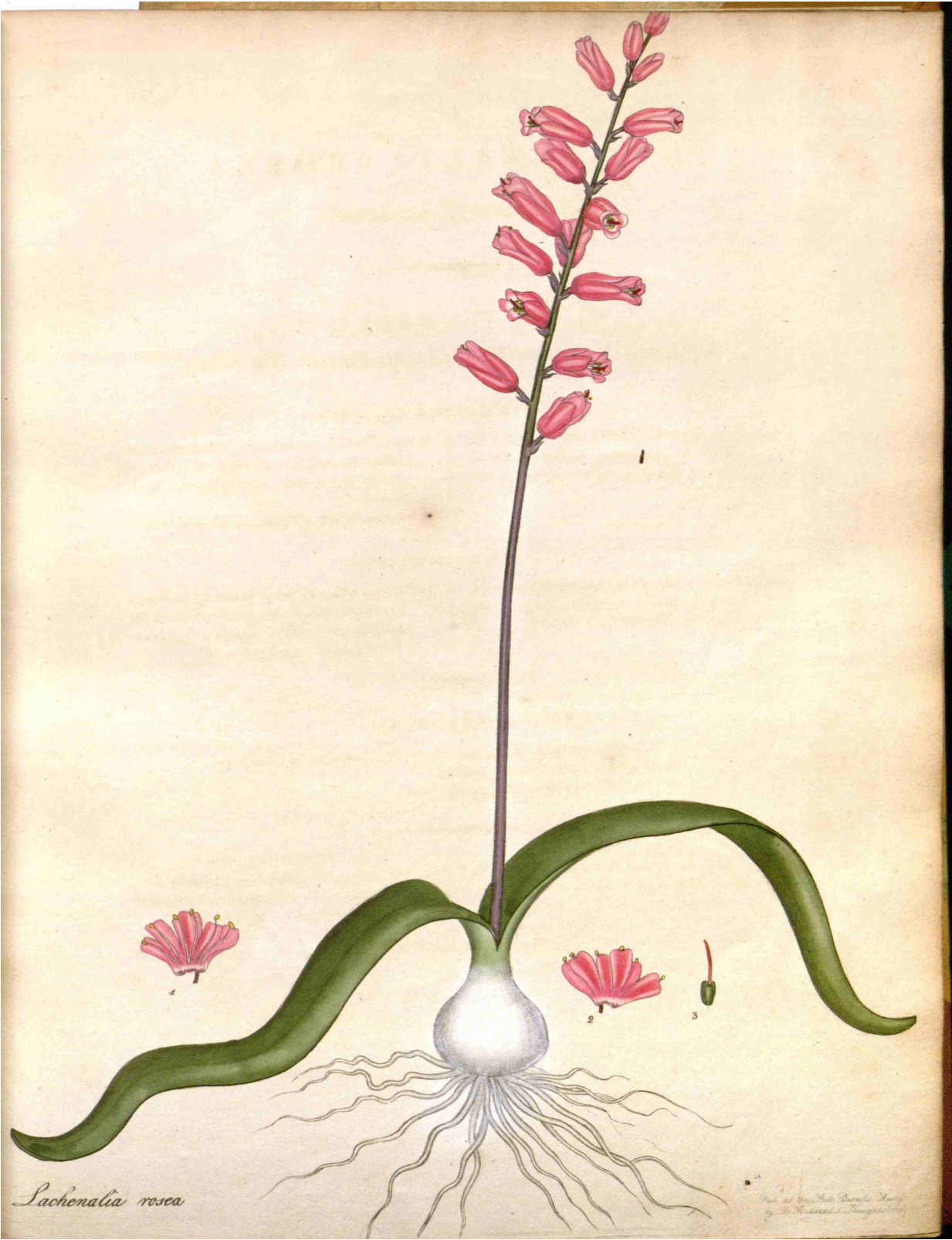
*Lachenalia* with two leaves between, lance and linear-shaped, obtuse; the inner petals the longest; flower-stem smooth and thread-shaped; blossoms rose-coloured.

REFERENCE TO THE PLATE.

1. A Blossom cut open, shewn from the inside, the Chives in their place.
2. The same, shewn from the outside.
3. The Seed-bud and Pointal, natural size.

This plant we believe to be perfectly new to Britain, and in no other collection, at present, than that of G. Hibbert, Esq. Clapham; where the drawing of our figure was taken in May, 1802; and to which it had been added, the preceding year, by Mr. Niven, from the Cape of Good Hope.

It is a tender bulb, and rather impatient of moisture; increases by the bulb; should not be removed from its pot but to give it fresh earth, and is fond of a light, loamy soil. It is without scent.



*Lachenalia rosea*

Printed at the Press of the Botanical Society  
by W. H. Anderson & Co. London

PLATE CCXCVII.

NYMPHÆA ODORATA.

*Sweet-scented Water-Lily.*

CLASS XIII. ORDER I.

*POLIANDRIA MONOGYNIA.* Many Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 4, 5, seu 6-phyllus. Corolla polypetala. Bacca multi-ocularis, truncata.

Cup 4, 5, or 6-leaved. Blossom many petals. Berry many-celled, appearing cut off at top.

See NYMPHÆA CÆRULEA, Pl. CXCVII. Vol. III.

SPECIFIC CHARACTER.

Nymphæa foliis subrotundis, integris emarginatis, lobis divaricatis, obtusissimis, margine parum incurvatis; calyce tetraphyllo; flore albo.

Water Lily with almost round leaves, entire, and notched at the end; lobes straddling, very obtuse, and turned up slightly at the edge; cup four-leaved; flower white.

REFERENCE TO THE PLATE.

1. A Chive.
2. The Seed-bud and Summits.
3. The Seed-bud cut transversely.

This species of Water-Lily we should consider rather as a variety, than as a distinct species; it has every character of our common white Water-Lily, except the size and hardiness; it has the same powerful fragrance, but will not stand the severity of our winters. It is a native of Carolina and Virginia, North America; was introduced to us in the year 1786, by William Hamilton, Esq. of Philadelphia, and flowers during the summer months, if kept in the hot-house. Requires the same treatment as the blue species from the Cape of Good Hope. May be increased from the seed, or from the root. Our drawing was taken from a plant in the Clapham collection.





*Nymphaea odorata*

Printed at the Botanical Garden, 1855

PLATE CCXCVIII.

ANTHERICUM COSTATUM.

*Ribbed-leaved Anthericum.*

CLASS VI. ORDER I.

*HEXANDRIA MONOGYNIA.* Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

COROLLA. Petala sex, oblonga, obtusa, patentissima.

STAMINA. Filamenta sex, subulata, erecta. Antheræ parvæ, incumbentes, quadrisulcæ.

PISTILLUM. Germen obsolete trigonum. Stylus simplex, longitudine staminum. Stigma obtusum, trigonum.

PERICARPIUM. Capsula ovata, glabra, trisulca, trilocularis, trivalvis.

SEMINA numerosa, angulata.

EMPALEMENT. none.

BLOSSOM. Six petals, oblong, blunt, spreading very much.

CHIVES. Six threads, awl-shaped, upright. Tips small, laying on the threads, four-furrowed.

POINTAL. Seed-bud bluntly three-sided. Shaft simple, the length of the chives. Summit blunt, and three-cornered.

SEED-VESSEL. Capsule egg-shaped, smooth, three-furrowed, three-valved.

SEEDS numerous, angulated.

SPECIFIC CHARACTER.

*Anthericum foliis hirsutis, planis, costatis, lineari-ensiformibus, supra medium reflexis; scapo simplici, glabro; floribus albis; radice bulboso.*

*Anthericum with hairy, flat, leaves, ribbed, linearly sword-shaped, turned back from the middle; flower-stem simple, smooth; flowers white, root bulbous.*

REFERENCE TO THE PLATE.

1. The Chives and Pointal, magnified.
2. The Seed-bud, Shaft, and Summit, magnified.
3. The half of the Seed-bud cut transversely, magnified.

It is much to be lamented that we, as yet, have not discovered a mode of treatment by which many of the species or *Albuca*, *Ornithogalum*, *Anthericum*, &c. from the Cape, might be induced to flower with us, after the first year from their importation; since many of them never produce more than a few leaves afterwards; and this plant, we fear, is amongst the number. It makes a very handsome and sweet bunch of flowers, which have considerable duration, not less than a month from first expansion. We can say little as to the propagation and culture; as it has not as yet increased, nor has it produced any flowers since our drawing was made, in August 1801. We think it is only in the Hibbertian Collection, to which it was introduced by Mr. Niven, in 1800, from the Cape of Good Hope.





*Anthericum costatum*

Botan. in the 1st. Series. May 6.  
by H. Andrews & P. de la Roche

PLATE CCXCIX.

LACHENALIA REFLEXA.

*Reflexed-flowered Lachenalia.*

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives, One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, infera; petalis tribus interioribus longioribus. Stamina erecta. Capsula subovata, trialata. Semina globosa.

BLOSSOM 6-divided, beneath; the three inner petals the longest. Chives erect. Capsule nearly egg-shaped, three-winged. Seeds globular.

See LACHENALIA PENDULA, Pl. XLI. Vol. I.

SPECIFIC CHARACTER.

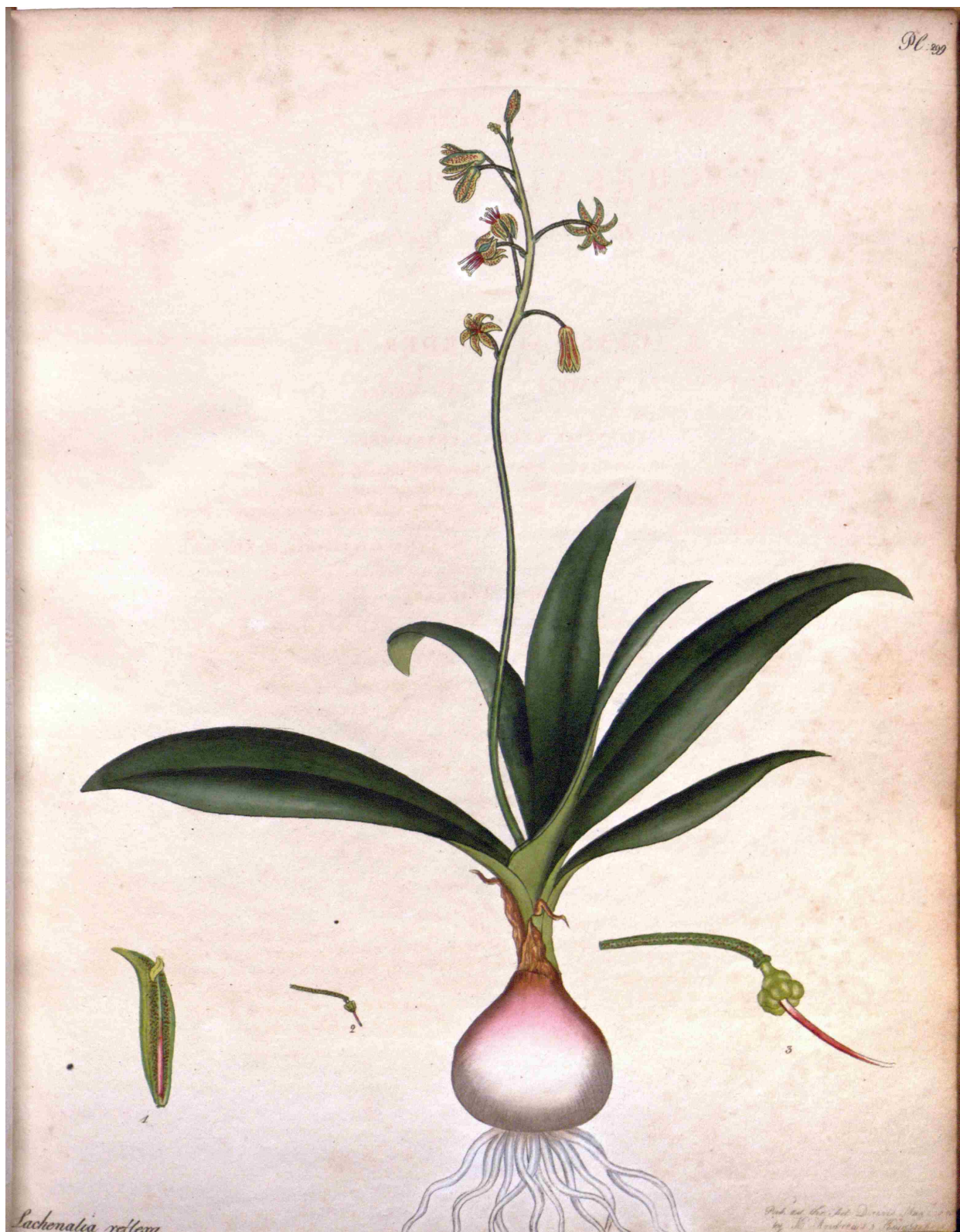
Lachenalia foliis ovato-lanceolatis, plurimis; petalis equalibus, acutis, reflexis, rubro punctatis; germine pedicillato, subgloboso.

Lachenalia with leaves between egg and lance-shaped, numerous; petals equal, pointed, reflexed, and dotted with red spots; seed-bud with a foot-stalk, and roundish.

REFERENCE TO THE PLATE.

1. One of the Petals, which are divided to the base, with its chive.
2. The Seed-bud, Shaft, and Summit, natural size.
3. The same, magnified.

This curious Lachenalia, for such it must be considered, though in many parts widely different from congeners, is a native of the Cape of Good Hope, and was received from thence in the year 1798, by J. Vere, Esq. of Kensington Gore; in whose collection, we believe, it is only to be found, and where our drawing was taken in the month of June 1801. It is a tender bulb, and requires a considerable degree of heat to make it flower, and does not appear to have any tendency to increase, although, Mr. Anderson informs us, he has tried it in various situations and soils to that end.



*Lachenalia rotunda*

Pub. by the Art Director, May 1871  
by J. Andrews & Co. London

PLATE CCC.

GERANIUM OXALIDIFOLIUM.

*Wood-Sorrel-leaved Geranium.*

CLASS XVI. ORDER IV.

*MONADELPHIA 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.

SPECIFIC CHARACTER.

Geranium foliis ternatis, foliolis ovatis, obtusis, ciliatis; floribus pentandris; radice tuberosa.

Geranium with leaves composed of three leaflets, which are egg-shaped, obtuse, and fringed; flowers with five fertile chives; root tuberous.

REFERENCE TO THE PLATE.

1. The Empalement of a flower cut open, to shew its tubular structure.
2. The Chives and Pointal, natural size.
3. The Chives spread open, magnified.
4. The Pointal, natural size.
5. The same, magnified.

The species of Geranium here figured, is of the same character, in all points of view, as most of the tuberous species lately introduced from the Cape by G. Hibbert, Esq. in whose collection, at Clapham, it is only to be found, at present; and where our drawing was taken, in July 1802.





*Geranium oxalifolium*

Sp. ex Arn. Bot. Beechey. May 1, 1847.  
by H. Andromeda & H. Andromeda

PLATE CCCI.

PROTEA GRANDIFLORA. *Var. foliis undulatis.*

*Large-flowered Protea. Waved-leaved Var.*

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 end. Cup proper, none. Seeds solitary.

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

SPECIFIC CHARACTER.

*Protea foliis lanceolatis glaberrimis, utrinque acuminatis, marginibus subcallosis, parum undulatis; squamæ calycinae lanceolatae erectae, interiores pilis longissimis nigris cristitatae.*

*Protea* with lance-shaped leaves, smooth, tapered to both ends, rather thickened at the edges, and a little waved; the scales of the empalement are lance-shaped and upright, the inner ones crested, with very long black hairs.

REFERENCE TO THE PLATE.

1. A Flower complete, as it stands on the receptacle of the common cup.
2. The same, with one of the petals detached, to shew the situation of the chives near the ends.
3. The Pointal, complete.

The round tufts of long hair which terminate the inner scales of the cup, in this *Protea*, and its varieties, constitute its principal, distinguishing specific character from *P. speciosa*; whose scales are fringed at the summits, and to which our present plant is nearest allied. It is, without doubt, one of the handsomest of this fine tribe of plants; not only in the beauty of the blossom, but for its general habit; as it does not grow above three feet high, very bushy, and producing its flowers at the age of three or four years. It is increased by cuttings only, as are most of the species of this extensive genus, none of them perfecting their seeds in this climate, or producing roots by

laying the branches. Our drawing was made from a plant in the Hibbertian collection, to which it was introduced in 1800, by Mr. Niven, from the Cape of Good Hope, in the month of May, 1802.





PLATE CCCII.

LACHENALIA FRAGRANS.

*Sweet-scented Lachenalia.*

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, infera; petalis tribus interioribus longioribus. Stamina erecta. Capsula subovata trialata. Semina globosa.

BLOSSOM six petals, beneath; the three inner petals the longest. Chives erect. Capsule nearly egg-shaped, three-winged. Seeds globular.

SPECIFIC CHARACTER.

*Lachenalia* foliis geminis, ovato-oblongis, humi adpressis; corollis campanulatis pedunculatis horizontalibus; petalis sub-æqualibus; scapo erecto.

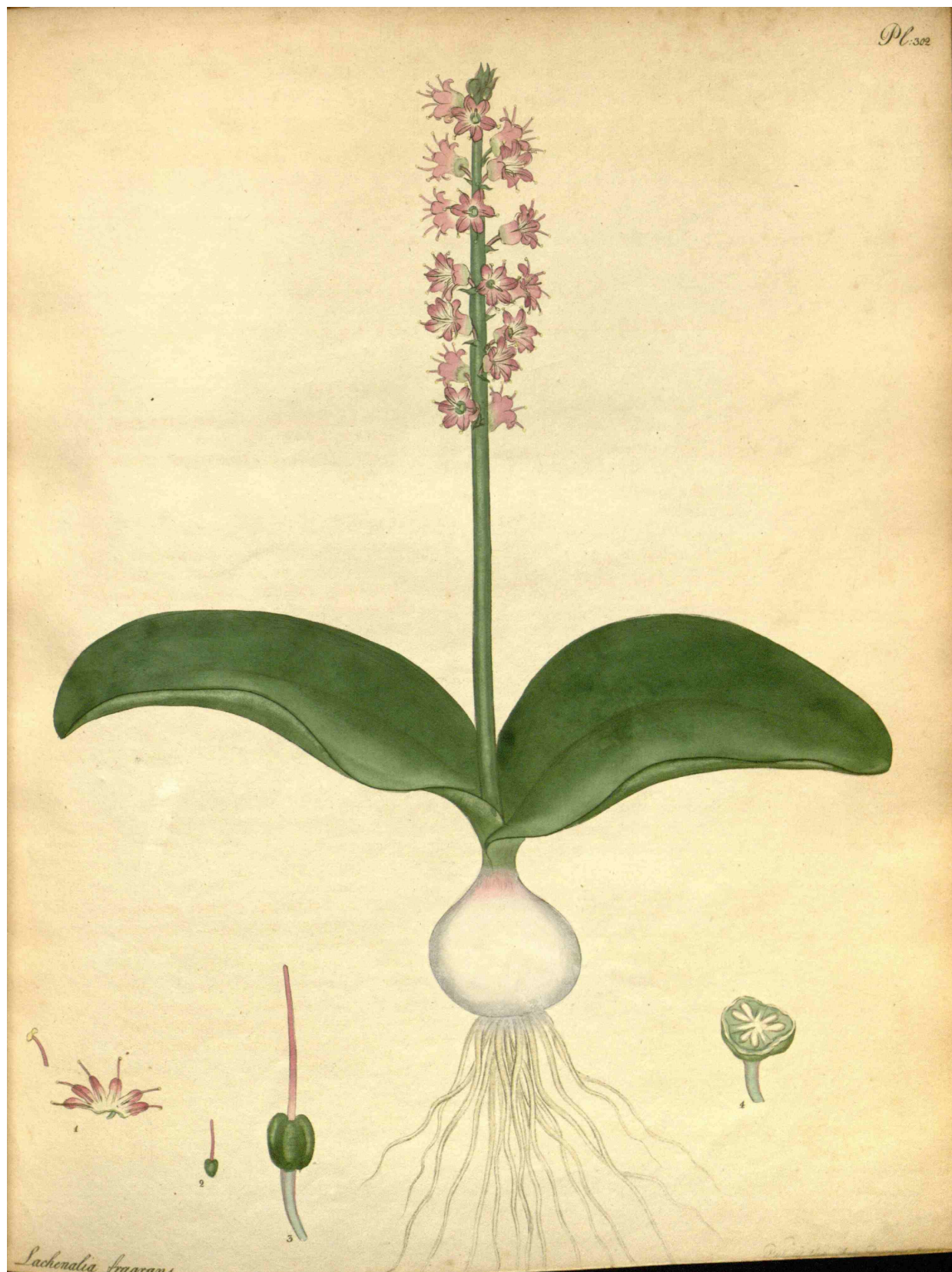
*Lachenalia* with one pair of leaves, oblong-egg-shaped, laying on the ground; blossoms bell shaped with foot-stalks, growing horizontally; petals nearly equal; flower-stem upright.

REFERENCE TO THE PLATE.

1. A Blossom with the Chives in their place, one of the tips detached and magnified.
2. The Seed-bud, Shaft and Summit.
3. The same, magnified.
4. The Seed-bud, cut transversely, magnified.

The extreme fragrance of this plant, amply compensates for its want of beauty; it retains its sweetness through the whole period of its flowering, which is of near a month's continuance. There is a species of this genus, much resembling our plant in flower, but nothing in the leaf; it is known by the name of *L. patens*, and has been frequently sold for this, but its scent is quite different, and it flowers much earlier; that is to say, in the month of March, but the *L. fragrans* does not produce its blossoms till May. It is a very hardy greenhouse bulb, and requires no particular management to make it flower; this, however, it does not do, but once in two years; not even

appearing in foliage, but in the second year from its flowering. Our figure was made at the Hammersmith Nursery, to which it was introduced, from the Cape of Good Hope, in the year 1798.



*Lachenalia laurana*

PLATE CCCIII.

GERANIUM BARBATUM.

*Bearded-leaved Geranium.*

CLASS XVI. ORDER IV.

MONADELPHIA DECANDRIA. Chives 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.

SPECIFIC CHARACTER.

Geranium foliis pinnatis; foliolis inequaliter dentatis barbatis; floribus umbellatis; staminibus quinque fertilibus, binis longioribus reflexis; scapo polystachio; radice tuberosa.

Geranium with winged leaves; leaflets unequally toothed and bearded; flowers grow in umbels; five fertile chives, the two longest reflexed; flower-stem branched; root tuberous.

REFERENCE TO THE PLATE.

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

The singular bearded termination, on each tooth, of the leaflets of this species of Geranium, has induced us to give it a specific title; although, in many other respects, it approaches very near two or three others, already figured, by us, of this long genus. It is from the same country with the other tuberous species, and introduced to the Hibbertian collection in 1800, where our drawing was made in July 1802.



*Neranium barbatum*

PLATE CCCIV.

DAVIESIA ULICIFOLIA.

*Furze-leaved Daviesia.*

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, campanulatum quinquedentatum; laciniis equalibus erectis.

COROLLA papillionacea, pentapetala.

*Vexillum* cordatum erectum.

*Alæ* oblongæ, vexillo duplo breviores.

*Carina* dipetala, alis paulo longiora.

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

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

PERICARPIUM. Capsula triangularis, compressa, acuta, unilocularis, bivalvis.

SEMEN unum, reniforme.

EMPALEMENT. Cup one-leaf, bell-shaped, five-toothed; segments equal, upright.

BLOSSOM butterfly-shaped, five-petalled.

*Standard* heart-shaped, upright.

*Wings* oblong, half the length of the standard.

*Keel* two petals, a little shorter than the wings.

CHIVES. Threads ten, distinct, turned upwards, the length of the keel. Tips simple, very small.

POINTAL. Seed-bud oblong egg-shaped. Shaft awl-shaped, of the same size and station as the chives. Summit pointed.

SEED-VESSEL. Capsule triangular, flat, sharp pointed, one cell, two valves.



SEED one, kidney-shape.

SPECIFIC CHARACTER.

*Daviesia foliis lanceolatis, rigidis pungentibus; floribus axillaribus spicatis.*

*Daviesia* with lance-shaped leaves, harsh and pricking; flowers grow from the insertion of the leaves in spikes.

REFERENCE TO THE PLATE.

1. The Empalement of the flower, natural size.
2. The Empalement magnified.
3. The Standard, or upper petal of the blossom.
4. One of the Wings of the blossom.
5. The two petals of the Keel.
6. The Chives, magnified.
7. The Pointal.
8. A ripe Seed-vessel.

This division of the butterfly flowered plants, from New Holland, was among the first genera which were raised from the seeds of that country, in Britain. And though we have possessed the plants so long, and both species, or rather the two varieties, perfect their seeds with us; yet are the plants very scarce, few of them are to be met with, and seldom more than a plant, or two, is to be found in any collection. The *Daviesias* grow about a foot and a half high, and when in flower make a very pretty appearance, as nearly the whole bush is covered with blossoms. They are rather tender, and are impatient of wet, which is, perhaps, the greatest enemy many of the plants from that country have to encounter with us. It flowers about April or May; is increased by seeds, or cuttings; should be kept in a small pot, comparatively with what may be used for the same sized plants, and planted in sandy peat. Our drawing was made from the Hibbertian collection, in the month of May 1802.



*Daviesia ulicifolia*

*Daviesia ulicifolia* (Lam.) Hook. & Arn. *Prospice* 1840. *Prospice* 1840.

PLATE CCCV.

GERANIUM CORONILLÆFOLIUM.

*Coronilla-leaved Geranium.*

CLASS XVI. ORDER IV.

*MONADELPHIA 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.

SPECIFIC CHARACTER.

*Geranium foliis impari pinnatis, bijugis; foliolis obovatis glabris; floribus umbellatis pentandris; radice tuberosa.*

Geranium with leaves that are winged, with an odd one and two yoked; leaflets inversely egg-shaped, and smooth; flowers grow in umbels, with five fertile chives; root tuberous.

REFERENCE TO THE PLATE.

1. The Cup cut open, to shew its tubular structure.
2. The Chives and Pointal, natural size.
3. The Chives cut and spread open, magnified.
4. The Pointal and Seed-bud, magnified.

The drawing of this *Geranium* was taken at Clapham in the month of July, 1802, from a plant in the Hibbertian collection, where, we believe, it is only to be met with, and to which it was introduced, in 1801, from the Cape of Good Hope. It has no particular character, in its appearance, from which we might be led to think any other treatment or mode of culture necessary for this plant, different from the rest of its congeners.



*Geranium coronellofolium*

Painted by the Rev. Dr. J. G. Smith  
Engraved by J. G. Smith

PLATE CCCVI.

ALETRIS FRAGRANS.

*Sweet-scented Aletris.*

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA infundibuliformis, rugosa. Stamina inserta laciniarum basi. Capsula trilocularis.

BLOSSOM funnel-shaped, wrinkled. Chives inserted into the base of the segments. Capsule three-celled.

See ALETRIS SARMENTOSA, Pl. LIV.

SPECIFIC CHARACTER.

Aletris caulescens; foliis lanceolatis, laxis; floribus albicantibus, fragrantissimis.

Aletris with a woody stem; leaves lance-shaped, loose; flowers whitish, very sweet-scented.

REFERENCE TO THE PLATE.

1. A miniature representation of the whole plant.
2. A flower complete, natural size.
3. The blossom cut open, with the Chives in their place.
4. The Seed-bud, Shaft and Pointal; the summit detached, magnified.

The Sweet-scented Aletris, from the great height it attains before it flowers, which is, from 9 to 12 feet, and nearly two-thirds of the length of the stem, without leaves; takes off much from the merit of this grand plant as cultivated in our colder regions. It is a native of Africa, and must be kept in the hot-house, in the bark-bed, to have it blossom. The flowers are extremely fragrant, open in the evening and close again with the first rays of the morning sun. It is propagated either by suckers, which it sometimes produces, or by cutting off small portions from the roots; which will become plants in about three months, if placed in the heat of a strong hot-bed; these are likewise very sweet-scented, having the flavour of orris-root, or violets.



Our figure was taken from a plant in the collection of J. Vere, Esq. Kensington Gore, this present month of May, 1803.

A schism has arisen on the subject of this genus among modern botanists; from whom we must, however, exclude the celebrated author of Miller's New Gardeners' Dictionary; who, in this instance, has preserved the genus entire. Three genera have, as usual, been made out of one; the Cape species are denominated Veltheimias; those known under the names of *A. zeylanica* and *A. guineensis*, are termed Sansevieras; *A. farinosa* and *A. fragrans* being the only remnants of the original genus. Such are the happy effects, of modern scrutiny, upon the works of the antiquated Linnæus! and such might be the answer of these illuminati, which poor Gradus, in the farce of *Who's the Dupe*, gives to his mistress, when questioned upon the utility of his labours; alas, how else should *our* merit be discovered, but by elancing from the old track of plain sense and nature.



*Alcea fragrans*

PLATE CCCVII.

PROTEA GLOBOSA.

*Globe-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. Semina solitaria.

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

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

SPECIFIC CHARACTER.

*Protea* foliis eliptico-lanceolatis, apicibus callosis; capitulo globoso, terminali; foliolis calycinis ovatis, reflexis; floribus luteis.

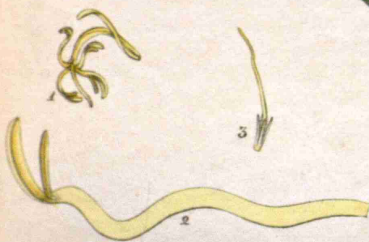
*Protea* with eliptically-lance-shaped leaves, callous at the ends; head of flowers globular and terminal; leaflets of the cup egg-shaped, turned back; flowers yellow.

REFERENCE TO THE PLATE.

1. A Flower complete, natural size.
2. One of the Petals of a blossom, with its chive, magnified.
3. The Pointal, and Seed-bud, natural size.
4. The same, magnified.
5. The common Empalement.

This species of *Protea*, though it does not stand among the foremost of its congeners in competition for beauty; yet, has its merits, and those of no small moment, as a hardy green-house plant; for it rarely misses flowering, in the month of May, annually, and its blossoms continue in perfection at least two months. It is seldom hurt by cold or wet, if not exposed to either in the extreme. Is easily propagated from cuttings, made in the month of May, or June; by the same mode as has been described for the increasing the preceding species of the Genus, already figured in this work. We owe the first introduction of this plant to Messrs. Lee and Kennedy, Hammersmith,

who raised it from seeds, in the year 1786, received from the Cape of Good Hope. Our figure was made from a plant in the Hibbertian collection.



*Protea globosa?*

*Protea globosa? fide*  
*Dr. Thunberg in Thunberg*



PLATE CCCVIII.

CROTOLARIA VERRUCOSA.

*Blue-flowered Crotolaria.*

CLASS XVII. ORDER IV.

*DIADELPHIA DECANDRIA.* Threads in two sets. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium tripartitum, magnum, corolla paulo brevius; laciniis duabus superioribus lanceolatis, vexillo incumbentibus; tertia lanceolata, concava, carinam fulciente, trifida.

COROLLA papilionacea.

*Vexillum* cordatum, acutum, magnum, lateribus depressum.

*Alæ* ovatæ, vexillo dimidio breviores.

*Carina* acuminata, longitudine alarum.

STAMINA. Filamenta decem, connata, assurgentia, linea dorsali fissa basi que hiant. Antheræ simplices.

PISTILLUM. Germen oblongum, reflexum, hirsutum. Stylus simplex, infractus, assurgens. Stigma obtusum.

PERICARPIUM. Legumen breve, turgidum, uniloculare, bivalve, pedicellatum.

SEMEN aliquot, globosa-reniformia.

EMPALEMENT. Cup three-parted, large, rather shorter than the blossom; the two superior segments lance-shaped, laying on the standard; the third lance-shaped, concave, supporting the keel, three-cleft.

BLOSSOM butterfly-shaped.

*Standard* heart-shaped, acute, large, depressed on the sides.

*Wings* egg-shaped, half the length of the standard.

*Keel* tapered, the length of the wings.

CHIVES. Ten threads, united, turned upwards, with a split line on the back, and gaping at the base. Tips simple.

POINTAL. Seed-bud oblong, reflexed, hairy. Shaft simple, bent inwards at an angle, turned upwards. Summit obtuse.

SEED-VESSEL. Pod short, turgid, one-celled, two valved, with a fruit-stalk.  
SEEDS a few of a rounded kidney-shape.

SPECIFIC CHARACTER.

*Crotolaria foliis simplicibus, ovatis, retusis; stipulis lunatis, declinatis; racemo terminali; ramis tetragonis.*

*Crotolaria* with simple leaves, egg-shaped, dented at the ends; leaf-props half-moon-shaped, turned downwards; bunch of flowers terminal; branches four-sided.

REFERENCE TO THE PLATE.

1. The Empalement.
2. The Standard.
3. One of the Wings.
4. The two petals of the Keel.
5. The Chives.
6. The Pointal and Seed-bud, the Summit detached, magnified.
7. A half ripe Seed-vessel.
8. The same laid open.

This handsome annual is an old inhabitant of our hot-houses, for it has been cultivated so long ago as the year 1731, by Mr. Miller; but from its character as an annual, our summers not proving always congenial to the perfecting its seeds, it has at intervals been lost to us. It is a native of the East Indies, and, in general, good seed may be procured by keeping the plants constantly in a hot-bed or hot-house; but the best method is to raise them on a strong hot-bed, keeping them there till in flower, and then transferring them to the hot-house or dry-stove, to perfect their seeds. Our drawing was taken from a fine specimen, communicated by the Hon. W. H. Irby, from his select collection at the Parsonage, Farnham Royal, Bucks. Flowers in May or June, and ripens its seeds in August or September.



*Entolania verrucosa*

Printed by the Author at the  
the University of Cambridge

PLATE CCCIX.

PULTENÆA VILLOSA.

*Hairy Pultenæa.*

CLASS X. ORDER I.

*DECANDRIA MONOGYNIA.* Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX quinquedentatis, utrinque appendiculatus. Corolla papilionacea, alis vexillo brevioribus. Legumen uniloculare, dispernum.

CUP five-toothed, with a hanging prop on each side. Blossom butterfly-shaped, the wings shorter than the standard. A one-celled pod, two seeded.

SPECIFIC CHARACTER.

*Pultenæa* foliis oblongis, villosis; floribus axillaribus, solitariis, spicatis; caule villoso; calycibus inappendiculatis.

*Pultenæa* with oblong, hairy leaves; flowers grow from the insertion of the leaves, solitary, and in spikes; stem hairy; cup without props.

REFERENCE TO THE PLATE.

1. A Leaf.
2. The Cup, natural size.
3. The Standard of the blossom.
4. One of the Wings of the blossom.
5. The two Leaves of the keel.
6. The Empalement, Chives, and Pointal, magnified.
7. The Seed-bud, Shaft, and Summit, magnified.

Where to place the limits to the various new genera of this very extended natural order of plants, with butterfly blossoms, from New Holland, appears a talk of some difficulty with our modern botanists; for, no sooner have we formed an essential character for a genus, than immediately we are struck with the appearance of new plants, whose whole habits assimilate with our newly constructed family, but in the principal and pointed essential character. In such predicament stands our present subject, it wants the appendicula to the cup, yet has it been placed, by Willdenow, &c. to *Pultenæa*; and with good reason, we presume, for if every difference of this nature was taken up, on which to form new genera, nearly every plant from

that country would furnish grounds for new names; and, to say the truth, we think they are, already, sufficiently extended. The *Pultenæas* are all rather impatient of wet, and although they are not frequently killed by too much moisture, yet they become unsightly, by losing all their lower leaves. This species grows to the height of about three feet; and, when in flower, makes a very handsome appearance. It perfects its seeds, and may be increased by cuttings, which should be put in about the beginning of April. A mixture of sandy peat three parts, and one fourth part of loam, is the best soil to grow it in. It was amongst the first plants which were raised from Botany Bay seeds in this country. Our figure was made at the Hammersmith nursery, in 1801.





*Pultenaea villosa*

PLATE CCCX.

STACHYS COCCINEA.

*Scarlet Clownheel.*

CLASS XIV. ORDER I.

*DIDYNAMIA GYMNOSPERMIA.* Two Chives longer. Seed naked.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, tubulatum, angulatum, semiquinquefidum, acuminatum, persistens; denticulis acuminatis, subulatis, subinæquale.

COROLLA monopetala, ringens; tubus brevissimus; faux oblonga, ad basin deorsum gibba; *labium superius* erectum, subovatum, fornicatum, sæpe emarginatum; *labium inferius* majus, trifidum lateribus reflexum; *lacinula intermedia* maxima, emarginata, replicata.

STAMINA. Filamenta quatuor, quorum duo breviora, subulata, ad latera faucis recurvata. Antheræ simplices.

PISTILLUM. Germen quadripartitum. Stylus filiformis, situ et longitudine staminum. Stigma bifidum, acutum.

PERICARPIUM nullum. Calyx vix mutatus.

SEMINA quatuor, ovata, angulata.

EMPALEMENT. Cup one-leaf, tubular, angular, five shallow clefts, taper, permanent; toothless taper, awl-shaped, nearly equal.

BLOSSOM one petal, gaping; tube very short; mouth oblong, hunched downwards towards the base; *upper lip* upright, rather egg-shaped, arched, often notched at the end; *lower lip* large, three-cleft, side ones reflexed; the *middle segment*, which is the largest, notched at the end, and folded back.

CHIVES. Four threads, of which two are shorter, awl-shaped, bent to the sides of the mouth. Tips simple.

POINTAL. Seed-bud with four divisions. Shaft thread-shaped, of the length and situation of the chives. Summit cloven, sharp-pointed.

SEED-VESSEL none. The cup scarce changed.

SEEDS four, egg-shaped, angular.

SPECIFIC CHARACTER.

*Stachys verticillis sexfloris*; foliis ovato-oblongis, basi cordatis, crenatis; floribus coccineis.

Clownheal with six flowered whorls; leaves oblong-egg-shaped, heart-shaped at the base, scalloped; flowers scarlet.

REFERENCE TO THE PLATE.

1. The Cup, natural size.
2. The Blossom cut open, with the chives in their place.
3. The Seed-buds and Pointal, the summit detached, magnified.
4. The Seed-buds, magnified.

Although this species of *Stachys* must be considered as an herbaceous plant, yet the stem, if kept in the green-house, may be preserved; and therefore, as it is too tender to bear our winters, in the open ground, we must consign it to that station. It is a native of South America; is easily propagated by cuttings; flowers in the month of July, or August, and thrives in rich mould. The figure was taken from a plant in the collection of J. Vere, Esq. Kensington Gore, where, we believe, it flowered for the first time in Britain.



*Stachys cocinea*



PLATE CCCXI.

GERANIUM PINNATUM.

*Winged-leaved Geranium.*

CLASS XVI. ORDER IV.

*MONADELPHIA 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.

SPECIFIC CHARACTER.

*Geranium foliis pinnatis; foliolis subrotundo-ovatis, hirsutis; floribus flavis, staminibus quinque fertilibus; scapo polystachio; radice tuberosa.*

*Geranium with winged leaves; leaflets rather round-egg-shaped, and hairy; flowers yellow; five fertile chives; flower-stem branched; root tuberous.*

REFERENCE TO THE PLATE.

1. A Flower-cup, natural size, cut open.
2. The Chives and Pointal, natural size.
3. The Chives cut and spread open, magnified.
4. The Pointal and Seed-bud, magnified.

The specific title of this plant, originally, belonged to a species which is, now, confounded amongst the numerous variety of *Geranium lacerum*. And, indeed, the present plant is taken as a synonym, by Willdenow, with *G. astragalifolium*, of which we have given a figure in a preceding number. This was among the first of the tuberous kind of *Geraniums* known to our gardens. Mr. F. Masson, according to the Kew Catalogue, first introduced it to the Kew Gardens in 1788. It has nothing particular in its character to require a different treatment from the rest of the tuberous species. Our drawing was made from a plant in the Hammersmith Collection, in March 1801.





*Geranium pinnatifidum*

PLATE CCCXII.

STYPHELIA VIRIDIS.

*Green-flowered Styphelia.*

CLASS V. ORDER I.

*PENTANDRIA MONOGYNIA.* Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX imbricatus. Corolla tubulosa. Stamina fauci inserta. Drupa quinque-locularis. Semina bina.

CUP tiled. Blossom tubular. Chives inserted into the mouth of the blossom. A pulpy berry with five cells. Seeds by twos.

See STYPHELIA TRIFLORA. Pl. LXXII. Vol. I.

SPECIFIC CHARACTER.

*Styphelia foliis utrinque acuminatis, obliquis, acutis, glaberrimis; floribus axillaribus, solitariis, viridibus.*

*Styphelia* with leaves tapered to both ends, oblique, pointed, very smooth; flowers grow from the insertion of the leaves, solitary and green.

REFERENCE TO THE PLATE.

1. The Cup of a flower, natural size.
2. A Blossom, with the Chives in their place, cut open.
3. The Seed-bud, Shaft, and Summit, the Summit magnified.

Few of the plants from New Holland have excited more admiration than the *Styphelias*; the *S. tubiflora* figured in the New Holland botany of Dr. Smith, the *S. triflora* given in the first Vol. of this work, our present plant, together with the numerous other species already known from dried specimens, lead us to conjecture that the genus is as copious as any, *Banksia* not excepted, from that country. This plant grows to the height of two feet, or more; the flowers nearly covering the branches. It is rather delicate, requiring but little water, in the winter months; as it is certain to perish, if kept wet any considerable time. Is propagated by cuttings, and must be kept in a small pot, proportional to the size of the plant, in very sandy peat earth. Our figure was taken from a plant in the Hibbertian collection, in the month of April, 1803. All the plants, at present in Britain, of this species of *Styphelia*, are the

offspring of one solitary seed, received by Messrs. Lee and Kennedy from New Holland, in the year 1791.



*Styphelia viridis*

Det. at the Bot. Garden, Jan. 1842  
by H. Andrews & Thos. Lloyd

PLATE CCCXIII.

JUSTICIA LUCIDA.

*Shining-leaved Justicia.*

CLASS II. ORDER I.

DIANDRIA MONOGYNIA. Two Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, minimum, quinquepartitum, acutum, erectum, angustum.

COROLLA monopetala, ringens; tubus gibbus; limbus bilabiatus, labium superius oblongum, emarginatum, labium inferius ejusdem longitudinis, reflexum, trifidum.

STAMINA. Filamenta duo, subulata, sub labio superiore recondita. Antheræ erectæ, ad basin bifidæ.

PISTILLUM. Germen turbinatum. Stylus filiformis, longitudine et situ staminum. Stigma simplex.

PERICARPIUM. Capsula oblonga, obtusa, basi angustata, bilocularis, bivalvis; dissepimento valvulis contrario, ungue elastico dehiscens.

SEMINA subrotunda.

EMPALEMENT. Cup one-leaf, very small, five-divided, pointed, erect, narrow.

BLOSSOM one petal, gaping; tube hunched; border two-lipped; the upper lip oblong, notched at the end; the under lip of the same length, reflexed, and three-cleft.

CHIVES. Two threads, awl-shaped, hid under the upper lip. Tips upright, two-cleft at the base.

POINTAL. Seed-bud top-shaped. Shaft thread-shaped, the length and situation of the chives. Summit simple.

SEED-VESSEL. Capsule oblong, obtuse, narrowed at the base, two-celled, two valved; the partition opposite to the valves splitting from an elastic claw.

SEEDS roundish.

SPECIFIC CHARACTER.



*Justicia spicis terminalibus; floribus subcapitatis; foliis ellipticis, nervosis, bullatis, lucidis; corollis bilabiatis, labio superiore lanceolato; caule fruticoso, glabro.*

*Justicia* with terminal spikes; flowers grow nearly in heads; leaves elliptic, nerved, blistered, and shining; blossoms two-lipped, the upper lip lance-shaped; stem shrubby, smooth.

REFERENCE TO THE PLATE.

1. A Blossom cut open, with the Chives in their place.
2. The Cup and Pointal.
3. An unripe Seed.

Most of the species of this genus of plants have hitherto been considered of little value in our collections, as few of them have woody stems, and from that character have a weedy appearance. This plant however is an exception, and is well worthy a place in collections where ornament only, not variety, is studied. It grows to the height of three feet, flowers in the month of August, is easily increased from cuttings, and may be kept in the hot-house, out of the bark-bed. The *Justicia coccinea* and this plant approach in the appearance of their flowers and habit; but the leaves differ much as well as many other minuter parts. It is a native of the East Indies, and was introduced about the year 1794. Our figure was taken from a plant in the Collection of G. Hibbert, Esq. Clapham Common.



*Justicia laevis*

PLATE CCCXIV.

ITEA SPINOSA.

*Thorny Itea.*

CLASS V. ORDER I.

*PENTANDRIA MONOGYNIA.* Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquefidum, erectum, acuminatum, minimum, persistens, laciniis acutis, coloratis.

COROLLA. Petala quinque, lanceolata, longa, calyci inserta.

STAMINA. Filamenta quinque, subulata, erecta, longitudine corollæ, calyci inserta. Antheræ subrotundæ, incumbentes.

PISTILLUM. Germen ovatum. Stylus cylindraceus, persistens, longitudine staminum. Stigma obtusum.

PERICARPIUM. Capsula ovata calyce multoties longior, stylo mucronato, unilocularis, bivalvis ex duabus coalita apice dehiscentis.

SEMINA numerosa, minima, oblonga, nitida.

EMPALEMENT. Cup one-leaf, five-cleft, upright, tapered, very small, remaining, segments pointed, coloured.

BLOSSOM. Petals five, lance-shaped, long, inserted into the cup.

CHIVES. Five threads, awl-shaped, upright, the length of the blossom, inserted into the cup. Tips roundish, laying on the threads.

POINTAL. Seed-bud egg-shaped. Shaft cylindrical, permanent, the length of the chives. Summit obtuse.

SEED-VESSEL. Capsule egg-shaped, much longer than the cup, tapering into the shaft, one-celled, two-valved or two joined, splitting at top.

SEEDS numerous, very small, oblong, shining.

SPECIFIC CHARACTER.

*Itea* foliis cuneiformibus, emarginatis; spinis axillaribus.

*Itea* with wedge-shaped leaves, notched at the end; spines grow at the insertion of the leaves.

#### REFERENCE TO THE PLATE.

1. The Empalement, magnified.
2. A Flower complete, magnified.
3. The Chives and Pointal, magnified; part of the cup and the petals taken away, to shew the insertion of the Chives into the cup.
4. The Pointal, magnified.

This plant is a native of New Holland, and was introduced from thence by the Right Honourable the Marchioness of Rockingham, at the same time with the *Bauera rubioides* of this work; and from a specimen communicated by her Ladyship in September, 1801, our drawing was taken. It is a hardy green-house plant, continuing in flower from August till December; makes a very bushy handsome shrub, especially when planted in a conservatory. Is easily propagated by cuttings, made in the month of April, and kept on a gentle heat until they are rooted. It thrives most in sandy peat, with a small mixture of sandy loam.



*Itea spinosa*

*Itea spinosa* (L.) Rostk Schmidt  
Pl. 1366



PLATE CCCXV.

ORCHIS BICORNIS.

*Two-horned Orchis.*

CLASS XX. ORDER I.

*GYNANDRIA DIANDRIA.* Chives on the Pointal. Two Chives.

ESSENTIAL GENERIC CHARACTER.

NECTARIUM corniforme pone florem.

HONEY-CUP like a horn behind the flower.

See ORCHIS CILIARIS, Pl. XLII. Vol. I.

SPECIFIC CHARACTER.

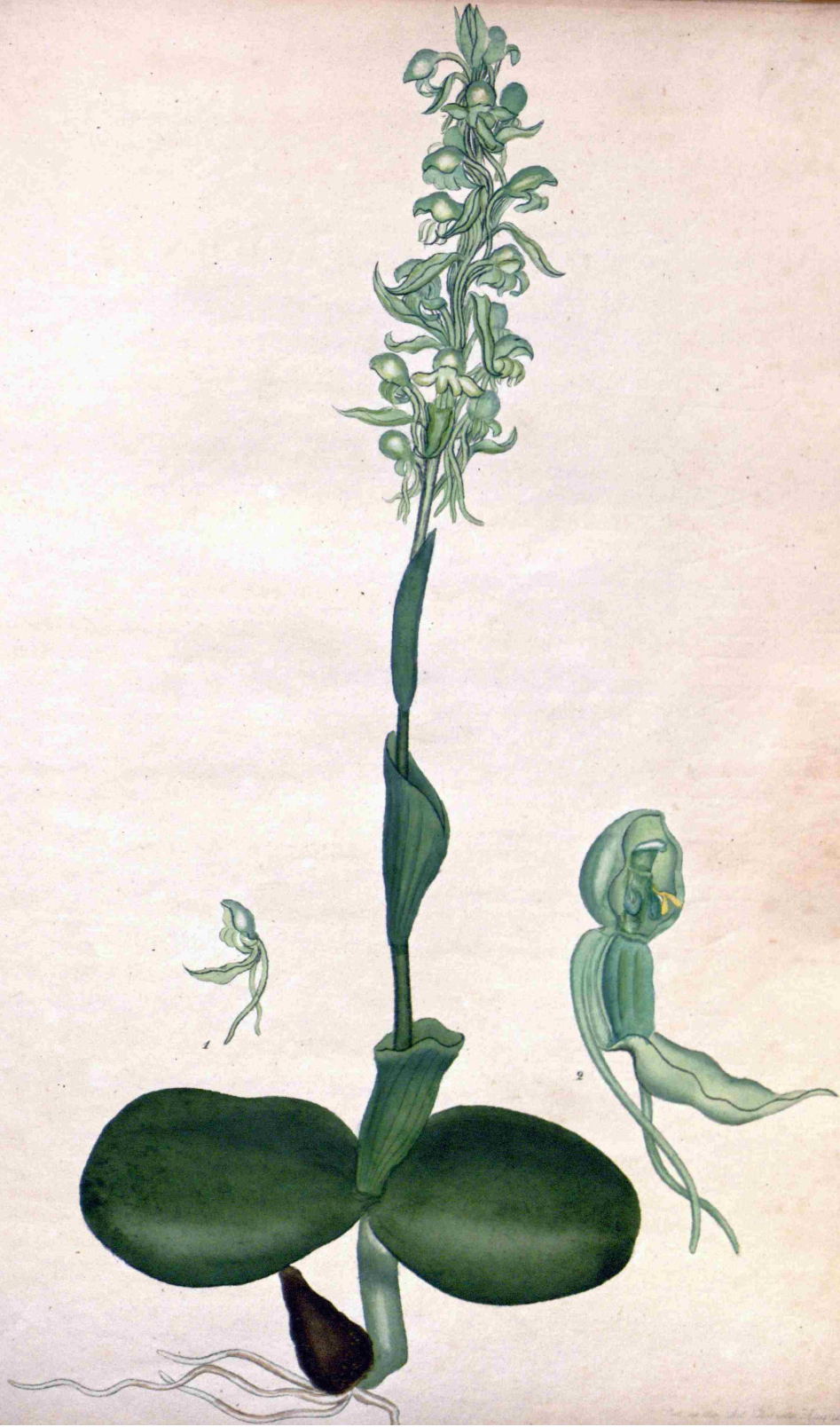
Orchis bulbis indivisis; corollis galea bicalcarata; labio quinque-partito.

Orchis with undivided bulbs; helmet of the blossom two spurred, lip five-parted.

REFERENCE TO THE PLATE.

1. A Flower, natural size.
2. The same, magnified, with the front petals cut away to expose the parts of fructification, one of the chives being liberated from its cell.

This singular little Orchis was first introduced to us, from the Cape of Good Hope, by Mr. F. Masson, in 1787, but has been lost to our gardens since near that time till last year, when we had the pleasure of seeing it again in the collection of T. Evans, Esq. Stepney; but we much fear, without a fresh supply of roots, it will again soon stand but as a name in our catalogues. It is a very tender and delicate plant; and, like nearly the whole of this natural order, difficult to propagate or preserve in a cultivated state; wherefore we cannot pretend to recommend any particular method. The bulb which flowered at Stepney was planted in sandy peat, and appeared in good health. It flowers in September, loses its leaves soon after flowering, and is extremely fragrant.



*Orchis bicornis*

PLATE CCCXVI.

OLEA APETALA.

*Petal-less Olive.*

CLASS II. ORDER I.

*DIANDRIA MONOGYNIA.* Two Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, tubulatum, parvum; ore quadridentato, erecto, deciduum.

COROLLA monopetala, infundibuliformis; tubus cylindraceus, longitudine calycis; limbus quadripartitus, planus; laciniis subovatis.

STAMINA. Filamenta duo, opposita, subulata, brevia. Antheræ erectæ.

PISTILLUM. Germen subrotundum. Stylus simplex, brevissimus. Stigma bifidum, crassiusculum; laciniis emarginatis.

PERICARPIUM. Drupa subovata, glabra, unilocularis.

SEMEN. Nux ovato-oblonga, rugosa.

EMPALEMENT. Cup one-leafed, tabular, small; mouth four-toothed, erect, deciduous.

BLOSSOM one petal, funnel-shaped; tube cylindrical, the length of the cup; border four-divided, flat; segments nearly egg-shaped.

CHIVES. Two threads, opposite, awl shaped, short. Tips upright.

POINTAL. Seed-bud roundish. Shaft simple, very short. Summit two-cleft, thickish; clefts notched at the ends.

SEED-VESSEL. A pulpy berry, rather egg-shaped, smooth, one-celled.

SEED. A nut oblong-egg-shaped, rough.

SPECIFIC CHARACTER.

*Olea foliis elipticis, floribus racemosis, apetalis.*

Olive, with eliptically-shaped leaves, flowers in long bunches without petals.

REFERENCE TO THE PLATE.

1. A. Flower expanded, magnified.
2. The same with the Chives exposed, magnified.
3. The Seed-bud, Shaft, and Summit, magnified.
4. A half ripe Berry.
5. The same cut transversely.

Our present figure represents a plant a native of New Holland and New Zealand, in the Pacific Ocean; but, we have great reason to think, it has been referred, rather rashly, to the genus under which it is here named; and that it possesses a distinctive character sufficient on which to have formed a new one. We have, nevertheless, as usual, taken it up under the title it is in general known by, as published by Vahl, in his *Symbolæ Botanicæ*, Part III. p. 3, and quoted from him into Willdenow's *Sp. Plant.* p. 46, and thence into Professor Martyn's ed. of Miller's *Dict.* article *Olea*, 5. Whether the fruit of this plant will ever turn to account, when cultivated, as an article of food, time must evince; but, certainly, it bears an appearance of much hope. It is a strong woody growing shrub, forming itself into a handsome round-headed plant; and, when in full flower, has a very pretty appearance, having all the necessary qualities of such plants as are fit for planting out in a conservatory. It is propagated by cuttings; should be planted in sandy peat earth, mixed with a small portion of loam; producing its flowers about February or March. Our drawing was made from a plant in the Hammersmith Collection, to which it was first added in the year 1791; having been raised from seeds communicated to Messrs. Lee and Kennedy by Colonel Paterson.





*Olea apetalata*

Bot. ap. the Soc. Acad. Sci. 1811  
W. H. Edwards del.



PLATE CCCXVII.

GERANIUM UNDULATUM. *Var. Minor.*

*Waved-flowered Geranium. Lesser Var.*

CLASS XVI. ORDER IV.

MONADELPHIA 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 lanceolatis, integerrimis, petiolis longitudine foliorum; petalis cuneiformibus, equalibus, undulatis; floribus pentandris; radice tuberosa.

Geranium with the root leaves lance-shaped, quite entire; foot-stalks the length of the leaves; petals wedge-shaped, equal, waved; flowers with five fertile chives; root tuberous.

REFERENCE TO THE PLATE.

1. The Empalement cut open, natural size.
2. The Chives cut and spread open, magnified.
3. The Seed-bud, Shaft, and Summits.

This very handsome tuberous Geranium, and which we have rather placed as a variety than a species, might perhaps by some have been considered as sufficiently distinct to have formed a species; but, indeed, much difficulty arises in the determining, amongst this variable tribe, where to fix determinate specific character. Our present figure was taken from the Hibbertian Collection, where as yet the plant is only to be seen in Britain. It flowers in June or July; does not perfect its seeds, nor has the appearance of easily propagating from the root; the usual method with this link of the Geranium family. It thrives in sandy peat and leaf mould.



*Geranium undulatum* var. *minor*

PLATE CCCXVIII.

HÆMANTHUS MULTIFLORUS.

*Many-flowered Blood-Flower.*

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Involucrum hexaphyllum, maximum, umbelluliferum; foliolis erectis, oblongis, persistentibus.

COROLLA monopetala, erecta, sexpartita; laciniis erectis, linearibus; tubo brevissimo, angulato.

STAMINA. Filamenta sex, subulata, tubo corollæ inserta, corolla longiora. Antheræ incumbentes, oblongæ.

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

PERICARPIUM. Bacca subrotunda, trilocularis.

SEMINA solitaria, triquetra.

EMPALEMENT. Fence six-leaved, large, bearing a small umbel; leaflets upright, oblong, permanent.

BLOSSOM one petal, upright, six-parted; segments upright, linear; tube very short, angular.

CHIVES. Threads six, awl-shaped, inserted into the tube of the blossom, longer than the blossom. Tips laying on the threads, oblong.

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

SEED-VESSEL. Berry roundish, three-celled.

SEEDS solitary, three-sided.

SPECIFIC CHARACTER.

Hæmanthus foliis plicatis, undulatis, erectis, lato-lanceolatis; umbella globosa; floribus confertis; petalis patentibus; scapo ad basin maculato.

Blood flower with plaited leaves, waved, upright and broad-lance shaped; umbel globular; flowers crowded; petals spreading; flower-stem spotted at the base.

REFERENCE TO THE PLATE.

1. The Leaves and part of the Flower-Stem, in miniature.
2. A Flower, complete, natural size.
3. The Seed-bud, Shaft, and Summit.
4. A Seed-bud, cut transversely.
5. The embryo of a Seed.

This plant is said to have been in our European gardens so long ago as the year 1603: having, at that time, been sent to Paris by the younger Robin from Guinea. But however this may be, as yet there is no figure of the plant by which it may be known from many of this beautiful tribe, except the one by the late Mr. Nodder. We are indebted for its last introduction to the honourable the Sierra Leone Company, who received, in 1792, the roots of this plant, amongst many others, from that settlement; which were by them presented to Messrs. Lee and Kennedy, at Hammersmith. Our figure was taken in June from a plant in flower this present year, 1803, in the collection of J. Vere, Esq. Kensington Gore, where, from particular management of Mr. Anderson, the same root has flowered several times; a circumstance that but rarely happens with these bulbs after the first year from importation. As a native of so hot a clime it must be kept in the bark bed of the hot-house; and, when the plant is not in flower, should be watered but sparingly. We as yet are unacquainted with any mode by which it may be propagated. It flourishes most in rich mould. Our figure represents the plant in a small specimen, as the head of flowers is frequently, in this country, of three times the size.





*Hemeranthus multiflorus*



PLATE CCCXIX.

VICIA GALEGIFOLIA.

*Goat's-Rue-leaved Vetch.*

CLASS XVII. ORDER IV.

*DIADELPHIA DECANDRIA.* Chives in two sets. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, tubulatum, erectum, semi-quinquefidum, acutum; dentibus superioribus brevioribus, conniventibus; omnibus æqualis latitudinis.

COROLLA papilionacea.

*Vexillum* ovale, ungue lato oblongo, apice emarginatum cum acumine, lateribus reflexum, linea longitudinali compressa elevata.

*Alæ* duæ, oblongæ, erectæ, semicordatæ, ungue oblongo, vexillo breviores.

*Carina* ungue oblongo bipartito, ventriculo compresso, semiorbiculato, alis brevioribus.

STAMINA. Filamenta diadelphia (simplex et novemfidum). Antheræ erectæ, subrotundæ, quadrisulcæ.

*Nectarii glandulæ* intra stamen compositum et germen e receptaculo oritur, brevis, acuminata.

PISTILLUM. Germen lineare, compressum, longum. Stylus filiformis, brevior, ad angulum erectum adscendens. Stigma obtusum, sub apice transverse barbatum.

PERICARPIUM. Legumen longum, coriaceum, uniloculare, bivalve, acumine terminatum.

SEMINA plura, subrotunda.

EMPALEMENT. Cup one-leaf, tubular, upright, half five-cleft sharp; the upper teeth the shortest, approaching; all the teeth of equal breadth.

BLOSSOM butterfly-shaped.

*Standard* oval, with a broad oblong claw, notched at the top, with a point in the middle, sides reflexed, compressed and raised in a line running lengthways.

*Wings* two, oblong, erect, half-heart shaped, with an oblong claw, shorter than the standard.

*Keel*, with an oblong two-parted claw, the hollow part compressed like a half circle shorter than the wings.

CHIVES. Threads in two sets, (one alone, the other nine-cleft.) Tips upright, roundish four-furrowed.

*Honey-cup*, gland arising from the receptacle between the united threads and the seed-bud; short and tapered.

POINTAL. Seed-bud linear, compressed and long. Shaft thread-shaped, shorter, turned upwards from an angle. Summit blunt, bearded transversely on the upper part at the end.

SEED-VESSEL. Pod long, tough, one-celled, two-valved terminated by a point.

SEEDS many, rather round.

#### SPECIFIC CHARACTER.

*Vicia pedunculis multifloris erectis; floribus striatis; foliolis ovalibus, subtruncatis, reflexis.*

Vetch with many-flowered, upright fruit-stalks; flowers streaked; leaflets oval, rather appearing cut off at the points, reflexed.

#### REFERENCE TO THE PLATE.

1. The Cup.
2. The Standard, or upper Petal of the Flower, shewn in front.
3. The same, shewn from the back-side.
4. One of the Wings of the Blossom.
5. The Keel of the same.
6. The Chives, natural size.
7. The Pointal, natural size.
8. The Chives, magnified, shewn from the front side.
9. A half-ripe Pod.

This pretty plant is a native of New Holland, and was first received in seeds from thence under the name of *Indigofera coccinea*, in the year 1800, by Messrs. Lee and Kennedy, Hammersmith. It grows into a bushy plant, making a number of branches from the root, but is rather a woody than herbaceous plant; yet the branches have all the character of most of the species of this genus. It has not as yet been increased by cuttings, but from every appearance the seeds will ripen in this country; and there is little doubt but the roots may be divided with safety. It flourishes in a mixture of sandy

peat and loam. Our figure was taken from a plant in the Collection of Messrs. Colvilies, King's Road, Chelsea; where it has likewise flowered this present August, 1803.



*Vicia galegifolia*

*Pal. bot. Ital. V. 1. 1818*  
*in Hb. bot. Ital. V. 1. 1818*

PLATE CCCXX.

PULTENÆA ILICIFOLIA.

*Holly-leaved Pultenæa.*

CLASS X. ORDER I.

*DECANDRIA MONOGYNIA.* Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX quinque-dentatus, utrinque appendiculatus. Corolla papilionacea, alis vexillo brevioribus. Legumen uniloculare, dispermum.

CUP five-toothed, with an appendage on each side. Blossom butterfly-shaped, wings shorter than the standard. Pod one-celled, two seeded.

See PULTENÆA DAPHNOIDES, Pl. XCVIII. Vol. II.

SPECIFIC CHARACTER.

*Pultenæa foliis hastatis, serratis, rigidis; floribus axillaribus, racemosis.*

*Pultenæa* with halbert-shaped leaves, sawed and harsh; flowers grow from the insertion of the leaves in long bunches.

REFERENCE TO THE PLATE.

1. The Cup, natural size.
2. The same, magnified.
3. The Standard, or upper petal of the blossom.
4. One of the Wings of the same.
5. The two petals of the keel of the same.
6. The Chives and Pointal.
7. The Chives, magnified.
8. The Seed-bud, Shaft and Summit, magnified.

This species of *Pultenæa* was introduced, from New Holland, about the year 1792, by Messrs. Lee and Kennedy, Hammersmith, and is undoubtedly one of the handsomest of the genus. It is difficult to increase as the seeds do not mature, and it is very rarely propagated by cuttings. It grows to the height of three or four feet; and, when in flower, makes a very brilliant appearance. It is not a long-liv'd plant; is very impatient of wet, and is easily hurt by the cold, so should be kept in a dry and warm part of the green-house, or even on a shelf in the hot-house, during the winter months. It thrives in very sandy



peat earth without any mixture. Our drawing was made from a plant in the Hibbertian Collection, in the month of June, 1801.



*Callunella ilicifolia*

PLATE CCCXXI.

ARETHUSA PLICATA.

*Plaited-leaved Arethusa.*

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spatha foliacea. Perianthium nullum.

COROLLA, ringens; petala quinque, oblonga, subæqualia, duo exteriora, omnia conniventia in galeam.

*Nectarium* monophyllum, basi tubulosum, intra corollæ fundum, bipartitum; labio inferiore reflexo, lato, rugoso, longitudine petalorum, propendente; labio superiore lineari, tenerrimo, stylo adnato, apice lobato.

STAMINA. Filamenta duo, brevissima, pistilli apici insidentia. Antheræ ovatæ, compressæ, tectæ duplicatura labii interioris nectarii.

PISTILLUM. Germen oblongum, inferum. Stylus oblongus, incurvus, labio interiore nectarii vestitus. Stigma infundibuliforme.

PERICARPIUM. Capsula oblongo-ovata, unilocularis, tri-valvis, angulis dehiscens.

SEMINA numerosa, acerosa.

EMPALEMENT. Sheath leafy. Cup none.

BLOSSOM gaping. Five petals, oblong, nearly equal, two outer, all converging into a helmet.

*Honey-cup* one-leafed, tubular at the base, within the bottom of the blossom, two-parted; lower lip reflexed, broad, wrinkled, the length of the petals, hanging down forwards; upper lip linear, very delicate, fixed to the shaft, lobed at top.

CHIVES. Two threads, very short, sitting on the top of the pointal. Tips egg-shaped, flattened, covered by the folding of the inner lip of the honey-cup.

POINTAL. Seed-bud oblong, beneath. Shaft oblong, incurved, cloathed by the inner lip of the honey-cup. Summit funnel-shaped.

SEED-VESSEL. Capsule oblong egg-shaped, one-celled, three-valved, splitting at the angles.

SEEDS numerous, chaffy.

SPECIFIC CHARACTER.

*Arethusa radice globosa; folio cordato, plicato, hirsuto.*

*Arethusa* with a globular root; leaf heart-shaped, plaited and hairy.

REFERENCE TO THE PLATE.

1. The Plant, after the Flower has disappeared.
2. The Petals of the Flower, spread open.
3. The Honey-cup, spread open.
4. The Chives and Pointal.
5. The same, magnified; the hood, to which the chives are attached, lifted up.

This singular little bulbous rooted plant was received this year, 1803, in the month of April, amongst a number of other curious new seeds and bulbs, from the East-Indies, by Aylmer Bourke Lambert, Esq. by whom they have been communicated to different collections. Although the plant has considerable affinity with *Arethusa*, yet we entertain doubts whether it should not be placed to *Limodorum*, as it wants many of the generic characters of the former genus, and but few, and those but trivial in its correspondence, to the latter. We have, notwithstanding, given it the title under which it was sent, submitting our judgment to what we conceive better authority. There is little doubt but the plant will soon be lost in our collections, as but few of this natural order are either to be propagated or kept by any cultivation we are at present acquainted with. Our figure was taken from a plant which flowered in the hot-house of J. Vere, Esquire, Kensington Gore, in the month of July, before there was any appearance of either root or leaf from the bulb. It was in flower at the same time in the Collection of Sir Abraham Hume, Bart. Wormley-Bury, Herts.

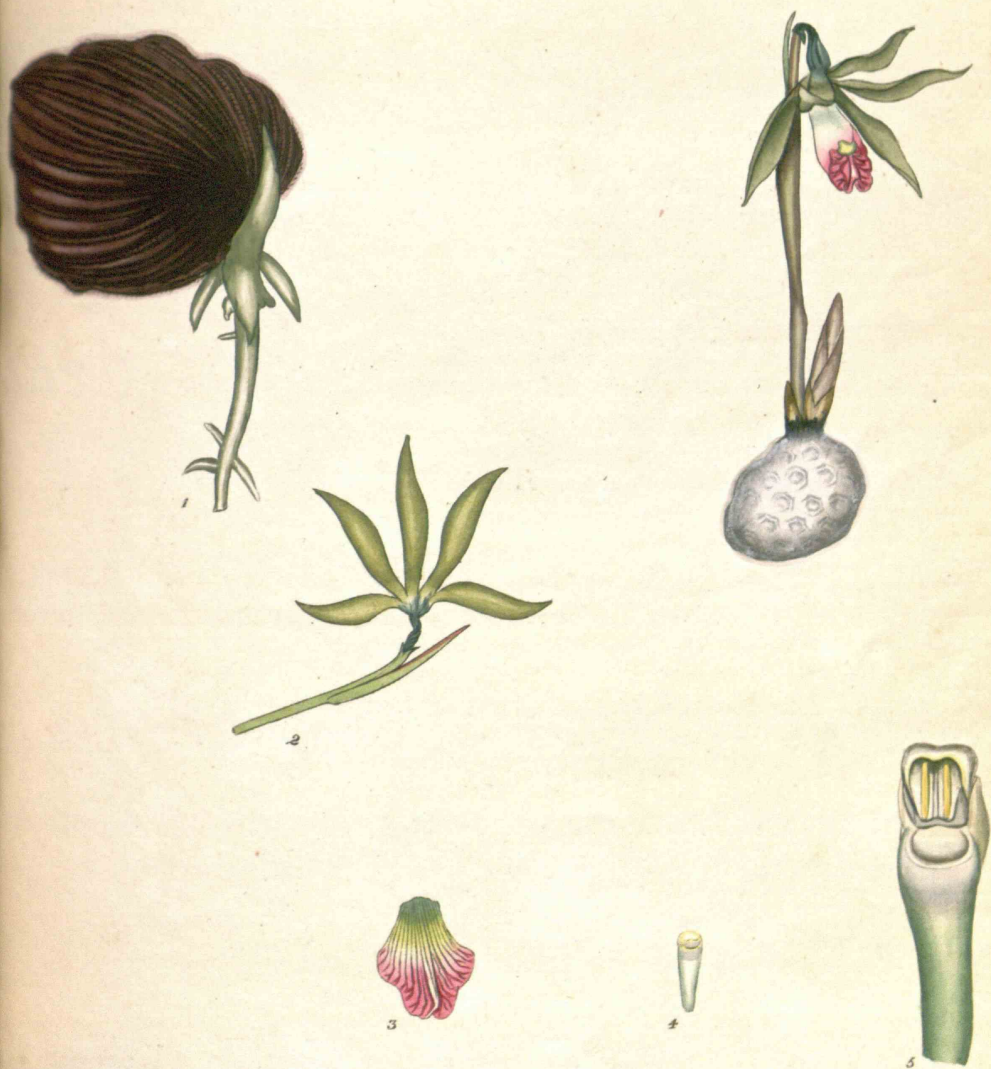




PLATE CCCXXII.

PITCAIRNIA LATIFOLIA.

*Broad-leaved Pitcairnia.*

CLASS VI. ORDER I.

*HEXANDRIA MONOGYNIA.* Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX triphyllus, semisuperus. Petala 3. Squama nectarifera ad basin petalorum. Stigmata tria contorta. Capsula tria, introrsum dehiscentes. Semina alata.

EMPALEMENT three-leaved, half superior. Petals three; with a scaly honey-cup at the base of the petals. Three summits twisted. Three capsules, splitting from the inside. Seeds winged.

SPECIFIC CHARACTER.

*Pitcairnia foliis integerrimis, basi subspinosis.*

*Pitcairnia* with leaves quite entire, rather spiny at the base.

REFERENCE TO THE PLATE.

1. The Empalement.
2. One of the Petals, with its scale at the base.
3. The Chives and Pointal, cleared from the Petals.
4. The Pointal, the Summits detached, magnified.
5. The Seed-bud, cut transversely.

The species of *Pitcairnia* here figured is a native of Jamaica, and was first introduced to Britain by Mr. A. Anderson, in the year 1785. It does not flower so readily as some of the other species, but is equally easy to increase; flourishes in rich earth, and may be kept on a shelf of the hot-house until its flower-stem appears; when, to encourage its flowering, it should be plunged in the bark-bed.—Our drawing was made, in the month of July, from a plant in the Collection of J. Vere, Esquire, Kensington Gore.



*Mimulus latifolia*

PLATE CCCXXIII.

GERANIUM BARBATUM. *Var. Minor.*

*Bearded-leaved Geranium. Lesser Var.*

CLASS XVI. ORDER IV.

*MONADELPHIA DECANDRIA.* Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

ONE POINTAL. Five Summits. Fruit furnished with long awns, five dry berries.

SPECIFIC CHARACTER.

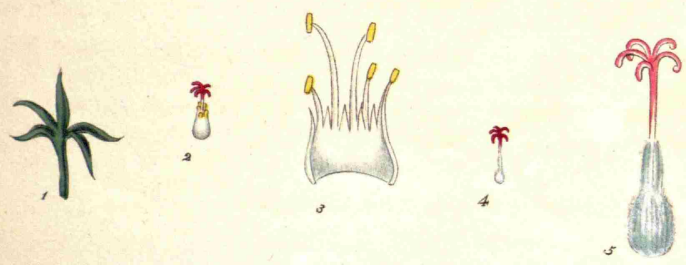
Geranium foliis pinnatis; foliolis inequaliter, dentatis, apice barbatis; floribus umbellatis; petalis linearibus, recurvatis; staminibus quinque fertilibus, binis longioribus; scapo polystachio; radice tuberosa.

Geranium with winged leaves, leaflets unequally toothed, and bearded at the point; flowers grow in umbels, petals linear, recurved; five fertile chives, two longer; flower-stem branched; root tuberous.

REFERENCE TO THE PLATE.

1. The Cup cut open, to shew its tubular structure.
2. The Chives and Pointal, natural size.
3. The Chives cut open, magnified.
4. The Pointal, natural size.
5. The same, magnified.

Our present figure is taken from a plant in the Hibbertian Collection, Clapham; and is a very strong variety of the Bearded-leaved Geranium of a former number, taken from the same source. It is, as far as appearances lead, no way differing in character from the rest of the tuberous species of this genus, to require any other treatment. Flowers in June or July.



*Geranium barbatum* Var. *minor*

*Printed by J. G. Smith, 17, Pall Mall, London.*

PLATE CCCXXIV.

MAGNOLIA PURPUREA.

*Purple-flowered Magnolia.*

CLASS XIII. ORDER VII. *of Schreb. Gen. Plants.*

*POLYANDRIA POLYGYNIA.* Many Chives. Many Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX 3-phyllus. Petala 6-12. Capsulæ 2-valves, imbricatæ. Semina baccata, pendula.

CUP 3-leaved. Petals 6-12. Capsules 2-valved, tiled. Seeds, berries, pendulous.

See MAGNOLIA PUMILA, Pl. CCXXVI. Vol. IV.

SPECIFIC CHARACTER.

*Magnolia foliis obovatis, flaccidis; floribus purpureis; petalis obovatis, divaricatis.*

*Magnolia* with inversely egg-shaped, flaccid leaves; flowers purple; petals inversely egg-shaped and straddling.

REFERENCE TO THE PLATE.

1. The Chives and Pointals.
2. A Chive, magnified.
3. The Pointals.

This fine species of *Magnolia* is a native of China and Japan, was introduced to us by the late Mr. Slater of Laytonstone, to whom we are so much indebted for the greatest number of beautiful plants which have been imported from thence by any individual. It is a very free growing plant; will resist the severity of our winters, if planted in a warm situation, and is deciduous; but if kept in the conservatory, it retains its leaves the whole year, and flowers about June. It is propagated with ease by laying, or by cuttings, and thrives in peat earth, with a small mixture of loam. The plant from which our figure was taken is in the magnificent Conservatory of the Right Honourable the Marquis of Blandford, White Knights, near Reading, Berks; and, we believe, the finest specimen of this species of *Magnolia* in Britain.





*Arisaema purpurea*

Publ. in the Bot. Beechey Voy. 1847  
by H. Robinson, from the original

PLATE CCCXXV.

CODON ROYENI.

*Prickly Codon.*

CLASS XI. ORDER I.

*DODECANDRIA MONOGYNIA.* Twelve Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, duodecempartitum; foliolis subulatis, persistentibus, erectis, alternis brevioribus.

COROLLA monopetala, campanulata, basi torulosa; limbo duodecimpartito, aquali.

*Nectarium* duodecim locale ex squamis 12, unguibus staminum insertis, conniventibus, receptaculum tegentibus.

STAMINA. Filamenta duodecim, longitudine corollæ. Antheræ crassæ.

PISTILLUM. Germen superum, conicum. Stylus simplex, longitudine staminum. Stigmata duo, longa, setacea, divergentia.

PERICARPIUM. Capsula bilocularis.

SEMINA plurima, subrotunda, nigra.

EMPALEMENT. Cup one-leaf, twelve-divided; leaflets awl-shaped, remaining, upright, the alternate ones shorter.

BLOSSOM one petal, bell-shaped, rather swelled at the base; border twelve-divided, equal.

*Honey-cup* twelve-celled, consisting of 12 scales, inserted into the claws of the chives, approaching, covering the receptacle.

CHIVES. Twelve threads, the length of the blossom. Tips thick.

POINTAL. Seed-bud above, conical. Shaft simple, the length of the chives. Summits two, long, like bristles, straddling.

SEED VESSEL. Capsule two-celled.

SEEDS numerous, roundish, black,

SPECIFIC CHARACTER.

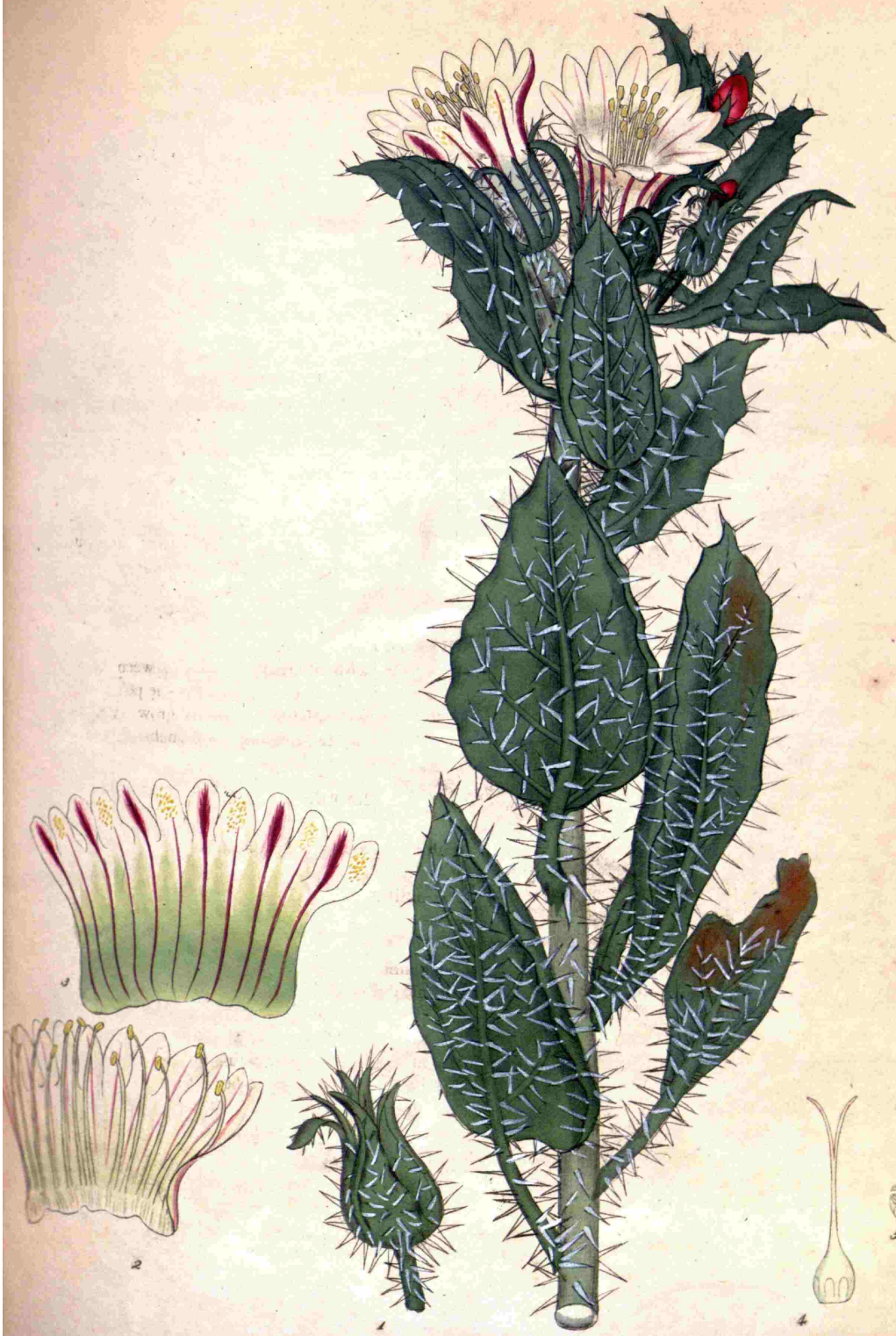
Codon foliis alternis, cordato-ovatis, acuminatis, setaceo-spinosis; floribus subcapitatis, terminalibus.

Codon with alternate leaves, between heart-shaped and oval, tapered to the point, with spine-like bristles; flowers grow nearly in heads, terminating the branches.

#### REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom spread open, with the chives in their place.
3. The same shewn from the outside.
4. The Seed-bud, Shaft and Summits.
5. The Seed-bud, cut transversely.

As an interesting desideratum, this plant has stood long amongst botanical collectors; but till the year 1801, it was never seen, in a vegetating state, in Britain; at which period, it was introduced to our gardens, by Mr. Niven, from the Cape of Hope. It is not, we believe, (although considered hitherto as such,) an annual; but rather, a half woody shrub, easily destroyed by moisture. As the seed appears to ripen freely, although there seems no other mode of perpetuating the plant, we shall stand in no danger of losing it; its attractions are, indeed, not great as to beauty, but much so as to singularity; since we have no plant to which it affines in general habit. The seeds should be sown on a gentle hot-bed, in March, and transplanted when about two inches high, into pots, to flower, which they will do about September. Our drawing was made at the Hammersmith Nursery. Having had the opportunity of examining the flowers, of more than twenty plants; we are convinced it has been wrong placed by Van Royen to decandria; for although many flowers may be found, even on the same plant, some with eight, others with ten chives, yet at least 90 out of 100 have twelve; wherefore we have, without scruple, placed it to dodecandria.



*Cylindropuntia*



PLATE CCCXXVI.

PHARNACEUM LINEARE.

*Linear-leaved Pharnaceum.*

CLASS V. ORDER III.

*PENTANDRIA TRIGYNIA.* Five Chives. Three Pointal.

GENERIC CHARACTER.

CALYX. Perianthium pentaphyllum; foliolis subovatis, concavis, patentibus, æqualibus, persistentibus, intus coloratus, margine tenui.

COROLLA nulla; hinc calycis margo tenuis et calyx interne coloratus.

STAMINA. Filamenta quinque, subulata, longitudine calycis. Antheræ basi bifidæ.

PISTILLA. Germen ovatum, trigonum. Styli tres, filiformes, longitudine staminum. Stigmata obtusa.

PERICARPIUM. Capsula ovata, obsoletè trigona, tecta, trilocularis, trivalvis.

SEMINA numerosa, nitida, orbiculata, depressa, margine acuto cincta.

EMPALEMENT. Cup five-leaved; leaflets nearly egg-shaped, concave, spreading, equal, permanent, coloured within, with a thin edge.

BLOSSOM none; hence the edge of the cup is thin and the inside of it is coloured.

CHIVES. Five-threads, awl-shaped, the length of the cup. Tips cleft at the base.

POINTALS. Seed-bud egg-shaped, three-sided. Shafts three, thread-shaped, the length of the chives. Summits blunt.

SEED-VESSEL. Capsule egg-shaped, bluntly three-cornered, covered, three-celled, three valves.

SEEDS numerous, shining, orbicular, flattened, surrounded by a sharp rim.

SPECIFIC CHARACTER.

Pharnaceum foliis linearibus, verticillatis; umbellis inequalibus; calycibus aurantiis; caule decumbente.



Pharnaceum with linear leaves, growing in whorls; umbels unequal; cups orange coloured; stem bending downwards.

REFERENCE TO THE PLATE.

1. The Cup, shewn from the front, with the chives.
2. The same, shewn from the hind part attached to the fruit-stalk.
3. The Seed-bud and Pointals, natural size.
4. The same, magnified.
5. The Seed-bud, cut transversely, magnified.

This little plant much resembles our Corn Spurry, or *Spergula arvensis*, at first sight. It is a native of the Cape of Good Hope, seldom grows more than six inches high, and is very apt to be destroyed by the damps of our winters. It should be placed in the airiest part of the greenhouse, and kept in light sandy loam. To propagate it, the cuttings should be put in, about the month of March, in the heat of a gentle hot-bed, or the bark-bed of the hot-house; the seeds are sometimes perfected. It has been often introduced to us, but as often lost; as it is not a plant of much shew, no great deal of pains has, hitherto, been taken for its preservation. Our drawing was taken from a plant in the Hibbertian Collection, in the month of July, 1802.



*Pharnaceum lineare*

Such as the *Ph. lineare* is  
by *Ph. lineare* & *Ph. lineare*

PLATE CCCXXVII.

XERANTHEMUM ARGENTEUM.

*Silvery Everlasting-Flower.*

CLASS XIX. ORDER II.

*SYNGENESIA POLYGAMIA SUPERFLUA.* Tips united. Superfluous  
Pointals.

ESSENTIAL GENERIC CHARACTER.

RECEPTACULUM paleaceum. Pappus setaceus. Calyx imbricatus, radiatus;  
radio colorato.

RECEPTACLE chaffy. Feather bristly. Cup tiled, rayed; ray coloured.

See XERANTHEMUM SPECIOCISSIMUM, V. I. Pl. LI.

SPECIFIC CHARACTER.

Xeranthemum fruticosum; foliis lanceolatis, carinatis, sericeis; floribus  
paniculatis, argenteis.

Everlasting flower with a shrubby stem; leaves lance-shaped, keeled, and  
silky; flowers grow in panicles, and silvery.

REFERENCE TO THE PLATE.

Rights for this book: [Public domain in the USA](#).

This edition is published by Project Gutenberg.

Originally [issued by Project Gutenberg](#) on 2024-04-08. To support the work of Project Gutenberg, visit their [Donation Page](#).

This free ebook has been produced by [GITenberg](#), a program of the [Free Ebook Foundation](#). If you have corrections or improvements to make to this ebook, or you want to use the source files for this ebook, visit [the book's github repository](#). You can support the work of the Free Ebook Foundation at their [Contributors Page](#).

1. An hermaphrodite Floret, natural size.
2. The same, magnified.
3. An inner scale of the Empalement.
4. The Receptacle, cleared of the scales and florets.
5. A female Floret, magnified.
6. The Pointal of the above, natural size.
7. The same magnified.

This new species of Everlasting-flower was introduced to us, at the same time, with the *X. spirale* this work, Pl. CCLXII. by Montague Burgoyne, Esq. of Mark Hall, Essex, in the year 1801. It is a quick growing plant, and has flowered for the first time last April, when our drawing was taken. The flower stems grow to the length of eighteen inches, or more; and the buds, upon their first appearance, have a fine tint of flesh colour, which, however, totally disappears upon the expansion of the flower. It is propagated by cuttings, seeds, (which ripen in this country,) or by parting the branches at the root, as it makes many from one base, which are easily separated by passing a knife between them. It thrives best in sandy peat with a small portion of loam, and must be kept in an airy, dry part of the greenhouse.





*Androsace argentea*

*Androsace argentea*  
from the Himalayas

PLATE CCCXXVIII.

GERANIUM BUBONIFOLIUM.

*Macedonian-Parsley-leaved Geranium.*

CLASS XVI. ORDER IV.

*MONADELPHIA DECANDRIA.* Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus rostratus, pentacoccus.

ONE POINTAL. Five Summits. Fruit furnished with long awns, five dry berries.

SPECIFIC CHARACTER.

Geranium foliis pinnatis, pinnis oppositis, lobatis, distantibus, lobis inciso-dentatis, glabris; petalis emarginatis, albis; staminibus quinque fertilibus; radice tuberosa.

Geranium with winged leaves, wings opposite, lobed, distant, lobes deep cut and toothed, smooth; petals notched at the end, white, five fertile chives; root tuberous.

REFERENCE TO THE PLATE.

1. The Cup cut and spread open.
2. The Chives and Pointal.
3. The Chives cut and spread open, magnified.
4. The Pointal, magnified.

This Geranium, from the Cape of Good Hope, is quite distinct in its habit, from most of the tuberous species; the leaflets or wings of the leaves being more hand-shaped, and at a greater distance from each other, than in any which has come under our observation; having much the appearance of those of the plant from which we have derived its specific title. The plant was introduced by Mr. Niven, to the Clapham Collection, in 1800; where our drawing was taken in the month of June, 1802. The cultivation as usual, for the plants of this branch of the Geranium family.





*Goranum tuberosifolium*

PLATE CCCXXIX.

PHARNACEUM LINEARE. *Var. flo. albo.*

*Linear-leaved Pharnaceum. White Var.*

CLASS V. ORDER III.

*PENTANDRIA TRIGYNIA.* Five Chives. Three Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-phyllus. Corolla nulla.

CAPSULA 3-locularis, polysperma.

CUP 5-leaved. Blossom none.

CAPSULE 3-celled, many-seeded.

See PHARNACEUM LINEARE. Pl. CCCXXVI. V. V.

SPECIFIC CHARACTER.

Pharnaceum foliis linearibus, verticillatis; umbellis inequalibus; calycibus albo-virentibus; caule decumbente.

Pharnaceum with linear leaves, growing in whorls; umbels unequal; cups whitish green; stem bending downwards.

REFERENCE TO THE PLATE.

1. A Flower.
2. The Cup and Chives.
3. The Seed-bud and Pointals, natural size.
4. The same, magnified.
5. The Seed-bud, cut transversely, magnified.

We have given this variety of the linear-leaved Pharnaceum, at the same time with the orange-coloured, as being the only two Cape species, at present, in our gardens. It is equally tender and delicate with its fellow, is equally difficult to propagate; and was introduced, this last time, to the Hibbertian Collection in 1800, by Mr. Niven, with it.





PLATE CCCXXX.

N Y M P H Æ A S T E L L A T A .

*Starr'd Water-Lily.*

CLASS XIII. ORDER I.

*POLYANDRIA MONOGYNIA.* Many Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 4, 5, seu 6-phyllus. Cor. polypetala. Bacca multilocularis, truncata.

CUP 4, 5 or 6-leaved. Bloss. many petals. Berry many-celled, appearing cut off at top.

See N Y M P H Æ A C Æ R U L E A , Pl. CXCVII. Vol. III.

SPECIFIC CHARACTER.

Nymphæa foliis subrotundis, sinuatis, subtus purpurascentibus; lobis divaricatis, acutis; calyce tetraphyllo, petalis acutis cœruleis longiore.

Water-lily with nearly round leaves, scalloped and purplish underneath; lobes straddling and pointed; cup four-leaved, longer than the pointed, blue petals.

REFERENCE TO THE PLATE.

1. The Cup divested of the petals.
2. A Chive, natural size.
3. The seed-vessel, nearly arrived to maturity.
4. The same, cut transversely.

This fine species of Water-lily is a native of the East Indies, on the Malabar coast; and has been given by Rheed, in his Hortus Malabaricus, Vol. II. p. 53. fig. 27. At first sight, it has much the appearance of *N. cœrulea*, but upon closer inspection it is found to possess many strongly differing characters, viz. In this, the under part of the leaves are purplish, the lobes straddle; in that, they are tiled, or lay upon each other; in *N. stellata* the petals or chives seldom exceed ten; whereas, the *N. cœrulea* has an indefinite number of both. The roots, likewise, are perfectly distinct; in *N. cœrulea* the diverging roots proceed from the lower part of the bulb, from whence the leaves issue, but in *N. stellata* from the top, leaving below them a smooth top-shaped bulb. The parts which compose the summit, or rather the summits, (for

indeed we should consider them, if it lay with us, as distinct pointals,) are expanded horizontally when the flower is in its perfect state, forming a star like appearance, whence its specific name. It is much tenderer than *N. cœrulea*, and will not flower but in strong heat. Mr. Anderson informs us that the plants which have produced perfect seeds, this year, were from seeds, received by A. B. Lambert, Esq. (communicated by Dr. Roxburgh from India) in the month of March, and raised by him for the collection of J. Vere, Esq. Kensington Gore, where our drawing was made in August.



*Nymphaea stellata*

*Nymphaea stellata* (L.) Pers.  
of the *Nymphaeaceae* family

PLATE CCCXXXI.

XYLOPHYLLA FALCATA.

*Cymitar-shaped-leaved Xylophylla.*

CLASS XXI. ORDER III.

MONÆCIA TRIANDRIA. Chives and Pointals separate. Three Chives.

GENERIC CHARACTER.

\* *Masculi flores.*

CALYX. Perianthium monophyllum, tripartitum, coloratum; laciniis ovatis, patulis, ovatis.

COROLLA. Petala tria, ovata, concava.

STAMINA. Filamenta tria, brevissima, basi approximata. Antheræ subrotundæ, didymæ.

\* *Feminei flores* in eodem fasciculo cum masculis.

CALYX. Perianthium ut in mare.

COROLLA ut in mare.

*Nectarium* corpusculis glandulosis germen ambientibus.

PISTILLUM. Germen subrotundum, trisulcatum. Styli tres, patuli, bifidi. Stigmata obtusa.

PERICARPIUM. Capsula trigona, trisulca, trilocularis; loculis bivalvibus.

SEMINA solitaria.

\* *Male flowers.*

EMPALEMENT. Cup one leaf, three divided, coloured; segments egg-shaped, spreading, oval.

BLOSSOM. Petals three, egg-shaped, concave.

CHIVES. Threads three, very short, and approaching at the base. Tips roundish, double.

\* *Female flowers* in the same tuft with the males.

EMPALEMENT. Cup as in the male.

BLOSSOM as in the male.

*Honey-cup* is formed of small glandular bodies surrounding the seed-bud.

POINTAL. Seed-bud roundish, three-furrowed. Shafts three, short. Summits blunt.

SEED-VESSEL. Capsule three-sided, three-furrowed, three cells; cells two-valved.

SEEDS solitary.

SPECIFIC CHARACTER.

*Xylophylla foliis sparsis, integris, falcatis, crenatis; crenis remotis, floriferis; floribus rubris.*

*Xylophylla* with leaves scattered on the stem, entire, cymitar-shaped and scolloped; the scollops distant, and having the flowers on them; flowers red.

REFERENCE TO THE PLATE.

1. A male flower, magnified.
2. The blossom of male flowers, spread open, with the honey-cups.
3. A Female flower, magnified.
4. The Germ from a female flower, cut transversely, magnified.

It should seem that this Genus has not been observed with sufficient accuracy, at least those plants known to us, and which have been treated of as belonging to the class Pentandria. The present one, for instance, which is unquestionably the plant designed by Swartz, Commelin, Seba, &c. an is acknowledged by Swartz to be triandrous and monœcious, yet that it should be continued in the Kew Catalogue and by Willdenow, &c. to Pentandria, is astonishing. We have no hesitation in declaring our opinion that the whole genus as it now stands ought to be thrown to *Phyllanthus*. But, as the title *Xylophylla* is so well known for these plants; we have thought it more safe to give the Genus those characters the plants bear under their true Class and Order, than make any alteration in it. The *Xylophylla falcata* is a native of the West India Islands, and has been long cultivated in our hot-houses; so long ago as the year 1739. It is a tender plant, and will not flower without the assistance of the bark-bed; is easily propagated by cuttings; grows best in sandy peat, and flowers in August. Our drawing was made at the Hammersmith Nursery.





*Lythrum falcata*

PLATE CCCXXXII.

PROTEA ANEMONIFOLIA.

*Anemony-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. Semina solitaria.

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

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

SPECIFIC CHARACTER.

*Protea* foliis pinnatis, pinnis planis, cuneiformibus, sub apice incisodentatis; capitalis terminalibus; squamis calycinis lanceolatis, glabris; floribus luteis.

*Protea* with winged leaves, wings flat, wedge-shaped, deeply toothed at the point; flower heads terminal; scales of the cup lance-shaped, smooth; flowers yellow.

REFERENCE TO THE PLATE.

1. Flower complete, with its Seed-bud attached.
2. One of the petals of the flower, magnified.
3. Seed-bud, Shaft and Summit, the Summit detached and magnified.

The *Protea Anemonifolia* is one of the only three species of the Genus, we have, yet, received from New Holland. It was introduced to us, from thence, in the year 1792, by Messrs. Lee and Kennedy, Hammersmith; is a hardy green-house plant; grows to the height of three, or four feet; may be propagated by cuttings, and flowers in August. It thrives best in a mixture of light sandy loam, and peat earth, of each an equal quantity.



PLATE CCCXXXIII.

SAGITTARIA LANCIFOLIA.

*Lance-leaved Arrowhead.*

CLASS XXI. ORDER VII.

MONÆCIA POLYANDRIA. Chives and Pointals separate. Many Chives.

GENERIC CHARACTER.

\* *Masculi flores* plures.

CALYX. Perianthium triphyllum; foliolis ovatis, concavis, persistentibus.

COROLLA. Petala tria, subrotunda, obtusa, plana, patientia, calyci triplo majora.

STAMINA. Filamenta plurima (viginti quatuor sæpe), subulata, in capitulum congesta. Antheræ erectæ, longitudine calycis.

\* *Feminei flores* pauciores, infra masculos.

CALYX. Perianthium ut in mare.

COROLLA. Petala tria, ut in mare.

PISTILLA. Germina numerosa, compressa, in capitulum congesta, extrorsum gibba, desinentia in stylos brevissimos. Stigmata acuta, persistentia.

PERICARPIUM nullum. Receptaculum globosum, semina in globum colligens.

SEMINA numerosa, oblonga, compressa, cincta longitudinaliter margine membranaceo, lato, hinc gibbo, utrinque acuminato.

\* *Male flowers* many.

EMPALEMENT. Cup three leaves; leaflets egg-shaped, concave, remaining.

BLOSSOM. Three petals, roundish, blunt, flat, spreading, three times the size of the cup.

CHIVES. Threads many (often twenty-four), awl-shaped, collected into a little head. Tips upright, the length of the cup.

\* *Female flowers* fewer, beneath the males.

EMPALEMENT. Cup as in the male.

BLOSSOM. Three petals, as in the male.

POINTALS. Seed-buds numerous, flattened, forming a little head, hunched on the outside, ending in very short shafts. Summits pointed, remaining.

SEED-VESSEL none. Receptacle globular, supporting the seeds in the form of a globe.

SEEDS numerous, oblong, flattened, surrounded lengthways by a broad skinny border, hunched on one side, tapering to each end.

SPECIFIC CHARACTER.

*Sagittaria foliis lanceolato-ovatis.*

Arrowhead with leaves between lance and egg-shaped.

REFERENCE TO THE PLATE.

1. The whole plant in miniature.
2. A male flower divested of the petals.
3. One of the Chives, magnified.
4. A female flower without its petals.
5. The receptacle with its pointals, cut perpendicularly, magnified.

All the species of this Genus of plants are aquatic, or water plants, and differ but little from each other, in their specific characters. Our present subject is a native of the West India Islands, and requires the atmosphere of a hot-house to induce it to flower. The blossoms, on the lower part of the flower-stem, are all females; and those on the upper part, males; they are all exceedingly delicate, as either wind, or wet, destroys them. It increases by offsets from the root; but the seeds do not ripen in this country. It must be kept in a pan or tub half filled with earth, and the other half with water, but does not require to be plunged in the tan-bed.

Our figure was taken from a plant which flowered this year 1803 (and, for the first time in Britain, as we are informed by Mr. Anderson), in the month of July, in the Collection of J. Vere, Esq. Kensington Gore.





*Ranunculus lancifolia*

Det. in the Herbarium of the University of Cambridge  
by Dr. J. D. Hooker & J. E. Smith

PLATE CCCXXXIV.

STRUTHIOLA TOMENTOSA.

*Downy-leaved Struthiola.*

CLASS IV. ORDER I.

*TETRANDRIA MONOGYNIA.* Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

PERIANTHIUM diphyllum. Corolla tubulosa, 4-fida. Nectarium glandulæ octo fauci circumpositæ. Semen unum subbaccatum.

CUP two leaved. Blossom tubular, 4-cleft. Honey-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 ovatis, concavis, callosis, tomentosis, imbricatis; nectario duodecim partito.

Struthiola with egg shaped leaves, concave, callous, downy and tiled; honey-cup with twelve divisions.

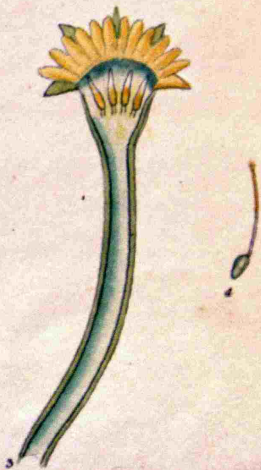
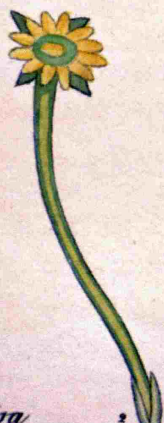
REFERENCE TO THE PLATE.

1. The two leaves of the Empalement, magnified.
2. A Flower complete, magnified.
3. A Blossom cut open, to shew the situation of the chives, magnified.
4. A Seed-bud, with the Shaft and Summit, a little magnified.

The Clapham Collection is the only one in which this curious species of Struthiola is, at present, to be seen. It was sent by Mr. Niven, from the Cape, in 1799, and flowered, for the first time, last year 1802, in the month of August, when our drawing was made. It is a tender Green-house plant, as are most of this natural order, from that country; being susceptible of too great moisture, either when exposed to the open air during heavy rains in summer, or from over watering in winter. Wherefore they are best preserved by sheltering them in an airy situation during summer, and giving them but little water in winter. It is encreased by cuttings, taken off in the month of May, planted in a pot, filled to the margin with sandy loam, and plunged under a hand-glass, in a shady border, without watering the loam. It grows most

flourishing in a mixture of sandy peat and loam; the peat about one third part.





*Arctostaphylos tomentosa*

PLATE CCCXXXV.

GLADIOLUS PYRAMIDATUS.

*Pyramidal-spiked Gladiolus.*

CLASS III. ORDER I.

*TRIANDRIA MONOGYNIA.* Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens. Stamina adscendentia.

BLOSSOM six-divided, gaping. Chives ascending.

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

SPECIFIC CHARACTER.

Gladiolus foliis ensiformibus, utrinque attenuatis, glabris; spathis præmorsis; spicis pyramidatis; floribus imbricatis, subringentibus.

Gladiolus with sword-shaped leaves, tapered to both ends, and smooth; sheaths appear bitten at the ends; spikes pyramid-shaped; flowers tiled, a little gaping.

REFERENCE TO THE PLATE.

1. Part of a leaf.
2. The two Valves of the Sheath.
3. A Blossom cut open, to shew the insertion of the Chives.
4. The Seed-bud, Shaft and Summits.

This fine Gladiolus from the Cape of Good Hope, we believe, has not flowered, or is to be found, in any other collection than that of the Dowager Lady De Clifford, Paddington; where our drawing was taken in August, this year, 1803. It grows to the height of three feet; and the flowers continue to blow, from four to six at a time in succession, from the base of the spike. It is a hardy bulb, and has every appearance of being a free blower.





*Gladiolus pyramidalis.*

PLATE CCCXXXVI.

ANCHUSA CAPENSIS.

*Cape Alkanet.*

CLASS V. ORDER I.

*PENTANDRIA MONOGYNIA.* Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quinquepartitum oblongum, teres, acutum, persistens.

COROLLA monopetala, infundibuliformis; tubus cylindricus, longitudine calycis; limbus semiquinquefidus, obtusus, erecto-patens; faux clausa squamulis quinque, convexis, prominentibus, oblongis, conniventibus.

STAMINA. Filamenta quinque, brevissima, in fauce corollæ. Antheræ oblongæ, incumbentes, tectæ.

PISTILLUM. Germina quatuor. Stylus filiformis, longitudine staminum. Stigma obtusum, emarginatum.

PERICARPIUM nullum; Calyx major, erectus, in sinu continens semina.

SEMINA quatuor, oblongiuscula, obtusa, gibba.

EMPALEMENT. Cup five-parted, oblong, cylindrical, pointed, remaining.

BLOSSOM one petal, funnel-shape; tube cylindric, the length of the cup; border half-five-cleft, obtuse, from erect spreading; throat closed with five small scales, convex, prominent, oblong, converging.

CHIVES. Five very short threads in the throat of the blossom. Tips oblong, incumbent, covered.

POINTALS. Seed-buds four. Shaft thread-shaped, the length of the chives. Summit blunt, notched at the end.

SEED-VESSEL none; the Cup larger and erect, containing the seeds in its bosom.

SEEDS four, somewhat oblong, blunt, hunched.

SPECIFIC CHARACTER.

*Anchusa foliis lanceolatis, villosis, callosis; floribus racemoso-paniculatis, cœruleis.*

Alkanet with lance-shaped leaves, hairy, and callous; flowers grow in bunches nearly panicled, blue.

REFERENCE TO THE PLATE.

1. The Empalement, natural size.
2. The same, magnified.
3. The Seed-buds and pointal, natural size.
4. The same magnified.
5. A Blossom cut open, magnified, to shew the scales upon the mouth, with the situation of the chives.

This is the only species of the Genus we have yet seen from the Cape of Good Hope; and, as it appears that Thunberg discovered but this solitary instance, which he has given in his *Prodromus Plantarum Capensium*, under the specific title we have here adopted, from him; he, perhaps, thought himself warranted in so naming it; although naming plants from the country where they are first found requires but little reasoning to shew its impropriety. It is a hardy green-house plant, but from all appearance, like the most of this natural order, rather short-lived. It grows freely in a mixture of loam and sandy peat; and there is every appearance that the seeds will ripen, the only method by which there is any likelihood of its being perpetuated.

The plant, before flowering, does not grow above six inches high; but the flower-stem rises near eighteen inches. Our figure was taken from a plant in the Hibbertian Collection; where it flowered for the first time in England in the month of July 1803; having been sent home, by Mr. Niven, from the Cape, in 1800.





PLATE CCCXXXVII.

PROTEA TRITERNATA.

*Cluster-headed Protea.*

CLASS IV. ORDER I.

*TETRANDRIA MONOGYNIA.* Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA quadrifida seu quadripetala. Antheræ lineares, insertæ petalis infra apicem. Calyx proprius nullus.

SEMINA solitaria.

BLOSSOM four-cleft or four petals. Tips linear, inserted into the petals below the point. Empalement proper, none.

SEEDS solitary.

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

SPECIFIC CHARACTER.

Protea foliis bipinnatis, brevibus, filiformibus, confertis, glabris; floribus terminalibus, umbellatis; pedunculis bracteis, capitulis longioribus; squamis calycinis subulatis, hirtis.

Protea with doubly winged leaves, short, thread-shaped, crowded and smooth; flowers terminate the branches in umbels; fruit stalks with floral leaves, and longer than the small heads; scales of the cup awl-shaped and hairy.

REFERENCE TO THE PLATE.

1. A Leaf.
2. A Flower.
3. One of the Petals of the flower, magnified.
4. The Seed bud, Shaft and Summit, the Summit detached, magnified.
5. The common Cup of one of the small heads of flowers.

This beautiful divided leaved Protea has been named, as above, by Thunberg, in his Dissertatio de Protea, n. 7, and in his Prodrum plantarum capensium 25. It is rather a delicate plant, and subject to lose the lower leaves from the stem, which takes something from the beauty of its habit. The young leaves, when they first appear, have a downy character, which



disappears as they grow firm. The stem has likewise, in its young state, a tendency to downiness, which is not discovered on the old wood; and is, where the leaves are extant, quite covered by them. It grows to the height of three feet, is propagated by cuttings, and flowers in the month of July. Our figure was taken from a plant in the Hibbertian Collection, which was raised from Cape seeds in 1800, sent from thence by Mr. Niven.

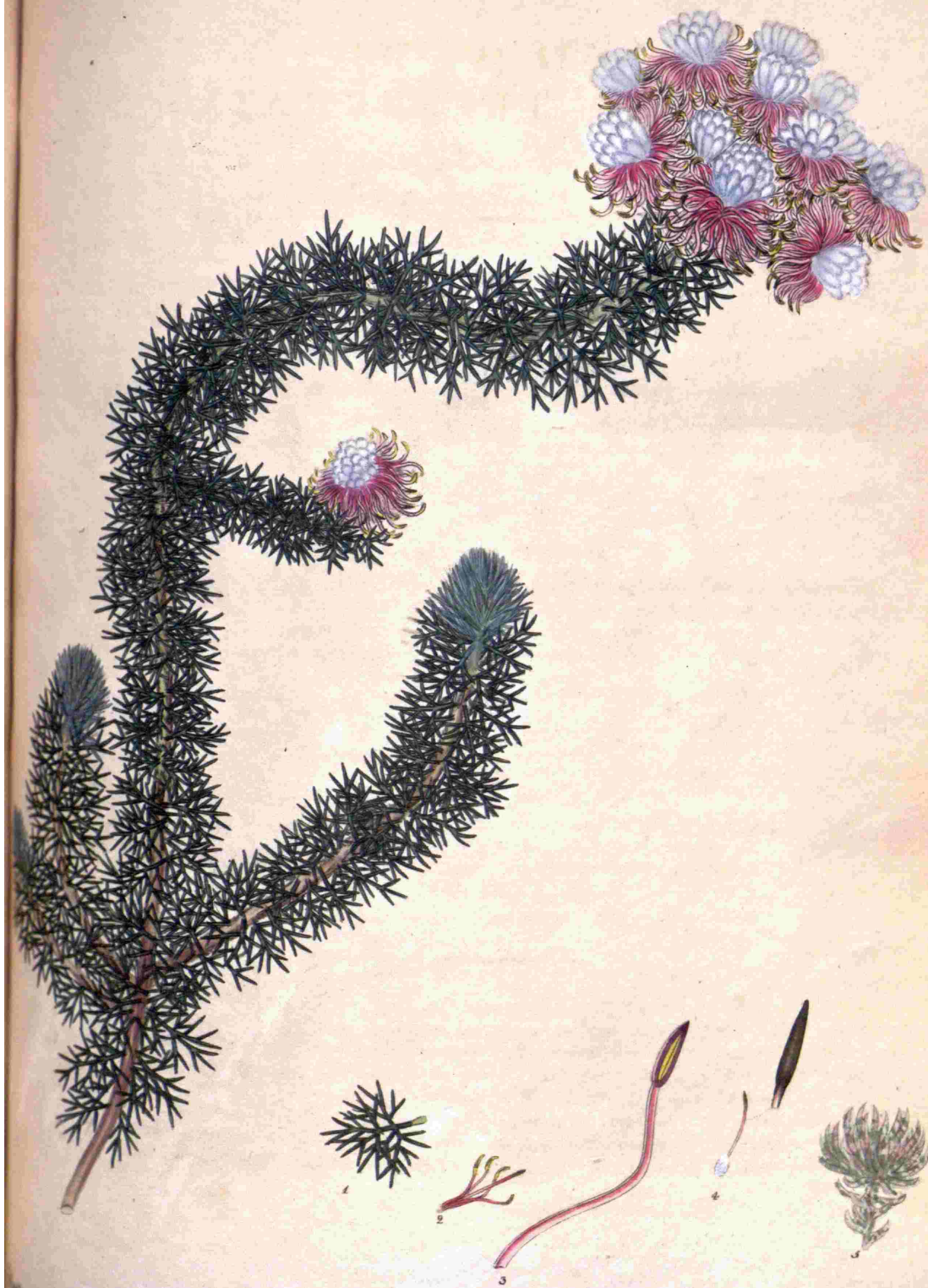


PLATE CCCXXXVIII.

GERANIUM CORONOPIFOLIUM.

*Buck's-horn-leaved Geranium.*

CLASS XVI. ORDER IV.

*MONADELPHIA 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 subcuneatis, apice inciso-dentatis, canescentibus, petiolis longissimis; pedunculis subtrifloris; corollis pallidè violaceis; caulê suffruticoso; staminibus quinque fertilibus.

Geranium with nearly wedge-shaped leaves, deeply toothed at the end, whitish and very long foot-stalks; flower stems mostly three-flowered; blossoms pale purple; stem rather woody; five fertile chives.

REFERENCE TO THE PLATE.

1. A Flower and a Bud from a seedling variety of this plant, by an intermixture of the farina of Geranium tricolor.
2. The Cup, which is solid and five-leaved.
3. The Chives and Pointal, magnified.
4. The same cut open, magnified.
5. The Seed-bud, Shaft and Summits, magnified.

The Geranium coronopifolium is one of those species we may fairly denominate biennial; for such is certainly the G. tricolor, G. Oenothera, G. tomentosum, &c. and as such must be propagated every year to have a succession of them. It is readily increased by putting the cuttings into small pots, and plunging them in the heat of a hot-bed or hot-house, early in the month of March; which plants will flower in September. It was first introduced to the Kew Gardens by Mr. Masson in 1792. The plant very delicate, and should be kept in a dry part of the green-house, in a mixture of sandy peat and rich earth. Our figure is from a plant in the Hibbertian

Collection; where, likewise, we found the variety of which a flower is given on the plate. Mr. Allen informs us, he procured the Var. by approximating a plant of this species to the *G. tricolor*; first impregnating the summits of the flower of *G. coronopifolium*, with the pollen from the tips of the *G. tricolor*, a method much practised of late for the production of varieties, in many genera.



*coronopus folium*



PLATE CCCXXXIX.

LOBELIA CORONOPIFOLIA.

*Buck's-horn-leaved Lobelia.*

CLASS XIX. ORDER VI.

*SYNGENESIA MONOGAMIA.* Tips united. Flowers simple.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-fidus. Corolla 1-petala, irregularis. Capsula infera, 2-seu 3-ocularis.

CUP 5-cleft. Blossom 1-petal, irregular. Capsule beneath, 2 or 3-celled.

See LOBELIA PINIFOLIA, Pl. CCLXXIII. Vol. IV.

SPECIFIC CHARACTER.

*Lobelia foliis lanceolatis, dentatis, glabris; floribus solitariis, axillaribus; pedunculis elongatis; stigmatibus obtusis, pilosis.*

*Lobelia* with lance-shaped leaves, toothed and smooth; flowers solitary, from the base of the leaves; foot-stalks lengthened; summits blunt, hairy.

REFERENCE TO THE PLATE.

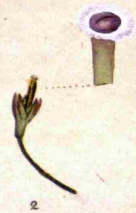
1. The Chives magnified.
2. The Cup, Chives, and Pointal, the Summit detached, magnified.

The character of most of the *Lobelias* from the Cape, and elsewhere, is, that they are either annual or biennial, and can scarcely be considered as shrubs. Our present subject is a biennial from the Cape of Good Hope, flowers the first year from the seed, if sown in March, and may be preserved a second year; but, as it seeds so abundantly, it is scarce worth the pains to preserve it, as the plants of one year's growth are so much handsomer than those preserved through the winter. It flowers from July till October, and should be kept in sandy peat earth.

The *L. coronopifolia* was introduced to the Kew Collection in 1787, by Mr. F. Masson, and is now in most collections.



*Lobelia arthropifolia*



Printed by the John Day & Co. Boston, 1863.  
The American Botanical Garden.

PLATE CCCXL.

LOBELIA GRACILIS.

*Slender-stemed Lobelia.*

CLASS XIX. ORDER VI.

*SYNGENESIA MONOGAMIA.* Tips united. Flowers simple.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-fidus. Corolla monopetala, irregularis. Capsula infera, 2-seu 3-locularis.

CUP 5-cleft. Blossom one petal, irregular. Capsule beneath, 2 or 3-celled.

See LOBELIA PINIFOLIA, Pl. CCLXXIII. Vol. IV.

SPECIFIC CHARACTER.

*Lobelia foliis inferioribus ovatis, sinuatis, superioribus lanceolatis, dentatis; petalis duobus minoribus barbatis; floribus spicatis; stigmatibus bifidis.*

*Lobelia* with the lower leaves egg-shaped and scalloped, the upper ones lance-shaped and toothed; the two smaller petals bearded; flowers grow in spikes; summits two-cleft.

REFERENCE TO THE PLATE.

1. A Blossom cut open, with the chives in their place, magnified.
2. The Cup, Seed-bud, Shaft and Summit; the Summit detached and magnified.

This most delicate little plant, of which our figure represents the whole, was raised in 1801, from Cape seeds, sent by Mr. Niven from thence, for the Clapham gardens; where our drawing was made this year, 1803, in the month of August. It is an annual plant, producing its seeds freely, as do most species of this genus, which should be sown in the month of March, in light sandy peat, and transplanted about May.



*Del. gracilis*



PLATE CCCXLI.

PHASEOLUS CARACALLA.

*Snail-Flower Kidney-Bean.*

CLASS XVII. ORDER IV.

*DIADELPHIA DECANDRIA.* Chives in two sets. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, bilabiatum; labio superiori emarginato, inferiore tridentato.

COROLLA papilionacea.

*Vexillum*, cordatum, obtusum, emarginatum, reclinatum, lateribus reflexis.

*Alæ*, ovatæ, longitudine vexilli, unguibus longis insidentes.

*Carina*, angusta, spiraliter contra solem revoluta.

STAMINA. Filamenta diadelpa, (simplex et novemfidum) intra carinam, spiralia. Antheræ decem, simplices.

PISTILLUM. Germen oblongum, compressum villosum. Stylus filiformis, spiraliter inflexus, superne pubescens. Stigma obtusum, crassiusculum, villosum.

PERICARPIUM. Legumen longum, rectum, coriaceum, obtusum cum acumine.

SEMINA reniformia, oblonga, compressa.

EMPALEMENT. Cup one leaf, two-lipped, upper lip notched at the end, lower three-toothed.

BLOSSOM butterfly-shaped.

*Standard*, heart-shaped, blunt, notched at the top, reclined, reflexed at the sides.

*Wings*, egg-shaped, the length of the *Standard*, terminating in long claws.

*Keel*, narrow, twisted spirally contrary to the sun.

CHIVES. Threads in two sets, (simple and nine-cleft,) within the keel, spiral. Tips ten, simple.

POINTAL. Seed-bud oblong, flattened, hairy. Shaft thread-shaped, spirally bent inwards, downy above. Summit blunt, thickish, hairy.



SEED VESSEL. A long pod, straight, leathery, blunt with a point.

SEEDS kidney-shaped, oblong, flattened.

SPECIFIC CHARACTER.

*Phaseolus caule volubili; vexillis, carinae spiraliter convolutis.*

Kidney-bean with a twining stem; standards and keel spirally twisted from the left to the right.

REFERENCE TO THE PLATE.

1. The Cup.
2. The Standard.
3. One of the wings, shewn from the outside.
4. One of the wings, shewn from the inside.
5. The Keel.
6. The Chives.
7. The Pointal.

As a singular vegetable production, we have given a specimen of this most curious flower, but not as a novelty, as it is, certainly, rather common, the seeds having frequently been brought to us from Portugal, (to which country it was first introduced from Brasil in South America), ever since the year 1690. It is a climbing plant and must be kept in the hot-house, is propagated by seeds or cuttings, grows to the height of 12 or 14 feet, and should be planted in rich earth. The flowers are produced about August; they are very fragrant, but have not much duration, and the plant has much the resemblance of the common scarlet kidney-bean.



*Mandragora caracalla*

PLATE CCCXLII.

COBBEA SCANDENS.

*Climbing Cobbea.*

CLASS V. ORDER I.

*PENTANDRIA MONOGYNIA.* Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, semiquinquefidum; laciniis cordatis, mucronatis, patentibus, persistens.

COROLLA monopetala, campanulata, versus basin arctata, quinquefida; laciniis concavis, trilobis, ciliatis; squamulæ quinque lanatæ, ad basin sinus tubi, conniventes.

*Nectarium*, corpus carnosum, quinquangulare, decem sulcatum, germen cingens.

STAMINA. Filamenta quinque, squamulis corollæ orta, declinata. Antheræ incumbentes.

PISTILLUM. Germen ovatum, sulcatum. Stylus filiformis, declinatus, staminibus longior. Stigmata tria, plana, recurvata.

PERICARPIUM. Capsula oblonga, trilocularis, trivalvis.

SEMINA plurima, valvulis affixa, compressa, imbricata.

EMPALEMENT. Cup one-leaf, half five-cleft; segments heart-shaped, ending in a point, spreading, persistent.

BLOSSOM one-petal, bell-shaped, narrowed towards the base, five-cleft; segments concave, three-lobed, fringed; five woolly scales at the base of the bosom of the tube closing upon each other.

*Honey-cup*, a fleshy body, five-angled, ten-furrowed, embracing the seed-bud.

CHIVES. Five threads, arising from the scales of the blossom, declined. Tips lying upon the threads.

POINTAL. Seed-bud egg-shaped, furrowed. Shaft thread-shaped, declined, longer than the threads. Summits three, flat, turned back.

SEED-VESSEL. Capsule oblong, three cells, three valves.

SEEDS many, fixed to the valves, flat, tiled.

SPECIFIC CHARACTER.

*Cobbea foliis conjugatis, cirrhosis; floribus solitariis, pedunculis longissimis; caule scandenti.*

Cobbea with conjugate leaves terminating in a tendril; flowers solitary, foot-stalks very long; stem climbing.

REFERENCE TO THE PLATE.

1. A Blossom cut and spread open, with the Chives in their place.
2. The Empalement, Honey cup, Seed-bud, Shaft and Summits.

The specimen, from which our drawing was taken, was communicated by Mrs. Long, from the Collection of the Honourable Charles Long, of Bromley Hill, Kent; where, we believe, the only plant of this fine Genus is at present to be found in Britain; and where it has flowered, for the first time, this year, in the month of September, 1803. It is a native of the East Indies, and must be kept as a hot-house plant; is propagated by cuttings, and thrives in rich earth; will grow, if permitted, to the height of twenty feet or more, and is still in flower this present month of November.







PLATE CCCXLIII.

BLANDFORDIA CORDATA.

*Heart-shape-leaved Blandfordia.*

CLASS V. ORDER I.

*PENTANDRIA MONOGYNIA.* Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, semiquinquefidum; laciniis concavis, ovatis, obtusis, erectis; persistens.

COROLLA. Petala quinque, oblongo-linearia, subtruncata, patentia, calyci inserta.

*Nectarium* urceolatum, membranaceum, germen cingens; limbo quinquelobo, laciniis clavatis, capitatis.

STAMINA. Filamenta nulla. Antheræ quinque, subrotundæ, didymæ; nectarii margini, inter lacinias limbi, affixæ.

PISTILLUM. Germen subrotundum. Stylus brevissimus, erectus. Stigma obsoletum.

PERICARPIUM. Capsula oblonga, unilocularis, bivalvis.

SEMINA plurima, minuta, glabra.

EMPALEMENT. Cup one leaf, half-five-cleft; Segments concave, egg-shaped, blunt, upright; remaining.

BLOSSOM. Five petals, oblong-linear, appearing rather cut off at the ends, spreading, inserted into the cup.

*Honey-cup* pitcher-shaped, skinny, surrounding the seed-bud; border five-lobed, segments club-shaped, and headed.

CHIVES. Threads none. Tips five, roundish, double; fixed, between the segments of the border, upon the margin of the honey-cup.

POINTAL. Seed-bud roundish. Shaft very short, upright. Summit obsolete.

SEED-VESSEL. Capsule oblong, one cell, two valves.

SEEDS many, small, smooth.

SPECIFIC CHARACTER.

*Blandfordia foliis cordatis, reticulatis, crenato-dentatis, floribus spicatis.*

*Blandfordia* with leaves heart-shaped, netted, and between scalloped and toothed; flowers grow in spikes.

REFERENCE TO THE PLATE.

1. The Cup, natural size.
2. The same, magnified.
3. A Petal, magnified.
4. The Honey-cup, with the Chives, magnified.
5. The same, spread open, shewn from the outside.
6. The same, shewn from the inside.
7. The Seed-bud, natural size.
8. The same, magnified.

The *Blandfordia cordata* was first observed by Mr. J. Fraser, in the year 1786, on the banks of the Savannah river, near its source, in Georgia, North America; but was not introduced to us until the year 1800, when it was brought to England, amongst many other novelties, by that gentleman. It is, as are most of the plants of that country, rather too tender to resist the severity of our winters; and should be protected, either in the green-house, or in the coolest and shadiest part of the hot-house; where, if it is kept the year through, it will flourish, and flower about the month of June. It is increased by parting the roots about April; delights in moisture and shade; thriving most in a light peat soil, with a small mixture of sandy loam. This plant, from its general habit, would at first sight be taken for a species of *Tiarella*, or *Heuchera*, to both which it bears great resemblance, being all, likewise, natives of the same clime; but the strongly differing characters, in the parts of fructification, prevent its being placed to either of those genera. The honey-cup, it is true, might, perhaps, with reason, be considered as the connected threads of ten chives, and what we take to be the segments of its border, set down as so many sterile ones to make up this number. Thus, the plant would be transmuted to the XVI class; but, from our best judgment, we have placed it, as above, in the V.

Our figure is from a specimen communicated by the Right Hon. the Marquis of Blandford, from his magnificent gardens at White Knights, near Reading, Berks. Little need be urged for the propriety of our naming a plant from the Marquis of Blandford; and thus, dedicating this small part of our labours to his lordship; as few, at present, patronize the science, through all its branches, with so much vigour and liberality, or who have equal knowledge in its theory and practice.



*Mandfordia cordata*

PLATE CCCXLIV.

EPIDENDRUM ENSIFOLIUM.

*Sword shaped-leaved Epidendrum.*

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

ESSENTIAL GENERIC CHARACTER.

NECTARIUM turbinatum, obliquum, reflexum.

HONEY-CUP top-shaped, oblique and reflexed.

See Pl. XIII. Vol. I. EPIDENDRUM COCHLEATUM.

SPECIFIC CHARACTER.

Epidendrum scapo tereti, lævi; foliis ensiformibus; petalis lanceolatis glabris; labio lanceolato, recurvato, maculato.

Epidendrum with a round smooth stem; leaves sword-shaped; petals lance-shaped, smooth; lip lance-shaped, recurved and spotted.

REFERENCE TO THE PLATE.

1. The lip, detached from the flower.
2. A Flower from which the lip has been separated.

The Sword-shaped-leaved Epidendrum is a native of China and Japan, was cultivated, before 1792, in the gardens of the Marchioness of Rockingham, at Hillindon, Middlesex. It has more the habit and character of Limodorum than Epidendrum, to which genus it was first placed; and, like the Epidendrum sinense of this work, Plate CCXVI. Vol. III. requires but little heat to keep it in health; preferring a sandy loam to any other matter, for its nourishment. It, like the forenamed, and several other species of this genus, or rather of the genus Limodorum, not being thick-leaved, or parasitic, where indigenous, are of consequence much easier preserved and increased than those of that description. Its flowers, which are produced in September or October, are very fragrant, particularly in the evening, continue in perfection above a month. It is propagated by parting the roots in the month of May.

Our drawing was made from a plant in the Hibbertian Collection.



Pl. sin.



*Cnididium ensifolium*

Des. in the Bot. Garden, Paris.



PLATE CCCXLV.

HYACINTHUS CORYMBOSUS.

*Linear-leaved Cape Hyacinth.*

CLASS VI. ORDER I.

*HEXANDRIA MONOGYNIA.* Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX nullus.

COROLLA monopetala, campanulata; limbus sexfidus, reflexus.

*Nectarium*; pori tres melliferi ad apicem germinis.

STAMINA. Filamenta sex, subulata, breviora. Antheræ conniventes.

PISTILLUM. Germen superum, rotundo-trigonum, trisulcum. Stylus simplex, corolla brevior. Stigma obtusum.

PERICARPIUM. Capsula subrotunda, triquetra, trilocularis, trivalvis.

SEMINA bina (sæpius,) subrotunda.

EMPALEMENT none.

BLOSSOM one petal, bell-shaped; border six-cleft, reflexed.

*Honey-cup*, three honied pores at the tip of the seed-bud.

CHIVES. Six threads awl-shaped, shorter. Tips converging.

POINTAL. Seed-bud above, round-three-cornered, three-furrowed. Shaft simple, shorter than the blossom. Summit blunt.

SEED-VESSEL. Capsula roundish, three-sided, three-celled, three-valved.

SEEDS in pairs (often,) roundish.

SPECIFIC CHARACTER.

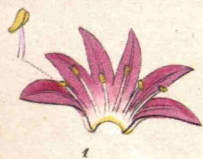
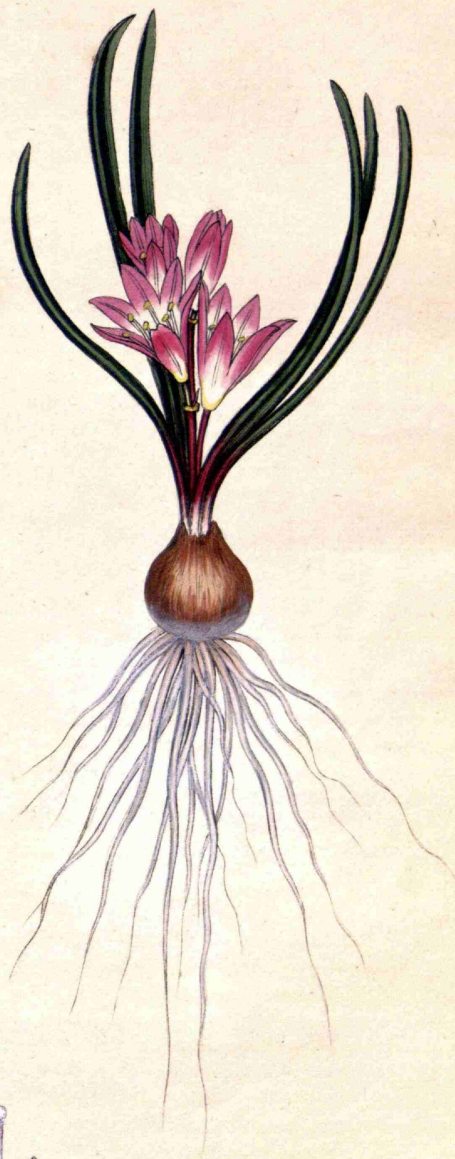
*Hyacinthus corollis infundibuliformibus, corymbosis, erectis; scapo foliis linearibus brevior.*

Hyacinth with funnel-shaped blossoms, growing in a broad topped spike, upright; flower-stem shorter than the leaves, which are linear.

REFERENCE TO THE PLATE.

1. A Blossom, with the Chives in their place, one Chive detached, magnified.
2. The Seed-bud, Shaft and Summit, the Summit detached, magnified.

Amongst the plants, of this natural order, from the Cape of Good Hope, we find such an intermixture of character, in the different parts of fructification; that, if some latitude is not taken in referring them to some of the old genera, almost every fresh subject, we discover, would require a new one. This plant, although we have placed it to Hyacinthus, with those that have gone before us, has juster claims to Drimia, Polyanthes or Scilla; for it is wanting in the essential characters of Hyacinthus, being unfurnished with the honied pores, and having the chives inserted into the tube of the blossom, three of which are, alternately, double the length of the others. To Drimia, a new genus of Professor Jacquin, and a mutilation of Hyacinthus, it is most allied; but, we have not thought fit to alter its known station, as, without doubt, the multiplication of genera, or altering the place of known plants, adds but to the difficulties of a most intricate, though pleasing study. It is a hardy green-house bulb; delights in a mixture of peat earth and sandy loam; increases by offsets, and flowers in October or November. Our figure was made from a plant in the Nursery of Mr. Williams of Turnham Green, who first imported it in 1800. It is said, by Koenig, to grow in pasture lands near the Cape town, and was first noticed there by him.



*Hyacinthus corymbosus.*

PLATE CCCXLVI.

CASUARINA STRICTA.

*Upright Casuarina.*

CLASS XXI. ORDER I.

*MONOECIA MONANDRIA.* Chives and Pointal separate. One Chive.

GENERIC CHARACTER.

\* *Masculi flores.*

CALYX. Amentum filiforme, imbricatum, squamis minutis, unifloris.

COROLLA. Squamulæ bipartitæ, ovatæ, minutæ.

STAMINA. Filamentum unicum, capillare, squama amenti longius. Anthera didyma.

\* *Feminei flores in eadem arbore.*

CALYX. Amentum ovato-cylindricum; squamis ovatis, acutis, carinatis, ciliatis.

COROLLA nulla.

PISTILLUM. Germen minutum. Stylus filiformis, longus, exsertus, bifidus. Stigmata duo.

PERICARPIUM. Strobilus squamis bivalvibus, perpendiculariter dehiscentibus.

SEMINA solitaria, conica, margine membranacea.

\* *Male flowers.*

EMPALEMENT. Catkin thread-shape, tiled with small one-flowered scales.

BLOSSOM. Scales two-parted, ovate, minute.

CHIVES. Thread one, hair-like, longer than the scale of the catkin. Tip double.

\* *Female flowers on the same plant.*

EMPALEMENT. Catkin ovate-cylindric, with egg-shaped, acute, keeled, tiled scales.

BLOSSOM none.

POINTAL. Seed-bud minute. Shaft thread-shaped, long, without, two-cleft. Summits two.

SEED VESSEL. Cone with two-valved scales, splitting perpendicularly.

SEEDS solitary, conical, with a skinny edge.

SPECIFIC CHARACTER.

*Casuarina dioica ramulellis erectis; strobilorum squamis inermibus; vaginis masculis multi-fidis, glabris.*

*Casuarina* with chives and pointals distinct, and upright branchlets; scales of the cones naked, male sheaths many-parted, smooth.

REFERENCE TO THE PLATE.

1. The Catkin, or terminal part of a male branchlet, magnified slightly.
2. The Shaft and Summit of a female floret.
3. The Cone, whilst yet in flower.
4. The same magnified.

The *Casuarina stricta* is a native of New South Wales, and was introduced, by Messrs. Kennedy and Lee, in the year 1775. It is a hardy green-house plant, grows to the height of ten or twelve feet before it flowers, which is in November. It is perfectly dioicous; the male and female blossoms, never coming on the same plant, and either have little to recommend them for beauty; their singularity is what should sooner attract our notice. The two figures, on the plate, which are the male and female, were taken from two plants, in flower, at the same time, in the collection of the Dowager Lady de Clifford, Paddington. All the species, hitherto discovered, since the first, upon which the genus was formed, the *C. equisetifolia* has, like this, the male and female parts of fructification on different plants; that only, being monoicous, or with the male and female parts on the same plant.





*Quercus stricta*

PLATE CCCXLVII.

SOPHORA CAPENSIS.

*Vetch-leaved Sophora.*

CLASS X. ORDER I.

*DECANDRIA MONOGYNIA.* Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, breve, campanulatum, basi superne gibbum; ore quinque-dentato, obliquo, obtuso.

COROLLA papillionacea, pentapetala.

*Vexillum* oblongum, sensim latius, rectum, lateribus reflexis.

*Alæ* duæ, oblongæ, basi appendiculatæ, longitudine vexilli.

*Carina* dipetala; petalis alis conformibus, marginibus inferioribus approximatis, navicularibus.

STAMINA. Filamenta decem, distincta, parallela, subulata, longitudine corollæ, intra carina recondita. Antheræ minimæ, assurgentes.

PISTILLUM. Germen oblongum, teres. Stylus magnitudine et situ staminum. Stigma obtusum.

PERICARPIUM. Legumen longissimum, tenue, uniloculare, ad semina nodosum.

SEMINA plurima, subrotunda.

EMPALEMENT. Cup one-leaf, short, bell-shaped, hunched at the base on the upper side; mouth five-toothed, oblique, obtuse.

BLOSSOM butterfly-shaped, five petalled.

*Standard* oblong, gradually wider, straight, reflexed at the sides.

*Wings* two, oblong, appendicled at the base, the length of the standard.

*Keel* two petalled with the petals conformable to the wings, the lower margins approaching and boat-shaped.

CHIVES. Ten threads, distinct, parallel, and shaped, the length of, the blossom, within the keel. Tips very small, turned upwards.

POINTAL. Seed-bud oblong, cylindrical. Shaft the size and situation of the chives. Summit blunt.

SEED-VESSEL. Pod very long, slender, one-celled, knobbed at the seeds.

SEEDS many, roundish.

SPECIFIC CHARACTER.

*Sophora foliis pinnatis; foliolis lanceolatis, mucronatis, subtus tomentosis; caule fruticoso.*

*Sophora* with winged leaves; leaflets lance-shaped, pointed, downy beneath; stem shrubby.

REFERENCE TO THE PLATE.

1. The Cup.
2. The Standard, or upper Petal.
3. One side Petal, or Wing of the Blossom.
4. One of the Petals of the Keel.
5. The Chives and Pointal, natural size.
6. One of the Chives, magnified.
7. The Pointal, natural size.

This is a plant of considerable size at the Cape of Good Hope, so much so, as to be looked upon there rather as a tree, than shrub. It was first sent to England, in the year 1773, by Mr. F. Masson; is a hardy green-house plant; thrives in a mixture of loam and peat, and flowers in August, or September. There is no method, yet discovered, to propagate it in this country; but, as seeds are so common of this plant, near Cape town, there is scarce a parcel arrives, from thence, which does not contain some of them.

Among the new modern vagaries in botany, this genus has been thought, by the French botanists, (those admirable perplexers of natural order,) to be better divided in two, as some of the species happen to have the joints of the pods a little more swelled than others. How so trifling a variation, and that in a part of the plant which is known to vary, in almost every genus, through most of the species, where they are numerous; should have been deemed of sufficient moment to alter the names of so many established plants, and those determined by such authority as Linnæus, we are at a loss to determine; and are equally astonished that Willdenow should have followed them. The new genus is termed *Podalyria*, and to which, this plant is attached in the new system.





*Mimosa capensis*

PLATE CCCXLVIII.

SCHOTIA SPECIOSA.

*Lentiscus leaved Schotia.*

CLASS X. ORDER I.

*DECANDRIA MONOGYNIA.* Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, coloratum; tubus turbinatus, subcompressus, carnosus; persistens; limbus semiquinquefidus; laciniis ovatis, concavis, obtusis, erectis, æqualibus.

COROLLA. Petala quinque, tubo calycis imposita, oblonga, concava, obtusa, erecta, æqualia, lateribus mutuò incumbentia, sessilia, laciniis calycinis duplo longiora.

STAMINA. Filamenta decem, subulata, erecta, petalis paulo longiora, tubo calycis in orbem inserta. Antheræ oblongæ, incumbentes.

PISTILLUM. Germen oblongum, compressum, pedicellatum. Stylus filiformis, longitudine staminum. Stigma simplex, obtusum.

PERICARPIUM. Legumen pedicellatum.

SEMINA bina, ossea, subovata, magna.

EMPALEMENT. Cup one leaf, coloured; tube top-shaped, rather flattened, fleshy; permanent; border half five-cleft; segments egg-shaped, concave, blunt, upright, equal.

BLOSSOM. Five petals, placed on the tube of the cup, oblong, concave, blunt, upright, equal, lying over each other at the sides, sitting, twice as long as the segments of the cup.

CHIVES. Ten threads, awl-shaped, upright, a little longer than the petals, inserted in a ring into the tube of the cup. Tips oblong, laying on the threads.

POINTAL. Seed-bud oblong; flattened, with a foot-stalk. Shaft thread-shaped, the length of the chives. Summit simple, blunt.

SEED-VESSEL. A pod with a foot-stalk.

SEEDS two, bony, a little egg-shaped, large.

SPECIFIC CHARACTER.



Schotia foliis pinnatis; foliolis ovatis, mucronatis; floribus cymosis, profundé carneis.

Schotia with winged leaves; leaflets egg-shaped, terminating in a point; flowers in tufts and of a deep flesh colour.

REFERENCE TO THE PLATE.

1. A Flower cut and spread open, shewn from the outside.
2. The same, shewn from the inside.
3. A Flower, with the petals, and border of the Cup removed, to shew the insertion of the Chives into the tube of the Cup.
4. The Seed-bud, Shaft and Summit, with the tube of the Cup cut in halves.

Our present subject stood formerly attached to the genus Guaiacum, under the title of *G. affrum*, and has been long cultivated in Britain and Holland, perhaps more than a century. Professor Jacquin, in his *Collectanea ad Bot. &c.* Vol. I. p. 93, thought fit to constitute it a new genus, naming it after his companion R. van der Schot. About the same time, the year 1786, a monograph on this plant was published at Manheim, by Fred. Casim. Medikus, under the name of *Theodora Speciosa*; but Jacquin's title has universally obtained. To preserve this plant in good health, it should be kept in the coolest part of the hot-house, or in a dry stove, the warmth of a common green-house being insufficient to preserve its foliage through the winter months. It is a native of all that extent of the African coast from Senegal river, to the Cape of Good Hope, where it grows to the height of twenty feet and upwards. The seeds, which are frequently imported, keep many years in a vegetative state, and is, almost, the only method by which it can be propagated; for little success can be hoped, either from layers, or cuttings. It flowers from October till December, delighting in a light sandy loam. Perhaps, no plant which has been as long in cultivation with us, has so seldom been seen to flower; for, although the plants in the Kew gardens and elsewhere, are of a considerable size, yet have we few instances of its flowering, no mention being made of its time of inflorescence in the catalogue of that collection.

From a plant, still in flower, this present December 1803, which was literally covered with blossoms above two feet from its top, our drawing was taken; it is in the valuable and extensive collection of Isaac Swainson, Esq. Twickenham; which for scientific arrangement and richness in hardy shrubs and herbaceous plants, in particular, yields to no private or public collection

we know of; and which, the extreme urbanity of the liberal proprietor, is at all times open, to every botanist or collector.



*Schotia speciosa*

PLATE CCCXLIX.

PROTEA DECUMBENS.

*Slender-stemed 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. Semina solitaria.

BLOSSOM 4-cleft or 4-petalled. 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 bi-pinnatis, filiformibus; capitulis terminalibus, sessilibus; floribus incarnatis, bracteolatis; caule tenue, decumbente.*

*Protea* with doubly winged leaves, thread-shaped; small heads of flowers sitting close on the ends of the branches; flowers flesh-coloured with small floral leaves; stem slender and bending downwards.

REFERENCE TO THE PLATE.

1. A Leaf.
2. One of the Floral Leaves, magnified.
3. A Floret, complete.
4. One of the Petals, with its Chive at the point, magnified.
5. The Pointal, with the Summit detached and magnified.

From the great number of new species of the divided leaved *Proteas*, we are led to conjecture, that they are as numerous as those with entire leaves. The *P. decumbens*, from the different specimens we have seen, appears to branch into many varieties; some with hairy leaves and stems, some with very close thick set leaves, and some, with both stems and leaves, quite smooth. They are all, nevertheless, very slender stemed; and, there is little doubt but, in their natural state, they rest on the ground; although in the fashion we train

them here, they have the appearance of being erect. This species is found at a considerable distance from the Cape Town, on the summits of dry sandy hills; wherefore, it must be kept in the most airy part of the green-house, and watered but seldom. The stem does not grow more than eighteen inches long, and frequently flowers, as was the case in the present instance, when not more than twelve. It is propagated, readily, from cuttings made in the month of May, if treated in the method already directed for the increase of these plants. The earth in which it should be planted is, a light sandy bright loam. Our drawing was taken in the month of July, 1802, from a plant in the Hibbertian Collection, to which it was introduced by Mr. Niven, in the year 1800.





*Banksia decumbens*

PLATE CCCL.

LACHENALIA PUSTULATA.

*Rough-leaved Lachenalia.*

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpetala, infera; petalis tribus infera; petalis tribus interioribus longioribus. Stamina erecta. Capsula sub-ovata, tripartita. Semina globosa.

BLOSSOM 6-petals, beneath; the three inner petals the longest. Chives erect. Capsule nearly egg-shaped, three-winged. Seeds globular.

See LACHENALIA PENDULA, Pl. XLI. Vol. I.

SPECIFIC CHARACTER.

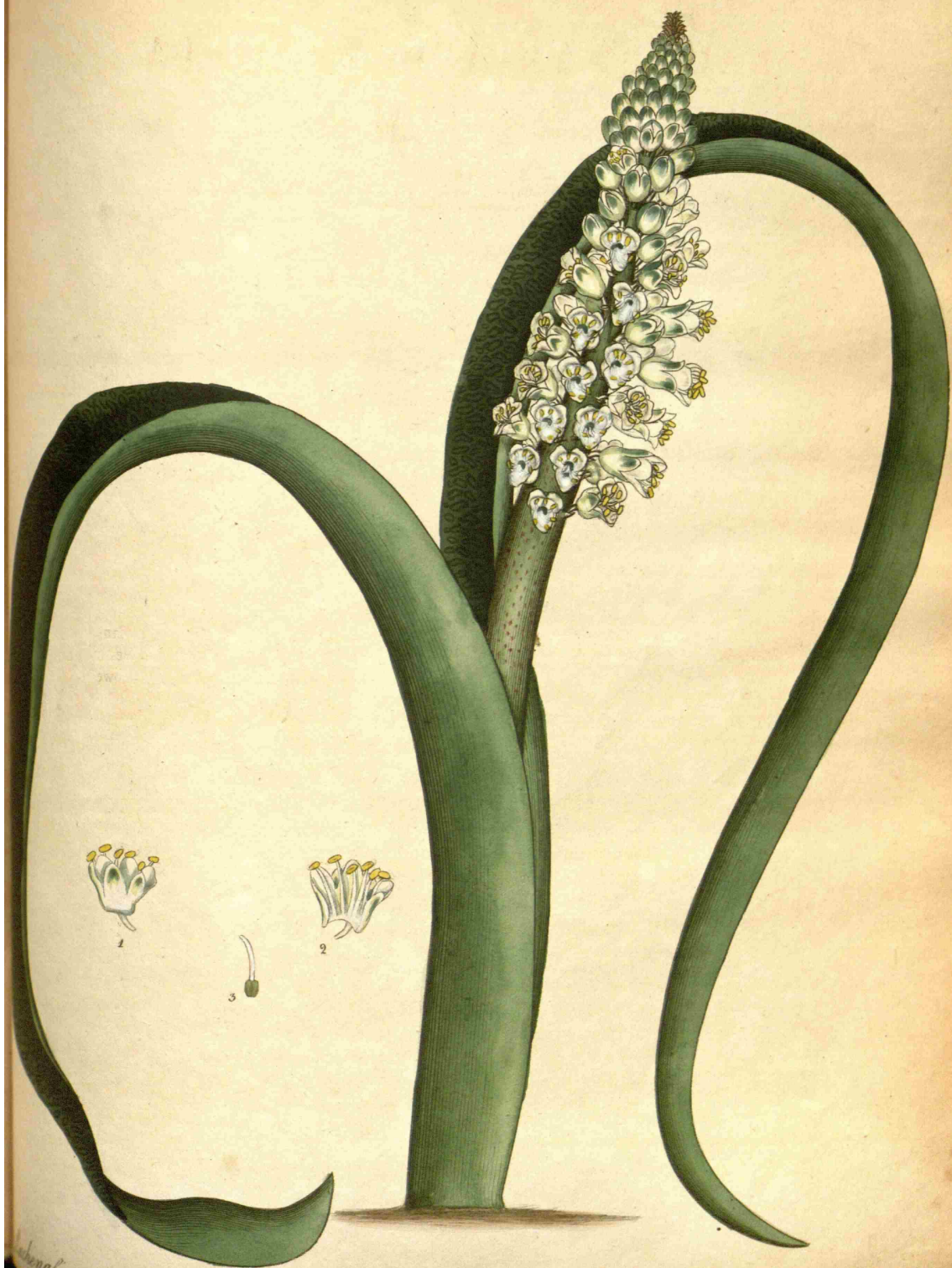
Lachenalia foliis geminis, lanceolato-linearibus, dense facie pustulatis; scapo reclinato; floribus sub-campanulatis, albo-virentibus.

Lachenalia with leaves in pairs, linearly-lance-shaped, thickly covered with pustules on the face; stem bent downwards; flowers rather bell-shaped, of a whitish green.

REFERENCE TO THE PLATE.

1. A Flower.
2. The same, cut open, with the Chives in their place.
3. The Pointal.

The drawing, from which our figure of this species of Lachenalia was taken, was made from a plant communicated by Isaac Swainson, Esq. from his Botanic Gardens, Twickenham, Middlesex; where it is still in flower, this present month of January, 1804; and where we believe it is only to be met with at present in this kingdom. It is one of the largest growing plants of the genus, the leaves when in a soil it approves attaining the length of eighteen inches, or more. It is as hardy as any of the tribe, very fragrant, easily preserved, increasing freely by the root, and flowering with certainty when the bulb has become of a sufficient size. It grows best in a mixture of light loam and peat, about two-thirds loam, and one of peat.



*Arisaema pustulata*

PLATE CCCLI.

PULTENÆA RUBIÆFOLIA.

*Madder-leaved Pultenæa.*

CLASS X. ORDER I.

*DECANDRIA MONOGYNIA.* Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX quinque-dentatus, utrinque appendiculatus. Corolla papillionacea, alis vexillo brevioribus. Legumen uniloculare, dispermum.

CUP five-toothed, with an appendage on each side. Blossom butterfly-shaped, with the wings shorter than the standard. Pod of one cell with two seeds.

See PULTENÆA DAPHNOIDES, Pl. XCVIII. Vol. II.

SPECIFIC CHARACTER.

Pultenæa foliis ternis, verticillatis, lanceolatis, serratis, rigidis; floribus capitatis, cæruleo-purpureis.

Pultenæa with leaves growing by threes in whorls, lance-shaped, sawed and harsh; flowers grow in heads, and of a bluish purple.

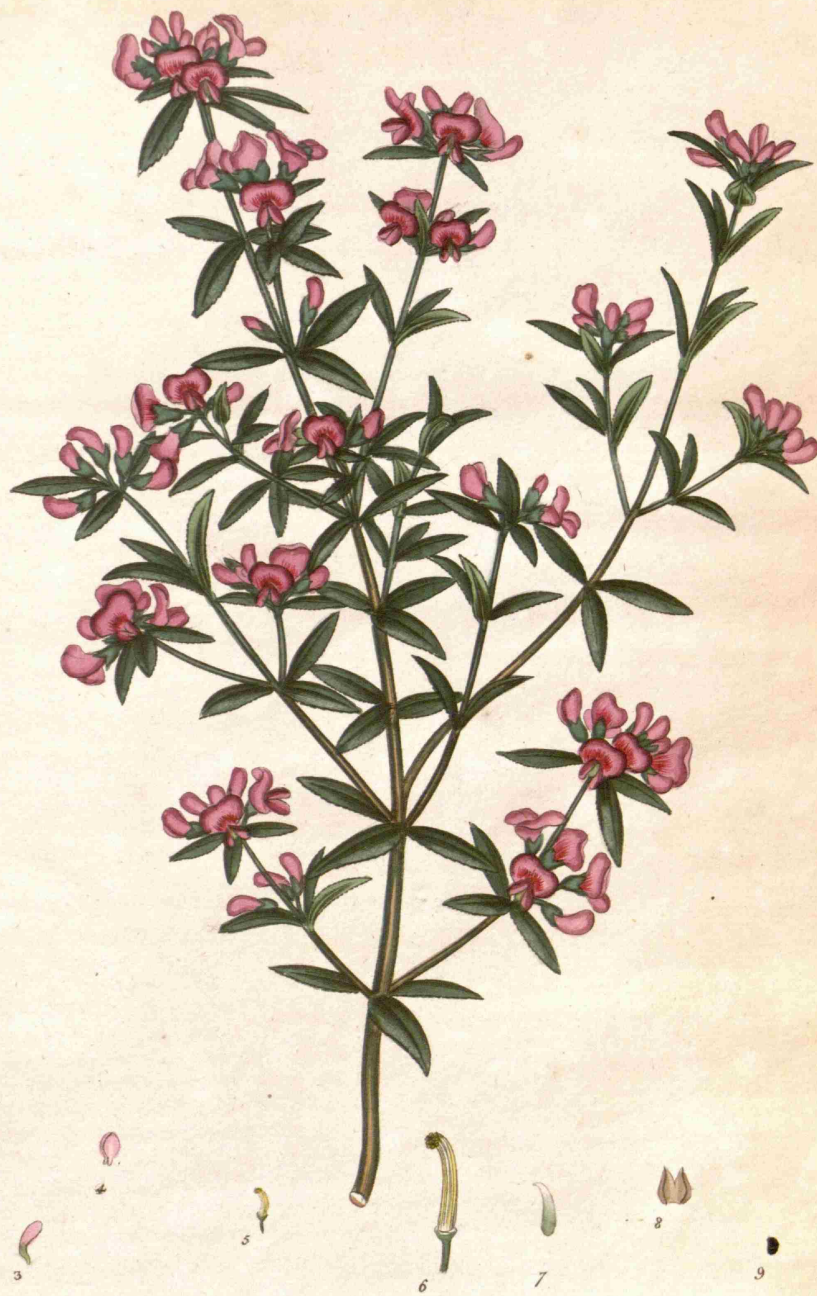
REFERENCE TO THE PLATE.

1. The Cup.
2. The Standard.
3. One of the Wings.
4. The two Petals of the Keel.
5. The Chives and Pointal.
6. The same, magnified.
7. The Pointal.
8. A ripe Seed-pod, open.
9. One of the Seeds, of its natural size when ripe.

Here we find another hiatus to fill up, or pass over; either a new genus is to be formed for this plant, or we must not boggle at trifles, and skip over one of the essential characters of Dr. Smith's Pultenæas, the appendices or props at the side of the cup, which are wanting in this plant, though agreeing in every other. We have, however, until the Doctor shall think fit to regulate these new, numerous and intricate genera and species from New Holland,

made no scruple to add this plant, as another species, to the genus *Pultenæa*. It is a low growing bushy shrub, seldom attaining more than a foot in height; is very apt to be destroyed by damp in winter, and is not to be propagated but by seeds, which, however, it perfects in this country. The blossoms begin to appear in May, and continue in succession through the summer months of June, July, and August. It should be kept warm and dry in winter, growing with most luxuriance in light sandy peat earth, and flowering the second year from the seed. This plant was first raised in 1792, by Messrs. Lee and Kennedy, at their nursery, Hammersmith, where our drawing was taken.





*Callonæa rubicifolia*

Pub. at the Ast. Bureau, N.Y. 1864.

PLATE CCCLII.

HELONIAS BULLATA.

*Spear-leaved Helonias.*

CLASS VI. ORDER III.

*HEXANDRIA TRIGYNIA.* Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX nullus.

COROLLA. Petala sex, oblonga, æqualia, decidua.

STAMINA. Filamenta sex, subulata, corolla paulo longiora. Antheræ incumbentes.

PISTILLUM. Germen subrotundum, trigonum. Styli tres, breves, reflexi. Stigmata obtusa.

PERICARPIUM. Capsula subrotunda, trilocularis.

SEMINA numerosa, angulata, minima.

EMPALEMENT, none.

BLOSSOM. Six petals, oblong, equal, deciduous.

CHIVES. Six threads, awl-shaped, a little longer than the blossom. Tips lying on the threads.

POINTAL. Seed-bud roundish, three-sided. Shafts three, short and reflexed. Summits obtuse.

SEED-VESSEL. Capsule roundish, three-celled.

SEEDS numerous, angulated, very small.

SPECIFIC CHARACTER.

*Helonias foliis lanceolatis, nervosis; bracteis cordato-lanceolatis.*

*Helonias* with lance-shaped, nerved leaves; floral leaves between lance and heart-shaped.

REFERENCE TO THE PLATE.

1. Flower, complete.
2. The Chives and Pointal, natural size.
3. The same, magnified.

All the species of this genus, yet discovered, are natives of North America, and are considered as hardy herbaceous plants; the winters of this country not being too severe for them; although they are found as far south as Carolina, yet they are more plentiful in Pennsylvania, about Philadelphia. They flourish most in a shady, moist situation; and increase, freely, by parting the roots in the month of March. The flowers are produced in May, the flower-stem increasing in length, till the flowers are entirely decayed. The *Helonias bullata* has been an inhabitant of our gardens ever since the year 1758, when it was introduced by Mr. Ph. Miller, and cultivated by him at Chelsea. See Mill. ic. 181. t. 272.

Our drawing was made at the Nursery, Hammersmith, in June 1801.



*Alonias bullata.*

PLATE CCCLIII.

ASPALATHUS CRASSIFOLIUS.

*Thick-leaved Aspalathus.*

CLASS XVII. ORDER IV.

*DIADELPHIA DECANDRIA.* Threads in two sets. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, semiquinquefidum; laciniis acuminatis, æqualibus, superiore longiore.

COROLLA papillionacea.

*Vexillum* compressum, adscendens, obovatum, externe sæpius hirsutum, obtusum cum acumine.

*Alæ* lunulatæ, obtusæ, patulæ, vexillo breviores.

*Carina* bifida, alis conformis.

STAMINA. Filamenta decem, connata in vaginam, superne dehiscentem longitudinaliter, adscendentia. Antheræ oblongæ.

PISTILLUM. Germen ovatum. Stylus simplex, adscendens. Stigma acutum.

PERICARPIUM. Legumen ovatum, muticum.

SEMINA sæpius duo, reniformia.

OBS. *Singulare huic sunt folia ex eadem gemma plura in planta frutescente.*

EMPALEMENT. Cup one leaf, half-five-cleft; segments tapered, equal, the upper one longer.

BLOSSOM butterfly-shape.

*Standard* compressed, ascending, inversely egg-shaped, often hairy on the outside, obtuse with a point.

*Wings* half-moon-shaped, obtuse, spreading, shorter than the standard.

*Keel* two-cleft, like the wing.

CHIVES. Ten threads, united into a sheath, gaping longitudinally at top, ascending. Tips oblong.

POINTAL. Seed-bud egg-shaped. Shaft simple, ascending. Summit pointed.



SEED VESSEL. Pod egg-shaped, beardless.

SEEDS frequently two, kidney-shaped.

OBS. *This genus is singular in having several leaves from the same bud, on a shrubby plant.*

SPECIFIC CHARACTER.

*Aspalathus foliis fasciculatis, carnosis, teretibus, glabris, apicibus setaceis; floribus capitatis, terminalibus; calycibus bracteatis.*

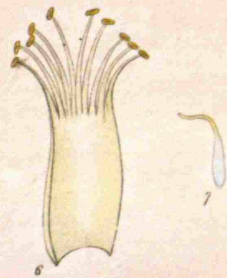
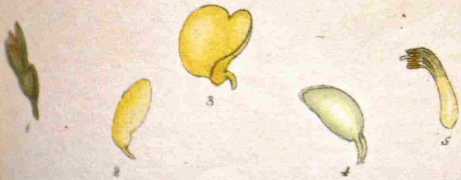
*Aspalathus* with leaves bundled, fleshy, cylindrical, smooth and bristled at the point; flowers grow in heads at the end of the branches; cups with floral leaves.

REFERENCE TO THE PLATE.

1. The Cup.
2. The Standard.
3. One of the Wings.
4. The Keel.
5. The Chives and Pointal.
6. The Chives, spread open and magnified.
7. The Pointal.

From the number of specimens in the herbarium of G. Hibbert, Esq. which we should refer to this genus; it stands fair to rival, in number of species, every other, natives of the Cape of Good Hope; with the exception of *Erica*, *Geranium*, and *Protea*. This species has many varieties, and we are in doubt whether this is not one from the *A. carnosus*, or *A. pinguis* of Thunberg; for although, the cup, in the one, may differ, in having the segments described as pointed; and in the other, the leaves may be rather three-sided; yet, may our plant be no more than a slight variation from either of them: but this we cannot decide without living plants of each, for dried specimens would not determine the fact.

This plant was introduced to the Hibbertian Collection, in 1800, by Mr. Niven, from the Cape. It is a tender green-house plant, grows to the height of eighteen inches, very bushy, and covers itself with flowers about July; in which month, 1803, our drawing was taken. It has hitherto put the ability of Mr. Allen, which is not often the case, to a stand for a method to propagate it; but we have hopes, as most of the species do, that it will ripen its seeds in this country.



*Vicia crassifolia*

*Lith. del. J. G. Smith. Sculp. J. G. Smith.*

PLATE CCCLIV.

GERANIUM REVOLUTUM.

*Reflex floral-leaved Geranium.*

CLASS XVI. ORDER IV.

*MONADELPHIA DECANDRIA.* Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus rostratus; pentacoccus.

ONE POINTAL. Five Summits. Fruit furnished with long awns; five dry berries.

SPECIFIC CHARACTER.

Geranium foliis cordatis, obtusis, nervosis, sæpe auriculatis; pedunculis multifloris; involucris polyphyllis, foliolis revolutis; floribus pentandris; radice tuberosa.

Geranium with heart-shaped leaves, obtuse, nerved and often eared; flower-stems many-flowered; fence many-leaved, leaflets rolled back; flowers with five fertile chives; root tuberous.

REFERENCE TO THE PLATE.

1. The Empalement cut open to shew its tubular structure.
2. The Chives and Pointal.
3. The Chives, spread open, magnified.
4. The Pointal, magnified.

This very fine Geranium is, as yet, only in the Clapham Collection; it has no properties, which regard its culture or propagation, differing from the rest of its congeners; was sent from the Cape, by Mr. Niven, in 1800. Flowers in July. The leaves of this species have most affinity, in appearance, to those of *G. melananthum*, particularly in being like them frequently eared, and even sometimes winged. We have named it, specifically, from the singular revolute character of the involucre, at the base of each bunch of flowers.



*Primula revolutum*



PLATE CCCLV.

LEE A PINNATA.

*Winged-leaved Leea.*

CLASS V. ORDER I.

*PENTANDRIA MONOGYNIA.* Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, campanulatum, coriaceum, quinquedentatum, persistens.

COROLLA monopetala; tubus longitudine calycis; limbus quinquefidus, æqualis; laciniis saccatis.

*Nectarium* basi interioris corollæ adnatum, corolla dimidio brevius, erectum, urceolatum, quinquefidum; lobis emarginatis.

STAMINA. Filamenta quinque, inserta basi exteriori nectarii. Antheræ ovatæ, versatiles.

PISTILLUM. Germen subglobosum. Stylus simplex, nectario brevior. Stigma obtusum.

PERICARPIUM. Bacca orbiculata, depressa, quinquelocularis.

SEMINA quinque, solitaria.

EMPALEMENT. Cup one leaf, bell-shaped, leathery, five-toothed, remaining.

BLOSSOM one petal; tube the length of the cup; border five-cleft, equal; segments bagged.

*Honey-cup* fixed to the base of the inside of the blossom, by the half shorter than the blossom, erect, pitcher-shaped, five-cleft; lobes notched at the end.

CHIVES. Five threads inserted into the outside of the base of the honey-cup. Tips egg-shaped, versatile.

POINTAL. Seed-bud almost globular. Shaft simple, shorter than the honey-cup. Summit blunt.

SEED-VESSEL. Berry orbicular, flattened, five-celled.

SEEDS five, solitary.

SPECIFIC CHARACTER.



*Leea foliis impari-pinnatis, oppositis; caule tereti, glabro; racemis angulatis, angulis undulatis.*

Leea with winged leaves terminated by an odd one and opposite; stem round and smooth; branches angled; angles waved.

REFERENCE TO THE PLATE.

1. The Cup, natural size.
2. A Blossom.
3. A Flower complete, magnified.
4. The Honey-cup, shewn from the inside, cut open, a little magnified.
5. A Blossom, with the Honey-cup and Chives, magnified.
6. The Honey-cup and Chives shewn from the outside, magnified.
7. The Pointal, magnified.

*Leea* and *Aquilicia* have, of late, been considered as not possessing sufficient essentially differing characters to constitute two genera, and *Aquilicia* has been lost in *Leea*. Our present subject is a species of the former *Aquilicias*, is mentioned by Gaertner, who says, it approaches *A. sambucina*, now *Leea sambucina*; to which indeed it has much resemblance, but differs in having opposite, not alternate branches, being scentless, having the leaves rather rough and the stem smooth. It is a native of the East Indies, requiring the tan-bed to make it flower; is half shrubby, and is increased by cuttings. Flowers in August. Our figure is from a specimen communicated to us by Aylmer Bourke Lambert, Esq. who raised it from seeds received from Dr. Roxburg, in 1801, under the name of *Leea crispa*: which is a native of Africa, and has been long in most of our collections of hot house plants, but is in the highest state of cultivation, under the care of Mr. Hoy, in that of his Grace the Duke of Northumberland, Sion House, near Brentford.



pinnata

Pl. 355. 1855. J. B. Smith del. J. B. Smith sculp.

PLATE CCCLVI.

ARUM ORIXENSIS.

*Orixian Cuckow-pint.*

CLASS XX. ORDER XI.

GYNANDRIA POLYANDRIA. Chives on the Pointal. Many Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX. Spatha monophylla, maxima, oblonga, basi convoluta, apice connivens, ventre compressa, interne colorata.

*Spadix* clavatus, simplicissimus, spatha paulo brevior, coloratus, inferne germinibus obvallatus, marcescens supra germina.

COROLLA nulla.

STAMINA. Filamenta nulla, nisi nectaria basi crassa, desinentia in cirros filiformes, duorum ordinum e medio spadice egredientes. Antheræ plurimæ, sessiles, tetragonæ, cirrhorum duplici ordine interjectæ, spadici adnatæ.

PISTILLA. Germina plurima, basin spadicis vestientia, infra stamina collocata, obovata. Styli nulli. Stigmata villis barbata.

PERICARPIA. Baccæ totidem, globosæ, uniloculares.

SEMINA plura, subrotunda.

EMPALEMENT. Sheath one leaf, very large, oblong, convolute at the base, converging at the top, the belly compressed, coloured within.

*Sheathed-Fruit-stalk* club shaped quite simple, a little shorter than the sheath, coloured, set round with seed-buds on the lower part, withering above the seed-buds.

BLOSSOM none.

CHIVES. Threads none except the honey-cups, which are thick at the base and terminated in thread-shaped tendrils, issuing in two rows from the middle of the sheathed fruit-stalk. Tips many, sitting, four sided, fixed to the fruit-stalk, and disposed between the two rows of tendrils.

POINTALS. Seed-buds many, cloathing the base of the fruit-stalk, set below the chives, inversely egg-shaped. Shafts none. Summits bearded with soft hairs.

SEED-VESSELS. As many berries, globular, and one-celled.

SEEDS. Many, roundish.

SPECIFIC CHARACTER.

Arum, acule; foliis ternatis, venosis, discoloribus; spatha declinata; flore atro-purpureo.

Cuckow-pint, stemless; leaves threefold, full of veins, two-coloured; sheath bent downward; flower of a deep purple.

REFERENCE TO THE PLATE.

1. The whole flower, shewn from the front with the sheath opened, to expose the parts of fructification.

This pretty plant is a native of the East Indies, in that country from which it derives its specific title. It has much affinity with many others of the Genus, which at first sight appear rather as varieties, than meriting to be treated as species; but, in this instance, we submit our judgment to that of Dr. Roxburg, by whom it has been introduced to us under the name it here bears, in the year 1802. Our figure was taken, in the month of October 1803, from a plant in the collection of J. Vere, Esq. Kensington Gore. The flower is scentless.





*Arum orizensis*

Painted by the late Thomas Allom Esq.



PLATE CCCLVII.

ARCTOTIS PARADOXA.

*Chamomile-leaved Arctotis.*

CLASS XIX. ORDER IV.

*SYNGENESIA POLYGAMIA NECESSARIA.* Tips united. Necessary Pointals.

GENERIC CHARACTER.

CALYX *communis* subrotundus, imbricatus; squamis inferioribus laxioribus, subulatis; mediis ovatis; intimis oblongis; apice scarioso, rotundato, concavo.

COROLLA *composita* radiata; corollulæ hermaphroditæ plurimæ in disco. Femininæ ligulatæ, fere viginti, disci diametro longiores.

*Propria* hermaphroditis infundibuliformis; limbo quinquefido, apicibus reflexis, æqualibus.

*Femineis* ligulata, lanceolata, tenuissime tridentata, tubo brevissimo.

STAMINA hermaphroditis; filamenta quinque, capillaria, brevissima. Anthera cylindræa, quinquedentata, longitudine corollulæ.

PISTILLUM *Hermaphroditis*; germen vix manifestum. Stylus cylindræus, corolla paulo longior. Stigma simplex.

*Femineis* germen ovato-tetragonum, villosum, coronatum calyculo proprio.

Stylus filiformis. Stigmata duo, ovata-oblonga, crassiuscula, erecta.

PERICARPIUM nullum. Calyx immutatus. Semina *Hermaphroditis* nulla.

*Femineis* solitaria, subrotunda, villosa. *Pappus* perianthium proprium pentaphyllum; foliolis ovatis, patentibus, coronatus perianthii proprii foliolis ovatis in orbem positus.

RECEPTACULUM pilosum seu paleaceum, planiusculum.

EMPALEMENT *common* roundish, tiled; lower scales more loose, awl shaped; middle ones egg-shaped; innermost oblong; harsh, rounded, concave at the point.

BLOSSOM *compound* raied; hermaphrodite florets numerous in the center. Of the Females tongue-shaped, nearly twenty, longer than the diameter of the center.

*Proper* of the *hermaphrodites* funnel-shaped; border five-cleft, ends reflexed, equal.

Of the *Females* tongue-shaped, lance-shaped, slightly three-toothed; tube very short.

CHIVES of the *Hermaphrodites*; five threads hair-like, very short. Tip cylindric five-toothed, the length of the floret.

POINTAL of the *Hermaphrodites*; seed-bud scarce visible. Shaft cylindric, a little longer than the blossom. Summit simple.

Of the *Females* seed-bud egg-shaped four-cornered, hairy, crowned by its proper cup. Shaft thread-shaped. Summits two, oblong-egg-shaped, thickish, upright.

SEED-VESSEL none. Empalement unchanged. Seeds in the *Hermaphrodites* none.

In the *Females* solitary roundish, hairy. *Feather*, proper cup five leaved; leaflets, egg-shaped, spreading, crowned by the proper cup with the leaflets placed in a round.

RECEPTACLE hairy or chaffy, flattish.

#### SPECIFIC CHARACTER.

*Arctotis flosculis radiantibus sterilibus; paleis disco longioribus coloratis; foliis bipinnatis, linearibus.*

*Arctotis* with the florets of the circumference sterile; chaffs coloured and longer than the florets of the center; leaves doubly winged; linear.

#### REFERENCE TO THE PLATE.

1. An inner Scale of the cup.
2. An outer Scale of the cup.
3. A Petal of the circumference, with its tubular base, which is sterile.
4. A chalky division of the florets of the center, magnified.
5. A Female floret of the center, magnified.
6. The Chives of an Hermaphrodite floret, spread open and magnified.
7. The Pointal of an Hermaphrodite floret, natural size.
8. The same, magnified.
9. The Seed-bud of a female floret, natural size, with its feather.
10. The same, magnified.

Of all the plants, numerous as they are, composing this natural Class, we know of no one, the *Virgilia* (a native of Peru, and introduced to us from the Paris gardens by Mons. Thoin, about twenty years ago, but since lost to

Europe,) excepted, which can rival our present subject. It is a native of the Cape of Good Hope, and is said, in the Kew Catalogue, to have been introduced to that collection, in 1774, by Mr. Masson. Whether this is the *A. paradoxa* of Linn. Sp. 1307. Vol. II, we are not certain, as the chaff, dividing the florets, is there described as of nearly the length of the ray, giving the flower an appearance of doubleness, and is there likewise marked as an annual. But, there is little doubt of its being the plant intended in the Kew Catalogue, under our title; it is there made biennial, which is its true character, as it does not flower the first year from seeds. It may be propagated by cuttings of the first year's growth; delights in a light sandy loam, and flowers in July or August. Our drawing was made in 1802, from a plant in the Hibertian Collection; which had been raised from seeds, sent the preceding year, from the Cape, by Mr. Niven.



*Gazania paradoxa*

Painted by John Burrows March 1878

PLATE CCCLVIII.

AMARYLLIS BRASILIENSIS.

*Brasilian Lily-Daffodil.*

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, campanulata, Stigma trifidum.

BLOSSOM 6-petalled, bell-shaped. Summit three-cleft.

See AMARYLLIS RADIATA, Pl. XCV. Vol. II.

SPECIFIC CHARACTER.

Amaryllis, spatha bi-seu-triflora; petalis ovato-acuminatis, æqualibus, costatis, ad basin albidis, patentibus; genitalibus declinatis; foliis lineari-lanceolatis, acutis.

Lily-Daffodil, sheath two or three flowered; petals egg-shape tapered, equal, ribbed, white at the base and spreading; parts of fructification bent downwards; leaves linear-lance-shaped, pointed.

REFERENCE TO THE PLATE.

1. A petal with its Chive.
2. The Seed-bud, with part of the tube of the Blossom and partial Fruit-stalk.

This fine Lily, from the Brazils, can scarcely be thought more than a variety of *A. Reginæ*; to which plant, both this, and the *A. equestris* of Mr. Curtis, may be referred without much flexion of the original species. We have, however, preserved the title under which it has been known since its introduction; which was, in the year 1798, by the late Marchioness of Bute, from Spain. Our drawing was taken from a plant in the collection of J. Vere, Esq. Kensington Gore, in the month of October, 1803. It has all the merits of the most easily cultivated species of the genus; increasing freely by the bulb, growing with luxuriance in almost any earth, and requiring but little heat to make it flower.





*Arum brasiliensis*

Sp. Pl. 1044. t. 1. p. 1044.

PLATE CCCLIX.

TAGETES LUCIDA.

*Sweet Chili Marygold.*

CLASS XIX. ORDER II.

*SYNGENESIA POLYGAMIA SUPERFLUA.* Tips united. Superfluous  
Pointals.

GENERIC CHARACTER.

CALYX *communis* simplicissimus, monophyllus, tubulosus, oblongus, pentagonus, quinquedentatus.

COROLLA *composita* radiata; corollulæ hermaphroditæ tubulosæ, plures in disco elevato; femineæ ligulatæ quinque in radio.

*Propria hermaphroditis* tubulosa, semiquinquefida, erecta, calyce longior; laciniis linearibus, introrsum villosis.

*Femineis* ligulata, hermaphrodites longior, longitudine et latitudine fere æqualis, obtusissima, versus tubum angustior, tomentosa persistens.

STAMINA Hermaphroditis; filamenta quinque, capillaria, brevissima. Anthera cylindracea, tubulosa.

PISTILLUM *Hermaphroditis*; Germen oblongum. Stylus filiformis, longitudine staminum. Stigma bifidum, tenue, reflexum.

*Femineis*; germen oblongum. Stylus filiformis, longitudine hermaphroditis. Stigma bifidum, tenue, reflexum.

PERICARPIUM nullum. Calyx immutatus.

SEMINA Hermaphroditis solitaria, linearia, compressa, calyce paulo breviora. Pappus aristis quinque, erectis, acuminatis, inæqualibus.

*Femineis* similima hermaphrodites.

RECEPTACULUM nudum, planum.

EMPALEMENT *common*, quite simple, one leaf, tubular, oblong, five-sided, five-toothed.

BLOSSOM, *compound* raised; hermaphrodite florets tubular, numerous in an elevated center; females tongue-shaped five in the circumference.

*Proper* of the *Hermaphrodites*, tubular, half five-cleft, upright, longer than the cup; segments linear, hairy within.

Of the *Females* tongue-shaped longer than the hermaphrodites, of nearly the same length and breadth, very blunt, narrower towards the tube, downy, remaining.

CHIVES of the Hermaphrodites; five threads, hair-like, very short. Tip cylindric, tubular.

POINTAL of the *Hermaphrodites*; seed-bud oblong. Shaft thread-shaped, the length of the chives. Summit two-cleft, slender, reflexed.

Of the *Females*; seed-bud oblong. Shaft thread-shaped, the length of the hermaphrodite. Summit two-cleft, slender, reflexed.

SEED-VESSEL none. Cup unchanged.

SEEDS of the Hermaphrodites solitary, linear, flat, a little shorter than the cup. Feather five awns, upright, tapered, unequal.

Of the *Females* like the hermaphrodites.

RECEPTACLE naked, flat.

#### SPECIFIC CHARACTER.

Tagetes caule herbaceo, erecto, floribus cymosis, parvis, luteis, odoratissimis.

Marygold with an upright, herbaceous stem; flowers in tufts, small, yellow, and very sweet scented.

#### REFERENCE TO THE PLATE.

1. The common Empalement.
2. A Floret of the circumference, with its seed-bud and pointal.
3. The same, magnified.
4. A Floret of the center, natural size.
5. The same, magnified.
6. A ripe seed, magnified.

This plant is a native of Chili, South America, and was sent to England by Dr. Ortega, from the Royal Gardens, Madrid, to the late Marchioness of Bute; who first raised it from seeds in the year 1798. It is perfectly herbaceous, but will flower the first year from the seed; will endure moderate frost, and may be considered as a hardy herbaceous plant. Is increased either by seeds, or by parting the roots; delights in a moderately stiff soil; flowering from July till November. If kept in a pot, the flowers,

which are very fragrant, will continue in succession through the whole winter.

*Tagetes minuta* of Linnæus's *Sp. Plant.* Vol. II. p. 1250, quoted from his *Hortus Cliffortianus*, and Dillenius's *Hortus Elthamensis*, seems much affined to this plant; but, as that is annual, this cannot be considered as a variety of it.

Our drawing was taken at the Hammersmith Nursery.





*Barbarea lucida*

Drawn on the spot by J. G. Smith, March 1844



PLATE CCCLX.

RENEALMIA NUTANS.

*Drooping-flowered Renealmia.*

CLASS I. ORDER I.

MONANDRIA MONOGYNIA. One Chive. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium superum, monophyllum, apice rumpens in duo seu tres dentes irregulares.

COROLLA monopetala. Tubus rectus, cylindricus; limbus trifidus; laciniis duabus superioribus oblongis, rotundatis, æqualibus; inferiore superioribus vix longiore, canaliculata, oblonga.

*Nectarium* tubo corollæ adnatum, sub laciniis superioribus adscendens, rectum, longitudine corollæ, oblongum, basi utrinque unidentatum, tum sinu excavate, apice dilatatum et obtuse trilobatum.

STAMEN. Filamentum nullum. Anthera unica, fauci tubi inserta, in sinu lacinia inferioris corollæ, nectario opposita, libera, recta, linearis, emarginata, interius sulco exarata, longitudine et latitudine lacinia corollæ.

PISTILLUM. Germen inferum, oblongum, obsolete triquetrum, glabrum. Stylus filiformis, glaberrimus, erectus, longitudine corollæ. Stigma peltatum; capitulo plano; latere ad nectarium vergente truncato, perforato, foramine in stylum decurrente.

PERICARPIUM. Bacca oblonga, trisulca, teres, glabra, umbilico terminata; carnosa, in medio trilocularis. Loculamenta mollia, membranacea.

SEMINA plurima, oblonga, truncata, tetragona, glaberrima.

EMPALEMENT. Cup above, one-leafed, breaking open into two or three irregular teeth.

BLOSSOM on petal. Tube straight, cylindrical; border three-cleft; the two upper segments oblong, rounded, equal; the lower one, scarcely longer than the upper ones, channelled, oblong.

*Honey cup* fixed to the tube of the blossom, ascending beneath the upper segment straight the length of the blossom, oblong one-toothed on each side

of the base, then with a hollow bosom widening at the end and obtusely three-lobed.

CHIVE. Thread, none. Tip one inserted into the throat of the tube, in the bosom of the lower segment of the blossom, opposite to the honey-cup, free, straight, linear, notched at the end, grooved on the inside, of the same length and breadth as the segment of the blossom.

POINTAL. Seed-bud beneath, oblong, obscurely three sided, smooth. Shaft thread-shaped, very smooth, upright the length of the blossom. Summit shield-shaped; with a flat head, the side fronting the honey-cup appearing cut off, perforated by a hole running into the shaft.

SEED VESSEL. Berry oblong, three-furrowed, cylindrical, smooth, terminated by a navel, fleshy in the middle, three-celled. Cells soft, skinny.

SEEDS numerous, oblong, appearing cutoff, four-cornered, very smooth.

#### SPECIFIC CHARACTER.

*Renealmia foliis vaginantibus; floribus racemosis terminalibus pendulis; fructu piloso.*

Renealmia with sheathing leaves; flowers in bunches terminating the branches, hanging down, fruit hairy.

#### REFERENCE TO THE PLATE.

1. A miniature representation of the plant.
2. The outer sheath of the blossom.
3. A flower complete.
4. The Honey cup.
5. The Chive, Pointal, and Seed-bud.
6. The Pointal and Seed-bud cleared of the small inner sheath which surrounds the base of the chive and shaft; with the summit detached and magnified.
7. One of the small corpusculæ which embrace the base of the shaft, magnified.
8. The small sheath which crowns the seed-bud, magnified.
9. The Seed-bud, cut transversely, magnified.

Amongst the numerous new plants introduced from China by the late Mr. Slater, of Laytonstone, in the year 1793, this is certainly to be considered as amongst the most beautiful. The only drawback to its general merit, as a hot-house plant, is the great height to which it might attain before it flowers; being in common fourteen or fifteen feet. It propagates by offsets, and is kept with little trouble; as it will flourish in almost any soil, and will flower, if set in any part of the hot-house, so as not to interrupt its growth, the

blossoms being produced only from the summit. Although with us the stem is permanent, as with some others of the same natural habit, yet it cannot, we think, with propriety be considered as either a tree or shrub, but rather herbaceous. Some contention, at first, arose whether this plant should be referred to the present Genus; which was formed, by the younger Linnæus, from a plant a native of Surinam, S. America, some of the parts not exactly corresponding, especially the fruit; we have nevertheless made no scruple in placing it to that Genus, with which, upon an inspection of the dissections, it will be found very well to accord. Our figure was taken from a plant which flowers, annually, in the month of July, in the Collection of J. Vere, Esq. Kensington Gore.



*Psephium nutans.*

# INDEX

## TO THE PLANTS CONTAINED IN VOL. V.

Plate	289	Protea cordata	Heart-shape-leaved Protea	G. H.	Shrub. March.
	290	Aponogeton distachyon	Broad-leaved Aponogeton	H. H.	Aquat. AllSummer.
	291	Senecio pseudo- China	China-root Groundsel	H. H.	Herb. July.
	292	Geranium undulatum	Waved-flowered Geranium	G. H.	Herb. June.
	293	Lachnæa purpurea	Purple-flowered Lachnæa	G. H.	Shrub. July.
	294	Protea candicans	Hoary-leaved Protea	G. H.	Shrub. August.
	295	Passiflora aurantia	Norfolk Island Passion-Flower	G. H.	Shrub. July.
	296	Lachenalia rosea	Rose-coloured Lachenalia	G. H.	Bulb. May.
	297	Nymphæa odorata	Sweet-scented Water- Lily	H. H.	Aquat. AllSummer.
	298	Anthericum costatum	Ribbed-leaved Anthericum	G. H.	Bulb. August.
	299	Lachenalia reflexa	Reflexed-flowered Lachenalia	G. H.	Bulb. June.
	300	Geranium oxalidifolium	Wood-Sorrel-leaved Geranium	G. H.	Herb. July.
	301	Protea grandiflora. <i>Var. fol. und.</i>	Large-flowered Protea. <i>Waved-leaved</i> <i>Var.</i>	G. H.	Shrub. May.
	302	Lachenalia fragrans	Sweet-scented Lachenalia	G. H.	Bulb. March.



303	Geranium barbatum	Bearded-leaved Geranium	G. H.	Herb. July.
304	Daviesia ulicifolia	Furze-leaved Daviesia	G. H.	Shrub. May.
305	Geranium coronillæfolium	Coronilla-leaved Geranium	G. H.	Herb. July.
306	Aletris fragrans	Sweet-scented Aletris	H. H.	Shrub. May.
307	Protea globosa	Globe-flowered Protea	G. H.	Shrub. May.
308	Crotolaria verrucosa	Blue-flowered Crotolaria	H. H.	Ann. May.
309	Pultenæa villosa	Hairy Pultenæa	G. H.	Shrub. June.
310	Stachys coccinea	Scarlet Clownheal	G. H.	Herb. July.
311	Geranium pinnatum	Winged-leaved Geranium	G. H.	Herb. May.
312	Styphelia viridis	Green-flowered Styphelia	G. H.	Shrub. April.
313	Justicia lucida	Shining-leaved Justicia	H. H.	Shrub. August.
314	Itea spinosa	Thorny Tea	G. H.	Shrub. September.
315	Orchis bicornis	Two-horned Orchis	H. H.	Herb. September.
316	Olea apetala	Petalless Olive	G. H.	Shrub. March.
317	Geranium undulatum. <i>Minor</i>	Waved-flowered Geranium. <i>Lesser Var.</i>	G. H.	Herb. July.
318	Hæmanthus multiflorus	Many-flowered Blood-Flower	H. H.	Bulb. June.
319	Vicia galegifolia	Goat's-Rue-leaved Vetch	G. H.	Herb. August.

320	Pultenæa elicifolia	Holly-leaved Pultenæa	G. H.	Shrub. June.
321	Arethusa plicata	Plaited-leaved Arethusa	H. H.	Herb. July.
322	Pitcairnia latifolia	Broad-leaved Pitcairnia	H. H.	Herb. July.
	Geranium			
323	barbatum. <i>Var.</i> <i>Minor.</i>	Bearded-leaved Geranium. <i>Lesser Var.</i>	G. H.	Herb. July.
324	Magnolia purpurea	Purple-flowered Magnolia	H. H.	Shrub. June.
325	Codon Royeni	Prickly Codon	G. H.	Bienn. August.
326	Pharnaceum lineare. <i>Fl. alb.</i>	Linear-leaved Pharnaceum	G. H.	Shrub. July.
327	Xeranthemum argenteum	Silvery Everlasting- Flower	G. H.	Shrub. April.
328	Geranium bubonifolium	Macedonian-Parsley- leaved Geranium	G. H.	Herb. June.
329	Pharnaceum lineare	Linear-leaved Pharnaceum. <i>White</i> <i>Var.</i>	G. H.	Shrub. July.
330	Nymphæa stellata	Starr'd Water-Lily	H. H.	Aquat. August.
331	Xylophylla falcata	Cymitar-shaped- leaved Xylophylla	H. H.	Shrub. August.
332	Protea anemonifolia	Anemony-leaved Protea	G. H.	Shrub. August.
333	Sagittaria lancifolia	Lance-leaved Arrowhead	H. H.	Aquat. July.
334	Struthiola tomentosa	Downy-leaved Struthiola	G. H.	Shrub. August.
335	Gladiolus pyramidatus	Pyramidal-spiked Gladiolus	G. H.	Bulb. August.
336	Anchusa capensis	Cape Alkanet	G.	Shrub. July.

			H.	
337	<i>Protea triternata</i>	Cluster-headed Protea	G. H.	Shrub. July.
338	<i>Geranium coronopifolium</i>	Buck's-horn-leaved Geranium	G. H.	Bienn. August.
339	<i>Lobelia coronopifolia</i>	Buck's-horn-leaved Lobelia	G. H.	Bienn. August.
340	<i>Lobelia gracilis</i>	Slender-stemmed Lobelia	G. H.	Ann. August.
341	<i>Phaseolus Caracalla</i>	Snail-Flower Kidney-Bean	H. H.	Shrub. August.
342	<i>Cobbea scandens</i>	Climbing Cobbea	G. H.	Shrub. October.
343	<i>Blandfordia cordata</i>	Heart-shape-leaved Blandfordia	G. H.	Herb. June.
344	<i>Epidendrum ensifolium</i>	Sword-shaped-leaved Epidendrum	H. H.	Shrub. September.
345	<i>Hyacinthus corymbosus</i>	Linear-leaved Cape-Hyacinth	G. H.	Bulb. October.
346	<i>Casuarina stricta</i>	Upright Casuarina	G. H.	Shrub. November.
347	<i>Sophora capensis</i>	Vetch-leaved Sophora	G. H.	Shrub. August.
348	<i>Schotia speciosa</i>	Lentiscus-leaved Schotia	H. H.	Shrub. October.
349	<i>Protea decumbens</i>	Slender-stemmed Protea	G. H.	Shrub. July.
350	<i>Lachenalia pustulata</i>	Rough-leaved Lachenalia	G. H.	Bulb. December.
351	<i>Pultenæa rubiæfolia</i>	Madder-leaved Pultenæa	G. H.	Shrub. July.
352	<i>Helonias bullata</i>	Spear-leaved Helonias	Har.	Herb. June.
353	<i>Aspalathus</i>	Thick-leaved	G.	Shrub. July.

	crassifolius	Aspalathus	H.	
354	Geranium revolutum	Reflex floral-leaved Geranium	G. H.	Herb. July.
355	Leea pinnata	Winged-leaved Leea	H. H.	Herb. August.
356	Arum orixensis	Orixian Cuckow-pint	H. H.	Herb. October.
357	Arctotis paradoxa	Chamomile-leaved Arctotis	G. H.	Bienn. August.
358	Amaryllis brasiliensis	Brasilian Lily- Daffodil	H. H.	Bulb. October.
359	Tagetes lucida	Sweet Chili Marygold	G. H.	Herb. August.
360	Renealmia nutans	Drooping-flowered Renealmia	H. H.	Herb. July.

## ERRATA.

- Plate 297, Class. Pro Poliandria, lege, *Polyandria*.  
299, Sp. Ch. lin. 2. pro equalis, lege, *æqualis*.  
301, Sp. Ch. lin. ntt. pro cristitatæ, lege, *cristatæ*.  
309, Ess. Gen. Ch. lin. 1, pro quinquedentatis, lege, *quinquedentatus*.  
310, Plate, for Stæches, read, Stachys. Calyx lin. 3, pro denticulis, lege, *denticulis*.  
313, Pointal. lin. 1, put (.) after top-shaped.  
314, Pericarpium, lin. 2, pro muconato, lege, *mucronato*.  
316, Title, for Petal-less, read, *Petalless*.  
323, Sp. Ch. lin. 1, post, inequaliter, dele (,)  
325, Calyx, lin. 2, pro duodecem, lege, *duodecim*. Description, lin. 2, for, vegetating, read, vegitating.  
326, Sp. Ch. pro inequalibus, lege, *inæqualibus*.  
329, Essen. Ch. lin. 3, direction for V. V. put *Vol. V*.  
331, Gen. Ch. Pointal, lin. 2, after *three*, for, short, read, *spreading, two-cleft*.  
337, Sp. Ch. lin. 3, pro bracteis, lege, *bracteatis*.  
341, Plate, for Phaseolis, read, *Phaseolus*.  
342, Descrip. lin. 4, for, East Indies, read, *Chili, South America*.  
345, Plate, for, Corymbosa, read, *Corymbosus*.  
346, Descrip. lin. 8, for, has, like this, read, *have like this*.  
347, Chives, lin. 2, after, length of, leave out (,)  
350, Essen. Ch. lin. 1, dele, *petalis tribus infera*.  
353, Title, pro crassifolius, lege, *crassifolia*.



*Alphabetical Index to the 1st. 2d. 3d. 4th. and 5th. Volume of the Botanist's  
Repository.*

	Pl. vol.	
Aizoon canariense	201	3
Aletris fragrans	306	5
sarmentosa	54	1
Allium gracile	107	2
Amaryllis Brasilienis	358	5
Fothergillia	163	3
radiata	95	2
reticulata	179	3
Anchusa capensis	336	5
Anemone palmata	172	3
Anthericum costatum	298	5
Anthillis erinacea	15	1
Antholyza Æthiopica	210	3
fulgens	192	3
ringens	32	1
spicata	56	1
tubulosa	174	3
Aponogeton distachyon	290	5
Arctotis paradoxa	357	5
Arethusa plicata	321	5
Aristea cyanea	10	1
major	160	3
Arum orixensis	356	5
Asclepias gigantea	271	4
Aspalathus crassifolius	353	5
Aster dentatus	61	1
reflexus	93	2

Atrogene Austriaca	80	3
capensis	9	1
Azalea Pontica	16	1
Banksia ericafolia	156	3
præmorsa	258	4
serrata	82	2
Baurea rubioides	198	3
Bignonia Leucoxylon	43	1
pandorana	86	2
Blandfordia cordata	343	5
Borbonia cordata	31	1
Boronia pinnata	58	1
Brunsfelsia undulata	167	3
Buchnera fœtida	80	2
pedunculata	84	2
Camellia japonica, <i>alb. pl.</i>	25	1
japonica <i>pl. vg. to.</i>	91	2
japonica <i>rub. pl.</i>	199	3
Carneraria latifolia	201	4
Casuarina stricta	346	5
Cerbera Ahouai	231	4
undulata a	130	2
Chelone campanuloides	40	1
Ruelloides	34	1
Chiococca racemosa	284	4
Chrysanthemum tricolor	109	2
Cineraria aurita	24	1
Clematis viorna	71	1
Clusia flava	223	4
Cobbea scandens	342	5
Codon Royeni	325	5
Cordia sebestena	157	3

Cortusa Mathioli	1	1
Corræa alba	17	1
Crassula odoratissima	26	1
Crateva Capparoides	176	3
Crinum giganteum	169	3
spirale	92	2
Crowea saligna	79	2
Crotolaria verrucosa	308	5
Cyanella capensis	141	2
Cyrtanthus obliquus	265	4
Cytisus tomentosus	237	4
Daphne Pontica	73	2
Daviesia ulicifolia	304	5
Diosma latifolia	33	1
Dodonæa triquetra	230	4
Dracena borealis	206	3
Echites suberecta	187	3
Echium argenteum	154	3
ferocissimum	39	1
glaucophyllum	165	3
grandiflorum	20	1
Embothrium buxifolium	218	4
lineare	272	4
salignum	215	3
sericeum	100	2
Epidendrum cochleatum	13	1
ensifolium	344	5
sinense	216	3
Epigæa repens	102	2
Eranthemum pulchellum	88	2
Falkia repens	257	4
Ferraria pavonia	178	3

viridiflora	285	4
Fuchsia lycioides	120	2
Galaxia grandiflora	164	3
ovata	94	2
Gardenia tubiflora	183	3
Gaultheria procumbens	116	2
Gentiana purpurea	117	2
Geranium astragalifolium	190	3
barbatum	303	5
barbatum minor	323	5
bubonifolium	328	5
ciliatum	247	4
coronillæfolium	305	5
coronopifolium	338	5
cortusæfolium	121	2
crassifolium	136	2
echinatum	158	3
elegans	28	1
fragile	37	1
grandiflorum	12	1
incisum	67	1
incrassatum	246	4
laciniatum	131	2
flo. purp.	204	3
bicolor	269	4
lineare	193	3
melananthum	209	3
oxalidifolium	300	5
pictum	168	3
pilosum	259	4
pinnatum	311	5
præmorsum	150	3

procumbens	254	4
punctatum	60	1
quinquevulnerum	114	2
radiatum	222	4
reflexum	224	4
reniforme	108	2
revolutum	354	5
roseum	173	3
selinum	239	4
spathulatum	152	3
curviflo.	282	4
tomentosum	115	2
undulatum	292	5
minor	317	5
Gladiolus alatus	8	1
abreviatus	166	3
blandas	99	2
campanulatus	188	3
carneus	240	4
crispus	142	2
cuspidatus	147	3
pet. crisp.	219	4
galeatus	122	2
gramineus	62	1
grandiflorus	118	2
longiflorus	5	1
nanus	137	2
orchidiflorus	241	4
plicatus	268	4
polystachius	66	4
præcox flo. rub.	38	1
pyramidatus	335	5



ringens cin. odor.	27	1
multiflo.	227	4
undul.	275	4
roseus	11	1
striatus	111	2
versicolor	19	1
Gloriosa superba	129	2
Gnidia lævigata	89	2
opposætifolia	225	4
pinifolia	52	1
simplex	70	1
Goodenia calendulacea	22	1
ovata	68	1
Hæmanthus multiflorus	318	5
Hebenstreitia aurea	252	4
Heliconia psittacorum	124	2
Helonias bullata	352	5
Hemerocallis alba	194	3
cærulea	6	1
graminea	244	4
Hermannia pulverata	161	3
Hibbertia volubilis	126	2
Hibiscus mutabilis fl. pl.	228	4
Patersonius	286	4
Hillia longiflora	145	3
Houstonia coccinea	106	2
Hyacinthus corymbosus	345	5
Hypoxis linearis	171	3
obliqua	195	3
stellata	101	2
fl. alb.	236	4
Iris longifolia	45	1

Itea spinosa	314	5
Ixia aristata	87	2
bulbifera	48	1
bulbocodium	170	3
capitata ovat.	68	1
fl. aur.	50	1
fl. al. fun. nig.	159	3
stellata	232	4
cinnamonea	44	1
columnaris	203	3
versic.	211	3
latifol.	213	3
grandiflo.	250	4
crispifolia fl. cærul.	35	1
crocata nig. mac.	134	2
fistulosa	59	1
maculata	196	3
min. fl. pur.	256	4
polystachia	155	3
incar.	128	2
punctata	177	3
pusilla	245	4
reflexa	14	1
speciosa	186	3
spicata	29	1
Ixora Pavetta virid. nig.	76	2
Jasminum gracile	127	2
Jatropha panduræfolia	267	4
Justicea lucida	313	5
Lachenalia fragrans	302	5
pendula	41	1
purpureo cærul.	257	4

pustulata	350	5
quadricolor	148	3
reflexa	299	5
rosea	296	5
Lachnæa eriocephala	104	2
purpurea	293	5
Lambertia formosa longi flor.	69	1
Laseopetalum ferrugineum	208	3
Leea pinnata	355	5
Limonia trifoliata	143	2
Lobelia coronopifolia	339	5
gracilis	340	5
pinifolia	273	4
Magnolia fuscata	229	4
pumila	226	4
purpurea	324	5
Mahernia odorata	85	2
Malpighia crassifolia	49	1
Malva divaricata	182	3
reflexa	135	2
Massonia scabra	220	4
violacea	46	1
Melaleuca coronata	278	4
ericæfolia	175	3
hypericifolia	200	3
Melanthium viride	233	4
Mesembryanthemum glabrum	57	1
Metrosidera hirsuta	281	4
Mimosa discolor	235	4
longifolia	207	3
stricta	53	1
Monsonia filia	276	4

Moræa Northiana	255	4
tricolor	83	2
Musa coccinea	47	1
Neotia speciosa	3	1
Nymphæa cærulea	197	3
ordorata	297	5
stellata	330	5
Olea apetala	316	5
Ophyrs lilifolia	65	1
Orchis bicornis	315	5
ciliaris	42	1
Ornithogalum lacteum	274	4
odoratum	260	4
Pæonia albiflora	64	1
Passiflora aurantia	295	5
maliformis	217	4
Pergularia minor	184	3
odoratissima	185	3
Persoonia lanceolata	74	2
Persoonia latifolia	280	4
linearis	77	2
Pharnaceum lineare	326	5
fl. alb.	329	5
Phaseolus Caracalla	341	5
Physalis prostrata	75	2
Pitcairnia latifolia	322	5
sulphurea	249	4
Pittosporum coriaceum	151	3
Platylobium lanceolatum	205	3
ovatum	266	4
scolopendrum	191	3
Pogonia debilis	212	3

glabra	283	4
Primula Cortusoides	7	1
Protea anemonifolia	332	5
candicans	294	5
cordata	289	5
cynaroides	288	4
decumbens	349	5
formosa	17	1
globosa	307	5
glomerata	264	4
grandiflora fol. und.	301	5
lagopus	243	4
longifolia nigra	132	2
ferr. purp.	133	2
cono turb.	144	2
pinifolia	76	2
pulchella	270	4
speciosa latifolia	110	2
nigra	103	2
fol. glab.	277	4
spicata	234	4
triternata	337	5
umbellata	248	4
Psoralea aculeata	146	3
Pultenæa dapnoides	98	2
ilcifolia	320	5
rubiaefolia	331	5
villosa	309	5
Punica granatum fl. alb.	96	2
Renealmia nutans	360	5
Rhododendron Dauricum	4	1
punctatum	36	1



Roëlla decurrens	238	4
Sagittaria lancifolia	333	5
Samyda serrulata	202	3
Senecio pseudo China	291	5
Septas capensis	90	2
Schotia speciosa	348	5
Sophora capensis	347	5
Sowerbia juncea	81	2
Sprengelia incarnata	2	1
Stachys coccinea	310	5
Struthiola ciliata	149	3
fl. rub.	139	2
imbricata	133	2
ovata	119	2
tomentosa	334	5
Styphelia parviflora	287	4
triflora	72	1
viridis	312	5
Tagetas lucida	359	5
Talinum patens	253	4
Thunbergia fragrans	123	2
Usteria scandens	63	1
Vaccinium amænum	138	2
arctostaphyllus	30	1
crassifolium	105	2
dumosum	112	2
formosum	97	2
frondosum	140	2
parviflorum	125	2
staminium	263	4
virgatum	181	3
Verbascum ferrugineum	162	3

Vereia crenata	21	1
Vicia galegifolia	319	5
Viola pedata	153	3
Westeringia rosmarinacea	214	3
Wurmbea capensis $\beta$	221	4
Xeranthemum argenteum	327	5
fasciculatum	242	4
fl. alb.	279	4
speciocissimum	51	1
spirale	262	4
Xylophylla falcata	331	5
Zinnia verticillata	189	3
violacea	55	1

---



---

\*\*\* END OF THE PROJECT GUTENBERG EBOOK THE BOTANIST'S  
REPOSITORY FOR NEW AND RARE PLANTS; VOL. 5 \*\*\*

Updated editions will replace the previous one—the old editions will be renamed.

Creating the works from print editions not protected by U.S. copyright law means that no one owns a United States copyright in these works, so the Foundation (and you!) can copy and distribute it in the United States without permission and without paying copyright royalties. Special rules, set forth in the General Terms of Use part of this license, apply to copying and distributing Project Gutenberg™ electronic works to protect the PROJECT GUTENBERG™ concept and trademark. Project Gutenberg is a registered trademark, and may not be used if you charge for an eBook, except by following the terms of the trademark license, including paying royalties for use of the Project Gutenberg trademark. If you do not charge anything for copies of this eBook, complying with the trademark license is very easy. You may use this eBook for nearly any purpose such as creation of derivative works, reports, performances and research. Project Gutenberg eBooks may be modified and printed and given away—you may do practically ANYTHING in the United States with eBooks not protected by U.S. copyright law. Redistribution is subject to the trademark license, especially commercial redistribution.

START: FULL LICENSE

# THE FULL PROJECT GUTENBERG LICENSE

PLEASE READ THIS BEFORE YOU DISTRIBUTE OR USE THIS WORK

To protect the Project Gutenberg™ mission of promoting the free distribution of electronic works, by using or distributing this work (or any other work associated in any way with the phrase “Project Gutenberg”), you agree to comply with all the terms of the Full Project Gutenberg™ License available with this file or online at [www.gutenberg.org/license](http://www.gutenberg.org/license).

## **Section 1. General Terms of Use and Redistributing Project Gutenberg™ electronic works**

1.A. By reading or using any part of this Project Gutenberg™ electronic work, you indicate that you have read, understand, agree to and accept all the terms of this license and intellectual property (trademark/copyright) agreement. If you do not agree to abide by all the terms of this agreement, you must cease using and return or destroy all copies of Project Gutenberg™ electronic works in your possession. If you paid a fee for obtaining a copy of or access to a Project Gutenberg™ electronic work and you do not agree to be bound by the terms of this agreement, you may obtain a refund from the person or entity to whom you paid the fee as set forth in paragraph 1.E.8.

1.B. “Project Gutenberg” is a registered trademark. It may only be used on or associated in any way with an electronic work by people who agree to be bound by the terms of this agreement. There are a few things that you can do with most Project Gutenberg™ electronic works even without complying with the full terms of this agreement. See paragraph 1.C below. There are a lot of things you can do with Project Gutenberg™ electronic works if you follow the terms of this agreement and help preserve free future access to Project Gutenberg™ electronic works. See paragraph 1.E below.

1.C. The Project Gutenberg Literary Archive Foundation (“the Foundation” or PGLAF), owns a compilation copyright in the collection of Project Gutenberg™ electronic works. Nearly all the individual works in the collection are in the public domain in the United States. If an individual work is unprotected by copyright law in the United States and you are



located in the United States, we do not claim a right to prevent you from copying, distributing, performing, displaying or creating derivative works based on the work as long as all references to Project Gutenberg are removed. Of course, we hope that you will support the Project Gutenberg™ mission of promoting free access to electronic works by freely sharing Project Gutenberg™ works in compliance with the terms of this agreement for keeping the Project Gutenberg™ name associated with the work. You can easily comply with the terms of this agreement by keeping this work in the same format with its attached full Project Gutenberg™ License when you share it without charge with others.

1.D. The copyright laws of the place where you are located also govern what you can do with this work. Copyright laws in most countries are in a constant state of change. If you are outside the United States, check the laws of your country in addition to the terms of this agreement before downloading, copying, displaying, performing, distributing or creating derivative works based on this work or any other Project Gutenberg™ work. The Foundation makes no representations concerning the copyright status of any work in any country other than the United States.

1.E. Unless you have removed all references to Project Gutenberg:

1.E.1. The following sentence, with active links to, or other immediate access to, the full Project Gutenberg™ License must appear prominently whenever any copy of a Project Gutenberg™ work (any work on which the phrase “Project Gutenberg” appears, or with which the phrase “Project Gutenberg” is associated) is accessed, displayed, performed, viewed, copied or distributed:

This eBook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at [www.gutenberg.org](http://www.gutenberg.org). If you are not located in the United States, you will have to check the laws of the country where you are located before using this eBook.

1.E.2. If an individual Project Gutenberg™ electronic work is derived from texts not protected by U.S. copyright law (does not contain a notice indicating that it is posted with permission of the copyright holder), the work can be copied and distributed to anyone in the United States without paying any fees or charges. If you are redistributing or providing access to a work with the phrase “Project Gutenberg” associated with or appearing on the work, you must comply either with the requirements of paragraphs 1.E.1 through 1.E.7 or obtain permission for the use of the work and the Project Gutenberg™ trademark as set forth in paragraphs 1.E.8 or 1.E.9.

1.E.3. If an individual Project Gutenberg™ electronic work is posted with the permission of the copyright holder, your use and distribution must comply with both paragraphs 1.E.1 through 1.E.7 and any additional terms imposed by the copyright holder. Additional terms will be linked to the Project Gutenberg™ License for all works posted with the permission of the copyright holder found at the beginning of this work.

1.E.4. Do not unlink or detach or remove the full Project Gutenberg™ License terms from this work, or any files containing a part of this work or any other work associated with Project Gutenberg™.

1.E.5. Do not copy, display, perform, distribute or redistribute this electronic work, or any part of this electronic work, without prominently displaying the sentence set forth in paragraph 1.E.1 with active links or immediate access to the full terms of the Project Gutenberg™ License.

1.E.6. You may convert to and distribute this work in any binary, compressed, marked up, nonproprietary or proprietary form, including any word processing or hypertext form. However, if you provide access to or distribute copies of a Project Gutenberg™ work in a format other than “Plain Vanilla ASCII” or other format used in the official version posted on the official Project Gutenberg™ website ([www.gutenberg.org](http://www.gutenberg.org)), you must, at no additional cost, fee or expense to the user, provide a copy, a means of exporting a copy, or a means of obtaining a copy upon request, of the work in its original “Plain Vanilla ASCII” or other form. Any alternate format must include the full Project Gutenberg™ License as specified in paragraph 1.E.1.

1.E.7. Do not charge a fee for access to, viewing, displaying, performing, copying or distributing any Project Gutenberg™ works unless you comply with paragraph 1.E.8 or 1.E.9.

1.E.8. You may charge a reasonable fee for copies of or providing access to or distributing Project Gutenberg™ electronic works provided that:

- You pay a royalty fee of 20% of the gross profits you derive from the use of Project Gutenberg™ works calculated using the method you already use to calculate your applicable taxes. The fee is owed to the owner of the Project Gutenberg™ trademark, but he has agreed to donate royalties under this paragraph to the Project Gutenberg Literary Archive Foundation. Royalty payments must be paid within 60 days following each date on which you prepare (or are legally required to prepare) your periodic tax returns. Royalty payments should be clearly marked as such and sent to the Project Gutenberg Literary Archive Foundation at the address specified in Section 4, “Information about donations to the Project Gutenberg Literary Archive Foundation.”
- You provide a full refund of any money paid by a user who notifies you in writing (or by e-mail) within 30 days of receipt that s/he does not agree to the terms of the full Project Gutenberg™ License. You must require such a user to return or destroy all copies of the works possessed in a physical medium and discontinue all use of and all access to other copies of Project Gutenberg™ works.
- You provide, in accordance with paragraph 1.F.3, a full refund of any money paid for a work or a replacement copy, if a defect in the electronic work is discovered and reported to you within 90 days of receipt of the work.
- You comply with all other terms of this agreement for free distribution of Project Gutenberg™ works.

1.E.9. If you wish to charge a fee or distribute a Project Gutenberg™ electronic work or group of works on different terms than are set forth in this agreement, you must obtain permission in writing from the Project Gutenberg Literary Archive Foundation, the manager of the Project

Gutenberg™ trademark. Contact the Foundation as set forth in Section 3 below.

#### 1.F.

1.F.1. Project Gutenberg volunteers and employees expend considerable effort to identify, do copyright research on, transcribe and proofread works not protected by U.S. copyright law in creating the Project Gutenberg™ collection. Despite these efforts, Project Gutenberg™ electronic works, and the medium on which they may be stored, may contain “Defects,” such as, but not limited to, incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

1.F.2. LIMITED WARRANTY, DISCLAIMER OF DAMAGES - Except for the “Right of Replacement or Refund” described in paragraph 1.F.3, the Project Gutenberg Literary Archive Foundation, the owner of the Project Gutenberg™ trademark, and any other party distributing a Project Gutenberg™ electronic work under this agreement, disclaim all liability to you for damages, costs and expenses, including legal fees. YOU AGREE THAT YOU HAVE NO REMEDIES FOR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY OR BREACH OF CONTRACT EXCEPT THOSE PROVIDED IN PARAGRAPH 1.F.3. YOU AGREE THAT THE FOUNDATION, THE TRADEMARK OWNER, AND ANY DISTRIBUTOR UNDER THIS AGREEMENT WILL NOT BE LIABLE TO YOU FOR ACTUAL, DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.

1.F.3. LIMITED RIGHT OF REPLACEMENT OR REFUND - If you discover a defect in this electronic work within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending a written explanation to the person you received the work from. If you received the work on a physical medium, you must return the medium with your written explanation. The person or entity that provided you with the defective work may elect to provide a replacement copy in lieu of a refund. If you received the work electronically, the person or entity providing it to

you may choose to give you a second opportunity to receive the work electronically in lieu of a refund. If the second copy is also defective, you may demand a refund in writing without further opportunities to fix the problem.

1.F.4. Except for the limited right of replacement or refund set forth in paragraph 1.F.3, this work is provided to you 'AS-IS', WITH NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

1.F.5. Some states do not allow disclaimers of certain implied warranties or the exclusion or limitation of certain types of damages. If any disclaimer or limitation set forth in this agreement violates the law of the state applicable to this agreement, the agreement shall be interpreted to make the maximum disclaimer or limitation permitted by the applicable state law. The invalidity or unenforceability of any provision of this agreement shall not void the remaining provisions.

1.F.6. INDEMNITY - You agree to indemnify and hold the Foundation, the trademark owner, any agent or employee of the Foundation, anyone providing copies of Project Gutenberg™ electronic works in accordance with this agreement, and any volunteers associated with the production, promotion and distribution of Project Gutenberg™ electronic works, harmless from all liability, costs and expenses, including legal fees, that arise directly or indirectly from any of the following which you do or cause to occur: (a) distribution of this or any Project Gutenberg™ work, (b) alteration, modification, or additions or deletions to any Project Gutenberg™ work, and (c) any Defect you cause.

## **Section 2. Information about the Mission of Project Gutenberg™**

Project Gutenberg™ is synonymous with the free distribution of electronic works in formats readable by the widest variety of computers including obsolete, old, middle-aged and new computers. It exists because of the



efforts of hundreds of volunteers and donations from people in all walks of life.

Volunteers and financial support to provide volunteers with the assistance they need are critical to reaching Project Gutenberg™'s goals and ensuring that the Project Gutenberg™ collection will remain freely available for generations to come. In 2001, the Project Gutenberg Literary Archive Foundation was created to provide a secure and permanent future for Project Gutenberg™ and future generations. To learn more about the Project Gutenberg Literary Archive Foundation and how your efforts and donations can help, see Sections 3 and 4 and the Foundation information page at [www.gutenberg.org](http://www.gutenberg.org).

### **Section 3. Information about the Project Gutenberg Literary Archive Foundation**

The Project Gutenberg Literary Archive Foundation is a non-profit 501(c)(3) educational corporation organized under the laws of the state of Mississippi and granted tax exempt status by the Internal Revenue Service. The Foundation's EIN or federal tax identification number is 64-6221541. Contributions to the Project Gutenberg Literary Archive Foundation are tax deductible to the full extent permitted by U.S. federal laws and your state's laws.

The Foundation's business office is located at 809 North 1500 West, Salt Lake City, UT 84116, (801) 596-1887. Email contact links and up to date contact information can be found at the Foundation's website and official page at [www.gutenberg.org/contact](http://www.gutenberg.org/contact)

### **Section 4. Information about Donations to the Project Gutenberg Literary Archive Foundation**

Project Gutenberg™ depends upon and cannot survive without widespread public support and donations to carry out its mission of increasing the number of public domain and licensed works that can be freely distributed in machine-readable form accessible by the widest array of equipment

including outdated equipment. Many small donations (\$1 to \$5,000) are particularly important to maintaining tax exempt status with the IRS.

The Foundation is committed to complying with the laws regulating charities and charitable donations in all 50 states of the United States. Compliance requirements are not uniform and it takes a considerable effort, much paperwork and many fees to meet and keep up with these requirements. We do not solicit donations in locations where we have not received written confirmation of compliance. To SEND DONATIONS or determine the status of compliance for any particular state visit [www.gutenberg.org/donate](http://www.gutenberg.org/donate).

While we cannot and do not solicit contributions from states where we have not met the solicitation requirements, we know of no prohibition against accepting unsolicited donations from donors in such states who approach us with offers to donate.

International donations are gratefully accepted, but we cannot make any statements concerning tax treatment of donations received from outside the United States. U.S. laws alone swamp our small staff.

Please check the Project Gutenberg web pages for current donation methods and addresses. Donations are accepted in a number of other ways including checks, online payments and credit card donations. To donate, please visit: [www.gutenberg.org/donate](http://www.gutenberg.org/donate).

## **Section 5. General Information About Project Gutenberg™ electronic works**

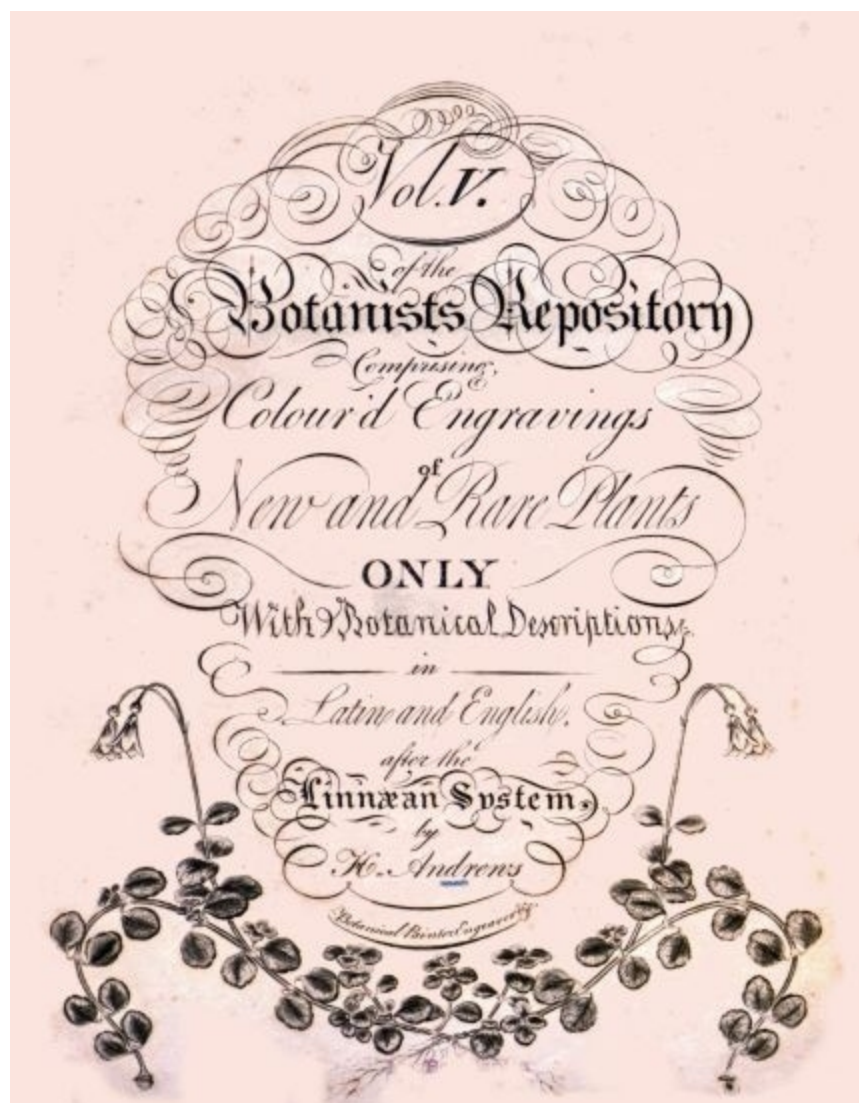
Professor Michael S. Hart was the originator of the Project Gutenberg™ concept of a library of electronic works that could be freely shared with anyone. For forty years, he produced and distributed Project Gutenberg™ eBooks with only a loose network of volunteer support.

Project Gutenberg™ eBooks are often created from several printed editions, all of which are confirmed as not protected by copyright in the U.S. unless a

copyright notice is included. Thus, we do not necessarily keep eBooks in compliance with any particular paper edition.

Most people start at our website which has the main PG search facility:  
[www.gutenberg.org](http://www.gutenberg.org).

This website includes information about Project Gutenberg™, including how to make donations to the Project Gutenberg Literary Archive Foundation, how to help produce our new eBooks, and how to subscribe to our email newsletter to hear about new eBooks.



[back](#)



[back](#)



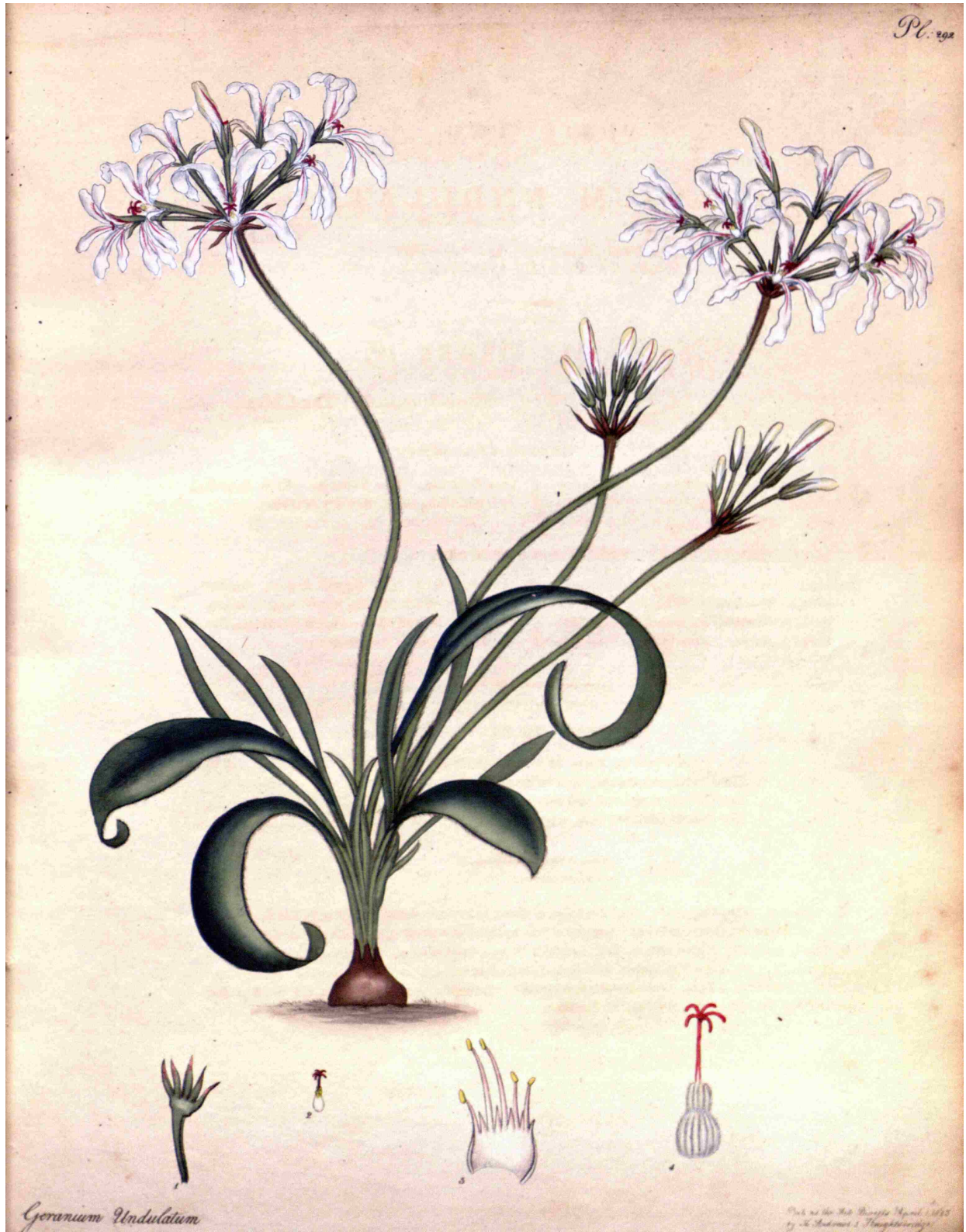


[back](#)



[back](#)





[back](#)



[back](#)





*Protea candicans*

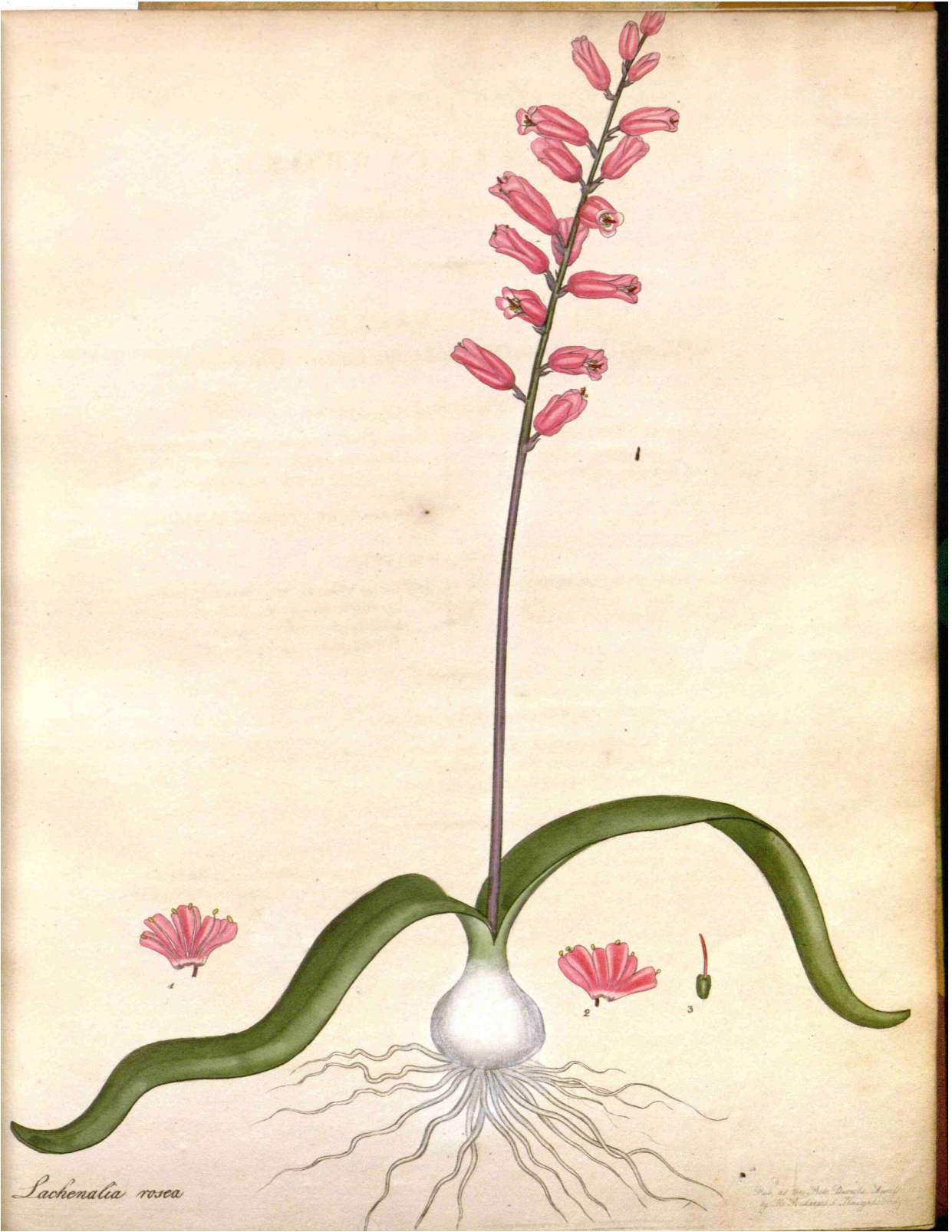
Painted by the late Mr. J. G. Smith, from a specimen in the Herbarium of the University of Cambridge.

[back](#)





[back](#)



[back](#)





[back](#)

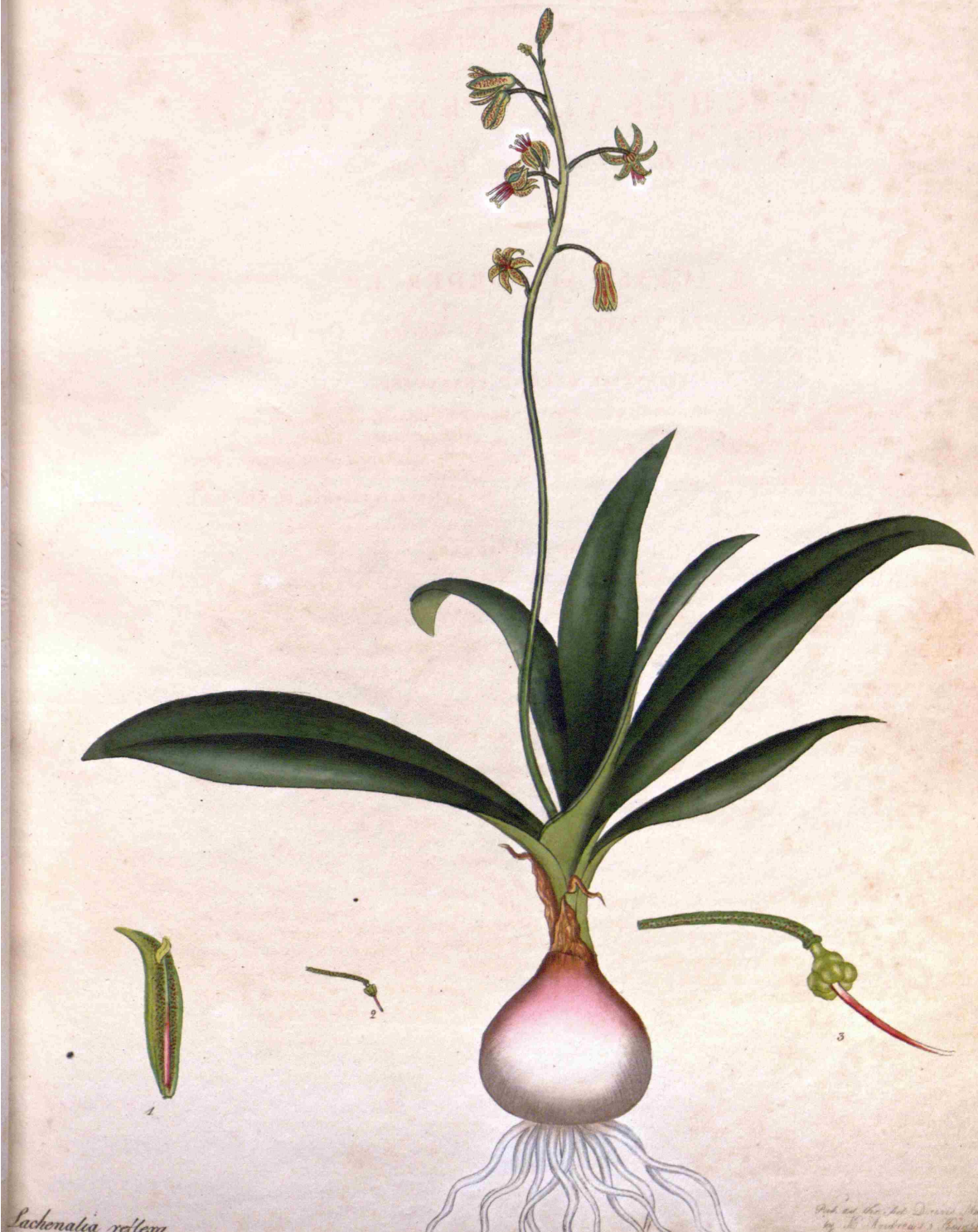


*Anthericum costatum*

Botan. in the St. Andrews May 6.  
by H. Andrews & P. G. R. G. G.

[back](#)





*Lachenalia rotunda*

Printed by J. G. Smith, Strand, London.

[back](#)





*Geranium oxalidifolium*

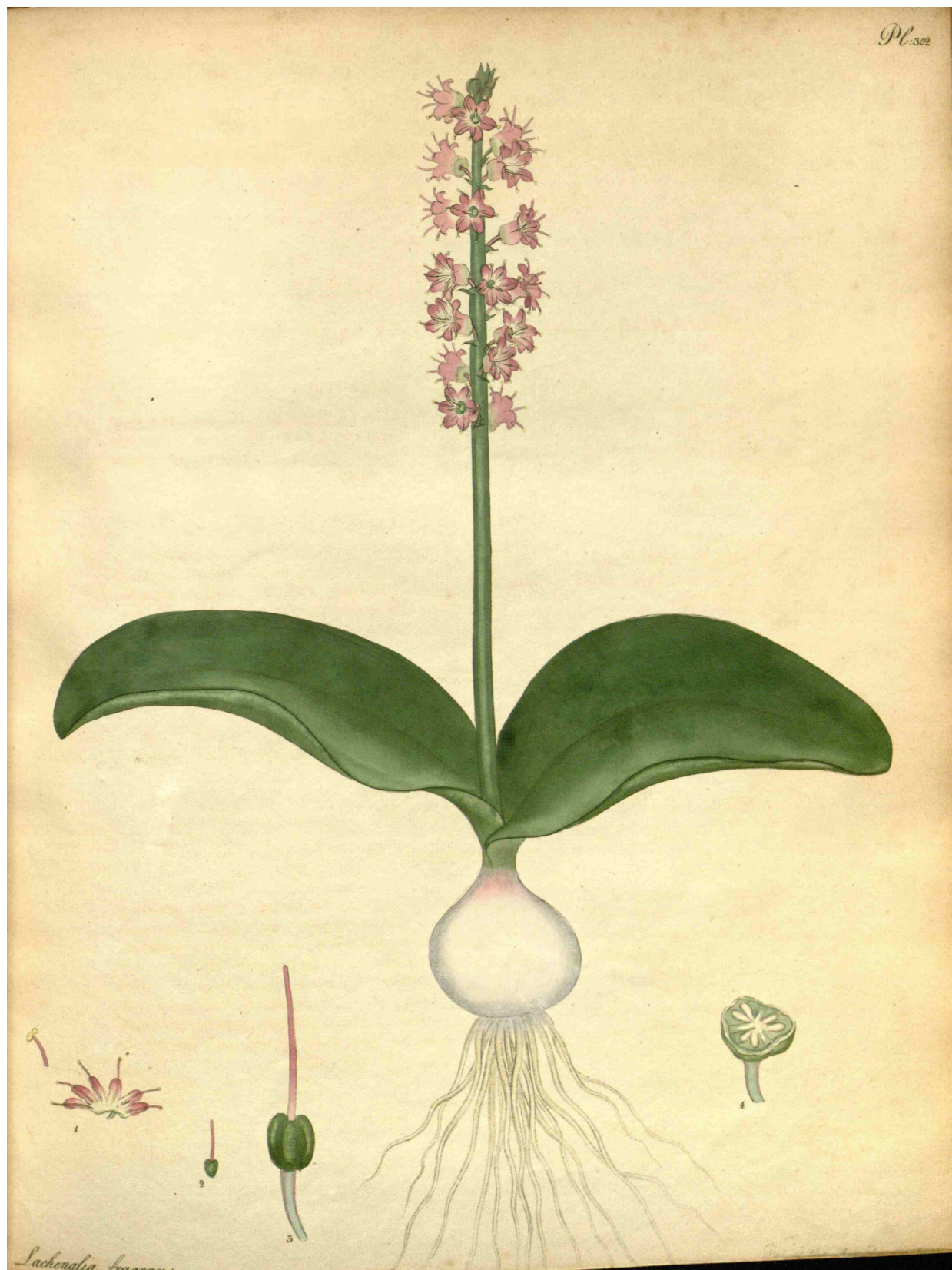
Sp. ex Arn. Bot. Beechey. May 1, 1847.  
by H. Andrews & H. G. Sowerby

[back](#)



[back](#)





*Lachenalia laurana*

[back](#)



*Neranium barbatum*

[back](#)





*Davisonia ulicifolia*

[back](#)

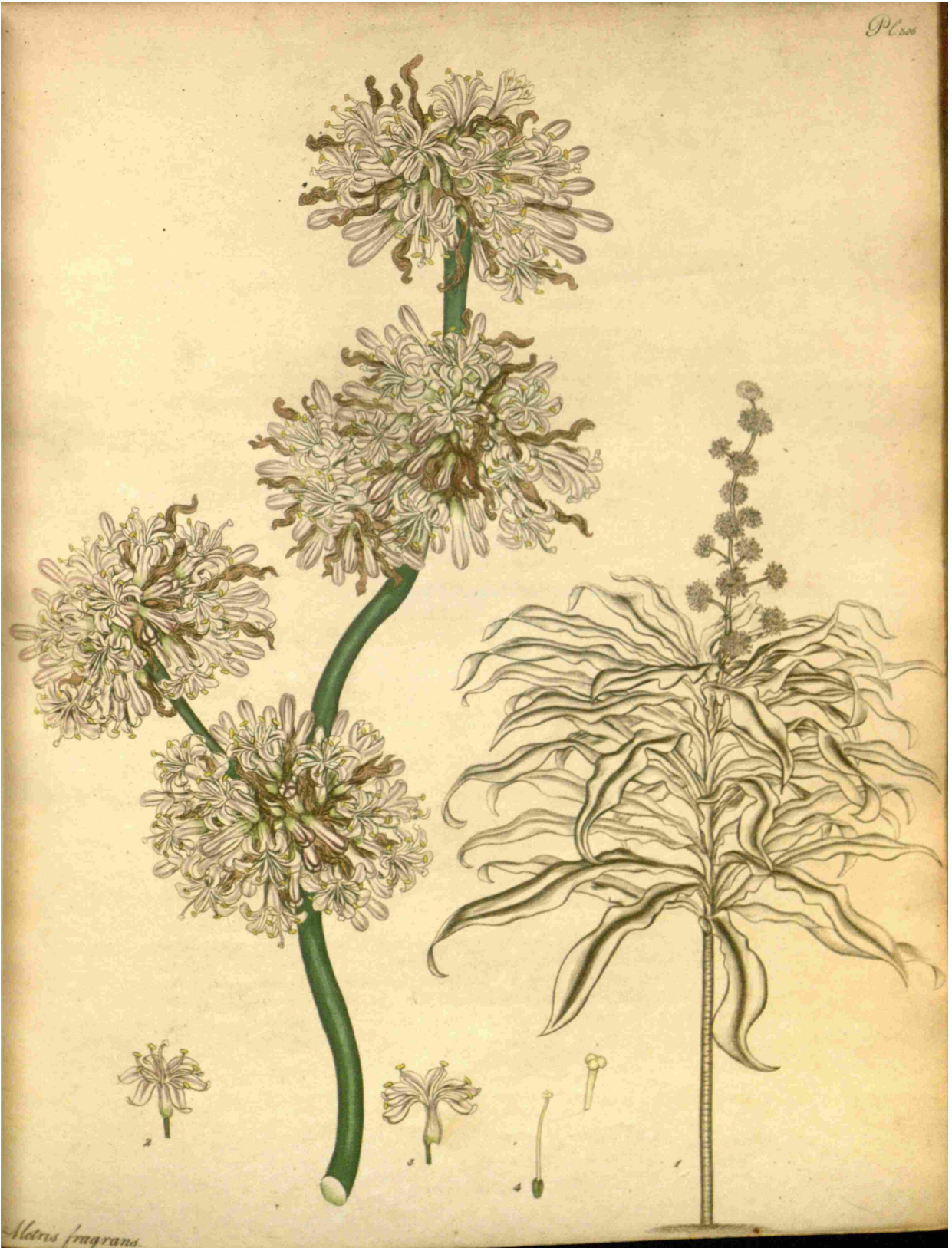




*Geranium coronellofolium*

Painted by the Rev. J. D. Hooker, F.R.S.  
Engraved by J. Smith, del.

[back](#)



[back](#)





[back](#)



[back](#)





*Pultenaea villosa*



[back](#)



[back](#)



*Geranium pinnatifidum*

[back](#)





*Pyphelia viridis*

Bot. at the Bot. Garden, Paris  
by H. Andrews & J. Smith



[back](#)



[back](#)

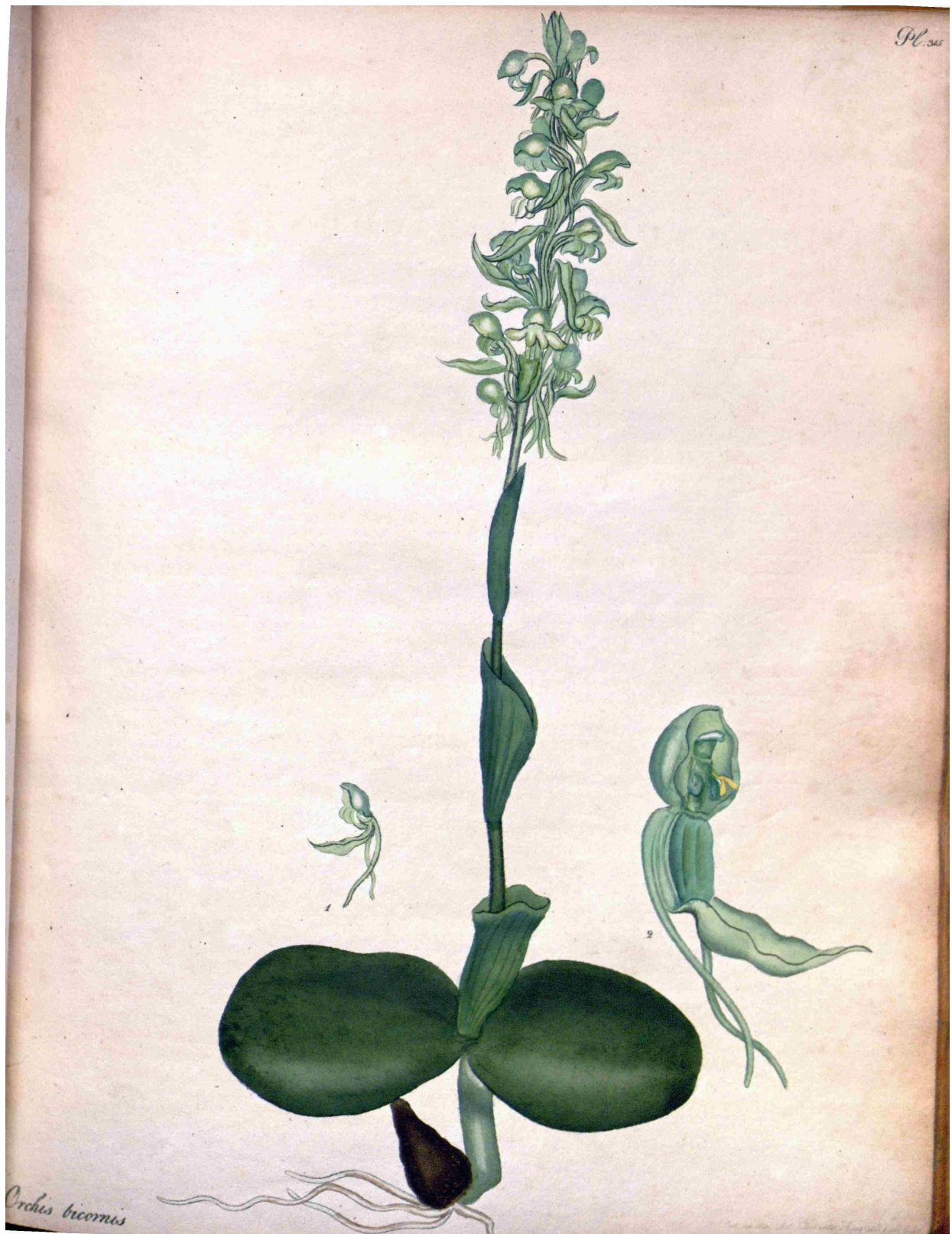


*Itea spinosa*

*Itea spinosa* (L.) Rostk Schmidt  
Pl. 324

[back](#)





[back](#)





[back](#)



*Geranium undulatum* var. *minor*

[back](#)





*Gloria multiflora*

[back](#)





*Vicia galegifolia*

*Pal. galegifolia, Vicia, Apr. 1. 1811.*  
*in Hb. bot. Paris.*

[back](#)



*Calluna dioica*

[back](#)





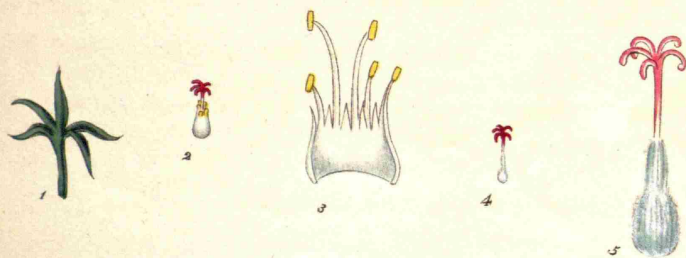
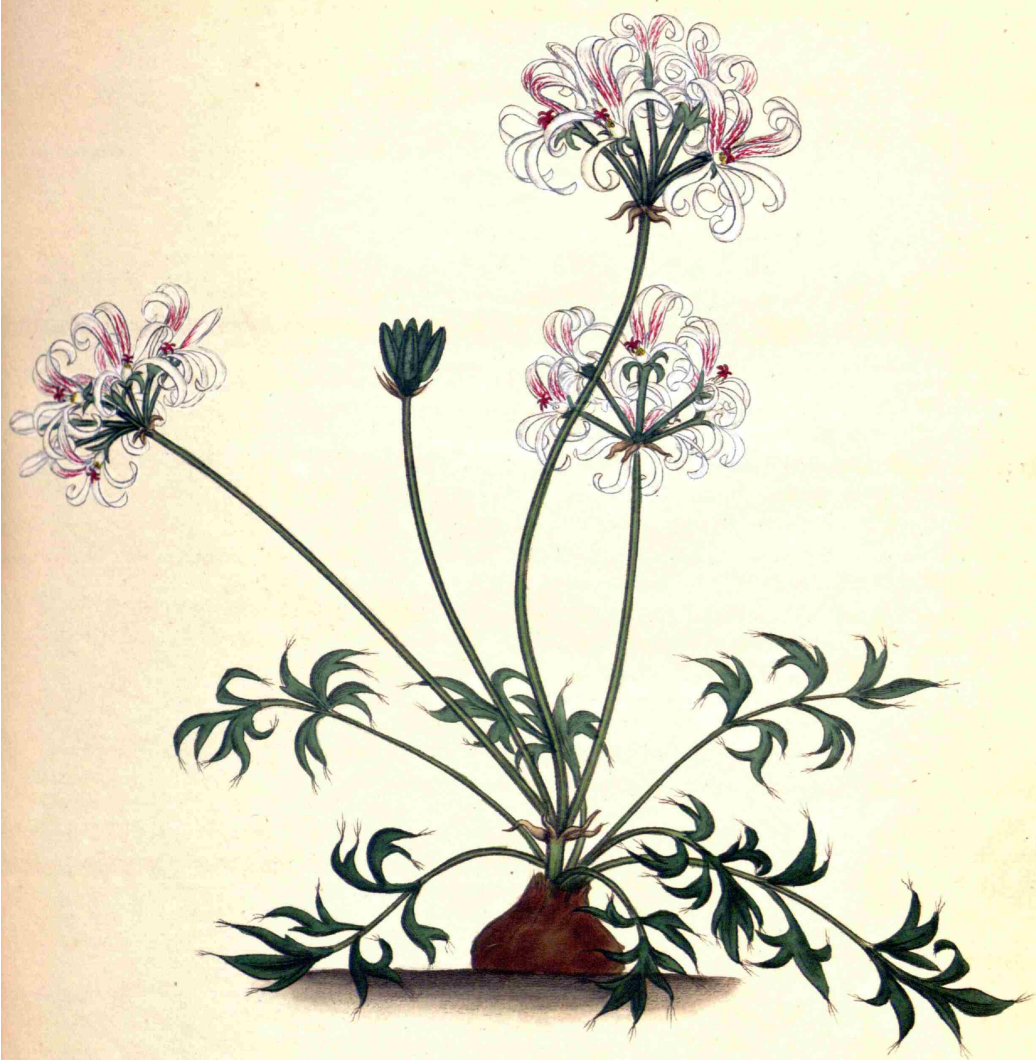


[back](#)



*Mimulus latifolia*

[back](#)



*Gonium barbatum* Ker. minor

Pub. at the Art. Press by J. G. Smith & Co. 1840.

[back](#)

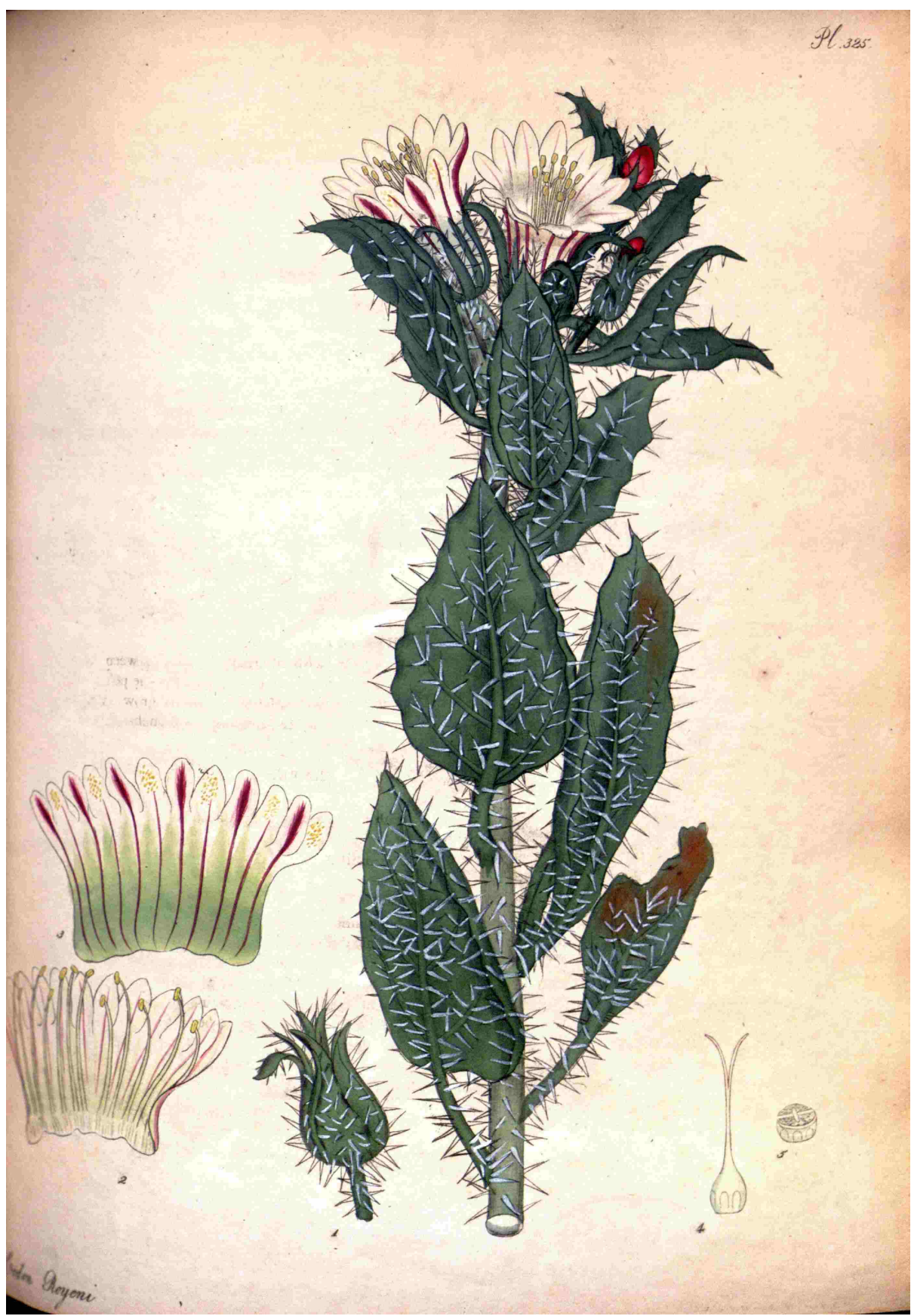




*Arisaema purpurea*

*Pub. ex Arn. Bot. Beecheyana, 1847, p. 100.  
fig. 1. Arisaema purpurea, Arn.*

[back](#)



*Androsace*

[back](#)





*Pharnaceum lineare*

Painted by J. A. Smith & J. A. Smith



[back](#)



*Compositum argenteum*

*From the Herb. Borsook*

[back](#)

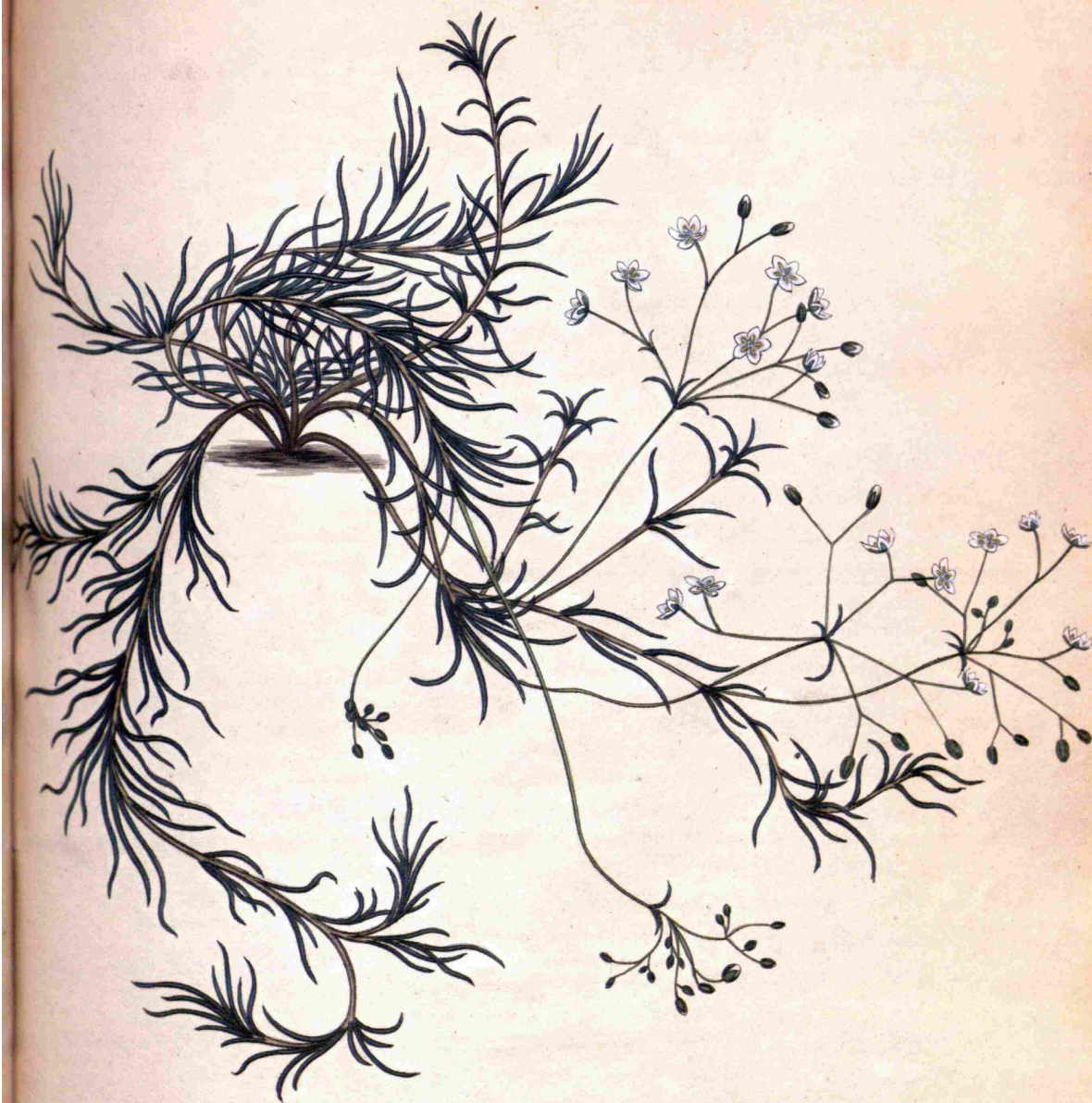




*Goranum tubonifolium*

[back](#)





[back](#)



*Nymphaea stellata*

*Nymphaea stellata* L.  
f. *Andromeda* L.

[back](#)





*Asplenium falcata*



[back](#)



[back](#)

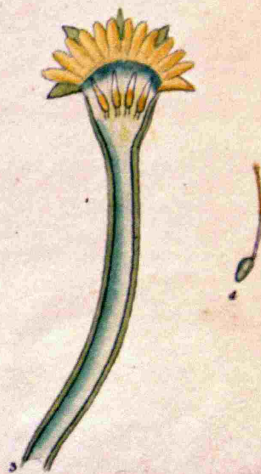
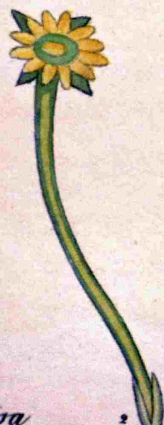


*Sagittaria lancifolia*

Painted by J. Smith from the original in the Herbarium of the University of Cambridge

[back](#)





*Anthelia tomentosa*

[back](#)



*Gladiolus pyramidalis.*

[back](#)

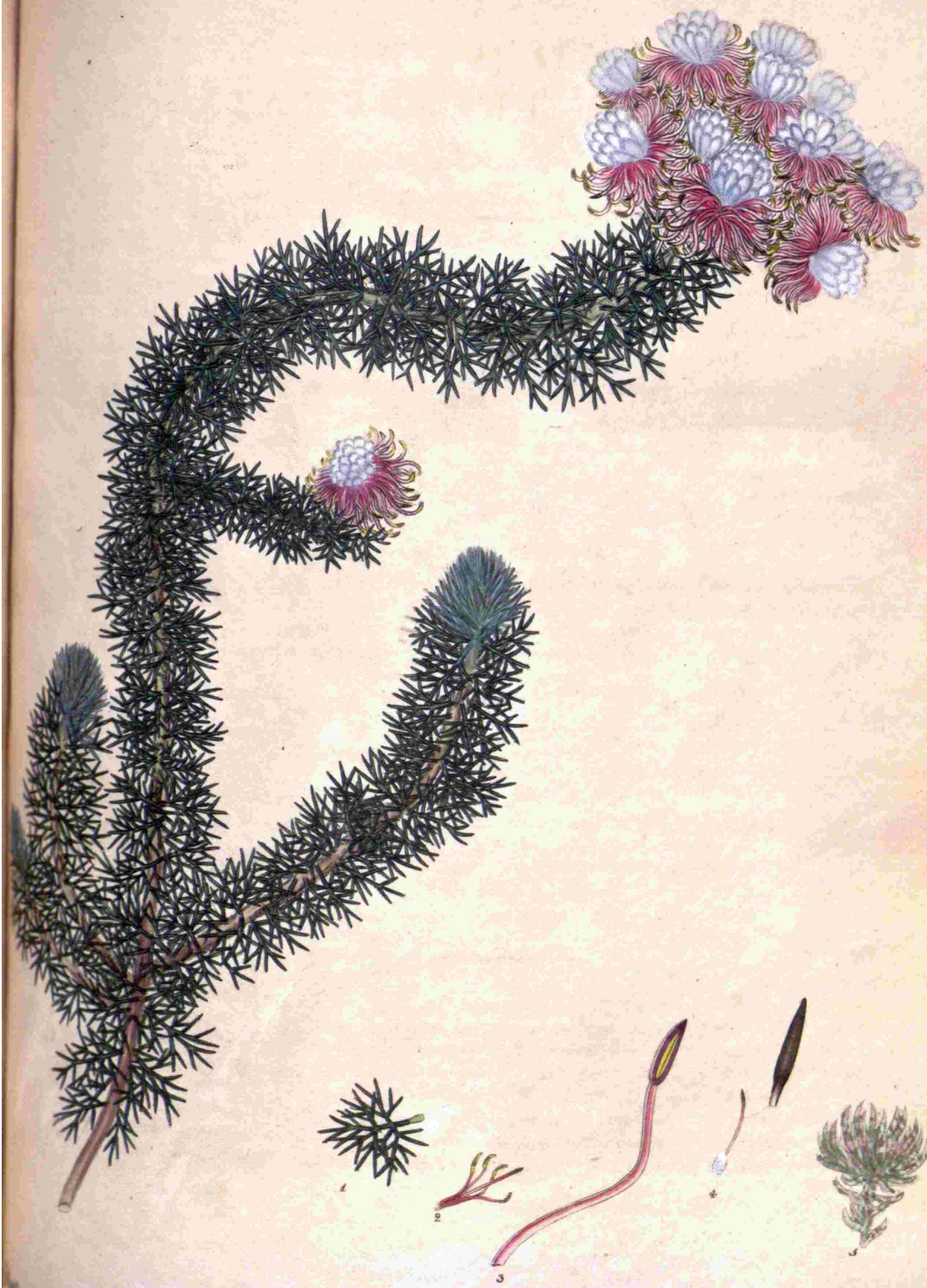




*capensis*



[back](#)



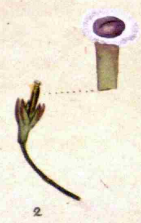
[back](#)



*Coronopus folium*

[back](#)

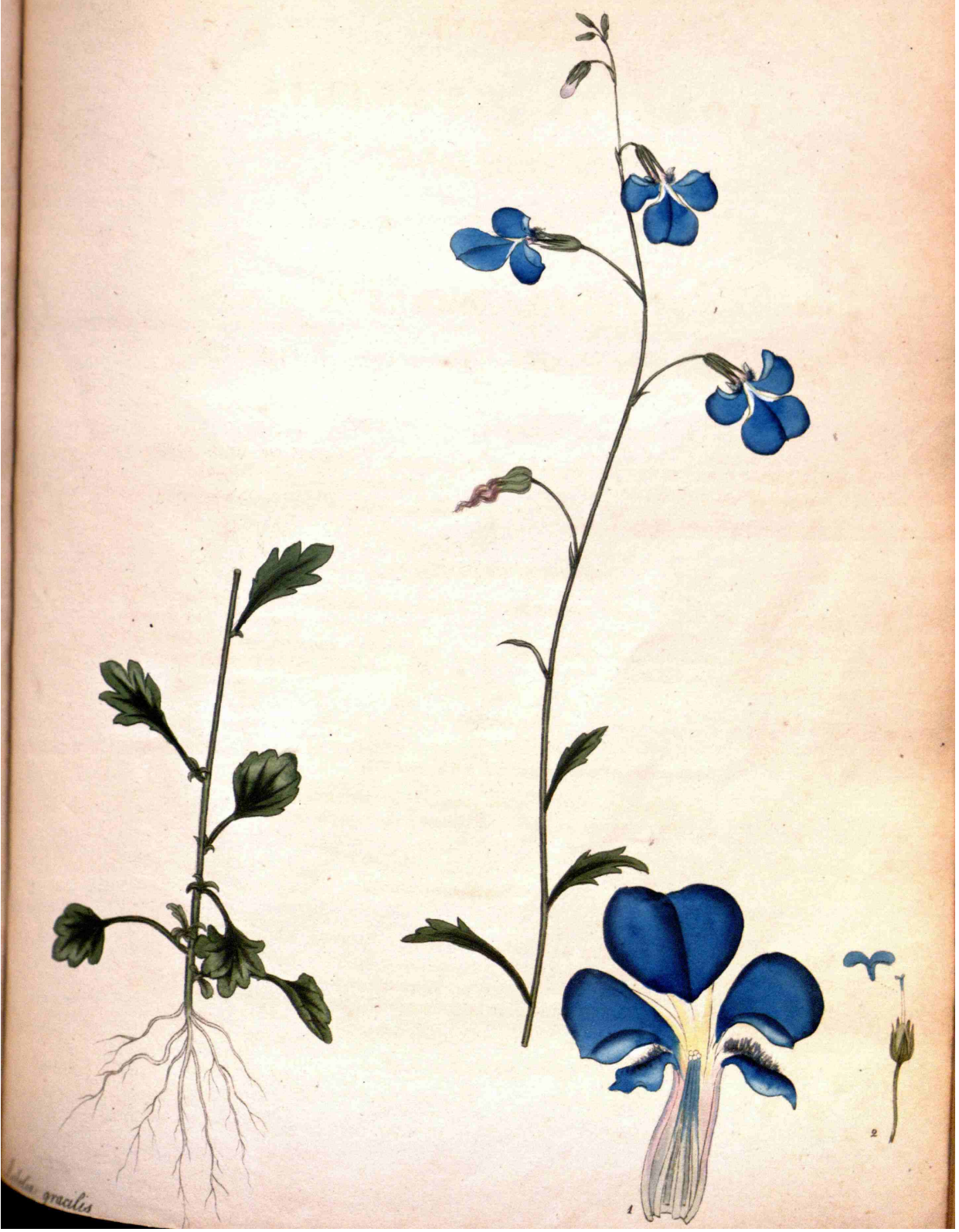




*Salvia nemorosa*

Printed at the 'John Baskett Press' 1863  
By Andrew G. Mackenzie

[back](#)



*Malva*

1

2

[back](#)





*Mimulus caracalla*



[back](#)



*sandens*

*Pl. in the Bot. Garden, 1840*

[back](#)



*Mandfordia cordata*

Pin. 18. 11. 11. 11. 11. 11. 11. 11.

[back](#)



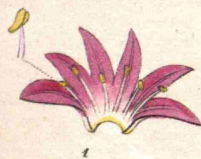
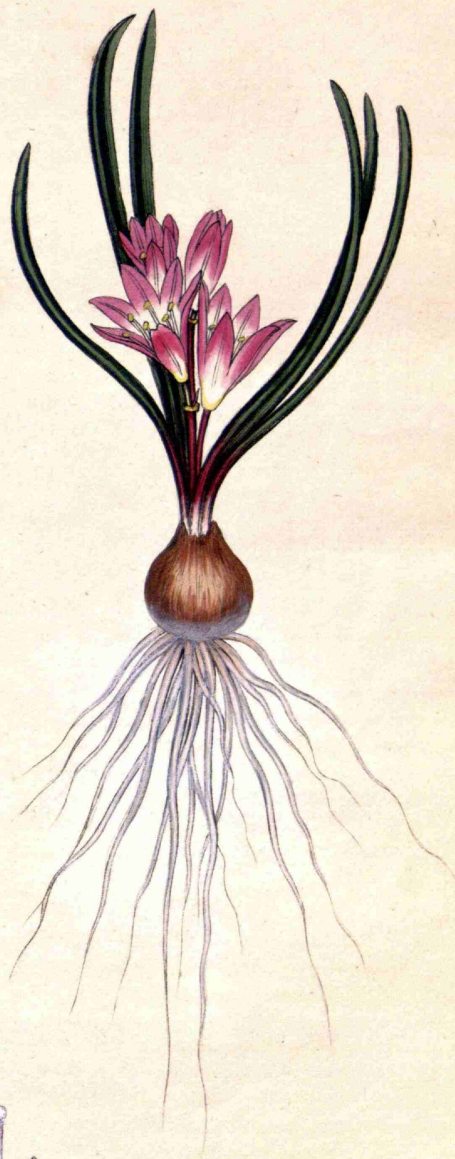
Pl. 344



*Psidium ensifolium*

Des. Lat. the Bot. Beechey Pl. 1847

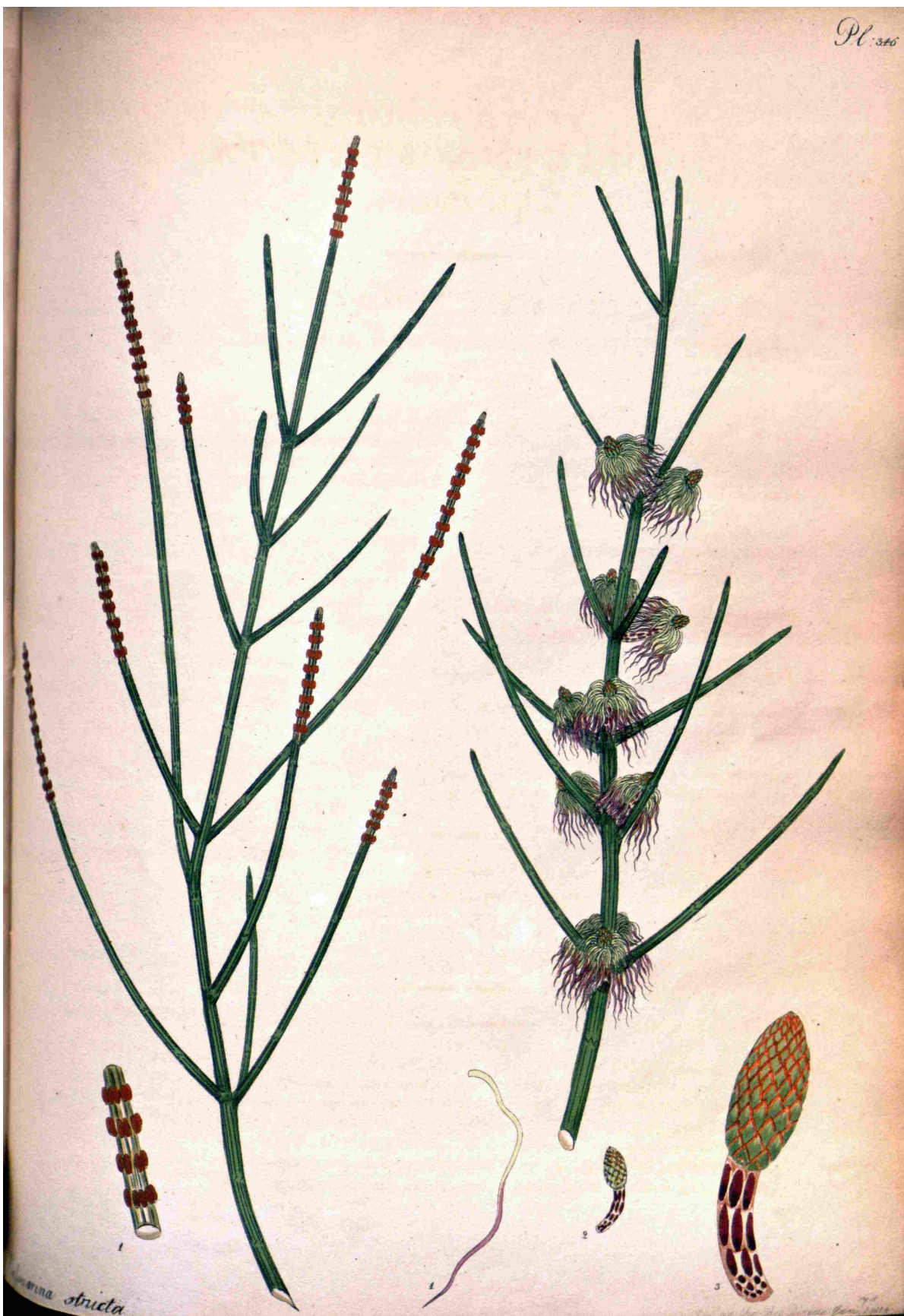
[back](#)



*Hyacinthus corymbosus.*

[back](#)





*Quercus striata*



[back](#)



*Mimosa capensis*

Pub. at the Bot. Garden, 1842

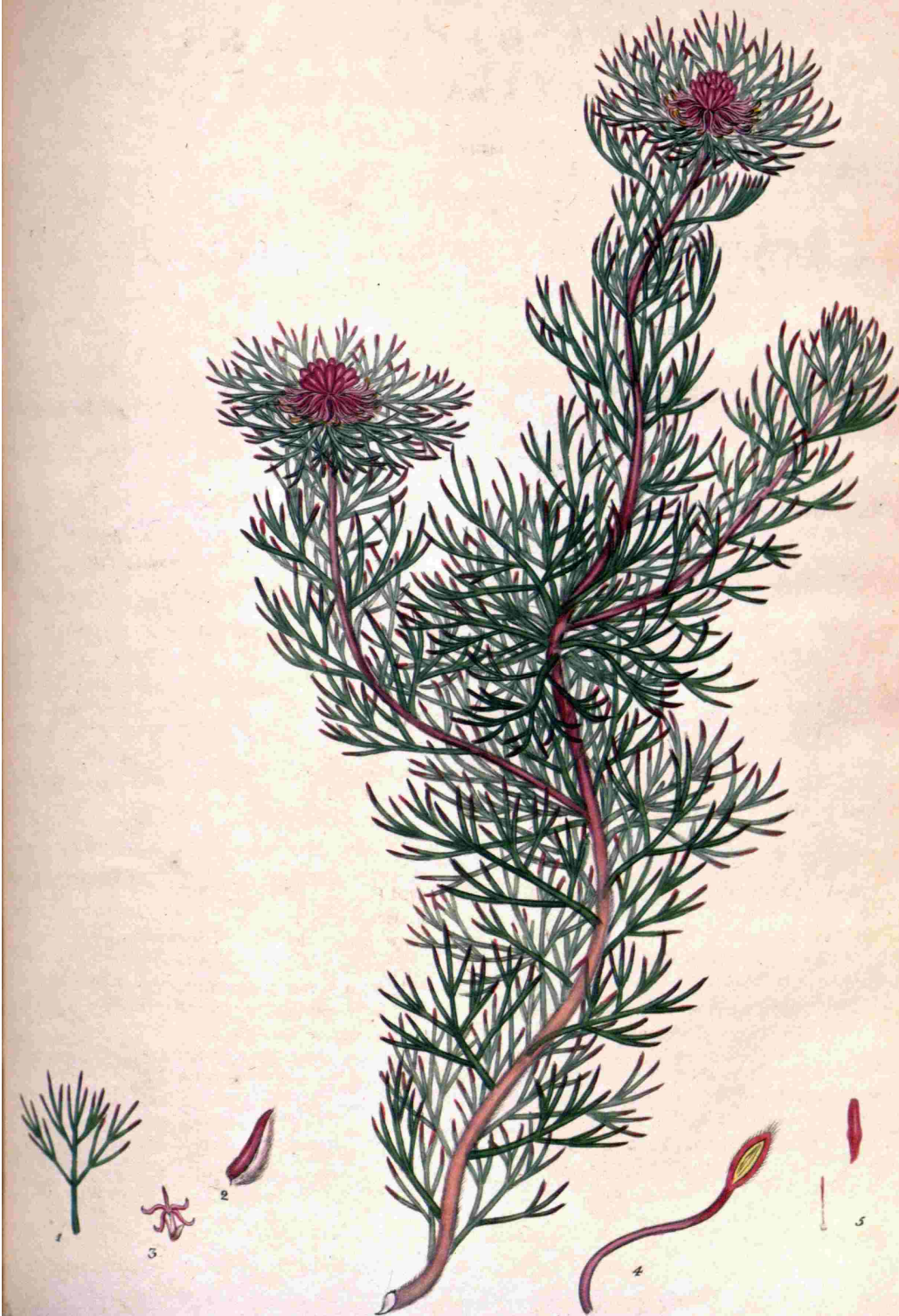
[back](#)



*Schotia speciosa*

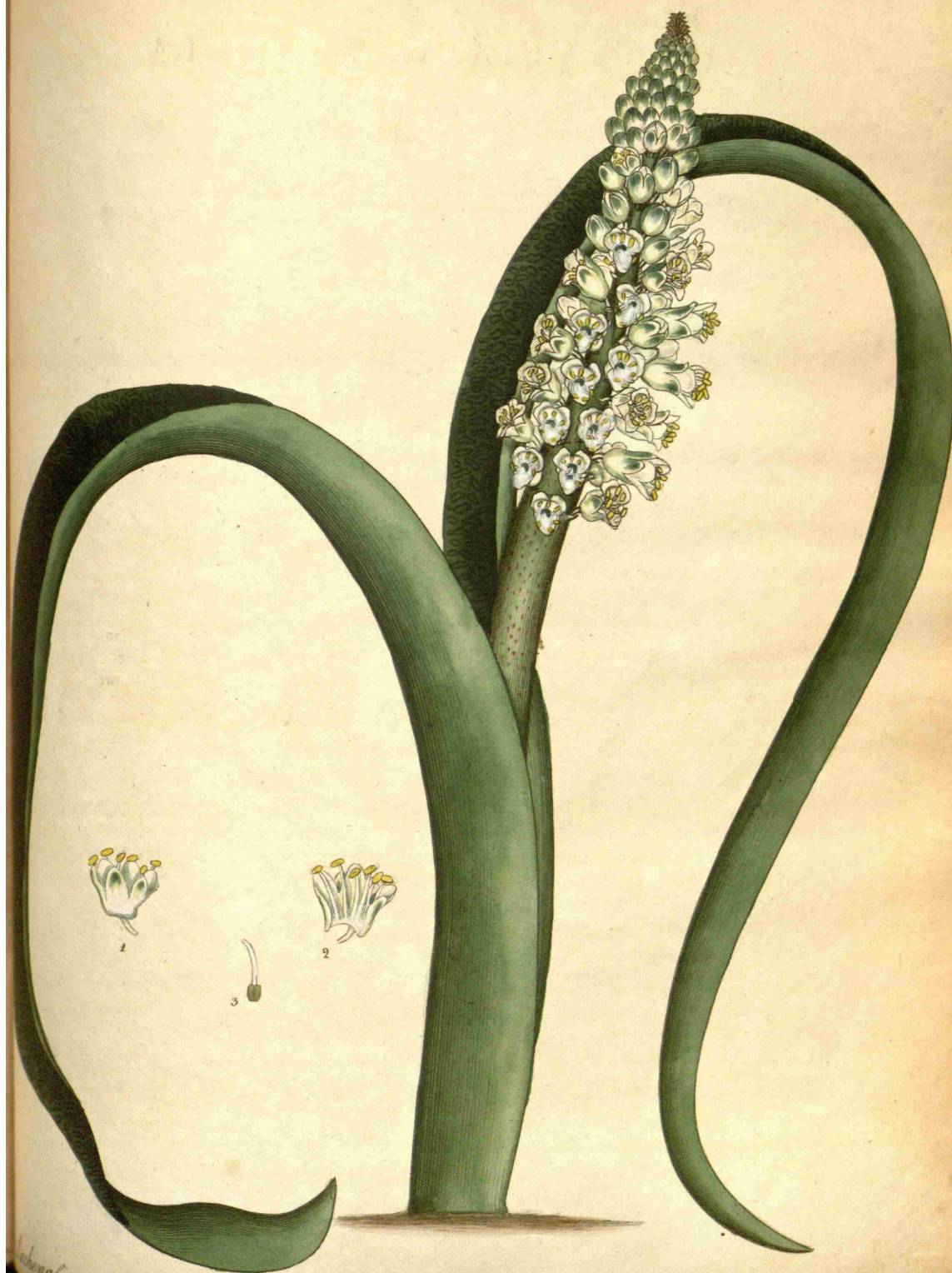
[back](#)





*Banksia decumbens*

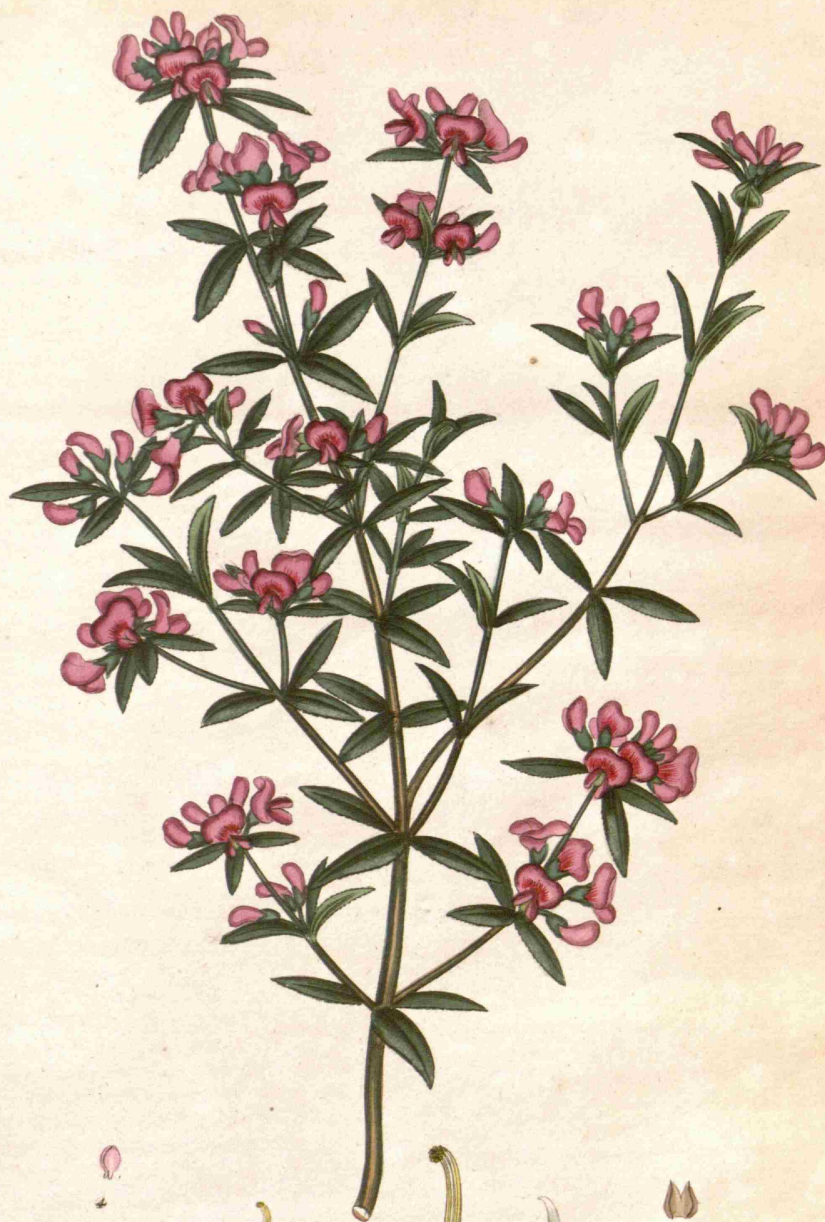
[back](#)



*Andromeda pustulata.*

[back](#)





*Calluna rubrifolia*

*Calluna rubrifolia* L. f. *Calluna* L. f. *Calluna* L. f.



[back](#)



*Heliconia bullata.*

[back](#)



*Lupinus crassifolia*

[back](#)





*Ranuncium revolutum*

[back](#)



*pinnata*

*Pl. 355. 355. 355. 355.*

[back](#)





*Arisaema oracense*

Painted by Mrs. J. D. Smith, 1850.



[back](#)



*Gazania paradoxa*

Painted by John Burrows March 1878

[back](#)



*...la brasiliensis*

*Publ. par M. de ...*

[back](#)





*Barbarea lucida*

*Barb. ad. et. var. lucida. Mart. 1801.*

[back](#)



*Psephalea nutans.*

[back](#)