See fly-leaf

C

Soulsby Add. 760 k

Linneana
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1797-1811
v.8

Vol. VIII.

of the

Botanists Repository

Comprising,

Colour'd Engravings

of

New and Rare Plants

ONLY

With Botanical Descriptions &c.

in

Latin and English,

after the

Linnæan System

by

H. Andrews

Botanical Painter Engraver &c.

Mo. Bot. Garden
1904.

PLATE CCCCXCIII.

BIGNONIA GRANDIFLORA.

Large-flowered Bignonia.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-fidus, cyathiformis.
COROLLA fauce campanulata, 5-fida, subtus ventricosa. Siliqua bilocularis.
SEMINA membranacea, alata.

EMPALEMENT 5-cleft, cup-shaped.
BLOSSOM bell-shaped at the mouth, 5-cleft, and bellied beneath. A pod of two cells.
SEEDS winged, with a skinny membrane.
See Bignonia Leucoxylon, Pl. XLIII. Vol. I.

SPECIFIC CHARACTER.

BIGNONIA foliis pinnatis: foliolis oblongo-lanceolatis, serratis: floribus in paniculo terminali, vel potius in racemo e pedunculis trifloris, oppositis, alternatis: corollis magnis, coccineis, campanulatis: caule erecto, radicante, et scandente.

BIGNONIA with winged leaves: leaflets of an oblong lance-shape, and sawed: flowers grow in a terminating panicle, or rather in a raceme upon footstalks with three flowers, opposite and alternate: blossom large, of a scarlet colour, and bell-shaped: stem upright, rooting, and climbing.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. Seed-bud and pointal.

THIS superb Bignonia is well characterized by the specific appellation of grandiflora; and although, in several genera, this title has been rendered nugatory by the introduction afterwards of still larger flowering species, yet we think it is not likely to be the case in the present instance. In Kæmpfer's Icones there is a tolerably good figure of this fine plant. It flowers in the autumn, and great hopes are entertained that it will ultimately prove to be of a hardy character, when a fair trial of it is made, which its scarcity has hitherto prevented.

Our figure was made from a plant seven feet high, in the conservatory of G. Hibbert, esq. where, under the care of Mr. Knight, his botanic gardener, that valuable collection is in the most luxuriant state of cultivation.

MISSOURI BOTANICAL
GARDEN LIBRARY

Bignonia grandiflora

PLATE CCCCXCIV.

SCUTELLARIA SERRATA.

Sawed-leaved Scutellaria.

CLASS XIV. ORDER I.

DIDYNAMIA GYMNOSPERMIA. Two Chives longer. Seeds naked.

ESSENTIAL GENERIC CHARACTER.

CALYX. Os calycis, ad perfectionem seminum post florescentiam, claudit, quasi cum operculo tectum.

EMPALEMENT. The mouth of the cup, to perfect the seed after flowering, shuts as if covered by a lid.

SPECIFIC CHARACTER.

SCUTELLARIA foliis oppositis, ovato-acuminatis, serratis: floribus ramos terminantibus in spicâ laxâ cæruleo-purpureâ: caule erecto, quadrato.

Habitat in Carolina et Florida.

SCUTELLARIA with opposite leaves ovately-pointed, and sawed: flowers terminate the branches in a loose spike of a blue purple colour: stem upright, and four-sided.

Native of Carolina and Florida.

REFERENCE TO THE PLATE.

1. The empalement.
2. The same as it appears after flowering.
3. The flower spread open, one of the tips magnified.
4. Seed-bud and pointal.

THIS Scutellaria is one amongst the number of those new plants brought from America by Mr. Lyons, very few of which have (we think) proved more attractive than the present subject. The fine purply blue of its flowers is of all colours the most difficult for any effort of art to do justice to. There are seventeen species of this genus enumerated by Willdenow; and fifteen of them are serrate, one hastate, and the other (which is called integrifolia) we are inclined to think is intended to characterize our plant; as, notwithstanding it is called entire-leaved, it is described as obsoletely serrate, and agrees very well in other particulars with our species. We have adopted the unoccupied specific title of serrata, although it is a character common to almost all the genus, in preference to one that could not, if strictly attended to, ever lead us to the object. The genera that approach nearest to Scutellaria are Trichostema on one side, and Prunella on the other; from which, and many others that surround it, the most essential distinction is in the singular construction and character of the calyx, which forms its short but well-marked essential generic character. Our figure was made from a plant in the open border of the garden of J. Vere, esq.

...tollaria, serrata

PLATE CCCCXCV.

PROTEA CORYMBOSA.

Corymbose-flowering Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

BLOSSOM 4-cleft, or of 4 petals: tips linear, inserted into the petals below the points. Cup proper, none. Seeds solitary.

SPECIFIC CHARACTER.

PROTEA foliis teretibus, brevibus, obtusis, adscendentibus, glaucis: floribus capitatis, luteis, corymbosis.

Frutex pygmæus, dumosus: ramis sub-verticillatis.

PROTEA with round short leaves, blunt ended, ascending, and glaucous: flowers headed, yellow, and growing in the manner of a corymbus.

A dwarf shrub, bushy, with branches nearly whorled.

REFERENCE TO THE PLATE.

1. The involucrum of the flowers.
2. A flower with its bractea.
3. A chive magnified.
4. Seed-bud and pointal, summit magnified.

THIS plant has been long known in the gardens by the title of Protea purpurea, but never flowered in this country till last summer, at the nursery of Mr. Williams of Turnham Green; when, instead of purple flowers, (as was expected from its specific title,) they proved to be yellow. It bears so great a resemblance to the P. teretifolia, that when we figured that species (by comparing it with a dried native specimen,) we were almost inclined to think a small variety of that plant was the P. corymbosa altered in its manner of growth in this climate by a different mode of culture. But comparison with the living plants has now determined them to be distinct species, and left no doubt remaining of this being the P. corymbosa figured by Thunberg in his Dissertation on the genus Protea.

Protea corymbosa

PLATE CCCCXCVI.

JASMINUM MULTIFLORUM.

Many-flowered Jasmine.

CLASS II. ORDER I.

DIANDRIA MONOGYNIA. Two Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5—8-partita.	EMPALEMENT 5—8-parted.
COROLLA hypocrateriformis, 5—8-fida, bacca bilocularis.	BLOSSOM funnel-shaped, 5—8-cleft, berry two-locular.
SEMINA solitaria, arillata.	SEEDS solitary, arillated.

SPECIFIC CHARACTER.

JASMINUM foliis oppositis, cordatis, glabris, pubescentibus: floribus terminalibus, umbellatis, quaternis vel octonis, in singula umbella: corollis albis, magnis, octofidis, odoratissimis.	JASMINE with opposite heart-shaped leaves, smooth, and hairy: flowers terminate the branches in umbels of 4 to 8 in each umbel: blossoms are white, large, eight-cleft, and very sweet-scented.
Habitat in Calcutta.	Native of Calcutta.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. The empalement spread open with the seed-bud and pointal, summit magnified.

THIS fine new Jasmine was introduced by Lady Hume from the East Indies, and is the largest-flowering species of the genus as yet known. It is highly scented, and of the odour of the Gardenia, or Cape Jasmine. It is a handsome hot-house plant, but from its recent introduction is at present scarce. We find a small rude figure of it in Burman, under the title of Nyctanthes multiflora: but it is now better accepted under the softer-sounding appellation of Jasminum, an old fragrant and ever favourite genus.

The drawing was made from a luxuriant specimen communicated to the author by A. B. Lambert, esq.

Jasminum multiflorum

PLATE CCCCXCVII.

JASMINUM SAMBAC; *Var. flore pleno.*

Indian Jasmine; Full-flowered Variety.

CLASS II. ORDER I.

DIANDRIA MONOGYNIA. Two Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5—8-partita.	EMPALEMENT 5—8-parted.
COROLLA hypocrateriformis, 5—8-fida, bacca bilocularis.	BLOSSOM funnel-shaped, 5—8-cleft, berry two-locular.
SEMINA solitaria, arillata.	SEEDS solitary, arillated.

SPECIFIC CHARACTER.

JASMINUM foliis oppositis, ovatis, sæpe apice acutis: floribus in ramis terminalibus, plerumque ternis: corollis aggregatis, vel tribus in una, involutis, fragrantissimis: ramis oppositis, hirsutis, ferrugineis: caule patente, scandente.	JASMINE with leaves opposite, egg-shaped, and often pointed at the end: flowers terminate the branches mostly by threes: blossoms are aggregate, or three in one folded together, and very sweet-scented: branches are opposite, hairy, and of a rusty colour: stem spreading, and climbing.

REFERENCE TO THE PLATE.

1. A blossom separated, the inner tube spread open.
2. The empalement spread open, seed-bud and pointal, summit magnified.

THIS Jasmine possesses a fragrance of such unequivocal sweetness as renders it, although an old hot-house plant, one of its best acquisitions. We have preferred the variety before the species, for its superior beauty, and the opportunity of displaying the singular construction of its flowers, which separate into three distinct parts; the inner one bearing the stamens perfect in appearance, but upon examination they will be found steril. This, as well as its original, the single-flowering one, is highly esteemed all over India, cultivated, and sold in their markets for the purpose of distilling from them a perfumed water, like that extracted from the rose. The Indian women macerate the flowers with those of Michelia champacca; the Uvaria odoratissima, and the common Jasmine, in oil of aloes or oil of benzoin, and then expose it to the sun for three days, adding fresh flowers every day. It is then used by the youth of both sexes to anoint their hair with, which they consider as their greatest ornament. In the spring, garlands and crowns are made of the plants, and used by the Hindoos in their sacrifices or religious rites. Both the single and this variety are figured in Van Rheede's Hortus Malabaricus, and also by Rumphius in his Herbarium Amboynense, who describes the flowers as opening in India at sun-set, continuing all night, and the following, when they fall off: that the succession is abundant, thriving well on a trellis, like common Jasmine, and having a charming appearance when impearled with the dew of the morning.

Our figure was made from a plant in the hot-house of J. Vere, esq.

Jasminum, Sambac Var flore plano

PLATE CCCCXCVIII.

HIBISCUS PRURIENS.

Stinging Hibiscus.

CLASS XVI. ORDER VI.

MONADELPHIA POLYANDRIA. Threads united. Many Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX duplex, exterior polyphyllus. Stigmata 5. Capsula 5-locularis, polysperma.

EMPALEMENT double; outer one many-leaved. 5 summits. Capsule 5-celled, many-seeded.

SPECIFIC CHARACTER.

HIBISCUS foliis sub-cordatis, lobatis, dentatis: floribus terminalibus, magnis, colore sulphureo, ad basin petalorum maculâ atropurpureâ notatis. Caulis et petioli setis parvis laxis obsiti sunt, quæ manibus adhærentes irritant et pungunt.

HIBISCUS with nearly heart-shaped leaves, lobed and toothed: flowers terminal, large, and of a sulphur colour, with a dark purple spot at the base of the petals. The stem and petioles are beset with small loose bristles, which sticking to the hand irritate and sting.

REFERENCE TO THE PLATE.

1. The empalement.
2. The chives cut open, one tip magnified.
3. Seed-bud and pointal, summits magnified.

THIS non-descript species of Hibiscus is a native of the East Indies. It approaches in general appearance nearest to the H. canabinus. The stems and footstalks of our plant are beset with short bristly hairs, so loosely attached that they easily come off, and, sticking about the hands, create an unpleasant sensation somewhat resembling the stinging of a nettle. The fine dark eye of the flower is a great relief to the surrounding sulphur colour, to the light delicacy of whose appearance it is so very difficult to do justice; for, in this showy family, elegant inflorescence is their principal recommendation.

Our figure represents a fine plant raised in the hot-stove of A. B. Lambert, esq.

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PLATE CCCCXCIX.

IPOMÆA COCCINEA.

Scarlet Ipomœa.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA infundibuliformis. Stigma capitato-globosum. Capsula 3-locularis.

BLOSSOM funnel-shaped. Summit headed, of a globular form. Capsule of 3 loculaments.

SPECIFIC CHARACTER.

IPOMÆA foliis hederinis: pedunculis multifloris: corollis saturate coccineis: caule purpureo, torto et involuto.

IPOMÆA with ivy-shaped leaves: footstalks with many flowers: blossoms of a deep scarlet: stem purple, twisted, and twining.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. Seed-bud and pointal, summit magnified.

OF this species of Ipomæa there are two good uncoloured figures: one in Commelin's Rariorum, tab. 21, under the title of Quamoclit Americana; the other in the Americana of Plumier, 89, tab. 103, under the appellation of Convolvulus coccineus; but not to be confounded with the Ipomæa coccinea (erroneously so called) of the Botanical Magazine, which is the I. luteola of Jacquin's Icones, and a very different plant: although Willdenow in his Species Plantarum has made a mere variety of it; observing that it differs in no other particular except in colour. But comparison, either with the living plants or the figures above alluded to, will prove them to be distinct in their foliage as well as the colour of their flowers. Neither of them is well discriminated by its specific title; as the I. luteola is more of a scarlet than of a yellow colour, and the coccinea is of too deep a red to be with accuracy denominated scarlet. But references to colour are mostly too equivocal to be very characteristic.

From Mr. J. Milne, botanic gardener at Fonthill, we received this specimen, whose luxuriant growth in the hot-stove may probably have occasioned the abbreviation in the filaments, which are generally extended a little beyond the mouth of the flower, instead of being confined to the base of the tube, as our figure represents; but in which we follow nature: and although it is not an unprecedented circumstance to find the threads shortened or lengthened by culture, yet when that difference is so very powerful as in the present instance, it is well deserving notice.

omea, cocanea

PLATE D.

PROTEA MUCRONIFOLIA.

Mucronate-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis lanceolatis, mucronatis, glaucis: involucro imbricato, ad basin parvo, cuneato, virescente; superis lanceolatis, patentibus, acutis, albis: floribus terminalibus, capitatis, carneis, petalis cohærentibus.

PROTEA with lance-shaped, mucronate leaves of a glaucous green: the involucrum tiled, small at the base, wedge-shaped, and greenish: those on the upper part are lance-shaped, spreading, pointed, and white: flowers are terminal and headed, flesh-coloured, with the petals adhering together.

REFERENCE TO THE PLATE.

1. A flower spread open, one tip magnified.
2. Seed-bud and pointal, summit magnified.

AMONGST the smaller species of this extensive genus the Protea mucronifolia may be placed, but by no means ranked among the least in beauty. It has been figured in the Paradisus Londinensis, and also in the Botanical Magazine, and therefore in the botanical world may be no longer considered as new or rare: but having already figured so many of the most beautiful, we cannot think of excluding any attractive or distinct species of this fine tribe of plants.

Our figure was taken from a plant in the garden of G. Hibbert, esq.

Protea, mucronata

PLATE DI.

HELLENIA ALLUGHAS.

Ceylon Hellenia.

CLASS I. ORDER I.

MONANDRIA MONOGYNIA. One Chive. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX tubulosus, bifidus. Corolla tripartita, laciniarum apicibus cucullatis. Nectarium quadrifidum. Capsula globosa, et trivalvis, septo duplici inclusa, polysperma. Semina arillata.

EMPALEMENT tubular, two-cleft. Blossom three-divided; the points of the segments are hooded. Nectarium four-cleft. Seed-vessel round, and three-valved, enclosed in a double loculament, many-seeded. Seeds arillated.

SPECIFIC CHARACTER.

HELLENIA foliis lanceolatis, vaginantibus: floribus in racemis terminalibus odoratissimis.

Habitat in paludibus Zeylanicis.

HELLENIA with lance-shaped sheathing leaves, with terminal racemes of flowers, which are very sweet-scented.

Native of the marshes about Columbo.

REFERENCE TO THE PLATE.

1. The spathe.
2. The sheath which crowns the seed-bud, cut open.
3. A flower divested of the chives and nectary.
4. The honey-cup.
5. Seed-bud, chives, and pointal.
6. The seed-bud and pointal, summit magnified.
7. The capsule.
8. The same divested of its outer coat.
9. A central branched cord that connects the lobes.
10. One of the lobes of the seed-vessel.
11. The same shown inside, with the seeds exposed and one lifted from its cell.
12. A seed without its arillus, or skinny coat.

THIS fine Monandrous plant was named Hellenia by Willdenow, after his friend Professor Hellenius: the title of Allughas was given it by the Cingalese, from the fruit when young appearing as if sprinkled with ashes. Burmann in his Thesaurus Zeylanicus, p. 54, informs us that the Allughas grows abundantly in the marshes about Columbo; that the flowers are very odoriferous, and are made into conserves and used as cordials to strengthen the head and stomach; from the fruit and seed an oil is extracted that is much used in medicine. Mr. Roscoe, in the 8th vol. of the Linnæan Transactions, has ranked it under the genus Alpinia; but the filamentary system of that gentleman we think infinitely too slender to support the great difference existing between the fruit of our plant and that of Alpinia.

Our figure was made from a fine living specimen, and the only one that has ever flowered in this country, raised from seed by A. B. Lambert, esq.

Pl. 301
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Ellenia, Allughas

PLATE DII.

LOBELIA SURINAMENSIS; *Var. flore rubro.*

Surinam Lobelia; Red-flowered Variety.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-fidus. Corolla 1-petala, 5-fida, irregularis. Antheræ cohærentes. Capsula infera, 2- seu 3-locularis.

EMPALEMENT 5-cleft. Blossom 1 petal, irregular, 5-cleft. Chives adhering together. Capsule beneath, 2, sometimes 3 loculaments.

SPECIFIC CHARACTER.

LOBELIA caule suffruticoso: foliis oblongis, glabris, serratis: floribus axillaribus, pedunculatis: corollis læte rubris, pentagonis, curvatis, tubulosis, supra basin impressis.

Habitat in Surinamo.

LOBELIA with a shrubby stem: leaves oblong, smooth, and sawed: flowers axillary, pedunculated: blossoms of a bright red colour, five-sided, curved, and tubular, indented just above the base.

Native of Surinam.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. The chives spread open.
4. The seed-bud and pointal.
5. Seed-bud cut transversely.

A fine living specimen of this elegant variety of the Lobelia Surinamensis was communicated to the author by A. B. Lambert, esq. who received it amongst a large collection of hot-house plants presented to him by Lord Seaforth, and collected by that nobleman in the West Indies whilst Governor of the Island of Barbadoes. The plant from which this figure was delineated was near four feet high, with numerous branches terminated by buds and flowers, whose brilliance enlivening the gloomy month of November, may justly rank it as one of the greatest ornaments of the hot-stove.

Lobelia, Surinamensis Var. flore rubro

PLATE DIII.

NYMPHÆA RUBRA.

Red-flowered Nymphæa.

CLASS XIII. ORDER I.

POLYANDRIA MONOGYNIA. Many Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA polypetala. Calyx 4- seu 5-phyllus. Bacca multilocularis, loculis polyspermis.

BLOSSOM many-petalled. Empalement 4- or 5-leaved. Berry many-celled, with many seeds in each cell.

SPECIFIC CHARACTER.

NYMPHÆA foliis sub-orbiculatis, irregulariter dentatis, glaberrimis: lobis approximatis: corollis rubris: radice battatis assimilatâ, et multiplicante in modum istius vegetabilis.

Nymphæa rubra. *Roxb. MSS.*

NYMPHÆA with nearly round leaves irregularly toothed, and very smooth, with the lobes approximating: blossom red: root resembling that of a potatoe, and increasing like that vegetable.

REFERENCE TO THE PLATE.

1. A chive.
2. Seed-bud and pointal.

THIS fine red aquatic is so nearly allied to the Nymphæa Lotus, that many consider it as only a variety; but it certainly is specifically distinct in the colour of the flowers, as the term variety can only be applicable to those lighter or darker shades of colour that may occasionally vary by culture or climate. This Nymphæa is no doubt, like the N. Lotus, considered as a sacred plant; but probably that species may be more highly estimated, from the emblematical purity of its fine white petals. As four or five more figures will include every species of this fine section of aquatics at present known, we shall not omit any of them, and intend, in the course of the ensuing summer, to give a figure of that most magnificent of all the species the N. Nelumbo.

Our figure was made from a plant in the collection of J. Vere, esq. raised in a tub of water placed in a common hot-bed; where, notwithstanding its circumscribed situation, it flowered for the first time in this kingdom, under the care of Mr. Anderson the botanic gardener, who informs me that this species is capable of great increase from the root, whilst the N. Lotus affords only one solitary plant.

PLATE DIV.

SOLANUM SEAFORTHIANUM.

Seaforth's Solanum.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-fidus. Corolla rotata, limbo 5-fido, patente: tubo brevi. Antheræ oblongæ, conniventes, apice poris geminis, dehiscentes. Stigma obtusum. Bacca sub-rotunda.

EMPALEMENT 5-cleft. Blossom wheel-shaped. Border 5-cleft, spreading. Tube short. Chives oblong, leaning together, with holes in pairs at the point, and splitting. Stigma obtuse. Berry nearly round.

SPECIFIC CHARACTER.

SOLANUM caule inermi, scandente, herbaceo: foliis pinnatis, undulatis: junioribus lanceolatis: floribus in racemo, aut ramo cymoso, ab axillis foliorum: corollis carneis.

NIGHTSHADE with an unarmed stem, climbing and herbaceous. Leaves pinnated, and waved: the younger ones lance-shaped. Flowers grow in a raceme, or cymose branch, from the axillæ of the leaves. Blossom flesh-colour.

REFERENCE TO THE PLATE.

1. Empalement and pointal, summit magnified.
2. A blossom spread open.

THROUGHOUT this extended genus there are but few which possess attractions equal to this new and undescribed species of Solanum. It was introduced by Lord Seaforth from the West Indies; and although brought from so warm a climate, it succeeds best in the conservatory. It approaches nearest in its general appearance to the S. radicans of Linnæus; but Mr. Lambert informs me that it is not at all inclined to root, like that species. The specimen which our figure represents was sent to us in fine bloom by Mr. J. Milne, botanic gardener.

Solanum. Seaforthianum

PLATE DV.

ORNITHOGALUM FLAVISSIMUM.

Yellow-flowered Star of Bethlehem.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, persistens. Filamenta basi dilatata. Capsula 3-locularis. Semina subrotunda, nuda.

BLOSSOM 6-petalled, remaining. Threads widened at the base. Capsule 3-celled. Seeds roundish, naked.

SPECIFIC CHARACTER.

ORNITHOGALUM racemo longo: floribus magnis, flavissimis: bracteis membranaceis, ovato-acutis: foliis lanceolatis, reflexis.

Ornithogalum flavissimum. *Jacq. Icones, 2. tab.* 436.

STAR OF BETHLEHEM with a long spike: the flowers are large, and very yellow: the flower-prop is skinny, and pointedly egg-shaped: leaves lance-shaped, and reflexed.

REFERENCE TO THE PLATE.

1. A bract or flower-prop.
2. Seed-bud, chives, and pointal.
3. Seed-bud and pointal, summit magnified.
4. A transverse section of the seed-bud magnified.

THIS yellow Ornithogalum was communicated to the author by the Hon. W. Irby, last summer, from his collection at Farnham Royal, where it was raised, we understand, from the seed of the O. aureum. The only figure of it extant is in the Icones of Jacquin. The continuance and abundance of its fine bloom may justly rank it amongst the most attractive of the genus.

ERRATUM.—In our last Number, Pl. DI, in the generic character of Hellenia describing the capsule, instead of *trivalvis*, septo duplici inclusa, read *e*-valvis, trilocularis—valveless, three-celled.

Ornithogalum, flavum

PLATE DVI.

RUELLIA CRISTATA.

Crested Ruellia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-partitus. Corolla monopetala, limbo 5-lobo, inæquali. Stamina biconjugata. Stylus filiformis. Stigma bifidum. Capsula dissepimentis dentatis, elasticis, dehiscentibus. Semina pauca.

EMPALEMENT 5-parted. Blossom one petal: border 5-lobed, unequal. Chives by pairs. Shaft thread-shaped. Summit two-cleft. Capsule with the partitions toothed, elastic, and splitting. Seeds few.

SPECIFIC CHARACTER.

RUELLIA cristata, spicis terminalibus, tetragonis: corollis coccineis: oris laciniis inæqualibus, acutis: laciniâ inferiore revolutâ: foliis sub-lanceolatis, acuminatis, undulatisque.

Justicia cristata. *Jacq. Hort. Schœn. vol.* iii. *tab.* 320.

RUELLIA with crested flowers growing in a terminal four-sided spike. Blossoms scarlet: the segments of the border are unequal and pointed: the lower segment is rolled back: the leaves are nearly lance-shaped, pointed, and undulated.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. Seed-bud and pointal, summit magnified.

OF this fine stove plant there is a very good figure in the Hortus Schœnbrunnensis of Jacquin, under the appellation of Justicia cristata. But finding the generic character accord much better with the genus Ruellia, we have, in conformity to the sexual system of Linnæus, given it under that title. Our figure represents only a side branch of the plant, whose size was congenial to the dimensions of the work; and although the centre branch would have been, like Jacquin's figure, more splendid, it would by no means have been so picturesque. It flowered for the first time in this country with A. B. Lambert, esq., and was introduced by Lord Seaforth from the West Indies.

Ruellia, ovata

PLATE DVII.

PROTEA ABROTANIFOLIA.

Southernwood-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis bipinnatis, filiformibus, glabris: floribus terminalibus, umbellatis: pedunculis longis, bracteis magnis, reflexis: corollis carneis, externe villosis.

Habitat ad Caput Bonæ Spei.

PROTEA with doubly-winged leaves, thread-shaped, and smooth: flowers terminate the branches in umbels: footstalks are long, with large reflexed floral leaves: blossom flesh-coloured, and hairy on the outer side.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A leaf.
2. A flower with its bract, one tip magnified.
3. Seed-bud and pointal, summit magnified.
4. A branch of a slight variety.

THIS Protea is one of a fine section with small divided leaves, that very much resemble the southernwood (whence our specific title). We have already four drawings of distinct species, besides varieties, whose foliage is likewise characteristic of that shrub. On the same plate we have given part of the branch of a variety that we think bears too much resemblance to require a separate figure.

Our drawing was made last July from plants in the Hibbertian collection.

Protea abrotanifolia

PLATE DVIII.

CACTUS GRANDIFLORUS.

Large-flowered Cereus.

CLASS XII. ORDER I.

ICOSANDRIA MONOGYNIA. About 20 Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX monophyllus, superus, imbricatus. Corolla multiplex. Bacca monolocularis, polysperma.

EMPALEMENT one-leafed, above, tiled. Blossom of many folds. Berry of one loculament, many-seeded.

SPECIFIC CHARACTER.

CACTUS scandens vel repens, ramosus, articulatus, cum radiculis lateralibus: ramis sex- vel octagonis, aculeos stellatos ferentibus. Calyx radiatus, flavus: corollis albis. Flores magni, vesperè expansi, odorem fragrantissimum exhalantes.
Miller's Icones, tab. 90.

CEREUS with a climbing or creeping stem, branching, jointed, with small side-roots: branches six- or eight-angled, bearing starry prickles. Empalement rayed and yellow. Blossom white. Flowers large, expanding in the evening, and breathing a most fragrant odour.

REFERENCE TO THE PLATE.

1. A flower divested of the petals, and spread open.

THIS elegant hot-house plant has been figured by several authors, and is well known by the appellation of the Night-blowing Cereus, and yet but few of Flora's lovely train, warmed by the mid-day sun's refulgent beams, in splendour can compare with this nocturnal beauty, whose brilliant flowers expand about sun-set. But, alas! too soon condemned to fade, they close up early on the following morn. Sometimes they have been found unclosed almost within an hour of noon: a circumstance that very rarely happens, as it generally displays its graceful blossoms to Cynthia's silver beams, perfuming the still cool air of midnight with its aromatic fragrance.

Our figure was taken from a plant in the collection of the Dowager Lady de Clifford at Dudley Grove, Paddington.

Cactus grandiflorus.

PLATE DIX.

GENTIANA FIMBRIATA.

Fringed-flowered Gentian.

CLASS V. ORDER II.

PENTANDRIA DIGYNIA. Five Chives. Two Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX monophyllus. Corolla monopetala. Capsula bivalvis, unilocularis, receptaculis duobus longitudinalibus.

EMPALEMENT one-leafed. Blossom one petal. Capsule two-valved, one-celled, with two longitudinal receptacles.

SPECIFIC CHARACTER.

GENTIANA corollis quadrifidis, marginibus fimbriatis, colore cæruleo, in sole tantùm expandentibus, spithamæis : foliis ovato-acuminatis, oppositis, alternatis.
Habitat in America boreali.

GENTIAN with blossoms four-cleft, and fringed margins, of a blue colour, expanding only in the sun, a span high, with ovate-pointed leaves opposite and alternate.
Native of North America.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. Seed-bud and pointals.
4. The same spread open.

THIS new and undescribed species of Gentian possesses many attractions. Its flowers are of a fine shining purply blue colour, and remain a long time in perfection, but only expand with the assistance of the solar ray. Our figure represents a group of seedling plants, just as we found them growing in a small pot in the nursery of Messrs. Whitley and Brames, who inform me they raised them from seed, and they flowered the second year, but think they will only prove biennial.

tiana, fimbriata

PLATE DX.

ASPALATHUS GLOBOSUS.

Round-flowering Aspalathus.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Threads in two Sets. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX quinquefidus. Corolla papilionacea. Legumen ovatum, inaristatum, sub-dispermum.

EMPALEMENT five-cleft. Blossom butterfly-shaped. Pod egg-shaped, beardless, nearly two-seeded.

SPECIFIC CHARACTER.

ASPALATHUS foliis ramos vestientibus, linearibus, tomentosis: floribus terminalibus, in capitulo rotundato villoso confertis: corollis fuscis: ramis longis, gracilibus.

ASPALATHUS with leaves clothing the branches, linear, and downy: flowers terminal, crowded together in a round woolly head: blossom brown: branches long and slender.

REFERENCE TO THE PLATE.

1. A flower.
2. The empalement spread open.
3. The standard.
4. One of the wings.
5. The keel.
6. The chives.
7. The same magnified.
8. Seed-bud and pointal.
9. The same magnified.

THIS nondescript species of Aspalathus we have not seen in any collection but that of G. Hibbert, esq. where in the summer of 1801 it was in fine bloom, full three feet high, and its long pendulous branches gave it a very graceful appearance. Its compact globular heads of flowers remained a considerable time in perfection; but the close soft hair with which they were surrounded, indicated a delicacy of habit too susceptible of the damps which have since destroyed the plant, and we believe it is for the present lost to this country.

Aspalathus, glomerata

PLATE DXI.

SOLANUM BETACEUM.

Beet-like Solanum.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA rotata. Antheræ subcoalitæ, apice poris geminis, dehiscentes. Bacca bilocularis.

BLOSSOM wheel-shaped. Antheræ nearly joined together, with holes in pairs at the point, and splitting. Berry two-locular.

SPECIFIC CHARACTER.

SOLANUM caule inermi, erecto, maculato, altissimo: foliis radicalibus permagnis, fœtidissimis: corollis carneis, patentibus, ad apicem sub-reflexis, qui cucullatus est.
Cavanilles Icones, vol. vi. 15. *tab.* 524.

NIGHTSHADE with an unarmed stem, upright, spotted, and very tall. The radical leaves are very large, and extremely fetid. Blossoms flesh-coloured, spreading, and somewhat reflexed at the point, which is hooded.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. Seed-bud and pointal.
4. A transverse section of the seed-bud magnified.

THIS gigantic plant is by far the largest species of Solanum at present known. Our figure represents the upper part of a plant that was twelve feet high, and the only one that ever flowered in this kingdom, in the collection of A. B. Lambert, esq. who informed me that the radical leaves measured fifteen inches in breadth and twenty in length. There is but one figure of it extant, and that is in the Icones of Cavanilles, who knew not whence it was indigenous: but it is supposed to be a native of South America. It thrives best against the shelter of a south wall in summer, but in winter requires the protection of the green-house. We have seen two plants of it in the collection at Holland-house, the enormous size of whose foliage then indicated an equal magnitude with our plant when they arrive at a flowering state. At present it is very scarce, and likely so to continue from the extreme fetidity of the foliage. Upon burning a piece of the stalk, it displayed such a nitrous appearance as indicated it to be very strongly impregnated with saltpetre.

Solanum, betaceum

PLATE DXII.

PROTEA PINNATA.

Winged-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA pinnata: floribus glomeratis, capitatis, terminalibus: corollis rubris, pilosis.

Habitat ad Caput Bonæ Spei.

PROTEA with winged leaves: flowers grow in round terminal heads: blossoms red and hairy.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. The flower prop.
2. A blossom with one tip magnified.
3. Seed-bud and pointal, summit magnified.

THIS new species of Protea resembles in its flowers the P. glomerata, in its foliage the P. argentiflora, but altogether is very different from either. Like most of the genus, it is slow in growth, and remains a long time in perfection. Our drawing was made at the Hibbertian collection the summer before last. We also observed it again last year, very near unfolding its flowers; but being later in the autumn than usual, most probably prevented their expansion. We are inclined to think this species is rather tender, and, like too many of this extensive family, requires great care and attention to preserve: a circumstance that most likely prevents their being in that request which their beauty and versatility would otherwise command.

Protea, pinnata

PLATE DXIII.

CACTUS HEXAGONUS.

Great Torch Thistle.

CLASS XII. ORDER I.

ICOSANDRIA MONOGYNIA. About 20 Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX monophyllus, superus, imbricatus. Corolla multiplex. Bacca monolocularis, polysperma.

EMPALEMENT one-leafed, above, tiled. Blossom of many folds. Berry of one loculament, many-seeded.

SPECIFIC CHARACTER.

CACTUS erectus, altissimus, maximus, sex- et octagonus, angulis distantibus, aculeos stellatos ferens. Calyx tubulosus, viridis: corollis radiatis, albis: petalis exterioribus læviter purpureis.
Habitat in Surinamo.
Cactus hexagonus. Willd. Sp. Pl.

CACTUS with an upright stem, tall and large, six- and eight-sided, angles distant, bearing starry prickles. Empalement tubular, and green. Blossom rayed, and white: the outer petals slightly tinged with purple.
Native of Surinam.

REFERENCE TO THE PLATE.

1. A flower divested of the petals, and cut open to the base of the tube.
2. The seed-bud cut transversely.
3. One of the side shoots.
4. Miniature figure of the plant.

No genus of plants more remarkable has yet been discovered than that to which our present subject belongs, whether we consider their simple succulent structure, strange diversity of form and habit, or the geometrical manner of their growth and disposition of their spines. Some of them, like the *Opuntia* and *Ficus Indica*, grow like figs or cucumbers stuck one upon another; others, like C. curassavicus, resemble a little cushion stuck full of pins with the points outwards; the C. Melocactus and mammillaris are like melons covered with prickles: one, the moniliformis, has globular joints: the C. Tuna, (which Jacquin in his History of the Plants of America informs us is planted in the Island of St. Eustatius round their towns as fortifications,) the coccinilifer, and some others, have compressed ones: in C. Phyllanthus they are two-edged: we have Cactus triangularis, tetragonus, pentagonus, and the hexagonus now figured, but which varies occasionally from 6 to 8: we also have 7- 8- 9- 10- 14- and 15-angled species, and even their spines are regularly disposed in quincunxes.

Monsieur Thiery, in his Voyage à Guaxaca, informs us that in Mexico he found whole forests of the Cactus composed of 8 or 10 different species, from 40 to 50 feet high, and some of them 5 or 6 feet in circumference. Woe to the unfortunate traveller who is under them in a storm, when their thorny tops are dashed to the ground! his destruction is inevitable. In Mexico and Campeachy, not only the fruits but the young shoots of most of the species of Cacti are eaten: ragouts are also made of the buds and unopened flowers: even their seeds are made into bread, and that of the smaller sorts (as C. mammillaris) into tarts; of which Monsieur Thiery says he had tasted, and they were excellent. With the fruit of C. Pitahiaha and that of C. Tuna he supported himself when almost famished in traversing the sandy deserts. Professor Jacquin also informs us, that the fruits of all the species he found in America were eaten by the natives. The arts are likewise much indebted to the genus Cactus, as the cochineal insect (so essential in the formation of our fine lake and carmine colours) can only be bred upon the coccinilifer and some other species of Cacti.

Our figure represents a plant that flowered in the hot-house of Major Leathes at Bury St. Edmunds. The living specimen, accompanied with an accurate miniature representation of the plant, was obligingly communicated by the Rev. G. R. Leathes, who informs me that it was 17 feet high; that the bend at the top was owing to a want of room in its ascent, which subverted its otherwise naturally erect posture; that it began to flower in July, expanding about 5 in the afternoon, and was in the greatest perfection at midnight: but as the autumn advanced the flowers opened later and later, till at last in the month of October (by which time at least 30 had been produced) they did not open till 9 or 10 o'clock in the morning. It is increased by the side shoots, whose absence adds vigour to the plant, which is as hardy as any of the species, and may be kept in a green-house, but will not flower without the assistance of the hot-house, and even then is very rarely to be found in bloom.

Cactus, hexagonus

PLATE DXIV.

PÆONIA ANOMALA.

Anomalous-leaved Pæony.

CLASS XIII. ORDER V.

POLYANDRIA PENTAGYNIA. Many Chives. Five Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-phyllus. Petala 5. Styli 0. Capsulæ polyspermæ.

CUP 5-leaved. Petals 5. Pointal none. Capsules many-seeded.

SPECIFIC CHARACTER.

PÆONIA foliis biternatis, multipartitis: foliolis lanceolatis, undulatis, glabris: corollis læte purpureis, depressis: capsulis glabris.

Habitat in totâ Sibiria.

PÆONY with biternate leaves, many-parted. Leaflets lance-shaped, waved, and smooth. Blossom of a bright purple, depressed. Capsules smooth.

Native throughout Siberia.

REFERENCE TO THE PLATE.

1. The empalement shown from the outer side.
2. Seed-buds, chives, and pointals.

OUR figure represents a fine and at present very rare species of Pæony, not only ornamental in its flowers, but useful in its roots, which are eaten by the Mongolians in Tartary, at their meals, as vegetables. It flowered for the first time in this country in the month of July 1807 in the garden of Mr. J. Bell, near Brentford.

anemala. anemala

PLATE DXV.

CYNANCHUM MUCRONATUM.

Mucronate-leaved Cynanchum.

CLASS V. ORDER II.

PENTANDRIA DIGYNIA. Five Chives. Two Pointals.

ESSENTIAL GENERIC CHARACTER.

CONTORTUM. Nectarium cylindricum, quinquedentatum.

CONTORTED. Honey-cup cylindrical, five-toothed.

SPECIFIC CHARACTER.

CYNANCHUM caule scandente, piloso: foliis sub-cordatis, apice mucronatis: floribus axillaribus, in umbellis proliferis: corollis purpureis et virescentibus: oris laciniis acutis, tortis, reflexis.

Habitat in Insula Trinidada.

CYNANCHUM with a hairy climbing stem. Leaves nearly heart-shaped, with a mucronated end. Flowers axillary, in proliferous umbels. Blossoms purple and greenish. Segments of the border pointed, twisted, and bent back.

Native of the Island of Trinidad.

REFERENCE TO THE PLATE.

1. The empalement.
2. The blossom spread open.
3. The parts of fructification magnified.
4. The outer scale of the honey-cup.
5. The inner of the same.
6. The seed-bud, shaft, summit and chives, magnified.

THIS handsome new species of Cynanchum was introduced by Lord Seaforth, who informs us that it is a native of the Island of Trinidad. It flowered with A. B. Lambert, esq. at Royston House, last June, for the first time in England, and is not as yet in any other collection. It is a very free grower, running to a great length, with many umbels of flowers, which succeed each other during most part of the summer.

Cynanchum, mucronatum

PLATE DXVI.

ASTRAGALUS VILLOSUS.

Hairy Astragalus.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Two Brotherhoods. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

LEGUMEN plerumque biloculare, gibbum. Semina biserialia.	A POD mostly two-celled, bunched. Seeds in two rows.

SPECIFIC CHARACTER.

ASTRAGALUS caule humili villoso: foliis pinnatis: foliolis 20—30, oblongis, geminis, villosis: petiolis longissimis, villosis: floribus aggregatis viride flavis: leguminibus oblongis, lanatis.	ASTRAGALUS with a low hairy stem. Leaves winged. Leaflets 20 to 30, oblong, in pairs, and villous. Footstalk of the leaves very long, and hairy. Flowers in bunches, of a greenish yellow. Pod oblong, and woolly.

REFERENCE TO THE PLATE.

1. The empalement.
2. The standard.
3. One of the wings.
4. The keel.
5. The chives.
6. The same spread open.
7. Seed-bud and pointal.
8. The same shown from the under side.

THE figure of this handsome hardy perennial shrub was delineated from a plant in the collection of J. Swainson, esq. at Twickenham, where it was raised from seed received from Vienna in the year 1805, under the title of Astragalus exscapus: but upon comparison with the figures extant of that species, we could not with propriety rank it under that denomination, especially as it bears as much or more resemblance to some of the surrounding species of that extensive family, one hundred and seventy-four of which are already enumerated by Willdenow. It is a plant of very humble growth, but by no means stemless, and produces flowers in abundant succession during the months of July and August.

Astragalus. villosus

PLATE DXVII.

PROTEA IMBRICATA.

Imbricated-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis imbricatis, lanceolatis, nervosis, pilosis: floribus terminalibus, confertim capitatis, villosis.

Habitat ad Caput Bonæ Spei.

Thunb. Diss. 45. *t.* 5. *f.* 2.

PROTEA with imbricated leaves, lance-shaped, nerved, and hairy: flowers terminal, in crowded heads, and hairy.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A leaf magnified.
2. An umbel of flowers.
3. A chive magnified.
4. Seed-bud and pointal.

THIS Cape species is described and figured by Thunberg in his Dissertation on the genus Protea. It is rather a tender plant, and flowers at first very sparingly; which is the case with almost all this tribe for the first year or two: after they are more familiarized to our climate they become much more prolific. We have seen native specimens of this species abundant in flowers terminating every branch.

Our figure was made from a plant in the conservatory of G. Hibbert, esq. whose collection still contains unrivalled the greatest number of new and beautiful species of Protea.

Protea, imbricata

PLATE DXVIII.

MAGNOLIA GRANDIFLORA.

Large-flowered Magnolia.

CLASS XIII. ORDER VII.

POLYANDRIA POLYGYNIA. Many Chives. Many Pointals.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

MAGNOLIA foliis persistentibus, lanceolatis, obtusis, marginibus cartilagineis, supra viridi-lucidis, subtus ferrugineis: corollis magnis, crassis, albis, odoratissimis.

Habitat in Florida et Carolina meridionali.

MAGNOLIA with leaves persistent, lance-shaped, and blunt, with cartilaginous margins of a shining green on the upper surface, and rusty-coloured beneath. Blossoms large, thick, white, and very sweet-scented.

Native of Florida and South Carolina.

REFERENCE TO THE PLATE.

1. The chives and pointals.
2. A chive.
3. The same shown from the outer side.

THIS odoriferous plant is figured by Catesby in his Caroliniensis, who describes it as a stately tree eighty feet high; that it perfumes the woods with its fragrance; that its fruit is of a glittering red, not falling immediately to the ground, but hanging pendulous by small white threads about two inches long, in which state it must still be a beautiful object. It very rarely, if ever, perfects its seed in this country. Independent of its fine large sweet-scented flowers, it is a handsome evergreen. There are several variations of it in foliage. It succeeds well, trained up against a south wall. From a plant so situated, on the premises of Messrs. Whitley and Brames, our figure was delineated.

Magnolia grandiflora

PLATE DXIX.

COMMERSONIA ECHINATA.

Bristly-fruited Commersonia.

CLASS V. ORDER V.

PENTANDRIA PENTAGYNIA. Five Chives. Five Pointals.

GENERIC CHARACTER.

CALYX monophyllus, 5-partitus.
COROLLA. Petala 5, linearia, basi lobata, apice inflexa. Nectarium 5-partitum.

STAMINA. Filamenta 5, brevissima, ad basin petalorum. Antheræ sub-rotundæ, parvæ.
GERMEN globosum, villosum. Styli 5, breves, approximantes. Stigma globosum.
CAPSULA dura, setacea: setis longis, pilosis, 5-locularibus: loculamentis dispermis.
SEMINA ovata.

EMPALEMENT one-leafed, 5-parted.
BLOSSOM. Petals 5, linear, lobed at the base, and turned inward at the point. Nectarium 5-parted.
CHIVES. Threads 5, very short, at the base of the petals. Tips nearly round, and small.
SEED-BUD globular and villose. Shafts 5, short, and approximating. Summit headed.
CAPSULE hard and bristly. Bristles long and hairy, 5-locular; the loculaments 2-seeded.
SEEDS ovate.

REFERENCE TO THE PLATE.

1. The empalement.
2. The petals and honey-cups.
3. A petal and chives, magnified.
4. Seed-bud and pointals.
5. The capsule spread open.
6. One of the loculaments divested of the bristles.
7. The same split open, one seed detached.

THIS fragrant plant was named by Forster after Commerson, the celebrated botanist, who accompanied Bougainville in his Voyage round the World, and explored the coasts of Brazil and Buenos Ayres, the Streights of Magellan, and the Islands of Otaheite, New Britain, Bouro, Java, and the Mauritius, for the space of seven years, and returned to France with a herbarium of above 3000 species, amongst which were many new genera; all which, together with his manuscripts, are preserved in the Museum of Natural History at Paris. Duplicates of them were by him sent to Linnæus, and are now in the possession of Dr. Smith, President of the Linnæan Society. Our drawing was made from a plant (the only one at present in the kingdom) in the hot-house of A. B. Lambert, esq. Boyton House, who informs me that it flowered with him the second year from seed, in great abundance, and continued in flower all the summer, during the warmer part of which it was extremely fragrant; which renders it a valuable addition to our collection of stove plants. The flowers for several weeks proved abortive, owing to their very singular construction; in which the short stamina are completely excluded from the pistillum. As a remedy for this, Mr. Lambert introduced a hive of bees into the hot-house, which soon produced the desired effect, as in three or four days after the germens began to swell. The form of the leaves varies exceedingly, particularly whilst the plant is young, coming sometimes much broader and with two side lobes; which has been mistaken by some for a different species. Almost every part of the plant is villous. Rumphius informs us (in his Herbarium Amboynense) that the Commersonia grows to a tree in the Moluccas, and is so plentiful that its wood is in common use as *deal*; that the bark is manufactured into matches; and that the bruised leaves smell like the flowers of the *Sampacca*, which is considered by the natives as one of the sweetest flowers in India. It is a native of Amboyna, New Caledonia, and other Islands in the South Seas.

echinata
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PLATE DXX.

EUOSMA ALBIFLORA.

White-flowered Euosma.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX persistens, basi bracteatus, quinque-partitus, laciniis subrotundis appressis.

COROLLA campanulata, limbo patente 5-lobo.

STAMINA quinque tubo inserta, inclusa, divisurisque corollæ alterna: Filamenta brevia: Antheræ subrotundæ, compressæ.

GERMEN superum, subovatum: Stylus crassus, brevis: Stigma capitatum.

CAPSULA glabra cuneato-ovata, stylo persistente coronata, bisulca, dicocca: Cocculi bivalves polyspermi, intus ad apices dehiscentes: Receptacula in singulo cocculo singulum, subtrigonum, longum, erectum, marginibus valvarum annexum.

SEMINA ovata, hinc convexa, inde depressa papillis minutissimis undique scabra, duplici serie receptaculo imposita.

EMPALEMENT persistent, bracteated at the base, 5-parted, with the divisions nearly round, and lying close.

BLOSSOM bell-shaped, the mouth spreading 5-lobed.

CHIVES five inserted in the tube and included, alternate with the divisions of the blossom: Threads short: Tips nearly round, compressed.

SEED-BUD above, oval: Shaft thick and short: Summit simple-headed.

FRUIT a dry capsule of an oval wedge-shape, two-furrowed, dividing into two parts, and crowned with the persistent shaft: each part is two-valved and many-seeded, opening on the inside at the top: Receptacles for the seeds one in each cell; they are long, three-sided and erect, lying upon the edges of the valves.

SEEDS oval, convex on one side and depressed on the other, every where rough with minute tubercles, and placed upon the receptacle in a double series.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom.
3. The same spread open.
4. Seed-bud and pointal.
5. The same magnified.
6. The capsule.
7. The same split into two divisions.
8. One of the divisions uncovered, to show the situation of the seed.
9. A ripe seed.

THE specimen of this new and very distinct genus was communicated April the 11th by the marquis of Blandford from a fine plant in his lordship's collection at White Knights, planted against a wall on a south aspect, about four feet high, and nearly covered with blossoms. Its great fragrance, more resembling that of the *May* (Cratægus Oxyacantha) than any thing else we are acquainted with, makes the plant very desirable to collectors, and the more so, that it is hardy enough to bear our winters without the shelter of a green-house, and blossoms so early in spring. This fragrant shrub is a native of New Holland in the neighbourhood of Port Jackson, from whence we have seen fine specimens in the collection of A. B. Lambert, esq. who favoured us with the ripe fruit. Who first introduced the plant, we have not been able to learn, but have seen it in several collections.

Euosma, albiflora

PLATE DXXI.

ERIOSPERMUM FOLIOLIFERUM.

Leaflet-bearing Eriospermum.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX nullus.

COROLLA. Petala sex basi connata, subtus lanceolata, acuta: tria exteriora patula: tria interiora erecta, cum limbo acuto patulo connivente. Omnia post impregnationem erecta, in modum coni.

STAMINA. Filamenta sex, late lanceolata, acuta, plana, apicibus introrsum volutis. Antheræ oblongæ, incumbentes.

PISTILLUM. Germen superum, subrotundum, trisulcatum. Stylus filiformis, erectus. Stigma obtusum.

PERICARPIUM. Capsula triloba, trilocularis, trivalvis.

SEMINA pauca, lanceolata, acuta, pilis tomentosis obsessa.

EMPALEMENT none.

BLOSSOM. Six petals approaching together at the base, beneath lance-shaped and pointed, the three outer ones spreading: the three inner ones upright, with a pointed wide approaching border. All after impregnation stand upright, like a cone.

CHIVES. Six threads broadly lance-shaped, pointed, and flat, with the points turned inward. Tips oblong, and lying on them.

POINTAL. Seed-bud above, nearly round, three-furrowed. Shaft thread-shaped, upright. Summit blunt.

SEED-VESSEL. Capsule 3-lobed, 3-locular, 3-valved.

SEEDS few, lance-shaped, pointed, and covered with downy hairs.

SPECIFIC CHARACTER.

ERIOSPERMUM foliis sub-cordatis, superne folia parva erecta linguæformia, filamentis albis parvis obsessa, ferentibus. Flores spicati, laxi. Corolla lutea, viride striata.

Habitat in Caput Bonæ Spei.

ERIOSPERMUM with nearly heart-shaped leaves, bearing on their upper surface little upright tongue-shaped leaflets beset with small white threads. Flowers grow in a loose spike. Blossom yellow, striped with green.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. Chives and pointal.
2. A chive magnified.
3. Seed-bud and pointal.
4. Seed-bud cut transversely, magnified.

THIS curious Cape plant is not at present, we believe, in any other collection in this kingdom than that of G. Hibbert, esq. where we first observed it in the autumn of 1806. It was not then in bloom, but flowered the following summer. It is by no means specious in its flowers, but very interesting in the singularity of its foliage, whose uncommon structure is very distinct from any plant we have ever seen. Mr. Knight, the botanic gardener, informs me that it increases from the root, but not abundantly, and, like most Cape bulbs, is in a dormant state during the latter part of autumn, at which time it should be watered very sparingly. It appears rather impatient of having its roots often disturbed: once in two or three years is necessary, not only to renew the earth, but to take off any small bulbs it may have produced. It delights to grow in a light loamy or peaty soil, and should stand in an elevated part of the green-house, to enjoy a full circulation of air.

...permum foliolíferum

PLATE DXXII.

PROTEA ABROTANIFOLIA HIRTA.

Hairy Southernwood-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis bipinnatis, filiformibus, pilosis: floribus ramos terminantibus in umbellis confertis: pedunculis brevissimis: bracteis erectis: corollis pallide carneis. Stigmata nigra.

Habitat ad Caput Bonæ Spei.

PROTEA with doubly-winged leaves, thread-shaped, and hairy. Flowers terminate the branches in crowded umbels. Footstalks very short. Floral leaves upright. Blossoms of a pale flesh-colour. Summit of the pointal black.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A flower-prop.
2. The chives spread open.
3. A chive magnified.
4. Seed-bud and pointal, summit magnified.

THIS hairy-leaved Protea resembles the P. abrotanifolia, Pl. 507, but is upon examination very distinct. The flowers are of a pale rose colour, but have a lively appearance from the contrasted blackness of the stigma. It is a round bushy plant, flowering early in the autumn, requiring the same treatment as the generality of those species with small divided leaves.

Our figure was made from a plant in the Hibbertian collection.

...ia abretanifolia hirta

PLATE DXXIII.

GORTERIA PAVONIA.

Peacock Gorteria.

CLASS XIX. ORDER IV.

SYNGENESIA POLYGAMIA NECESSARIA. Tips united. Necessary Pointals.

ESSENTIAL GENERIC CHARACTER.

RECEPTACULUM nudum. Pappus lanatus. Corolla radiata, lingulata. Calyx monophyllus, squamis imbricatis tectus.

RECEPTACLE naked. Down woolly. Blossom rayed, tongue-shaped. Empalement one-leafed, covered with imbricated scales.

SPECIFIC CHARACTER.

GORTERIA foliis pinnatis: foliolis æqualibus, ovatis, marginibus revolutis, pilosis, subtus albis: petalis radii magnis, aurantiis, ad basin eleganter notatis. Caulis herbaceus.

GORTERIA with winged leaves. The leaflets are equal, ovate, rolled back at the edges, hairy, and white beneath: petals of the ray large, of a gold-colour, and elegantly marked at the base. Stem herbaceous.

REFERENCE TO THE PLATE.

1. The empalement.
2. One of the radiating petals.
3. The same shown from the under side.
4. A petal as it appears when rolled up.
5. A floret of the disk.
6. The seed-bud and pointal.

THIS new species of Gorteria stands foremost in the ranks of beauty whilst expanded by the solar ray, whose absence is soon visible in the plant by the rolling up of the petals; but on the following morn, when the sun's beams begin to warm the vegetable world, they again unfold themselves with undiminished lustre, and so continue successively for near a fortnight.

Our drawing was made from a fine plant in the nursery of Mr. Harrison at Brompton. We also observed it in bloom at Messrs. Colville's; from whom, to complete the dissections, we received a flower, which, although it had been a week in bloom, continued to perform its diurnal evolutions (in a glass of water) of rolling up and expanding for nearly a week longer—but only from eleven till one in the day: —a shorter time, most probably owing to its being kept in a room whose northern aspect prevented the exhilarating rays of Phœbus from approaching. It was introduced from the Cape of Good Hope by G. Hibbert, esq. about the year 1804, and considered as biennial.

PLATE DXXIV.

LACHNÆA BUXIFOLIA.

Box-leaved Lachnæa.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX nullus. Corolla quadrifida; limbo inæquali. Semen unum, sub-baccatum.

CUP none. Blossom four-cleft; border unequal. One seed, nearly berried.

SPECIFIC CHARACTER.

LACHNÆA foliis ovatis, glabris, glaucis: floribus in capitulis globosis: corollis albis, odoratis. Caulis teres, longissimus.

Habitat ad Caput Bonæ Spei.

LACHNÆA with ovate, smooth, glaucous leaves. Flowers in globular heads. Blossoms white, and sweet-scented. Stem round, and very long.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A blossom spread open.
2. The seed-bud and pointal.
3. The flower-receptacle.

THIS fragrant species of Lachnæa is the L. buxifolia of Lamarck, and the Gnidia filamentosa of Linnæus; but certainly not a Gnidia, as it wants the four small inner petals, the distinguishing feature and most essential distinction between those two genera.

Our figure delineates a plant in the conservatory of G. Hibbert, esq. that was upwards of five feet high; and interspersed amongst some fine bushy shrubs, its compact flowers and delicate glaucous foliage gave it a picturesque appearance.

Lachnaea buxifolia

PLATE DXXV.

PODALYRIA HIRSUTA.

Hairy Podalyria.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX sub-bilabiatus, quinquefidus. Corolla papilionacea. Alæ vexilli longitudine. Legumen ventricosum, polyspermum.

EMPALEMENT nearly bilabiate, five-cleft. Blossom butterfly-shaped. Wings the length of the standard. Pod ventricose, and many-seeded.

SPECIFIC CHARACTER.

PODALYRIA foliis simplicibus, hirsutis, ovatis vel oblongis: corollis magnis, purpureis, plerumque simplicibus: pedunculis longis: ramis teretibus, pilosis.

PODALYRIA with simple, hairy leaves, ovate or oblong. Blossoms large and purple, mostly single. Footstalks long. Branches round and hairy.

REFERENCE TO THE PLATE.

1. The empalement.
2. The standard.
3. One of the wings.
4. The keel.
5. Chives and pointal.
6. The chives spread open.
7. Seed-bud and pointal.

PODALYRIA is a section of the genus Sophora, separated from it by Lamarck, and named after the son of Æsculapius, the celebrated physician who accompanied the Grecians in their famous expedition against Troy.

This species, we have little doubt, is the P. hirsuta (an unfigured species) enumerated by Willdenow, although by some it is thought to be distinct from it, on account of the leaves being somewhat longer, and the flowers of a finer colour; differences, we think, accounted for in the latitude of growth resulting from varied modes of culture.

Our drawing was made from a plant raised from Cape seed, by Messrs. Whitley and Brames, in the year 1806.

Lathyrus hirsutus

PLATE DXXVI.

PROTEA CESPITOSA.

Turfy Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis rigidis, lanceolatis, pilosis, undulatis, glabris, patentibus, apice adscendente, supra convexis, infra concavis: capitulo globoso, terminali: corollis ferrugineis: squamis pilosis, interne læte rubris. Caulis humilis.

Habitat ad Caput Bonæ Spei.

PROTEA with rigid, lance-shaped, hairy leaves, waved, smooth, and spreading, with an ascending point, convex above, and concave beneath: head of flowers globular, and terminal. Blossoms of a rusty colour. Scales hairy, and of a bright red on the inside. Stem low.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A flower complete.
2. Seed-bud and pointal.

THIS new dwarf Protea is named from its sod- or turf-like appearance. Although of low and humble growth, it is by no means deficient in attraction. The inner side of the imbricating scales is of a fine red, which is a great addition to its beauty whilst expanded: but in our plant this was of short duration, occasioned by the pressure of the leaves from the rapid growth of the surrounding side shoots.

Our figure was made from the Hibbertian collection.

Plate

PLATE DXXVII.

RUELLIA FULGIDA.

Bright-flowered Ruellia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-partitus. Corolla monopetala, limbo 5-lobo, inæquali. Stamina biconjugata. Stylus filiformis. Stigma bifidum. Capsula dissepimentis dentatis, elasticis, dehiscentibus. Semina pauca.

EMPALEMENT 5-parted. Blossom one petal: border 5-lobed, unequal. Chives by pairs. Shaft thread-shaped. Summit two-cleft. Capsule with the partitions toothed, elastic, and splitting. Seeds few.

SPECIFIC CHARACTER.

RUELLIA foliis petiolatis, ovato-acuminatis, undulatis, pilosis, crenatis: pedunculis axillaribus, cum multis floribus tubæformibus.

RUELLIA with petiolated leaves ovately pointed, waved, hairy, and scolloped. Footstalks axillary, with many long trumpet-shaped flowers.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. Seed-bud and pointal.
4. The capsule.
5. The same split open.
6. A ripe seed.

THIS new and beautiful species of Ruellia was introduced by Lord Seaforth from the West Indies, and flowered in Mr. Lambert's stove at Boyton, in June 1807, for the first time in England; and continued, as he informs us, to flower during the greatest part of the summer, ripening its seeds in abundance, and being easily propagated by cuttings.

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PLATE DXXVIII.

ORNITHOGALUM ELATUM.

Lofty Ornithogalum.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, persistens. Filamenta basi dilatata. Capsula 3-locularis. Semina subrotunda, nuda.

BLOSSOM 6-petalled, remaining. Threads widened at the base. Capsule 3-celled. Seeds roundish and naked.

SPECIFIC CHARACTER.

ORNITHOGALUM foliis lanceolatis: floribus in racemo longissimo crescentibus, albis et parvis: staminibus longitudinem corollarum fere æquantibus.

ORNITHOGALUM with lance-shaped leaves. Flowers grow on a very long spike, are white and small. The stamens scarcely the length of the blossoms.

REFERENCE TO THE PLATE.

1. A petal and chive.
2. A chive shown from the outer side.
3. Seed-bud and pointal.
4. The same magnified.

THIS tall and delicate plant was introduced by J. M. Cripps, esq., who found the roots in Egypt on the plains of Alexandria, near the spot where the famous battle was fought in the year 1801; and from one which he planted in his garden at Staunton in Sussex our drawing was made. It agrees in habit with the Ornithogalum latifolium, but is perfectly distinct both in the blossoms and foliage from that species. The plant which our figure represents had already produced four side bulbs. It flowered in March last, and appears to propagate freely.

Anthericum sulcatum

PLATE DXXXI.

NITRARIA SCHOBERI.

Schober's Nitraria.

CLASS XI. ORDER I.

DODECANDRIA MONOGYNIA. Twelve Chives. One Pointal.

GENERIC CHARACTER.

COROLLA 5-petala, cucullata.
CALYX 5-fidus. Stamina 15. Drupa 1-sperma.

BLOSSOM five-petalled, hooded.
EMPALEMENT 5-cleft. Chives 15. Berry one-seeded.

SPECIFIC CHARACTER.

NITRARIA foliis integerrimis, obtusis.
Habitat in Siberia.
Pallas's Flora Rossica, vol. i. tab. 50.

NITRARIA with entire leaves, blunt.
Native of Siberia.

REFERENCE TO THE PLATE.

1. The empalement.
2. A petal.
3. Seed-bud, chives, and pointal.
4. A chive magnified.
5. Seed-bud and pointal.
6. The same magnified.

THIS species of Nitraria is named after Schober, a physician and lover of botany in Russia. It grows in the barren salt deserts near the Caspian Sea, particularly about the salt lakes in Siberia, and is also found in Astracan. It bears reddish berries of a salt taste, is a very rare plant in our gardens, but successfully cultivated by Mr. Bell, who not only puts salt to the roots, but also on the foliage. From a plant of his thus treated our drawing was made last summer. Only one more species of the genus has yet been discovered.

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PLATE DXXX.

BIGNONIA UNCATA.

Hooked Bignonia.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-fidus, cyathiformis. Corolla fauce campanulata, 5-fida, subtus ventricosa. Siliqua bilocularis. Semina membranacea, alata.

EMPALEMENT 5-cleft, cup-shaped. Blossom bell-shaped at the mouth, 5-cleft, and bellied beneath. A pod of two cells. Seeds winged, with a skinny membrane.

SPECIFIC CHARACTER.

BIGNONIA foliis conjugatis, longo-lanceolatis, acuminatis, et tribus cirris acutis uncatis.

BIGNONIA with conjugate, long-lanced, acuminate leaves, and three hooked sharp tendrils.

REFERENCE TO THE PLATE.

1. The empalement.
2. A flower spread open, the segments of the border cut off.
3. Seed-bud and pointal.

THIS new species of Bignonia flowered for the first time in England in the stove of A. B. Lambert, esq. at Boyton. We have seen it (but not in flower) in other collections, and have heard it called by the specific title of ophthalmica: but as no reason could be assigned for that appellation within the reach of our inquiry, we have named it from its hooked tendrils. It is an autumnal-flowering plant running to a great length, with frequent blossoms, is a native of Cayenne, and was introduced by Lord Seaforth.

...ea uncata

Drawn on the Spot by Charles Dixon
at the Botanic Garden Calcutta

PLATE DXXXI.

VERONICA DERWENTIA.

New Holland Veronica.

CLASS II. ORDER I.

DIANDRIA MONOGYNIA. Two Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA limbo 4-partito: laciniis infimis angustioribus. Capsula bilocularis.

BLOSSOM, border 4-parted. Lowest segments narrower. Capsule two-locular.

SPECIFIC CHARACTER.

VERONICA foliis lanceolatis, oppositis, alternis, dentatis: floribus spicatis, axillaribus: corollis parvis, pallide violaceis, fragrantissimis.

VERONICA with leaves lance-shaped, opposite, alternate, and toothed. Flowers grow in spikes from the axillæ of the leaves. Blossoms small, of a pale violet colour, and very fragrant.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. Seed-bud and pointal.

THIS new species of Veronica was communicated to us by A. B. Lambert, esq. It is a native of Botany Bay on the banks of the Derwent, and was sent over by one of the settlers. The abundance and agreeable fragrance of its flowers render it deserving a place in any collection.

Lermentia

PLATE DXXXII.

PROTEA HUMIFLORA.

Low-flowering Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis lanceolatis: ramis plurimis adscendentibus: floribus confertis, procumbentibus.

Habitat ad Caput Bonæ Spei.

PROTEA with lance-shaped leaves, with many ascending branches. Flowers crowded together, and lying on the ground.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A flower complete.
2. Seed-bud and pointal, summit magnified.

OF this perfectly new species of Protea we have represented the entire plant, just as we found it growing in the conservatory of G. Hibbert, esq., where it has flowered for the first time in this country. In the flowers it resembles the P. cordata, in its foliage the P. canaliculata, allied to each and yet removed from both. The procumbent situation of its crowded blossoms gives a singularity to its appearance, and altogether it is certainly a very interesting species. It should be planted in a light loamy soil, and kept in an airy part of the green-house.

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PLATE DXXXIII.

CACTUS COCCINELLIFER.

Cochineal Torch Thistle.

CLASS XII. ORDER I.

ICOSANDRIA MONOGYNIA. About twenty Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX monophyllus, superus, imbricatus. Corolla multiplex. Bacca monolocularis, polysperma.

EMPALEMENT one-leafed, above, tiled. Blossom of many folds. Berry of one loculament, many-seeded.

SPECIFIC CHARACTER.

CACTUS prolifero-articulatus: articulis ovato-oblongis, sub-inermibus.
Habitat in Mexico.
Tuna cochenillifera.—*Dill. Elth. tab.* 297.

CEREUS proliferous-jointed. Joints are of an ovate and oblong form, and nearly unarmed.
Native of Mexico.

REFERENCE TO THE PLATE.

1. A flower cut open.
2. The same shown from the outer side.
3. A longitudinal section of the seed-bud.
4. The cochineal insect as retailed in the shops.
5. The same shown from the under side.
6. A larger and darker sort.
7. The same shown from the under side and magnified.

Cactus coccinellifer is a native of Mexico, where the principal culture of cochineal is situated, under the torrid zone, where little or no rain falls during half the year (from the beginning of October to about the end of March); as rain destroys the insects, and is injurious to the plants. The dryer the soil is the better they succeed, as their roots are very impatient of water. Although the insects are found naturally upon the plant in those climates, the cultivators, we are informed, always stock their young plantations with insects of their own rearing, which are larger and finer than the wild sort, and give a more brilliant colour. These they breed under sheds in the rainy season; and, when the spring commences, always fresh stock their plantations, scattering a few breeding insects upon each plant, and in a few days the surface appears speckled over with them, each bringing about 300 at a birth. In two months after they begin to collect, by scraping the insects from the bark with the blunt edge of a knife; nor need they any other preparation than immersion for half a minute in boiling water, which is done by dipping them in a kind of sieve, and afterwards drying them in the sun, or by a common fire. Three collections in this manner are generally made in six months; fresh breeding insects being always replaced upon the plants after gathering. Other species of Cacti also breed the insects; but this is always preferred, as a man can gather from the *coccinellifer* ten pounds a day, while from the *Tuna*, *Opuntia*, and other thorny species, he could not gather two ounces. The plants are generally placed in lines from north to south, that both sides may have the benefit of the sun; and they consider them fit to bear insects at the age of 18 months. Although it is neither a new nor a rare plant, yet as an interesting one, and rarely seen in blossom in England, we presume it will be acceptable to our readers; nor is there any tolerable figure of it which we have seen, unless that of Dillenius in the Hortus Elthamensis, which is not in every body's hands. Our drawing was made in July 1808, at the Countess de Vandes' collection at Bayswater.

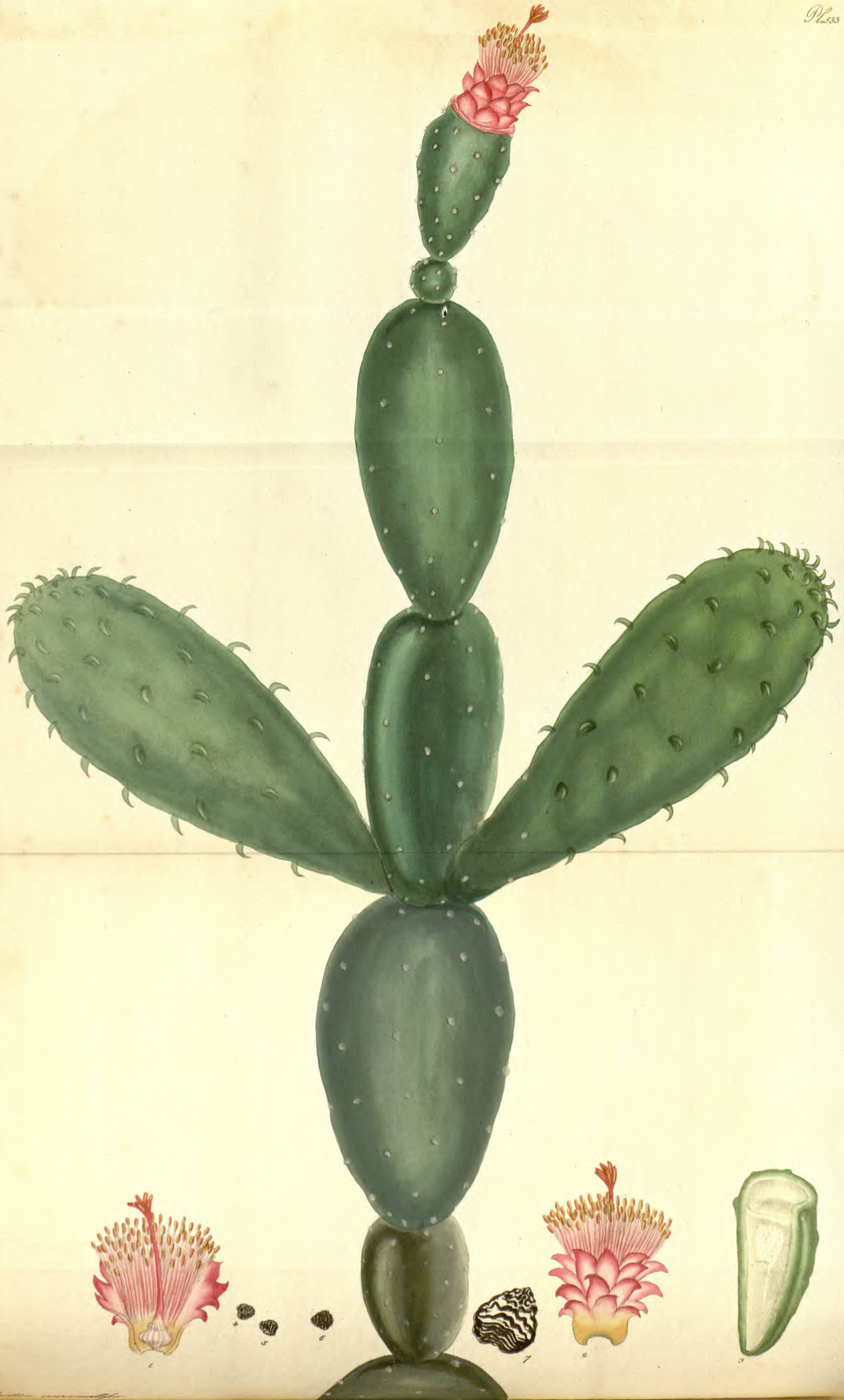
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PLATE DXXXIV.

JUNIPERUS DAURICA.

Daurian Juniper.

CLASS XXII. ORDER XIII.

DIŒCIA MONADELPHIA. Chives and Pointals on different Plants. Monadelphous.

GENERIC CHARACTER.

* *Masculi flores.*

AMENTUM ovatum. Calyx squamosus. Corolla nulla. Stamina 3.

* *Fœminei flores.*

CALYX 3-partitus. Petala 3. Bacca 3-sperma, tubulata, tuberculata. Calyx inæqualis.

* *Male flowers.*

CATKIN egg-shaped. Empalement squamous. Blossom none. Chives 3.

* *Female flowers.*

EMPALEMENT 3-parted. Petals 3. Shaft 3. Berry 3-seeded, hollowed, and a little swelled. Cup unequal.

SPECIFIC CHARACTER.

JUNIPERUS foliis oppositis, acutis, imbricatis, decurrentibus, passim patulis, subulatis. *Pallas's Flora Rossica,* vol. 2. p. 13. tab. 55.

JUNIPER with opposite leaves, acute, imbricated, and decurrent, here and there spreading, and awl-shaped.

REFERENCE TO THE PLATE.

1. A female flower magnified.
2. Seed-bud and pointals, magnified.
3. A berry.
4. The same cut in two, with a seed detached.

THE plant here figured is from the arboretum of the Marquis of Blandford at White Knights, where we first noticed it in 1806, growing in the greatest perfection, and bearing abundance of fruit, which it still continues to do annually; and being a finer species than any we before possessed, is an interesting addition to our collections of hardy evergreens. It agrees perfectly with the figure and description in the Flora Rossica, and also with the original specimen in the Pallasian Herbarium (now in the possession of A. B. Lambert, esq.)

The plant from which our figure was taken is above twelve feet high, and wide in proportion. The male plant we have not seen. Gmelin informs us (in his History of the Plants of Siberia) that in the town of Janisca the Cossacks burn the twigs of this plant to fumigate those who are afflicted with obscure diseases, or those which they superstitiously suppose to be excited by devils, of whose agency they are extremely credulous, and whom they believe to be pacified with smoke and hideous noises, as being congenial to their own nature.

Juniperus Daurica

PLATE DXXXV.

TROPÆOLUM PINNATUM.

Winged Nasturtium.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX 1-phyllus, calcaratus. Petala 4—5, inæqualia. Nuces 3, coriaceæ.

EMPALEMENT one-leafed, spurred. Petals 4 or 5, unequal. Kernels 3, coriaceous.

SPECIFIC CHARACTER.

TROPÆOLUM foliis sub-peltatis: lobis obtusis, inæqualibus: floribus pinnatis: petalis quinque, cuneatis, apice dentatis.

NASTURTIUM with leaves nearly shield-shaped. Lobes obtuse, and unequal. Flowers winged. Petals 5, wedge-shaped, and toothed at the end.

REFERENCE TO THE PLATE.

1. A flower spread open.
2. Seed-bud, chives, and pointal.
3. Seed-bud and pointal.

THIS nondescript and beautiful species of Nasturtium we met with in the select collection of the Countess de Vandes at Bayswater. Our figure represents the entire plant; but by whom introduced, or whence a native, we have not been able to learn. It appears to succeed well with the treatment usual to other Tropæolums; and, if it should seed with us, will no doubt be abundantly cultivated for the brilliance of its elegant little blossoms. It flowers during the summer months.

...ndum, pinnatum

PLATE DXXXVI.

PROTEA ABROTANIFOLIA, *minor.*

Small Southernwood-leaved Protea..

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis tri-furcatis, filiformibus, acutis: floribus parvis, ramos terminantibus in umbellis confertis.

Habitat ad Caput Bonæ Spei.

PROTEA with leaves three-forked, thread-shaped, and pointed. Flowers small, and terminate the branches in crowded umbels.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A leaf.
2. A bract.
3. A flower, one tip magnified.
4. Seed-bud and pointal.

THROUGHOUT this small divided-leaved section of the genus Protea there is a similarity of appearance in the foliage, that makes the specific differences appear less distinct than they really are. The small-flowered species is a compact bushy little shrub, about fourteen inches high, and nearly the same in width, requiring a light sandy loam, free access of air, and a little attention to preserve it from the partial humidity of the atmosphere.

. abietinifolia minor

PLATE DXXXVII.

ORIGANUM TOURNEFORTII.

Tournefort's Origanum.

CLASS XIV. ORDER I.

DIDYNAMIA GYMNOSPERMIA. Two Chives longer. Seeds naked.

GENERIC CHARACTER.

STROBILUS tetragonus, spicatus, calyces colligens. Corollæ labium superius erectum: inferius 3-partitum: laciniis æqualibus.

HEAD of flowers four-sided, like ears of corn, containing the cups. The upper lip of the blossom is upright: the lower is three-parted, in equal segments.

SPECIFIC CHARACTER.

ORIGANUM spicis tetragonis: bracteis sub-rotundis, maximis: foliis geminis, oppositis, alternis, cordatis, punctatis, glaucis.

Habitat in Magna Græcia.

ORIGANUM with a four-sided spike: floral leaves nearly round, and large. Leaves by pairs, opposite and alternate, heart-shaped, dotted, and glaucous.

Native of Greece.

REFERENCE TO THE PLATE.

1. A flower.
2. The same spread without the cup.
3. Seed-bud and pointal.

THIS species of Origanum was first discovered by Tournefort, who, in his travels in the Levant, describes it as one of the rarest plants in all the Archipelago; native of Amorgos, and only to be found in the clefts or rents of a hideous rock that overhangs the sea. At the bottom of this rock stands a convent of the Virgin, a large house resembling a chest of drawers, and to which there is no entrance but by a ladder of a dozen wooden steps through a small opening in one of the corners, the door of which is covered with iron plates. This frightful promontory is naturally perpendicular, and said to exceed in height that of La Sainte Baume in Provence.

Tournefortii

PLATE DXXXVIII.

VANILLA PLANIFOLIA.

Flat-leaved Vanilla.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointals. Two Chives.

GENERIC CHARACTER.

COROLLA pentapetala. Labellum basi sub-cucullatum, ecalcaratum. Anthera opercularis, decidua. Capsula siliquæformis, carnosa.

BLOSSOM of five petals. Lip of the nectary nearly cowl-shaped, and without any spur. Anthers covered, at last falling off. Fruit a long fleshy pod.

SPECIFIC CHARACTER.

VANILLA foliis ovato-lanceolatis acuminatis obliquis, obsolete striatis, nitidis: petalis sub-lanceolatis, incurvis, obtusis.

VANILLA with oval-lanced, oblique pointed leaves, which are faintly streaked, and shining; and the petals of the blossom somewhat lance-shaped, blunt, and curved inwards.

REFERENCE TO THE PLATE.

1. The nectarium spread open.
2. The chives and pointal.

VANILLA flore albo, fructu breviori corallino, of Plumier's unpublished drawings. The botanical history of this plant is curious. It was published by Plumier in the year 1703, as a third species of Vanilla, as we have ascertained by a copy of his original drawing in the collection of A. B. Lambert, esq. but unnoticed by Linnæus or any of his editors. In the Paradisus Londinensis it has been mistaken for Plumier's first species, the Epidendrum Vanilla of Linnæus, (Vanilla aromatica of Swartz and Willdenow,) of which we have three original figures: Catesby's, in his History of Carolina, vol. iii. tab. 7.; Madam Merian's, and Plumier's own drawing published by Burman; all of them totally unlike it. No two plants can be more specifically distinct, and we have seldom seen two species of one genus so different in the blossoms.

Vanilla planifolia is an exceedingly ornamental and as yet a scarce species, and runs to many feet in length, throwing out simple tendrils from the axils of the leaves. The finest specimen in England, and the only one that has blossomed, is in the choice collection of the Right Hon. Charles Greville, at Paddington, from which our drawing was taken. We are informed that it is a native of the West Indies, and was introduced to this country by the Marquis of Blandford.

Vanilla planifolia

PLATE DXXXIX.

CALYCANTHUS FERTILIS.

Fruitful Allspice.

CLASS XII. ORDER VIII.

ICOSANDRIA POLYGYNIA. Twenty Chives. Many Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX imbricatus: foliolis coloratis. Corolla nulla. Styli plurimi. Stigmata glandulosa. Semina plurima, intra calycis partem succulentam.

EMPALEMENT tiled: leaflets coloured. Blossom none. Shafts many. Summits glandular. Seeds many, within the fleshy part of the cup.

SPECIFIC CHARACTER.

CALYCANTHUS ramis virgatis, sub-erectis: foliis ovato-lanceolatis, acuminatis: floribus fertilibus.

Habitat in Americâ Boreali.

CALYCANTHUS with twiggy branches nearly upright. Leaves ovately lance-shaped, and pointed. Flowers fertile.

Native of North America.

REFERENCE TO THE PLATE.

1. A flower divested of the leaflets of the cup.
2. The same cut open, to show the seeds.

THIS fruitful species of Calycanthus has not yet been figured by any author we know of, but has been described by two: first by Walter, in his Flora Caroliniana, under the title of C. fertilis; and afterwards by Michaux, in his Flora Boreali-Americana, under the appellation of C. ferax, synonymous appellations equally good: and we see no reason why it should have been altered from fertilis, if even for the better, unless that had been a very bad specific title. It is a native of the high mountains of Carolina, in North America, and was introduced by Mr. Lyons in 1807. Our figure is from a plant in the collection of the Marquis of Blandford.

Erratum.—In our last Number, Pl. DXXXVII, the description of Origanum Tournefortii (in the hurry too often attendant upon periodical publications) was left unfinished. The most necessary information omitted, is, that it is a hardy green-house shrub; and fine living specimens of it were communicated to us by A. B. Lambert, esq. who received it from the Royal Gardens at Kew, to which it was introduced by the late Dr. Sibthorpe in 1788.

Eucanthus fertilis.

PLATE DXL.

MESEMBRYANTHEMUM HETEROPHYLLUM.

Various-leaved Mesembryanthemum.

CLASS XII. ORDER V.

ICOSANDRIA PENTAGYNIA. Twenty Chives. Five Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX 4—5-fidus. Petala numerosa, linearia, basi cohærentia. Capsula carnosa, infera, polysperma.	EMPALEMENT 4—5-cleft. Petals numerous, linear, and united at the base. Fruit fleshy, below, many-seeded.

SPECIFIC CHARACTER.

MESEMBRYANTHEMUM octogynum, caulescens: foliis sub-semiteretibus, elongatis, obliquis, nitidis, basi connatis: apicibus vel adunco-rostratis vel ancipitibus, integris, obtusis.	MESEMBRYANTHEMUM eight-styled, with a stem, and leaves nearly half-round, elongated, oblique, shining, and united at the base, with the points either like a hooked bill, or two-edged, entire, and blunt.
Habitat in Promontorio Bonæ Spei.	Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A flower divested of the petals cut open.
2. Seed-buds and pointals, a summit magnified.
3. A dry capsule.
4. The capsule as it appears when half expanded in water.
5. The same when fully expanded.

Of this fine Mesembryanthemum we have found no figure nor description. It is most allied to M. difforme, so well illustrated by Dillenius, and figured before by Plukenet; but the figure of Miller, *tab.* 126. *fig.* 2. quoted for the same plant in the four last editions of the *Species Plantarum,* is certainly M. dolabriforme, as the author himself says, although his editor here has not stuck close to his text. M. heterophyllum is very distinct from either, is a free growing species, and flowers from June to September, the blossom open early in the morning, and shut in the afternoon. It is propagated both by seeds and parting the roots. The fruit is divided into eight loculaments for the seed, separated longitudinally by double elastic partitions, which are reflected above, so that the edges come in contact together and cover the seeds. Eight elastic valves attached to the margin of the fruit, and adhering firmly to the part containing the seeds, and to one another until mature, again enclose these. Two cartilaginous coloured bodies, jointed near the base, and arising from the outer edge of the partitions, are prominent upon the interior of each of those valves, which have their edges always more or less reflected to facilitate the entrance of moisture to the seeds, above which they continue to lie close so long as the atmosphere continues dry: but, when it rains, or water is poured upon them, it enters by the openings between the valves, and is imbibed by the receptacles of the seeds and cartilaginous partitions, which presently become much dilated, and the diameter of the fruit is considerably increased. The upper valves also by this extension are drawn outwards, and being pressed at the same time by the edges of the partitions, resting against the elastic rigid bodies on their interior surface, gradually rise to be perpendicular upon the margin, when the fruit somewhat resembles a little cup with a Vandyke edge; but this is of short duration, as the less elastic and hygrometrical exterior of the valves (for their interior parts imbibe water and dilate rapidly) soon draws them backwards into the form of a star or polypetalous flower, with colours as vivid as if really vegetating. The edges of the partitions now become more erect, leaving the seeds uncovered; and the water being led towards the centre by channels in the valves, and retained by an elevated margin, the seeds are floated out of their cells. The fruit when dry, again contracts as before, and the experiment may be repeated *ad libitum.* What a wonderful œconomy of Nature to produce the seeds just at the moment proper for their germination, and preventing them until that time from falling on the parched sands and rocks upon which those plants vegetate! In some plants, natives of cold regions, where seeds are in danger of perishing by moisture, and there is seldom sufficient warmth for their vegetation, an œconomy the direct reverse takes place. The cones of pines, being most hygrometrical externally, close firmly in moisture, and expand only in dry heat! The singular qualities of the fruits of Mesembryanthema, we find first mentioned by Dillenius—*see his Hortus Elthamensis, vol.* ii. *p.* 237. It has since been noticed by Dr. Sims, who has described the fruit of M. pinnatifidum in the *Medical Journal* for 1799, and also by Mr. Konig in the *Annals of Botany,* but we believe no elucidation of the phænomenon has been given before. Dr. Hagen, a German, who possessed the fruits of three species without knowing what they were, imagined they were the whole plants, and described them as a new and extraordinary reviviscent genus in Cryptogamia. Others have taken them for the Rose of Jericho, which is not a fruit, but a plant. The fruits of most Mesembryanthema exhibit the same metamorphosis, but with great variety. M. hispidum has the upper valves double, the inner membrane beautifully transparent. The fruit of this perfectly ripened, if put into tepid water, will fly open as if with a spring. We have made experiments with the fruits of M. latum, scalpratum, cordatum, and pugioniforme, all of which are very fine.

Our specimen is from the collection of A. B. Lambert, esq.

Mesembryanthemum heterophyllum

PLATE DXLI.

PROTEA CONIFERA.

Cone-bearing Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis acinaciformibus, glabris, callosis: floribus in capitulis terminalibus, pallide luteis: involucro patente, late lanceolato, concolore.

PROTEA with scimitar-shaped leaves, smooth and hard. Flowers grow in terminal heads of a pale yellow colour: the involucrum is spreading, broadly lance-shaped, and the same colour as the blossoms.

REFERENCE TO THE PLATE.

1. A flower.
2. A chive magnified.
3. Seed-bud and pointal, summit magnified.

OUR figure represents part of a plant in the collection of G. Hibbert, esq. in the year 1803, and the smaller specimen a branch from the same plant in 1807. So considerable a latitude of growth is certainly deserving notice, as, upon a slight examination, they might easily be mistaken for distinct species. In the first year of its inflorescence its appearance is uninteresting; but in a year or two afterwards it displays such an abundance of bloom, that it then becomes a very ornamental little shrub. It is a Cape species, and requires no particular treatment more than what is common to the generality of this extensive family.

Protea conifera

PLATE DXLII.

RUELLIA INFUNDIBULIFORMIS.

Funnel-flowered Ruellia.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-partitus. Corolla monopetala, limbo 5-lobo, inæquali. Stamina biconjugata. Stylus filiformis. Stigma bifidum. Capsula dissepimentis dentatis, elasticis, dehiscentibus. Semina pauca.

EMPALEMENT 5-parted. Blossom one petal: border 5-lobed, unequal. Chives by pairs. Shaft thread-shaped. Summit two-cleft. Capsule with the partitions toothed, elastic, and splitting. Seeds few.

SPECIFIC CHARACTER.

RUELLIA foliis oppositis, alternis, lanceolatis, undulatis, costatis, lucidis: floribus in spicis terminalibus, confertis. Corolla infundibuliformis: laciniis limbi quinquefidis, crenatis, patentibus, rugosis, coccineis, ad basin luteis.

RUELLIA with opposite alternate leaves, lance-shaped, waved, ribbed, and shining. Flowers grow in terminal spikes, crowded together. Blossom funnel-shaped: segments of the border five-cleft and notched, spreading, wrinkled, of a scarlet colour, and yellow at the base.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom spread open.
3. Seed-bud and pointal.

FEW of the small plants that adorn the stove are superior in beauty to this elegant little shrub, whose successive bloom continues from June till January. It is the Justicia infundibuliformis of Linnæus, but must, according to his own system, be removed to the class Tetrandria. We have seen it in many collections in great luxuriance. It is a native of the East Indies, and was introduced by the Right Hon. C. Greville, four or five years ago. As yet, we believe, it has not perfected its seed with us, but propagates freely by cuttings.

Tropæolum infundibuliformes

PLATE DXLIII.

PROTEA SPECIOSA PATENS.

Spreading Showy Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

SPECIFIC CHARACTER.

PROTEA foliis lanceolatis, undulatis, pilosis: squamis calycinis rotundato-ovatis, marginibus fimbriatis nigricantibus. Caulis patens.

Habitat in Caput Bonæ Spei.

PROTEA with lance-shaped leaves, waved and hairy. Scales of the empalement roundedly oval, with fringed margins of a black brown colour. Stem spreading.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A flower, one tip magnified.
2. Seed-bud and pointal, summit magnified.

THIS fine fringed Protea in the foliage is very nearly allied to the P. speciosa, but the flower is more spread open than any of that section we have as yet seen. It is naturally so averse to grow upright, that it is with difficulty prevented from bending downwards, which the branches always do till they are tied up. In this particular it very much resembles the P. repens, and, if left at liberty, would no doubt, like that species, creep or spread itself about on the earth. Our figure was made from a plant lately in the conservatory of G. H. Hibbert, esq., but recently consigned to J. Knight, his botanic gardener, who has commenced nurseryman in the King's Road, Chelsea, with the whole of that well known valuable collection.

1
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PLATE DXLIV.

MIMOSA PUDICA.

Bashful Mimosa.

CLASS XXIII. ORDER I.

POLYGAMIA MONŒCIA. Various Dispositions upon one Plant.

ESSENTIAL GENERIC CHARACTER.

HERMAPH. Calyx 5-dentatus. Corolla 5-fida. Stamina 5, sive plura. Pistillum 1. Legumen.

MASCUL. Calyx 5-dentatus. Corolla 5-fida. Stamina 4, 5, 10, sive plura.

HERMAPH. Empalement 5-toothed. Blossom five-cleft. Chives 5, or more. Pointal 1. A pod.

MALE. Empalement 5-toothed. Blossom 5-cleft. Chives 4, 5, 10, or more.

SPECIFIC CHARACTER.

MIMOSA foliis sensitivis palmato-pinnatis, pinnulis, multijugis. Caulis pilosus, aculeis paucis instructus. Petioli et pedunculi pilosi. Fructus echinatus.

Habitat in Brasiliâ.

MIMOSA with sensitive leaves palmately winged, the pinnulæ many-paired Stem hairy, and furnished with a few prickles. Petioles and peduncles hairy. Fruit prickly.

Native of the Brazils.

REFERENCE TO THE PLATE.

1. A flower.
2. A chive magnified.
3. Seed-bud and pointal magnified.
4. The ripe capsule, with a seed detached.

FIVE distinct genera were once included under the generic title of Mimosa, but separated by Willdenow into 102 Acacias, 58 Ingas, 9 Desmanthuses, 3 Shrankias, and 32 Mimosas. This susceptible species of Mimosa is an old inhabitant of the stove, and well known to cultivators by the appellation of the Sensitive Plant (but not to be confounded with the M. sensitiva, a very different species). Although this Mimosa is neither new nor rare, it is nevertheless very interesting, and has not hitherto made its appearance in any modern publication; nor is there any coloured figure of it extant. Our representation of it, therefore, is in part a novelty, however old and familiar the plant itself may be. According to the observations of Linnæus, it opens or expands its foliage at three in the morning, and closes it about six in the evening. Its singular quality of shrinking from the touch is supposed to be owing to its being strongly saturated with oxygen gas, which it disengages upon the slightest provocation, and its place for a short time is supplied by the atmospheric air; which retiring, the leaves again resume their former appearance, and so remain expanded till the evening, unless disturbed by design or accident; for the rude approach of the common air disorganises its foliage.

The leaf is mostly composed of four divisions, but sometimes five and six may be found in plants of a luxuriant growth. Each division is supplied with numerous little leaflets, in pairs of an oblong form, with a small yellow gland at their base, which when carefully touched will close up separately, and leave the surrounding leaflets undisturbed. It may be considered either as an annual or a biennial, dying after ripening its seeds. Our drawing was made from fine plants in the collection of J. Vere, esq.

Mimosa, pudica

PLATE DXLV.

PROTEA ABROTANIFOLIA, *odorata.*

Sweet-scented Southernwood-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 4-fida, seu 4-petala. Antheræ lineares, petalis infra apices insertæ. Calyx proprius, nullus. Semina solitaria.	Blossom four-cleft, or of four petals. Tips linear, inserted into the petals below the points. Cup proper, none. Seeds solitary.

SPECIFIC CHARACTER.

Protea foliis multifidis, filiformibus, acutis, pilosis: floribus in capitulis terminalibus, lucidis, odoratis.	Protea with many-cleft leaves, thread-shaped, pointed, and hairy: flowers grow in terminal heads, shining, and sweet-scented.
Habitat in Caput Bonæ Spei.	Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. A flower, one tip magnified.
2. Seed-bud and pointal.

This species of Protea well deserves a place in any collection, as, in addition to its light and graceful appearance, it is possessed of a most agreeable fragrance. There is a variation of it with white flowers, but exactly the same in every other particular. It remains a considerable time in bloom, but not many umbels of flowers are expanded at the same time. We have seen it in several collections. It is a Cape species, and appears to be of easy culture.

Protea, abrotanifolia odorata

PLATE DXLVI.

MONARDA PUNCTATA.

Dotted-flowered Monarda.

CLASS II. ORDER I.

DIANDRIA MONOGYNIA. Two Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX tubulosus, quinque-dentatus. Corolla ringens, labio superiore lineari, filamenta involvente.

EMPALEMENT tubular, five-toothed. Blossom gaping: the upper lip linear, and enfolding the threads.

SPECIFIC CHARACTER.

MONARDA foliis lanceolatis, dentatis, minutè punctatis: floribus verticillatis, flavis, rubro punctatis: foliis involucri ovato-lanceolatis, glabris, incarnatis.

Habitat in Americâ Boreali.

MONARDA with lance-shaped leaves, toothed, and minutely dotted. Flowers grow in whorls, are of a yellow colour, and dotted with red: the involucrate leaves are ovately lance-shaped, smooth, and flesh-coloured.

Native of North America.

REFERENCE TO THE PLATE.

1. A flower.
2. A blossom spread open, one tip magnified.
3. Seed-bud and pointal, summit magnified.
4. Seed-bud magnified.

THE only figure of the Monarda punctata we have seen is an uncoloured one in Plukenet's Phytographia. It is a perfectly new species to the garden, and the only Monarda with yellow flowers at present known. Its specific title is particularly applicable to its bloom, as all the species yet enumerated are more or less punctured in the foliage, some so minutely as scarcely to be perceived without the aid of a magnifier. It is a native of Virginia in North America, but by whom introduced we have not been able to learn. Our drawing was made from plants in the nursery of Messrs. Whitley and Brames, who raised it from seed last year, 1807; but it did not flower till the latter part of the present summer. It is a hardy perennial, and certainly a handsome addition to the genus.

Monarda punctata

PLATE DXLVII.

PASSIFLORA PERFOLIATA.

Perfoliate-leaved Passion-flower.

CLASS XX. ORDER V.

GYNANDRIA PENTANDRIA. Chives on the Pointal. Five Chives.

ESSENTIAL GENERIC CHARACTER.

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

THREE Styles. Cup 5-leaved. Petals 5. Honey-cup forming a crown. Berry standing on a footstalk.

SPECIFIC CHARACTER.

PASSIFLORA foliis bilobis: lobis oblongis, divaricatis, subtus punctatis, glaucis: laciniis calycinis linearibus.
Habitat in Caribbæis.
Jacquin's Hort. Schœn. vol. 2. *tab.* 182.

PASSION-FLOWER with leaves two-lobed: lobes oblong and straddling, dotted beneath, and glaucous: segments of the cup linear.
Native of the Caribbee Islands.

REFERENCE TO THE PLATE.

1. A flower spread open.

THE most graceful ornament to the hot-stove is the elegant and favourite genus Passiflora, whose branches meandering against the interior sides of the building adorn it to the greatest advantage. From a branch of the Passiflora perfoliata thus situated in the collection of the Countess de Vandes our drawing was taken. The only coloured figure of it we have seen is in the Hortus Schœnbrunnensis of Jacquin. It flowers in great luxuriance during the months of July and August.

Guillona, perfoliata

PLATE DXLVIII.

CUCUMIS DUDAIM.

Sweet-scented Melon.

CLASS XXI. ORDER VIII.

MONŒCIA MONADELPHIA. Chives and Pointals separate. One Brotherhood.

ESSENTIAL GENERIC CHARACTER.

Masculini flores.

CALYX 5-dentatus. Corolla 5-partita. Filamenta 3.

Fœminei flores.

CALYX 5-dentatus. Corolla 5-partita. Pistillum 3-fidum.

Male flowers.

EMPALEMENT 5-toothed. Blossom 5-parted. Filaments 3.

Female flowers.

EMPALEMENT 5-toothed. Blossom 3-parted. Pointal 3-cleft.

SPECIFIC CHARACTER.

CUCUMIS foliorum angulis rotundatis, dentatis, hispidis: fructu sphærico, aurantio, variegato, odoratissimo.

MELON with leaves angular, rounded, toothed, and hispid: fruit spherical, of a gold colour, variegated, and very sweet-scented.

REFERENCE TO THE PLATE.

1. A blossom spread open.
2. A chive magnified.
3. Empalement, seed-bud, and pointal.
4. A horizontal section of the fruit.
5. A female flower spread open.

THIS curious little species of Melon, although no new introduction to the English gardens, is but rarely met with, yet well deserves a place in every curious collection for the beauty and fragrance of its fruit; which, when cut before quite ripe, will continue fragrant nearly a fortnight. It is however only to be valued for its odour and beauty, the flavour being insipid. It is said to have been first introduced by Lord Petre, who sent the seeds from Morocco to Peter Collinson, F. R. S. It is also cultivated in Persia, and a figure of the fruit taken there is given in Gmelin's Travels, vol. iii. tab. 49. fig. 6. Its Hebrew appellation of Dudaim seems to have been bestowed by Linnæus, from the fantastical idea that it was the fruit mentioned in the Bible by the name of mandrake, with which Jacob's neglected wife purchased her husband's favours for one night of her rival. Another plant with perennial roots descending 6 or 8 feet into the earth, was taken by his pupil Hasselquist (sent to the East on purpose to illustrate the natural history of that country) for the celebrated Dudaim;—Which is the right one, let critics in Hebrew decide! The *Melo Ægypticus minor* of Tournefort, or Ægyptian Abdelavi, which Linnæus supposed to be the same as the *Melo aurantii figura odoratissimus* of Dillenius, and might partly have occasioned the name, is a very different species. Indeed the claim of our plant to Ægyptian origin seems doubtful, but we would reluctantly change a name that has been applied for more than half a century. Our specimens are from the collection of A. B. Lambert, esq.

Cucumis dudaim

PLATE DXLIX.

PASCALIA GLAUCA.

Glaucous-leaved Pascalia.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

ESSENTIAL GENERIC CHARACTER.

RECEPTACULUM paleaceum.
SEMINA drupacea. Pappus margine dentatus. Calyx imbricatus.

RECEPTACLE chaffy.
SEEDS a ripe berry. Down toothed at the edge. Empalement tiled.

SPECIFIC CHARACTER.

PASCALIA foliis oppositis, tri-nervibus, glaucis patentibusque; inferiora lato-lanceolatis, denticulatis, acutis, sæpius integerrimis: floribus terminalibus, solitariis: corolla flava.

Habitat in regno Chilensi.
Pascalia glauca Ortegæ Nov. rar. plant. tab. 4.

PASCALIA with opposite leaves, three-nerved, glaucous and spreading; the lower ones are broadly lance-shaped, toothed, and pointed, but often entire: flowers terminal and solitary: blossom yellow.

Native of the Kingdom of Chili.

REFERENCE TO THE PLATE.

1. The empalement and receptacle.
2. A floret of the ray.
3. A floret of the disk, summit magnified.
4. Seed-bud and pointal.

THE only figure of this syngenesious plant is in the new and rare plants of Ortega, who named it after D. Didaco Pascal, a Spanish physician. It is the only species of the genus yet known, and a fine living specimen of it was communicated to us by Mr. Lambert, who raised it from seed sent to him from Madrid by the late Cavanilles. It is perfectly hardy, and the roots so durable and spreading that they are not easily eradicated. It does not however bloom with equal facility, but seems to want a warmer sun to aid its flowers in their expansion.

Psoralea. glauca

PLATE DL.

HERMANNIA FLAMMEA.

Flame-coloured Hermannia.

CLASS XVI. ORDER V.

MONADELPHIA PENTAGYNIA. One Brotherhood. Five Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX simplex, 5-fidus. Petala 5, spiraliter cucullata. Filamenta lanceolata. Styli 5. Capsula 5-locularis, polysperma.

EMPALEMENT simple, 5-cleft. Petals 5, spiral and hooded. Filaments lance-shaped. Shafts 5. Capsule 5-celled, many-seeded.

SPECIFIC CHARACTER.

HERMANNIA foliis cuneiformibus, apice dentatis: floribus ramos terminantibus, spicatis, laxis.

Habitat in Caput Bonæ Spei.

Hermannia flammea, Jacq. Hort. Schœn. vol. i. *tab.* 129.

HERMANNIA with wedge-shaped leaves, toothed at the end. Flowers terminate the branches in loose spikes.

Native of the Cape of Good Hope.

REFERENCE TO THE PLATE.

1. The empalement.
2. A petal.
3. The chives and pointal.
4. A chive magnified.
5. Seed-bud and pointal magnified.
6. A transverse section of the seed-bud magnified.

THIS species of Hermannia is figured in the Hortus Schœnbrunnensis of Jacquin. We have adopted his specific title of flammea, but think the plant would have been better marked by the appellation of ignescens; particularly as we have seen it in bloom with scarcely any vestige of yellow or flame colour on the petals, but always of a fine fiery red colour. It is a very handsome hardy green-house shrub, and flowers from June till January.

Our drawing was made from a plant in the nursery of Mr. Knight, King's Road, Chelsea.

mannia. flammea

PLATE DLI.

LOPEZIA CORONATA.

Coronet-flowering Lopezia.

CLASS I. ORDER I.

MONANDRIA MONOGYNIA. One Chive. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 4-phyllus. Corolla 5-petala, inæqualis. Capsula 4-locularis, 4-valvis, polysperma.

EMPALEMENT 4-leaved. Blossom 5-petaled, unequal. Capsule 4-celled, 4-valved, many seeded.

SPECIFIC CHARACTER.

LOPEZIA ramis longis, simplicibus, adscendentibus: foliis sub-ovatis, acutis, dentatis, lucidis: petiolis decurrentibus: floribus axillaribus, in umbellis terminalibus.

LOPEZIA with long, simple, ascending branches. Leaves nearly ovate, pointed, toothed, and shining, with decurrent footstalks. Flowers growing from the axillæ of the leaves, and terminate the branches in umbels.

REFERENCE TO THE PLATE.

1. The empalement.
2. The chives and pointal, with the lower petal magnified.
3. The capsule cut transversely.
4. A seed.

THE Lopezia coronata is a hardy little annual, of recent introduction, and a lively addition to this short genus, which at present contains but two species besides the one now figured. We have seen them all three in fine bloom in several collections. Our figure represents a branch from a plant in the conservatory of the Countess de Vandes, where we observed the side petals of many of the flowers of a pure white at the ends, which gave them a very singular and different appearance from plants of the same description we have seen elsewhere: and Mr. Fordyce the botanic gardener informs me it was always the character of his plant, after it had been some time in flower, for the large petals to acquire a white appearance, as if bleached, previous to their going out of bloom. We have therefore left one flower in that state in our specimen, to delineate the variation incidental to the plant from which our figure was taken.

...gia coronata

PLATE DLII.

HYPERICUM VIRGINICUM.

Virginia Hypericum.

CLASS XVIII. ORDER IV.

POLYADELPHIA POLYANDRIA. Many Brotherhoods. Many Males.

GENERIC CHARACTER.

CALYX 5-partita. Corolla 5-petala. Filamenta multa, in 5 phalanges, basi connata. Capsula locularis.

EMPALEMENT 5-parted. Blossom 5-petalled. Threads many, conjoined at the base, in 5 squadrons. Capsule celled.

SPECIFIC CHARACTER.

HYPERICUM floribus trigynis, enneandris, terminalibus; foliis ellipticis, obtusis, sub-cordatis, amplexicaulibus: caule herbaceo.

HYPERICUM with flowers three-styled, nine-chived, and terminal. Leaves elliptic, obtuse, nearly heart-shaped, and embracing the stem. Stem herbaceous.

REFERENCE TO THE PLATE.

1. The empalement.
2. A petal.
3. The chives and pointals, one tip magnified.
4. The pointals.
5. The same cut transversely and magnified.

THIS hardy little herbaceous plant was introduced by Mr. Lyons from America about the year 1804. There is no figure of it extant that we know of. Willdenow in his Species Plantarum has enumerated eighty-eight species of Hypericum; but amongst that number three distinct genera are certainly included. Our drawing was made from plants in the nursery of Messrs. Whitley and Brames, who raised them from seed, and with whom they flowered the second year. Their bloom is but of short duration, but few flowers are open at one time; and we are inclined to think that they will expand with more freedom and last longer in a shady situation than when fully exposed to the solar ray.

...ncum, Virginicum

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494	Scutellaria serrata	Sawed-leaved Scutellaria	Har.	Herb.	May.
495	Protea corymbosa	Corymbose-flowering Protea	G. H.	Shrub.	July.
496	Jasminum multiflorum	Many-flowered Jasmine	H. H.	Shrub.	All Summer.
497	Jasminum sambac, *Var. flore pleno*	Indian Jasmine, *Full-flowered Variety*	H. H.	Shrub.	All Summer
498	Hibiscus pruriens	Stinging Hibiscus	H. H.	Shrub.	July.
499	Ipomæa coccinea	Scarlet Ipomæa	H. H.	Shrub.	July.
500	Protea mucronifolia	Mucronate-leaved Protea	G. H.	Shrub.	August.
501	Hellenia Allugas	Ceylon Hellenia	H. H.	Shrub.	July.
502	Lobelia surinamensis, *Var. flore rubro*	Surinam Lobelia, *Red-flowered Variety*	H. H.	Shrub.	September.
503	Nymphæa rubra	Red-flowered Nymphæa	H. H.	Aquatic.	August.
504	Solanum Seaforthianum	Seaforth's Solanum	G. H.	Shrub.	August.
505	Ornithogalum flavissimum	Yellow-flowered Star of Bethlehem	G. H.	Bulb.	July.
506	Ruellia cristata	Crested Ruellia	H. H.	Shrub.	August.
507	Protea abrotanifolia	Southernwood-leaved Protea	G. H.	Shrub.	August.
508	Cactus grandiflorus.	Large-flowered Cereus	H. H.	Shrub.	August.
509	Gentiana fimbriata	Fringed-flowered Gentian	G. H.	Shrub.	July.
510	Aspalathus globosus	Round-flowering Aspalathus	G. H.	Shrub.	July.
511	Solanum betaceum	Beet-like Solanum	G. H.	Shrub.	August.
512	Protea pinnata	Winged-leaved Protea	G. H.	Shrub.	July.
513	Cactus hexagonus	Great Torch Thistle	H. H.	Shrub.	August.
514	Pæonia anomala	Anomalous-leaved Pæony	Har.	Shrub.	July.
515	Cynanchum mucronatum	Mucronate-leaved Cynanchum	H. H.	Shrub.	August.
516	Astragalus villosus	Hairy Astragalus	Har.	Herb.	July.
517	Protea imbricata	Imbricated-leaved Protea	G. H.	Shrub.	September.
518	Magnolia grandiflora	Large-flowered Magnolia	Har.	Tree.	All Summer.
519	Commersonia echinata	Bristly-fruited Commersonia	H. H.	Tree.	All Summer.
520	Euosma albiflora	White-flowered Euosma	Har.	Shrub.	June.
521	Eriospermum folioliferum	Leaflet-bearing Eriospermum	G. H.	Shrub.	August.
522	Protea abrotanifolia hirta	Hairy Southernwood Protea	G. H.	Shrub.	August.
523	Gorteria pavonia	Peacock Gorteria	G. H.	Herb.	July.
524	Lachnæa Buxifolia	Box-leaved Lachnæa	G. H.	Shrub.	August.
525	Podalyria hirsuta	Hairy Podalyria	G. H.	Shrub.	August.
526	Protea cespitosa	Turfy Protea	G. H.	Shrub.	September.
527	Ruellia fulgida	Bright-flowered Ruellia	H. H.	Shrub.	All Summer.
528	Ornithogalum elatum	Lofty Ornithogalum	H. H.	Bulb.	August.
529	Nitraria Schoberi	Schober's Nitraria	Har.	Shrub.	August.
530	Bignonia uncata	Hooked Bignonia	H. H.	Shrub.	August.
531	Veronica Derwentia	New Holland Veronica	G. H.	Shrub.	September.
532	Protea humiflora	Low-flowering Protea	G. H.	Shrub.	August.
533	Cactus coccinellifer	Cochineal Torch Thistle	H. H.	Shrub.	September.
534	Juniperus Daurica	Daurian Juniper	Har.	Shrub.	August.
535	Tropæolum pinnatum	Winged Nasturtium	G. H.	Shrub.	September.
536	Protea abrotanifolia, *minor*	Small Southernwood-leaved Protea	G. H.	Shrub.	August.
537	Origanum Tournefortii	Tournefort's Origanum	G. H.	Shrub.	September.
538	Vanilla planifolia	Flat-leaved Vanilla	H. H.	Shrub.	September.
539	Calycanthus fertilis	Fruitful Allspice	G. H.	Shrub.	September.
540	Mesembryanthemum heterophyllum	Various-leaved Mesembryanthemum	G. H.	Shrub.	September.
541	Protea conifera	Cone-bearing Protea	G. H.	Shrub.	August.
542	Ruellia infundibuliformis	Funnel-flowered Ruellia	H. H.	Shrub.	Sum. & autumn
543	Protea speciosa patens	Spreading Showy Protea	G. H.	Shrub.	August.
544	Mimosa pudica	Bashful Mimosa	H. H.	Shrub.	All Summer.
545	Protea abrotanifolia odorata	Sweet-scented Southernwood-leaved P.	G. H.	Shrub.	August.
546	Monarda punctata	Dotted-flowered Monarda	Har.	Herb.	Autumn.
547	Passiflora perfoliata	Perfoliate-leaved Passion-flower	H. H.	Shrub.	September.
548	Cucumis Dudaim	Sweet-scented Melon	H. H.	Shrub.	September.
549	Pascalia glauca	Glaucous-leaved Pascalia	Har.	Shrub.	August.
550	Hermannia flammea	Flame-coloured Hermannia	G. H.	Shrub.	Sum. & autumn.
551	Lopezia coronata	Coronet-flowered Lopezia	G. H.	Shrub.	All Summer.
552	Hypericum Virginicum	Virginia Hypericum	Har.	Herb.	August.

ERRATA.

Plate 494. In generic character, for *os* the mouth, read *oris* the border.

Nitraria Schoberi for 530, read 529.

531 for Veronica Derwentia, read Veronica Derwentiana.