









Andrews, H. C., *Botanists' Repository, etc.*
cf. H. HARMS, *Notizbl. Berl.-Dahlem* 4 (1906)
 243-245; J. BRITTEN, *J. Bot.* 54 (1916) 236-246.

<i>Vol.</i>	<i>Plates</i>	<i>Dates</i>
1	1-6	Nov.-Dec. 1797
	7-42	1798
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	199-216	Jan.-Mar. 1802
4	217-270	Apr.-Dec. 1802
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5	289-342	Apr.-Dec. 1803
	343-360	Jan.-Mar. 1804
6	361-414 ¹	Apr.-Dec. 1804
	415 ² -432	Jan.-Mar. 1805
7	433-441	Dec. 1806
	442-467	Jan.-?June 1807

Dates of later issues, beginning with part 97 deduced by BRITTEN from the *Monthly Bot. Report* in the *Monthly Magazine*. It is accepted here that the parts appeared at least in the month before their citation in the *Monthly Mag.*

<i>Vol.</i>	<i>Part</i>	<i>Plates</i>	<i>Dates</i>
7	97	468-472	prob. July 1807
	98	473-477	prob. Aug. 1807
	99	478-482	Oct. 1807
	100	483-487	? (not noticed)
	101	488-492	Nov. 1807
8	102	493-497	Dec. 1807
	103	498-502	Feb. 1808
	104	503-507	? (not noticed)
	105	508-512	Mar. 1808
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	107	518-522	May 1808
	108	523-527	June 1808
	109	528-532	July 1808
	110	533-537	Aug. 1808
	111	538-542	Nov. 1808
9	112-116	543-567	before May 1809
	(pl. 553 seq.) 117-119	568-582	before Sept. 1809
10	120	583-586	prob. Nov. 1809
	(121-127)	587-612,	before Sept. 1810
	(pl. 609 seq.)	613-617	prob. Dec. 1810
	128	618-622	June 1811
	129	623-627	June 1811
	130	628-632	June 1811
	131	633-636	June 1811
	132	637-640	Nov. 1811
	133	641-645	Dec. 1811
	134	646-650	Mar. 1812
	135	651-654	July 1812
	136	655-659 (pl. 657 dated 1812)	
	137	660-664	prob. 1814-1815

Note. From pl. 618 onwards the dates have been ascertained from the wrappers of vol. 10.

- (1) HARMS erroneously includes plate 415.
 (2) HARMS erroneously from plate 416.

Bot.

THE
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WHEN INTRODUCED, AND BY WHOM.

THE WHOLE EXECUTED BY
HENRY ANDREWS,
AUTHOR OF THE COLOURED ENGRAVINGS OF HEATHS, IN FOLIO.

v. 1-2.

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1797.



Vol. 1.

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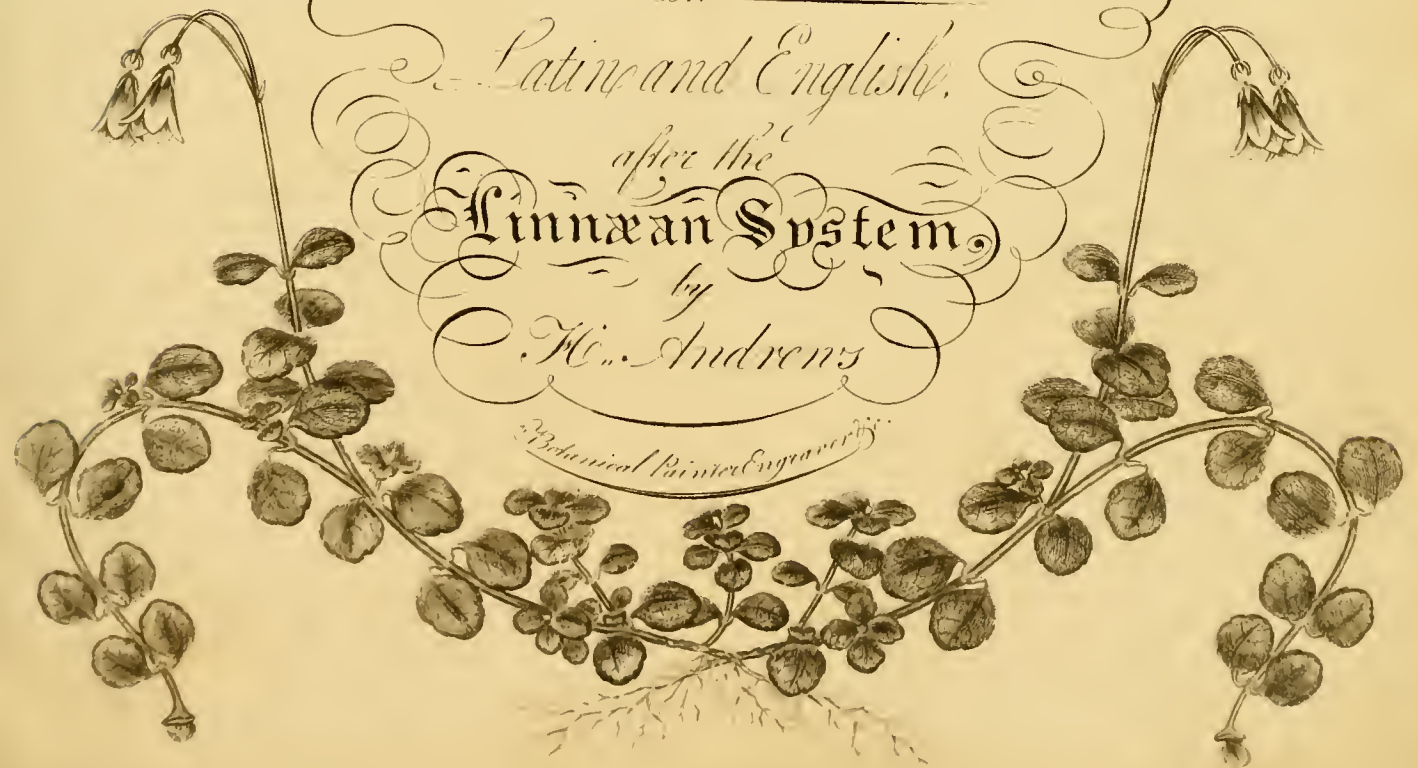
after the

Linnaean System,

by

W. Andrews

Botanical Printer & Engraver



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P R E F A C E.

THE utility of this undertaking at a crisis, when the taste for Botanical pursuits so universally prevails, will, it is presumed, be readily admitted by all those engaged in them, whether as theorists, collectors, or cultivators. Such a work, under the immediate direction of some principal leader in the science, of this country, has been a desideratum of long expectation; but either from the great expence necessarily incurred, before any adequate return could be made, or from the trouble attendant on publications, where colouring forms so considerable a part, as yet, every similar attempt has proved abortive. The Bot. Mag. of Mr. Curtis, a work of singular merit in its way, has occasionally furnished, it is true, a few specimens of new plants; but the greatest part, as its title-page indicates, consists of those well known, common plants, long cultivated in our gardens; the direct reverse of the proposals and intentions of the author, in the prosecution of this. From a wish to prevent confusion, it was a determined principle at the outset of the work, not to give any generic or specific synonyms; but to follow the most generally accepted names, of known and named plants, without a cavil, of our best English botanists, or cultivators, if no flagrant error was perceptible, according to the Linnæan system: being satisfied, nothing contributed so much to repress the ardour of young botanists as the difficulty of affixing the right name to those plants, which, (from a captious desire in every publisher, to insist in something of his own coinage, upon the most trifling supposed difference,) have undergone several changes of title. If the plant was a certain novelty, with us, to have followed the sexual system, without a schism; upon that truly grand and comprehensive scale of nature; when the formation of a new genus was necessary; if not, to refer it to some one already made, if such was to be found, in any orthodox author: the specific name to be formed from some opposed, leading feature, in the habits of the different species of the genus. But although such were the Author's intentions, when he entered on this business, yet, from a wish to oblige many of the supporters of the work, who have signified a wish that synonyms should be given, an alphabetical Index, with all the various Synonyms collated from the best authorities, shall be printed separate for the use of those who may wish for such an addition.

As a fair excuse for the Author, (who throws himself upon the candour of the Public,) in extenuation of the inaccuracies which have, and will necessarily occur in the prosecution of the work, it is just to say, that the difficulties to be encountered, and of which none but those engaged in similar concerns can form any adequate idea, are incalculable; arising chiefly from the nature of a monthly publication, composed entirely of novelty, which cannot be anticipated, and of course, so very little time can be allotted for revival or correction. To remedy as far as possible such slips, a list of Erratæ will be given, with the Index, at the close of each volume.

KNIGHTSBRIDGE, Oct. 1799.

ERRATA, VOL. I.

- Plate 2. Springalia, lege, *Sprengelia*. Bloff. one leaf, read, *one petal*.
Peri. 4-valvis, 4-locul. l. 5-val. 5-loc. S. V. 4 val. 4 cells, r. 5 val. 5 cells.
3. Cor. æquila, l. *equalia*. Emp. Sheath, r. *Sheaths*.
7. Calyx, multiflorium, l. *multiflorum*.
9. Calyx, didoiois, l. *deciduis*. Stam. acumenatæ, l. *acuminatæ*.
11. Sp. Ch. post roseis, inf. (,).
12. Ord. II. r. IV. Seeds, become, r. *becomes*.
14. Emp. cup, r. *sheath*. Poin. put (,) after beneath.
15. Standard, cut, r. *cup*.
20. Sem. acumenatæ, l. *acuminatæ*.
23. Bloff. after spreading, put (,). No. 2 of Ref. put (*the*) before chives.
25. Sp. Ch. post plenis, inf. (,).
27. Ord. II. r. IV.
30. Line 6th of Defcr. leave out (*not*).
37. Ord. II. r. IV.
41. Bloff. one leaf, r. *one petal*; divided into six, r. *with six divisions*.
47. Stam. post subulata, inf. (,).
65. Emp. fruit-stalks, r. *fruit-stalk*.
67. Defcr. line 2d, for makes an addition to, r. *makes one of*.

PLATE I.
CORTUSA MATTHIOLI.
Alpine Sanicle.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quinquesidum, persistens; laciniis obtusis, concavis.

COROLLA. Monopetala, rotata, quinquepartita, laciniis sub-rotundis, ad quarum basin prominent tubercula quinque.

STAMINA. Filamenta quinque brevia. Antheræ bipartitæ, oblongæ, erectæ, exteriori parte affixæ.

PISTILLUM. Germen ovatum. Stylus filiformis. Stigma simplex.

PERICARPIUM. Capsula ovata-oblonga, utrinque longitudinaliter fulcata, unilocularis, apice quinquevalvi, valvularum marginibus involutis.

SEMINA numerosa, oblonga, scabra.

EMPALEMENT. Cup with five divisions, permanent; the segments blunt, and concave.

BLOSSOM. One leaf, wheel-shaped, five divisions, segments nearly round, having five prominent tubercles at their base.

CHIVES. Five short threads. Tips divided in two, oblong, upright, and fixed to the blossom by their backs.

POINTAL. Seed-bud egg-shaped. Shaft thread-shaped. Summit simple.

SEED-VESSEL. Capsule oblong egg-shaped, channelled on each side, of one cell, the top has five valves, which are turned inward at their margins.

SEEDS many, oblong, and rough.

SPECIFIC CHARACTER.

Cortusa, foliis cordatis, laciniatis, petiolatis; calycibus corolla brevioribus.

Sanicle, with heart-shaped jagged leaves that have foot-stalks; empalements shorter than the blossoms.

REFERENCE TO THE PLATE.

1. The Empalement, and Fruit-stalk.
2. The Blossom cut, and spread open, to expose the situation of the Chives.
3. The Pointal, magnified.

THIS beautiful little herbaceous plant, a native of the Germanic Alps, was known to, and described by all the elder, as well as modern botanical theorists; yet till this time, has there not been one good representation of it. Having been nearly lost to us for a number of years, it may be considered as deserving a place amongst those plants we deem rare; as a specimen of such it has been given. It delights much in shade; is perfectly hardy; thrives best in a light but pure soil; as dung, or other mixtures, are apt to rot the roots when in a state of inaction; flowering in May and June, and producing seeds. But the surest mode of propagation is by the root, which may be divided with success about September.





PLATE II.

SPRINGALIA INCARNATA.

Star-flowered Springalia.

CLASS XIX. ORDER VI.

SYNGENESIA MONOGAMIA. Tips united. Flowers simple.

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, quinquefidum, persistens.</p> <p>COROLLA. Monopetala, quinquefida, rotata, laciniis acumenatis.</p> <p>STAMINA. Filamenta quinque, lineares, receptaculo inferta. Antheræ pilosæ, erectæ, connatæ in cylindrum.</p> <p>PISTILLUM. Germen superum, turbinatum. Stylus filiformis. Stigma obtusum.</p> <p>PERICARPIUM. Capfula quadrivalvis, quadrilocularis.</p> <p>SEMINA plurima, minima, rotunda.</p>	<p>EMPALEMENT. Cup one leaf, cut into five segments, and remaining.</p> <p>BLOSSOM. One leaf, cut into five segments, wheel-shaped, the divisions sharp pointed.</p> <p>CHIVES. Five threads, linear, fixed into the receptacle. Tips hairy, upright, united into a cylinder.</p> <p>POINTAL. Seed-bud above, turban-shaped. Shaft thread-shaped. Summit blunt ended.</p> <p>SEED-VESSEL. Capfulè four valves, four cells.</p> <p>SEEDS many, small, and round.</p>
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SPECIFIC CHARACTER.

<p>Springalia, foliis alternis, amplexicaulibus, mucronatis; corollis sub-folitariis, incarnatis, rigidis, micantibus.</p>	<p>Springalia, with alternate leaves, embracing the stem, and sharp pointed; blossoms mostly single, flesh-coloured, harsh, and shining.</p>
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REFERENCE TO THE PLATE.

1. The Empalement, (natural size).
2. The Blossom divided from the Empalement.
3. The Chives, Pointal, and Seed-bud, (magnified).
4. The Seed-vessel, and Pointal, (magnified).

THE Springalia, must certainly rank among the most beautiful of the various new genera which have been introduced from New Holland; the delicacy, brilliancy, and number, of its blossoms render it particularly attractive, whilst their extreme permanency adds greatly to its merits; the flower being of such singular durability, as to retain nearly the same appearance when the seeds are perfected, as at their first opening. The figure before us, was taken from a plant in the nursery garden of Messrs. Lee and Kennedy, Hammersmith, who raised it from seeds about three years since, and where it has flowered these two successive years. The Botany-bay plants, (as they are generally called) are best preserved in the greenhouse; but although this is sufficiently hardy for such treatment, yet its situation must be dry, being very susceptible of damps, flourishing best in sandy peat earth; continues flowering through the whole summer; and propagates easily by cuttings. The characters, and habit of this genus, like almost all the plants from New Holland, being perfectly new, there was a necessity to form a fresh generic name for it; which has been done by the deservedly eminent Dr. J. E. Smith, botanical professor, and president of the Linnæan Society.



Spergularia cuneolata





PLATE III.
NEOTTIA SPECIOSA.
Flesh-coloured Neottia.

CLASS XX. ORDER II.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

<p>CALYX. Spathæ vagæ. Spadix simplex.</p> <p>COROLLA. Petala quinque, longitudine æquila, anguste-lanceolata, erecta.</p> <p><i>Nectarium</i> monophyllum, indivisum, acuminatum, intra petala interiora positum, basin styli femiamplectens, erectum, superne patulum.</p> <p>STAMINA. Filamenta duo, ex limbo styli dorsali orta, lanceolata. Antheræ duæ, lineares, longæ, locatæ in loculum filamenti.</p> <p>PISTILLUM. Germen inferum, curvatum, fuscum, inferne attenuatum. Stylus crassus, adnatus labio superiori nectarii. Stigma obsoletum.</p> <p>PERICARPIUM. Capsula unilocularis, carnosa, longissima, trivalvis.</p> <p>SEMINA numerosa, minutissima.</p>	<p>EMPALEMENT. Sheath scattered. Fruit-stalk simple.</p> <p>BLOSSOM. Petals five, of equal length, of a narrow spear-shape, and upright.</p> <p><i>Honey-cup</i> one leaf, undivided, sharp pointed, placed between the two inner petals, half embracing the base of the shaft, upright, spreading at the top.</p> <p>CHIVES. Two threads, rising out of the back of the shaft, spear-shaped. Tips two, linear, long, placed in the cells of the threads.</p> <p>POINTAL. Seed-bud beneath, curved, furrowed, tapering at the base. Shaft thick, growing to the upper lip of the honey-cup. Summit indistinct.</p> <p>SEED-VESSEL. Capsule with one cell, fleshy, very long, three valves.</p> <p>SEEDS numerous, very small.</p>
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SPECIFIC CHARACTER.

<p><i>Neottia</i>, foliis radicalibus, undulatis, lato-lanceolatis, basi attenuatis; floribus confertis, spicatis, incarnatis, speciosissimis.</p>	<p><i>Neottia</i>, with leaves growing from the root, wavy, of a broad spear-shape, tapered at the base; flowers pressed together in a spike, flesh-coloured, and most beautiful.</p>
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REFERENCE TO THE PLATE.

1. A Blossom, Seed-bud, and Sheath, (natural size).
2. The Seed-bud, and three Petals of the Blossom; the two inner cut out, to shew the position of the Honey-cup, (natural size).
3. Seed-vessel, and Honey-cup magnified; shewing the situation, and shape of the Chives, within the Honey-cup.
4. The same magnified; shewing the situation of the Pointal, at the back of the Honey-cup.

PROFESSOR Jacquin of Vienna, having figured the *Neottia* in the third volume of his *Collectanea*, with justice has determined it a new genus, and given it the name it here bears; the whole habit of the plant being entirely dissimilar to any old genera. It certainly must be placed somewhere near *Limodorum*, or *Epidendron*, from either of which, however, it stands perfectly distinct. This is the only species yet in England, and was introduced from the island of Jamaica, about the year 1793, by the Hon. Mrs. Barrington. The drawing from which the present figure is taken, was made (by her kind permission) from a plant in the extensive collection of the Hon. Lady Archer, Ham-common. Like all plants from that island, it requires the heat of a pine-stove, and rich earth, to make it flourish; is increased by the root, and flowers in the early part of the year.







PLATE IV.
RHODODENDRON DAURICUM.

Dauric Rhododendron.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX quinquepartitus, persistens.

COROLLA. Monopetala, rotato-infundibuliformis: limbo patente; laciniis rotundatis.

STAMINA. Filamenta decem, filiformia, longitudine corollæ, declinata. Antheræ ovals.

PISTILLUM. Germen pentagonum, retusum. Stylus filiformis, longitudine corollæ. Stigma obtusum.

PERICARPIUM. Capsula ovata, quinquelocularis.

SEMINA numerosa, minima, lineares.

EMPALEMENT of five divisions, and remaining.
BLOSSOM. One leaf, of a roundish funnel-shape: the limb spreading; and its segments rounded.

CHIVES. Ten hair-like threads, the length of the blossom, bent downward. Tips oval.

POINTAL. Seed-bud five-sided, and dented. Shaft thread-shaped, the length of the blossom. Summit blunt-ended.

SEED-VESSEL. Capsule oval, five-celled.

SEEDS many, small, and linear.

SPECIFIC CHARACTER.

Rhododendron, foliis glabris utrinque nudis, petiolis longissimis; corollæ violacæ, foliis ampliores, rotatæ.

Rhododendron, with smooth leaves, naked on both sides, and long foot-stalks; the blossoms light purple, larger than the leaves, and wheel-shaped.

REFERENCE TO THE PLATE.

1. The Blossom, (natural size).
2. The Chives, and Pointal, (natural size); one tip detached, (magnified).
3. The Seed-vessel, and Pointal, (magnified).

ALTHOUGH this shrub has been described, and is well known to botanists, it has not, till within these very few years, been seen in Great Britain. It is a perfectly hardy plant, being a native of the coast of the Black and Caspian seas, and parts adjacent; from whence it has been conveyed to Petersburg by Dr. P. Pallas, and figured by him in his *Flora Russica*. Mr. Buth was the person who brought it to England, on his return from Russia. The flowers begin to appear in the month of March, continuing through April and May. As yet (from its scarcity) the best method of cultivating it can scarcely be known; but it seems to like a sheltered situation, and light soil, like most of the genus; and has been increased by layers. The drawing was made from a plant, at the nursery of Messrs. Lee and Kennedy, Hammermith.



Rhododendron dauricum



PLATE V.
GLADIOLUS LONGIFLORUS.

Long-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Spathæ bivalves.</p> <p>COROLLA, sexpartita, ringens. Petala oblonga, omnia unguibus in tubum conata.</p> <p>STAMINA. Filamenta tria, subulata, divifuris alternis petalorum inferta. Antheræ oblongæ.</p> <p>PISTILLUM. Germen inferum. Stylus simplex, longitudine staminium. Stigma trifidum, concavum.</p> <p>PERICARPIMUM. Capfula oblonga, obtufa, trilocularis, trivalvis.</p> <p>SEMINA plura, subrotunda.</p>		<p>EMPALEMENT. Sheath two valves.</p> <p>BLOSSOM, cut into six segments, and gaping. Petals oblong, having all their claws connected into a tube.</p> <p>CHIVES. Three threads, awl-shaped, fixed into each alternate division of the petals. Tips oblong.</p> <p>POINTAL. Seed-bud beneath. Shaft simple, the length of the chives. Summit divided in three, and concave.</p> <p>SEED-VESSEL. Capfula oblong, obtuse, three cells, three valves.</p> <p>SEEDS many, nearly round.</p>
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SPECIFIC CHARACTER.

<p><i>Gladiolus,</i> foliis ensiformibus, plicatis, villosis; corollis tubiformibus, longifimis; petalis undulatis, reflexis.</p>		<p><i>Gladiolus,</i> with sword-shaped, plated, hairy leaves; blossoms trumpet-shaped, and very long; petals waved, and bent back.</p>
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REFERENCE TO THE PLATE.

1. A Blossom cut open, to shew the situation, and insertion of the Threads; the Threads, and Tips, remaining attached.
2. The Seed-bud, Shaft, and its Summit.

THIS species of *Gladiolus*, (as are most of the genus) is a native of the Cape of Good Hope, about Table Mountain; where the roots of *Ixia*, *Antholyza*, *Gladiolus*, &c. form a chief part of the food of the inhabiting monkeys. It came to England amongst many other roots and seeds of beautiful and rare plants, collected by J. Pringle, Esq. of the island of Madeira, when on an excursion at the Cape; and sent by him to Messrs. Lee and Kennedy, of Hammermith. Like most bulbs, it has its period of rest; during which, it should be kept without moisture, but whilst growing, requires abundance; flowering about June, or July, and producing good seeds. It should be treated as a greenhouse plant, and planted in light sandy earth. Like the *Crocus*, the old root perishing, a number of fresh ones are produced, which may, (if thought necessary) be kept out of the ground two or three months.



Calceolaria longiflora

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... ..





PLATE VI.
HEMEROCALLIS CÆRULEA.
Blue Day Lily.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Nullus.</p> <p>COROLLA, sexpartita, infundibuli-campanulata.</p> <p>STAMINA. Filamenta sex, fubulata, longitudine corollæ, declinata; superiora breviora. Antheræ oblongæ, incumbentes, affurgentes.</p> <p>PISTILLUM. Germen fulcatum, superum. Stylus filiformis, longitudine et situ staminium. Stigma obtuse-trigonum, affurgens.</p> <p>PERICARPIUM. Capsula trigonâ, trilocularis, trilvalvis.</p> <p>SEMINA plurima, subrotunda.</p>		<p>EMPALEMENT. None.</p> <p>BLOSSOM, has six segments, of a funnel bell-shape.</p> <p>CHIVES. Six awl-shaped threads, the length of the blossom, bent downwards; the upper ones the shortest. Tips oblong, fixed by their sides, and turned up at the ends.</p> <p>POINTAL. Seed-bud furrowed, and above. Shaft thread-shaped, of the length and position of the chives. Summit bluntly three-cornered, turned up at the point.</p> <p>SEED-VESSEL. Capsule three-sided, three cells, three valves.</p> <p>SEEDS many, nearly round.</p>
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SPECIFIC CHARACTER.

<p>Hemerocallis, foliis cordatis, petiolatis; corollis cæruleis.</p>		<p>Day Lily, with leaves that are heart-shaped, and have foot-stalks; the blossoms blue.</p>
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REFERENCE TO THE PLATE.

1. The Chives, and Pointal, as placed in the Blossom.
2. The Seed-bud, Shaft, and Summit.
3. A Seed of the shape and size when ripe.

THE variety of character exhibited in this new species of *Hemerocallis*, so different from its congeners, in foliage, flower, and seed; would almost induce us to think like Gærtner, a generic division necessary; if we were not withheld, by that strong rule of Linnæus, (from which, it will be a leading feature of this work, not to increase the number of genera, but where absolutely necessary. This species, as well as a white variety, which has been figured by Kæmpfer; and continued since him by Welldenow, in his new *Species Plantarum*, under its present denomination; is a native of China, and introduced to our gardens from thence by G. Hibbert, Esq. of Clapham, from whose most extensive and beautiful collection this specimen was taken. It is as yet cultivated as a hothouse plant, where it flowers in the spring months, perfecting its seeds: perhaps when better known, it may be found, like many Chinese plants, to bear our climate. It is propagated as well by parting its roots, as from the seeds.



Hemocallis cordata





PLATE VII.
PRIMULA CORTUSOIDES.

Siberian Primrose.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Involucrum polyphyllum, multiflorum, minimum. Perianthium monophyllum, tubulatum, pentagonum, quinque-dentatum, acutum, erectum, persistens.</p> <p>COROLLA. Monopetala. Tubus cylindraceus, longitudine calycis, terminatus colo parvo hemisphærico. Limbus patens, semi-quinquefidus; laciniis obcordatis, obtusis. Faux pervia.</p> <p>STAMINA. Filamenta quinque, brevissima, intra collum corollæ. Antheræ acumenatæ, erectæ, conniventes, inclusæ.</p> <p>PISTILLUM. Germen globosum. Stylus filiformis, longitudine calycis. Stigma globosum.</p> <p>PERICARPIUM. Capsula teres, longitudine fere perianthii, unilocularis, dehiscens apice decem dentato.</p> <p>SEMINA numerosa, subrotunda. Receptaculum ovato-oblongum, liberum.</p>	<p>EMPALEMENT. Fence of many leaves, including several flowers, and small. Cup one leaf, tubular, five-sided, five-toothed, sharp, upright, and remaining.</p> <p>BLOSSOM. One petal. Tube cylindrical, the length of the cup, terminated by a short hemispherical neck. Border spreading, half cut into five divisions; the segments are inversely heart-shaped, and blunt. Mouth open.</p> <p>CHIVES. Five threads, very short, within the neck of the blossom. Tips pointed, upright, approaching, within the tube.</p> <p>POINTAL. Seed-bud globular. Shaft thread-shaped, the length of the cup. Summit globular.</p> <p>SEED-VESSEL. Capsule cylindrical, nearly as long as the cup, of one cell, opening at the top, with ten teeth.</p> <p>SEEDS numerous, and roundish. Receptacle oblong egg-shaped, and loose.</p>
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SPECIFIC CHARACTER.

<p><i>Primula</i>, foliis petiolatis, cordatis, sub-lobatis, crenatis; corollis lætè purpureis.</p>	<p><i>Primrose</i>, whose leaves have foot-stalks, are heart-shaped, slightly lobed, and scolloped; blossoms of a bright purple.</p>
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REFERENCE TO THE PLATE.

1. The Cup, and Fruit-stalk.
2. A Blossom cut open, to shew the situation of the Chives, and its internal formation.
3. The Seed-bud, Shaft, and Summit, (magnified).

This species of *Primrose* is figured by Gmelin, in his *Flora Siberica*. It was in the year 1794, that the seeds of this plant were sent by Professor P. Pallas, from Siberia, to Messrs. Lee and Kennedy, of Hammermith; at whose nursery the drawing of this most charming plant was made: though a native of so cold a clime, it seems with difficulty to endure the severity of ours; thriving best in a pot, under any slight shelter, or a very dry situation if planted out: it is increased by the root, which should be parted in March; and flowers in June, and July.



Primula Cortusoides





PLATE VIII.
GLADIOLUS ALATUS.

Wing-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Spathæ bivalves.</p> <p>COROLLA, fexpartita, ringens. Petala oblonga, omnia unguibus in tubum conata.</p> <p>STAMINA. Filamenta tria, subulata, divisuris alternis petalorum inferta. Antheræ oblongæ.</p> <p>PISTILLUM. Germen inferum. Stylus simplex, longitudine staminium. Stigma trifidum, concavum.</p> <p>PERICARPIUM. Capsula oblonga, obtusa, trilocularis, trivalvis.</p> <p>SEMINA plura, subrotunda.</p>	<p>EMPALEMENT. Sheath two valves.</p> <p>BLOSSOM, of six divisions, and gaping. Petals oblong, having their claws formed into a tube.</p> <p>CHIVES. Three awl-shaped threads, fixed into the alternate divisions of the petals. Tips oblong.</p> <p>POINTAL. Seed-bud beneath. Shaft simple, the length of the chives. Summit cut into three, and concave.</p> <p>SEED-VESSEL. Capsule oblong, blunt ended, three cells, three valves.</p> <p>SEEDS many, nearly round.</p>
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SPECIFIC CHARACTER.

<p>Gladiolus, foliis ensiformibus, costatis; petalis lateralibus latissimis.</p>	<p>Gladiolus, with sword-shape, ribbed leaves; the side petals of the blossom the broadest.</p>
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REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement, with the Chives, detached from the Petals, as they stand in the Blossom, and apparently attached to each other; with the natural position of the Pointal.
2. The Chives, Pointal, and Seed-bud; one of the divisions of the Summit magnified.

THIS species of Gladiolus, although so scarce with us, is certainly one of the most common found near Cape Town; and, notwithstanding its extreme beauty, has been overlooked by most collectors; who, from its great frequency, have generally considered it as forming, undoubtedly, part of every collection of exotics. It is of an extreme delicate nature, and overmuch wet easily destroys it; differing from most Cape bulbs, in requiring a light loamy earth, and the assistance of a dry stove, to make it flower well; which it will do by such aid, about May, or June; seldom producing seeds, and propagating but slowly by the root. From the fugitive character of this plant, it is difficult to ascertain the first cultivator; for although it does not appear amongst the Gladiolus in the Hortus Kewensis, it must undoubtedly have come into that immense collection at different periods, but never flowered; which is the reason we do not find it there described, which has been done by Linnæus, in his Species Plantarum, under the name it here bears; as well as by Plukenet, in his Phytographia, and others under various synonyms. This figure was taken from a plant that flowered at Messrs. Lee and Kennedy's in 1796.



Gladiolus alatus

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PLATE IX.
 ATRAGENE CAPENSIS.
Cape Atragene.

CLASS XIII. ORDER VII.

POLYANDRIA POLYGYNIA. Many Chives. Many Pointals.

GENERIC CHARACTER.

<p>CALYX. Perianthium tetraphyllum; foliolis ovalibus, patentibus, obtusis, dicitis.</p> <p>COROLLA. Petala duodecim, linearia, basi angustissima, obtusa, patula.</p> <p>STAMINA. Filamenta plurima, brevissima. Antheræ oblongæ, acumenatæ.</p> <p>PISTILLUM. Germina plurima oblonga. Styli villosi. Stigmata simplicia, longitudine antherarum.</p> <p>PERICARPIUM. Nullum.</p> <p>SEMINA plurima, definentia in caudam pilosam.</p>	<p>EMPALEMENT. Cup four-leaved, which are oval, spreading, blunt, and deciduous.</p> <p>BLOSSOM. Petals twelve, linear, narrowest at base, blunt, and spread open.</p> <p>CHIVES. Threads many, very short. Tips oblong, pointed.</p> <p>POINTAL. Seed-buds numerous, oblong. Shafts hairy. Summits simple, the length of the tips.</p> <p>SEED-VESSEL. None.</p> <p>SEEDS many, terminating in a hairy tail.</p>
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SPECIFIC CHARACTER.

<p><i>Atragene</i>, foliis ternatis; foliolis incisif, dentatis, rigidis; flore incarnato, semipleno.</p>	<p><i>Atragene</i>, with three divisions; the smaller divisions jagged, toothed, and harsh; the flower flesh-coloured, and semidouble.</p>
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REFERENCE TO THE PLATE.

1. A Petal cut off close to the receptacle.
2. The Fruit-stalk, Chives, and Pointals; the Chives thrown to one side, to expose the situation of the Pointals; one tip magnified.
3. A Seed of the size when ripe.

THIS plant has been considered by Burmann, Hermann, and other Cape botanists, as an *Anemone*, to which genus it certainly may as easily be referred as *Atragene*: but as it has been clearly described by Linnæus, under that genus, we have not hardiness enough to dispute his authority. It is (as the trivial name implies) a native of the Cape of Good Hope, but at some considerable distance within land; whence it requires a dry stove to preserve it, suffering much from damps. It is only since the year 1795, that this plant has been found in our greenhouses; being then introduced by Messrs. Lee and Kennedy, nurserymen, where it has flowered and perfected seeds; which seems to be the only means of propagating it: the soil it prefers is a mixture of peat and loam; flowering about March, or April.



Atrayene Caperus





PLATE X.
ARISTEA CYANEA.
Blue-flowered Aristeæ.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Spathæ bivalves, lacerae, persistentes.</p> <p>COROLLA, hexapetala, oblonga, æqualia, obcordata, persistentia, patens.</p> <p>STAMINA. Filamenta tria, erecta, subulata. Antheræ sub-simplices, magnæ.</p> <p>PISTILLUM. Germen inferum. Stylus filiformis, erectus. Stigma trifidum, concavum, reflexum.</p> <p>PERICARPIUM. Capsula oblonga, triquetra, trilocularis, loculis compressis, trivalvis.</p> <p>SEMINA plura, compressa, scabrida, sub-semicircularia.</p>	<p>EMPALEMENT. Sheath two valves, ragged, and remaining.</p> <p>BLOSSOM, of six petals, oblong, equal, inversely heart-shaped, remaining, spreading.</p> <p>CHIVES. Three threads, upright, awl-shaped. Tips almost simple, and large.</p> <p>POINTAL. Seed-bud beneath. Shaft thread-shaped and erect. Summit cut into three, concave and reflected.</p> <p>SEED-VESSEL. Capsule oblong, three-fided, three cells, cells compressed, three valves.</p> <p>SEEDS many, flat, rough, nearly semicircular.</p>
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SPECIFIC CHARACTER.

<p><i>Aristea</i>, foliis ensiformibus, radicalibus; floribus capitatis, cyaneis.</p>	<p><i>Aristea</i> with sword-shaped leaves growing from the root; the flowers grow in heads, and are of a bright blue.</p>
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REFERENCE TO THE PLATE.

1. A Valve of the Sheath spread open.
2. The Chives, Pointal, and Seed-bud, (magnified.)
3. A perfect Seed, (magnified.)

THE *Aristea* is a native of the Cape of Good Hope, and has been described under various synonyms; by Plukenett as a *Gramen*, by Petiver as *Bermudiana Capensis*, and by Van Royen, Burmann, and Linnæus, as an *Ixia*. But although differing from Linnæus is against the fixed intention of this undertaking, where there is a possibility of avoiding it; yet in this instance of alteration he must have acquiesced, having undoubtedly never seen the plant himself. The blossom, seed-vessel, seeds, habit, root, and growth, of the plant, so totally differ from the character of *Ixia*, &c. that we have not hesitated, in accepting the name given it in the *Hortus Kewensis*; where, it is said to have been introduced, to that collection, by Mr. F. Masson in 1774; though no specific description is given of it; from which we may conjecture, it never flowered there. The figure here given, was taken from a plant which flowered at Messrs. Lee and Kennedy's, in 1797. The *Aristea* being rather a delicate plant, requires an airy, warm situation in the greenhouse, flowering readily about the month of July, or August; requiring to be kept in a small pot, the soil a light loam. It propagates by seeds, and slips.



Arista cyanea



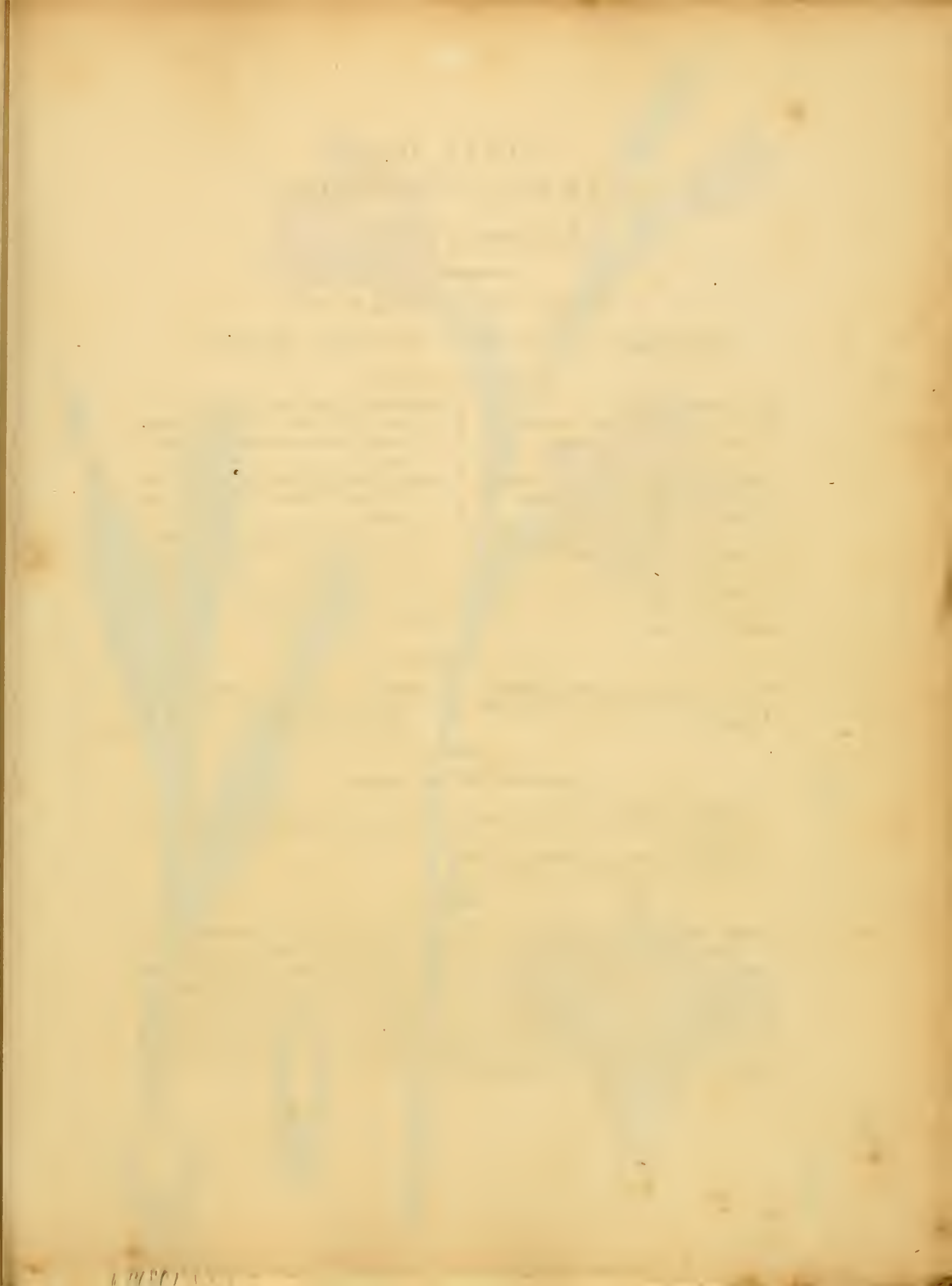


PLATE XI.
GLADIOLUS ROSEUS.

Rose-coloured Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Spathæ bivalves.</p> <p>COROLLA, sexpartita ringens. Petala oblonga, omnia unguibus in tubum conata.</p> <p>STAMINA. Filamenta tria, subulata, divifuris alternis petalorum inferta. Antheræ oblongæ.</p> <p>PISTILLUM. Germen inferum. Stylus simplex, longitudine flaminium. Stigma trifidum, concavum.</p> <p>PERICARPIUM. Capfula oblonga, obtufa, trilobularis, trivalvis.</p> <p>SEMINA plura, subrotunda.</p>	<p>EMPALEMENT Sheath two valves.</p> <p>BLOSSOM, of six divisions, and gaping. Petals oblong, having their claws formed into a tube.</p> <p>CHIVES. Three awl-shaped threads fixed into the alternate divisions of the petals. Tips oblong.</p> <p>POINTAL. Seed-bud beneath. Shaft simple, the length of the chives. Summit cut into three, and concave.</p> <p>SEED-VESSEL. Capfulæ oblong, blunt-ended, three cells, three valves.</p> <p>SEEDS many, nearly round.</p>
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SPECIFIC CHARACTER.

<p>Gladiolus, foliis lanceolatis, tortis, rubro marginatis, pubescentibus; floribus roseis odoratiffimis.</p>	<p>Gladiolus, with spear-shaped leaves, twisted, red-edged, and downy; blossoms rose colour, and sweet-scented.</p>
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REFERENCE TO THE PLATE.

1. The two Valves of the Sheath.
2. A Flower cut open, to expose the insertion of the Threads, the Threads, and Tips remaining attached.
3. The Seed-bud, Shaft, and Summit magnified.
4. A Seed natural size, inclosed in its Tunic.

THIS most beautiful species of Gladiolus, is but of very recent date in England; in the year 1795 it was seen first to blow here, in the collection of J. Ord, Esq. Purser's-cross, Fulham; but has since, repeatedly, at the nursery, Hammersmith, from whence this figure was taken. Professor Jacquin has figured this plant, in his last Fasciculus; but, undoubtedly, from a dried specimen, as his figure gives no idea of the brilliancy of this delightful plant. The fragrance of its flowers, added to the singularity and beauty of its leaves, must place it in the foremost rank of its congeners. To preserve the bulb of this delicate Gladiolus, as soon as the stem begins to decay, it should be taken from the pot, and kept dry till October; when it should be replanted, and treated as other Cape bulbs. It increases by offsets, and flowers about the month of May, or June.



Lilium roseum



THE HISTORY OF THE
CITY OF BOSTON

The history of the city of Boston is a subject of great interest and importance. It is a city that has played a significant role in the development of the United States. The city's history is filled with events and people that have shaped the nation. From its early days as a small settlement to its current status as a major metropolitan area, Boston has a rich and varied history. The city's location on a peninsula in the heart of the state has made it a strategic and important location throughout its history. The city's history is a testament to the resilience and spirit of its people. The city's history is a story of growth and progress, of challenges and triumphs. The city's history is a story that is still being written today.

PLATE XII.
GERANIUM GRANDIFLORUM.
Largest flowered Crane's-bill.

CLASS XVI. ORDER II.
MONODELPHIA DECANDRIA. Threads united. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium pentaphyllum: foliolis ovatis, acutis, concavis, persistentibus.

COROLLA. Petala quinque, obcordata, seu ovata, patentia, magna.

STAMINA. Filamenta decem, subulata, corolla breviora. Antheræ oblongæ, versatiles.

PISTILLUM. Germen quinquangulare, rostratum. Stylus subulatus, staminibus longior, persistens. Stigmata quinque, reflexa.

PERICARPIUM nullum. Fructus pentacoccus, rostratus.

SEMINA solitaria, reniformia, sæpe arillata; Arista longissima, demum spirali.

EMPALEMENT. Cup five leaves: leaves egg-shaped, sharp pointed, concave, and permanent.

BLOSSOM. Five petals, inversely heart-shaped, or egg shaped, spreading, and large.

CHIVES. Ten threads, awl-shaped and shorter than the blossom. Tips oblong, easily turned round.

POINTAL. Seed-bud five-angled, and beaked. Shaft awl-shaped, longer than the chives and remaining. Five reflexed summits.

SEED-VESSEL none. Fruit five dry berries, beaked.

SEEDS, solitary, kidney-shaped, often furnished with a dry husky coat, and a very long awn, which become spiral.

SPECIFIC CHARACTER.

Geranium, calycibus monophyllis, foliis quinque-lobis, glabris, dentatis; floribus ampliflomis, sub-albidis.

Geranium, empalements of one leaf; leaves five-lobed, smooth, and toothed; the flowers very large, nearly white.

REFERENCE TO THE PLATE.

1. The Empalement cut open, to shew its tubular structure.
2. The Chives, and Pointal, as placed in the flower, (natural size.)
3. The Shaft, Summits, and Seed-bud, (magnified.)

Of all the species of this numerous tribe, introduced to us, from the Cape of Good Hope, this stands singularly pre-eminent; whether for delicacy of foliage, or beauty of flower, of which, the most finished drawing would convey but a faint idea. The figure before us, was taken from a plant in the valuable collection of G. Hibbert, Esq. Clapham; from whom we understand, that it was sent in 1794 to the Royal Gardens at Kew, by Mr. F. Masson. To keep this plant in a flourishing condition, it should be kept in a window of the stove, in winter, as the heat of a greenhouse is scarce sufficient at that season. It flowers in July, or August, and requires the soil generally used for Geraniums, a mixture of rotten dung, and loam; being easily propagated by cuttings.

To dissent from most of the late publications on the science of Botany, may seem presuming; yet, when it shall be considered, that we take Linnæus for our sole guide, where that great master has incontestibly fixed a Generic character, to a tribe of plants, which undoubtedly, came clearly under his inspection; from his dictates, ours must emanate, although his authority may be questioned by others. If any good reasons had been found, to disunite a Genus, which nature has so palpably distinguished throughout all its numerous species; he certainly, who had minutely examined so many, would not in his factitious System have allied them; though nature had apparently so done. We must therefore, after him, think no Generic division necessary. For the sake of correctness, where a Genus is so extended in its species as Geranium, Erica, &c. are; the conformity of particular parts, may form a secondary arrangement, as we find it constantly in Linnæus; the Heaths, from the shape of their tips, the Geraniums, from the number of fertile Chives; which a French Botanist of the name of L'Heritier, has thought of sufficient moment to create two new Genera on, Erodium and Pelargonium, retaining the old name Geranium for those only, with ten perfect Chives. Monf. L'Heritier and his followers must, therefore, forgive us for ranking one of his Pelargoniums under the old standard.



Geranium grandiflorum





PLATE XIII.
EPIDENDRUM COCHLEATUM.

Purple flowered Epidendrum.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix simplex. Perianthium nullum.

COROLLA. Petala quinque, oblonga, longissima, patentissima.

Nectarium basi tubulatum, turbinatum, intra petala deorsum positum, ore obliquo, bifido: superiori labio brevissimo, trifido; inferiori in acumen producto.

STAMINA. Filamenta duo, brevissima, pistillo infidentia. Antheræ testæ labio superiore nectarii.

PISTILLUM. Germen tenue, longum, contortum, inferum. Stylus brevissimus, adnatus labio superiori nectarii. Stigma obsoletum.

PERICARPIUM. Siliqua longissima, teres, carnosa.

SEMINA numerosa, minutissima.

EMPALEMENT. Sheaths scattered. Fruit-stalk simple. Cup none.

BLOSSOM. Five petals, oblong, of a great length, and spreading much.

Honey-cup tubular at the base, turban-shaped, placed between the lower petals, mouth oblique and divided: the upper lip very short, cut into three divisions; the lower terminating in a point.

CHIVES. Two very short threads, fixed on the pointal. Tips covered by the upper lip of the honey-cup.

POINTAL. Seed-bud slender, long, twisted, and beneath. Shaft very short, fixed to the upper lip of the honey-cup. Summit blunt.

SEED-VESSEL. Pod very long, round, and fleshy.

SEEDS numerous, extremely small.

SPECIFIC CHARACTER.

Epidendrum foliis oblongis, geminis, glabris, bulbo innatis; scapo multifloro; nectario cordato, purpureo.

Epidendrum with oblong leaves growing by pairs, smooth, rising from the bulb; stalk many flowered; honey-cup heart-shaped and purple.

REFERENCE TO THE PLATE.

1. The Blossom, without the Honey-cup; disposed to shew the situation of the Chives, and Pointal, which are covered by the Honey-cup.
2. The Honey-cup.
3. The Tips.
4. The Summits.

Of all plants, none furnish a more agreeable speculation to the Botanist, than those of this class; the singular construction of the whole flower, leads the observer to form analogous comparisons from it to animal life: particularly amongst the Orchis, and Ophris, of our own country; where bees, flies, lizards, and butterflies are accurately shaped in the honey-cup. The Genus *Epidendrum*, takes its Generic title from its place of growth, being what Botanists term parasitical, that is, growing on another plant; which is the case, with most of the species of this Genus: yet is cultivated here with success, by planting it in a mixture of rotten wood, and loam. A plant, from which this figure was taken, was a present to Messrs. Lee and Kennedy from the Honourable Mrs. Barrington, who received it from Dr. Dancer's botanical garden Jamaica, of which island it is a native; therefore must be kept in the stove. It is propagated by dividing the bulbs.



Epipactis atrorubens



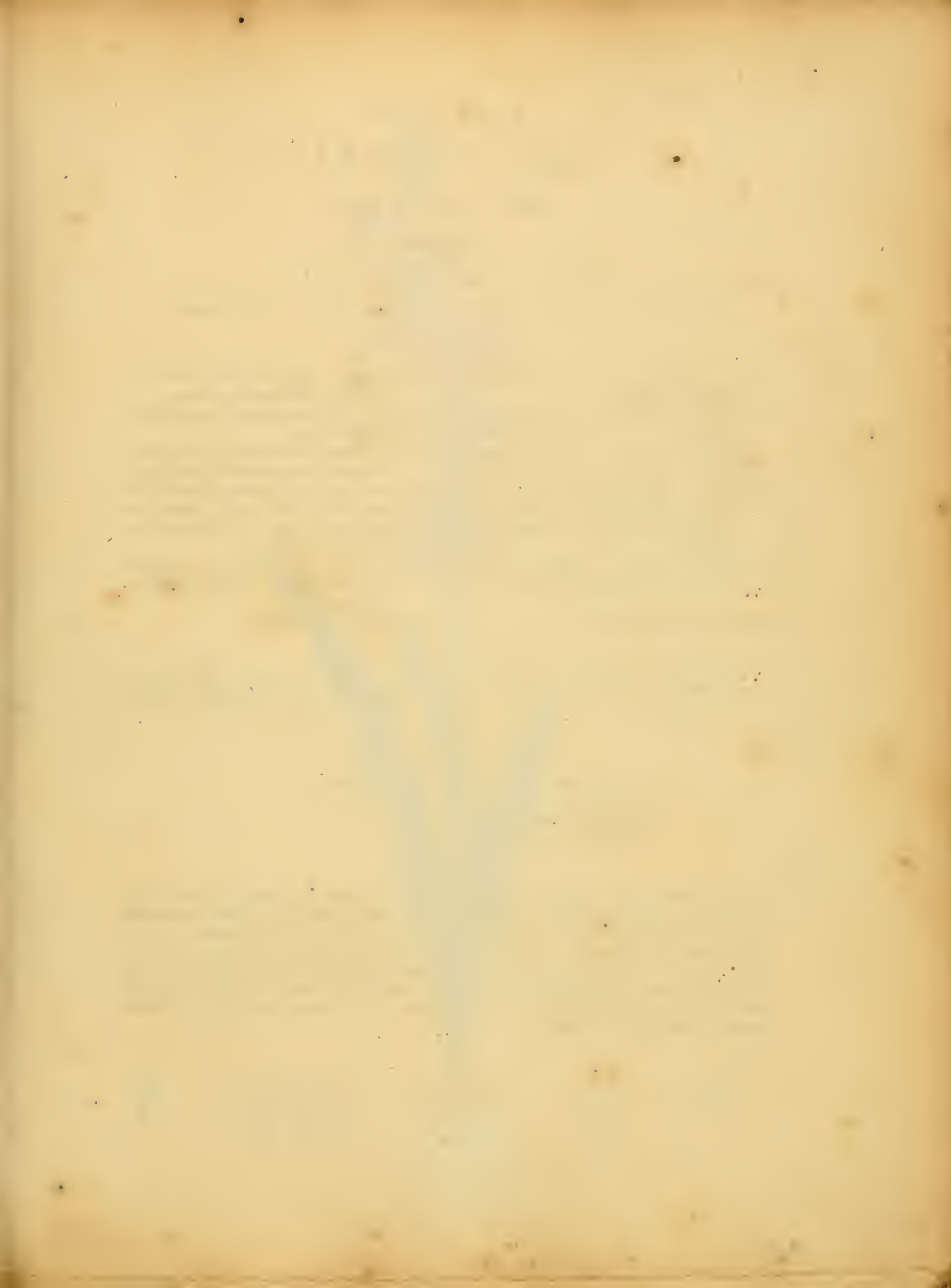


PLATE XIV.

IXIA REFLEXA.

Reflex flowered Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, oblongæ, persistentes, germina distinguentes.

COROLLA. Petala sex, oblonga, æqualia, lanceolata.

STAMINA. Filamenta tria, subulata, corolla breviora, situ æqualia. Antheræ simplices.

PISTILLUM. Germen inferum, ovatum, triquetrum. Stylus simplex, erectus, longitudine flaminum. Stigma trifidum, crassiusculum.

PERICARPIUM. Capsula subovata, triquetra, trilocularis, loculis compressis, trivalvis.

SEMINA subrotunda, plurima.

EMPALEMENT. Cup two valves, oblong, remaining, and dividing the seed-buds.

BLOSSOM. Six oblong petals of an equal length, and spear-shaped.

CHIVES. Three awl-shaped threads, shorter than the blossom, placed equally. Tips simple.

POINTAL. Seed-bud beneath egg shaped, and three-sided. Shaft simple, upright, the length of the chives. Summit cut into three, and thickish.

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

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Ixia floribus spicatis, reflexis; foliis ensiformibus, glabris.

Ixia, with flowers growing in a spike, and bent backward; leaves sword-shaped, and smooth.

REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement (magnified).
2. The Blossom.
3. The Chives (magnified).
4. The Pointal (magnified).

No genus exhibits greater diversity, either in the figure, or colour of the blossoms, of its various species than *Ixia*; the extreme delicacy of their colours, rendering it absolutely necessary to protect them both from wind and rain; even watering them over their heads (as is usual with greenhouse plants), at once destroys their brilliancy. The bulbs of this species were gathered at the Cape, by J. Pringle, Esq. from whom they were sent to Messrs. Lee and Kennedy in 1795, at whose nursery they flowered the ensuing spring, when this figure was taken. No particular treatment is necessary for this plant, other than what is given to Cape bulbs in general, viz, an airy situation, and light soil. Is propagated by seeds, and by the roots.



Scilla reflexa





PLATE XV.
 ANTHYLLIS ERINACEA.
Blue Broom of Spain.

CLASS XVII. ORDER III.

DIADELPHIA DECANDRIA. Chives in two sets. Ten Chives.

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, ovato-oblongum, parum inflatum, villosum; ore quinquedentato, inæquali; persistens.</p> <p>COROLLA papilionacea: Vexillum longius, lateribus reflexis, ungue longitudine calycis. Alæ duæ, oblongæ, vexillo breviores.</p> <p style="padding-left: 2em;">Carina compressa, longitudine alarum, alis similis.</p> <p>STAMINA. Filamenta decem, connata, assurgentia. Antheræ simplices.</p> <p>PISTILLUM. Germen oblongum. Stylus simplex, ascendens. Stigma obtusum.</p> <p>PERICARPIUM. Legumen subrotundum, tectum intra calycem, minimum, bivalve.</p> <p>SEMEN unum, alterumve.</p>	<p>EMPALEMENT. Cup of one leaf, oblong egg-shaped, a little swelled, and hairy; mouth cut into five unequal teeth; permanent.</p> <p>BLOSSOM, butterfly-shaped. Standard longer, sides bent back, the claws as long as the cut. Wings two, oblong, shorter than the standard. Keel compressed, as long as the wings, and like them.</p> <p>CHIVES. Ten threads, connected, rising upwards. Tips simple.</p> <p>POINTAL. Seed-bud oblong. Shaft simple, ascending. Summit blunt.</p> <p>SEED-VESSEL. Pod roundish, covered by the cup, very small, of two valves.</p> <p>SEEDS. One or two.</p>
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SPECIFIC CHARACTER.

<p><i>Anthyllis fruticosa, spinosa; foliis simplicibus; floribus ex cæruleo purpurascens.</i></p>	<p>Broom, shrubby, and covered with prickles; leaves simple; blossoms of a purplish blue.</p>
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REFERENCE TO THE PLATE.

1. The Cup.
2. A Blossom, the cup taken off to shew the exact situation and shape of its various parts.
3. The Chives, as they inclose the pointal (natural size.)
4. The Threads magnified, and cut open, to shew their tubular shape.
5. The Pointal, magnified.

Owing to the difficulty in propagating and preserving some plants, although frequently introduced to us, and well known; yet are they more scarce to be found, in our best collections, than plants of seemingly more difficult acquisition. This species of *Anthyllis* has been mentioned under various synonyms by most botanical authors from Clusius downwards. Mr. T. Johnson, in his edition of Gerard of 1633, has given a description of this plant from Clusius, and a cut; both of which are excellent (considering the then infant state of the art of engraving), under the title of *Genista spinosa humilis; Dwarf Furze*. It is termed *Erinacea* by Clusius (says he), from the Spanish name of the hedge-hog, *Erizo*, of which country it is a native, in the kingdom of Valencia: from which we might infer, that, like other plants of that country, it would live through our winters; which is not the case. It must be kept as a greenhouse plant, and watered but sparingly. The soil it prefers is a light loam; is propagated by cuttings, and flowers in April, or May.





PLATE XVI.
AZALEA PONTICA.

Yellow Pontic Azalea.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquepartitum, acutum, erectum, parvum, persistens.

COROLLA. Monopetala, campanulata, limbus quinquefidus: laciniarum lateribus inflexis.

STAMINA. Filamenta quinque, filiformia, receptaculo inserta, libera. Antheræ simplices.

PISTILLUM. Germen ovatum. Stylus filiformis, longitudine corolla, persistens. Stigma obtusum.

PERICARPIUM. Capsula ovata, quinquelocularis, quinquevalvis.

SEMINA plurima, compressa.

OBS. Figura petali in aliis infundibuliformis, in aliis campaniformis est; stamina in quibusdam declinata longissima.

EMPALEMENT. Cup one leaf with five divisions, sharp pointed, upright, small, and permanent.

BLOSSOM. One petal, bell-shaped, margin five-cleft: segments with the edges bent inwards.

CHIVES. Threads five, thread-shaped, fixed to the receptacle, and loose. Tips simple.

POINTAL. Seed-bud egg-shaped. Shaft thread-shaped, the length of the blossom, permanent. Summit blunt.

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

SEEDS many, and flat.

OBS. The shape of the petal in some is funnel-shaped, in others bell-shaped; the chives in some are bent downward, and very long.

SPECIFIC CHARACTER.

Azalea, foliis ovato-oblongis, pilosis, alternis; floribus amplissimis, luteis; staminibus longissimis, declinatis.

Azalea, with oblong egg-shaped leaves, hairy, and alternate; flowers very large, and yellow; chives very long, and bent downward.

REFERENCE TO THE PLATE.

1. The Empalement, (natural size.)
2. The Chives as they appear within the blossom.
3. The Seed-bud, Shaft, and Summit.
4. A Capsule cut horizontally, exposing the number of its cells.

AMERICA has furnished our gardens with an extensive variety of beautiful shrubs; amongst them, the Azaleas hold a distinguished place; some for the beauty, others for the fragrance, of their blossoms: the present species far surpasses all of them for both. It is a native of the coast of the Black Sea, or Pontus Euxinus, through the whole of its extent, on the Asiatic side, from the city of Trebisonde; from whence its trivial name. That a plant of such extreme beauty, and sweetness, should so long have been a stranger to our European gardens, though known to, and described by, so many botanical travellers, must seem matter of wonder; but still it is an uncontroverted fact. Monf. Tournefort, in his Voyage to the Levant, has given an ample description of it, under the title of *Chamaerhododendros Pontica maxima, mespili folio, flore luteo*; where he says, it grows to the height of seven or eight feet, and that the flowers are of a most exquisite flavour. Dr. P. Pallas, in his *Flora Rossica*, has likewise figured, and described it, under the name it here bears; but apparently his drawing was made from a dried specimen, as the brilliancy of the flower is by no means preserved; but it is to him we are indebted for this fine plant. In his voyage to the Crimea and countries adjacent, in 1792, he procured the seeds of this, amongst many other valuable and rare plants; parcels of most of which were sent by him to Messrs. Lee and Kennedy, Hammer Smith; by whom plants were raised of it, and many other sorts, the next year. It is a deciduous shrub, extremely hardy, and blows early in the spring; is propagated, like other Azaleas, by layers and seeds; grows best in peat earth, with a small portion of loam.



Azalea Pontica

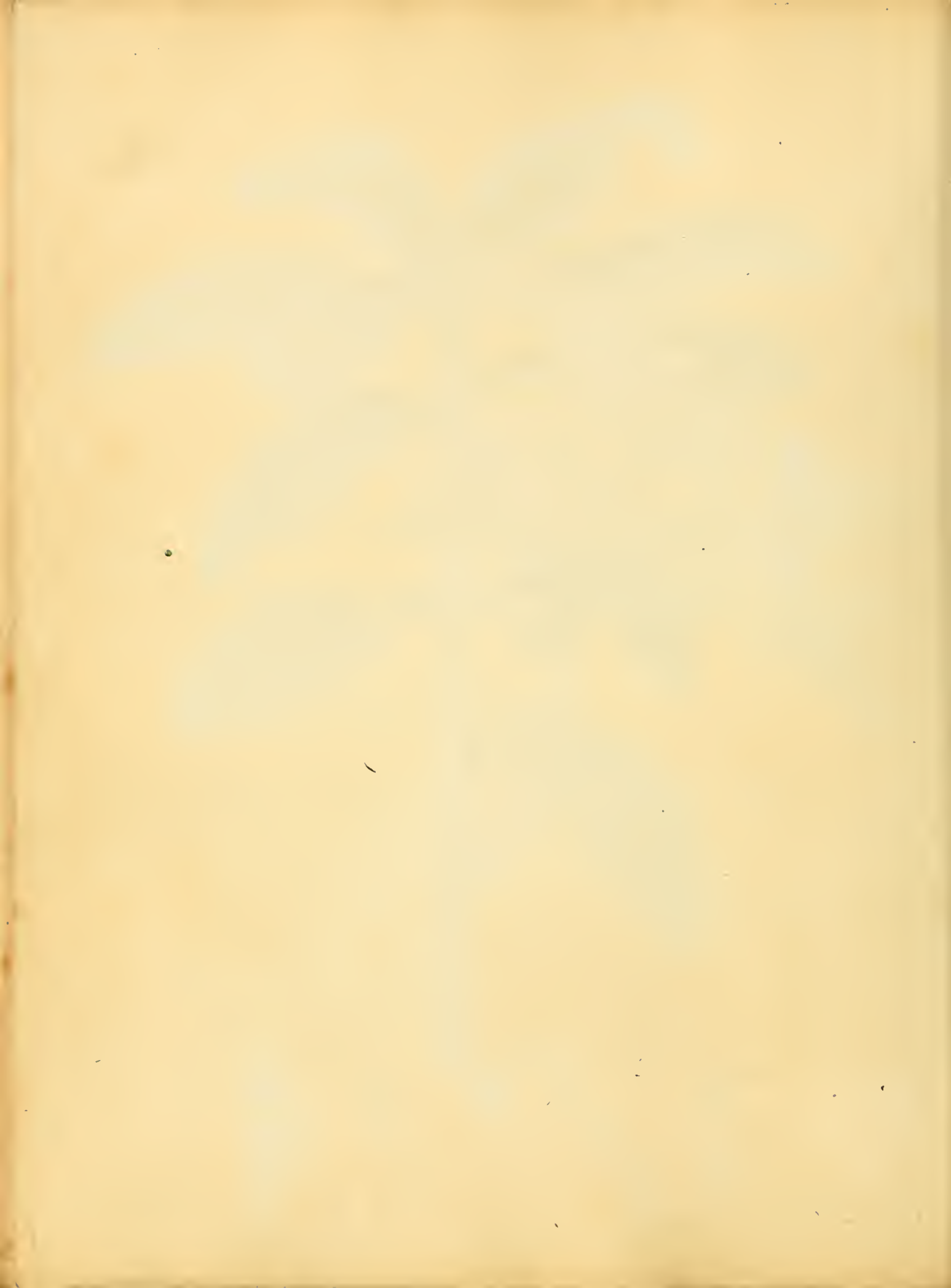


PLATE XVII.
PROTEA FORMOSA.

Coronet Protea.

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

GENERIC CHARACTER.

<p>CALYX. Perianthium commune, imbricatum; squamis inæqualibus, persisitentibus. <i>Proprium</i> nullum.</p> <p>COROLLA tetrapetala. Petala sæpe cohærentia, sæpius divisa, lineari-oblonga: unguibus erectis, limbo patenti.</p> <p>STAMINA. Filamenta nulla. Antheræ quatuor, lineares, vel oblongæ, sub apice limbi corollæ infertæ.</p> <p>PISTILLUM. Germen superum, oblongum. Stylus filiformis, corolla longior. Stigma simplex, clavatum.</p> <p>PERICARPIUM nullum. Calyx patens, induratus, vix mutatus.</p> <p>SEMINA solitaria, subrotunda, vel compressa.</p> <p>RECEPTACULUM commune nudum, villosum, paleaceum, vel conus.</p>	<p>EMPALEMENT. Cup common, scaled; scales unequal, and remaining. <i>Proper</i> none.</p> <p>BLOSSOM four-leaved. Petals frequently adhering, oftener divided, of a linear oblong shape: claws upright, border spreading.</p> <p>CHIVES. Threads none. Tips four, linear, or oblong, fixed within the border of the blossom.</p> <p>POINTAL. Seed-bud above, and oblong. Shaft thread-shaped, longer than the blossom. Summit simple, and club-shaped.</p> <p>SEED-VESSEL none. Cup spreading, hard, and scarcely changing.</p> <p>SEEDS solitary, nearly round, or flat.</p> <p>RECEPTACLE the common, is naked, hairy, chafly, or a cone.</p>
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SPECIFIC CHARACTER.

<p><i>Protea</i>, foliis lanceolatis, pubescentibus; caule villoso; flore aurantio flavo; semine subrotundo, glabro, magnitudine pisi majoris.</p>	<p><i>Protea</i>, with lance-shape downy leaves; stem hairy; blossom orange yellow; seed nearly round, smooth, the size of a large pea.</p>
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REFERENCE TO THE PLATE.

1. The Flower complete, as it stands on the Receptacle.
2. The Blossom expanded, to shew the situation of the Chives.

OF all the varied genera of plants which decorate that mine of botanical riches, the Cape of Good Hope, and the adjacent country, no one stands more conspicuous than *Protea*. Few travellers who have not noticed the singularity and beauty of their foliage; indeed they are of such extreme brilliancy, that no one, however indifferent to botanical researches, can pass them unobserved; forests of them being so numerous, the *Protea Argentea*, or Silver Tree, produces almost the only wood of the country; growing to the height of thirty or forty feet. But although the leaves of this numerous tribe are mostly beautiful, many of their blossoms are but trifling, except in the eye of the botanist: the *Protea Formosa*, however, is one amongst many which stand as powerful exceptions: the great beauty of this charming plant has induced us to adopt the trivial name it here bears. It has been introduced to the Royal Gardens at Kew by Mr. F. Matson, botanical collector to his present Majesty; from whose liberal patronage the science of Botany has of late been brought into such general estimation. This species, from the downy character of the whole plant, is apt to damp, if not kept in an airy situation in winter; though the warmth of a common greenhouse is quite sufficient for its protection. It is with difficulty propagated by cuttings; and has not hitherto perfected its seeds in this kingdom. Our drawing was made from a plant which flowered in the nursery of Messrs. Lec and Kennedy, in the year 1796, about the month of August.



Protea formosa



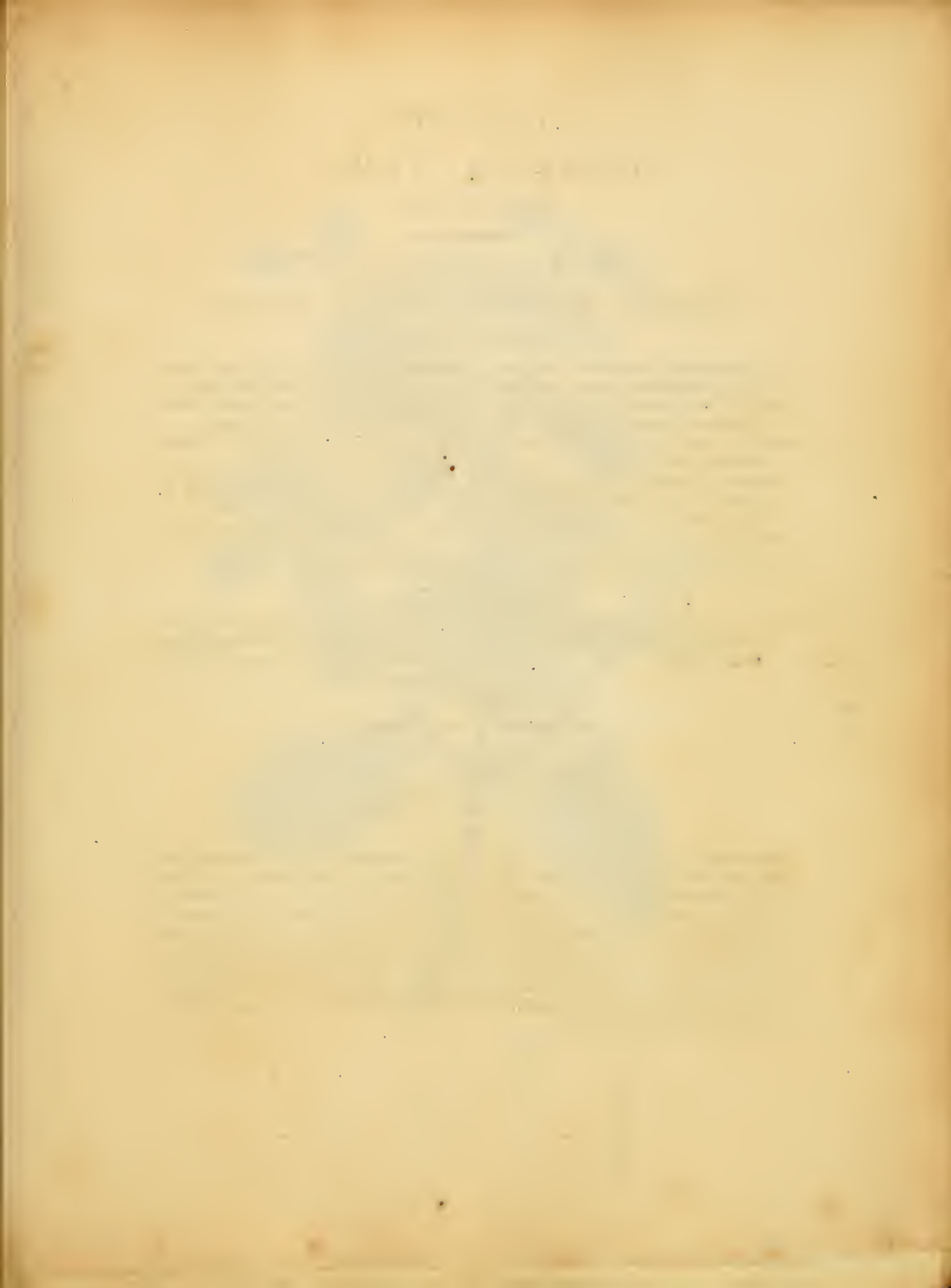


PLATE XVIII.
CORREA ALBA.
White Correa.

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

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, quadridentatum, campanulatum, erectum, persistens.</p> <p>COROLLA. Petala quatuor, oblonga, concava, apice reflexa, marginibus crassis.</p> <p>STAMINA. Filamenta octo, erecta, filiformia, receptaculo inferta.</p> <p>PISTILLUM. Germen turbinatum, superum. Stylus filiformis, longitudine staminum. Stigma obtusum.</p> <p>PERICARPIUM. Capsula coriacea, lanata, quadrilocularis, quadrivalvis.</p> <p>SEMINA quatuor, folitaria, subrotunda.</p>	<p>EMPALEMENT. Cup of one leaf, five-toothed, bell-shaped, upright, and permanent.</p> <p>BLOSSOM. Four petals, oblong, concave, reflexed at the end, and thick at the edges.</p> <p>CHIVES. Eight threads, upright, thread shaped, and fixed into the receptacle.</p> <p>POINTAL. Seed-bud turban-shaped, and above. Shaft thread-shaped, the length of the chives. Summit blunt.</p> <p>SEED-VESSEL. Capsule leathery, and woolly, four cells, four valves.</p> <p>SEEDS four, folitary, and nearly round.</p>
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SPECIFIC CHARACTER.

<p><i>Correa</i>, foliis subrotundis, supra tomentosis, subtus lanigeris; floribus terminalibus, quaternis, albidis.</p>	<p><i>Correa</i>, with leaves nearly round, downy on the upper surface, woolly on the under surface; flowers terminate the branches by fours, and are white.</p>
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REFERENCE TO THE PLATE.

1. The Empalement.
2. The Chives, and Pointal.
3. A Thread, and Tip, (magnified.)
4. The Shaft and Summit, (magnified.)

THE *Correa* is a native of Port Jackson, in New Holland, and commonly termed a Botany-bay plant: it was first raised in the year 1793, from seeds which were given by Sir Joseph Banks, Bart. to J. Vere, Esq. of Kensington-gore, and from a plant in whose collection our figure was taken. It receives its generic title from Mr. Joseph Correa de Serra, a native of Portugal; a gentleman of very distinguished talents as a man of science in general, and botany in particular. Of this genus there are as yet but few species discovered; the *Alba* grows to a shrub of the height of four or five feet, woody and tough; both stem and leaves are covered with a thick flannelly substance, particularly the under side of the leaves, which gives the whole plant a whitish appearance. It continues to flower through the months of April, May, and June; may be propagated easily by cuttings, should be kept as a hardy greenhouse plant, and thrives best in peat earth.







PLATE XIX.

GLADIOLUS VERSICOLOR.

Changeable Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Spathæ bivalves.</p> <p>COROLLA, fexpartita, ringens. Petala oblonga, omnia unguibus in tubum connata.</p> <p>STAMINA. Filamenta tria, subulata, divisuris alternis petalorum inferta. Antheræ oblongæ.</p> <p>PISTILLUM. Germen inferum. Stylus simplex, longitudine staminum. Stigma trifidum concavum.</p> <p>PERICARPIUM. Capsula oblonga, obtusa, trilocularis, trivalvis.</p> <p>SEMINA plura, subrotunda.</p>	<p>EMPALEMENT. Sheath two valves.</p> <p>BLOSSOM, of six divisions, and gaping. Petals oblong, having their claws formed into a tube.</p> <p>CHIVES. Three awl-shaped threads, fixed into the alternate divisions of the petals. Tips oblong.</p> <p>POINTAL. Seed-bud beneath. Shaft simple, the length of the chives. Summit cut into three, and concave.</p> <p>SEED-VESSEL. Capsule oblong, blunt-ended, three cells, three valves.</p> <p>SEEDS many, nearly round.</p>
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SPECIFIC CHARACTER.

<p>Gladiolus, foliis lineari-cruciatis; floribus maximis, varicoloribus.</p>	<p>Gladiolus, with linear cross shaped leaves; flowers very large, and changeable.</p>
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REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement.
2. The Pointal, and Seed-bud; one of the divisions of the Summit magnified.
3. A ripe Seed, natural size, in its tunic.

THAT colour bears the character given it by Sir Isaac Newton, our present subject (as did the prism) adds another proof. The Gladiolus versicolor might, like the camelion, equally be a subject of contention, to those who have seen its blossom at different periods of the same day; for, strange to tell! it is brown in the morning, and continues to change from that colour till it becomes light blue by night. During the night it regains its pristine colour; and this change is effected diurnally, whilst the flower is in its vigour; but upon the decay, the change is less powerful, gradually fixing in a dark brown; which, however, does not take place in less than nine or ten days. This is the only flower, we have ever noticed, to regain the colour that has once forsook it. A drawing was began about ten o'clock in the morning, but before it was finished the plant was so totally altered in colour that there was an absolute necessity for taking a second day to complete it. The bulbs of this plant were sent from the Cape of Good Hope by J. Pringle, Esq. of Madeira, in 1794, amongst many others, to Messrs. Lee and Kennedy, of Hammersmith, where the drawing was made. It flowers about the month of June; is increased by the root or seed; and thrives best in peat earth.



Lilium versicolor

Lilium versicolor

PLATE XX.

ECHIUM GRANDIFLORUM.

Large-flowered Viper's Bugloss.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Perianthium quinquepartitum, erectum persistens; laciniis subulatis erectis.</p> <p>COROLLA. Monopetala, campanulata. Tubus brevissimus. Limbus erectus, sensim ampliatum, quinquefidus obtusus; laciniis sæpius inæqualibus; superioribus duabus longioribus, inferioribus minoribus, acutis, reflexis. Faux pervia.</p> <p>STAMINA. Filamenta quinque, subulata, longitudine corollæ, declinata, inæqualia. Antheræ oblongæ, incumbentes.</p> <p>PISTILLUM. Germina quatuor. Stylus filiformis, longitudine staminum. Stigma obtusum, bifidum.</p> <p>PERICARPIMUM nullum. Calyx rigidior, in sinu femina fovens.</p> <p>SEMINA quatuor, subrotunda, oblique acumenata.</p>	<p>EMPALEMENT. Cup with five divisions, upright, permanent; segments awl-shaped, upright.</p> <p>BLOSSOM. One petal, bell-shaped. Tube very short. Border gradually widening, with five clefts, blunt. Segments oftenest unequal, the two upper ones the longest; the lower ones smaller, sharp, and reflexed. The mouth open.</p> <p>CHIVES. Five threads, awl-shaped, the length of the blossom, declined, and unequal. Tips oblong, fixed sideways to the threads.</p> <p>POINTAL. Seed-buds four. Shaft thread-shaped, the length of the chives. Summit blunt, and two-cleft.</p> <p>SEED-VESSEL none. The cup growing more harsh, contains the seeds.</p> <p>SEEDS four, roundish, obliquely tapering.</p>
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SPECIFIC CHARACTER.

<p><i>Echium</i>, foliis nitidis, lanceolatis, hispidis; caule fruticoso; corollis maximis, æqualibus, rubris.</p>	<p><i>Viper's Bugloss</i>, with shining, lance-shaped, hairy leaves; stem shrubby; blossoms very large, equal, and red.</p>
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REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom cut open, to expose the situation of the Chives.
3. The Shaft and its Summit magnified.
4. A ripe seed.

THE *Echium Grandiflorum* is a native of the Cape of Good Hope, was sent from thence by Mr. F. Masson to the Royal Gardens at Kew, about the year 1791. The superior beauty of this species to the rest of its congeners makes it considered as a valuable greenhouse plant, although its intrinsic merit is sufficient to ensure it that character; the rich green of its foliage, contrasted to the colour of the blossoms, gives to each a singular brilliancy. It is rather a tender greenhouse plant, grows about two feet high, and becomes naked at the lower part of the stem; is with difficulty propagated by cuttings, seldom perfecting its seeds; thrives best in rich earth, and flowers in April and May. The drawing was made from a plant in the collection of the Marquis of Blandford, Bill-hill, Berks.



Salpiglossis grandiflora





PLATE XXI.
VEREIA CRENATA.
Scalloped-leaf Vereia.

CLASS VIII. ORDER IV.
OCTANDRIA TETRAGYNIA. Eight Chives. Four Pointals.

GENERIC CHARACTER.

CALYX. Perianthium tetraphyllum, foliis lanceolatis, concavis, erectis, acutis, persistens.

COROLLA monopetala, ventricosa; limbus patens, revolutus quadripartitus; laciniis ovatis, acuminatis.
Nectararia quatuor; singulum squamula debilia, minima, singulo germini ad basin extrorsum inserta.

STAMINA. Filamenta octo, brevia, quorum quatuor medio, quatuor vero ad basin corollæ adnatæ. Antheræ subrotundæ simplices.

PISTILLUM. Germina quatuor, oblonga, deficientia in stylos subulatos. Stigmata obtusa.

PERICARPIUM. Capsulæ quatuor, ovatæ acuminatæ, rectæ, trigonæ, longitudinaliter futura introrsum dehiscentes.

SEMINA plurima minima.

EMPALEMENT. Cup four leaved, which are lance-shaped, concave, upright, sharp-pointed, and permanent.

BLOSSOM of one leaf, big bellied; border spreading, rolled back, and divided into four egg-shaped, pointed segments.
Honey-cups four, each consisting of a small slight scale, fixed on the outside the base of each seed-bud.

CHIVES. Eight short threads, four of which are fixed to the middle, and four to the base of the blossom. Tips nearly round, and simple.

POINTAL. Four seed-buds, oblong, ending in awl-shaped shafts. Summits blunt.

SEED-VESSEL. Four capsules, egg-shaped, tapering, upright and three sided, opening inwards along the seam.

SEEDS many, very small.

SPECIFIC CHARACTER.

Vereia, foliis oppositis, crenatis, patentibus; racemis longissimis laxis; floribus luteis.

Vereia, with opposite, scalloped, spreading leaves; very long loose spikes, and yellow flowers.

REFERENCE TO THE PLATE.

1. The Empalement, (natural size.)
2. A Blossom cut open to shew the situation of the Chives.
3. The Seed-vessel, Shafts, and Summits, with the scales of the Honey-cups, as they stand in the blossom, (magnified.)
4. One Capsule of the Seed-vessel detached.

THIS genus of Plants must class with Linnæus's natural order of Succulents, nearly approaching *Crasula* in habit; but as the Sexual System is the basis of our theory, we cannot admit it under that or any other yet described genus; we have therefore named it after James Vere, Esq. long and well known for his extended and liberal patronage to the professors and cultivators of the science; in whose beautiful and select collection at Kensington Gore, the present species, has for the first time, flowered in this kingdom. Mr. Anderson the gardener informs us, that this plant is a native of Sierra Leone; from whence it was sent to England, by Professor Eld. Elzelius, in the year 1793; that he has treated it as a tender hot-house plant, keeping it constantly in the tan bed, by which means he has made it flower; but from every appearance of the plant, we should be led to think the common treatment of hot-house Succulents would answer for this. It is easily propagated by cuttings; grows to the height of three or four feet, having when in flower the appearance of a middle sized shrub; blows in the winter months, and thrives best in rich mould.



crenata.

W. & A. Woodbury

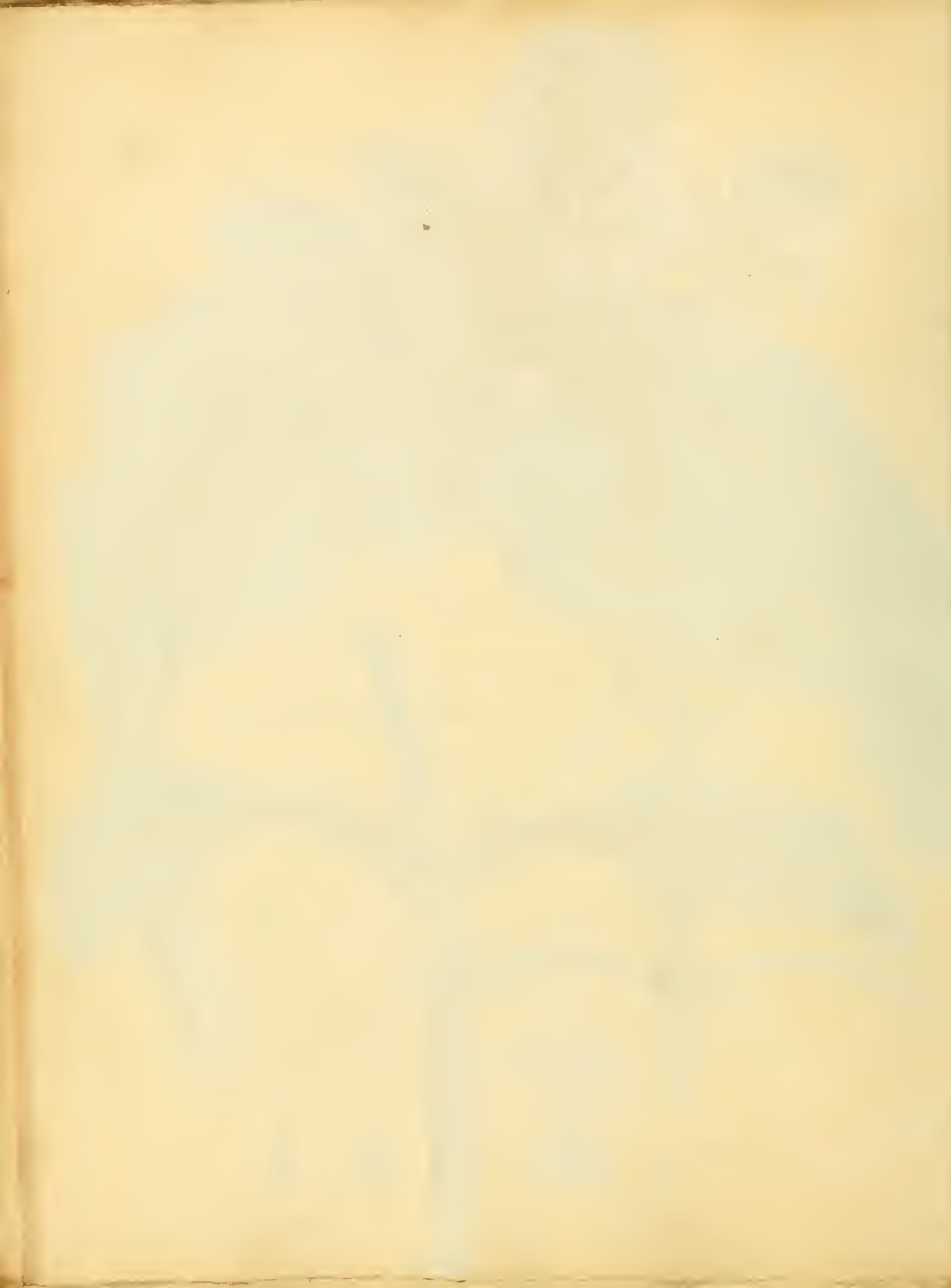




PLATE XXII.

GOODENIA CALENDULACEA.

Cape Marygold-leaved Goodenia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quadrifidum, superum, persistens.

COROLLA monopetala, supra longitudinaliter fissa, genitalia exferens; limbo quinquefido, secundo.

STAMINA. Filamenta quinque, receptaculo inserta. Antheræ lineares.

PISTILLUM. Germen inferum. Stylus simplex. Stigma urceolatum, ciliatum.

PERICARPIUM. Capsula oblonga, bilocularis, bivalvis; dissepimento parallelo.

SEMINA plura, scabrida.

EMPALEMENT. Cup four-cleft, above, and remaining.

BLOSSOM of one leaf, cleft longitudinally on the upper side, exposing the organs of fructification; border five-cleft, leaning one way.

CHIVES. Five threads fixed into the receptacle. Tips linear.

POINTAL. Seed-bud beneath. Shaft simple. Summit pitcher-shaped, and fringed.

SEED-VESSEL. Capsule oblong, with two cells, and two valves; partition parallel to the valves.

SEEDS many and rough.

SPECIFIC CHARACTER.

Goodenia, foliis obovatis, crassis, scabridis; floribus axillaribus, cæruleis.

Goodenia with inversely egg-shaped, thick rough leaves; flowers sitting close to the stem, and blue.

REFERENCE TO THE PLATE.

1. A Flower with all its parts complete.
2. A Blossom without the organs of fructification.
3. The Chives, Pointal, and Seed-bud (magnified).

THE *Goodenias* are all natives of New Holland, and received their generic name of Dr. J. E. Smith, President of the Linnæan Society; in honour of the Rev. Dr. Goodenough, whose valuable dissertation on the British species of *Carex*, does him the highest honour, as a botanist. The species of this genus (as yet discovered) are ten, from which we may infer that they are numerous; those only yet introduced to Britain are, the *lævigata*, *ovata*, and the present species; the others are described by the President, in the second volume of the Linnæan Transactions. This plant, though not to be ranked amongst the handsomest productions of that country, so replete with novelty, is yet possessed of sufficient merit to give it a place in our collections of greenhouse plants, flowering about the month of August; delighting most in an airy situation, and light soil. It is easily propagated by cuttings. Our figure was taken from a plant which flowered at the Hammer-smith nursery, in 1797; where it had been raised from seeds, communicated by Colonel Pater-son, then commanding at Port Jackson; to whose assiduous labours in collecting seeds, &c. the cabinets and collections of our natural historians are so very much indebted.



Peucedanum calandulaceum





PLATE XXIII.

IXIA CAPITATA. *Var. ovata.*

Bunch-flowering Ixia. Var. Egg-shaped purple Petals.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6 petala, patens, æqualis. Stigmata 3, erectiusculo-patula.		BLOSSOM six petals, spreading equal. Summits three, nearly upright, spreading. See <i>Ixia reflexa</i> , Plate XIV.
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SPECIFIC CHARACTER.

<i>Ixia</i> , foliis radicalibus, ensiformibus; floribus capitatis, confertis, purpureis, petalis basi obscuris.		<i>Ixia</i> with leaves growing from the root, and sword-shaped; blossoms in close bunches, purple, and dark at the base.
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REFERENCE TO THE PLATE.

1. The two sheaths of the Empalement.
2. A flower cut open, to shew the insertion of Chives.
3. The Chives as attached to the tubular part of the blossom, the border cut off (magnified).
4. The Shaft, Summits, and Seed-bud (magnified).

THIS fine species of *Ixia*, a native of the Cape of Good Hope, was introduced to our collections about the year 1795, by Messrs. Lee and Kennedy, nurserymen; they having raised it from seeds received by them, from the Royal Gardens at Vienna; is certainly amongst the tenderest of its tribe: the root, being extremely subject to injury by wet, it should be dried as soon as it has done flowering. It is one of the earliest *Ixias* in bloom, being in high perfection about the middle of April; is increased but slowly by the root, thriving best in very sandy peat, or sand only. The figure here given was drawn from a plant which flowered at the nursery, Hammersmith, in 1798, for the first time.



capitata
ovata

capitata
ovata





PLATE XXIV.
CINERARIA AURITA.

Two-coloured-leaved Cineraria.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis, simplex; polyphyllus; foliolis æqualibus.

COROLLA. Composita, radiata. Corollulæ hermaphroditæ, æquales; numerosæ, in disco. Femineæ ligulatæ, numero foliorum calycis in radio.

Propria hermaphroditæ, infundibuliformis; limbo quinquefido, erecto.

Femineæ ligulata, lanceolata, apice denticulata.

STAMINA. Filamenta quinque, filiformia breviter. Antheræ cylindraceæ, tubulosa, apice quinquefida.

PISTILLUM, hermaphroditis. Germen oblongum. Stylus filiformis, longitudine staminum. Stigmata duo erectiuscula.

Femineis: Germen oblongum. Stylus filiformis, brevis. Stigmata duo, oblonga, obtusiuscula, revoluta.

PERICARPIUM nullum. Calyx immutatus.

SEMINA hermaphroditis solitaria, linearia, quadrangula. Pappus pilosus, copiosus.

RECEPTACULUM nudum, planiusculum.

EMPALEMENT. Common, simple; of many leaves; small leaves equal.

BLOSSOM. Compound, radiate. Florets with chives and pointals equal; numerous in the centre. Florets with only pointals ligulate; equal in number to the leaves in the circumference of the empalement.

Individuals with chives and pointals funnel-shaped; border five-cleft, upright.

Individuals with pointals only, ligulate, lance-shaped, toothed at the point.

CHIVES. Five threads, thread-shaped and short. Tips forming a hollow cylinder, with five clefts at the top.

POINTAL of florets with chives and pointals. Seed-bud oblong. Shaft thread-shaped, the length of the chives. Summits two, a little upright.

Of florets with pointals only. Seed bud oblong. Shaft thread-shaped, and short. Summits two, oblong, rather blunt, and rolled back.

SEED-VESSEL none. Cup not changing.

SEEDS of florets with chives and pointals, solitary, linear and four-fided. Feather, hairy, abundant.

RECEPTACLE naked, rather flat.

SPECIFIC CHARACTER.

Cineraria, foliis cordatis, dentatis, pilosis, subtus purpurascens; petiolis auritis: floribus purpureis.

Cineraria with heart-shaped, indented, hairy leaves, purple underneath; the footstalks having lobes: the flowers purple.

REFERENCE TO THE PLATE.

1. The Empalement (natural size).
2. A floret of the ray (magnified).
3. A floret of the disk (magnified).
4. The Chives, Pointal, and Seed-bud of a floret of the disk (magnified).

IN the Sert. Anglic. of Monf. L'Heritier, this species of Cineraria has been described and figured under the specific character of Cruenta, from the botanic garden at Kew; where, according to the catalogue, it was first introduced by Mr. F. Masson, from the Canary Islands, about 1777; and by which specific it has hitherto been titled: but from what appearance or part of the plant, he could denominate it bloody, will not be easy to determine; from our idea of colour, he might as well have named it blue. Finding, therefore, a specific character certainly more fixed in the leaf, we have taken the liberty of altering Cruenta to Aurita; though that would not have been done, (as nothing is more contrary to our sentiments, than altering any published name) if there had been any glimpse of affinity to the plant in that title. This is unquestionably the handsomest species of Cineraria yet known, growing to the height of near three feet if encouraged. The specimen from which this figure was taken, and which was sent last March to the author, by Mr. James Colville, King's road, Chelsea, had attained that size. By night it is extremely fragrant, continuing its blossoms from the month of February, till August; seeding abundantly, by which it may be propagated, producing many varieties; or by the suckers which are thrown up from the roots; thriving best in light mould or peat.





PLATE XXV.

CAMELLIA JAPONICA. *Var. Flore albo pleno.*
Double white Camellia.

CLASS XVI. ORDER V.

MONODELPHIA POLYANDRIA. Threads united. Many Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX imbricatus, polyphyllus: foliolis interi- || EMPALEMENT tiled, of many leaves: the inner
oribus majoribus. || leaves the largest.

SPECIFIC CHARACTER OF VAR.

Camellia floribus amplissimis, plenis albidis. || Camellia with large double white flowers.

THOUGH it may be considered by some, as deviating from the botanical rule we prescribed to ourselves, at the outset of this work, not to figure any flower, but what could be systematically ascertained; double flowers, &c. having lost those constituent characters necessary to the Sexual System; yet having seen this most delightful plant in bloom last year, the temptation was too powerful to be resisted, for giving a figure of it in the Botanist's Repository. This fine variety of the Camellia, was first imported from China about the year 1793, by Captain Connor of the Carnatic East-indiaman, for the gardens of the late I. Slater, Esq. a gentleman of most indefatigable spirit, for the introduction of new plants to this kingdom; indeed, it is to him we owe most of the plants received from China within these few years; he having procured a catalogue to be printed of all the described Chinese plants in that language, with the descriptions translated, and by various hands transmitted it to that country. The finest plants in this kingdom, of the double white Camellia, are now in the collection of Sir Joseph Banks, Bart. P. R. S. This, like the others of this genus, we may consider of sufficient hardness to resist our winters; being a native of the Japanese isles, where, as well as in China, it was seen by Thunberg. As yet (from its scarcity) that cannot be ascertained; but from the easy method by which it is propagated by cuttings, we are in hopes it soon may. It is at present cultivated as a hot-house plant, where certainly it will be always seen in the greatest perfection; the flowers being of so delicate and brilliant a white, their beauty is easily destroyed, even by watering. Flowers in the autumnal months, and thrives best in rich loam.



Camellia Japonica



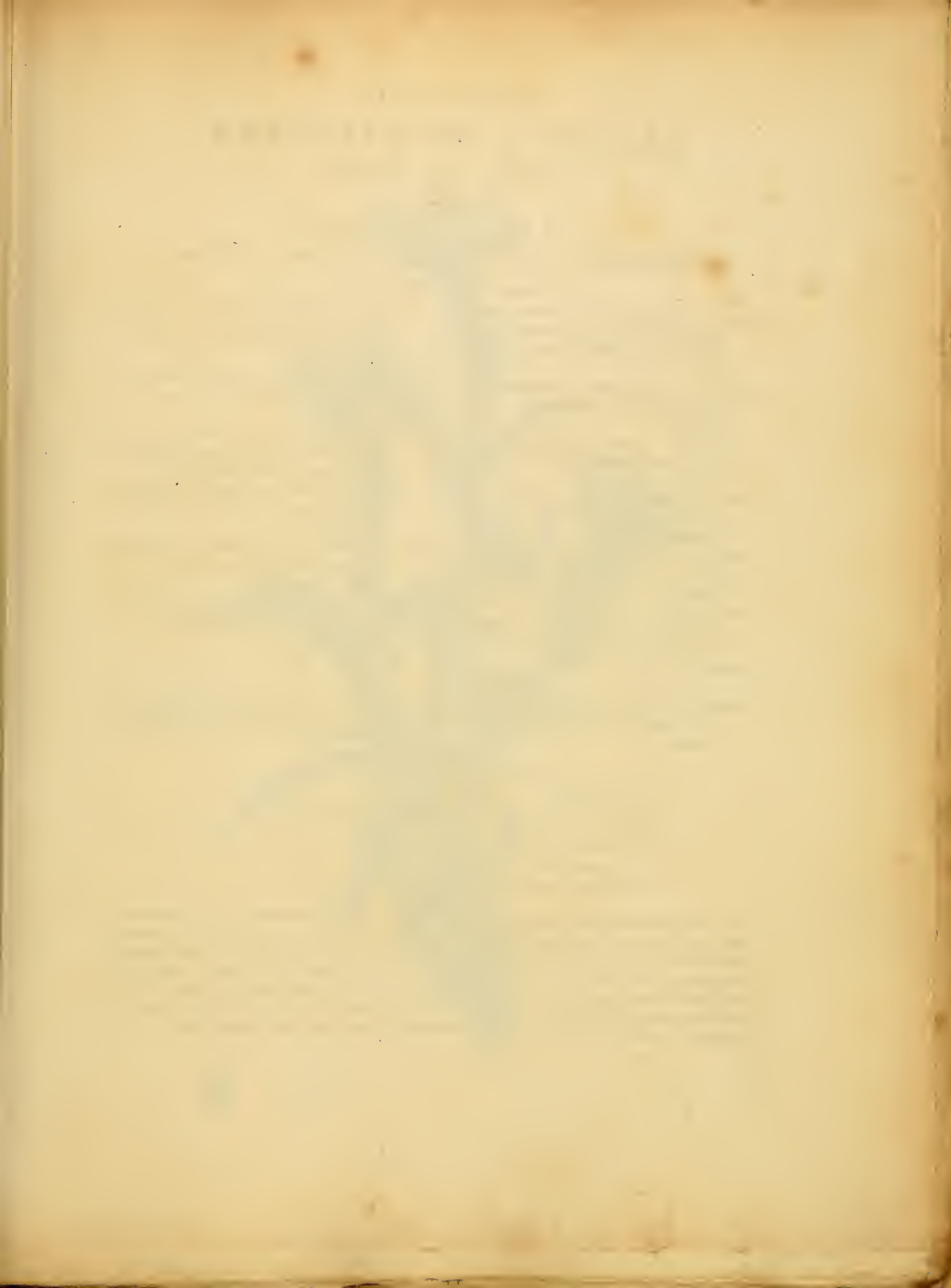


PLATE XXVI.

CRASSULA ODORATISSIMA.

Sweet-scented Crassula.

CLASS V. ORDER V.

PENTANDRIA PENTAGYNIA. Five Chives. Five Pointals.

GENERIC CHARACTER.

CALYX. Perianthium pentaphyllum; foliolis lanceolatis, canaliculato-concavis, erectis, acutis, conniventibus in tubum, persistentibus.

COROLLA. Petala quinque, unguibus longis, linearibus, rectis, conniventibus, reflexo-patentibus.

Nectaria quinque; singulum squamula minima, emarginata basi germinis extrorsum annexa.

STAMINA. Filamenta quinque, subulata, longitudine tubi, unguibus corollæ inferta. Antheræ simplices.

PISTILLUM. Germina quinque, oblonga, acuminata, desinentia in stylos subulatos, longitudine staminum. Stigmata obtusa.

PERICARPIUM. Capsulæ quinque, oblongæ, acuminatæ, rectæ, compressæ, longitudinaliter introrsum dehiscentes.

SEMINA plura, parva.

EMPALEMENT. Cup of five leaves; the small leaves are lance-shaped, concave and channelled, upright, sharp, formed into a tube, and remaining.

BLOSSOM. Petals five, claws long, linear, upright, joined together, bent back, and spreading.

Honey-cups five, each consisting of a small scale notched at the end, and fixed on the outside the base of each seed-bud.

CHIVES. Five threads, awl-shaped, the length of the tube, fixed into the claws of the blossom. Tips simple.

POINTAL. Seed-buds five, oblong, pointed, ending in awl-shaped shafts, the length of the chives. Summits blunt.

SEED-VESSEL. Five capsules, oblong, pointed, upright, pressed together, and opening inwards along the seam.

SEEDS, many, small.

SPECIFIC CHARACTER.

Crassula foliis oppositis, amplexicaulibus, ciliatis, linearibus; floribus capitatis, odoratissimis, luteis.

Crassula with opposite leaves that embrace the stem, fringed and linear; the flowers grow in bunches, are sweet-scented and yellow.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom cut open to shew the insertion of the threads.
3. One Petal of the blossom.
4. The five Pointals as they stand in the blossom, with their honey-cups attached to the bottom of the Seed-buds.
5. One Pointal (magnified).

THE *Crassula Odoratissima* is a native of the Cape of Good Hope, was introduced to our gardens about the year 1794, but did not flower till 1796. The scent of this plant at night is so very powerful, that by many it may be deemed almost offensive, though by others it is considered as most agreeable; the flavour is nearly affined to the tuberose. This is not a very showy plant, growing about a foot high, and flowers from March, till May or June. It is most easily propagated by cuttings, lives in the common greenhouse with very little care, and in almost any sort of earth. This figure was taken at Messrs. Lee and Kennedy's, nurserymen, Hammer-smith, where the plant was first raised.



Crassula odoratissima



PLATE XXVII.

GLADIOLUS RINGENS. *Var. cinereo odorato.*
Gaping Ash-coloured sweet Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, ringens.		BLOSSOM six divisions, gaping.
STAMINA adscendentia.		CHIVES ascending.
		See Plate XI.

SPECIFIC CHARACTER.

Gladiolus foliis linearibus, costatis; floribus ringentibus, cineris, odoratissimis.		Gladiolus with linear, ribbed leaves; the blossoms gaping, ash-coloured, and very sweet-scented.
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REFERENCE TO THE PLATE.

1. The two sheaths of the Empalement.
2. A Blossom cut open to expose the insertion of the Chives.
3. The Pointal (one Summit magnified).
4. A Seed in its coat.

THIS most desirable Gladiolus, is not a perfect novelty in the greenhouse; although extremely scarce, it has been introduced to us constantly from the Cape of Good Hope, but from its great delicacy has been repeatedly lost. The plants now in England, have been imported from Holland, from the collection of Messrs. Voorhelm and Co. who about the year 1793, purchased the largest collection ever formed at the Cape, from a Frenchman who had been many years resident there. The Gladiolus ringens about mid-day has the flavour of violets so powerfully, that a single plant is sufficient to scent a whole greenhouse. It is with difficulty preserved from rotting at the root; therefore should be grown in very sandy peat, and should be exposed to dry as soon as the flower is gone. Is propagated by the root, or by seed, which may be procured by great care not to over-water the bulb after flowering; but herein there is great danger.



Gladiolus ringeri
 var. *antennae colorati*



THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 309



PLATE XXVIII.

GERANIUM ELEGANS.

Round-leaved Geranium.

CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata 5. Fructus rostratus, 5-coccus.		One POINTAL. Five Summits. Fruit furnished with long awns, 5 dry berries. See GERANIUM GRANDIFLORUM, Plate XII.
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SPECIFIC CHARACTER.

Geranium pedunculis multifloris; calycibus monophyllis, foliis orbiculatis, serratis rigidis, petiolis longifimis; caule herbaceo.		Geranium, the fruit-stalks supporting many flowers; cups of one leaf; the leaves round, faved, and harsh, with very long foot-stalks; stem herbaceous.
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REFERENCE TO THE PLATE.

1. The Empalement cut open, to shew its tubular shape to its base.
2. The Chives, and Pointal, natural size.
3. The Pointal, magnified.

THIS truly elegant species of Geranium was introduced to us from the Cape of Good Hope, in the year 1795; being raised from seeds, received from thence, by Messrs. Lee and Kennedy, in whose collection it flowered for the first time this year, about the latter end of May, and from which specimen this figure was taken. It is one of those that have in general seven fertile tips, and, therefore, must be placed under Mr. L'Heritier's genus Pelargonium, by those who follow his new arrangement. It is a hardy plant, and requires only a common greenhouse for its protection, where it will seed; which seems to be the readiest mode of propagating it, as it produces but very few branches; thriving best in rich earth.



em elegans.

1

2

3





PLATE XXIX.

IXIA SPICATA. *Var. viridi nigra.*

Sea-green spiked Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6 petala, patens, æqualis.
STIGMATA 3, erectiusculo-patula.

BLOSSOM six petals, spreading, equal.
SUMMITS three, nearly upright, spreading.
See IXIA REFLEXA, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis linearibus, costatis; corolla viridi,
petalis basi obscuris; spicis longissimis.

Ixia with linear, ribbed leaves; green blossom,
the base of the petals dark; spikes very
long.

REFERENCE TO THE PLATE.

1. The two sheaths of the Empalement.
2. A Blossom cut open, to shew its tubular character, and the insertion of the Chives at the mouth.
3. The Pointal complete, one of its Summits magnified.

THE singularity of colour exhibited in this very fine species of *Ixia*, the extraordinary length of the spikes, the flowers of which are mostly all expanded at the same time; and which grow sometimes to the length of a foot, or more; will certainly entitle it to a place in every collection of exotics. We are indebted to the Hollanders for this plant, as they first introduced it from the Cape; and it is from them we received it but a few years since. It is amongst the hardiest, and easiest propagated of this genus; requiring a small degree of heat when near blowing, to make the flowers expand with lustre; thriving best in peat earth; propagating itself by the bulb; and flowering during the months of May and June.



spicata.
de regia

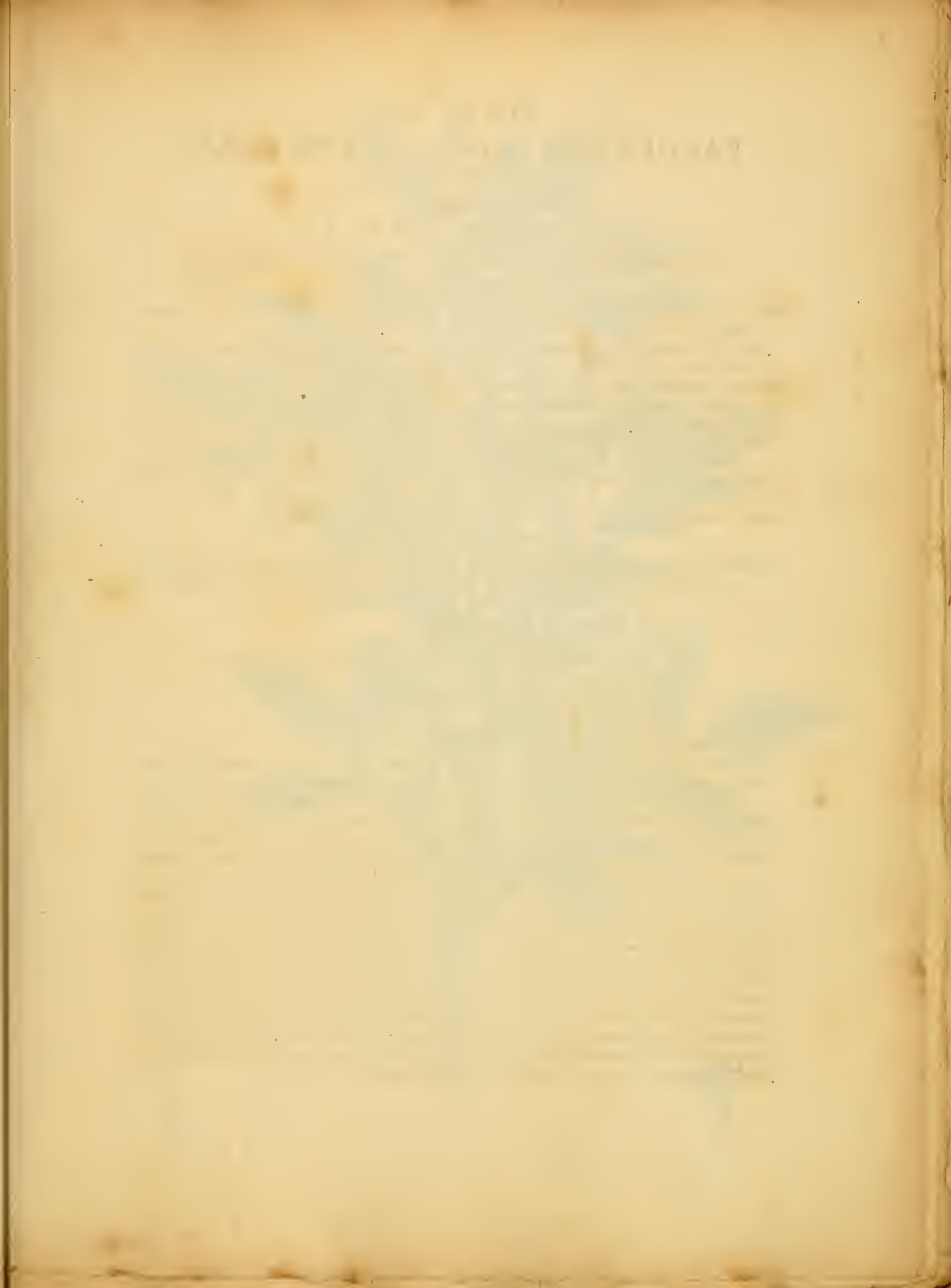


PLATE XXX.
VACCINIUM ARCTOSTAPHYLLUS.
Madeira Whortle-berry.

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

GENERIC CHARACTER.

<p>CALYX. Perianthium minimum, superum, persistens.</p> <p>COROLLA. Monopetala, campanulata, quadrifida; laciniis revolutis.</p> <p>STAMINA. Filamenta octo, simplicia. Antheræ bicornes, dorso aristis duabus patentibus instructæ, apice dehiscentes.</p> <p>PISTILLUM. Germen inferum. Stylus simplex, staminibus longior. Stigma obtusum.</p> <p>PERICARPIUM. Bacca globosa, umbilicata, quadrilocularis.</p> <p>SEMINA pauca, parva.</p>	<p>EMPALEMENT. Cup very small, above, and permanent.</p> <p>BLOSSOM. One petal, bell-shaped, four-cleft; segments rolled back.</p> <p>CHIVES. Eight threads, simple. Tips with two horns, and furnished with two spreading awns at the back, opening at the points.</p> <p>POINTAL. Seed-bud beneath. Shaft simple, longer than the chives. Summit blunt.</p> <p>SEED-VESSEL. A globular berry, with a hollow dimple, and four cells.</p> <p>SEEDS few, and small.</p>
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SPECIFIC CHARACTER.

<p><i>Vaccinium</i>, floribus racemosis; foliis crenulatis, ovatis, acutis; caule arboreo.</p>	<p>Whortle-berry, with flowers growing in bunches; leaves slightly scolloped, egg-shaped, and pointed; stem woody.</p>
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REFERENCE TO THE PLATE.

1. The Empalement, Pointal, and Chives; the blossom removed.
2. A Chive (magnified).
3. The Shaft, and its Summit (magnified).
4. A ripe Berry (natural size).

NUMEROUS are the difficulties which occur in arranging plants according to any yet invented system; and although the sexual fails in the fewest instances, yet that is sometimes the case. The plant before us, although in habit, fruit, &c. seemingly perfectly allied to *Vaccinium*, and, from which characters, it has been placed under that genus, yet we doubt whether if Linnaeus had examined the flower himself, (as he has accepted it under the name it here bears, and we have no doubt of its being the plant intended;) he would not have classed it in *Octandria*; for certainly it has in every instance ten chives, with the border of the blossom of five segments; the threads attached to the blossom. But, as it is the professed intention of this work as little as possible to confuse, by the introduction of new names for plants already known by established, and generally accepted ones; though erroneous from incorrectness, or otherwise, in the author who first published them; we shall attempt an alteration but rarely, and that cautiously, or for very glaring reasons; being thoroughly convinced of the difficulty of retaining only one name for each plant. The *Vaccinium Arctostaphyllum* is a native of the island of Madeira, where it grows to a considerable height: it has not been many years cultivated in our gardens; having been introduced to us first by Mr. F. Masson about the year 1786. The winters in common of this climate are too severe for it, therefore should be protected, although it will survive a mild one: it is best preserved in a pot, and kept as a greenhouse plant, where it is very ornamental; flowering about the months of July and August; thriving best in light mould, or peat; and is propagated by cuttings, or the seed, which it produces in abundance.





PLATE XXXI.
BORBONIA CORDATA.

Heart-shape leaved Borbonia.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Threads in two sets. Ten Chives.

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, quinquefidum, turbinatum, corolla dimidio brevius; laciniis lanceolatis, acuminatis, subæqualibus.</p> <p>COROLLA pentapetala papilionacea. <i>Vexillum</i> reflexum, obtusum, ungue calycis longitudine. <i>Alæ</i> femicordatæ, vexillo paulo breviores. <i>Carina</i> dipetala, lunulata, obtusa.</p> <p>STAMINA. Filamenta decem, coalita in cylindrum, superne longitudinaliter dehiscentem, apicibus assurgentia. Antheræ parvæ.</p> <p>PISTILLUM. Germen subulatum. Stylus brevissimus, adscendens. Stigma obtusum, emarginatum.</p> <p>PERICARPIUM. Legumen subrotundum, acuminatum, uniloculare, spina mucronatum.</p> <p>SEMINA reniformia.</p>	<p>EMPALEMENT. Cup one leaf, cut into five segments, turban-shaped, shorter by half than the blossom; segments lance-shaped, pointed, nearly of the same length.</p> <p>BLOSSOM of five leaves, butterfly-shaped. <i>Standard</i> bent back, blunt, the claw the length of the cup. <i>Wings</i> half heart-shaped, a little shorter than the standard. <i>Keel</i> of two leaves, half moon-shaped, and blunt.</p> <p>CHIVES. Threads ten, joined in a cylinder, splitting at the upper side, turned up at the ends. Tips small.</p> <p>POINTAL. Seed-bud awl-shaped. Shaft short, turned up at the end. Summit blunt, and bordered.</p> <p>SEED-VESSEL. Shell roundish, pointed, of one cell, and pointed with a spine.</p> <p>SEEDS kidney-shaped.</p>
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SPECIFIC CHARACTER.

<p><i>Borbonia</i> foliis cordatis, multinerviis, integerimis.</p>	<p><i>Borbonia</i> with heart-shaped leaves, many-nerved, and very entire.</p>
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REFERENCE TO THE PLATE.

1. The Empalement.
2. The Standard, or upper petal of the Blossom.
3. A Wing, or side petal of the Blossom.
4. The Keel, or lower petals of the Blossom.
5. The Pointal and Chives, natural size.
6. The Seed-vessel, attached to the Empalement.

THE *Borbonia cordata*, with its various synonyms, may be found in the second volume of Linnæus's *Species Plantarum*, page 994, from whence our specific character is copied. This plant, as well as most of the genus, are subject to lose their leaves from the lower part of the stem, which gives it rather a naked appearance when not in flower; but that is amply compensated by the very handsome appearance of its magnificent bunch of yellow blossoms. It grows to the height of three or four feet, producing but few branches. This figure was taken from a plant sent to the author, about the beginning of July, in full bloom, by Mr. Colville, nurseryman, of the King's Road, Chelsea; who informs him that he raised it about the year 1795, from seeds which he had received from the Cape of Good Hope. The *Borbonias* are mostly hardy greenhouse plants, and delight in light earth; either peat, or very light dungy earth: they are in general difficult to propagate by cuttings; the surest method is by the seed, which they for the most part perfect in this climate.



Bortonia cordata

Bortonia cordata
Linn. Sp. Pl. 1000.



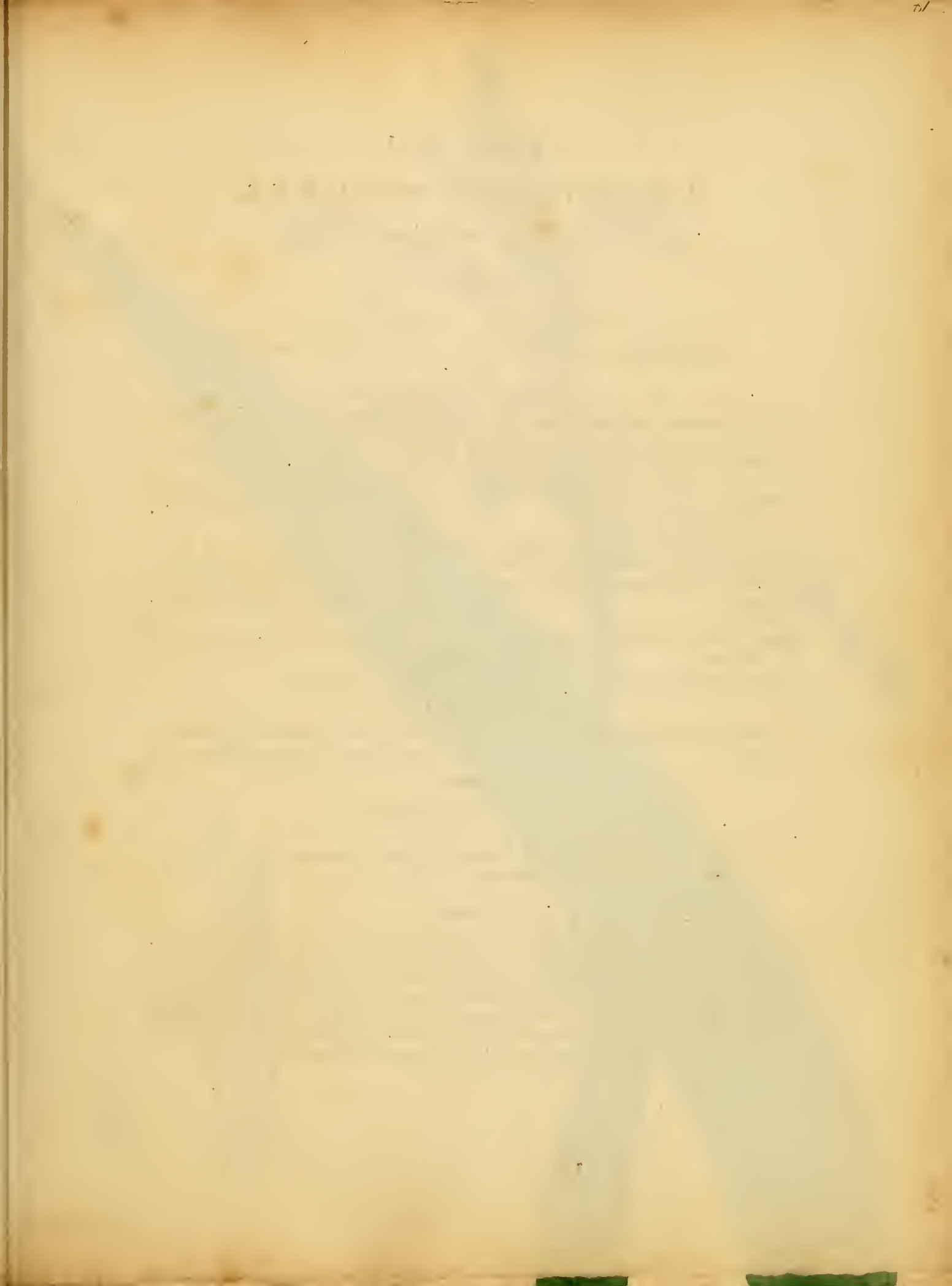


PLATE XXXII.

ANTHOLYZA RINGENS.

Gaping Antholyza.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, alternatæ, flores diftinguentes, persistentes.

COROLLA. Petalum unicum e tubo sensim dilatatum in faucem compressam, ringentem.

STAMINA. Filamenta tria, longa, tenuia, sublabio superiori. Antheræ acutæ.

PISTILLUM. Germen inferum. Stylus filiformis, situ et longitudine staminum superiorum. Stigma trifidum, capillare, reflexum.

PERICARPIMUM. Capsula subrotunda, trilocularis, trivalvis.

SEMINA plura, triangularia.

EMPALEMENT. Sheath of two valves, alternate, dividing the flowers, and abiding.

BLOSSOM. One petal, widening in the tube, flattened at the mouth, and gaping.

CHIVES. Three threads, long, thin, and placed under the upper lip of the blossom. Tips sharp.

POINTAL. Seed-bud beneath. Shaft thread-shaped, in the same place, and of the same length of the upper chives. Summit cut into three hair-like divisions, which are bent back.

SEED-VESSEL. Capsule nearly round, three cells, three valves.

SEEDS many, triangular.

SPECIFIC CHARACTER.

Antholyza corollæ labiis divaricatis; fauce compressa.

Antholyza with the lips of the blossom in various directions; the mouth flattened.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom cut open, to shew the infertion of the Chives.
3. The Pointal (natural size).

ALTHOUGH this species of *Antholyza* is not new in our gardens, yet has it been seen in flower but by few, as it blows so seldom; though the roots are by far the largest of any of the genus. The bulb from which this figure was taken, had received a little assistance from heat early in the season, and by that means was (apparently) brought into flower. It is a native of the Cape of Good Hope, has much the appearance of a common flag in the foliage, growing to the height of three feet, or more; requires the same earth as *Ixias*, propagates by the root, or seed, and flowers in the month of June; at which time a drawing was made from a plant then in bloom at the HammerSmith nursery.



Anthelyx ringens



PLATE XXXIII.
DIOSMA LATIFOLIA.
Broad-leaved Diosma.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quinquepartitum; laciniis tenuibus, acutis, persistentibus; basi plana.

COROLLA. Petala quinque, ovata, obtusa, seffilia, erecto-patula.

Nectarium coronæ forma, excavatum, quinquefidum, obtusum, germiui impositum.

STAMINA. Filamenta quinque, subulata. Antheræ subovatae, erectæ.

PISTILLUM. Germen coronatum nectario. Stylus simplex, longitudine staminum. Stigma obsoletum.

PERICARPIUM. Capsulæ quinque, ovato-acuminatæ, compressæ, margine introrsum coalitæ, apicibus distantes, futura superiori dehiscentes.

SEMINA solitaria, oblonga.

Arillus elasticus, hinc dehiscens; singulum involvens semen.

EMPALEMENT. Cup of four divisions; segments thin, sharp, and permanent; smooth at the base.

BLOSSOM. Five petals, egg-shape, blunt, fitting close, erect, and open.

Honey-cup crown-shaped, hollow, with five divisions, blunt, fixed on the seed-buds.

CHIVES. Five threads, awl-shaped. Tips nearly egg-shaped, upright.

POINTAL. Seed-bud crowned by the honey-cup. Shaft simple, the length of the chives. Summit blunt.

SEED-VESSEL. Five capsules, egg-shaped, pointed, flattened, joined together by the inner edge, the points standing apart, splitting at the upper future.

SEEDS solitary, oblong.

Seed-coat elastic, splitting from hence, and inclosing a single seed.

SPECIFIC CHARACTER.

Diosma, foliis oppositis, ferratis, ovalibus, latissimis; floribus terminalibus, albidis, seffilibus.

Diosma with opposite leaves, fawed, oval, and very broad; flowers terminal, white, and fitting close to the branches.

REFERENCE TO THE PLATE.

1. A Blossom complete.
2. The Chives and Pointal, with the surrounding Seed-buds and Honey-cups.
3. The Pointal, natural size, with the Empalement attached.
4. The same magnified.
5. A Seed taken from its coat.

THERE are few genera of plants more deserving our notice than *Diosma*; the fragrance of the leaves of most of the species, and the beauty of the flowers of others, has rendered them so common, (being easily propagated by cuttings) that few collections but have a number of the different species. They are all very hardy greenhouse plants, the present species excepted; this, requiring a dry situation, and rather more warmth than the rest. It was sent to the royal gardens at Kew, about the year 1791, by Mr. F. Masson, to whose industry botany stands so much indebted. Of all the *Diosmas* this is the highest grower, aspiring to three or four feet, or more, if encouraged; delights in peat earth, and flowers about the month of August.



Diosma latifolia





PLATE XXXIV.
CHELONE RUELLIODES.
Scarlet Chelone.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquepartitum, brevissimum, persistens; laciniis erectis, ovatis.

COROLLA monopetala, ringens; tubus cylindraceus, brevissimus; faux inflata, oblonga, supra convexa, infra plana; limbus clausus parvus; labium superius obtusum, emarginatum; limbus inferius cum superiori fere æquale, lævissime trifidum.

STAMINA. Filamenta quatuor, sub dorso corollæ recondita, quorum duo lateralia paulo longiora; antheræ incumbentes.

Rudimentum quinti filamenti, mucronis instar, intra superius flaminum par.

PISTILLUM. Germen ovatum. Stylus filiformis, situ, et longitudine flaminum. Stigma obtusum.

PERICARPIUM. Capsula ovata, bilocularis, calyce longior.

SEMINA plurima, sub rotunda, margine membranaceo cincta.

EMPALEMENT. Cup one leaf, five divisions very short, permanent; segments upright and egg-shaped.

BLOSSOM. One petal, gaping; tube cylindrical, very short; mouth swelled, oblong, rounded on the upper, and flat on the lower part; border shut, and small; upper lip blunt, bordered; lower lip nearly as long as the upper, slightly divided into three at the end.

CHIVES. Threads four, hid under the upper part of the blossom; of which the two side ones are a little longer than the others. Tips fixed sideways to the threads.

The rudiment of a fifth thread, like a sharp point is placed equal with, and between the upper chives.

POINTAL. Seed-vessel egg-shaped. Shaft thread-shaped, of the same length, and place as the chives. Summit blunt.

SEED-VESSEL. Capsule egg-shaped, two cells longer than the empalement.

SEEDS many, nearly round, bound at the edge by a thin skin.

SPECIFIC CHARACTER.

Chelone foliis inferioribus spatulatis, glabris; superioribus lanceolatis, oppositis; corollis cernuis, coccineis; labiis inferioribus barbatis.

Chelone with spatulate, smooth leaves on the lower part of the stem; and lance-shaped, opposite ones on the upper; blossoms hanging down, and scarlet; the lower lips bearded.

REFERENCE TO THE PLATE.

1. A Leaf from the lower part of the Stem.
2. The Empalement.
3. A Blossom cut open, to shew the situation of the Chives, and the imperfect rudiments of a fifth.
4. The Seed-vessel, and Pointal, (natural size).

THE *Chelone Ruellioides* is a native of Chili, South America, and was introduced to the royal gardens at Kew in the year 1793, by Mr. Boutelow, the son of the gardener to the King of Spain, who was then in England pursuing his botanical studies. It is (apparently) a hardy plant, and fit to endure the open borders, but, as yet, we have not had a sufficient trial to ascertain it; hitherto it has been treated as a greenhouse plant. Being herbaceous, it is propagated by parting the roots, which should be done in spring, about the month of March. The proper season of its flowering cannot well be determined, as it has undergone such various treatment. The plant from which this figure was made was in full bloom at the gardens of G. Hibbert, Esq. Clapham, in the month of June 1797, where it was seen to flower, for the first time in this country. The soil it seems to thrive in most, is a composition of loam, and rotten dung.



Chelone rupestris



PLATE XXXV.

IXIA CRISPIFOLIA. *Var. flore cæruleo.*

Crisped-leaved Ixia. Blue Variety.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, æqualis. Stigmata 3,
erectiusculo-patula.

Blossom six petals, spreading equal. Summits
three, nearly upright, and spreading.
See IXIA REFLEXA, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis crispis; scapus ramofus, flexuofus,
spithamæus; floribus fub-umbellatis, cæru-
leis.

Ixia with crisped leaves; flower-stem branched,
waved, and a span high; flowers grow in
partial umbels, and are blue.

REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement.
2. A Blossom cut open, to shew the infertion of the Chives.
3. A Chive (magnified).
4. The Pointal, one of the divisions of the Summit detached, and magnified.

THIS singular species of *Ixia*, is one amongst the many given by the Dowager Lady De Clifford to Messrs. Lee and Kennedy Hammerfmith, in the year 1794; at which time, her ladyship had just received the bulbs in a present from the Cape. It is described by Thunberg, in his *Dissertatio de Ixia*, published in 1783. The root of this plant is of a most curious shape, having the appearance of being the half, rather than the whole; it is very delicate, is easily destroyed by moisture, therefore (except when in flower) should be kept very dry; it propagates by the root, the old one generally producing two; flowering about the month of June, or July, but requires the warmth of a moderate hothouse to expand its blossoms. Like other Cape bulbs, it should be planted in sandy peat.



Saxifraga cespitosa.
Var. *flora caerulea*



THE HISTORY OF THE
CITY OF BOSTON

1780



PLATE XXXVI.
RHODODENDRON PUNCTATUM.

Dotted-leaved Rhododendron.

CLASS X. ORDER 1.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-partitus. Corolla rotato-infundibuliformis. Stamina declinata. Capsula 5-locularis.		EMPALEMENT of five divisions. Blossom of a rounded funnel-shape. Chives bent downward. Capsule of five cells. See RHODODENDRON DAURICUM, Plate IV.
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SPECIFIC CHARACTER.

Rhododendron foliis glabris, subtus punctatis; viminibus laxis; corollis crispis, violaceo-purpureis.		Rhododendron with smooth leaves, dotted on the under part; slender loose branches; blossoms crisped, and of a blueish purple.
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REFERENCE TO THE PLATE.

1. A Blossom.
2. The Chives, and Pointal (natural size); one tip detached (magnified).
3. The Seed-vessel, and Pointal, (natural size).

It is to the industrious researches of J. Frazer, nurseryman, of the King's Road, Chelsea, we are indebted for this charming species of Rhododendron, who introduced it in the year 1792 from the back settlements of Carolina, North America, where it is native. This species is by far the most delicate of any yet discovered on that continent; grows to the height of three, or four feet, and of sufficient hardiness to resist our winters in the open ground; a slight protection insures its flowering, as our late frosts are apt to injure the buds, which are very often without that assistance destroyed. The best method of propagating this shrub is by layers, which should be taken off in autumn, and protected the first winter. It flowers about the month of July, at which season this year a drawing was made from a plant, in the nursery of Lee and Kennedy, Hammermith. It (like most American plants) delights in sandy peat.



Rhododendron punctatum

Wm. Woodhouse del. & sculp. 1847





PLATE XXXVII.

GERANIUM FRAGILE.

Brittle-stalked Geranium.

CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata 5. Fructus rostratus, 5-coccus. || ONE POINTAL. Summitis five. Fruit furnished with long awns, five dry berries. See GERANIUM GRANDIFLORUM, Plate XII.

SPECIFIC CHARACTER.

Geranium foliis carnosis, pinnatis; caulis fruticosus, ramosus, fragilis; petalis linearibus, pedunculis erectis. || Geranium with fleshy winged leaves; stem shrubby, branched and brittle; petals linear, fruit-stalks upright.

REFERENCE TO THE PLATE.

1. The Empalement cut open, to shew its tubular shape to its base.
2. The Chives, and Pointal, (natural size).
3. The Pointal, (magnified).

THE Geranium fragile has in general seven fertile tips, and thus comes under Linnæus's first arrangement; and Monf. L'Heritier's Genus Pelargonium. It is a native of the Cape of Good Hope, and was introduced by Messrs. Lee and Kennedy in the year 1792. This plant seldom grows more than a foot high, but during the months of July, August, and September, it is covered with blossoms, which are of a pale yellow, striped at the bottom with red, standing nearly upright. It is rather a tender plant, requiring a dry stove, or hothouse, to preserve it in winter, being very subject to damp in the leaves; is easily propagated by cuttings, and thrives best in rich mould.



Geranium fragile

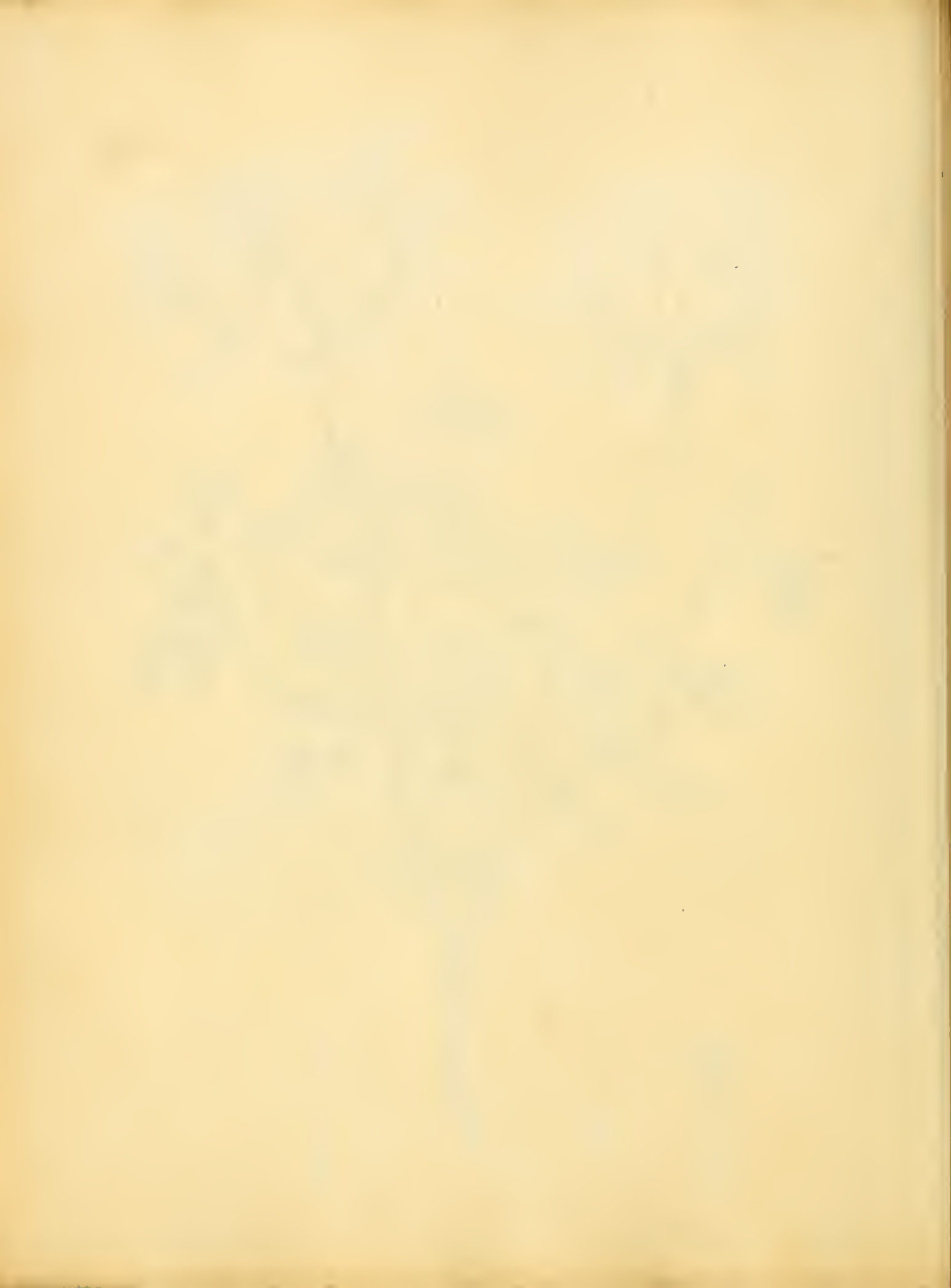


PLATE XXXVIII.

GLADIOLUS PRÆCOX. *Var. flore rubro.*

Red early-flowering Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, ringens.
STAMINA adscendentia.

|| BLOSSOM six divisions, gaping.

|| CHIVES ascending.

See Plate XI. GLADIOLUS ROSEUS.

SPECIFIC CHARACTER.

Gladiolus foliis ensiformibus, apicibus tortis,
lineari-cruciatis; corollis sub-campanula-
tis, rubris; petalis acuminatis.

|| Gladiolus with sword-shaped leaves, twisted at
the ends, linear, and cross-shaped; blossoms
nearly bell-shaped, and red; petals sharp-
pointed.

REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement.
2. A Blossom cut open, to expose the situation of the Chives.
3. The Pointal, one of the Summits magnified.
4. A Seed.

Of all the species of this numerous Genus, this is the first to expand its blossoms, seldom flowering later than April; is extremely hardy, scarce requiring the warmth of a greenhouse for its protection, although a native of the Cape. About the year 1791, the bulbs of this plant were purchased of Messrs. Voorhelm, and Co. of Haarlem, in Holland, by Messrs. Lee and Kennedy, Hammer Smith, at whose nursery it has repeatedly flowered, and where this figure was taken. It is propagated by the root, as other Gladiolus, and requires the same earth, a light sandy peat.



Gladiolus pinnatis
Van der Meulen

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PLATE XXXIX.

ECHIUM FEROCISSIMUM.

Prickly Viper's Buglofs.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA irregularis, fauce nuda.



BLOSSOM irregular, mouth naked.

See ECHIUM GRANDIFLORUM, Plate XX.

SPECIFIC CHARACTER.

Echium caule fruticoso; ramis, foliisque aculeatis; floribus spicatis, violaceis; corollis sub-æqualibus.



Viper's Buglofs, with a shrubby stem; branches and leaves covered with sharp prickles; flowers growing in spikes, and violet coloured; blossoms nearly equal.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom cut open, to shew the insertion of the Chives in the tube.
3. The Shaft and its Summit, magnified.

ALTHOUGH there are few species of this genus, but are rough, or hairy; yet this by far exceeds any of them, or almost any other plant not actually spiny, for its extreme coarseness to the touch; nevertheless it is a very handsome fleshy greenhouse plant, growing to the height of two feet, and blowing freely. It is a native of the Cape of Good Hope, and was introduced by Messrs. Lee and Kennedy in 1794; at whose nursery it flowered for the first time, this year, in the month of July. The only method of propagating the Cape Echiums is by cuttings, and that is done with great difficulty; of course, this, as well as the other species, are very scarce: they delight most in rich light mould.



Echium prostratum





PLATE XL.

CHELONE CAMPANULOIDES.

Bell-flowered Chelone.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-partitus. Rudimentum filamenti quinti inter suprema stamina. Capsula bilocularis.		EMPALEMENT of five divisions. The rudiment of a fifth thread is found placed between the upper chives. Capsule of two cells. See Plate XXXIV. CHELONE RUELLIODES.
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SPECIFIC CHARACTER.

Chelone foliis oppositis, sessilibus, acuminatis, profunde serratis; corollis campanulatis, purpureis.		Chelone with opposite leaves fitting close to the stem, tapering to the point, and deeply sawed; blossoms bell-shaped, and purple.
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REFERENCE TO THE PLATE.

1. A Blossom cut open, to shew the situation of the four Chives, and station of the fifth imperfect thread.
2. The Pointal, (natural size).
3. The Seed-vessel, with the Empalement and Shaft still remaining attached.

THIS species of Chelone is of the same date in our gardens as the Chelone Ruellioides, and was introduced through the same medium: it is a native of Mexico in South America; will make a pretty addition to our greenhouse exotics; and is described and engraved by A. J. Cavanilles, in his first volume of Spanish plants. It seems to thrive best in rich, dungy earth, and is easily propagated by cuttings, or seeds; of which latter it produces abundance; but does not appear to be long lived. The plant from which this figure was taken, flowered (as we suppose for the first time in England) in the collection of B. Robertson, Esq. of Stockwell in Surry, and kindly communicated by him to the author.



Phelone campanulata.



THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 309

LECTURE NOTES

BY

PROFESSOR

OF PHYSICS

PLATE XII.
LACHENALIA PENDULA.

Drooping-flowered Lachenalia.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX, nullus.</p> <p>COROLLA monopetala, cylindracea, sexpartita; tubus gibbus; laciniis tribus exterioribus brevioribus.</p> <p>STAMINA. Filamenta sex, subulata, longitudine corollæ, inserta basi laciniarum corollæ. Antheræ oblongæ, incumbentes.</p> <p>PISTILLUM. Germen trigonum, trifidum. Stylus simplex, corolla paulo longior. Stigma obtusum.</p> <p>PERICARPIUM. Capsula triquetra, trilocularis, trivalvis.</p> <p>SEMINA plurima, globosa.</p>	<p>EMPALEMENT, none.</p> <p>BLOSSOM one leaf, cylindrical, divided into six; tube gouty; the three outer divisions the shortest.</p> <p>CHIVES. Threads six, awl-shaped, the length of the blossom, fixed into the base of the divisions of the blossom. Tips oblong, laying on the threads.</p> <p>POINTAL. Seed-bud three-sided, three-furrowed. Shaft simple, a little longer than the blossom. Summit blunt.</p> <p>SEED-VESSEL. Capsule three-sided, three cells, three valves.</p> <p>SEEDS many, globular.</p>
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SPECIFIC CHARACTER.

<p><i>Lachenalia</i> foliis longissimis, ovato-oblongis, im-maculatis; corollis speciosissimis, maximis, tricoloratis, pedunculatis, cernuis.</p>	<p><i>Lachenalia</i> with very long egg-shaped oblong leaves, without spots; blossoms very showy, large, three-coloured, having foot-stalks, and nodding.</p>
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REFERENCE TO THE PLATE.

1. A Flower spread open, to shew the insertion of the Chives.
2. The same, exhibiting the character of the outer Petals.
3. The Pointal, natural size.

THE genus *Lachenalia* is certainly an infringement on *Hyacinthus*; the small distinction on which this new genus is founded can, at most, be considered but of sufficient consequence to form a specific character, so thought Linnæus: the son of Professor Jacquin has thought otherwise, having called it after a botanist of the name of De la Chenal; and under which it is now generally known; therefore we have not replaced it under its old title, though we have authority of such weight to corroborate our opinion. The *Lachenalias* are natives of the Cape of Good Hope, yet are of so hardy a nature as to require no farther protection than shelter from the severe frosts. Our species is the handsomest yet known, flowering about September; was, according to the Kew catalogue, introduced there by Mr. F. Maillon in the year 1774. It was from a plant in the extensive collection of G. Hibbert, Esq. Clapham Common (to whose kind communications the author acknowledges himself much indebted), that this figure was taken, the latter end of September this year. No plant is more easy or certain to increase than this; the young offsets are produced in such abundance from the old bulb, which delights in a light soil; but its flowering is not so certain.



Lechemalia pendula.





PLATE XLII.
ORCHIS CILIARIS.
Fringed Orchis.

CLASS XX. ORDER I.
GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix simplex. Perianthium nullum.

COROLLA. Petala quinque; tria exteriora; duo interiora sursum conniventia in galeam.

Nectarium monophyllum, a latere inferiore inter divisuram petalorum receptaculo affixum. Labio superiore erecto, brevissimo. Labio inferiore magno, patente, lato. Tubo postice corniformi, nutante.

STAMINA. Filamenta duo, tenuissima, brevissima, pistillo infidentia. Antheræ obovatae, erectæ, tectæ duplicatura biloculari labii superioris nectarii.

PISTILLUM. Germen oblongum, contortum, inferum. Stylus adnatus labio superiori nectarii, brevissimus. Stigma compressum, obtusum.

PERICARPIUM. Capsula oblonga, unilocularis, tricarinata, trivalvis; sub carinis trifariam dehiscens, apice et basi cohærens.

SEMINA numerosa, minima.

EMPALEMENT. Sheaths scattered. Fruit-stalk simple. Cup none.

BLOSSOM. Petals five; three outer ones; two inner ones approaching upwards in form of a helmet.

Honey-cup one leaf, fixed by the lower side to the receptacle betwixt the division of the petals. Upper lip upright, and very short. Lower lip large, spreading, broad. Tube standing behind, shaped like a horn, and hanging down.

CHIVES. Two threads, very slender, and very short, fixed on the pointal. Tips inversely egg-shaped, upright, covered by a folding of the upper lip of the honey-cup, forming two cells.

POINTAL. Seed-bud oblong, twisted, and beneath. Shaft fixed to the upper lip of the honey-cup, very short. Summit flattened, and blunt-ended.

SEED-VESSEL. Capsule oblong, of one cell, three keels, three valves; splitting in three places under the keels; fastened at the point, and the base.

SEEDS numerous, very small.

SPECIFIC CHARACTER.

Orchis radicibus subpalmatis, expansis; nectarii labio lanceolato, ciliato, cornu torto, longissimo; floribus luteis.

Orchis with roots nearly hand-shaped, spreading; lip of the honey-cup lance-shaped, and fringed, horn twisted, very long; flowers yellow.

REFERENCE TO THE PLATE.

1. The Honey-cup with its Horn.
2. The upper Petal.
3. A side Petal.
4. One of the inner Petals.
5. The Chives, and Pointal attached to the horn of the Honey-cup.
6. The Chives, and Pointal, magnified; with the Chives drawn from their cells.

THIS handsome *Orchis* is a native of North America, and is found in all the states from Virginia as far north as Canada: it has been treated of by Ray, Morison, Gronovius, Royen, Linnæus, and others; but although so long known by name, it was not introduced to our gardens before the year 1796; having been sent that year from Philadelphia by Mr. J. Lyons, from the gardens of J. Hamilton, Esq. to Messrs. Lee and Kennedy, Hammersmith; at whose nursery it flowered this year, in the month of July, when the drawing was made. It is a hardy herbaceous plant, thriving best in a shady border, and should be planted in a mixture of loam and peat earth. The propagation of this plant, like most of the genus, is difficult, the seeds being too small to be collected, and the root seldom producing more than one bud.



Orchis ciliaris.





PLATE XLIII.
BIGNONIA LEUCOXYLON.

Oleander-flowered Trumpet Flower.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, erectum, cyathi-forme, quinquefidum.
COROLLA monopetala, campanulata; tubus minimus, longitudine calycis; faux longissima, fubtus ventricosa; limbus quinque partitus; laciniis duabus superioribus reflexis; inferioribus patulis.
STAMINA. Filamenta quatuor, subulata, corolla breviora, quorum duo reliquis longiora. Antheræ reflexæ, oblonga, velut duplicatæ.
PISTILLUM. Germen oblongum. Stylus filiformis, situ et figura staminum. Stigma capitatum.
PERICARPIUM. Siliqua bilocularis, bivalvis.
SEMINA plurima, imbricata, compressa, utrinque membranaceo alata.

EMPALEMENT. Cup one leaf, upright, cup-shaped, and cut into five divisions.
BLOSSOM of one bell-shaped petal; tube small, the length of the cup; mouth very long, swelled at the bottom; border of five divisions; the two upper segments reflexed, the lower ones spreading.
CHIVES. Threads four, awl-shaped, shorter than the blossom, two of which are longer than the others. Tips bent back, oblong, and appear doubled.
POINTAL. Seed-bud oblong. Shaft thread-shaped, of the same situation and shape as the chives. Summit headed.
SEED-VESSEL. Pod of two cells, and two valves.
SEEDS many, laying one over the other, flat, and winged at each side.

SPECIFIC CHARACTER.

Bignonia foliis digitatis; foliolis integerrimis, ovatis, acuminatis; caule erecto, arboreo; floribus neri; alato semine.

Trumpet Flower with fingered leaves; the small leaves entire, egg-shaped, tapered, stem upright, growing to a tree; with flowers like the oleander; seed winged.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom cut open, shewing the proportionate length of the Chives to the Blossom, and their insertion; one of the Tips detached, and magnified.
3. The Pointal, (natural size); the Summit detached, and magnified.

THIS species of *Bignonia* is well known in most collections of hothouse plants, and was first introduced to the Chelsea gardens by Mr. P. Miller, the then gardener, in 1759, and may be found described in his Dictionary; but, notwithstanding its frequency, few have seen its blossoms. Owing to the naked appearance of the stem, and its growing to so considerable a height before it flowers, and that but rarely, has rendered it a plant but of little consideration; though perhaps, from the great beauty of its blossoms, it deserves more attention. Being a native of the West Indies, it does not flourish without the assistance of tan heat; but will live in any situation of the hothouse; thriving best in a mixture of loam and peat, and is readily propagated by cuttings. It was from a plant in the select and valuable collection at Paddington, belonging to the Hon. Dowager Lady De Clifford (to whom the author, as well as all the cultivators and professors of the science, stand much indebted for the zeal and patronage which her ladyship has shewn, in her endeavours to promote it), that this figure was taken in July this present year 1798.



Bignonia Leucosylon

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PLATE XLIV.

IXIA CINNAMOMEA.

Cinnamon-smelling Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, æqualis. Stigmata tria, erectiusculo patula.		BLOSSOM six petals, spreading, and equal. Sum- mits three, nearly upright, spreading. See IXIA REFLEXA, Plate XIV.
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SPECIFIC CHARACTER.

<i>Ixia</i> foliis falcatis, crispis; floribus alternis, nocti- florens, cinnamomi odore.		<i>Ixia</i> with scimitar-shaped leaves, waved at the edge; flowers alternate, blowing at night, and smelling of cinnamon.
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REFERENCE TO THE PLATE.

1. The Empalement.
2. A Flower cut open, with the Chives attached.
3. The Chives, attached to the tubular part of the Blossom, the border cut off, (magnified).
4. The Shaft, Summit, and Seed-bud, (magnified).

AMONGST this most extensive genus no species stands more distinct than this. The extreme sweetness and delicacy of its blossoms, which expand only by night, and close in the morning, give it a decided superiority over many of its congeners. Thunberg, who saw it at the Cape, has described it under the name it here bears; but till the year 1792 we had no knowledge of it, when it was first introduced by Messrs. Lee and Kennedy, Hammermith, from the Cape of Good Hope; at whose nursery it flowered the following year; where it continues to blow annually, and whence this figure was taken. It is rather a tender bulb, small, and easily rotted; should therefore be placed in the warmest part of the greenhouse, and kept dry when out of flower; is rather difficult to increase, as each bulb seldom produces more than one offset, nor that always, and rarely feeds.



Sua cinnamomea





PLATE XLV.
IRIS LONGIFOLIA.
Long-leaved Iris.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, flores distinguentes, persiscentes.

COROLLA sexpartita; petala oblonga, obtusa, tria exteriora reflexa, tria interiora erecta, acutiora; omnia unguibus conata.

STAMINA. Filamenta tria, fubulata, petalis reflexis incumbentia. Antheræ oblongæ, rectæ, depressæ.

PISTILLUM. Germen inferum, oblongum. Stylus simplex, brevissimus. Stigma maximum, tripartitum, laciniis petala mentientibus, latis, reflexis, flamina et petala alterna deprimentibus, apicibus bifidis.

PERICARPIUM. Capsula oblonga, angulata, trilocularis, trivalvis.

SEMINA plurima, ovata, glabra.

EMPALEMENT. Sheaths of two valves, separating the flowers, permanent.

BLOSSOM with six divisions; petals oblong, blunt, the three outer ones reflexed, the three inner ones upright, and sharper; all connected by the claws.

CHIVES. Threads three, awl-shaped, laying on the reflexed petals. Tips oblong, straight, depressed.

POINTAL. Seed-bud beneath, oblong. Shaft simple, very short. Summit very large, divided into three segments, resembling petals, broad, bent back, and alternately pressing down the chives and petals, cleft at the ends.

SEED-VESSEL. Capsule oblong, angular, of three cells, and three valves.

SEEDS many, egg-shaped, and smooth.

SPECIFIC CHARACTER.

Iris foliis linearibus, canaliculatis, longissimis, glaucis; scapus teres, multiflorus; radix bulbosus.

Iris with linear, channelled leaves, very long, and bluish; flower-stem cylindrical, with many flowers; the root bulbous.

REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement.
2. The Chives as attached to the Seed-bud.
3. The Pointal complete.

THIS Iris is a native of the Cape of Good Hope, and was introduced to us from the collection of Messrs. Voorhelm and Schnevoght, of Haarlem in Holland, about the year 1792. The leaves of this delicate Iris grow sometimes to the length of three feet, giving it a very singular appearance: it should be treated like the Cape Ixias, and protected from the weather, whilst in bloom, as the flower is injured by the lightest wind, and the duration of each blossom is but a few hours; there is, however, a good succession, which rise diurnally from the same sheath, seldom more than one at a time. This figure was taken in the month of June 1797, at the Hammer-smith nursery. It has a singular mode of propagating itself; the old root dying, two young ones are formed above it, from whence the flower-stem arises: seldom ripe seeds are produced.



Iris longifolia





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PLATE XLVI.
MASSONIA VIOLACEA.

Purple-flowered Massonia.

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

GENERIC CHARACTER.

CALYX, nullus. COROLLA sex-petala. Petala nectario imposita, lanceolata, patentia. <i>Nectarium</i> inferum, cylindricum, membranaceum. STAMINA. Filamenta sex, nectarii dentibus inferta, filiformia declinata, petalis paulo longiora. Antheræ ovatæ. PISTILLUM. Germen (respectu nectarii) superum. Stylus subulatus, declinatus, longitudine, staminum. Stigma simplex, acutum. PERICARPIUM. Capsula triquetra, glabra, trilocularis, trivalvis, angulis dehiscens. SEMINA plurima, globosa, glabra, magnitudine seminum sinapios.	EMPALEMENT none. BLOSSOM six-petals. Petals placed on the honey-cup, are lance-shaped and spreading. <i>Honey-cup</i> beneath, cylindrical and skippy. CHIVES. Six threads, fixed into the teeth of the honey-cup, thread-shaped, bent downward, and a little longer than the petals. Tips egg-shaped. POINTAL. Seed-bud (with regard to the honey-cup) above. Shaft awl-shaped, and bent downward the length of the chives. Summit simple, and pointed. SEED-VESSEL. Capsule three-sided, and smooth, of three cells and three valves, splitting at the angles. SEEDS many, globular, smooth, the size of a mustard seed.
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SPECIFIC CHARACTER.

Massonia, foliis spathulatis, glabris; scapus filiformis, erectus, bipollicaris; flores pedunculati, violacei, sparsi, pedunculi uniflori.	Massonia with spatula-shaped, and smooth leaves; flower-stalk thread-shaped, upright, two inches high; the flowers have foot-stalks, are of a violet colour, and grow scattered; the foot-stalks have each but one flower.
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REFERENCE TO THE PLATE.

1. A Flower complete.
2. The same cut open, to shew the infertion of the Chives.
3. The Pointal.

THIS genus of plants perpetuates the name, as a botanist, (would it could likewise the mild, unassuming, and universally allowed amiableness of character) of Mr. Francis Masson, botanical collector to his Majesty; now exploring the untrod regions of North America, to add to the extensive collections of his royal and munificent Master, which stand so much indebted to his indefatigable industry for their present splendour. The Massonias are all rather tender, and require the same situation as *Hæmanthus* &c; that is, a dry stove; they are natives of the Cape of Good Hope, or, at least, grow within that point of Africa generally so called, but at some distance from the Cape town, near a mountain (according to Thunberg) of the name of Bocklands Berg. The root of this species is very subject to rot when the leaves are decayed, if watered at that time; therefore, like the *Ixias*, should be put aside, or taken out of the pot for two or three months, after flowering. It is very difficult to propagate, as the seeds are seldom perfected, and rarely makes any offsets; flowering in September; about the beginning of which month this figure was taken, from a plant in the collection of G. Hibbert, Esq. Clapham Common. It appears to thrive best in a mixture of peat and sandy loam.



Mafsonia melacca.



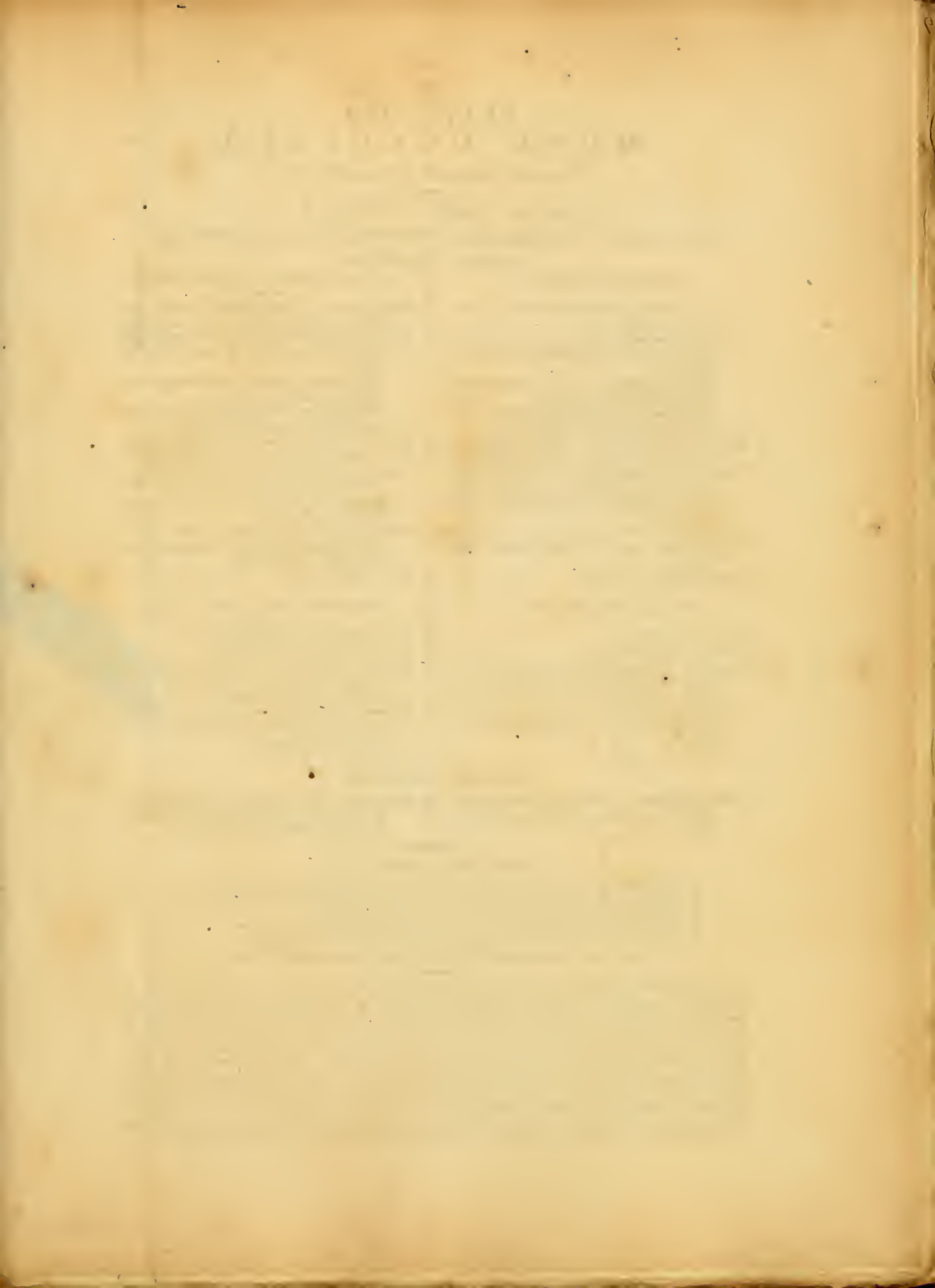


PLATE XLVII.
MUSA COCCINEA.
Scarlet-flowered Plantain-tree.

CLASS XXIII. ORDER I.

POLYGAMIA MONOECIA. Various dispositions. Upon one Plant.

GENERIC CHARACTER.

Hermaphroditi feminei flores.

CALYX. Spatha partialis ovato-oblonga, plano-concava, magna.
COROLLA inæqualis, ringens; petalo constituyente labium superius, nectario vero labium inferius.
Petalum erectum, ligulatum, quinquedentatum, basi antice connivens.
Nectarium monophyllum, naviculare, petalo, brevius, intra sinum petali insertum.
STAMINA. Filamenta sex, subulata erecta, petalo dimidio breviora. Antheræ abortivæ.
PISTILLUM. Germen infra receptaculum floris, maximum, longissimum. Stylus erectus, longitudine petali. Stigma capitatum, subrotundum.
PERICARPIUM. Bacca carnosa, corio tecta, longissima, pulpa trifariam, absque dissepimentis.
SEMINA plurima, globosa.

Hermaphroditi masculi flores.

CALYX ut in feminæo.
COROLLA ut in feminæo.
STAMINA. Filamenta ut in feminæo, at longiora, tenuiora. Antheræ lineares, fulcatæ, erectæ, magnæ.
PISTILLUM. Germen ut in feminæo, ut minus. Stylus, et stigma ut in feminæo, at minor.
PERICARPIUM abortit.

SPECIFIC CHARACTER.

Musa spadice erecto; floribus capitatis; spathis confertis, coccineis, maximis, apicibus luteis.

Hermaphrodite flowers, where the female parts are perfect.

EMPALEMENT. Partial sheath oblong, egg-shaped, smoothly-concave, and large.
BLOSSOM unequal and gaping; the petal forming the upper lip, the honey-cup the under.
Petal upright, ligulate, five-toothed, and meeting at the base in front.
Honey-cup one leaf, ship-shaped, shorter than the petal, and inclosed within it.
CHIVES. Threads six, awl-shaped, upright, shorter by half than the petal. Tips abortive.
POINTAL. Seed-bud below the receptacle of the flower, large and very long. Shaft upright the length of the petal. Summit headed, nearly round.
SEED-VESSEL. A fleshy berry, covered with a tough skin, very long, the pulp laying three ways, without partitions.
SEEDS many, round.

Hermaphrodite flowers, where the male parts are perfect.

EMPALEMENT as in the female flower.
BLOSSOM as in the female flower.
CHIVES. Threads as in the female flower, but longer, and thinner. Tips linear, channelled, upright, and large.
POINTAL. Seed-bud the same as in the female, but smaller. Shaft and summit like the female, but smaller.
SEED-VESSEL is abortive.

Plantain-tree with an upright fruit-stalk; flowers growing in heads; sheaths crowded together, scarlet, very large, points yellow.

REFERENCE TO THE PLATE.

1. The upper lip of the blossom, shewn in front, as cut off close to the seed-bud.
2. The same, shewing the hinder parts, with the three small claws on the border.
3. The honey-cup, which forms the lower lip of the blossom.
4. The seed-bud, chives, style, and summit, of a female hermaphrodite flower.
5. A seed-bud cut obliquely, to expose the situation character of the seeds.
6. The chives, seed-bud, shaft, and summit, of a male hermaphrodite flower.

THE honour of having introduced this supremely beautiful plant, pertains to, Thomas Evans Esq. of Stepney; a gentleman to whose zeal for the introduction of new plants our shores are of late much beholden; he having received it, amongst many others, about the year 1792 from China, where, as well as in Cochinchina, Sumatra, Java, &c. it is very commonly found. Our figure was taken, in part, from a plant which flowered at James Vere's, Esq. Kensington Gore, last December, and partly, from one in blossom about the same time, at the Hon. Lady Archer's, Ham Common. The Musa Coccinea grows to the height of about three, or four feet before it blows, and without question, has no rival but Strelitzia Regina in the hothouse, where its brilliancy, tends in some degree, to dispel the gloom of winter, for at least three months. It increases itself by suckers, which are thrown up in abundance from a vigorous plant; may be taken off at any time, and will arrive at a flowering size in twelve months; if planted in rich earth, and kept growing in pine heat, or on a strong hotbed.



Musa coccoinea.





Musa coccinea.



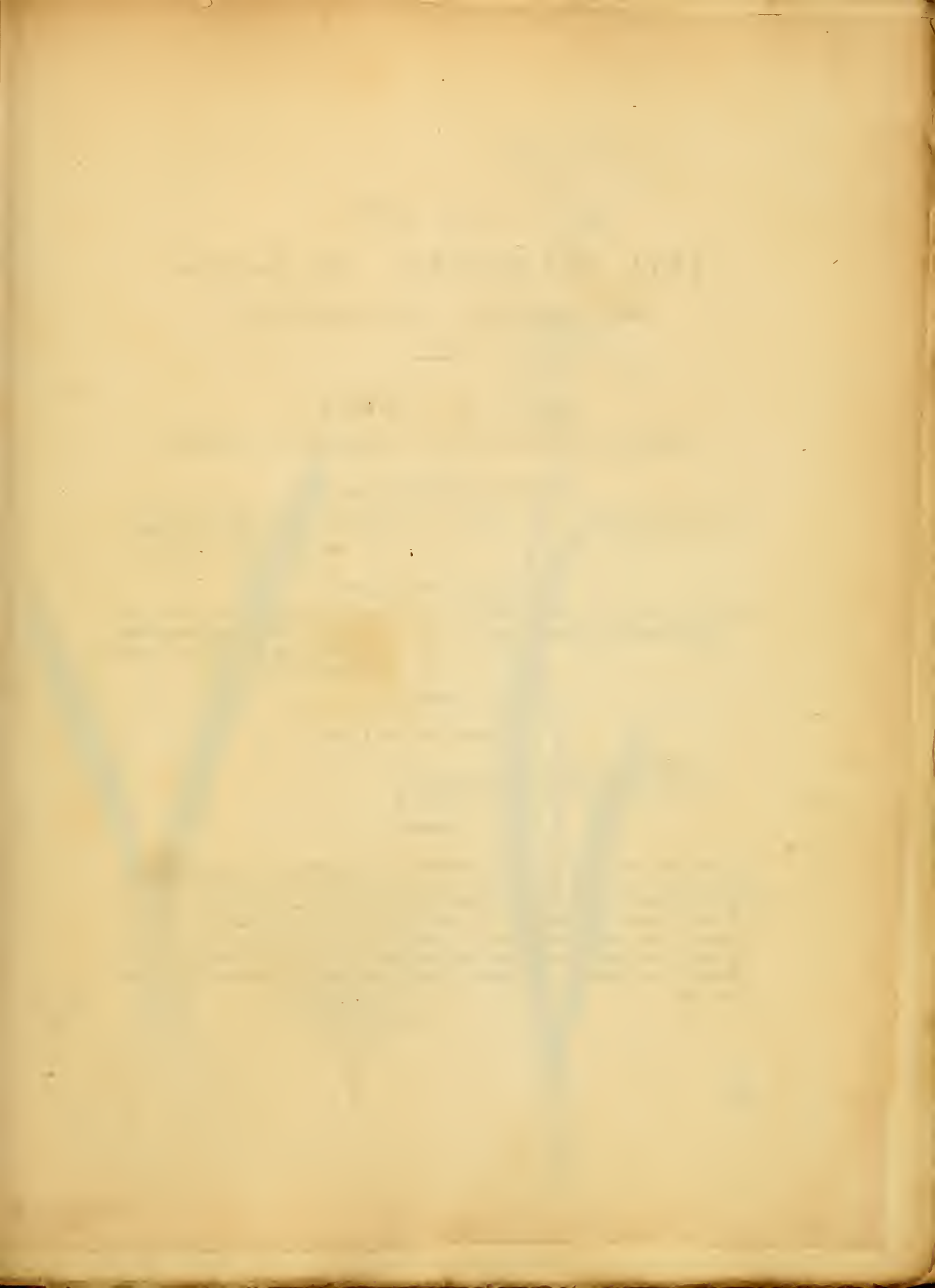


PLATE XLVIII.

IXIA BULBIFERA. *Var: flore luteo.*

Bulb-bearing Ixia. Var: yellow-flowered.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

BLOSSOM six petals, spreading, and equal. Summits three, nearly upright, and spreading. See IXIA REFLEXA, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis falcatis, glabris, scapo brevioribus, axillis bulbiferis; floribus alternis, luteis.

Ixia with scimitar-shaped leaves, smooth, and shorter than the flower-stem, bearing bulbs at their insertion into the stalk; flowers alternate, and yellow.

REFERENCE TO THE PLATE.

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

THE singular sporting of Nature in the *Ixia bulbifera* is not uncommon; its viviparous character (if it may be so called) constitutes a specific difference in many genera; *Lilium*, *Lysimachia*, &c. partake of it. The bulbs produced from the stem blow the second year, whereas those from seeds do not till the third. The flowers of this variety are the first that open, amongst the numerous species yet introduced, of this extensive genus; they are of a brilliant yellow, and seldom expand more than one at a time. The usual treatment of other Cape *Ixias* is suitable for this. The drawing was made at Messrs. Lee and Kennedy's, in the month of March 1798, they having introduced it about the year 1784.



Focsa bulbifera.
Var. *flore lutea*

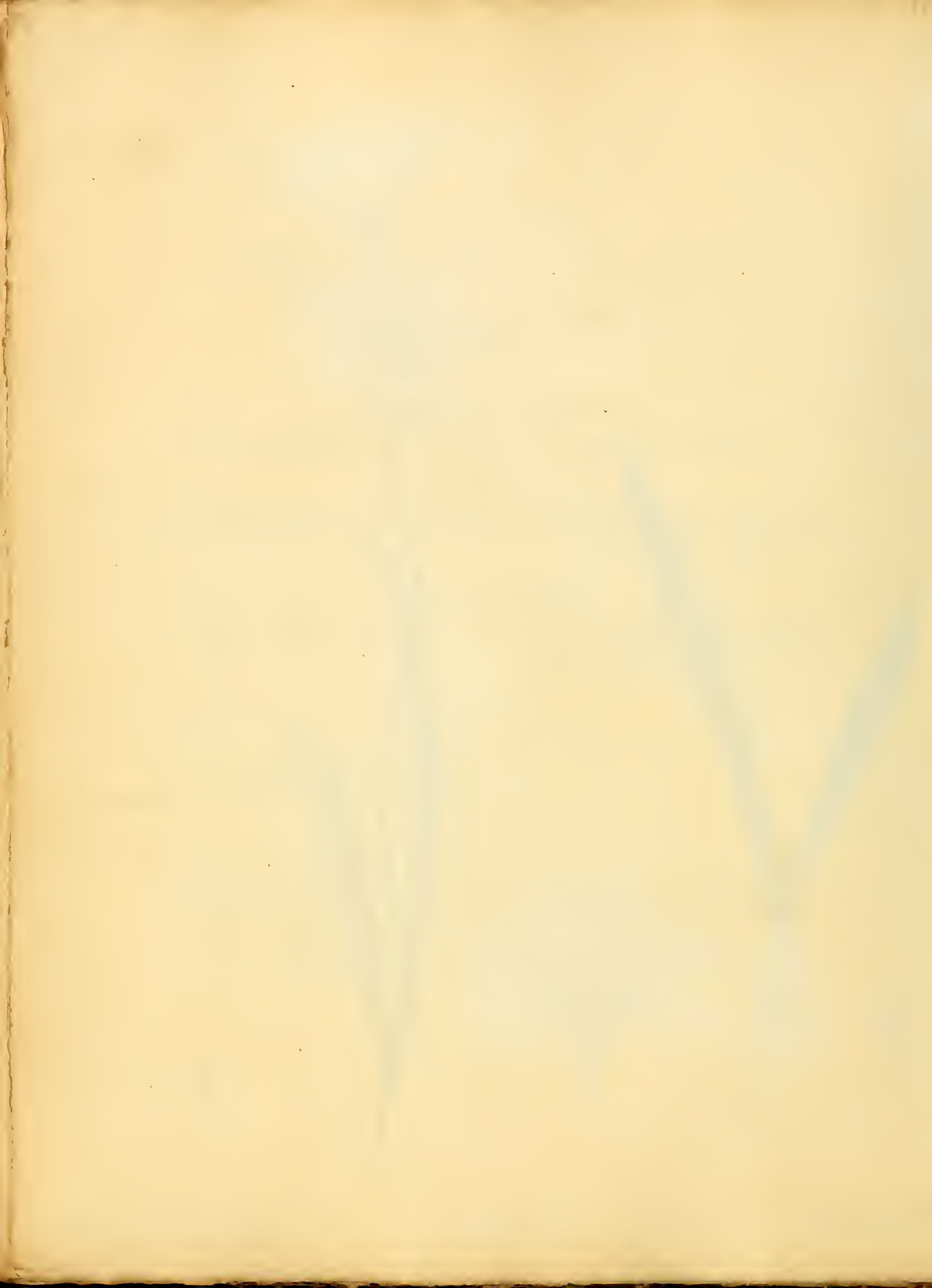




PLATE XLIX.

MALPIGHIA CRASSIFOLIA.

Thick-leaved Malpighia.

CLASS X. ORDER III.

DECANDRIA TRIGYNIA. Ten Chives. Three Pointals.

GENERIC CHARACTER.

<p>CALYX. Perianthium pentaphyllum, erectum, minimum, persistens, connivens. Glandulæ melliferæ duæ, ovales gibbæ, foliis calycinis externe inferneque adnatæ.</p>	<p>EMPALEMENT. Cup five leaves, upright, very small, remaining and closing at the points. Two honey-bearing glands, oval and gouty, are fixed to the outer and lower part of the leaves of the cup.</p>
<p>COROLLA. Petala quinque, reniformia, magna, plicata, ciliata, patentia, concava; unguibus longis, linearibus.</p>	<p>BLOSSOM. Petals five, kidney-shaped, large, plaited, lashed, spreading, and concave; claws long, linear.</p>
<p>STAMINA. Filamenta decem latiuscula, erecta, in cylindrum posita, parva. Antheræ cordatæ.</p>	<p>CHIVES. Threads ten, rather broad, upright, placed cylindrically, and small. Tips heart-shaped.</p>
<p>PISTILLUM. Germen subrotundum, minimum. Styli tres, filiformes. Stigmata obtusa.</p>	<p>POINTAL. Seed-bud nearly round, very small. Shafts three, thread-shaped. Summits blunt.</p>
<p>PERICARPIUM. Bacca globosa, torulosa, magna, unilocularis.</p>	<p>PERICARPIUM. Berry globular, knobby, large, of one cell.</p>
<p>SEMINA tria, ossæ, oblonga, obtusa, angulata.</p>	<p>SEEDS three, bony, oblong, blunt, and angulated.</p>

SPECIFIC CHARACTER.

<p>Malpighia foliis lanceolato ovatis, subtus tomentosis, integerrimis; floribus terminalibus, spicatis, pallide-luteis.</p>	<p>Malpighia with oval spear-shaped leaves, downy beneath, and entire; flowers terminate the branches in spikes, and are pale yellow.</p>
--	---

REFERENCE TO THE PLATE.

1. The Empalement, Chives, and Pointal, (natural size).
2. The Empalement, (magnified).
3. The Chives spread open, (natural size).
4. A Thread, and its Tip, (magnified).
5. The Pointal complete, (natural size).

ALTHOUGH we have given to this species of Malpighia, the specific name under which it has been introduced; yet, there is much doubt, whether it is not the *Verbascifolium* of Linnæus; or indeed if they are not both the same plant, named from different specimens. Our species makes a very handsome hothouse plant, growing to the height of five, or six feet, before it flowers. It is a native of Jamaica, and most of the adjacent islands, and was introduced by Messrs. Lee and Kennedy about the year 1792. From the extreme tenderness of the young leaves, and shoots, it must be kept in a strong growing pine heat during the winter months; otherwise, they are subject to damp off. It is raised by cuttings, and seems to delight in a rich soil. The figure was made from a specimen communicated by the Right Hon. Lord Viscount Courtenay, in whose most superb collection at Powderham Castle, near Exeter, it flowered, for the first time in England, in the month of September 1798.



Malpighia crinitifolia





PLATE L.

IXIA CAPITATA. *Var: flore aurantio.*

Bunch-flowering Ixia. Var: Blossom gold colour.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

BLOSSOM six petals, spreading, and equal. Sum-
mits three, nearly upright, and spreading.
See Plate XIV. IXIA REFLEXA.

SPECIFIC CHARACTER.

Ixia foliis radicalibus, ensiformibus; floribus
capitatis, confertis, aurantiis, petalis basi
obscuris.

Ixia with leaves growing from the root, and
sword-shaped; blossoms grow in a close
bunch, gold coloured, and the petals dark
at the base.

REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement.
2. A Flower cut open, with the Chives attached.
3. The Shaft, Summit, and Seed-bud, (magnified).

THIS variety of *Ixia capitata* was introduced at the same time as the *Ixia bulbifera*, flore luteo, viz. in 1784, by Messrs. Lee and Kennedy, Hammermith, from the Cape of Good Hope, and requires the same treatment. It flowers the latter end of May, or beginning of June; propagating itself abundantly by the root, which produces annually numerous young bulbs.



Iris capitata
Var. flore auranta



PLATE LI.
XERANTHEMUM SPECIOCISSIMUM.

Largest-flowering Everlasting Flower.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis imbricatus; squamis lanceolatis, quarum intimæ disco longiores, membranaceæ, nitidæ, radium constituentes.

COROLLA. Composita inæqualis; corollæ hermaphroditæ plurimæ, tubulosæ in disco. Femineæ pauciores, tubulatæ, in ambitu.

Propria hermaphroditis infundibuliformis, calyce longe brevior; limbo quinquefido, patulo.

Femineis tubulosa, longitudine hermaphroditæ, quinquefida, minus æqualis.

STAMINA. Hermaphroditis filamenta quinque, brevissima. Antheræ cylindricæ, tubulosa, longitudine tere corollulæ.

PISTILLUM. Hermaphroditis germen breve. Stylus filiformis, staminibus longior. Stigma bifidum.

Femineis germen ut in hermaphroditis. Stylus filiformis, longitudine hermaphroditorum. Stigmata duo, oblonga reflexa.

PERICARPIUM nullum. Calyx vix mutatus.

SEMINA oblonga, coronata.

RECEPTACULUM nudum, planiusculum, punctatum.

SPECIFIC CHARACTER.

Xeranthemum fruticosum, erectum; foliis amplexicaulibus, lanceolatis, trinerviis; ramis unifloris, subundis.

EMPALEMENT. Common tiled; scales spear-shaped, the inner ones longer than the disk, skinny, shining, and forming the ray of the flower.

BLOSSOM. Compound, unequal; florets with chives and pointals numerous and tubular in the disk. Female florets fewer, and tubular in the circumference.

Individuals with chives and pointals funnel-shaped, much shorter than the empalement; border with five clefts, spreading.

Individuals with only pointals, tubular the length of the hermaphrodites, five cleft, and rather smaller.

CHIVES. The threads in the hermaphrodites are five, and very small. Tips forming a cylinder, tubular almost the length of the florets.

POINTAL. Seed-bud of the hermaphrodites short. Shaft thread-shaped, longer than the chives. Summit cloven.

Seed-bud of the female florets the same as the hermaphrodites. Shaft thread-shaped the length of the hermaphrodites. Summits two, oblong and bent back.

SEED-VESSEL none. Empalement scarcely changing.

SEEDS oblong, and crowned with a feather.

RECEPTACLE naked, flatish, and dotted.

Everlasting flower with an upright shrubby stem; leaves embracing the stem, lance-shaped, and three-nerved; branches with one flower, and nearly naked.

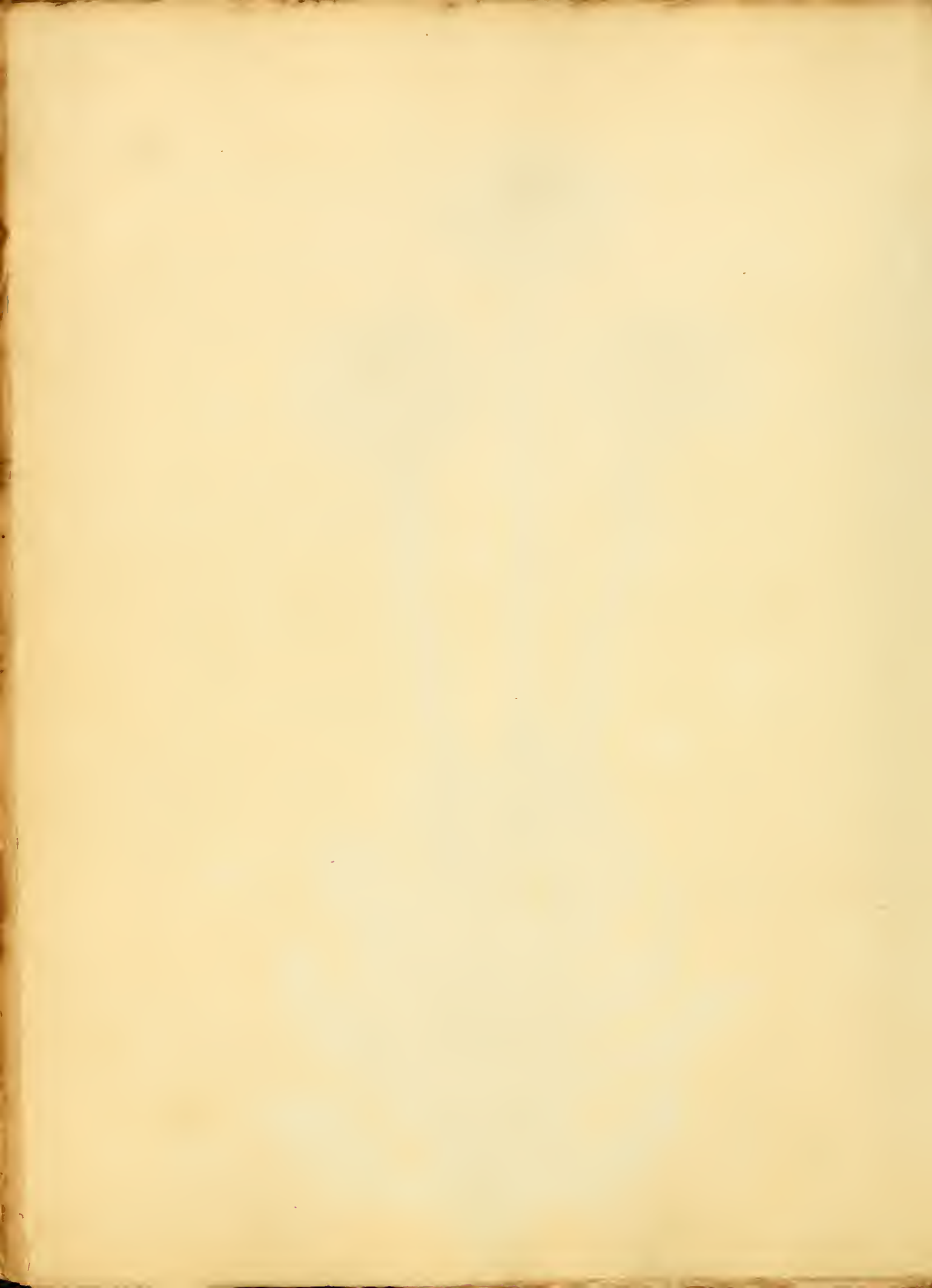
REFERENCE TO THE PLATE.

1. An Hermaphrodite floret. (natural size).
2. The Chives, Pointal, and Seed-bud, (magnified).
3. The Pointal, and Seed-bud from a female floret, (magnified).

THIS handsome species of Xeranthemum was introduced, according to the Kew catalogue, by Mr. F. Maffon from the Cape of Good Hope, in the year 1787; it is, nevertheless, a very scarce plant, being subject to decay from our winter damps; therefore requires a dry stove for its protection. The blossoms (or rather the flower-cups, for they are the persistent parts) are easily preserved for many years, in all their brilliancy, by cutting them, when they first expand; but our atmosphere seems ungenial to the ripening of their seeds, and is with great difficulty increased by cuttings. The soil it most approves is sandy peat, with a small portion of loam. Our figure was taken in September last year, at the Hammersmith nursery.



Ceanothum speciosissimum.



THE HISTORY OF THE

REIGN OF

The text on this page is extremely faint and illegible. It appears to be a historical document, possibly a chronicle or a record of events, given the title. The content is organized into several columns, suggesting a structured format like a table or a list of entries. There are some faint markings and a small brown spot near the center of the page, but no specific text can be discerned.

PLATE III.
GNIDIA PINIFOLIA.
Pine-leaved Gnidia.

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

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, infundibuliforme, coloratum; tubo filiformi, longissimo; limbo quadripartito, plano.</p> <p>COROLLA. Petala quatuor, fessilia, plana, calyce breviora, eique inferta.</p> <p>STAMINA. Filamenta octo, setacea, erecta, longitudine ferè floris. Antheræ simplices.</p> <p>PISTILLUM. Germen ovatum. Stylus filiformis, germinis lateri insertus, longitudine staminum. Stigma capitatum, hispidum.</p> <p>PERICARPIUM nullum. Fructus in fundo calycis.</p> <p>SEMEN unicum, ovatum.</p>	<p>EMPALEMENT. Cup one leaf, funnel-shaped and coloured; tube thread-shaped, very long; border of four segments, which are flat.</p> <p>BLOSSOM. Petals four, sitting close to the cup, flat, shorter than the cup, and fixed within it.</p> <p>CHIVES. Threads eight, awn-like, upright, scarcely the length of the flower. Tips simple.</p> <p>POINTAL. Seed-bud egg-shaped. Shaft thread-shaped, fixed into the side of the seed-bud, and of the length of the chives. Summit headed, and hairy.</p> <p>SEED-VESSEL none. Fruit in the lower part of the cup.</p> <p>SEED one, egg-shaped.</p>
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SPECIFIC CHARACTER.

<p><i>Gnidia</i>, foliis sparsis, lineari-subulatis; ramis verticillatis; floribus aggregatis, terminalibus.</p>	<p><i>Gnidia</i> with scattered, linearly awl-shaped leaves; branches grow in whorls; the flowers terminating the branches in clusters.</p>
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REFERENCE TO THE PLATE.

1. A Flower with its seed, (natural size).
2. The same cut open, to shew the situation and insertion of the Chives into the tube of the Empalement.
3. The Pointal, (magnified).

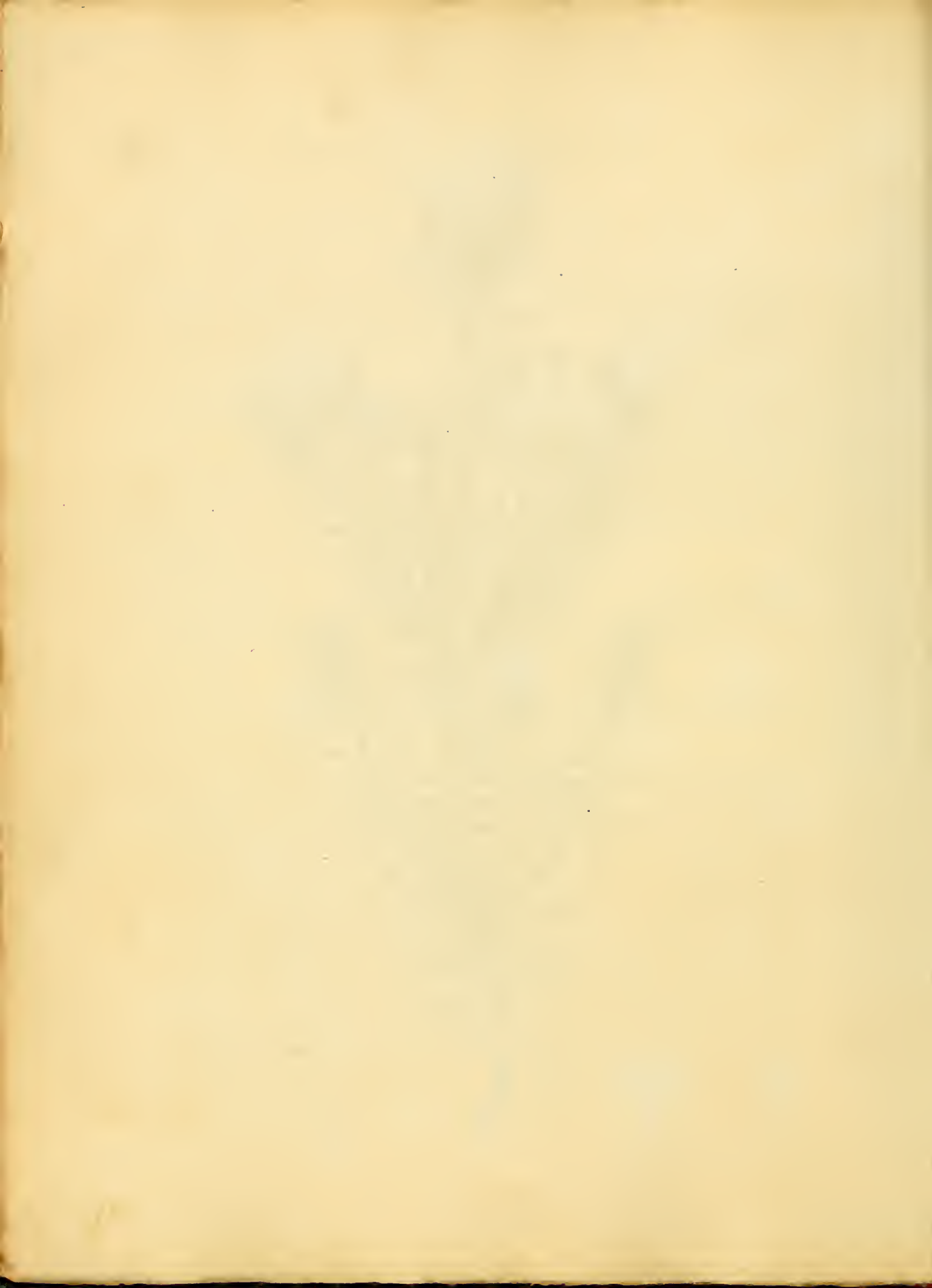
THE essential distinguishing character, in *Passerina*, *Gnidia*, *Struthiola*, and *Lachnæa*, must certainly be considered as amongst the slightest generic divisions made by Linnæus. It is no small difficulty to distinguish the blossom in *Gnidia*, and *Lachnæa*, from the empalement in *Passerina*, and *Struthiola*; the same exact natural structure being alike in them all; and to us, appear noticeable in their small variations, rather as forming specific, than generic distinctions. As our plan is not to alter, upon any terms, what has been determinately settled by that great master in the arcana of nature, let our opinions be what they will; we are determined to prevent confusion (which has been but little attended to of late), to give it only as such, without presuming upon alteration. But as in the present instance, when a plant long named, but otherwise unknown to cultivators, has unfortunately been foisted from its rank by another, no ways answering to the characters of the describer; we shall consider it as our particular province to rectify the mistake, however generally the error may have obtained.—The *Gnidia pinifolia* is a native of the Cape of Good Hope, the seeds having been received from thence in 1795, by Messrs. Lee and Kennedy, HammerSmith, at whose nursery it has flowered, for the first time in England, in the month of February this year, and where the drawing was taken. It is a hardy greenhouse plant, but is propagated with difficulty by cuttings; growing to the height of eighteen inches, being most exquisitely scented by night, continuing in flower at least three months, and thriving best in a light peat soil.

A figure of the plant generally known by the name of *G. pinifolia*, will be given with the next number, to the end our assertions may be properly investigated.



Gnaphalium pennifolium

Illustration of the plant's reproductive parts.



THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET

PLATE LIII.

MIMOSA STRICTA.

Harsh-leaved upright Mimosa.

CLASS XXIII. ORDER I.

POLYGAMIA MONOECIA. Various dispositions. Upon one Plant.

GENERIC CHARACTER.

PERIANTHIUM monophyllum, quinquedentatum, minimum.	EMPALEMENT. One leaf, five-toothed, and very small.
COROLLA. Petalum unicum, infundibuliforme, semiquinquefidum, parvum.	BLOSSOM. One petal, funnel-shaped, cut half way down into five divisions, and small.
STAMINA. Filamenta capillaria, longissima. Antheræ incumbentes.	CHIVES. Threads like fine hairs, and very long. Tips laying on the threads.
PISTILLUM. Germen oblongum. Stylus filiformis, staminibus brevior. Stigma truncatum.	POINTAL. Seed-bud oblong. Shaft thread-shaped, shorter than the chives. Summit appearing cut off.
PERICARPIUM. Legumen longum, dissepimentis transversis, pluribus.	SEED-VESSEL. A long pod, the partitions run across the pod, and are numerous.
SEMINA plurima; figura varia.	SEEDS many; of different shapes.

SPECIFIC CHARACTER.

Mimosa foliis simplicibus, utrinque venosis, linearibus, obtusis; ramis strictissimis; capituli geminati, oppositi, ex alis foliorum.	Mimosa with simple leaves, veiny on both sides, linear, and blunt ended; branches growing close and upright; flower heads grow by pairs, opposite, and at the insertion of the leaf into the stem.
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REFERENCE TO THE PLATE.

1. A Floret, (natural size).
2. The Empalement, (magnified).
3. The Blossom, (magnified).
4. One Thread and its Tip, (magnified).
5. The Pointal, (magnified).

THIS species of New Holland Mimosa, has as yet, escaped even the indefatigable, and accurate Dr. Smith; it is from Port Jackson, whence the seeds were transmitted by Colonel Paterfon in the year 1793. Being easily raised, it is found in most collections; the seeds preserving their vegetative quality many years, and striking readily by cuttings. It has the peculiar character attached to the Mimosas of that country, viz. winged seed-leaves, which are lost after the first year's growth. This species has no smell, and grows to the height of three or four feet before it flowers; perfectly straight and compact, from which circumstance we have taken its trivial name.



Mimosa stricta.



REPORT OF THE COMMISSIONERS

OF THE LAND OFFICE

IN RESPONSE TO A RESOLUTION PASSED BY THE GENERAL ASSEMBLY
ON THE 15TH DAY OF MARCH 1888
RELATIVE TO THE LANDS BELONGING TO THE STATE

ALBANY, N. Y., 1888.

W. W. BENTON, COMMISSIONER.

PRINTED BY THE STATE PRINTING OFFICE, ALBANY, N. Y.

PLATE LIV.
ALETRIS SARMENTOSA.
Creeping-rooted Bastard Aloe.

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

GENERIC CHARACTER.

<p>CALYX, nullus.</p> <p>COROLLA, monopetala, oblonga; limbi laciniis lanceolatis, acuminatis, erectis; persistens.</p> <p>STAMINA. Filamenta sex, subulata, longitudine corollæ, inserta basi laciniarum corollæ. Antheræ oblongæ, erectæ.</p> <p>PISTILLUM. Germen ovatum. Stylus subulatus, longitudine staminum. Stigma trifidum.</p> <p>PERICARPIUM. Capsula ovata, triquetra, acuminata, trilocularis.</p> <p>SEMINA plurima.</p>	<p>EMPALEMENT, none.</p> <p>BLOSSOM, one leaf, oblong; the segments of the border are lance-shaped, tapering, and upright; remaining.</p> <p>CHIVES. Threads six, awl-shaped, the length of the blossom, and inserted into the divisions of it, at the base. Tips oblong, upright.</p> <p>POINTAL. Seed-bud egg-shaped. Shaft awl-shaped, the length of the chives. Summit three-cleft.</p> <p>SEED-VESSEL. Capsule egg-shaped, three-sided, tapered, and of three cells.</p> <p>SEEDS many.</p>
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SPECIFIC CHARACTER.

<p><i>Aletris</i>, acaulis; foliis ensiformibus, laxis; floribus spicatis, suave rubentibus; radicibus sarmentosis.</p>	<p>Bastard Aloe, without a stem; having sword-shaped, weak leaves; flowers grow in spikes of a soft red colour; roots producing suckers from the joints.</p>
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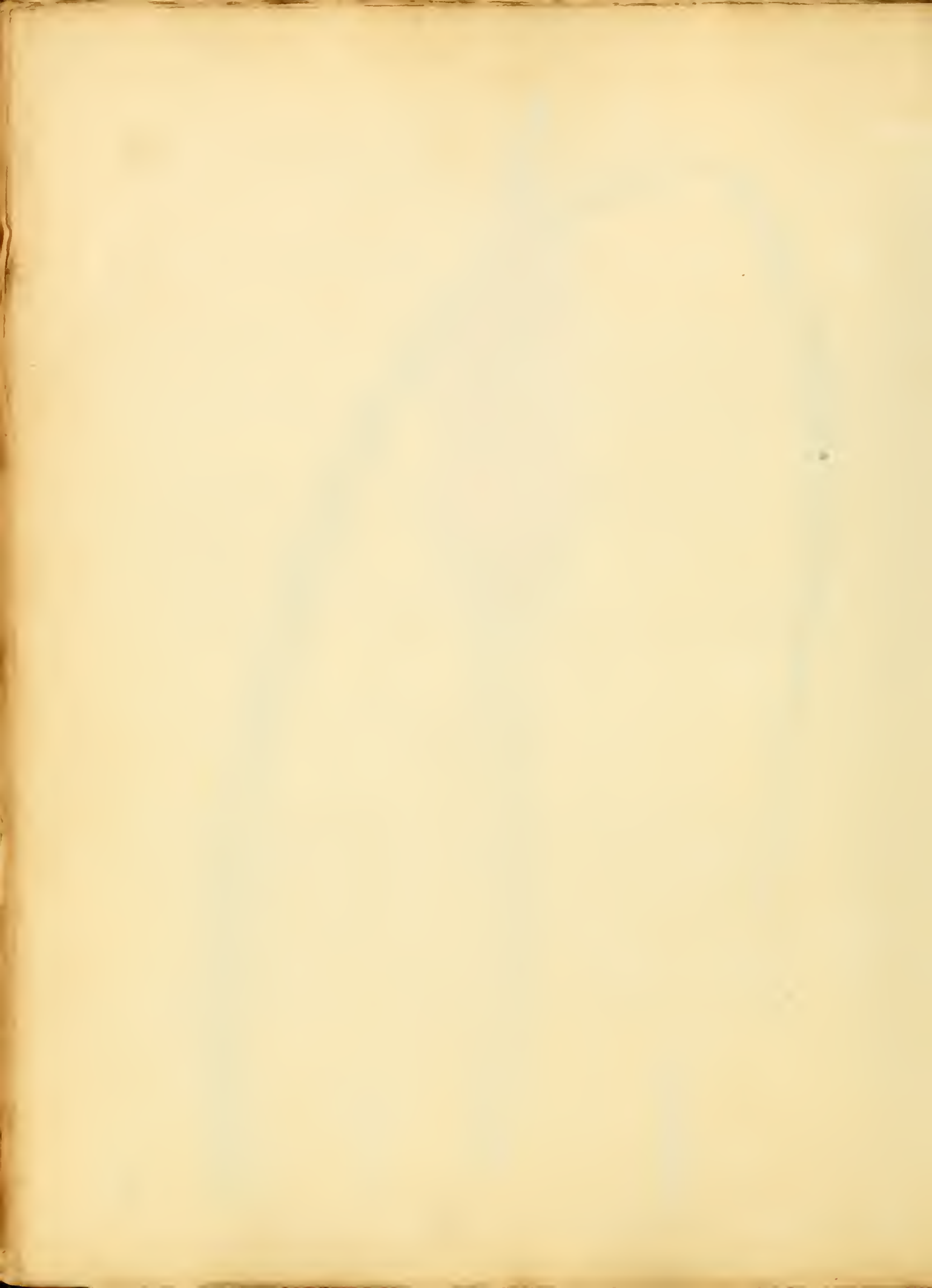
REFERENCE TO THE PLATE.

1. A Flower.
2. The Chives, and Pointal.
3. The Pointal.

THIS species of *Aletris* was introduced to us, from the Cape of Good Hope, about the year 1789; it is a hardy plant, requiring the same management as *Aletris Capensis*, that is, to be kept in a dry part of the greenhouse; although the plant should be frequently watered when in bloom, as should mostly all plants, notwithstanding (as in the present instance is the case) their flowering in the winter months. This caution we have thought necessary, as it is a general rule with gardeners during that season, to put as little moisture as possible to their plants, whether in flower or not, to avoid damps. The little difficulty in propagating this handsome species of *Aletris*, will render it soon common; the roots grow nearly horizontally, and from their joints numberless young plants are produced; which character we were desirous of expressing in the figure, as from thence we have taken our trivial name; but from the size of the work, it was found impracticable. The drawing was made in December 1798, from a plant then in flower, at the HammerSmith nursery: we are nevertheless informed, that from being planted in a light, rich soil, it may be made to grow to the height of three feet; with a spike of flowers, one fourth the length of the flower-stem.



Althea sarmentosa



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Faint text at the bottom of the page, possibly a signature or a concluding line.

PLATE LV.
ZINNIA VIOLACEA.
Purple Zinnia.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis ovato-cylindricus, lævis, imbricatus; squamis plurimis, obtusis, erectis, persistentibus.

COROLLA. Composita radiata; corollulæ hermaphroditæ plures in disco elevato. Femenæ plurimæ in radio.

Propria hermaphroditæ infundibuliformis, quinquefida intus villosa.

Feminea ligulata, subrotunda, retusâ, persistentens.

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

PISTILLUM. Hermaphroditis; germen oblongum, triquetrum. Stylus filiformis, femibifidus. Stigmata duo, obtusâ.

Femineis; germen oblongum, triquetrum. Stylus capillaris, femibifidus. Stigmata duo, recurvata.

PERICARPIUM. Calyx immutatus.

SEMINA. Hermaphroditis solitaria, oblonga, tetragono-ancipitia. Pappus mucronibus duobus.

Femineis solitaria, mutica, coronata petalo persistente.

RECEPTACULUM paleaceum; paleis lingulatis, canaliculatis, longitudine calycis, deciduis.

EMPALEMENT. Common cylindrically egg-shaped, smooth, and tiled; scales many, blunt, upright, and remaining.

BLOSSOM. Compound radiate; florets with chives and pointals, are numerous in the center, which is elevated; florets with only pointals, many in the circumference.

Individuals with chives and pointals funnel-shaped, five-cleft, and hairy within.

Individuals with pointals only, ligulate, roundish, dented at the end, and remaining.

CHIVES. Hermaphroditæ; five short threads. Tips forming a hollow cylinder.

POINTAL. Hermaphroditæ; seed-bud oblong, three-sided. Shaft thread-shaped, split nearly half way down. Summits two, blunt.

Females; seed-bud oblong, three-sided. Shaft hair-like, split half way down. Summits two, bent backward.

SEED-VESSEL. Cup not changing.

SEEDS. Hermaphroditæ; solitary, oblong, three-sided, but sharp at two edges. Feather of two sharp points.

Females, solitary, without points, being crowned with the persistent petal.

RECEPTACLE chaffy; chaff tongue-shaped, channelled, the length of the cup, and falling off.

SPECIFIC CHARACTER.

Zinnia foliis oppositis, amplexicaulibus, lanceolatis, scabris; floribus pedunculatis, purpureis, solitariis.

Zinnia with opposite leaves, embracing the stem, broadly lance-shaped, and rough; flowers have foot-stalks, are purple, and grow solitary.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Floret of the ray with the seed attached, (natural size).
3. A Floret of the disk with the seed attached, (magnified).
4. The Chives and Pointal of an hermaphrodite floret
5. The chaffy substance dividing the florets.

THIS elegant new species of *Zinnia*, is described and figured by J. A. Cavanilles, in his first volume of Spanish plants; where he says, it is a native of Mexico, South America, and was transmitted from thence to the royal gardens, where it perfected its seeds. In the year 1796, the Marchioness of Bute received it amongst many other curious seeds, from Madrid, through the medium of Professor Ortega. Being rather a tender annual, it should be sown in March, on a gentle hotbed; and transplanted into the open borders the beginning of May. The plant grows to the height of three feet or more, and makes in the months of August and September, a very considerable addition to the splendor of the flower garden. The seeds ripen freely, though the flower should be plucked before it appears decayed.



Zinnia violacea.



PLATE LVI.

ANTHOLYZA SPICATA.

Spike-flowered Antholyza.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA tubulosa, irregularis, recurvata. Cap-
fula infera.

BLOSSOM tubular, irregular, and bent backward.
Capsule beneath.
See Plate XXXII. ANTHOLYZA RINGENS.

SPECIFIC CHARACTER.

Antholyza, floribus infundibuliformibus, spica-
tis, incarnato-pallidis; foliis falcatis, bre-
vissimis.

Antholyza with funnel-shaped, spiked flowers,
of a pale flesh colour; leaves scimitar-
shaped, and very short.

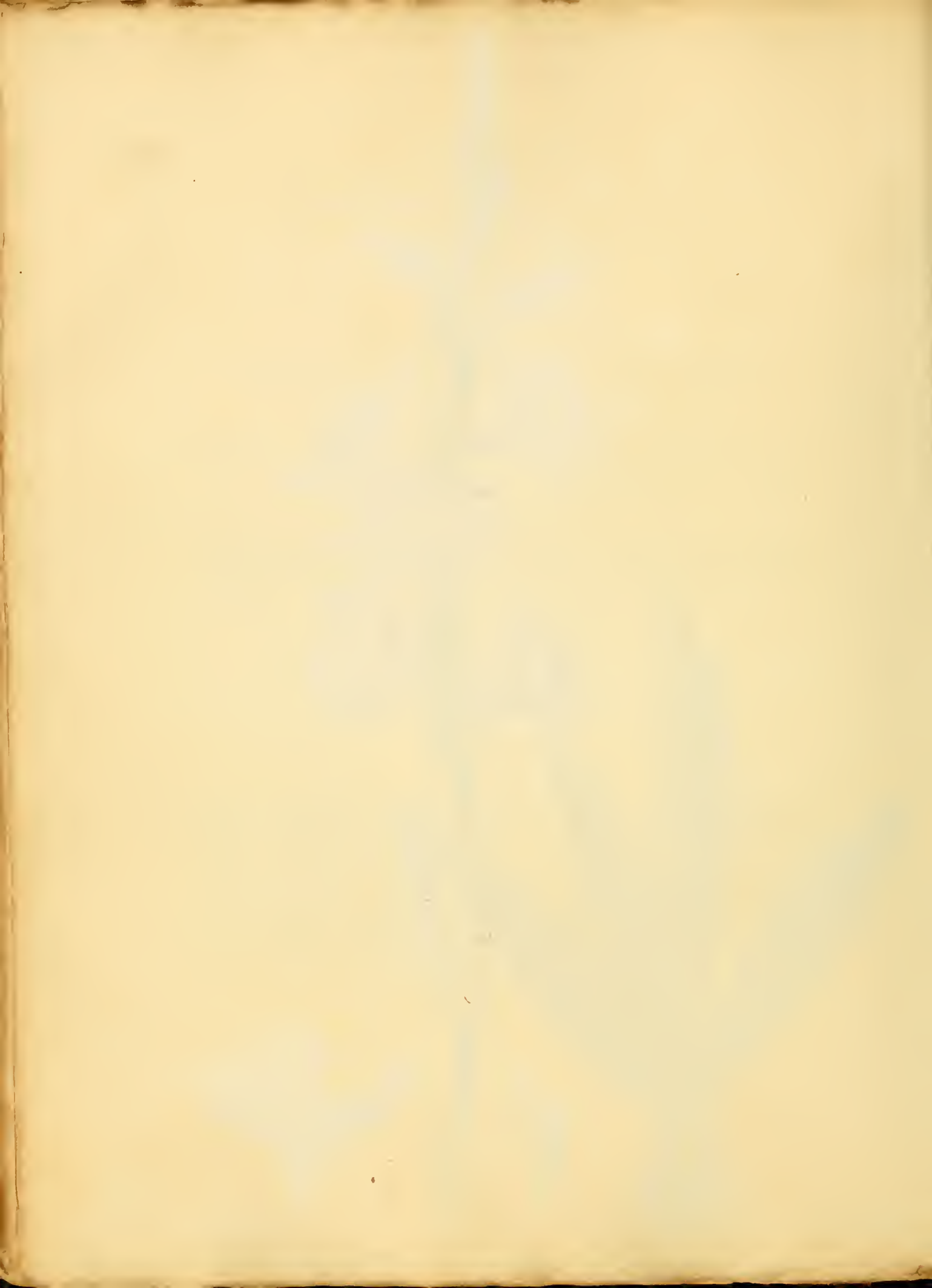
REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom cut open, to shew the insertion of the Chives.
3. The Pointal, (natural size).

THERE are few species of this genus but furnish beautiful flowers; this is certainly among the most handsome, from the softness of its colour, and the regularity of the spike: what adds considerably to its merit, is, that the blossoms remain a considerable time before they fall, which unfortunately, is seldom the case with the flowers of this genus. It was received from the Cape of Good Hope in bulbs, sent by J. Pringle, Esq. of Madeira, in 1794, to Messrs. Lee and Kennedy of Hammer-smith; the drawing was made in the month of June 1797 at their nursery. Not being easily injured by damp, there is no necessity for removing it from its pot, as is necessary for most bulbs, but to increase it; one, or two young bulbs being annually produced, in addition from the old one. The best soil is a sandy peat, with a small proportion of loam.



Lilium speciosum



THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 309

LECTURE NOTES

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PLATE LVII.

MESEMBRYANTHEMUM GLABRUM.

Smooth-leaved annual Fig Marygold.

CLASS XII. ORDER IV.

ICOSANDRIA PENTAGYNIA. Twenty Chives. Five Pointals.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, femiquinquefidum, superum, patens, persistens.

COROLLA. Monopetala; petala lanceolato-linearia, numerosissima, serie multiplici nata, calyce longiora, unguibus læviter connatis in unum.

STAMINA. Filamenta numerosa, capillaria, longitudine calycis. Antheræ incumbentes.

PISTILLUM. Germen inferum, angulis quinque, obtusis. Styli quinque sæpius, subulati, erecto-reflexi. Stigmata simplicia.

PERICARPIUM. Capsula carnosæ, subrotunda, loculentis numero styliorum respondentibus.

SEMINA plurima, subrotunda.

EMPALEMENT. Cup one leaf, cut nearly half way down into five divisions, above, spreading, and remaining.

BLOSSOM. One petal; petals linearly lance-shaped, very numerous, rising in a number of rows, longer than the cup, slightly joined together by their claws.

CHIVES. Threads numerous, hair-like, the length of the cup. Tips laying on the threads.

POINTAL. Seed-bud beneath, with five obtuse angles. Shafts mostly five, awl-shaped, upright, and a little bent outwards. Summits simple.

SEED-VESSEL. A fleshy capsule, nearly round, the cells answering to the number of the chives.

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Mesembryanthemum foliis amplexicaulibus, glaberrimis, spatulatis; pedunculis longitudine foliorum; calycibus hemisphæricis; corollis luteis.

Fig Marygold with leaves embracing the stem, very smooth, and spatula-shaped; the footstalks the length of the leaves; cups hemispherical; blossoms yellow.

REFERENCE TO THE PLATE.

1. A Seed-bud; the Blossom, Cup and Chives, cut off, the Pointals remaining.
2. The same, with the Cup and Chives.

As the extreme brilliancy of this plant cannot be done justice to in painting, we must rest satisfied with having done our best; every person in the least acquainted with the art, must know, that in yellow the shining colour existing in nature cannot be retained in a drawing. This species is annual, and according to the Kew Catalogue, was introduced to the royal gardens by Mr. F. Masson in the year 1787. The seeds should be sown on a hotbed in the month of February, and by the end of August the plants will flower, and continue to blossom till the end of October; never failing to perfect their seeds.



Asplenium glaberrimum



PLATE LVIII.
BORONIA PINNATA.
Hawthorn-scented Boronia.

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

GENERIC CHARACTER.

CALYX. Perianthium quadripartitum; laciniis acutis, persistentibus.

COROLLA. Petala quatuor, ovata, sessilia.

Nectarium coronæ forma, excavatum, glandulosum.

STAMINA. Filamenta octo, plana, ciliata, incurvata, receptaculo inserta. Antheræ infra apicem filamentorum pedicellatæ, incumbentes.

PISTILLUM. Germen superum, conicum, quadrifidum. Stylus brevissimus, simplex. Stigma capitatum, glabrum, fulcatum.

PERICARPIUM. Capsulæ quatuor, ovato-acuminatæ, compressæ, margine introrsum coalitæ, apicibus distantibus, sutura superiori dehiscentes, bivalves.

SEMINA solitaria sepius, nitida, reniformia, arillata.

EMPALEMENT. Cup with four divisions; segments sharp pointed, and remaining.

BLOSSOM. Petals four, egg-shaped, fitting close to the cup.

Honey-cup of the shape of a crown, hollowed, and glandular.

CHIVES. Eight threads, flat, fringed, turned inwards, and fixed into the receptacle. Tips fixed below the ends on the inside of the threads, on short foot-stalks, and lying on them.

POINTAL. Seed-bud above, conical, and four-furrowed. Shaft very short, and simple. Summit headed, smooth, and furrowed.

SEED-VESSEL. Capsules four, of a pointed egg-shape, flattened, joined by the interior edge, the points standing separate, splitting from the upper suture, two-valved.

SEEDS mostly solitary, shining, kidney-shaped, and covered with an elastic coat.

SPECIFIC CHARACTER.

Boronia foliis impari-primatis, integerrimis; pedunculis axillaribus, dichotomis; filamentis apice obtusis, glandulosis.

Boronia with leaves abruptly winged, entire; flower-stalks growing from the base of the leaves, forked; end of the threads blunt, and glandular.

REFERENCE TO THE PLATE.

1. The Empalement, (natural size).
2. The Chives, and Pointal.
3. One Chive, (magnified).
4. The Pointal, and Honey-cup, (natural size).

THIS is the only species yet in our gardens, of a most beautiful new genus of plants, natives of New South Wales; first named, described, and with three other species, figured in the *Tracts relating to Natural History* by Dr. J. E. Smith, F. R. S. P. L. S. &c. Thus eternizing the name of an esteemed and faithful servant, who by his ardour in botanical pursuits, had merited the honour; rejecting the usual considerations, riches, or learning, does the Dr. no less credit as a man, for the kindness of his heart, than what his distinguished talents have gained him, by placing him in the first botanical seat in this kingdom. In the short history of the unfortunate end of Borone, the Dr. informs us, he had resigned him to Dr. Sibthorpe, as a most fit person to attend him in his last journey through Greece; where, at Athens, he met his death, by an accidental fall from a balcony: the Dr. did not long survive him.

The *Boronia pinnata* has much of the aromatic flavour of *Diosna* in its leaves and stem; the flowers, which appear about February, and continue till May, have the scent of the Hawthorn flower; it grows to a shrub of the height of eighteen inches, is propagated with difficulty by cuttings, and has not hitherto perfected its seeds in this country; requiring a dry situation in the greenhouse, and flourishes most in light sandy peat. The figure was taken from a plant which flowered last year, in the nursery of Messrs. Lee and Kennedy, Hammer-smith, where it was raised from seeds in 1794.



Boronia pinnata

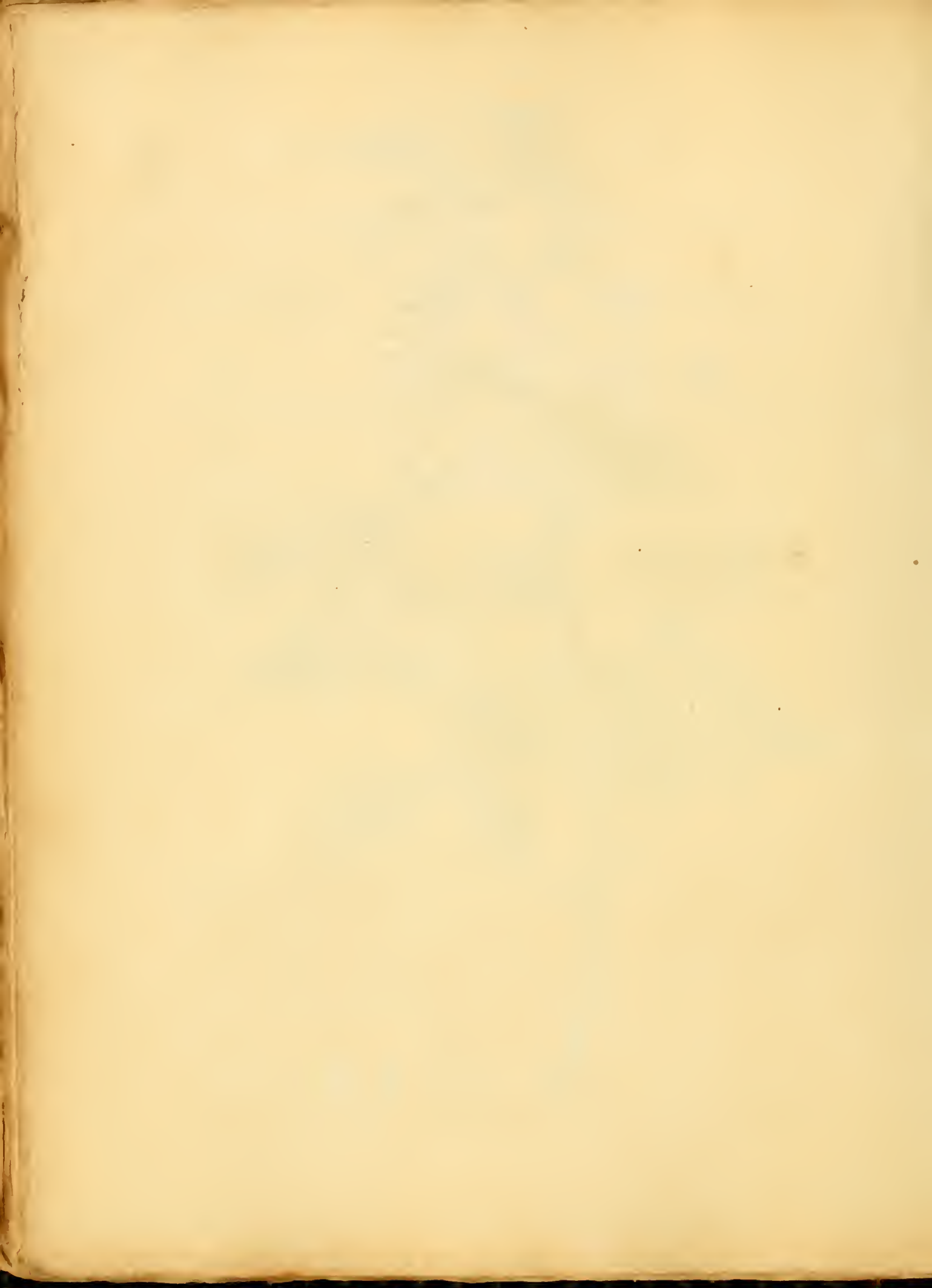




PLATE LIX.

IXIA FISTULOSA.

Hollow-leaved Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

BLOSSOM six petals, spreading, equal. Summits
three, nearly upright, and spreading.
See IXIA REFLEXA. Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis linearibus, fistulosis; floribus secundis,
noctu fragrantis; bulbus campanulatus,
margine acuto-fibroso.

Ixia with linear, hollow leaves; flowers pointing
one way, and fragrant by night; bulb bell-
shaped, the margin edged with sharp fibres.

REFERENCE TO THE PLATE.

1. The outer spath of the Empalement.
2. The inner spath of the Empalement.
3. A Flower cut open.
4. The Pointal, and Chives.
5. The Pointal.

THIS *Ixia* is of a very delicate nature, the root being subject to rot soon after the flower decays, it not then removed from its pot, and dried; the flowers expand about four o'clock in the afternoon, and are so extremely fragrant that they are smelt at a considerable distance. For this plant, our gardens are indebted to the Dowager Lady De Clifford, who received the bulbs from the Cape of Good Hope in the year 1794. The drawing was made from a plant, which flowered last year at Messrs. Lee and Kennedy's, HammerSmith, who had some of them in a present from her ladyship. Like other *Ixias*, it should be planted in light peat, and watered but seldom; its propagation is but slow, as seldom more than one new bulb is produced, upon the decay of the old one.



Iris fistulosa





PLATE LX.
GERANIUM PUNCTATUM.

Dotted-flowered Geranium.

CLASS XVI. ORDER IV. *Suppl. System. Veget.* 1781.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata 5. Fructus rostratus, 5-coccus.		ONE POINTAL. Five summits. Fruit furnished with long awns, five dry berries. See GERANIUM GRANDIFLORUM, Plate XII.
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SPECIFIC CHARACTER.

Geranium foliis radicalibus; floribus umbellatis, diandris; petalis duobus superioribus punc- tatis; stigmata quatuor.		Geranium with leaves growing from the root; flowers grow in umbels, two fertile chives; the two upper petals being dotted; sum- mits four.
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REFERENCE TO THE PLATE.

1. The Empalement cut open, with the Chives and Pointal left on, (natural size).
2. The Threads cut open, to shew their number, and the situation of the two fertile ones, (magnified).
3. The Pointal, (magnified).

PERHAPS amongst plants, there is no genus exhibits such varied and numerous species as Geranium; no one, in which the species are so allied in natural character, or so unfavourable to the sexual system, if some deviation from general rules was not allowed: the founder thought such licence necessary, and we implicitly follow him. Thus far we have thought proper to extenuate in the present instance; for should we follow Monf. L'Heritier, (as most of the modern correctors of Linnæus have done,) a new genus must inevitably be formed for this plant. Upon a close examination of the flowers, from a dozen different plants, invariably, only seven threads were found; two only with tips, and those placed immediately behind the shaft, whose summits were but four. This Geranium is rather tender, and requires a dry-stove heat to make it flower, which it will readily do with such assistance, in April; about the beginning of which month, this year, a drawing was made from a plant in the collection of Messrs. Lee and Kennedy. The roots or bulbs of this plant were first received in England by Thomas Johnes, Esq. in the year 1794, in whose magnificent conservatory at Havod they flowered the next year.



Geranium punctatum





PLATE LXI.
ASTER DENTATUS.

Toothed-leaved Starwort.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. *Communis* squamoso-imbricatus; squamis interioribus apice prominulis.

COROLLA. Composita radiata; corollulæ hermaphroditæ numerosæ in disco; femineæ ligulatæ, decem plures in radio.

Propria hermaphroditi infundibuliformis; limbo quinquefido, patulo.

Femineæ ligulata, lanceolata, tridentata.

STAMINA. Filamenta quinque, capillaria, brevissima. Anthera cylindræa, tubulosa.

PISTILLUM. Hermaphroditis; germen oblongum. Stylus filiformis, longitudine staminum. Stigma bifidum, patens.

Femineis; germen oblongum. Stylus filiformis, longitudine hermaphroditi. Stigmata duo, oblonga, revoluta.

PERICARPIUM nullum. Calyx vix mutatus.

SEMINA. Hermaphroditis solitaria, oblonga, ovata. Pappus pilosus.

Femineis similia hermaphroditis.

RECEPTACULUM nudum, planiusculum.

EMPALEMENT. *Communis*, scales tiled; the inner scales standing a little out at the points.

BLOSSOM. Compound, radiate; florets with chives and pointals, many in the center; florets with only pointals, ligulate, ten or more in the circumference.

Individuals with chives and pointals, funnel-shaped; border with five-clefts, spreading.

Individuals with only pointals, ligulate, spear-shaped, with three teeth.

CHIVES. Five hair-like threads, very short. Tips forming a hollow cylinder.

POINTAL. To those with chives and pointals, seed-bud oblong. Shaft thread-shaped, the length of the chives. Summit two-cleft, expanding.

Seed-bud to those with pointals only, oblong. Shaft thread-shaped, the length of the hermaphrodites. Summits two, oblong, bent back.

SEED-VESSEL none. Cup scarcely changing.

SEEDS to the hermaphrodites solitary, oblong, egg-shaped. Feather hairy.

Females the same as hermaphrodites.

RECEPTACLE naked, almost flat.

SPECIFIC CHARACTER.

After caulis fruticosus; foliis dentatis, subtus ferrugineis; floribus terminalibus; pedunculis unifloris, bracteatis.

Starwort with a shrubby stem; leaves toothed, iron colour beneath; flowers terminate the branches; fruit-stalks having but one flower, with floral leaves.

REFERENCE TO THE PLATE.

1. A Floret of the circumference.
2. The Pointal of the preceding.
3. A Floret of the center, (magnified).
4. The Chives and Pointal of the preceding, (magnified).
5. The Shaft and Summit of the same, (magnified).

THIS plant cannot undoubtedly be considered as amongst the most beautiful of the vegetable productions of New Holland; but nevertheless, from the continuance of its flowering, is very desirable as a greenhouse plant, as it begins to expand its blossoms about December, and from that time till August is seldom seen without flowers. It is a low-growing shrub, seldom exceeding a foot in height, and very branching. Like most plants from Botany Bay, it delights in a light sandy peat soil, is easily propagated by cuttings, and seeds. The drawing was made from a plant in the nursery of Messrs. Lee and Kennedy, who raised it first from seeds in the year 1793.



Aster dentatus



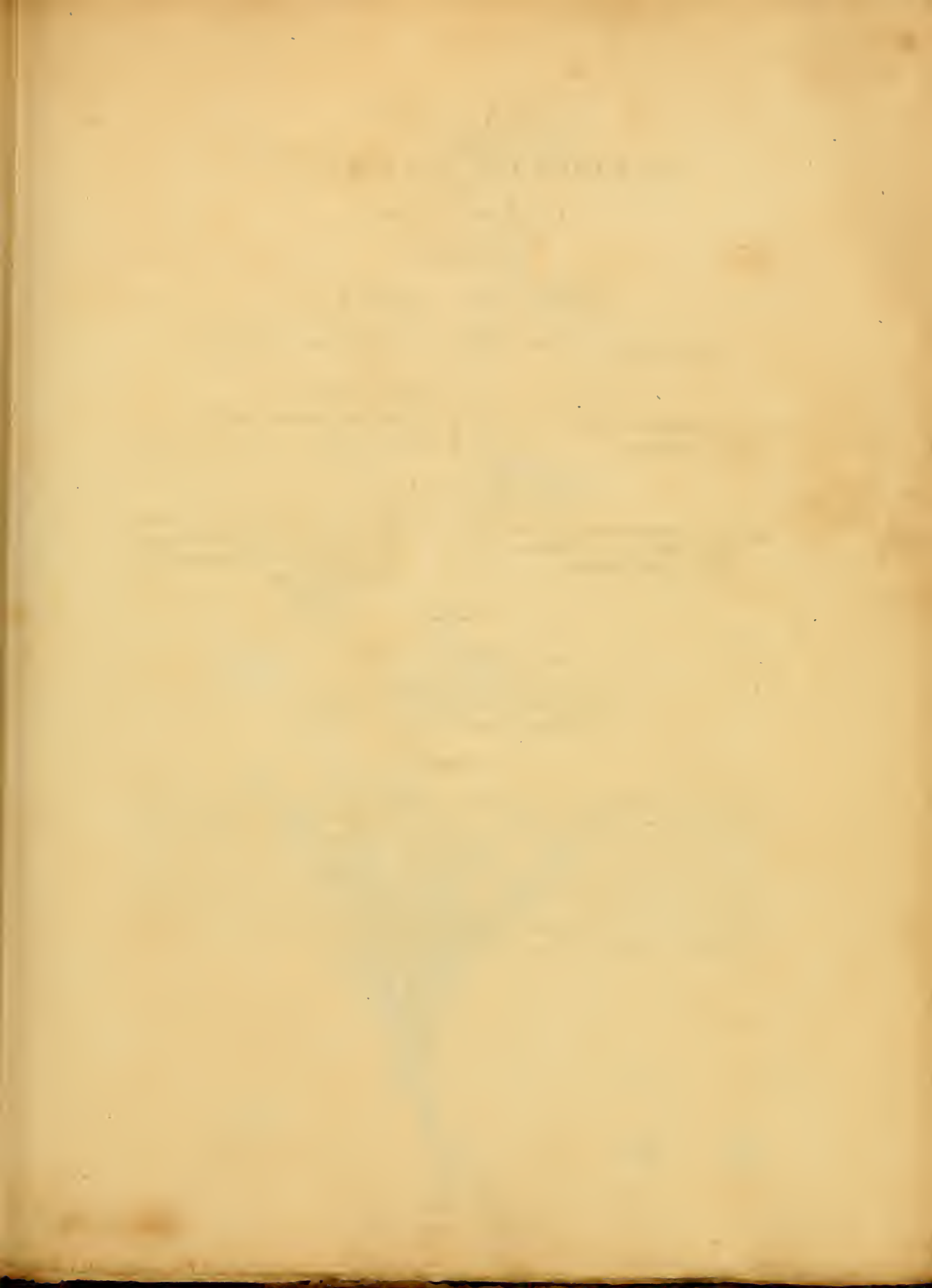


PLATE LXII.

GLADIOLUS GRAMINEUS.

Grass-like Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens.
STAMINA adscendentia.

BLOSSOM with six divisions, gaping.
CHIVES ascending.

See *GLADIOLUS LONGIFLORUS.* Plate V.

SPECIFIC CHARACTER.

Gladiolus polystachyus, scapo laxo, spicis capillaribus, flexuosis; foliis ensiformibus; corollæ sexpartitæ, absque tubo.

Gladiolus with many spikes, upon a flexible flower stem, spikes hair-like, growing zigzag; leaves sword-shape; blossom of six divisions, without a tube.

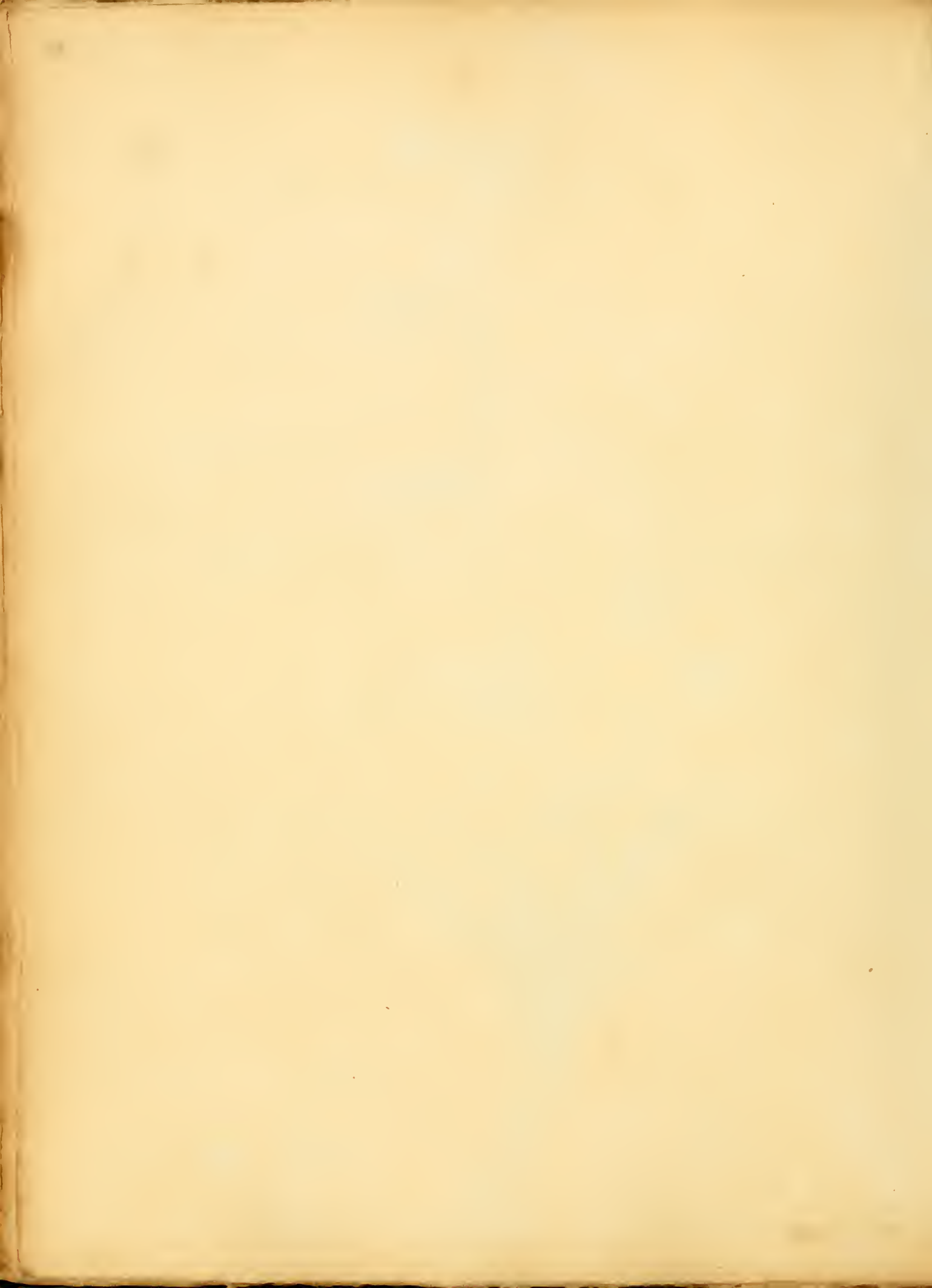
REFERENCE TO THE PLATE.

1. The two sheaths of the Empalement.
2. The Seed-bud, Chives, and Pointal (magnified).
3. The Pointal, (magnified).

THIS species of *Gladiolus* has been described by Thunberg, and from him by Linnæus, in his *Suppl. Plant.* p. 95, under the specific name it here bears. It is a little straining on the genus to introduce this species into it; as it is deficient in most of the essential characters; having a blossom without a tube, and the petals equal. From the *Kew Catalogue* we learn it was introduced in the year 1787, by Mr. F. Masson, to the royal gardens; is there said to flower most part of the year: a plant of such character is most desirable, but unfortunately we have never seen it in blossom but at the usual season for the flowers of this tribe; that is, from April till June. The capsules of this plant bear a strong resemblance to those of the *Euonymus*: generally perfecting their seeds. It is a very hardy bulb, blows early, and may be kept in a pit protected from the frost.



Gladiolus gramineus.



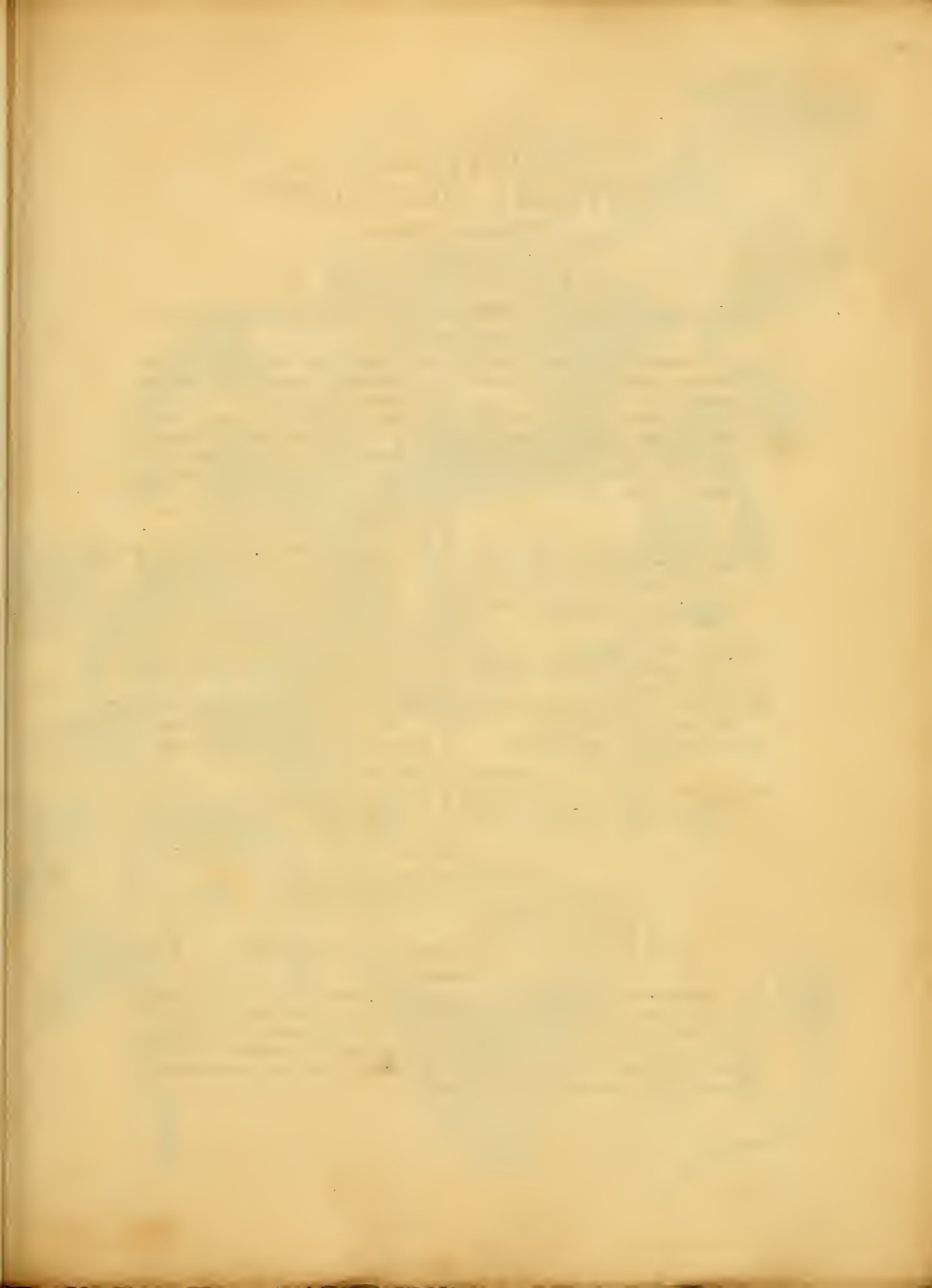


PLATE LXIII.
USTERIA SCANDENS.

Climbing Ustera.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquepartitum, persistens; laciniis erectis, subulatis.

COROLLA. Monopetala, ringens, tubus ventricosus, basi arcuata; limbus bilabiatus, labium *superius* bifidum, rotundatum, reflexum; labium *inferius* trifidum, laciniis rotundatis, intermedia minore.

STAMINA. Filamenta quatuor, sub labio superiori recondita, quorum duo lateralia longiora, fundo corollae inferta, basi incrassata, lanata, apice incurvata. Antherae erectae, versatiles, approximatae.

PISTILLUM. Germen sub-rotundum. Stylus filiformis, persistens; longitudine staminum. Stigma obtusum.

PERICARPIUM. Capsula sub-rotunda, bilocularis, calyce longior, obtusa.

SEMINA plurima, sub-rotunda, scabrida.

EMPALEMENT. Cup one leaf, five divisions, permanent; segments upright, and awl-shaped.

BLOSSOM. One leaf, gaping, tube swelled out in the middle, and pinched in at the base; border with two lips, the *upper* divided into two lobes, which are rounded, and bent back; the *lower* has three divisions, the segments rounded, the middle one the smallest.

CHIVES. Threads four, hid under the upper lip, of which the two side ones are the longest, fixed into the bottom of the blossom, thickened at the base, woolly, and turned inward at the point. Tips upright, slightly fixed by the middle, and approaching.

POINTAL. Seed-bud nearly round. Shaft thread-shaped, remaining, the length of the chives. Summit blunt.

SEED-VESSEL. Capsule nearly round, of two cells, longer than the cup, blunt ended.

SEEDS many, almost round, and very rough.

SPECIFIC CHARACTER.

Ustera caulis volubilis; foliis hastatis; floribus solitariis, purpureis; pedunculis tortis, longissimis.

Ustera with a climbing stem; leaves halbert-shaped; flowers solitary, and purple; fruit-stalks twisted, very long.

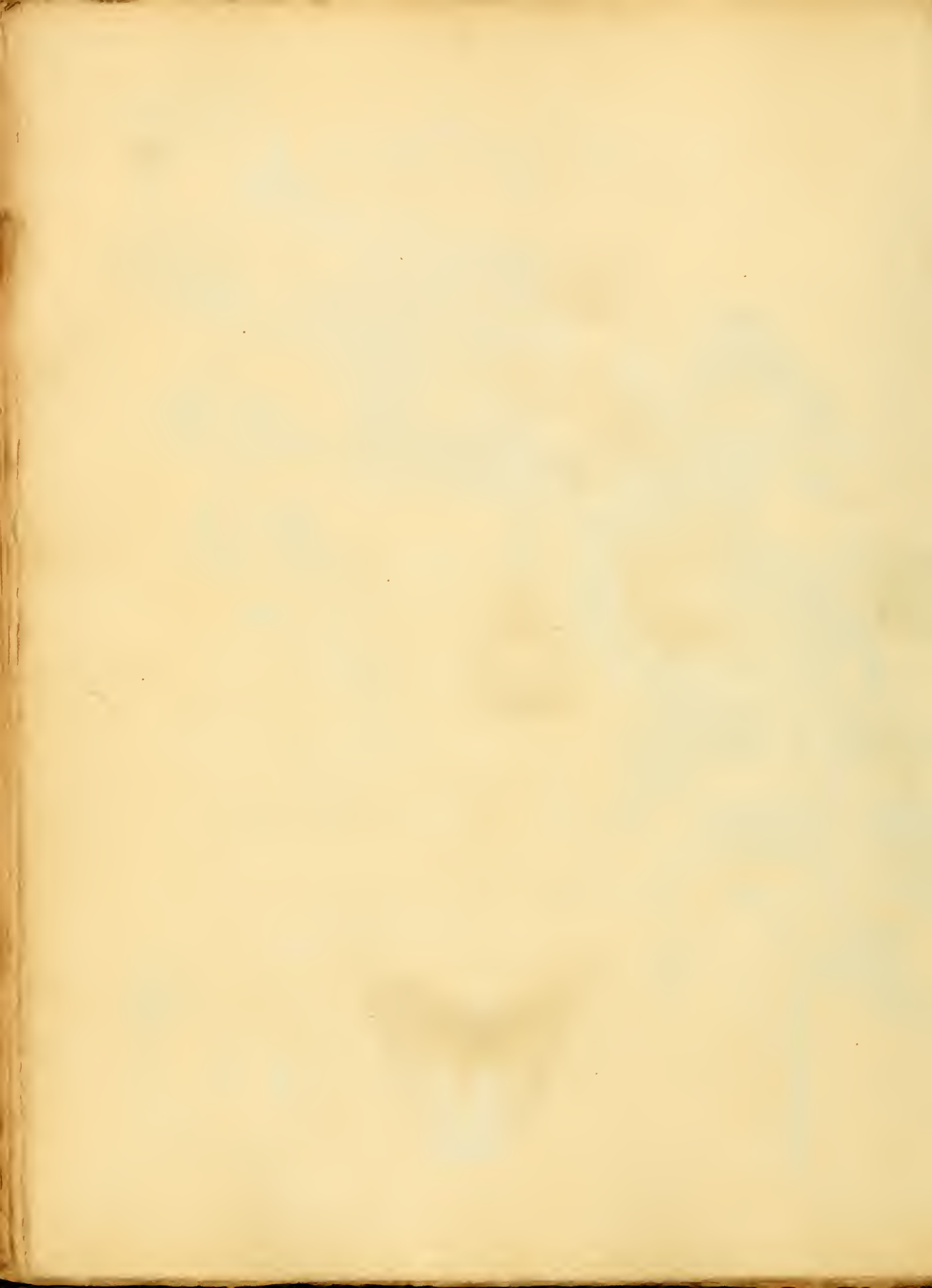
REFERENCE TO THE PLATE.

1. A Blossom cut open, to expose the situation of the Chives.
2. One Chive, (magnified).
3. The Pointal, (natural size).
4. The Empalement, and Seed-vessel nearly ripe, of its natural size.

THIS is another of those plants raised in the year 1797 by the Marchioness of Bute, at her charming little villa, Brompton, from seeds, sent to her ladyship from Spain by Dr. Ortega. It is a native of Mexico, North America, and will live through our winters with the protection of a greenhouse, to which it forms a beautiful ornament as a creeper; flowering from May till September, but does not appear to be a long-lived plant; is easily propagated by cuttings, or from seeds, which are ripened by November, or earlier; thriving best in light rich earth.



Usteria saundersii



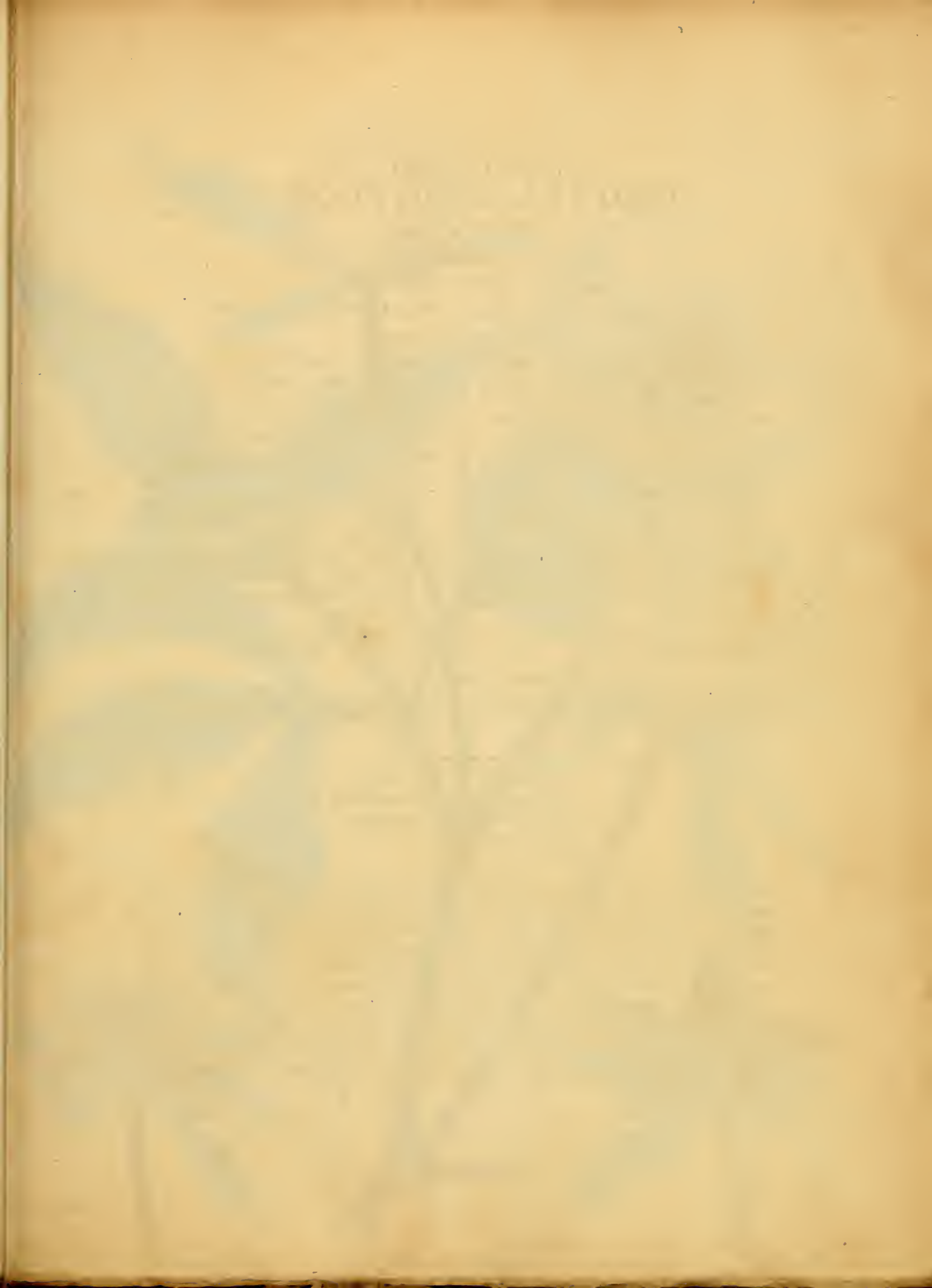


PLATE LXIV.
PÆONIA ALBIFLORA.
White Pæony.

CLASS XIII. ORDER II.
POLYANDRIA DIGYNIA. Many Chives. Two Pointals.

GENERIC CHARACTER.

CALYX. Perianthium pentaphyllum, parvum, persistens; foliolis subrotundis, concavis, reflexis, inequalibus magnitudine et situ.

COROLLA. Petala quinque, subrotunda, concava, basi angustiora, patentia, maxima.

STAMINA. Filamenta numerosa, capillaria. Antheræ oblongæ, quadrangulæ, erectæ, quadriloculares, magnæ.

PISTILLUM. Germina duo, ovata, erecta, tomentosa. Styli nulli. Stigmata compressa, obtusa, colorata.

PERICARPIUM. Capsulæ oblongæ, acuminatæ, reflexo-patentes, tomentosæ, uniloculares, univalves, longitudinaliter introrsum dehiscentes.

SEMINA plura, ovalia, nitida, colorata, saturæ dehiscenti affixa.

EMPALEMENT. Cup five-leaved, small, and remaining; leaves roundish, concave, bent back, and unequal both in size and situation.

BLOSSOM. Petals five, roundish, concave, smaller at the base, spreading, and very large.

CHIVES. Threads numerous, and hair-like. Tips oblong, four-sided, upright, with four cells, and large.

POINTAL. Seed-buds two, egg-shaped, upright, and downy. Shaft none. Summits flattened, oblong, blunt, and coloured.

SEED-VESSEL. Capsules oblong, tapered, bent back, and spreading, downy, of one cell, and one valve, splitting lengthways from the inner part.

SEEDS many, oval, shining, coloured, and fixed to the future where it splits.

SPECIFIC CHARACTER.

Pæonia foliis lobatis, nitentibus; corollis albidis; germinibus ternis, vel quaternis.

Pæony with leaves divided into lobes, and shining; blossoms white; seed-buds three, or four.

REFERENCE TO THE PLATE.

1. The Empalement, Chives, and Pointals.
2. A Thread and its Tip (magnified).
3. The Seed-vessels.
4. A Seed.

THIS new species of *Pæony* is a native of Mongol Tartary, and the parts adjacent; of course, is sufficiently hardy to endure our severest winters. It has been described by Gmelin, in his *Flora Sibirica*; and figured by Dr. Pallas, in his *Flora Rossica*, under the specific title it here bears. J. Bell, Esq. of Isleworth, procured some plants of it from St. Petersburg, about the year 1791; where it had been introduced by Dr. Pallas some time before, when on his travels through Tartary. It forms a handsome, upright growing, herbaceous plant; the flowers standing much above the foliage, are much handsomer before they are expanded, than when fully so; as the under part of the petals are tinged with red, which contrasted with the purity of the white of the other parts, renders them at that period extremely beautiful. The figure was taken at the nursery of Messrs. Lee and Kennedy, this year, in the month of June, during which month it is in perfection. Like the rest of the *Pæonies*, it is easily propagated by the root; requiring little attention in its cultivation, as it will live in almost any soil or situation.



Paeonia officinalis

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PLATE LXV.
OPHRYS LILIFOLIA.
Lily-leaved Ophrys.

CLASS XX. ORDER I.
GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix simplex. Perianthium nullum.

COROLLA. Petala quinque, oblonga, sursum conniventia, æqualia; duo horum exteriora.

Nectarium petalis longius, dependens; postice tantum carinatum.

STAMINA. Filamenta duo, brevissima, pistillo infidentia. Antheræ erectæ, tectæ marginè interiore nectarii.

PISTILLUM. Germen oblongum, contortum, inferum. Stylus margini interiori nectarii adnatus. Stigma obsoletum.

PERICARPIMUM. Capsula subovata, trigona, obtusa, friata, trivalvis, unilocularis, angulis carinatis dehiscens.

SEMINA numerosa, scobiformia.

RECEPTACULUM lineare, adnatum singulæ valvulæ pericarpium.

EMPALEMENT. Sheaths scattered. Fruit-stalks simple. Cup none.

BLOSSOM. Five petals, oblong, approaching upwards, equal; two of them placed outwards.

Honey-cup longer than the petals, hanging down; only keeled on the back part.

CHIVES. Two threads, very short, fixed to the pointal. Tips upright, covered by the inner edge of the honey-cup.

POINTAL. Seed-bud beneath, oblong, twisted beneath. Shaft fixed to the inner edge of the honey-cup. Summit imperfect.

SEED-VESSEL. Capsule nearly egg-shaped, three-fided, blunt, channelled, three-valved, and one cell, opening at the keel-shaped angles.

SEEDS numerous, like saw-dust.

RECEPTACLE linear, growing to each valve of the seed-vessel.

SPECIFIC CHARACTER.

Ophrys bulbo subrotundo; scapo nudo; foliis ovato-oblongis, radicalibus; nectarii labio integro; petalis dorsalibus linearibus.

Ophrys with roundish roots; stem naked; leaves oblong, egg-shaped, growing from the root; the two back petals linear.

REFERENCE TO THE PLATE.

1. The Honey-cup cut off the blossom.
2. The Seed-bud and Pointal (natural size) shewn sideways.
3. The same (magnified) shewn in front, with the cap lifted up, to expose the parts of fructification.

GRONOVIVS, in his arrangement of the plants discovered by Mr. J. Clayton in Virginia, P. i, page 185, has described this plant; and Linnæus after him, in his second edition of the Species Plantarum, page 1341, has it likewise, but thought it only a large variety of a species found in marshy grounds in Sweden; however that may be, it is perfectly new to Britain, as a plant in our gardens. This species of Ophrys seems much more easy to preserve than most of its congeners, as, since its introduction, the bulbs seem to acquire additional size, and the spikes of flowers to grow larger each year. Our drawing was taken from a plant in the extensive collection of the Right Hon. the Marquis of Blandford, Bill-hill, Berkshire, in the year 1797, about the beginning of the month of July; having been sent the preceding year from Philadelphia, by J. Lyons, gardener to William Hamilton, Esq. of that State. It is a hardy plant, and will thrive in a sheltered border, if planted in light earth, and kept moist; is propagated but slowly by the root, which seems the only method; as the seeds are too small of all this natural order to raise them by that means.



Ophrys lelefolia





PLATE LXVI.

GLADIOLUS POLYSTACHIUS.

Branching Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, ringens.
STAMINA ascendentia.

BLOSSOM of six divisions, and gaping.
CHIVES ascending.
See Plate XI. *GLADIOLUS ROSEUS.*

SPECIFIC CHARACTER.

Gladiolus foliis falcatis; caule polystachio; corollis sub-regularibus, carneis.

Gladiolus with cymitar-shaped leaves; stem many branches; blossoms nearly regular, and flesh colour.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Blossom cut open, with the Chives attached.
3. The Pointal and Seed-bud, one summit magnified.

THIS species of *Gladiolus* has been long known in herbariums, as it is very common about Table mountain, at the Cape of Good Hope; Jacquin, Thunberg, Gmelin, Welldenow, &c. have it under the tribe of *Ixia*, with the specific names of *Scillaris*, *Fabricii*, &c. but notwithstanding, we have no hesitation in placing it under its true genus *Gladiolus*. The upright character of the chives, their insertion into the tube of the blossom, and not at the mouth, the difference in the shape of the petals, the situation of the summits behind the chives, &c. leave no room for doubt where its station should be. Although plentiful at the Cape, it has not been long an inhabitant of this clime; having flowered for the first time in the year 1797, at Bullfrode, the seat of his Grace the Duke of Portland. What contributes much to the value of this plant is, that it continues in flower at least two months, from the beginning of June till the end of July; propagates itself abundantly by the roots, which are not subject to rot, though not removed from the pots in which they have flowered. Thrives in peat earth.



Gladiolus polystachyus

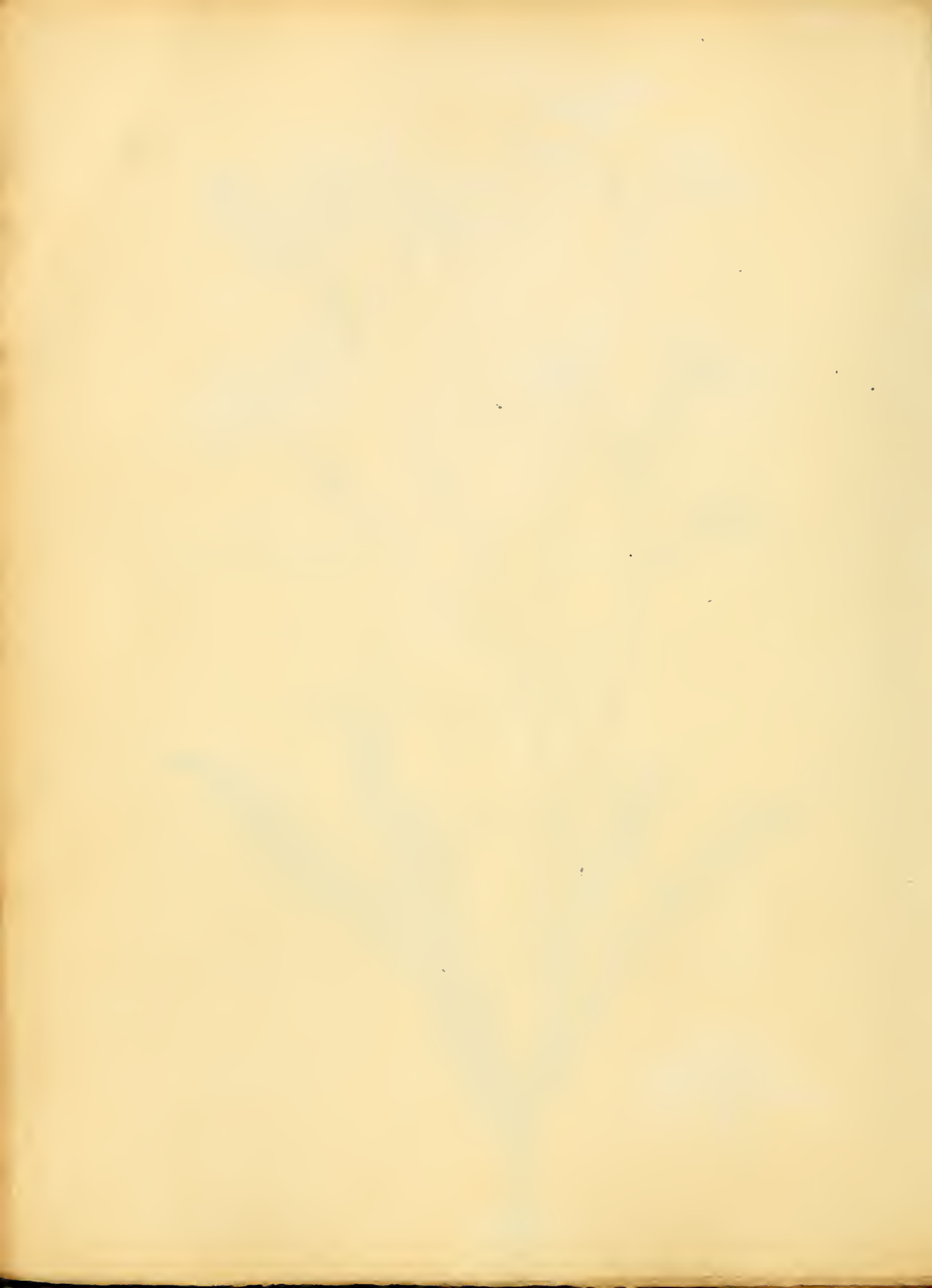




PLATE LXVII.

GERANIUM INCISUM.

Jagged-leaved Geranium.

CLASS XVI. ORDER IV.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus rotatus, 5-coccus.		ONE POINTAL. Five summits. Fruit furnished with long awns, five dry berries. See GERANIUM GRANDIFLORUM, Plate XII.
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SPECIFIC CHARACTER.

Geranium foliis multifidis, crassis, confertis; floribus umbellatis, pedunculis longissimis; caule erecto, fruticoso.		Geranium with leaves of many clefts, thick, and crowded together; flowers grow in bunches, on very long foot-stalks; stem upright, and shrubby.
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REFERENCE TO THE PLATE.

1. The Empalement.
2. The Chives and Pointal, (natural size).
3. The Chives cut open.
4. The Pointal, (magnified).

THIS pretty species of Geranium, from the Cape of Good Hope, is one of those having seven fertile tips; therefore a Pelargonium of Monf. L'Heritier. It is a low growing plant, seldom exceeding eight or nine inches in height, keeping very compact; but is subject to damp in the leaves, if kept moist in winter, though otherwise pretty hardy. Mr. C. Lodiges, of Hackney, first raised it from seeds which he received from Vienna, about the year 1793. It is readily propagated by cuttings, or seeds, and continues to flower all the summer months; requiring light rich earth to make it flourish.



Geranium lucidum

... ..
...



1870



PLATE LXVIII.

GOODENIA OVATA.

Oval-leaved Goodenia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA supra longitudinaliter fissa, genitalia
exferens, quinquefida. Stigma urceolatum,
ciliatum.

BLOSSOM longitudinally cloven on the upper side,
exposing the organs of generation, and five-
cleft. Summit cup-shaped, and fringed.
See GOODENIA CALENDULACEA. Plate XXII.

SPECIFIC CHARACTER.

Goodenia foliis ovatis, serratis; corollis luteis,
laciniis duobus exterioribus erectis.

Goodenia with egg-shaped leaves, sawed at the
edges; blossoms yellow, the two outer seg-
ments grow upright.

REFERENCE TO THE PLATE.

1. The Empalement and Seed-bud.
2. A Blossom, with the parts of fructification attached.
3. The Chives, and Pointal (magnified).

IN the second volume of the Linnæan Transactions, Dr. Smith enumerates ten species of the genus Goodenia; this species makes an addition to the number. The oval-leaved Goodenia is a half woody plant, making long willow-like branches, which mostly decay in the winter, though a great part of the plant remains; it is a hardy greenhouse plant, requiring little trouble either to keep or propagate; the latter of which is done by cuttings. About the year 1793, a parcel of seeds was received by Messrs. Lee and Kennedy, sent to them by Colonel Paterfon from Port Jackson, New Holland; amongst them, the seeds of this plant; it nevertheless did not flower till the year 1798, about the month of June. It is certainly a desirable plant, never failing to flower from June till September, if kept growing in vigour, which it will surely do if planted in light peat earth.



Geodemia crata





PLATE LXIX.

LAMBERTIA FORMOSA. *Var. longifolia.*
Red-flowered Lambertia. Long-leaved variety.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium commune, imbricatum, squamis interioribus, longioribus.

COROLLA. *Univerſalis* uniformis, ſeptem-florus.

Propria monopetala, tubuloſa, limbus quadrifidus, laciniis revolutis, ſtameniferis.

STAMINA. Filamenta quatuor, ſubulata, breviffima, inferta limbo corollæ, intra ſingulam laciniam ſingula. Antheræ lineares, erectæ.

PISTILLUM. Germen ſubrotundum, apice piloſum. Stylus ſetaceus, erectus. Stigma ſubulatum, fulcatum.

PERICARPIUM. Capſula tricornuta, unilocularis, diſperma.

SEMINA bina, alata, ſcabra, nigra.

EMPALEMENT. Common cup tiled, the inner ſcales the longeſt.

BLOSSOM. *General* regular compoſed of ſeven flowers.

Individuals of one petal, tubular, border four-cleft, the ſegments rolled back, and ſupporting the chives.

CHIVES. Threads four awl-shaped, very ſhort, fixed into the border of the bloſſom, one within each ſegment. Tips linear, and upright.

POINTAL. Seed-bud nearly round, the upper part hairy. Shaft awn-like, upright. Summit awl-shaped, and furrowed.

SEED-VESEL. Capſule three-horned, of one cell, and two ſeeds.

SEEDS two, winged, rough, and black.

SPECIFIC CHARACTER.

Lambertia foliis ternis, apice mucronato-pungentibus; corollis ſtriatis, extus ſuave rubentibus; antheris caruleis.

Lambertia with leaves growing by threes, the ends terminating in ſharp points; bloſſoms ſtriped, of a light red without; tips blue.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Bloſſom cut open, with the Pointal as it ſtands in the bloſſom.
3. One ſegment of a Flower, with the Chive attached.
4. The Pointal (magnified).
5. A Capſule.
6. A Seed.

OF all the plants yet introduced from New Holland, that have hitherto flowered with us, this unqueſtionably takes the lead for beauty, conſidering the plant altogether. It is a hardy greenhouſe plant, growing to the height of ſix or eight feet before it flowers; when the bloſſoms break from the ends of almoſt every branch. The ſeeds of this plant were among the firſt which arrived from Botany Bay, in the year 1788; when two varieties of it were raiſed by Meſſrs. Lee and Kennedy, at their nurſery, who were fortunate enough to procure all the ſeeds which came home that ſeaſon. This fine genus has received its title, (under the ſanction of Dr. Smith, ſee the *Linn. Tranſ.* page 214, vol. 3.) from Aylmer Bourke Lambert, Eſq. fellow of the Royal and Linnæan Societies; a gentleman whoſe zeal for the advancement of the ſcience is unbounded, and whoſe labours to that end, as well as his endeavours to render botany of univerſal benefit, by combining the uſeful with the pleaſing; (witneſs his work on the Cinchonas, or Jeſuits' Barks) do him the greateſt credit. Our drawing was made from a plant which flowered for the firſt time in this kingdom, in the collection of J. Robertſon, Eſq. of Stockwell, Surry, in July 1798. It is without difficulty raiſed by cuttings, and thrives in peat earth.



Banksia formosa
var. *longifolia*

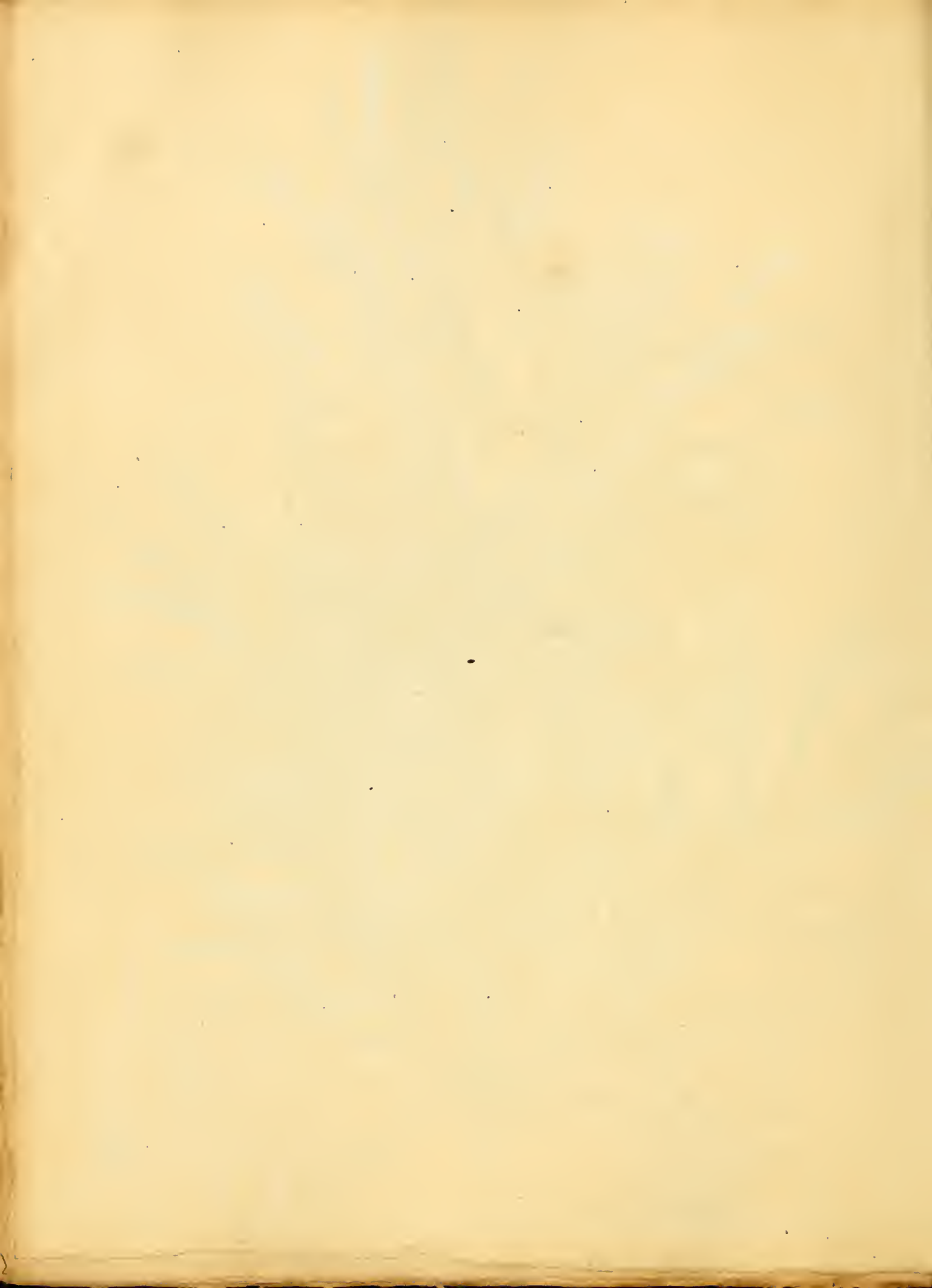




PLATE LXX.

GNIDIA SIMPLEX.

Heath-leaved Gnidia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX infundibuliformis, quadrifidus. Petala
quatuor, calyci inserta. Semen unicum,
fubbacatum.

EMPALEMENT funnel-shaped, and four-cleft.
Petals four, inserted into the empalement.
One seed, something like a berry.

See GNIDIA PINIFOLIA, Plate LII.

SPECIFIC CHARACTER.

Gnidia, foliis linearibus, acutis, lævibus; flori-
bus terminalibus, sessilibus, luteis.

Gnidia, with linear, pointed, smooth leaves;
flowers terminating the branches, fitting
close upon them, and yellow.

REFERENCE TO THE PLATE.

1. A Flower, (natural size).
2. The same cut open, and magnified.
3. The Pointal, (natural size).
4. The same magnified.

THE flowers of this species of Gnidia, like most plants of this natural order, are fragrant, which increases much towards night. It is one of those delicate Cape plants requiring a dry stove, or an airy warm situation in the greenhouse; where it continues to flower through the months of April and May, and frequently will blossom a second time in September and October. It is easily propagated by cuttings; delighting most in peat earth, and seldom grows more than a foot high. Our drawing was made, (by his kind permission) at the beautiful and unique conservatory of R. James, Esq. Grosvenor-place, from a plant in his valuable and select collection, in May this year.

Unfortunately the G. Simplex having been introduced to our gardens before the G. Pinifolia, (see our figure, Pl. LII.) it was found in most collections under that title; but we have no hesitation in placing this plant under the specific name given it by Linnæus, in his *Mantissa Plantarum* of 1767, page 67; where, to the usual specific character, he has superadded an accurate description of it.



Gnidia simplex





PLATE LXXI.

CLEMATIS VIORNA.

Blue thick-petal'd Virgin's Bower.

CLASS XIII. ORDER VII.

POLYANDRIA POLYGYNIA. Many Chives. Many Pointals.

GENERIC CHARACTER.

<p>PERIANTHIUM. Calyx nullus.</p> <p>COROLLA. Petala quatuor, oblonga, laxa.</p> <p>STAMINA. Filamenta plurima, subulata, corolla breviora. Antheræ lateri filamentorum adnatæ.</p> <p>PISTILLUM. Germina plurima, subrotunda, compressa, desinentia in stylos subulatos, staminibus longiores. Stigmata simplicia.</p> <p>PERICARPIUM nullum. Receptaculum capitatum, parvum.</p> <p>SEMINA plurima, subrotunda, compressa, stylo (figura varia) instructa.</p>	<p>EMPALEMENT. Cup none.</p> <p>BLOSSOM. Petals four, oblong, flexible.</p> <p>CHIVES. Threads many, awl-shaped, shorter than the blossom. Tips fixed to the sides of the threads.</p> <p>POINTAL. Seed-buds many, nearly round, flattened, ending in awl-shaped shafts, longer than the chives. Summits simple.</p> <p>SEED-VESSEL none. Receptacle forming a round head, and small.</p> <p>SEEDS many, roundish, flattened, retaining the shaft, which is variously shaped.</p>
--	---

SPECIFIC CHARACTER.

<p>Clematis foliis compositis decompositisque; foliis quibusdam trifidis; floribus violaceis, coriaceis.</p>	<p>Virgin's Bower, with compound and doubly compound leaves; some of the little leaves split into three; flowers blue, and tough.</p>
--	---

REFERENCE TO THE PLATE.

1. The Chives, and Pointals; the petals being removed.
2. The Pointals.
3. A Chive, (magnified).
4. A Pointal, (magnified).
5. A Seed nearly ripe, (natural size).

DOUBTS have been entertained, among some botanists, whether this plant is the *Clematis viorna* of Linnæus, as given by him, with various synonyms, in his *Sp. Plan.* By collating the different specific characters from the synonyms adopted by him, we have no hesitation in our decision. Being a native of Virginia and Carolina, it is not so hardy as some others from the northern parts of Europe or America; but, nevertheless, is not killed by our winters, as it is herbaceous, and not making its shoots till late. In a warm situation against a wall or trellis, it will begin to blossom in July, and continue to flower till destroyed by the frost. As yet it is rather scarce in our gardens, being but of a late introduction, though long known by description. Our figure was taken at the Hammermith nursery, where it is in high perfection, being planted in a mixture of loam and peat earth: it is most readily increased, by parting the roots in spring; as the seeds seldom come to maturity in this climate.



Clematis vitalba.





PLATE LXXII.
STYPHELIA TRIFLORA.
Three-flowered Styphelia.

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

GENERIC CHARACTER.

<p>PERIANTHIUM. Calyx imbricatus, persistens; foliolis interioribus longioribus, acutis, erectis.</p> <p>COROLLA tubulosa, quinquefida; laciniis revolutis, hirsutis. <i>Nectarium</i> membranaceum, lacrum, germen cingens.</p> <p>STAMINA. Filamenta quinque, tubo inserta. Antheræ apice bifidæ, versatiles.</p> <p>PISTILLUM. Germen globosum, sulcatum, nectario cinctum. Stylus capillaris. Stigma capitatum, quinquepartitum.</p> <p>PERICARPIUM. Drupa quinquelocularis, subrotunda, glabra.</p> <p>SEMINA, bina.</p>	<p>EMPALEMENT. Cup tiled, and remaining; the inner leaves the longest, sharp-pointed, and upright.</p> <p>BLOSSOM tubular, five-cleft; the segments rolled back, and hairy. <i>Honey-cup</i> skinny, torn, and surrounding the seed-bud.</p> <p>CHIVES. Five threads, fixed into the tube of the blossom. Tips split at the top, and loosely fixed by the middle to the threads.</p> <p>POINTAL. Seed-bud globular, furrowed, encircled by the honey-cup. Shaft hair-like. Summit headed, and of five divisions.</p> <p>SEED-VESSEL. A pulpy fruit with five cells, roundish, and smooth.</p> <p>SEEDS, two together.</p>
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SPECIFIC CHARACTER.

<p><i>Styphelia</i>, foliis imbricatis, sparsis, glaucis, ovato-mucronatis; floribus axillaribus, ternis.</p>	<p><i>Styphelia</i>, with leaves tiled, scattered, bluish, egg-shaped, and sharp-pointed; flowers growing from the lower part of the leaves by threes.</p>
---	--

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Flower cut open, with the Chives remaining attached, to shew their insertion into the tube of the Blossom.
3. The Pointal, (natural size,) the Summit detached, and magnified.
4. The Honey-cup, (magnified).

THE *Styphelias* constitute a very extended tribe of plants, indigenous only to New Holland; we are indebted to the pupil of Linnæus, the celebrated Dr. Solander, for this generic title, which, (as Dr. Smith has fairly observed) is expressive of the habit of this whole genus, having its origin in *στυγελός*, harsh, or hard; a character which seems invariable in every species that has come under our notice. The *S. tubiflora*, although set off by Dr. Smith, in his fourth number of New Holland Botany, with so much grace, must, (and we have no doubt of his concurrence) give place to *S. triflora*, which undoubtedly claims the palm from all its congeners hitherto discovered. The only specimen alive or dead, and from which our figure was taken, of this plant, which has come to our knowledge, is to be found in the extensive collection of G. Hibbert, Esq. Clapham-common; from whose exertions the exotic collections of this kingdom, are likely to acquire such considerable additions.

The *S. triflora* was raised from seed at Clapham in 1796, but did not flower till this year, in the month of June, continuing in blossom through July, and part of August. It grows to the height of near three feet, branching but little; the whole stem being hid by the leaves. Mr. Allen the gardener, to whose kind communications we are much indebted, informs us he has kept it in peat earth, and that he thinks it is to be raised by cuttings.



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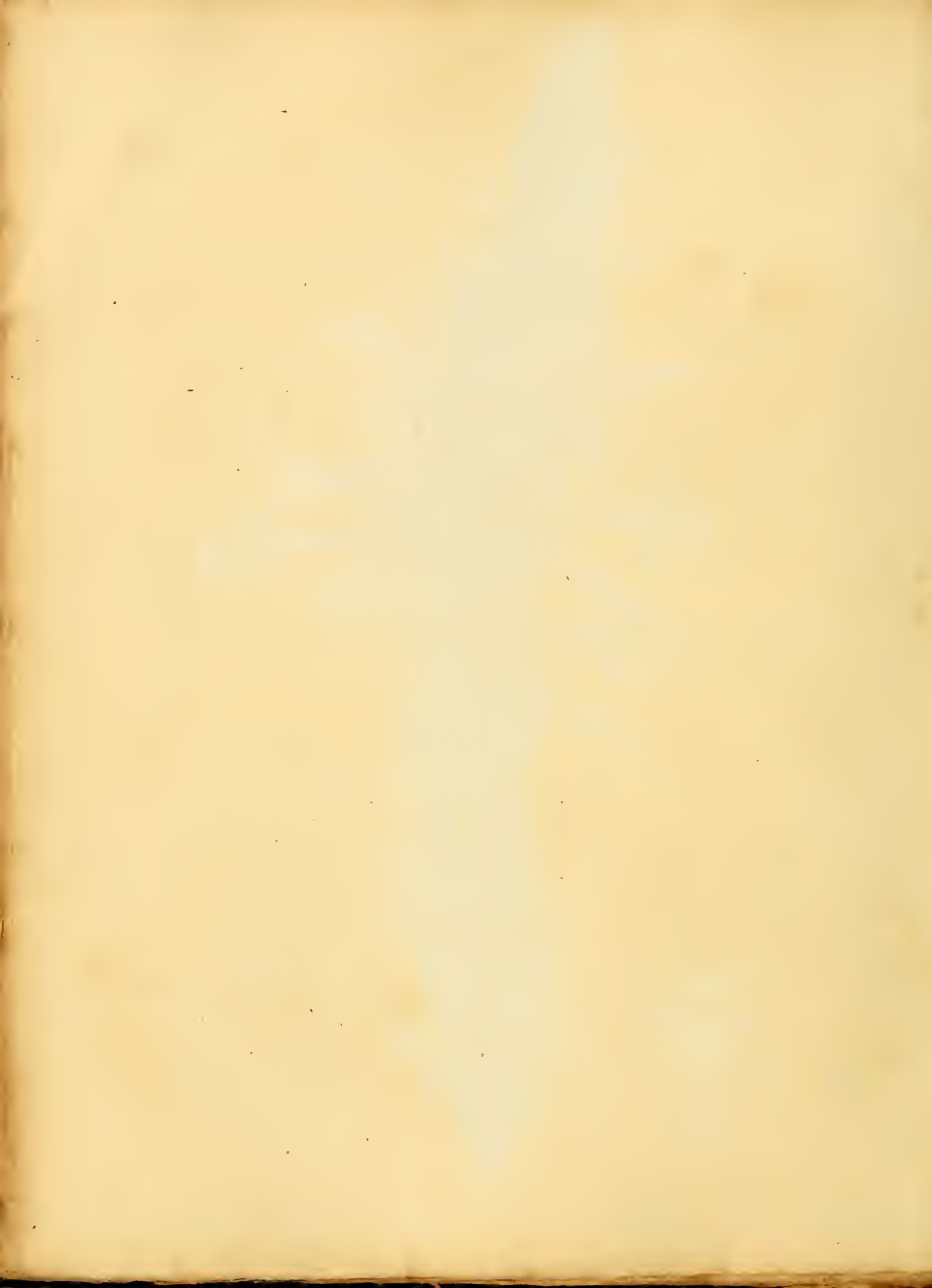


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Styphelia triflora



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PLATE LXXIII.
 DAPHNE PONTICA.
Pontic Spurge-Laurel.

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

GENERIC CHARACTER.

<p>CALYX, nullus.</p> <p>COROLLA monopetala, infundibuliformis. Tubus cylindraceus, imperforatus, limbo longior. Limbus quadrifidus; laciniis ovatis, acutis, planis, patentibus.</p> <p>STAMINA. Filamenta octo, brevia, tubo inserta; alterna inferiora. Antheræ subrotundæ, erectæ, biloculares.</p> <p>PISTILLUM. Germen ovatum. Stylus brevissimus. Stigma capitatum, depresso-planum.</p> <p>PERICARPIUM. Bacca subrotunda, unilocularis.</p> <p>SEMEN unicum, subrotundum, carnosum.</p>	<p>EMPALEMENT, none.</p> <p>BLOSSOM one petal, funnel-shaped. Tube cylindrical, closed at the base, longer than the border. Border four-cleft; segments egg-shaped, sharp, flat, and spreading.</p> <p>CHIVES. Eight short threads, fixed to the tube; four alternately lower than the others. Tips roundish, upright, with two cells.</p> <p>POINTAL. Seed-bud egg-shaped. Shaft very short. Summit a low, smooth knob.</p> <p>SEED-VESSEL. A roundish berry, of one cell.</p> <p>SEED, single, roundish, and fleshy.</p>
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SPECIFIC CHARACTER.

<p><i>Daphne</i>, pedunculus axillaribus, bifloris; foliis obovatis, nitidis.</p>	<p>Spurge-laurel, the fruit stalks growing from the base of the leaves, with two flowers each; leaves inversely egg-shaped, and shining.</p>
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REFERENCE TO THE PLATE.

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

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



Sambucus racemosa

PLATE LXXIV.

PERSOONIA LANCEOLATA.

Lance-shaped leaved Persoonia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

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

Nectarie. Glandulae quatuor globosae, ad basin germinis.

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

PISTILLUM. Germen superum, ovatum. Stylus fubulatus, glaber, persilens. Stigma obtusum, declinatum.

PERICARPIUM. Drupa subrotunda, monosperma.

SEMEN. Nux ossa, subrotunda, compressa.

EMPALEMENT, none.

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

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

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

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

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

SEED. A hard, roundish nut, flattened.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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Sesuvium laevigatum





PLATE LXXV.

PHYSALIS PROSTRATA.

Trailing Winter-cherry.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CLAYX. Perianthium monophyllum, ventricosum, semi quinquefidum, pentagonum; laciniis acuminatis; persistens.	EMPALEMENT. Cup one leaf, bellied, half five-cleft, and five-sided; the segments are tapered; permanent.
COROLLA. Monopetala, rotata. Tubus brevissimus. Limbus semiquinquefidus, magnus, plicatus.	BLOSSOM, one petal, wheel-shaped. Tube very short. Border half five-cleft, large, and plaited.
STAMINA. Filamenta quinque, subulata, minima, conniventia. Antheræ erectæ, conniventes.	CHIVES. Five threads, awl-shaped, very small, and approaching. Tips upright, and approaching.
PISTILLUM. Germen subrotundum. Stylus filiformis, staminibus fere longior. Stigma obtusum.	POINTAL. Seed-bud roundish. Shaft thread-shaped, hardly longer than the chives. Summit blunt.
PERICARPIUM. Bacca sub-globosa, bilocularis, intra calycem maximum, inflatum, clausum, pentagonum.	SEED-VESSEL. A roundish berry, two-celled, within a large, swelled, close-mouthed, five-sided cup.
SEMINA plurima, reniformia, compressa.	SEEDS many, kidney-shaped, and flat.

SPECIFIC CHARACTER.

<i>Physalis</i> , ramosissima, prostrata, hispida; foliis subcarnosis; corollis cæruleis.	Winter Cherry, very branching, trailing, and hairy; leaves nearly fleshy; blossoms blue.
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REFERENCE TO THE PLATE.

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

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



Physalis peruviana





PLATE LXXVI.

PROTEA PINIFOLIA.

Pine-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Protea purpurea



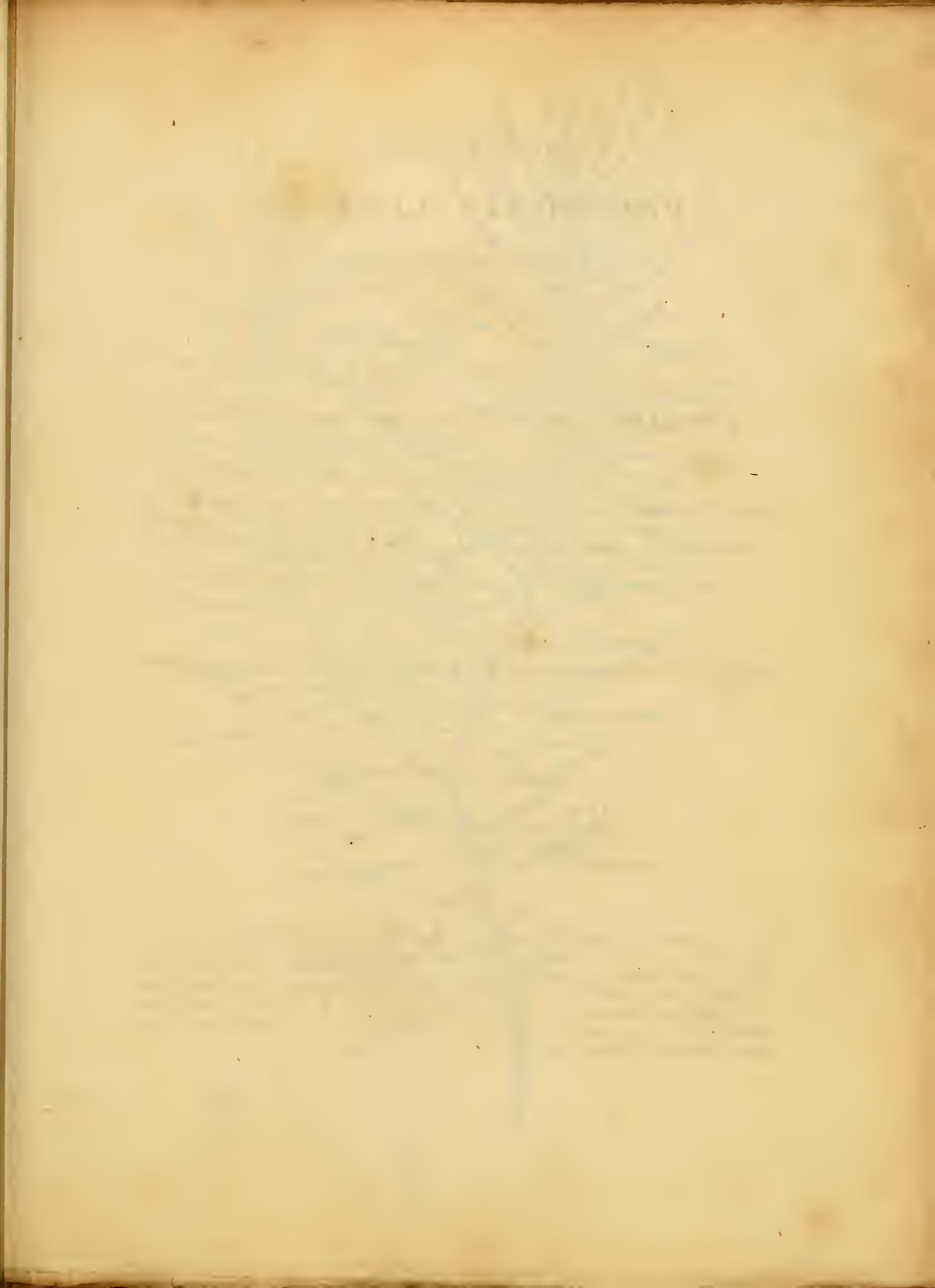


PLATE LXXVII.

PERSOONIA LINEARIS.

Linear-leaved Persoonia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

See PERSOONIA LANCEOLATA. Pl. LXXIV.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Crucianus lucida



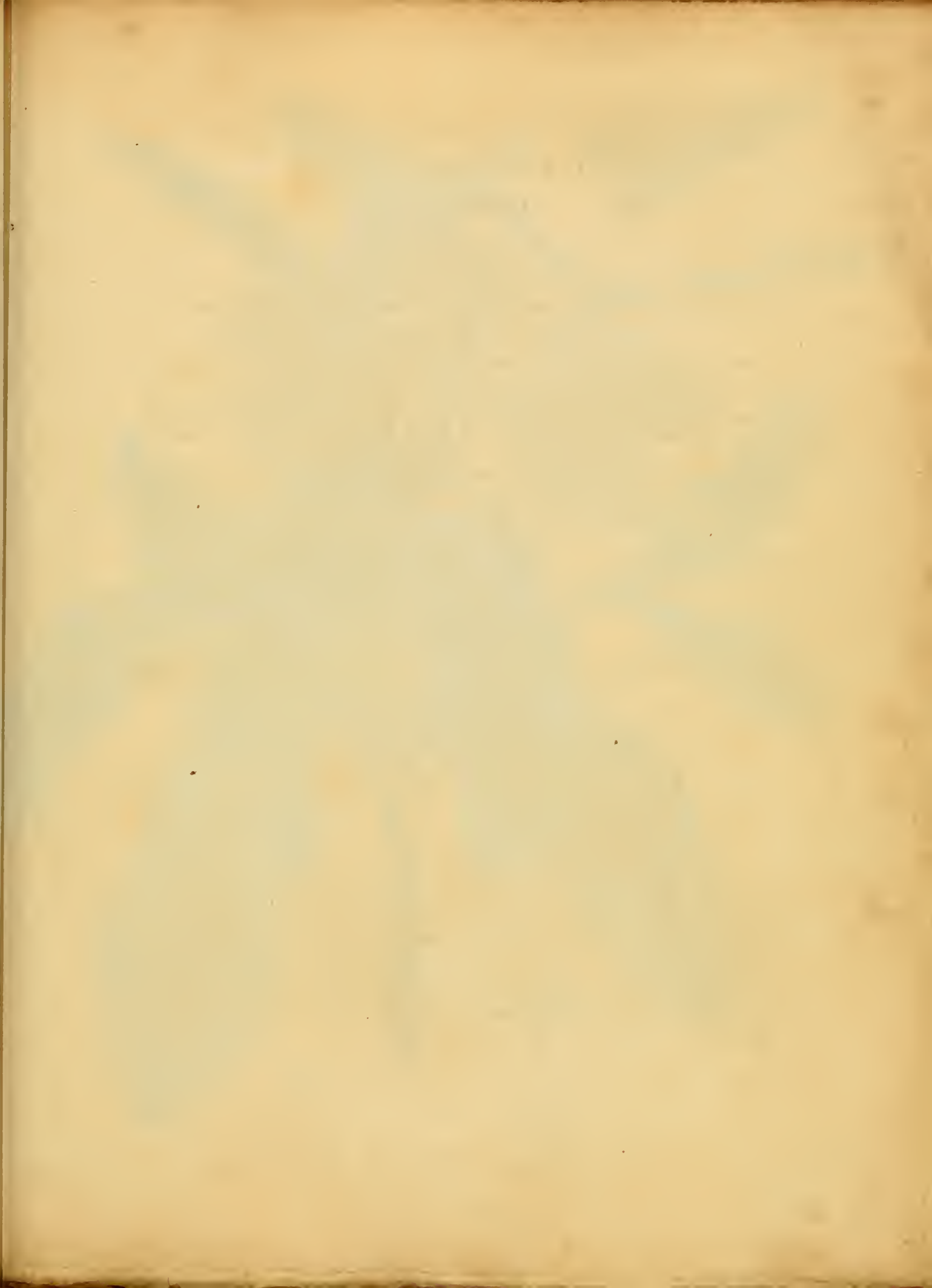


PLATE LXXVIII.

IXORA PAVETTA.

Sweet Ixora.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quadripartitum, minimum, erectum, persistens.

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

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

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

PERICARPIUM. Bacca subrotunda, bilocularis.

SEMINA duo, hinc convexa, inde angulata.

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Tronchocarpus



THE HISTORY OF THE
CITY OF BOSTON

The history of the city of Boston is a subject of great interest and importance. It is a city that has played a significant role in the development of the United States. The city was founded in 1630 and has since grown into one of the largest and most important cities in the country. The history of the city is filled with interesting events and people. One of the most important events in the city's history was the Boston Tea Party in 1773. This event led to the American Revolution and the founding of the United States. The city has also been the site of many other important events, including the Boston Massacre in 1770 and the Boston Convention of 1846. The city has a rich cultural heritage and is home to many famous people, including John F. Kennedy and Martin Luther King Jr. The city is also known for its beautiful harbor and its many parks and museums. The history of the city is a testament to its resilience and its ability to overcome adversity. It is a city that has shaped the course of American history and continues to play an important role in the world today.

PLATE LXXIX.
CROWEA SALIGNA.

Willow-leaved Crowea.

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

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquepartitum, laciniis ovatis.

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

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

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

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

SEMINA solitaria, reniformia, glabra, arillata.

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Croton saligna



THE HISTORY OF THE
CITY OF BOSTON

FROM 1630 TO 1800

BY
J. B. STODOLSKY

NEW YORK: THE HISTORICAL SOCIETY OF THE CITY OF BOSTON, 1900



PLATE LXXX.
BUCHNERA FŒTIDA.

Stinking Buchnera.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

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

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

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

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

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

SEMINA numerosa, angulata.

RECEPTACULUM medio dissepimenti adnatum.

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

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

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

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

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

SEEDS numerous, and angular.

RECEPTACLE fixed to the middle of the partition.

SPECIFIC CHARACTER.

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

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

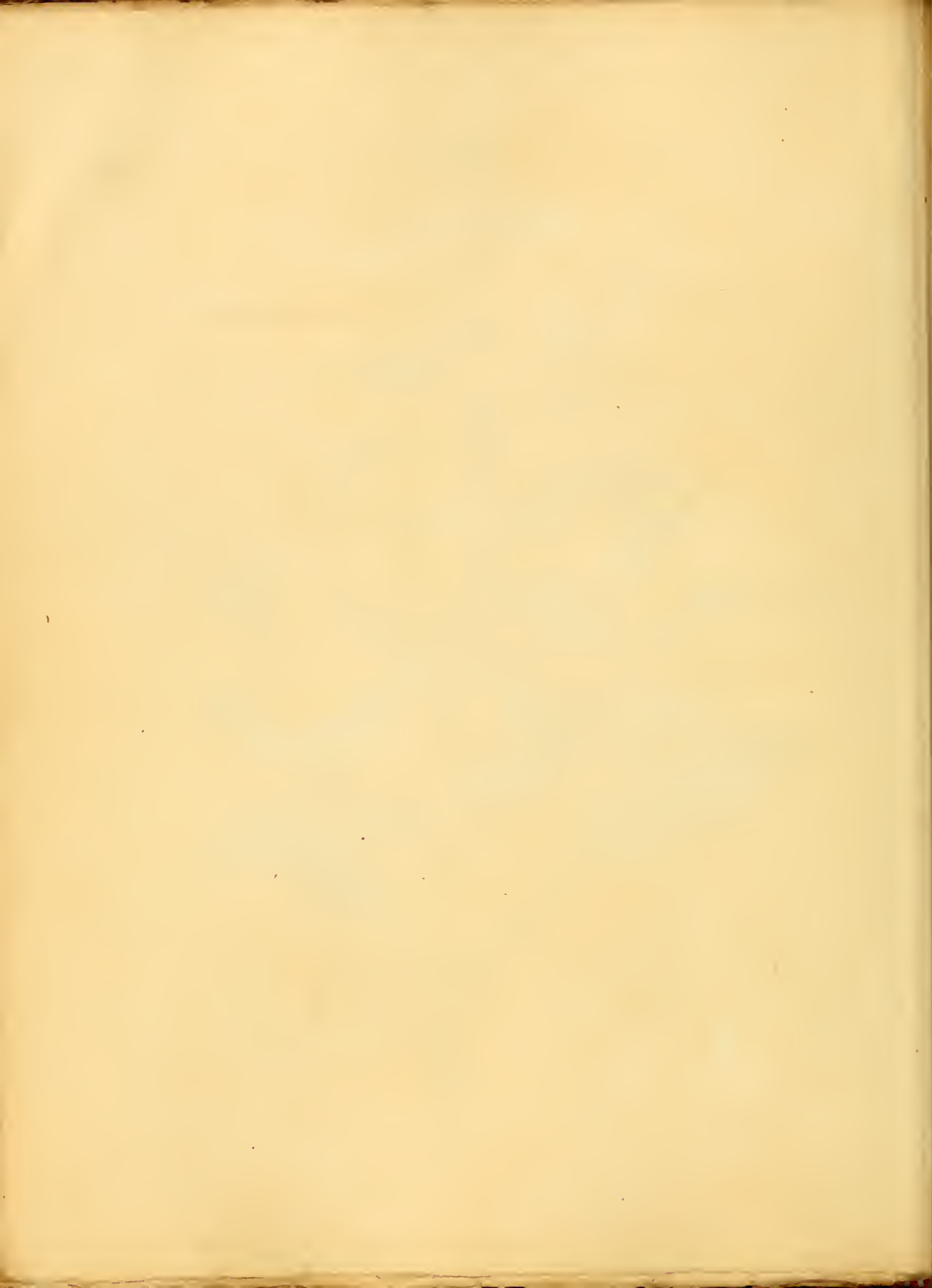
REFERENCE TO THE PLATE.

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

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



Brunnera latifolia



THE HISTORY OF THE

REIGN OF CHARLES THE FIRST

BY JOHN BURNET

PLATE LXXXI.
SOWERBIA JUNCEA.

Rush-like Sowerbia.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Involucrum hexaphyllum, multiflorum; foliis erectis, scariosis, persistentibus.	EMPALEMENT. Fence six-leaved, containing many flowers; the small leaves are upright, skinny, and permanent.
COROLLA. Petala sex, infera, persistentia; laciniis ovatis, concavis.	BLOSSOM. Six petals, beneath and remaining; segments egg-shape, and concave.
STAMINA. Filamenta sex, sub-globosa, carnosa, germen cingens; ex quibus tria biantherifera, sterilibus tribus interflinctis. Antheræ geminæ, lineares, erectæ.	CHIVES. Six threads almost round, fleshy, surrounding the seed bud; of which three bear two chives, each parted by three sterile ones. Tips double, linear, and upright.
PISTILLUM. Germen superum. Stylus filiformis, longitudine staminum. Stigma simplex.	POINTAL. Seed-bud above. Shaft thread-shaped, the length of the chives. Summit simple.
PERICARPIUM. Capsula obtusetrigona, oblonga, trilocularis, trivalvis.	SEED-VESSEL. Capsule bluntly three-sided, oblong, three-celled, three-valved.
SEMINA plura, angulata.	SEEDS many, angular.

SPECIFIC CHARACTER.

Sowerbia, foliis teretibus, mucronatis; scapo nudo, flexuoso; umbella globosa; floribus petiolis longissimis.	Sowerbia, with cylindrical leaves pointed at the ends; flower-stem naked and crooked; the umbel globular; flowers with very long foot-stalks.
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REFERENCE TO THE PLATE.

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

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



Sorvestra juncea

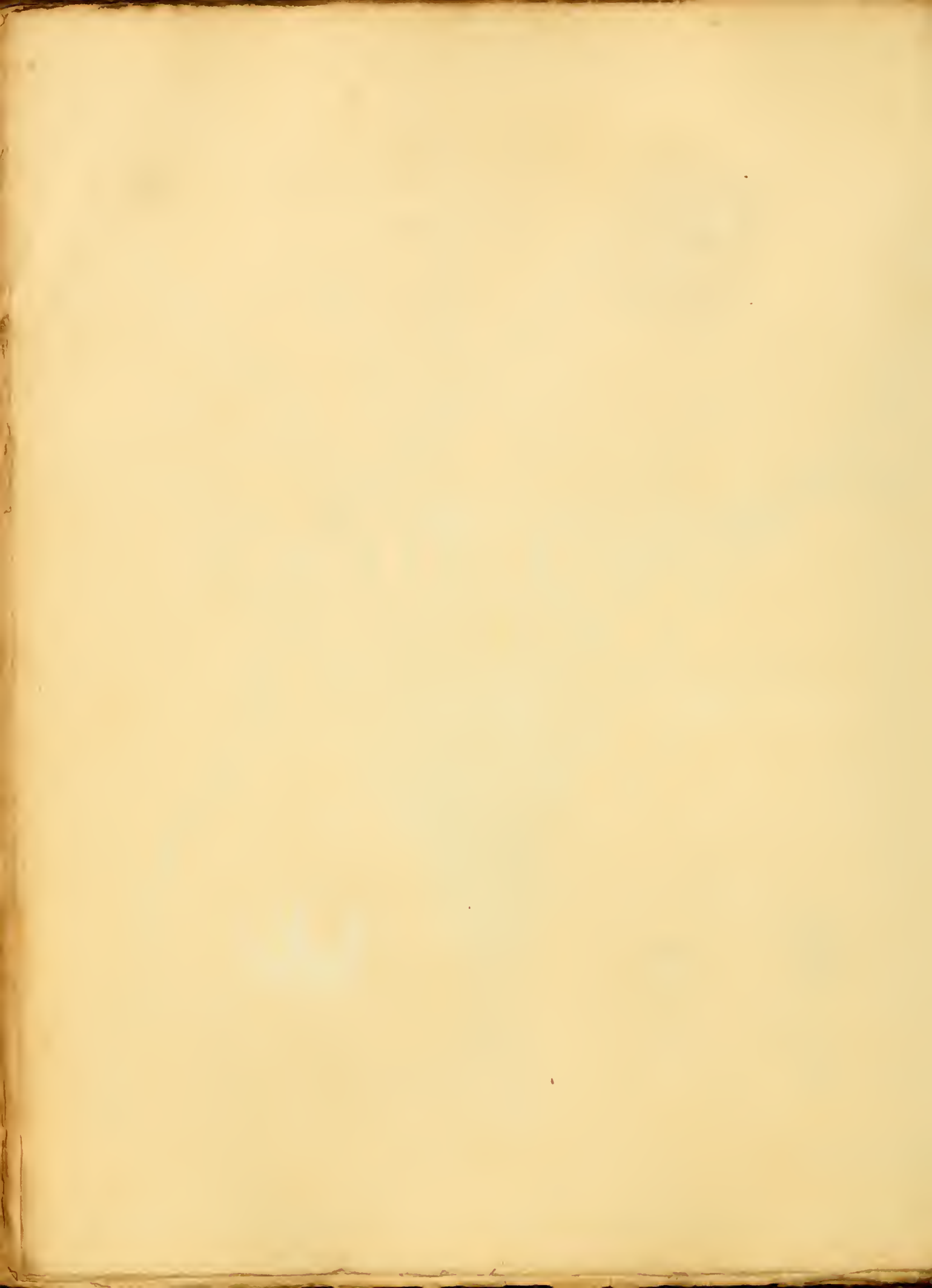




PLATE LXXXII.
BANKSIA SERRATA.
Sawed-leaved Banksia.

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

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

CALYX. Perianthium monophyllum, quadrifidum, inferum.

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

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

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

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

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

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

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

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

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

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

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

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

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

SPECIFIC CHARACTER.

Banksia foliis linearibus, in petiolum attenuatis, æqualiter ferratis, apice truncatis cum mucrone.

Banksia with linear leaves, tapering to the foot-stalks, equally sawed at the edge, appearing cut off at the end with a sharp point.

REFERENCE TO THE PLATE.

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

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



Banksia serrata



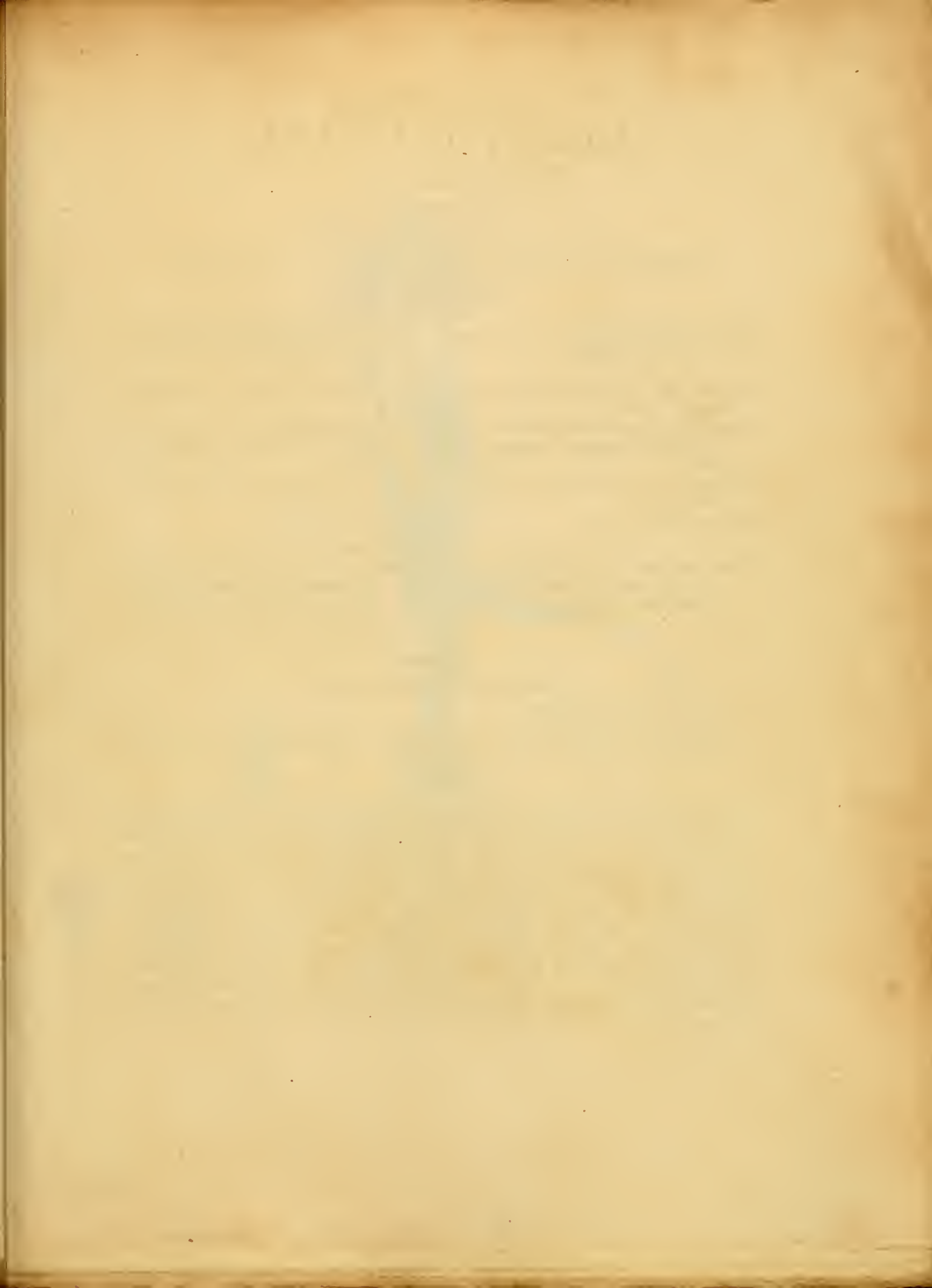


PLATE LXXXIII.
MORÆA TRICOLOR.

Three-coloured Moræa.

CLASS III. ORDER I.
TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.
COROLLA hexapetala, patens; petala tria interiora patentia, angustiora.
STAMINA. Filamenta tria, brevia. Antheræ oblongæ.
PISTILLUM. Germen inferum, oblongum. Stylus simplex, brevissimus. Stigmata tria, bifida.
PERICARPIUM. Capsula trigona, trifurcata, trilocularis.
SEMINA plurima, rotunda.

EMPALEMENT. Sheaths of two valves.
BLOSSOM six petals, spreading; the three innermost petals are more spread out and narrower.
CHIVES. Three short threads. Tips oblong.
POINTAL. Seed-bud beneath and oblong. Shaft simple, and very short. Summits three, two-cleft.
SEED-VESSEL. Capsule three sided, three-furrowed, three cells.
SEEDS many, and round.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Monca tricolor



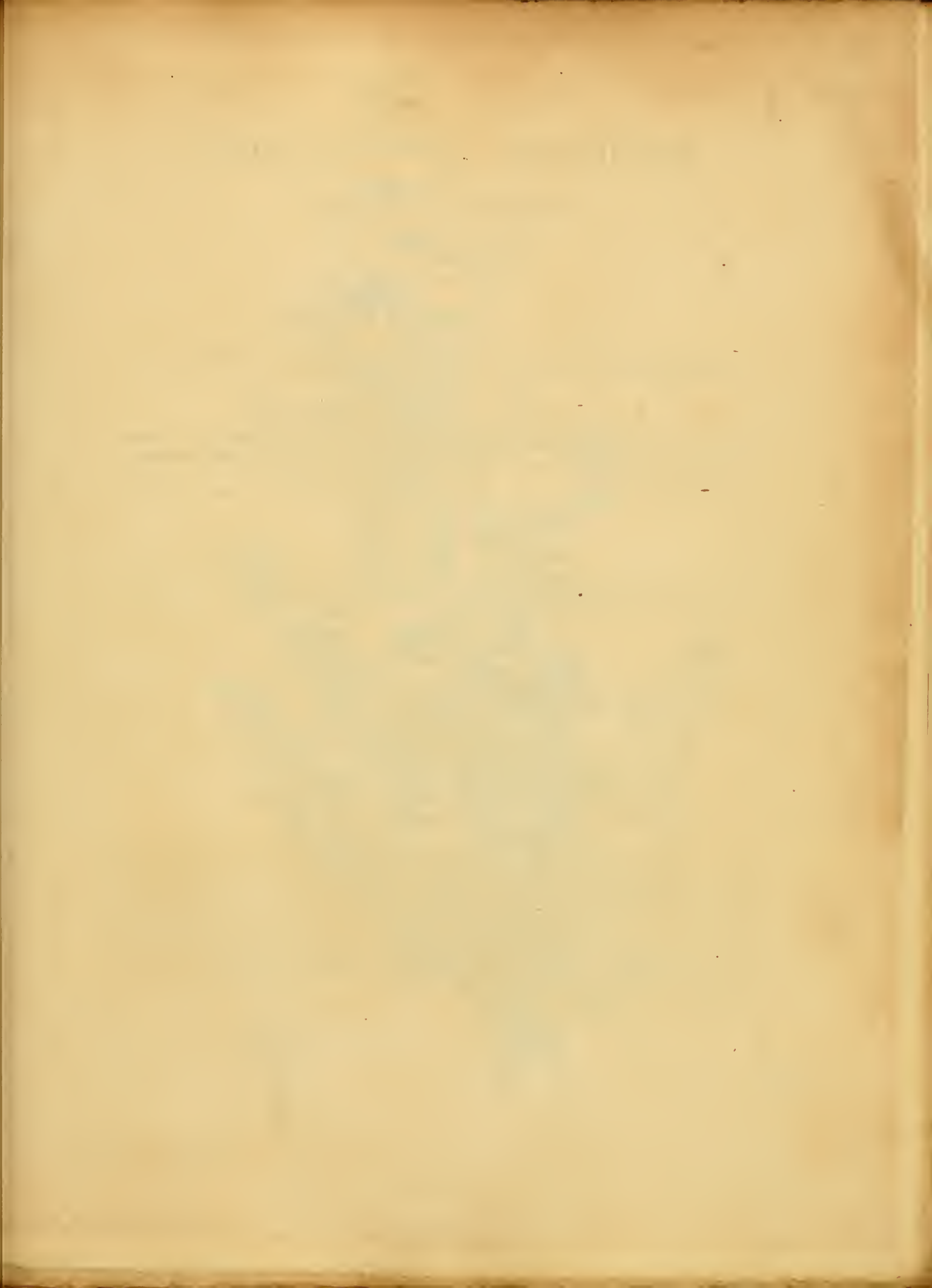


PLATE LXXXIV.

BUCHNERA PEDUNCULATA.

Solitary-flowered Buchnera.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

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

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

See BUCHNERA FÆTIDA. Pl. LXXX.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Buchnera patunculata.

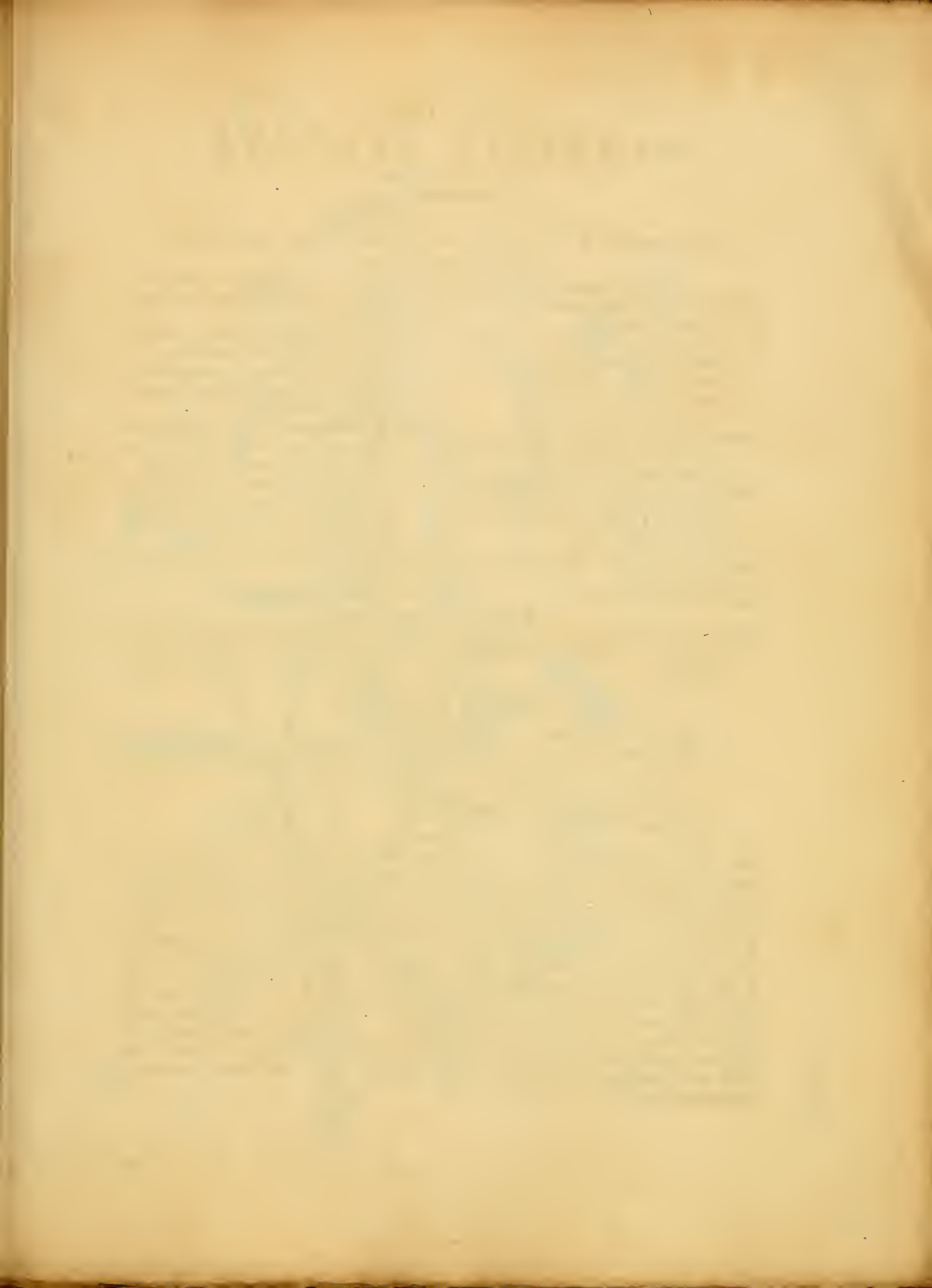


PLATE LXXXV.
MAHERNIA ODORATA.
Sweet Mahernia.

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

GENERIC CHARACTER.

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

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

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

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

PERICARPIMUM. Capsula ovata, quinquelocularis, quinquevalvis.

SEMINA nonnulla, reniformia.

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

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

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

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

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

SEEDS a few, kidney-shaped.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Malva edulis





PLATE LXXXVI.
BIGNONIA PANDORANA.

Norfolk Island Trumpet Flower.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

CALYX quinquefidus, cyathiformis.

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

EMPALEMENT, five-cleft, cup-shaped.

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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



Bigonia pandorana



PLATE LXXXVII.

IXIA ARISTATA. *Var. atropurpurea.*

Ragged-sheathed Ixia. Var. dark purple.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

SPECIFIC CHARACTER.

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

REFERENCE TO THE PLATE.

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

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



L. aristata





PLATE LXXXVIII.
ERANTHEMUM PULCHELLUM.
Blue-flowered Eranthemum.

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

GENERIC CHARACTER.

CALYX. Perianthium quinquefidum, tubulosum, erectum, membranaceum, persistens.
COROLLA monopetala, infundibuliformis; tubus filiformis, longissimus. Limbus quinquepartitus, planus; laciniis obovatis, æqualibus.
STAMINA. Filamenta duo, ad basin spiralia, in fauce corollæ. Antheræ subovatae, compressæ, extra tubum.
PISTILLUM. Germen ovatum, compressum. Stylus filiformis, longitudine staminum. Stigmata duo, inæqualia, erecta.
PERICARPIUM. Capsula spatulata, compressa, bivalvis, bilocularis, dissipimento valvulis contrario.
SEMINA solitaria, lentiformia.

EMPALEMENT. Cup five cleft, tubular, upright, skinny, and remaining.
BLOSSOM one petal, funnel-shaped; tube thread-shaped, and very long. Border divided into five, and flat; the segments are inversely egg-shaped, and equal.
CHIVES. Two threads, spiral at the base, at the mouth of the blossom. Tips nearly egg-shaped, flattened, and without the tube.
POINTAL. Seed-bud egg-shaped and flattened. Shaft thread-shaped, the length of the chives. Summits two unequal, and upright.
SEED-VESSEL. Capsule spatula shape, flattened, two valves, two cells, the partition contrary to the valves.
SEEDS solitary, lentil shape.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

ERANTHEMUM, although standing in our ancientest tables, as a name to different plants; must have been, hitherto, considered as a dead letter in all our modern ones, as attached to the tribe of plants it now titles: but perhaps, to none of the former more aptly could it have been applied; (especially this species, as the Greek word *Ἐράνθεμον*, a compound of *Ἡρὸς* the spring, and *ἀνθῆμι* to blossom, fairly indicates;) since the *E. pulchellum* first begins to flower in January, and continues to blossom till May. Linnæus in treating this Genus, acknowledges to have seen but one imperfect specimen; and from this circumstance, left the description of the seed-vessel, and seed, to be determined by future Botanists; as yet, that has not been accomplished, even by the indefatigable and accurate Schreber: indeed, had the character of the pointal been likewise omitted, it would have been as well; since, in place of one, the two unequal summits, (which might escape observation in a dried specimen, from their disproportion in length, and upright situation;) point out a stronger Generical distinction from *Jussiaea*, to which it much affines, than either, the regular shape of the limb of the blossom, or the situation of the chives. Our species is a native of the coast of Coromandel, in the East Indies, and was first received in seeds from Dr. Roxburg, at the Royal gardens Kew, in the year 1790. It is a most desirable plant, for although it has hitherto been kept in the hot-house, we have no doubt from its flowering and thriving there, with so little care, in any situation; but that it will soon be considered as a proper inhabitant of the greenhouse. It is with the greatest ease, and certainty, increased by cuttings. Our drawing was made this month, from a plant in flower at the Hammermith nursery.



Enantheum pulchellum



1850

1850



PLATE LXXXIX.

GNIDIA LÆVIGATA.

Shining-leaved Gnidia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX infundibuliformis, 4-fidus. Petala quatuor, calyci inserta. Semen unum, subbaccatum. || Cup funnel-shaped, 4-cleft. Four petals fixed into the cup. One seed, something like a berry.
See *Gnidia pinifolia*, Pl. LII. Vol. I.

SPECIFIC CHARACTER.

Gnidia foliis oppositis, glabris, ovatis, quadrifariam imbricatis; floribus terminalibus, sessilibus, luteis. || *Gnidia* with opposite smooth egg-shaped leaves, forming four angles and tiled; flowers terminate the branches, sitting close to the stem, and yellow.

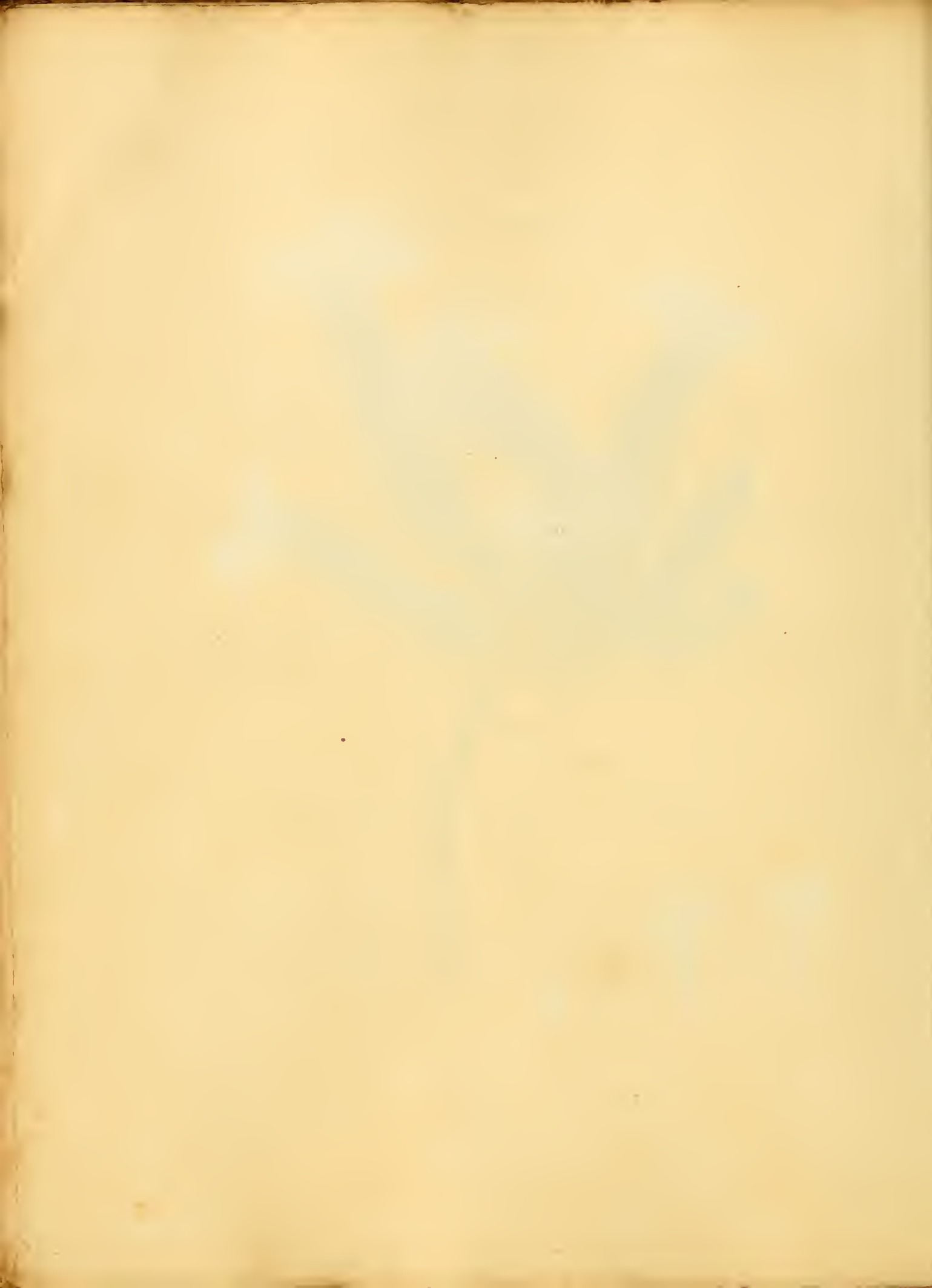
REFERENCE TO THE PLATE.

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

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



Gmelina leucophaea



MISSOURI STATE



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PLATE XC.
SEPTAS CAPENSIS.

Cape Septas.

CLASS VII. ORDER IV.
HEPTANDRIA HEPTAGYNIA. Seven Chives. Seven Pointals.

GENERIC CHARACTER.

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

SPECIFIC CHARACTER.

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

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

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



Sepias Capensis.

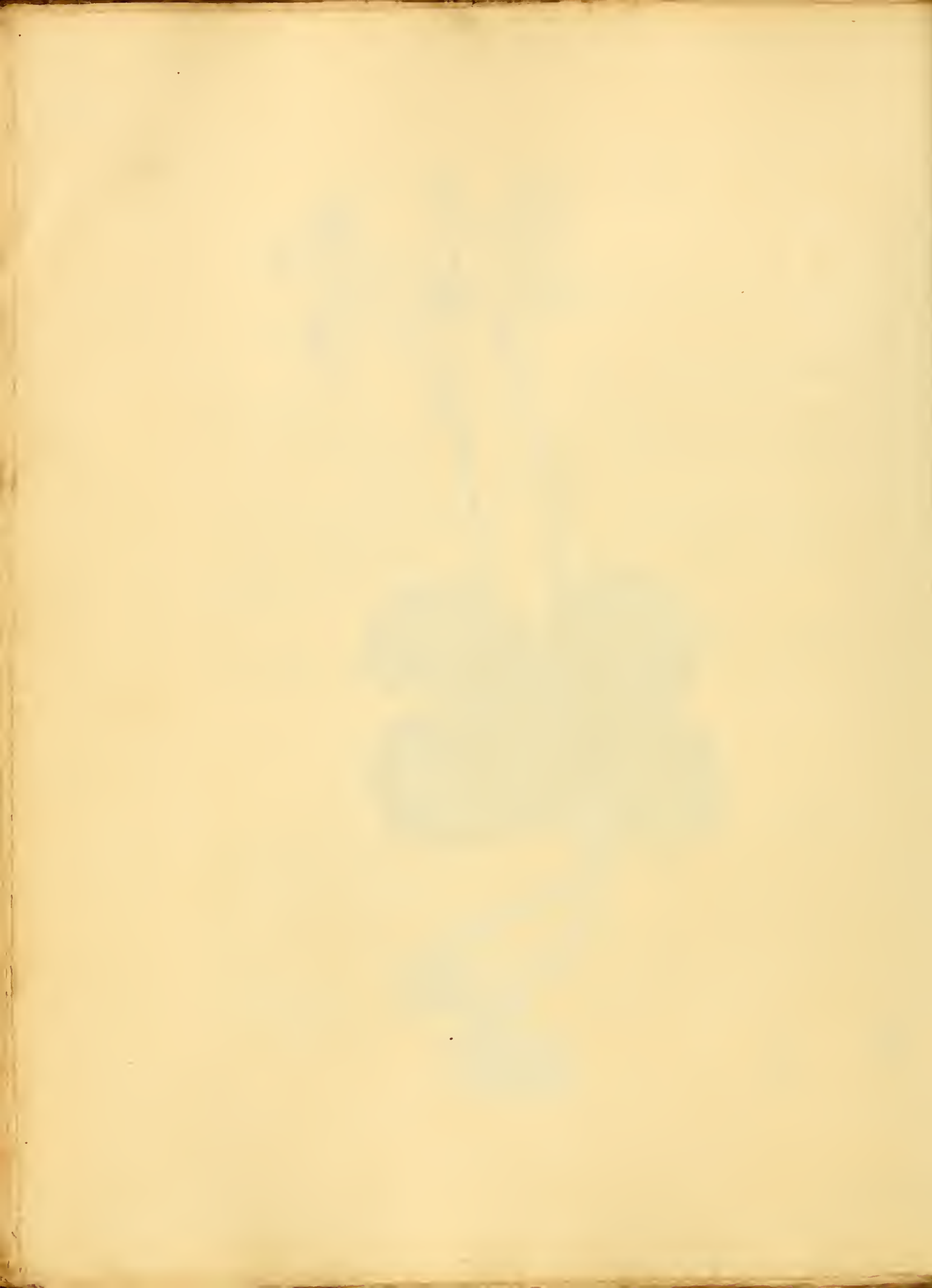




PLATE XCI.

CAMELLIA JAPONICA. *Var. flore pleno variegato.*

Double-striped Camellia.

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

MONODELPHIA POLYANDRIA. Threads united. Many Chives.

ESSENTIAL GENERIC CHARACTER.

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

SPECIFIC CHARACTER OF VARIETY.

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

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

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



Camellia japonica.
var. flore variegata

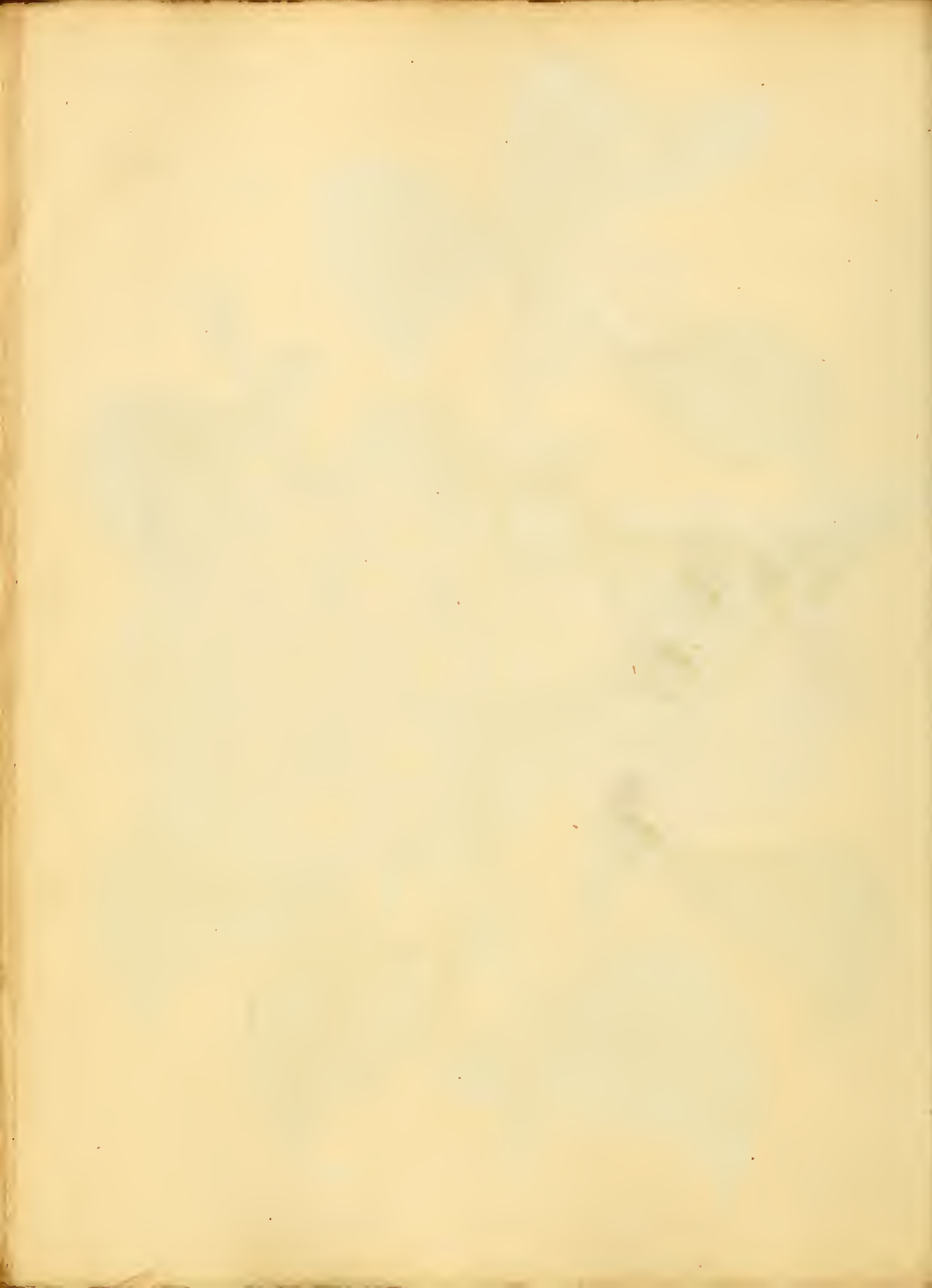




PLATE XCII.
CRINUM SPIRALE.
Spiral-stalked Asphodel Lily.

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

GENERIC CHARACTER.

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

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

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

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

PERICARPIUM. Capsula sub-ovata, trilocula-
 ris.

SEMINA plura.

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

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

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

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

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

SEEDS many.

SPECIFIC CHARACTER.

Crinum foliis filiformibus; scapo filiformi, spi-
 rali.

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

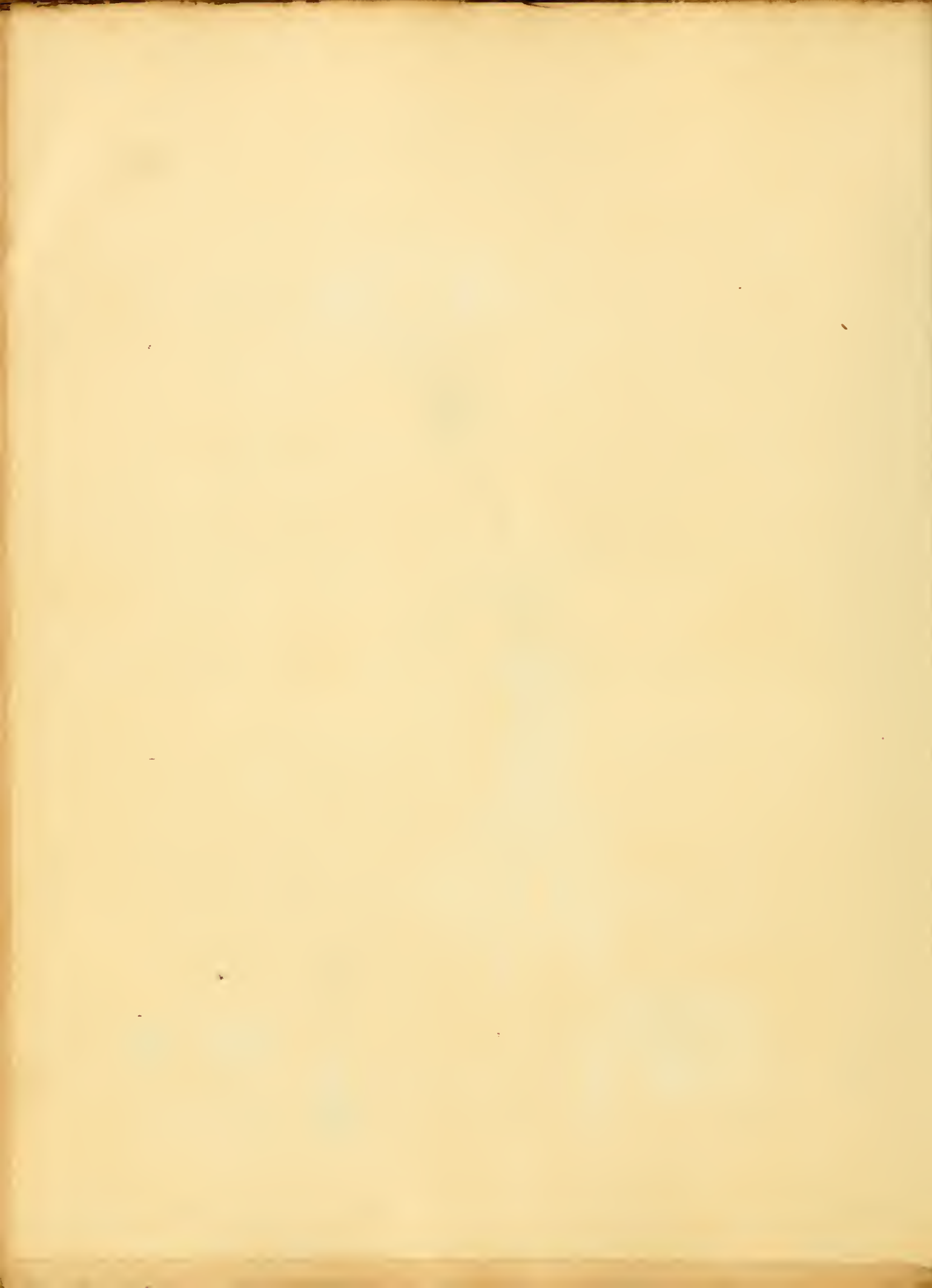
REFERENCE TO THE PLATE.

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

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



Gronum spirale.



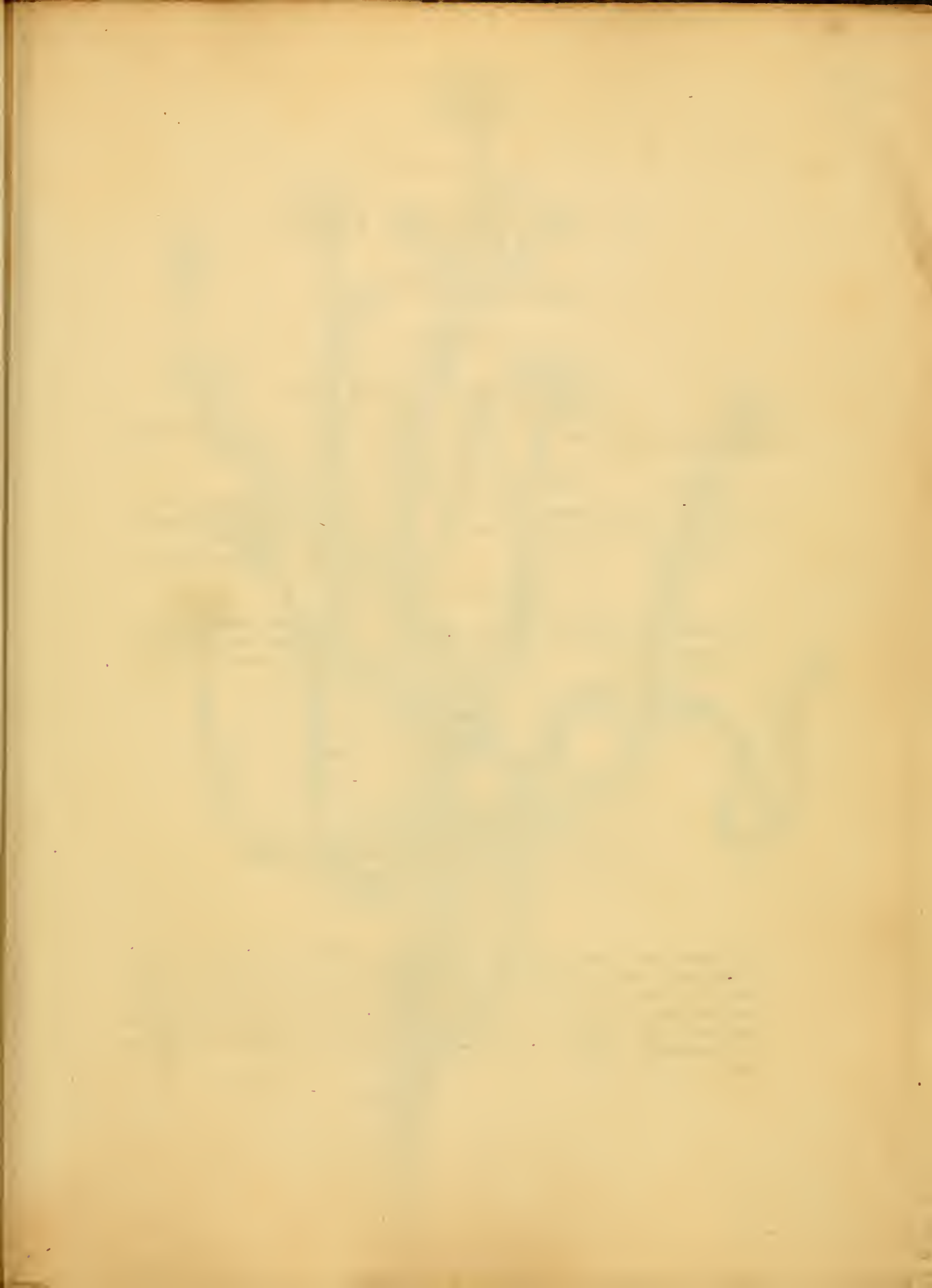


PLATE XCIII.

ASTER REFLEXUS.

Reflexed-leaved Starwort.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

ESSENTIAL GENERIC CHARACTER.

RECEPT. nudum. Pappus simplex. Cor. radii plures 10. Cal. imbricati squamæ interi- ores patulæ.		RECEPT. naked. Feather simple. Florets of the circumference 10 or more. Cup tiled, the innermost scales spread outward. See <i>Aster dentatus</i> , Pl. LXI.
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SPECIFIC CHARACTER.

After fruticosus, foliis ovatis sub-imbricatis, re- curvatis, serratis; floribus solitariis, termi- nalibus, sessilibus.		Starwort with egg-shaped leaves, almost tiled, bent backward and fawed; flowers grow solitary, terminal, and sit close to the ends of the branches.
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REFERENCE TO THE PLATE.

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

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



Aster reflexus.



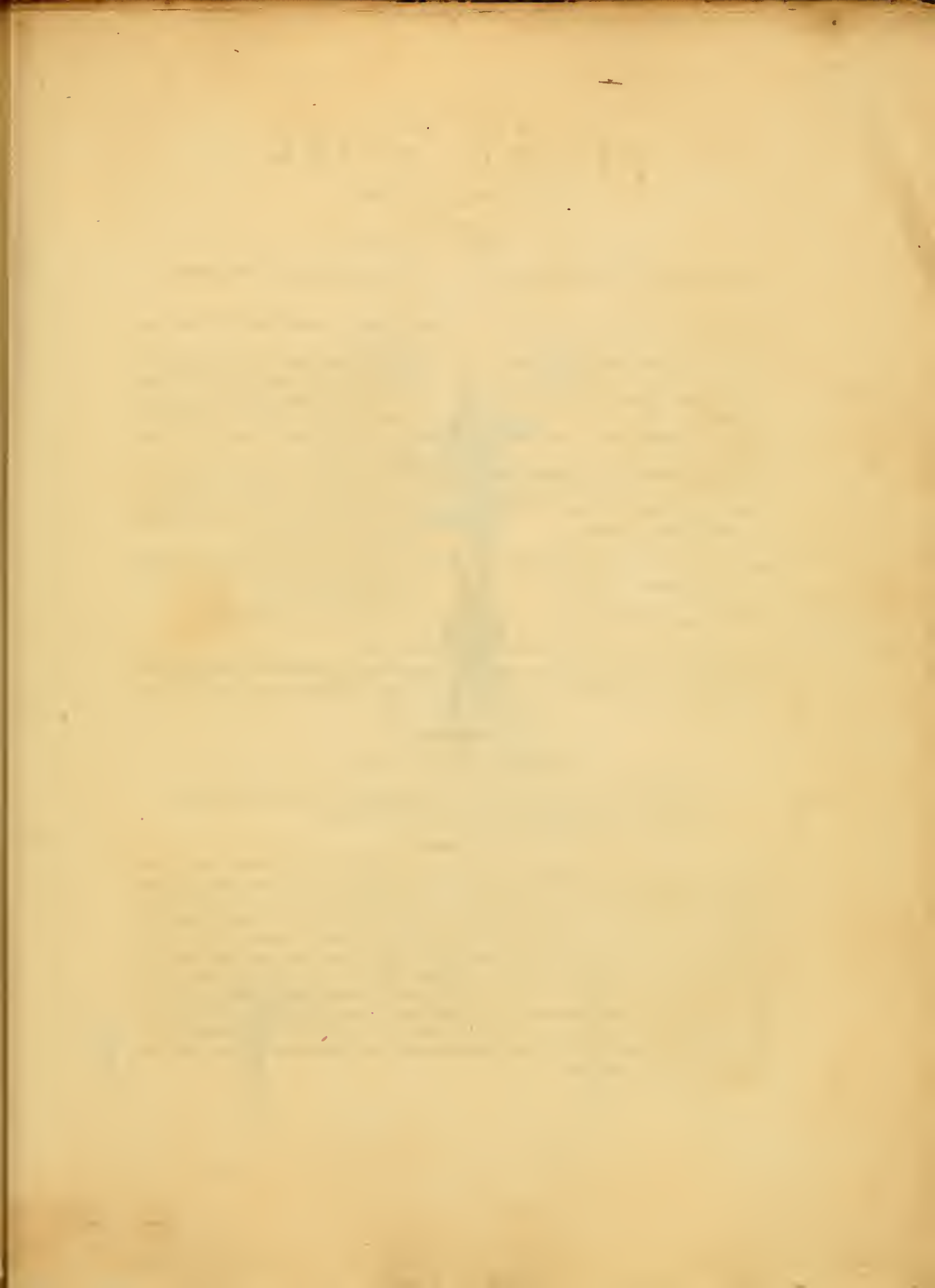


PLATE XCIV.
GALAXIA OVATA.

Oval-leaved Galaxia.

CLASS XVI. ORDER I.

MONADELPHIA TRIANDRIA. Threads united. Three Chives.

GENERIC CHARACTER.

<p>CALYX. Spatha univalvis, membranacea, connivens.</p> <p>COROLLA monopetala, supra; tubus filiformis, longus, erectus, apice paululum ampliatum; limbus sexpartitus; laciniis obovatis, patentibus.</p> <p>STAMINA. Filamenta tria, in cylindrum conata. Anthera ovata.</p> <p>PISTILLUM. Germen inferum, obtuse triangulare, glabrum. Stylus filiformis, staminibus paulo longior. Stigmata tria, filiformi-multipartita, patentia.</p> <p>PERICARPIUM. Capsula oblongo-subcylindrica, trifurca, trilocularis, trivalvis.</p> <p>SEMINA plurima, globosa, minima.</p>	<p>EMPALEMENT. Sheath of one valve, skinny, and closing.</p> <p>BLOSSOM, one leaf, above; tube thread-shaped, long, upright, the upper part a little widened; border divided into six parts; segments inversely egg shaped and spreading.</p> <p>CHIVES. Three threads forming a cylinder. Tips egg-shaped.</p> <p>POINTAL. Seed bud beneath, obtusely triangular and smooth. Shaft thread-shaped, a little longer than the chives. Three summits, each divided into a number of small threads, and spreading.</p> <p>SEED-VESSEL. Capsule of an oblong, and almost cylindrical shape, with three furrows, three cells, and three valves.</p> <p>SEEDS numerous, globular, and small.</p>
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SPECIFIC CHARACTER.

<p>Galaxia foliis ovatis margine ciliatis; corollis longissimis, arcuatis, flavis.</p>	<p>Galaxia with egg-shaped leaves, fringed at the edge; blossoms very long, bowed, and yellow.</p>
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REFERENCE TO THE PLATE.

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

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



Gulascia ovata



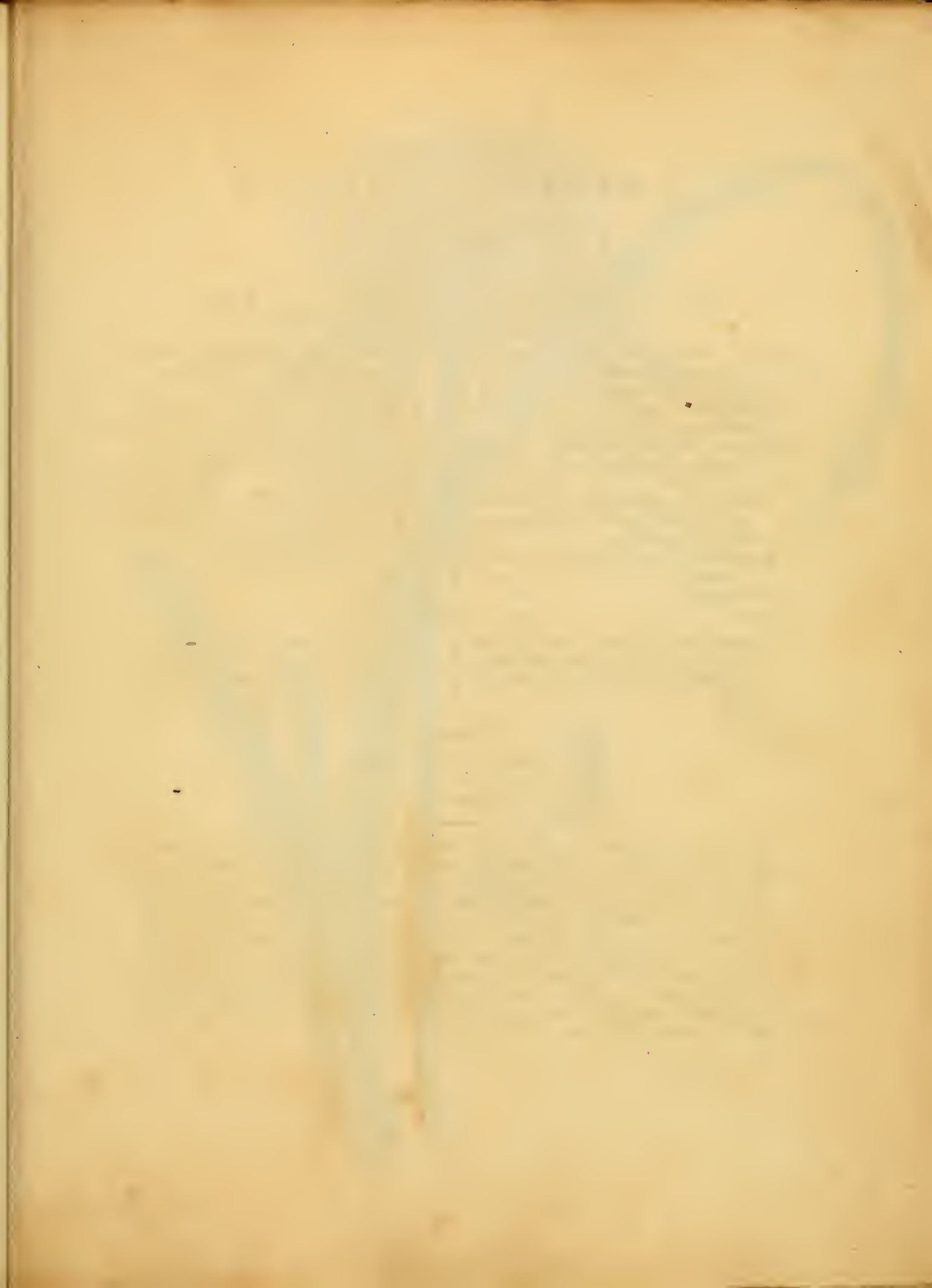


PLATE XCV.
AMARYLLIS RADIATA.
Rayed Lily Daffodil.

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

GENERIC CHARACTER.

<p>CALYX. Spatha oblonga, obtusa, compressa, emarginata, marcescens.</p> <p>COROLLA. Petala sex lanceolata. <i>Nectarium</i> squamis sex, extra basin filamentorum, brevitlimis.</p> <p>STAMINA. Filamenta sex subulata. Antheræ oblongæ, incumbentes, affurgentes.</p> <p>PISTILLUM. Germen inferum. Stylus filiformis, longitudine ferme et situ staminum. Stigma trifidum, tenue.</p> <p>PERICARPIUM. Capsula subovata, trilocularis, trivalvis.</p> <p>SEMINA plura.</p>	<p>EMPALEMENT. Sheath oblong, blunt, compressed, notched at the end, and withering.</p> <p>BLOSSOM. Six lance-shaped petals. <i>Honey-cup</i>, six scales from the base of the threads, very short.</p> <p>CHIVES. Six awl-shaped threads. Tips oblong, fixed sideways to the threads, and turned up at the end.</p> <p>POINTAL. Seed bud beneath. Shaft thread-shaped, almost the length and situation of the chives. Summit three-cleft, slender.</p> <p>SEED-VESSEL. Capsule nearly egg-shaped, three cells, three valves.</p> <p>SEEDS many.</p>
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SPECIFIC CHARACTER.

<p><i>Amaryllis</i> spatha multiflora; corollis revolutis, undulatis, lanceolatis; genitalibus deflexis, divergentibus, corolla triplo longioribus.</p>	<p>Lily Daffodil, with many flowers in the sheath; blossoms turned backward, waved and lance-shaped; the parts of fructification are bent downward, spread from the centre, and thrice the length of the blossom.</p>
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REFERENCE TO THE PLATE.

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

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



Amaryllis radiata





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

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

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, campanulatum, quinquefidum, acutum, coloratum, persistens.</p> <p>COROLLA. Petala quinque, subrotunda, erecto-patentia, calyci inserta.</p> <p>STAMINA. Filamenta numerosa, capillaria, calyce breviora, calyci inserta. Anthera oblongiusculæ.</p> <p>PISTILLUM. Germen inferum. Stylus simplex, longitudine staminum. Stigma capitatum.</p> <p>PERICARPIUM. Pomum subglobosum, magnum, coronatum calyce, novemloculare, dissepimentis membranaceis.</p> <p>SEMINA plurima, angulata, succulenta. Receptaculum carnosum, singulum loculamentum pericarpium bifarium dividens.</p>	<p>EMPALEMENT. Cup one leaf, bell-shaped, five-cleft, pointed, coloured, and remaining.</p> <p>BLOSSOM. Five petals, roundish, upright and spreading, attached to the cup.</p> <p>CHIVES. Threads numerous, hair like, shorter than the cup, and fixed to it. Tips nearly oblong.</p> <p>POINTAL. Seed-bud beneath. Shaft simple, the length of the chives. Summit a knob.</p> <p>SEED VESSEL. A large and nearly round apple, crowned by the cup, five-celled, the partitions skinny.</p> <p>SEEDS numerous, angulated, and juicy. Receptacle fleshy, and dividing each cell of the seed-vessel into two.</p>
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SPECIFIC CHARACTER.

<p><i>Punica</i> foliis lanceolatis, caule arboreo.</p>	<p>Pomegranate with lance-shaped leaves, and tree-like stem.</p>
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DIFFERENCE IN VAR.

<p><i>Punica Gra:</i> Foliis majoribus, pallidioribus; floribus sub-albidis.</p>	<p>Pomegranate with larger and paler leaves; flowers nearly white.</p>
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REFERENCE TO THE PLATE.

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

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



Penca granulum
var. *flor. lila*

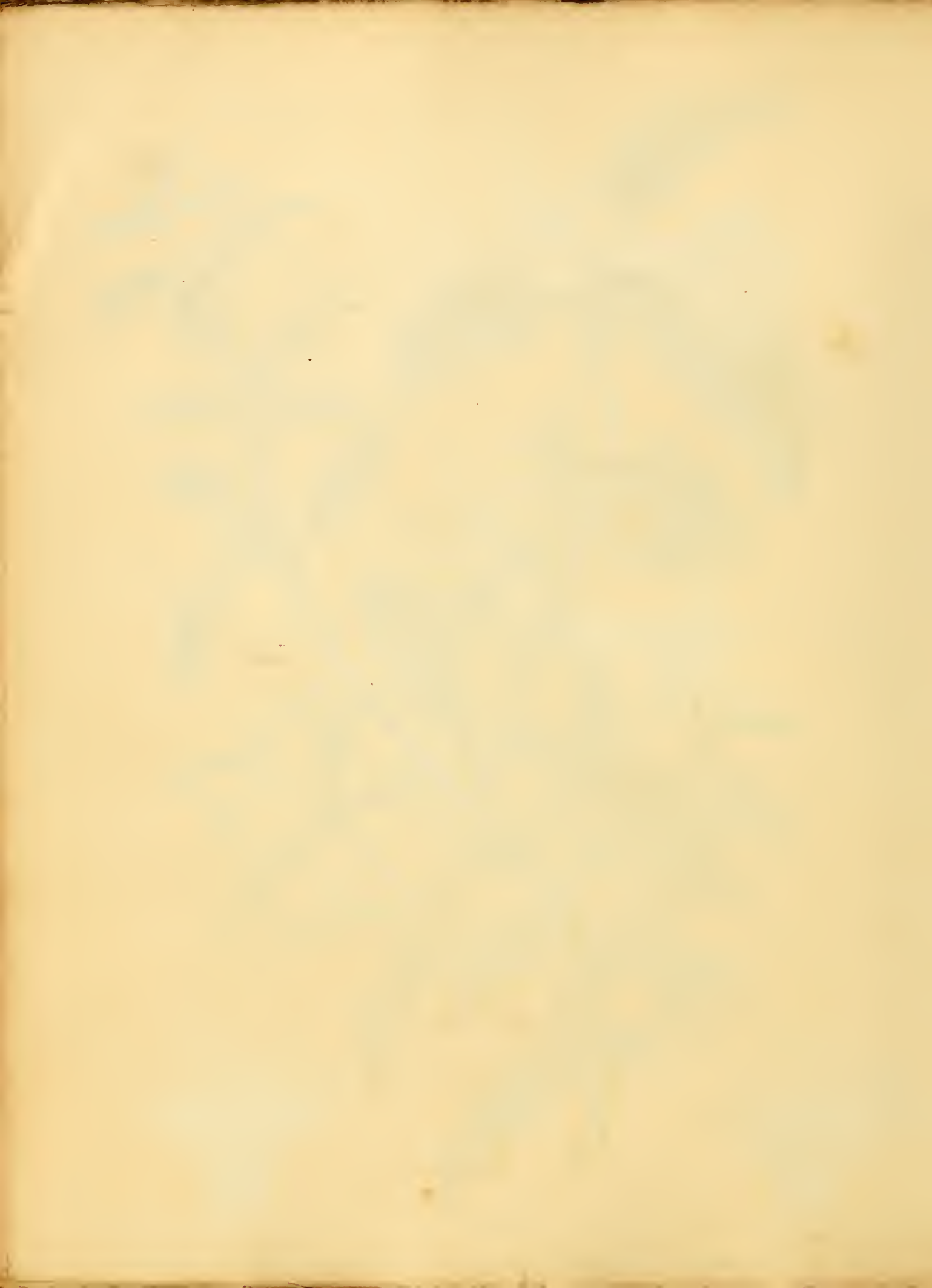




PLATE XCVII.
VACCINIUM FORMOSUM.
Red-twigg'd Whortle-berry.

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

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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



Vaccinium formosum



1871
REPORT OF THE
COMMISSIONERS OF THE LAND OFFICE

The following is a list of the lands which have been surveyed and entered in the public land office since the first day of January, 1871, to the first day of January, 1872. The lands are classified according to the nature of the survey, and the date of the survey. The names of the persons to whom the lands have been granted, and the amount of the grant, are also given. The lands are described in detail, and the names of the persons to whom they have been granted are given. The amount of the grant is also given. The lands are described in detail, and the names of the persons to whom they have been granted are given. The amount of the grant is also given.

PLATE XCVIII.
 PULTENÆA DAPHNOIDES.
Daphne-like Pultenæa.

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

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, campanulatum, utrinque appendiculatum; ore quinque-dentato, acuto.</p> <p>COROLLA papilionacea, pentapetala. <i>Vexillum</i> sub-cordatum, erectum. <i>Alæ</i> oblongæ, vexillo breviores. <i>Carina</i> dipetala, petalis alis conformibus.</p> <p>STAMINA. Filamenta decem, distincta, assurgentia, longitudine carinæ. Antheræ simplices, minimæ.</p> <p>PISTILLUM. Germen ovato-oblongum. Stylus subulatus, magnitudine et situ staminum. Stigma acutum, recurvatum.</p> <p>PERICARPIUM. Legumen subrotundum, apice mucronatum, uniloculare, bivalve.</p> <p>SEMINA duo, sub-rotunda.</p>	<p>EMPALEMENT. Cup of one leaf, bell-shaped, having an appendage on each side; the mouth five-toothed, sharp.</p> <p>BLOSSOM. Butterfly-shaped, five petals. <i>Standard</i> nearly heart-shaped, upright. <i>Wings</i> oblong, shorter than the standard. <i>Keel</i> two petals, which are like those of the wings.</p> <p>CHIVES. Ten threads, distinct, turned up at the ends, the length of the keel. Tips simple, very small.</p> <p>POINTAL. Seed-bud oblong-egg-shaped. Shaft awl-shaped, the size and situation of the chives. Summit sharp-pointed and recurved.</p> <p>SEED-VESSEL. Shell nearly round, with a sharp point on the end, of one cell and two valves.</p> <p>SEEDS two, roundish.</p>
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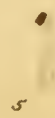
SPECIFIC CHARACTER.

<p>Pultenæa foliis alternis, obovatis, glabris, mucronatis; floribus terminalibus, capitatis.</p>	<p>Pultenæa with alternate leaves, inversely egg-shaped, smooth, with a sharp point at the ends; flowers terminate the branches growing in heads.</p>
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REFERENCE TO THE PLATE.

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

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



Pultanea Daphnoides



PROBATION REPORT

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PLATE XCIX.

GLADIOLUS BLANDUS.

Large White-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA, sexpartita, ringens.
STAMINA ascendentia.

BLOSSOM, six divisions, gaping.

CHIVES ascending.

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Gladiolus blandus





PLATE C.
EMBOTHRIUM SERICEUM.

Silky Embothrium.

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

GENERIC CHARACTER.

CALYX nullus.

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

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

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

PERICARPIUM. Folliculus teres, unilocularis.

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

EMPALEMENT none.

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

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

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

SEED-VESSEL. A cylindrical pod of one cell.

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Eubolium sericeum



THE HISTORY OF THE
CITY OF BOSTON

The history of the city of Boston is a subject of great interest and importance. It is a city that has played a significant role in the development of the United States. The city's history is filled with events and people that have shaped the nation. From its early days as a small settlement to its current status as a major metropolitan area, Boston has a rich and varied history. The city's location on a peninsula in the heart of the state has made it a strategic and important location throughout its history. The city's history is a testament to the resilience and spirit of its people. The city's history is a story of growth and progress, of challenges and triumphs. The city's history is a story that is still being written today.

PLATE CI.
 HYPOXIS STELLATA.
Star-flowered Hypoxis.

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

GENERIC CHARACTER.

<p>CALYX. Gluma bivalvis. COROLLA monopetala, supera; limbus sexpartitus, laciniis ovato oblongis, patentibus; persistens. STAMINA. Filamenta sex, brevissima, capillaria. Antheræ oblongæ, petalis breviores. PISTILLUM. Germen inferum, turbinatum. Stylus filiformis, longitudine staminum. Stigma obtusiusculum. PERICARPIUM. Capsula oblongiuscula, basi angustior, coronata corolla persistente, trilocularis, trivalvis. SEMINA plurima, subrotunda.</p>		<p>EMPALEMENT. Husk of two valves. BLOSSOM one petal, superior; border of six divisions, segments oblong-egg-shaped, and spreading; permanent. CHIVES. Six very short hair-like threads. Tips oblong, shorter than the petals. POINTAL. Seed-bud beneath, turban-shape. Shaft thread-shaped, the length of the chives. Summit bluntish. SEED-VESSEL. Capsule rather oblong, smaller at the base, crowned by the permanent blossom, three cells, three valves. SEEDS many, roundish.</p>
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SPECIFIC CHARACTER.

<p>Hypoxis scapo unifloro; foliis sub-linearibus, laxis, striatis; petalis basi maculatis.</p>		<p>Hypoxis with but one blossom on the flower-stem; leaves nearly linear, flexible, and scored; the petals spotted at the base.</p>
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REFERENCE TO THE PLATE.

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

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



Hypoxis stellata



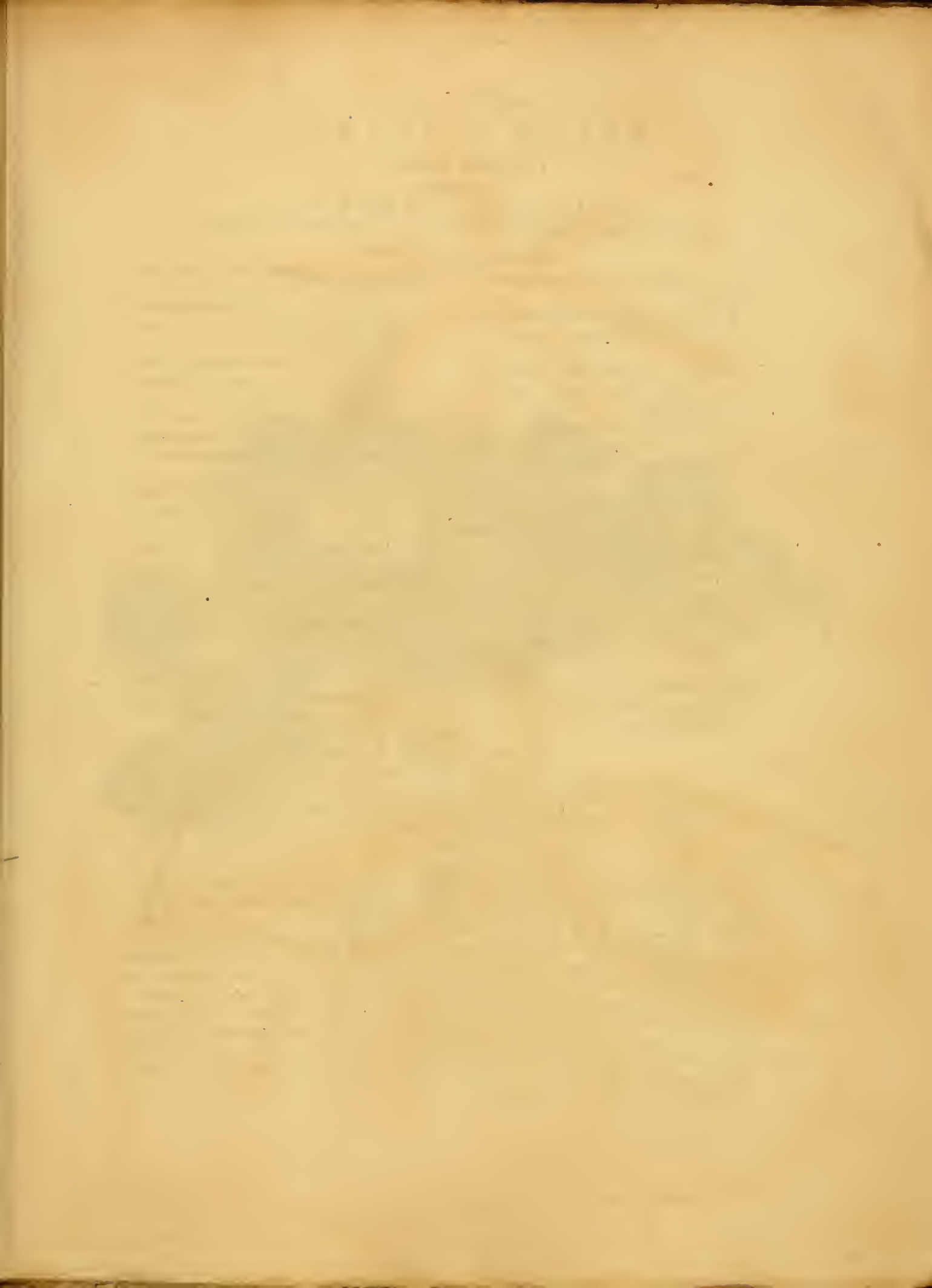


PLATE CII.
EPIGÆA REPENS.
Creeping Epigæa.

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

GENERIC CHARACTER.

CALYX. Perianthium duplex, approximatum, persistens.

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

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

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

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

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

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

SEMINA plurima, subrotunda.

Receptaculum magnum quinquepartitum.

EMPALEMENT. Cup double, close together, and remaining.

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

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

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

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

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

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

SEEDS many, roundish.

Receptacle large, of five divisions.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Epiphyllum phyllanthoides

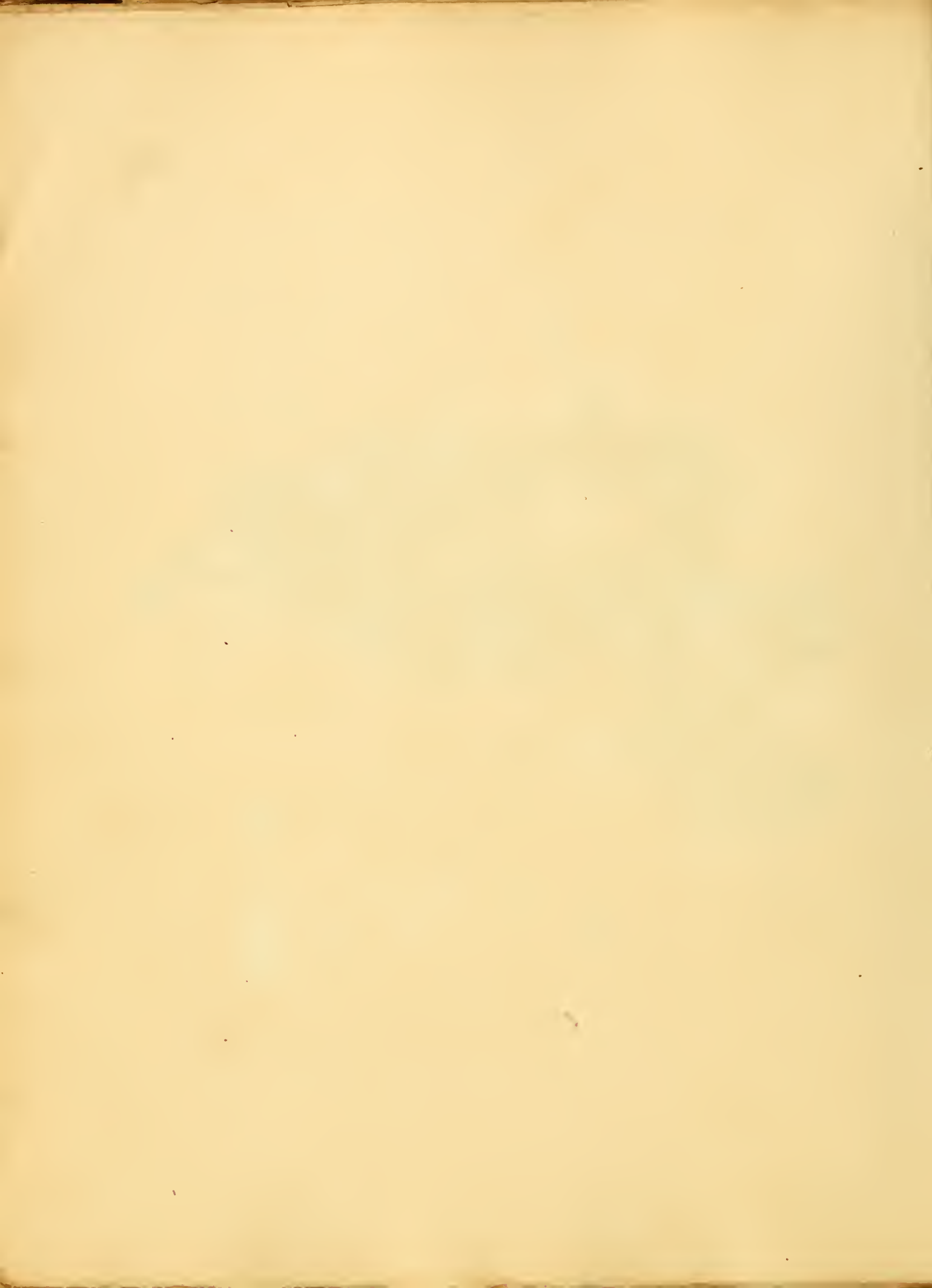


PLATE CIII.

PROTEA SPECIOSA, *nigra*.

Black-flowered Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Protea spectiosa nym



FORMER ...



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PLATE CIV.
LACHNÆA ERIOCEPHALA.
Woolly-headed Lachnæa.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, persistens; tubo longo, tenui; limbo quadripartito, inæquali; lacinia summa retrofracta, minima; laciniis reliquis tribus erectis; intermedia majore.</p> <p>COROLLA nulla.</p> <p>STAMINA. Filamenta octo capillaria, erecta, longitudine ferme floris. Antheræ simplices.</p> <p>PISTILLUM. Germen ovatum. Stylus filiformis, germinis lateri infertus. Stigma capitatum, hispidum.</p> <p>PERICARPIMUM nullum. Fructus in fundo calycis.</p> <p>SEMEN unicum, ovatum.</p>	<p>EMPALEMENT. Cup one leaf, remaining; tube long, slender; border of four divisions, unequal; the upper segment appearing broke back, and small; the three other segments are upright; the middle one the largest.</p> <p>BLOSSOM none.</p> <p>CHIVES. Eight hair-like threads, upright, almost the length of the flower. Tips simple.</p> <p>POINTAL. Seed-bud egg-shaped. Shaft thread-shaped, fixed into the side of the seed-bud. Summit a hairy knob.</p> <p>SEED-VESSEL none. The fruit is in the bottom of the cup.</p> <p>SEED one, egg-shaped.</p>
---	--

SPECIFIC CHARACTER.

<p><i>Lachnæa capitulis solitariis, lanatis; foliis quadrifariam imbricatis.</i></p>	<p><i>Lachnæa</i> with little bunches of flowers growing solitary and woolly; leaves are tiled on the stem, forming four regular angles.</p>
--	--

REFERENCE TO THE PLATE.

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

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



1



2



3



4

5

Pachneca Eriocophula.





PLATE CV.

VACCINIUM CRASSIFOLIUM.

Thick-leaved Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Vaccinium crassifolium



THE HISTORY OF THE
CITY OF BOSTON
FROM 1630 TO 1800

BY
JOHN H. COOPER

The history of the city of Boston from 1630 to 1800 is a story of growth and struggle. It begins with the arrival of the first settlers in 1630, who found a desolate and uninviting landscape. Despite the hardships, they persevered, building a community that would become one of the most important in the New World. The city's growth was marked by the founding of Harvard College in 1636 and the establishment of the Massachusetts Bay Colony. The city's role in the American Revolution is a central theme in this history, as it was the site of the Boston Tea Party and the Battle of Bunker's Hill. The city's growth continued into the 18th century, as it became a major center of commerce and industry. The city's history is a testament to the resilience and determination of its people, who have built a city that has stood the test of time.

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

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

GENERIC CHARACTER.

CALYX. Perianthium minimum, quadridentatum, erectum, persistens.
COROLLA monopetala, infundibuliformis; tubus cylindraceus, longus; limbus quadripartitus, patens, laciniis subrotundis.
STAMINA. Filamenta quatuor, in collo corollæ, minima. Antheræ simplices.
PISTILLUM. Germen superum, subrotundum, compressum. Stylus simplex, flaminibus brevior. Stigma bifidum, acutum.
PERICARPIUM. Capsula subrotunda, didyma, supra transverse dehiscens, bilocularis, bivalvis; valvulis dissepimento oppositis.
SEMINA pauca, parva, ovata, dissepimento adhærentia.

EMPALEMENT. Cup very small, with four teeth, upright, and remaining.
BLOSSOM one petal, funnel-shaped; tube cylindrical, long; border of four divisions, spreading, segments roundish.
CHIVES. Four threads, fixed to the neck of the blossom, very small. Tips simple.
POINTAL. Seed-bud above, roundish, and flattened. Shaft simple, shorter than the chives. Summit split in two and sharp.
SEED-VESSEL. Capsule roundish, double, splitting transversely from the upper part, two cells, two valves; the valves opposite to the partition.
SEEDS a few, small, oval, adhering to the partition.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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



Houstonia coccinea



1875
No. 1000



1875

PLATE CVII.
ALLIUM GRACILE.

Sweet-scented Garlic.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spatha communis, subrotunda, marcescens, multiflora.

COROLLA. Petala sex, oblonga.

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

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

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

SEMINA pauca, subrotunda.

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

BLOSSOM. Petals six, oblong.

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

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

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

SEEDS a few, roundish.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Allium gracile



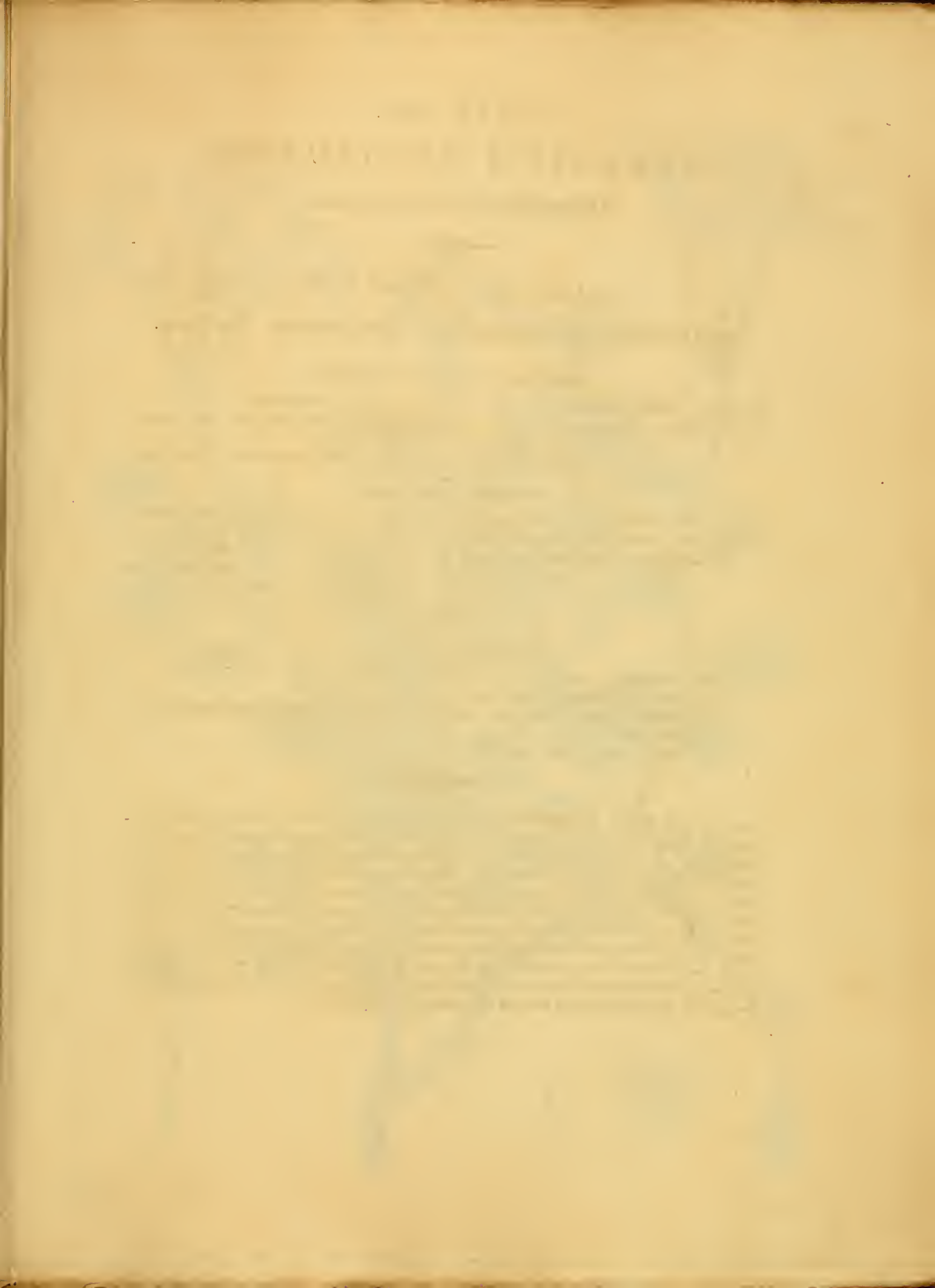


PLATE CVIII.

GERANIUM RENIFORME.

Kidney-shape-leaved Geranium.

CLASS XVI. ORDER IV.

*Of Suppl. System.
Veget. 1781.*

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

One POINTAL. Five Summits.

FRUIT furnished with long awns, five dry berries.

See GERANIUM GRANDIFLORUM. Pl. XII. Vol. L

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Geranium reniforme

Geranium reniforme
Linn. Sp. Pl. 1000. p. 1000.



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

CLASS XIX. ORDER II.

SYNGENESIA, POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis hæmisphæricus, imbricatus; squamis acûte incumben-
 tib; interioribus per gradus majoribus, margine scariofis; in-
 timis terminatis squama scariofa.

COROLLA. Composita radiata. Corullulæ her-
 maphroditæ tubulosæ, numerosæ, in disco;
 femineæ duodenis plures, in radio.

Propria hermaphroditis infundibuliformis,
 quinquefida, patula, longitudine calycis.

Femineis ligulata, oblonga, tridentata.

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

PISTILLUM. Hermaphroditis, germen ovatum.
 Stylus filiformis, staminibus longior. Stig-
 mata duo, revoluta.

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

PERICARPIUM nullum. Calyx immutatus.

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

RECEPTACULUM nudum, punctatum, convexum.

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

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

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

Individuals with only pointals, ligulate, ob-
 long, with three teeth.

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

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

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

SEED-VESSEL none. Cup unchanged.

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

Those where there are only pointals like
 the others.

RECEPTACLE naked, dotted, and convex.

SPECIFIC CHARACTER.

Chrysanthemum crithmi foliis; squamis exteri-
 oribus calycis carinatis; floribus solitariis,
 tricoloratis.

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

REFERENCE TO THE PLATE.

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

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



Chrysanthemum leucolor



1850

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PLATE CX.

PROTEA SPECIOSA, *latifolia*.

Broad-leaved shewy Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Protea speciosa latifolia

3 2 1





PLATE CXI.

GLADIOLUS STRIATUS.

Streaked-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens. Stamina adscendentia.		BLOSSOM six divisions, gaping. Chives ascending. See GLADIOLUS ROSEUS, Plate XI. Vol. I.
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SPECIFIC CHARACTER.

Gladiolus foliis lanceolato-ensiformibus, scapo æquantibus; scapo subtrifloro, erecto; floribus erectis; corolla ringente, laciniis acutis, undulatis, medio friatis.		Gladiolus with leaves between lance and sword-shaped, the length of the flower-stem; generally three flowers on the stem; flowers grow upright; blossom gaping, the segments pointed, waved, and streaked in the middle.
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REFERENCE TO THE PLATE.

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

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



Gladiolus striatus



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IS A COLLECTION OF THE
FINEST AND MOST
INTERESTING
ARTS AND
MANUFACTURES
OF THE MOUNTAIN
AND IS OPEN TO THE
PUBLIC DAILY
FROM 10 O'CLOCK
TO 5 O'CLOCK
P.M.

PLATE CXII.

VACCINIUM DUMOSUM.

Bushy Whortle-berry.

CLASS VIII. ORDER 1.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Vaccinium dumosum



THE COLLEGE OF THE CITY OF NEW YORK

REPORT OF THE BOARD OF SUPERVISORS

Item	Amount
Salaries	
Expenses	
Income	
Reserve	
Total	

The following table shows the financial statement of the College of the City of New York for the year ending June 30, 1895. The total amount of the receipts is \$1,000,000.00, and the total amount of the disbursements is \$950,000.00, leaving a balance of \$50,000.00.

PLATE CXIII.
STRUTHIOLA IMBRICATA.
Tiled-leaved Struthiola.

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

GENERIC CHARACTER.

<p>CALYX, nullus; nisi bractæas sub germine pro calyce assumas.</p> <p>COROLLA monopetala, marcescens; tubus filiformis, elongatus; limbus quadripartitus, planus, tubo brevior; laciniis ovatis.</p> <p style="padding-left: 2em;"><i>Nectarium</i>, glandulæ quatuor, seu octo, ovatæ, fauci circumpositæ, penicillo proprio cinctæ.</p> <p>STAMINA. Filamenta quatuor, brevissima, intra tubum occultata. Antheræ lineares.</p> <p>PISTILLUM. Germen ovatum. Stylus filiformis, longitudine tubi. Stigma capitatum, hispidum.</p> <p>PERICARPIUM coriaceum, ovatum, uniloculare.</p> <p>SEMEN unicum, acutiusculum.</p>	<p>EMPALEMENT, none; unless you take the floral leaves at the base of the seed-bud for the cup.</p> <p>BLOSSOM one petal, withering; tube thread-shaped, lengthened; border of four divisions, flat, shorter than the tube; segments egg-shaped.</p> <p><i>Honeycup</i>, four or eight oval glands, placed round the mouth of the blossom, each being surrounded by its brush of hairs.</p> <p>CHIVES. Four threads, very short, hid within the tube. Tips linear.</p> <p>POINTAL. Seed bud egg-shaped. Shaft thread-shaped, the length of the tube. Summit, a hairy knob.</p> <p>SEED-VESSEL leathery, egg-shaped, of one cell.</p> <p>SEED one, a little pointed.</p>
--	---

SPECIFIC CHARACTER.

<p><i>Struthiola</i> foliis ovato-acuminatis, concavis, imbricatis, glabris, margine ciliatis; glandulæ quatuor supra faucem.</p>	<p><i>Struthiola</i> with oval leaves, tapering to a point, concave, tiled, smooth, and hairy at the edges; four glands upon the mouth of the blossom.</p>
---	--

REFERENCE TO THE PLATE.

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

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



Scutthiola imbricata

Scutthiola imbricata
Linn. Sp. Pl. 1000. n.º 1000.



THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET

OF

SCOTLAND

IN

SEVEN VOLUMES

THE SECOND

VOLUME

AND

THE SECOND PART

OF

THE SECOND VOLUME

OF

THE SECOND PART

PLATE CXIV.

GERANIUM QUINQUEVULNERUM.

Variegated flowered Geranium.

CLASS XVI. ORDER IV. *Of Suppl. System. Veget. 1781.*

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Geranium quinquevulvium



PLATE CXV.
GERANIUM TOMENTOSUM.
Downy-leaved Geranium.

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

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

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

ESSENTIAL GENERIC CHARACTER.

<p>MONOGYNA. Stigmata quinque. FRUCTUS rostratus, penta-coccus.</p>	<p> </p>	<p>One POINTAL. Five Summits. FRUIT furnished with long awns, five dry berries.</p>
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SPECIFIC CHARACTER.

<p>Geranium foliis ovatis, plicatis, erectis, ferratis, tomentosis; floribus pentandris; filamentis duobus superioribus revolutis, ciliatis.</p>	<p> </p>	<p>Geranium with egg-shaped leaves, plaited, upright, fawed, and downy; flowers with five fertile chives; the two upper threads rolled back and fringed.</p>
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REFERENCE TO THE PLATE.

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

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

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



Geranium tomentosum



THE STATE OF NEW YORK
IN SENATE
January 15, 1887

REPORT
OF THE
COMMISSIONERS OF THE LAND OFFICE
IN ANSWER TO A RESOLUTION PASSED BY THE SENATE
MAY 15, 1886

ALBANY:
PUBLISHED BY THE STATE OF NEW YORK
1887

PLATE CXVI.
GAULTHERIA PROCUMBENS.
Trailing Gaultheria.

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

GENERIC CHARACTER.

CALYX. Perianthium duplex, approximatum, persistens.
P. exterius diphyllum, brevius; foliolis femiovatis, concavis, obtusis.
P. interius monophyllum, quinquefidum campanulatum; segmentis femiovatis.

COROLLA monopetala, ovata, semiquinquefida; limbo parvo, revoluto.
Nectarium corpusculis decem, subulatis, erectis, brevissimis, cingentibus germen intra stamina.

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

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

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

SEMINA plurima, subovata, angulata, ossæa.

EMPALEMENT. Cup double, close together, remaining.
Outer Cup two leaved, shorter; leaflets half egg-shaped, concave, and blunt.
Inner Cup one leaf, five-cleft, bell-shaped; segments half egg-shaped.

BLOSSOM one leaf, egg-shaped, slightly five-cleft; border small, rolled back.
Honey-cup ten small substances, awl-shaped, upright, very short, surrounding the seed-bud within the chives.

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

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

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

SEEDS many, nearly egg shaped, angular and hard.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Qualtheria procumbens





PLATE CXVII.
GENTIANA PURPUREA.
Purple flowered Gentian.

CLASS V. ORDER II.
PENTANDRIA DIGYNIA. Five Chives. Two Pointals.

GENERIC CHARACTER.

<p>CALYX. Perianthium quinquepartitum, acutum, persistens; laciniis oblongis.</p> <p>COROLLA. Petalum unicum, inferne tubulatum, imperforatum, superne quinquefidum, planum, marcescens; figura varia.</p> <p>STAMINA. Filamenta quinque, subulata, corolla breviora. Antheræ simplices.</p> <p>PISTILLA. Germen oblongum, cylindræum, longitudine staminum. Styli nulli. Stigmata duo, ovata.</p> <p>PERICARPIUM. Capsula oblonga, teres acuminata, apice leviter bifida, unilocularis, bivalvis.</p> <p>SEMINA numerosa, parva. Receptacula duo, singula valvulæ longitudinaliter adnatæ.</p>	<p>EMPALEMENT. Cup five divisions, sharp and permanent; segments oblong.</p> <p>BLOSSOM. Petal only one, lower part tubular, and close; upper part five-cleft, flat, withering, and variously shaped.</p> <p>CHIVES. Five threads, awl-shaped, shorter than the blossom. Tips simple.</p> <p>POINTALS. Seed-bud oblong, cylindrical, as long as the chives. Shafts none. Summits two, egg-shaped.</p> <p>SEED-VESSEL. Capsule oblong, cylindrical, tapering, slightly cleft at the end, one-celled, and two valves.</p> <p>SEEDS numerous and small. Receptacles two, joined to each valve longitudinally.</p>
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SPECIFIC CHARACTER.

<p><i>Gentiana</i> corollis campanulatis, 6-7 fidis, atropurpureis, punctatis, verticillatis; calycibus membranaceis, sub-spathaceis, truncatis.</p>	<p><i>Gentian</i> with bell-shaped blossoms, 6-7 cleft, deep purple, dotted and whorled; empalement skinny, almost sheathed, and appearing cut off at the ends.</p>
--	---

REFERENCE TO THE PLATE.

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

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

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

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



Gentiana purpurea



THE HISTORY OF THE UNITED STATES

BY

W. H. CHAPMAN

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PLATE CXVIII.

GLADIOLUS GRANDIFLORUS.

Large flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens.
STAMINA adscendentia.

BLOSSOM, six divisions, gaping.
CHIVES ascending.

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Gladiolus grandiflorus



THE HISTORY OF THE

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PLATE CXIX.

STRUTHIOLA OVATA.

Oval-leaved Struthiola.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

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

ESSENTIAL GENERIC CHARACTER.

PERIANTHIUM diphyllum. Corolla tubulosa
4-fida; nectarium, glandulæ octo fauci
circumpositæ. Sem. 1. subbaccatum. || CUP two-leaved. Blossom tubular, 4-cleft; ho-
ney-cup, 8 glands placed round the mouth
of the blossom. One seed like a berry.

SPECIFIC CHARACTER.

Struthiola foliis ovatis, glabris; ramis glabris,
rugosis. || Struthiola with egg-shaped, smooth leaves;
branches smooth and wrinkled.

REFERENCE TO THE PLATE.

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

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



Struthiola ovata





PLATE CXX.
FUCHSIA LYCIOIDES.

Box Thorn-like Fuchsia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum. Infundibuliforme, coloratum, superum marcescens; limbus quadripartitus.</p> <p>COROLLA. Petala quatuor, sessilia, ore calycis inferta.</p> <p>STAMINA. Filamenta octo, inæqualia, filiformia, erecta, tubo calycis inferta. Antheræ ovatæ.</p> <p>PISTILLUM. Germen inferum, ovatum. Stylus filiformis, erectus, longitudine staminum. Stigma tuberculatum.</p> <p>PERICARPIUM. Bacca carnosâ, ovata, quadrilocularis.</p> <p>SEMINA plura, parva, receptaculo columnari affixa.</p>	<p>EMPALEMENT. Cup one leaf, funnel-shaped, coloured, above and withering; border four divisions.</p> <p>BLOSSOM. Four petals, fitting close on the mouth of the cup, into which they are inserted.</p> <p>CHIVES. Eight threads, unequal, thread-shaped, upright, fixed into the tube of the cup. Tips egg-shaped.</p> <p>POINTAL. Seed-bud beneath, egg-shaped. Shaft thread-shaped, upright, the length of the chives. Summit composed of small knobs.</p> <p>SEED-VESSEL. A fleshy berry, egg-shaped, and four valves.</p> <p>SEEDS many, small, affixed to a pillar-shaped receptacle.</p>
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SPECIFIC CHARACTER.

<p><i>Fuchsia</i> foliis ovatis undulatis, subternis; pedunculis unifloris, axillaribus; laciniis calycis reflexis.</p>	<p><i>Fuchsia</i> with egg-shaped leaves, waved, and growing mostly by threes; foot-stalks with one flower growing from the insertion of the leaf, the segments of the cup reflexed.</p>
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REFERENCE TO THE PLATE.

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

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

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



Suchsaia lycioides



THE UNIVERSITY OF CHICAGO

PHILOSOPHY DEPARTMENT

1950-1951

PHILOSOPHY 101

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WILLIAM V. DUNN

PHILOSOPHY DEPARTMENT

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1951

PLATE CXXI.
GERANIUM CORTUSÆFOLIUM.

Cortusa-leaved Geranium.

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

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

<p>MONOGYNA. Stigmata quinque. Fructus rotatus, penta-coccus.</p>	<p> </p>	<p>ONE POINTAL. Five summits. Fruit furnished with long awns, five dry berries. See GERANIUM GRANDIFLORUM, Pl. XII. Vol. I.</p>
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SPECIFIC CHARACTER.

<p>Geranium foliis cordatis, sublobatis, ferratis, tomentoso-sericeis; petiolis longissimis, erectis; floribus umbellatis, odoratissimis, stipulis subulatis; caule robusto, subcaroso.</p>	<p> </p>	<p>Geranium with heart-shaped leaves, slightly lobed, sawed, and covered with a downy pile; footstalks very long and upright; flowers grow in umbels, and are very sweet scented; leaf-pros awl shaped; stem stout, and rather fleshy.</p>
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REFERENCE TO THE PLATE.

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

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



Geranium inclusifolium



1875

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PLATE CXXII.
GLADIOLUS GALEATUS.

Helmet-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens.
STAMINA adscendentia.

BLOSSOM six divisions, gaping.
CHIVES ascending.

See GLADIOLUS ALATUS, Vol. I. Pl. VIII.

SPECIFIC CHARACTER.

Gladiolus foliis sub-ovatis, costatis, mucronatis;
spathis carianatis, tubo longioribus; lacinia
summa concava, sub-erecta.

Gladiolus with leaves nearly egg-shaped, ribbed,
and pointed at the ends; sheaths keeled,
and longer than the tube of the blossom;
the upper segment concave, and almost up-
right.

REFERENCE TO THE PLATE.

1. The two sheaths of the Empalement.
2. The Chives, with part of the tube of the Blossom, to which they are attached.
3. The Pointal and seed-bud.

We are certainly led to think with Thunberg, that this plant is not a species, but a very singular and beautiful variety, of *G. alatus*, of which we have seen above six or seven. Nevertheless, upon the authority of Prof. Jacquin, who in his *Icones* 2. tab. 258, has figured it under this name specifically; and as it has been continued as such, by the accurately discriminating and indefatigable Willdenow; (to whose labours, all lovers of the science are so much indebted, for his invaluable, and copious new Edition of the *Species plantarum*;) we have thought it but right to acquiesce, without alteration in the name adopted by them. For the management of this plant we must refer our readers to the *G. alatus*, Pl. VIII. Vol. I. of this work.

The Helmet-flowered *Gladiolus* was not seen in England, till the spring of the year 1800; when the roots were received at Clapham, from the Cape of Good Hope, sent by the Collector there, for the Hibbertian collection, amongst an infinite number of others; many having flowered this year, of which we have drawings, by permission of the proprietor, and are destined to enrich the Bot. Rep. being perfectly new to this country. The figure of this plant was taken in August, but the regular season of its flowering, must be much earlier (if planted with the other Cape bulbs in October,) that is to say, about the month of May or June.



Gladiolus galbanus



The following is a list of the names of the Presidents of the United States from 1776 to 1876. The names are arranged in chronological order, and the years of their terms are given in parentheses. The names are: George Washington (1789-1797), John Adams (1797-1801), Thomas Jefferson (1801-1809), James Madison (1809-1817), James Monroe (1817-1825), John Quincy Adams (1825-1829), Andrew Jackson (1829-1837), Martin Van Buren (1837-1841), William Henry Harrison (1841-1842), John Tyler (1842-1845), James K. Polk (1845-1849), Zachary Taylor (1849-1850), Millard Fillmore (1850-1853), Fremont (1853-1855), P. G. B. (1855-1856), Buchanan (1856-1861), Lincoln (1861-1865), Johnson (1865-1869), Grant (1869-1877), Hayes (1877-1881), R. B. (1881-1885), Garfield (1881-1881), Arthur (1881-1885), Cleveland (1885-1889), Harrison (1889-1893), McKinley (1897-1901), Roosevelt (1901-1909), Taft (1909-1913), Wilson (1913-1921), Harding (1921-1923), Coolidge (1923-1929), Hoover (1929-1933), Roosevelt (1933-1945), Truman (1945-1953), Eisenhower (1953-1961), Kennedy (1961-1963), Johnson (1963-1969), Nixon (1969-1974), Ford (1974-1977), Carter (1977-1981), Reagan (1981-1989), Bush (1989-1993), Clinton (1993-2001), Bush (2001-2009), Obama (2009-2017), Trump (2017-2021).

PLATE CXXIII.
THUNBERGIA FRAGRANS.
Twining Thunbergia.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

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

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

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

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

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

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

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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



Thunbergia fragrans

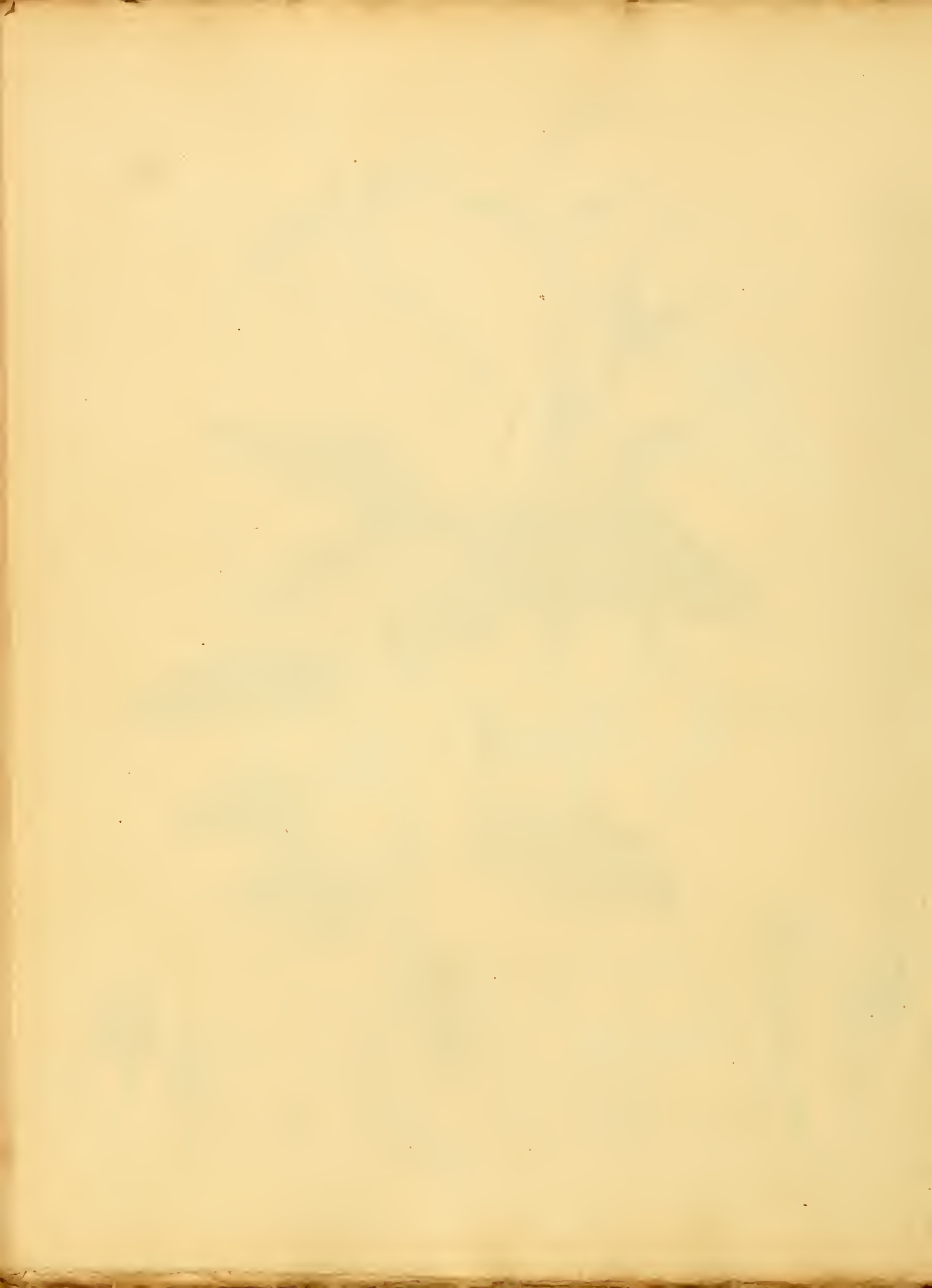


PLATE CXXIV.
HELICONIA PSITTACORUM.
Parrot-billed Heliconia.

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

GENERIC CHARACTER.

CALYX. Spathæ communes partialesque alternæ, distinctæ, persistentes.

Perianthium nullum.

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

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

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

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

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

SEMINA solitaria, oblonga.

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

Cup none.

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

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

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

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

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

SEEDS solitary, oblong.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Heliconia psittacorum



THE HISTORY OF THE UNITED STATES



PLATE CXXV.

VACCINIUM PARVIFLORUM.

Small flowered Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus. Corolla monopetala.

FILAMENTA receptacula inferta. Bacca quadri-
locularis, polysperma.

CUP superior. Blossom one petal

THREADS fixed to the receptacle. A berry with
four cells, and many seeds.

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Vaccinium parviflorum



THE HISTORY OF THE

REIGN OF

BY

PLATE CXXVI.
HIBBERTIA VOLUBILIS.

Twining Hibbertia.

CLASS XIII. ORDER V.

POLYANDRIA PENTAGYNIA. Many Chives. Five Pointals.

GENERIC CHARACTER.

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

COROLLA. Petala quinque, obcordata, calyce longiora.

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

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

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

SEMINA plurima, subrotunda.

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

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

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

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

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

SEEDS many, roundish.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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



Hibbertia volubilis

THE HISTORY OF THE

ROYAL SOCIETY

OF LONDON

FROM THE YEAR 1660 TO 1700



By JOHN WALLIS, Esq. Secretary to the Society.

LONDON, Printed by J. Sturges, at the Sign of the Sun in St. Dunstons Church, in the Strand, 1700.

PLATE CXXVII.
JASMINUM GRACILE.
Slender-stemmed Jasmine.

CLASS II. ORDER I.

DIANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, tubulatum, oblongum; ore quinque-dentato, erecto; persistens.

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

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

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

PERICARPIUM. Bacca ovalis, glabra, bilocularis feu bicapularis.

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

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

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

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

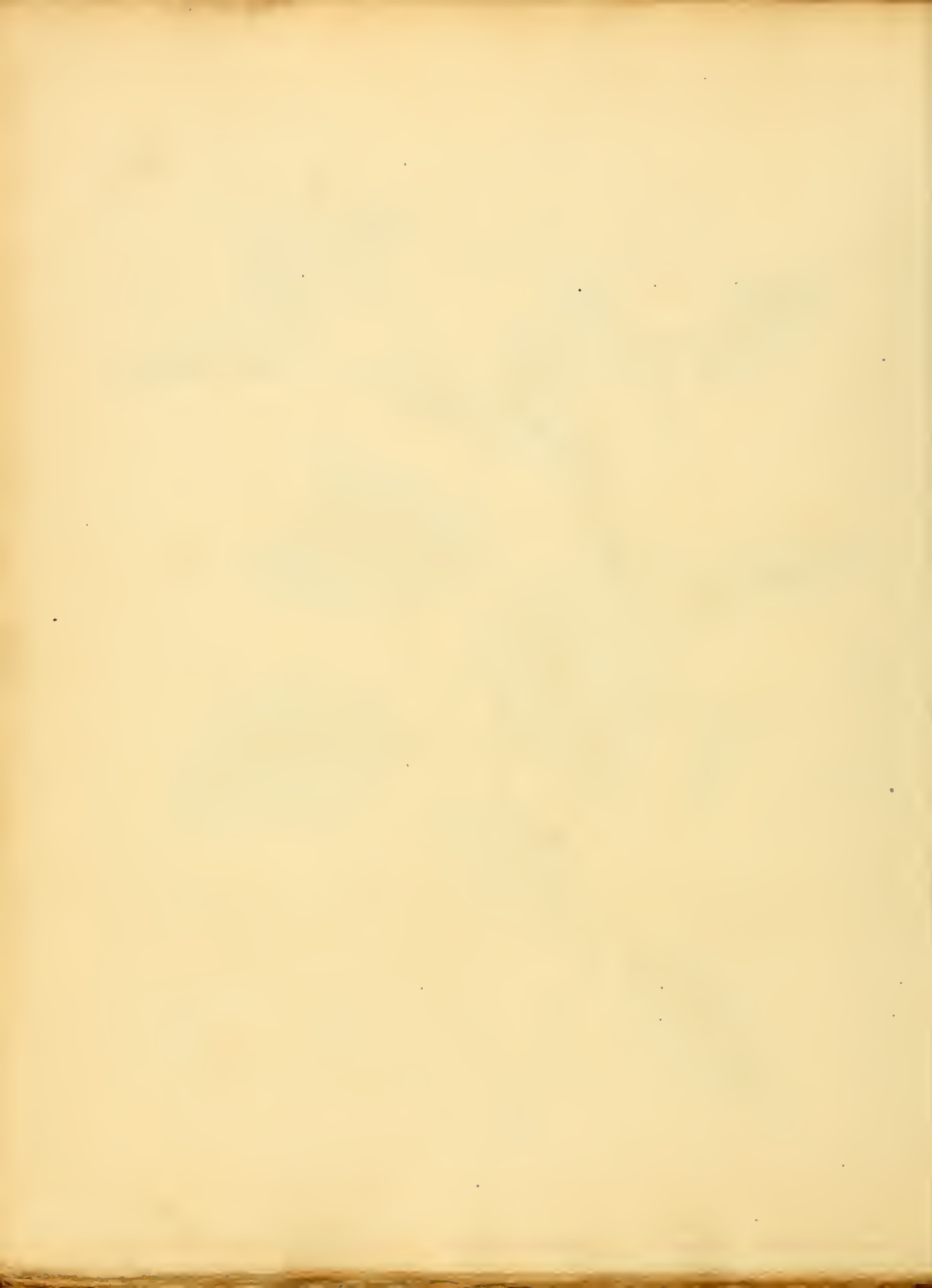
REFERENCE TO THE PLATE.

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

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



Jasminum gracile



THE POLYMERIZATION OF ETHYLENE

BY J. V. NORTON

RESEARCH REPORT

NO. 1

THE UNIVERSITY OF CALIFORNIA

BERKELEY, CALIF.

1931



PLATE CXXVIII.

IXIA POLYSTACHIA. *Var. incarnata.*

Many-spiked Ixia. Var. flesh-colour.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, æqualis.

STAMINA tria, erectiusculo-patula.

|| BLOSSOM 6-petals, spreading, equal.

|| SUMMITS three, nearly upright and spreading.

|| See IXIA REFLEXA, Pl. XIV. Vol. I.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Van polystachia
Vae. ciliolata.



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PLATE CXXIX.
 GLORIOSA SUPERBA.
Superb Gloriosa.

CLASS V. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX nullus.

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

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

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

PERICARPIMUM. Capsula ovalis, triloba, trilocularis, trivalvis.

SEMINA plura, globosa, baccata, duplici serie disposita.

Ols. Affinis Erythronio.

EMPALEMENT, none.

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

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

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

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

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

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

SPECIFIC CHARACTER.

Gloriosa foliis cirrhiferis.

|| *Gloriosa* with tendril-bearing leaves.

REFERENCE TO THE PLATE.

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

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

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



Gloriosa superba





PLATE CXXX.
CERBERA UNDULATA.
Waved-leaved Cerbera.

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

GENERIC CHARACTER.

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

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

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

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

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

SEMEN. Nux bilocularis, quadrivalvis, retusa.

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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

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



Cestera undulata.



PLATE CXXXI.

GERANIUM LACINIATUM.

Ragged-leaved Geranium.

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

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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



Geranium laciniatum





PLATE CXXXII.

PROTEA LONGIFOLIA. *Nigra.*

Long-leaved Protea. Black flower.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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



Protea longifolia var.





PLATE CXXXIII.

PROTEA LONGIFOLIA. *Ferruginoso-purpurea.*

Long-leaved Protea. Rusty-purple flower.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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

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

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



Protea longifolia
terrestris purpurea

1

2

3





PLATE CXXXIV.

IXIA CROCATA. *Var. nig. maculata.*

Crocus flowered Ixia. *Var. black spotted.*

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

Ixia foliis falcatis, flaccidis; floribus alternis, sef-
filibus; petalis tribus exterioribus basi gib-
bis maculatisque.

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

REFERENCE TO THE PLATE.

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

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



Lilium croceum
var. nigro maculatum



PLATE CXXXV.
MALVA REFLEXA.
Reflex-flowered Mallow.

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

MONADELPHIA POLYANDRIA. Threads united. Many Chives.

GENERIC CHARACTER.

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

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

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

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

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

SEMINA solitaria, rarius duo seu tria, reniformia.

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

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

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

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

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

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

SPECIFIC CHARACTER.

Malva foliis cuneiformibus, inequaliter inciso-lobatis; petalis reflexis.

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

REFERENCE TO THE PLATE.

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

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



C. ...



1850



PLATE CXXXVI.

GERANIUM CRASSIFOLIUM.

Thick-leaved Geranium.

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

MONADELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Geranium crassifolium



THE HISTORY OF THE
CITY OF BOSTON

From its first settlement in 1630 to the present time
By SAMUEL JOHNSON
Author of the Dictionary of the English Language
LONDON: Printed by J. B. Nichols, in Pall-mall, 1791.

PLATE CXXXVII.

GLADIOLUS NANUS.

Dwarf Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA fexpartita, ringens. Stamina adscendentia.		BLOSSOM six divisions, gaping. Chives ascending. See GLADIOLUS ROSEUS. Plate XI. Vol. I.
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SPECIFIC CHARACTER.

Gladiolus foliis lanceolatis, plicatis, pilosis; scapo toto florifero longitudine foliorum; corolla ringente, laciniis longissimis, divaricatis, undulatis; spatha trivalvi.		Gladiolus with lance-shaped leaves, plaited and hairy; flower-stem quite covered with flowers the length of the leaves; blossom gaping, the segments very long, spreading different ways and waved; sheath three valved.
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REFERENCE TO THE PLATE.

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

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



Gladiolus vernalis



THE HISTORY OF THE
CITY OF BOSTON
FROM 1630 TO 1800

BY
JOHN H. COOPER



PLATE CXXXVIII.

VACCINIUM AMOENUM.

Broad-leaved Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus. Corolla monopetala.

FILAMENTA receptaculo inferta. Bacca quadri-
locularis, polysperma.

CUP superior. Blossom one petal.

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Vaccinium uliginosum



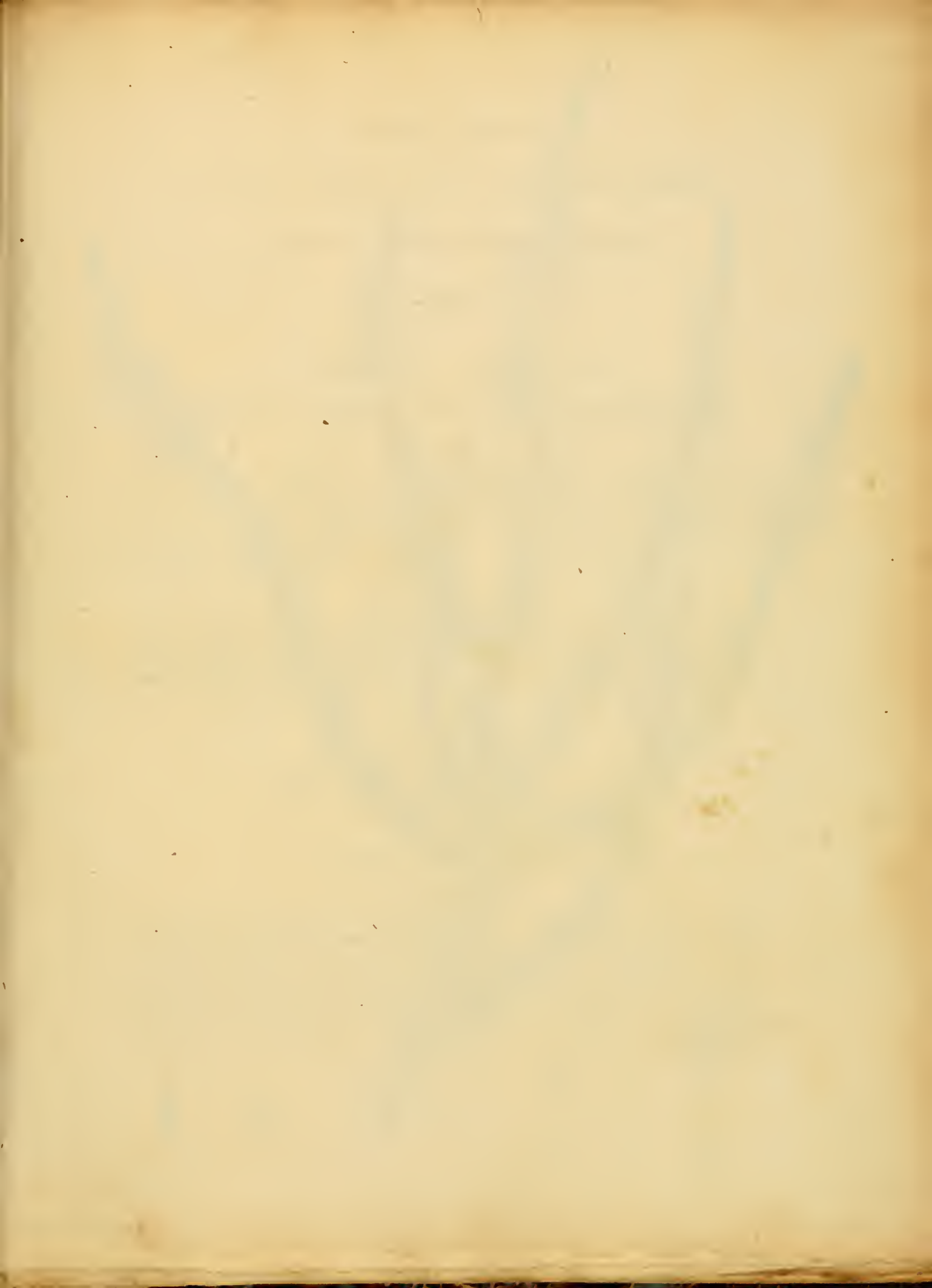


PLATE CXXXIX.

STRUTHIOLA CILIATA. *Var. flore rubro.*

Fringed-leaved Struthiola. Var. red flowered.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

ONE SEED, like a berry.

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Struthiola ciliata
 Vari: flore rubre



THE HISTORY OF THE UNITED STATES

The history of the United States is a story of growth and change. It begins with the first settlers who came to the shores of North America. These early pioneers faced many hardships as they sought to build a new life in a new land. Over time, the colonies grew and developed their own unique identities. The struggle for independence from British rule led to the birth of a new nation. The United States then went through a period of westward expansion, where the frontier moved further and further west. This era was marked by both opportunity and conflict. The Civil War was a pivotal moment in the nation's history, as it resolved the issue of slavery and preserved the Union. Following the war, the United States emerged as a global power, playing a significant role in world affairs. The 20th century brought further challenges, including the Great Depression and the Cold War. Today, the United States continues to evolve, facing new challenges and opportunities in the 21st century.

PLATE CXL.

VACCINIUM FRONDOSUM.

Obtuse-leaved Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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



Vaccinium frondosum



PLATE CXLI.
 CYANELLA CAPENSIS.
Cape Cyanella.

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

GENERIC CHARACTER.

<p>CALYX nullus.</p> <p>COROLLA. Petala sex, unguibus cohærentia, oblonga, concava, patula; tribus interioribus propendentibus.</p> <p>STAMINA. Filamenta sex, basi contigua, brevissima, patentiuscula; infimo declinato. Antherarum quinque oblongæ, curvatæ, erectæ, apice dehiscentes dentibus quatuor obtusis; altera vero declinata, maxima, apice bifida.</p> <p>PISTILLUM. Germen trigonum, obtusum. Stylus filiformis, declinatus, longitudine infimi staminis. Stigma acutiusculum.</p> <p>PERICARPIUM. Capsula subrotunda trifurcata, trilocularis, trivalvis.</p> <p>SEMINA plura, oblonga.</p>	<p>EMPALEMENT, none.</p> <p>BLOSSOM. Six petals, adhering by the claws, oblong, concave, spreading; the three interior ones hanging forwards.</p> <p>CHIVES. Threads six, contiguous at the base, very short, spreading a little; the lower one bent down. Five of the tips are oblong, curved, upright, splitting at the end, with four obtuse teeth; but the other is bent down, very large, and two-cleft at the end.</p> <p>POINTAL. Seed-bud three sided, obtuse. Shaft thread-shaped, bent downward, and the length of the lower chive. Summit rather sharp-pointed.</p> <p>SEED-VESSEL. Capsule roundish, three-furrowed, three cells, three valves.</p> <p>SEEDS many, oblong.</p>
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SPECIFIC CHARACTER.

<p>Cyanella caule folioso, paniculato; racemis divaricatis; foliis lanceolatis, undulatis; floribus cæruleis.</p>	<p>Cyanella with a leafy stem growing into a panicle; branches straggling; leaves lance-shaped, and waved; flowers blue.</p>
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REFERENCE TO THE PLATE.

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

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

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



Cynanchum capense





PLATE CXLII.

GLADIOLUS CRISPUS.

Curled-leaved Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sexpartita, ringens. Stamina adscendentia.		BLOSSOM six divisions, gaping. Chives ascending. See GLADIOLUS ROSEUS. Plate XI. Vol. I.
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SPECIFIC CHARACTER.

Gladiolus foliis ensiformibus, ad oras crispus; floribus fecundis, palidè rubris; laciniis corollæ rotundatis; tubo gracili, longifimo.		Gladiolus with sword shaped leaves, curled at the edges; flowers point all one way, and are of a pale red; segments of the blossom rounded; tube slender, and very long.
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REFERENCE TO THE PLATE.

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

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



Gladiolus crispus





PLATE CXLIII.
LIMONIA TRIFOLIATA.

Three-leafletted Limonia.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

<p>CALYX. Perianthium monophyllum, tri-feu quinquefidum, acutum, minimum, persistens.</p> <p>COROLLA. Petala tria ad quinque, oblonga, obtusa, erecta, apice patentia.</p> <p>STAMINA. Filamenta sex ad decem, subulata, erecta, corolla breviora. Antheræ lineares, erectæ.</p> <p>PISTILLUM. Germen oblongum, superum. Stylus cylindraceus, longitudine staminum. Stigma capitatum, planum.</p> <p>PERICARPIUM. Bacca ovata feu globosa, triangularis; dissepimentis membranaceis.</p> <p>SEMINA solitaria, ovata.</p>	<p>EMPALEMENT. Cup one leaf, three or five-cleft, pointed, very small, and remaining.</p> <p>BLOSSOM. Petals from three to five, oblong, obtuse, upright, spreading at the end.</p> <p>CHIVES. Threads from six to ten, awl-shaped, upright, shorter than the blossom. Tips linear, and upright.</p> <p>POINTAL. Seed-bud oblong and superior. Shaft cylindrical, the length of the Chives. Summit headed, and flat.</p> <p>SEED-VESSEL. An oval, or globular berry with three cells; partitions skinny.</p> <p>SEEDS solitary, and egg-shaped.</p>
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SPECIFIC CHARACTER.

<p><i>Limonia</i> foliis ternatis; spinis geminis, axillaribus.</p>	<p><i>Limonia</i> with leaves composed of three leaflets; spines grow by pairs at the footstalks of the leaves close to the stem.</p>
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REFERENCE TO THE PLATE.

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

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



Limonia trifoliata



PLATE CXLIV.

PROTEA LONGIFOLIA. *Var. cono turbinato.*

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

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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



Protea longifolia
 Van uno turkenslo



I N D E X

TO THE PLANTS CONTAINED IN VOL. I.

Plate 1	<i>Cortufa Matthioli</i>	Alpine Sanicle	Har.	Herb.	May, June.
2	<i>Sprengelia incarnata</i>	Star-flowered Sprengelia	G. H.	Shrub.	All Summer.
3	<i>Neottia speciosa</i>	Flesh-coloured Neottia	H. H.	Herb.	March, April.
4	<i>Rhododendron Dauricum</i>	Dauric Rhododendron	Har.	Shrub.	April, May.
5	<i>Gladiolus longiflorus</i>	Long-flowered Gladiolus	G. H.	Herb.	June, July.
6	<i>Hemerocallis cærulea</i>	Blue Day Lily	H. H.	Herb.	Septem. or Feb.
7	<i>Primula Cortusifolies</i>	Siberian Primrose	Har.	Herb.	June, July.
8	<i>Gladiolus alatus</i>	Wing-flowered Gladiolus	G. H.	Herb.	May, June.
9	<i>Atragene Capensis</i>	Cape Atragene	G. H.	Shrub.	March, April.
10	<i>Aristea cyanea</i>	Blue-flowered Aristea	G. H.	Herb.	July, August.
11	<i>Gladiolus roseus</i>	Rose-coloured Gladiolus	G. H.	Herb.	May, June.
12	<i>Geranium grandiflorum</i>	Largest-flowered Geranium	G. H.	Shrub.	July, August.
13	<i>Epidendrum cochleatum</i>	Purple-flowered Epidendrum	H. H.	Herb.	July.
14	<i>Ixia reflexa</i>	Reflex-flowered Ixia	G. H.	Herb.	May, June.
15	<i>Anthyllis erinacea</i>	Blue Broom of Spain	G. H.	Shrub.	April, May.
16	<i>Azalea Pontica</i>	Yellow Pontic Azalea	Har.	Shrub.	May, June.
17	<i>Protea formosa</i>	Coronet Protea	G. H.	Shrub.	August.
18	<i>Correa alba</i>	White Correa	G. H.	Shrub.	April, May.
19	<i>Gladiolus verticolor</i>	Changeable Gladiolus	G. H.	Herb.	June.
20	<i>Echium grandiflorum</i>	Large-flowered Viper's Bugloss	G. H.	Shrub.	April, May.
21	<i>Vercia crenata</i>	Scalloped-leaf Vercia	H. H.	Shrub.	July.
22	<i>Goodenia calendulacea</i>	Cape Marygold-leaved Goodenia	G. H.	Shrub.	August.
23	<i>Ixia capitata</i> Var. ovata	Bunch-flowering Ixia Var. egg-shaped	G. H.	Herb.	April.
24	<i>Cineraria aurita</i>	Two-coloured-leaved Cineraria	G. H.	Herb.	All Summer.
25	<i>Camellia Japonica</i> Var. flo. albo pleno	Double white Camellia	G. H.	Shrub.	Octob. Novem.
26	<i>C. affula odoratissima</i>	Sweet-scented Craffula	G. H.	Shrub.	April, May.
27	<i>Gladiolus ringens</i> Var. cinereo odorato	Gaping Ash-coloured sweet Gladiolus	G. H.	Herb.	June.
28	<i>Geranium elegans</i>	Round-leaved Geranium	G. H.	Shrub.	May.
29	<i>Ixia spicata</i> Var. viridi nigra	Sea-green spiked Ixia	G. H.	Herb.	May, June.
30	<i>Vaccinium Arctostaphyllum</i>	Madeira Whortle-berry	Har.	Shrub.	July, August.
31	<i>Borbonia cordata</i>	Heart-shape-leaved Borbonia	G. H.	Shrub.	July.
32	<i>Antholyza ringens</i>	Gaping Antholyza	G. H.	Herb.	June.
33	<i>Diosma latifolia</i>	Broad-leaved Diosma	G. H.	Shrub.	August.
34	<i>Chelone Ruellioides</i>	Scarlet Chelone	Har.	Herb.	August.
35	<i>Ixia crispifolia</i> Var. flo. cæruleo	Crisped-leaved Ixia, blue variety	G. H.	Herb.	July.
36	<i>Rhododendron punctatum</i>	Dotted-leaved Rhododendron	Har.	Shrub.	July.
37	<i>Geranium fragile</i>	Brittle-stalked Geranium	G. H.	Shrub.	August.
38	<i>Gladiolus præcox</i> Var. flore rubro	Red early-flowering Gladiolus	G. H.	Herb.	April.
39	<i>Echium ferocissimum</i>	Prickly Viper's Bugloss	G. H.	Shrub.	July.
40	<i>Chelone campanuloides</i>	Bell-flowered Chelone	Har.	Herb.	August, Septem.
41	<i>Lachenalia pendula</i>	Drooping-flowered Lachenalia	G. H.	Herb.	September.
42	<i>Orechis ciliaris</i>	Fringed Orchis	Har.	Herb.	July.
43	<i>Bignonia Leucoxydon</i>	Oleander-flowered Trumpet Flower	H. H.	Shrub.	July.
44	<i>Ixia cinnamomica</i>	Cinnamon-smelling Ixia	G. H.	Herb.	June.
45	<i>Iris longifolia</i>	Long-leaved Iris	G. H.	Herb.	June.
46	<i>Maffonia violacea</i>	Purple-flowered Maffonia	G. H.	Herb.	September.
47	<i>Musa coccinea</i>	Scarlet-flowered Plantain-tree	H. H.	Shrub.	Decem. Jan.
48	<i>Ixia bulbifera</i> Var. flo. luteo	Bulb-bearing Ixia Var. yellow-flowered	G. H.	Herb.	May.
49	<i>Malpighia crassifolia</i>	Thick-leaved Malpighia	H. H.	Shrub.	September.
50	<i>Ixia capitata</i> Var. flore aurantio	Bunch-flowering Ixia Var. gold colour	G. H.	Herb.	May.
51	<i>Xeranthemum speciosissimum</i>	Largest-flowering Everlasting Flower	G. H.	Shrub.	September.
52	<i>Gnidia pinifolia</i>	Pine-leaved Gnidia	G. H.	Shrub.	Feb. March.
53	<i>Mimosa stricta</i>	Harsh-leaved upright Mimosa	G. H.	Shrub.	March, April.
54	<i>Aletris farmentosa</i>	Creeping-rooted Bailard Aloe	G. H.	Herb.	Decem. Jan.
55	<i>Zinnia violacea</i>	Purple Zinnia	Har.	Ann.	August, Sept.
56	<i>Antholyza spicata</i>	Spike-flowered Antholyza	G. H.	Herb.	June.
57	<i>Mesembryanthemum glabrum</i>	Smooth-leaved annual Fig Marygold	G. H.	Ann.	July.
58	<i>Boronia pinnata</i>	Hawthorn-scented Boronia	G. H.	Shrub.	All Summer.
59	<i>Ixia fistulosa</i>	Hollow-leaved Ixia	G. H.	Herb.	June.
60	<i>Geranium punctatum</i>	Dotted-flowered Geranium	G. H.	Herb.	April.
61	<i>Aster dentatus</i>	Toothed-leaved Starwort	G. H.	Shrub.	All Summer.
62	<i>Gladiolus gramineus</i>	Grass-like Gladiolus	G. H.	Herb.	May, June.
63	<i>Uleria scandens</i>	Climbing Uleria	G. H.	Ben.	All Summer.
64	<i>Pæonia albiflora</i>	White Pæony	Har.	Herb.	June.
65	<i>Ophrys liliifolia</i>	Lily-leaved Ophrys	Har.	Herb.	July.
66	<i>Gladiolus polytachius</i>	Branching Gladiolus	G. H.	Herb.	July.
67	<i>Geranium incisum</i>	Jagged-leaved Geranium	G. H.	Shrub.	All Summer.
68	<i>Goodenia ovata</i>	Oval-leaved Goodenia	G. H.	Shrub.	August, Sept.
69	<i>Lambertia formosa</i> Var. longifolia	Red-flowered Lambertia Long-leaved var.	G. H.	Shrub.	July.
70	<i>Gnidia simplex</i>	Heath-leaved Gnidia	G. H.	Shrub.	April, Sept.
71	<i>Clematis viorna</i>	Blue thick-petal'd Virgin's Bower	Har.	Herb.	All Summer.
72	<i>Styphelia triflora</i>	Three-flowered Styphelia	G. H.	Shrub.	June.



I N D E X

TO THE PLANTS CONTAINED IN VOL. II.

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

ERRATA.

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



