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Vol. 1.

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.

John J. Brooke
Haunted Woods -
1871 -

THE

BOTANIST'S REPOSITORY,

FOR

NEW, AND RARE PLANTS.

Linneana
QK91
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1797-
v. 1

CONTAINING

COLOURED FIGURES

OF SUCH PLANTS, AS HAVE NOT HITHERTO APPEARED IN ANY SIMILAR PUBLICATION;

WITH ALL THEIR ESSENTIAL CHARACTERS, BOTANICALLY ARRANGED, AFTER THE SEXUAL SYSTEM OF THE CELEBRATED LINNÆUS;

IN ENGLISH, AND LATIN.

TO EACH DESCRIPTION IS ADDED,

A SHORT HISTORY OF THE PLANT,

AS TO ITS TIME OF FLOWERING, CULTURE, NATIVE PLACE OF GROWTH, WHEN INTRODUCED, AND BY WHOM.

THE WHOLE EXECUTED BY

HENRY ANDREWS,

AUTHOR OF THE COLOURED ENGRAVINGS OF HEATHS, IN FOLIO.

LONDON:

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1797.

PREFACE.

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

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

Knightsbridge, Oct. 1799.

ERRATA, VOL. I.

Plate 2. Springalia, lege, *Sprengelia.* Bloſſ. one leaf, read, *one petal.*

Peri. 4-valvis, 4-locul. l. 5-val. 5-loc. S. V. 4 val. 4 cells, r. 5 val. 5 cells.

3. Cor. æquila, l. *æqualia.* Emp. Sheath, r. *Sheaths.*

7. Calyx, multiflorium, l. *multiflorum.*

9. Calyx, diciduis, l. *deciduis.* Stam. acumenatæ, l. *acuminatæ.*

11. Sp. Ch. poſt roſeis, inſ. (,).

12. Ord. II. r. IV. Seeds, become, r. *becomes.*

14. Emp. cup, r. *ſheath.* Poin. put (,) after beneath.

15. Standard, cut, r. *cup.*

20. Sem. acumenatæ, l. *acuminatæ.*

23. Bloſſ. after ſpreading, put (,). No. 2 of Ref. put (*the*) before chives.

25. Sp. Ch. poſt plenis, inſ. (,).

27. Ord. II. r. IV.

30. Line 6th of Deſcr. leave out (*not*).

37. Ord. II. r. IV.

41. Bloſſ. one leaf, r. *one petal*; divided into ſix, r. *with ſix diviſions.*

47. Stam. poſt ſubulata, inſ. (,).

65. Emp. fruit-ſtalks, r. *fruit-ſtalk.*

67. Deſcr. line 2d, for makes an addition to, r. *makes one of.*

PLATE I.

CORTUSA MATTHIOLI.

Alpine Sanicle.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

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

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

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

PISTILLUM. Germen ovatum. Stylus filiformis. Stigma ſimplex.

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

SEMINA numeroſa, oblonga, ſcabra.

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

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

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

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

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

SEEDS many, oblong, and rough.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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PLATE II.

SPRINGALIA INCARNATA.

Star-flowered Springalia.

CLASS XIX. ORDER VI.

SYNGENESIA MONOGAMIA. Tips united. Flowers ſimple.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquefidum, perſiſtens.

COROLLA. Monopetala, quinquefida, rotata, laciniis acumenatis.

STAMINA. Filamenta quinque, lineares, receptaculo inſerta. Antheræ piloſæ, erectæ, conatæ in cylindrum.

PISTILLUM. Germen ſuperum, turbinatum. Stylus filiformis. Stigma obtuſum.

PERICARPIUM. Capſula quadrivalvis, quadrilocularis.

SEMINA plurima, minima, rotunda.

EMPALEMENT. Cup one leaf, cut into five ſegments, and remaining.

BLOSSOM. One leaf, cut into five ſegments, wheel-ſhaped, the diviſions ſharp pointed.

CHIVES. Five threads, linear, fixed into the receptacle. Tips hairy, upright, united into a cylinder.

POINTAL. Seed-bud above, turban-ſhaped. Shaft thread-ſhaped. Summit blunt ended.

SEED-VESSEL. Capſule four valves, four cells.

SEEDS many, ſmall, and round.

SPECIFIC CHARACTER.

Springalia, foliis alternis, amplexicaulibus, mucronatis; corollis ſub-ſolitariis, incarnatis, rigidis, micantibus.

Springalia, with alternate leaves, embracing the ſtem, and ſharp pointed; bloſſoms moſtly ſingle, fleſh-coloured, harſh, and ſhining.

REFERENCE TO THE PLATE.

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

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

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PLATE III.

NEOTTIA SPECIOSA.

Fleſh-coloured Neottia.

CLASS XX. ORDER II.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix ſimplex.

COROLLA. Petala quinque, longitudine æquila, anguſte-lanceolata, erecta.

Nectarium monophyllum, indiviſum, acuminatum, intra petala interiora poſitum, baſin ſtyli ſemiamplectens, erectum, ſuperne patulum.

STAMINA. Filamenta duo, ex limbo ſtyli dorſali orta, lanceolata. Antheræ duæ, lineares, longæ, locatæ in loculum filamenti.

PISTILLUM. Germen inferum, curvatum, ſulcatum, inferne attenuatum. Stylus craſſus, adnatus labio ſuperiori nectarii. Stigma obſoletum.

PERICARPIUM. Capſula unilocularis, carnoſa, longiſſima, trivalvis.

SEMINA numeroſa, minutiſſima.

EMPALEMENT. Sheath ſcattered. Fruit-ſtalk ſimple.

BLOSSOM. Petals five, of equal length, of a narrow ſpear-ſhape, and upright.

Honey-cup one leaf, undivided, ſharp pointed, placed between the two inner petals, half embracing the baſe of the ſhaft, upright, ſpreading at the top.

CHIVES. Two threads, riſing out of the back of the ſhaft, ſpear-ſhaped. Tips two, linear, long, placed in the cells of the threads.

POINTAL. Seed-bud beneath, curved, furrowed, tapering at the baſe. Shaft thick, growing to the upper lip of the honey-cup. Summit indiſtinct.

SEED-VESSEL. Capſule with one cell, fleſhy, very long, three valves.

SEEDS numerous, very ſmall.

SPECIFIC CHARACTER.

Neottia, foliis radicalibus, undulatis, lato-lanceolatis, baſi attenuatis; floribus confertis, ſpicatis, incarnatis, ſpecioſiſſimis.

Neottia, with leaves growing from the root, waved, of a broad ſpear-ſhape, tapered at the baſe; flowers preſſed together in a ſpike, fleſh-coloured, and moſt beautiful.

REFERENCE TO THE PLATE.

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

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

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PLATE IV.

RHODODENDRON DAURICUM.

Dauric Rhododendron.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX quinquepartitus, perſiſtens.

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

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

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

PERICARPIUM. Capſula ovata, quinquelocularis.

SEMINA numeroſa, minima, lineares.

EMPALEMENT of five diviſions, and remaining.

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

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

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

SEED-VESSEL. Capſule oval, five-celled.

SEEDS many, ſmall, and linear.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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PLATE V.

GLADIOLUS LONGIFLORUS.

Long-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA, ſexpartita, ringens. Petala oblonga, omnia unguibus in tubum conata.

STAMINA. Filamenta tria, ſubulata, diviſuris alternis petalorum inſerta. Antheræ oblongæ.

PISTILLUM. Germen inferum. Stylus ſimplex, longitudine ſtaminium. Stigma trifidum, concavum.

PERICARPIUM. Capſula oblonga, obtuſa, trilocularis, trivalvis.

SEMINA plura, ſubrotunda.

EMPALEMENT. Sheath two valves.

BLOSSOM, cut into ſix ſegments, and gaping. Petals oblong, having all their claws connected into a tube.

CHIVES. Three threads, awl-ſhaped, fixed into each alternate diviſion of the petals. Tips oblong.

POINTAL. Seed-bud beneath. Shaft ſimple, the length of the chives. Summit divided in three, and concave.

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

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Gladiolus, foliis enſiformibus, plicatis, villoſis; corollis tubiformibus, longiſſimis; petalis undulatis, reflexis.

Gladiolus, with ſword-ſhaped, plated, hairy leaves; bloſſoms trumpet-ſhaped, and very long; petals waved, and bent back.

REFERENCE TO THE PLATE.

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

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

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Lemaillorus

PLATE VI.

HEMEROCALLIS CÆRULEA.

Blue Day Lily.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Nullus.

COROLLA, ſexpartita, infundibuli-campanulata.

STAMINA. Filamenta ſex, ſubulata, longitudine corollæ, declinata; ſuperiora breviora. Antheræ oblongæ, incumbentes, aſſurgentes.

PISTILLUM. Germen ſulcatum, ſuperum. Stylus filiformis, longitudine et ſitu ſtaminium. Stigma obtuſe-trigonum, aſſurgens.

PERICARPIUM. Capſula trigona, trilocularis, trivalvis.

SEMINA plurima, ſubrotunda.

EMPALEMENT. None.

BLOSSOM, has ſix ſegments, of a funnel bell-ſhape.

CHIVES. Six awl-ſhaped threads, the length of the bloſſom, bent downwards; the upper ones the ſhorteſt. Tips oblong, fixed by their ſides, and turned up at the ends.

POINTAL. Seed-bud furrowed, and above. Shaft thread-ſhaped, of the length and poſition of the chives. Summit bluntly three-cornered, turned up at the point.

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

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Hemerocallis, foliis cordatis, petiolatis; corollis cæruleis.

Day Lily, with leaves that are heart-ſhaped, and have foot-ſtalks; the bloſſoms blue.

REFERENCE TO THE PLATE.

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

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

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PLATE VII.

PRIMULA CORTUSOIDES.

Siberian Primroſe.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Involucrum polyphyllum, multiflorium, minimum. Perianthium monophyllum, tubulatum, pentagonum, quinquedentatum, acutum, erectum, perſiſtens.

COROLLA. Monopetala. Tubus cylindraceus, longitudine calycis, terminatus colo parvo hemiſphærico. Limbus patens, ſemi-quinquefidus; laciniis obcordatis, obtuſis. Faux pervia.

STAMINA. Filamenta quinque, breviſſima, intra collum corollæ. Antheræ acumenatæ, erectæ, conniventes, incluſæ.

PISTILLUM. Germen globoſum. Stylus filiformis, longitudine calycis. Stigma globoſum.

PERICARPIUM. Capſula teres, longitudine fere perianthii, unilocularis, dehiſcens apice decem dentato.

SEMINA numeroſa, ſubrotunda. Receptaculum ovato-oblongum, liberum.

EMPALEMENT. Fence of many leaves, including ſeveral flowers, and ſmall. Cup one leaf, tubular, five-ſided, five-toothed, ſharp, upright, and remaining.

BLOSSOM. One petal. Tube cylindrical, the length of the cup, terminated by a ſhort hemiſpherical neck. Border ſpreading, half cut into five diviſions; the ſegments are inverſely heart-ſhaped, and blunt. Mouth open.

CHIVES. Five threads, very ſhort, within the neck of the bloſſom. Tips pointed, upright, approaching, within the tube.

POINTAL. Seed-bud globular. Shaft thread-ſhaped, the length of the cup. Summit globular.

SEED-VESSEL. Capſule cylindrical, nearly as long as the cup, of one cell, opening at the top, with ten teeth.

SEEDS numerous, and roundiſh. Receptacle oblong egg-ſhaped, and looſe.

SPECIFIC CHARACTER.

Primula, foliis petiolatis, cordatis, ſub-lobatis, crenatis; corollis lætè purpureis.

Primroſe, whoſe leaves have foot-ſtalks, are heart-ſhaped, ſlightly lobed, and ſcolloped; bloſſoms of a bright purple.

REFERENCE TO THE PLATE.

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

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

Primula Cortusoides.

Drawn Engraved & Published by R. Pollard, Old Bell Yard, Temple Bar, as the Act directs, Jan. 1st 1797.

PLATE VIII.

GLADIOLUS ALATUS.

Wing-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA, ſexpartita, ringens. Petala oblonga, omnia unguibus in tubum conata.

STAMINA. Filamenta tria, ſubulata, diviſuris alternis petalorum inſerta. Antheræ oblongæ.

PISTILLUM. Germen inferum. Stylus ſimplex, longitudine ſtaminium. Stigma trifidum, concavum.

PERICARPIUM. Capſula oblonga, obtuſa, trilocularis, trivalvis.

SEMINA plura, ſubrotunda.

EMPALEMENT. Sheath two valves.

BLOSSOM, of ſix diviſions, and gaping. Petals oblong, having their claws formed into a tube.

CHIVES. Three awl-ſhaped threads, fixed into the alternate diviſions of the petals. Tips oblong.

POINTAL. Seed-bud beneath. Shaft ſimple, the length of the chives. Summit cut into three, and concave.

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

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Gladiolus, foliis enſiformibus, coſtatis; petalis lateralibus latiſſimis.

Gladiolus, with ſword-ſhape, ribbed leaves; the ſide petals of the bloſſom the broadeſt.

REFERENCE TO THE PLATE.

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

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

Gladiolus alatus

Drawn Engraved & Published as the Act directs

PLATE IX.

ATRAGENE CAPENSIS.

Cape Atragene.

CLASS XIII. ORDER VII.

POLYANDRIA POLYGYNIA. Many Chives. Many Pointals.

GENERIC CHARACTER.

CALYX. Perianthium tetraphyllum; foliolis ovalibus, patentibus, obtuſis, diciduis.

COROLLA. Petala duodecim, linearia, baſi anguſtiſſima, obtuſa, patula.

STAMINA. Filamenta plurima, breviſſima. Antheræ oblongæ, acumenatæ.

PISTILLUM. Germina plurima oblonga. Styli villoſi. Stigmata ſimplicia, longitudine antherarum.

PERICARPIUM. Nullum.

SEMINA plurima, deſinentia in caudam piloſam.

EMPALEMENT. Cup four-leaved, which are oval, ſpreading, blunt, and deciduous.

BLOSSOM. Petals twelve, linear, narroweſt at baſe, blunt, and ſpread open.

CHIVES. Threads many, very ſhort. Tips oblong, pointed.

POINTAL. Seed-buds numerous, oblong. Shafts hairy. Summits ſimple, the length of the tips.

SEED-VESSEL. None.

SEEDS many, terminating in a hairy tail.

SPECIFIC CHARACTER.

Atragene, foliis ternatis; foliolis inciſis, dentatis, rigidis; flore incarnato, ſemipleno.

Atragene, with three diviſions; the ſmaller diviſions jagged, toothed, and harſh; the flower fleſh-coloured, and ſemidouble.

REFERENCE TO THE PLATE.

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

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

Tragopogon Capensis.

Published as the act directs June 1st 1790 by H. Andrews
No. 3 Long Lane Bridge

PLATE X.

ARISTEA CYANEA.

Blue-flowered Ariſtea.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, laceræ, perſiſtentes.

COROLLA, hexapetala, oblonga, æqualia, obcordata, perſiſtentia, patens.

STAMINA. Filamenta tria, erecta, ſubulata. Antheræ ſub-ſimplices, magnæ.

PISTILLUM. Germen inferum. Stylus filiformis, erectus. Stigma trifidum, concavum, reflexum.

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

SEMINA plura, compreſſa, ſcabrida, ſub-ſemicircularia.

EMPALEMENT. Sheath two valves, ragged, and remaining.

BLOSSOM, of ſix petals, oblong, equal, inverſely heart-ſhaped, remaining, ſpreading.

CHIVES. Three threads, upright, awl-ſhaped. Tips almoſt ſimple, and large.

POINTAL. Seed-bud beneath. Shaft thread-ſhaped and erect. Summit cut into three, concave and reflected.

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

SEEDS many, flat, rough, nearly ſemicircular.

SPECIFIC CHARACTER.

Ariſtea, foliis enſiformibus, radicalibus; floribus capitatis, cyaneis.

Ariſtea with ſword-ſhaped leaves growing from the root; the flowers grow in heads, and are of a bright blue.

REFERENCE TO THE PLATE.

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

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

Aristea cyanea.

PLATE XI.

GLADIOLUS ROSEUS.

Roſe-coloured Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA, ſexpartita ringens. Petala oblonga, omnia unguibus in tubum conata.

STAMINA. Filamenta tria, ſubulata, diviſuris alternis petalorum inſerta. Antheræ oblongæ.

PISTILLUM. Germen inferum. Stylus ſimplex, longitudine ſtaminium. Stigma trifidum, concavum.

PERICARPIUM. Capſula oblonga, obtuſa, trilocularis, trivalvis.

SEMINA plura, ſubrotunda.

EMPALEMENT Sheath two valves.

BLOSSOM, of ſix diviſions, and gaping. Petals oblong, having their claws formed into a tube.

CHIVES. Three awl-ſhaped threads fixed into the alternate diviſions of the petals. Tips oblong.

POINTAL. Seed-bud beneath. Shaft ſimple, the length of the chives. Summit cut into three, and concave.

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

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Gladiolus, foliis lanceolatis, tortis, rubro marginatis, pubeſcentibus; floribus roſeis odoratiſſimis.

Gladiolus, with ſpear-ſhaped leaves, twiſted, red-edged, and downy; bloſſoms roſe colour, and ſweet-ſcented.

REFERENCE TO THE PLATE.

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

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

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PLATE XII.

GERANIUM GRANDIFLORUM.

Largeſt flowered Crane's-bill.

CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

GENERIC CHARACTER.

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

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

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

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

PERICARPIUM nullum. Fructus pentacoccus, roſtratus.

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

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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

Geranium grandiflorum

PLATE XIII.

EPIDENDRUM COCHLEATUM.

Purple flowered Epidendrum.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix ſimplex. Perianthium nullum.

COROLLA. Petala quinque, oblonga, longiſſima, patentiſſima.

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

STAMINA. Filamenta duo, breviſſima, piſtillo inſidentia. Antheræ tectæ labio ſuperiore nectarii.

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

PERICARPIUM. Siliqua longiſſima, teres, carnoſa.

SEMINA numeroſa, minutiſſima.

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

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

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

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

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

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

SEEDS numerous, extremely ſmall.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

Epidendrum cochleatum.

PLATE XIV.

IXIA REFLEXA.

Reflex flowered Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

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

COROLLA. Petala ſex, oblonga, æqualia, lanceolata.

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

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

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

SEMINA ſubrotunda, plurima.

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

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

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

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

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

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Ixia floribus ſpicatis, reflexis; foliis enſiformibus, glabris.

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

REFERENCE TO THE PLATE.

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

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

Ixia reflexa.

PLATE XV.

ANTHYLLIS ERINACEA.

Blue Broom of Spain.

CLASS XVII. ORDER III.

DIADELPHIA DECANDRIA. Chives in two ſets. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, ovato-oblongum, parum inflatum, villoſum; ore quinquedentato, inæquali; perſiſtens.

COROLLA papilionacea:

Vexillum longius, lateribus reflexis, ungue longitudine calycis.

Alæ duæ, oblongæ, vexillo breviores.

Carina compreſſa, longitudine alarum, alis ſimilis.

STAMINA. Filamenta decem, connata, aſſurgentia. Antheræ ſimplices.

PISTILLUM. Germen oblongum. Stylus ſimplex, adſcendens. Stigma obtuſum.

PERICARPIUM. Legumen ſubrotundum, tectum intra calycem, minimum, bivalve.

SEMEN unum, alterumve.

EMPALEMENT. Cup of one leaf, oblong egg-ſhaped, a little ſwelled, and hairy; mouth cut into five unequal teeth; permanent.

BLOSSOM, butterfly-ſhaped.

Standard longer, ſides bent back, the claws as long as the cut.

Wings two, oblong, ſhorter than the ſtandard.

Keel compreſſed, as long as the wings, and like them.

CHIVES. Ten threads, connected, riſing upwards. Tips ſimple.

POINTAL. Seed-bud oblong. Shaft ſimple, aſcending. Summit blunt.

SEED-VESSEL. Pod roundiſh, covered by the cup, very ſmall, of two valves.

SEEDS. One or two.

SPECIFIC CHARACTER.

Anthyllis fruticoſa, ſpinoſa; foliis ſimplicibus; floribus ex cæruleo purpuraſcentibus.

Broom, ſhrubby, and covered with prickles; leaves ſimple; bloſſoms of a purpliſh blue.

REFERENCE TO THE PLATE.

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

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

Polygalis Erinacea.

Pub.d as the Act directs March.t 1794.

PLATE XVI.

AZALEA PONTICA.

Yellow Pontic Azalea.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

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

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

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

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

PERICARPIUM. Capſula ovata, quinquelocularis, quinquevalvis.

SEMINA plurima, compreſſa.

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

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

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

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

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

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

SEEDS many, and flat.

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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Azalea Pontica.

PLATE XVII.

PROTEA FORMOSA.

Coronet Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium commune, imbricatum; ſquamis inæqualibus, perſiſtentibus.
Proprium nullum.

COROLLA tetrapetala. Petala ſæpe cohærentia, ſæpius diviſa, lineari-oblonga: unguibus erectis, limbo patenti.

STAMINA. Filamenta nulla. Antheræ quatuor, lineares, vel oblongæ, ſub apice limbi corollæ inſertæ.

PISTILLUM. Germen ſuperum, oblongum. Stylus filiformis, corolla longior. Stigma ſimplex, clavatum.

PERICARPIUM nullum. Calyx patens, induratus, vix mutatus.

SEMINA ſolitaria, ſubrotunda, vel compreſſa.

RECEPTACULUM commune nudum, villoſum, paleaceum, vel conus.

EMPALEMENT. Cup common, ſcaled; ſcales unequal, and remaining.
Proper none.

BLOSSOM four-leaved. Petals frequently adhering, oftener divided, of a linear oblong ſhape: claws upright, border ſpreading.

CHIVES. Threads none. Tips four, linear, or oblong, fixed within the border of the bloſſom.

POINTAL. Seed-bud above, and oblong. Shaft thread-ſhaped, longer than the bloſſom. Summit ſimple, and club-ſhaped.

SEED-VESSEL none. Cup ſpreading, hard, and ſcarcely changing.

SEEDS ſolitary, nearly round, or flat.

RECEPTACLE the common, is naked, hairy, chaffy, or a cone.

SPECIFIC CHARACTER.

Protea, foliis lanceolatis, pubeſcentibus; caule villoſo; flore aurantio flavo; ſemine ſubrotundo, glabro, magnitudine piſi majoris.

Protea, with lance-ſhape downy leaves; ſtem hairy; bloſſom orange yellow; ſeed nearly round, ſmooth, the ſize of a large pea.

REFERENCE TO THE PLATE.

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

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

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Protea formosa

PLATE XVIII.

CORREA ALBA.

White Correa.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quadridentatum, campanulatum, erectum, perſiſtens.

COROLLA. Petala quatuor, oblonga, concava, apice reflexa, marginibus craſſis.

STAMINA. Filamenta octo, erecta, filiformia, receptaculo inſerta.

PISTILLUM. Germen turbinatum, ſuperum. Stylus filiformis, longitudine ſtaminium. Stigma obtuſum.

PERICARPIUM. Capſula coriacea, lanata, quadrilocularis, quadrivalvis.

SEMINA quatuor, ſolitaria, ſubrotunda.

EMPALEMENT. Cup of one leaf, five-toothed, bell-ſhaped, upright, and permanent.

BLOSSOM. Four petals, oblong, concave, reflexed at the end, and thick at the edges.

CHIVES. Eight threads, upright, thread-ſhaped, and fixed into the receptacle.

POINTAL. Seed-bud turban-ſhaped, and above. Shaft thread-ſhaped, the length of the chives. Summit blunt.

SEED-VESSEL. Capſule leathery, and woolly, four cells, four valves.

SEEDS four, ſolitary, and nearly round.

SPECIFIC CHARACTER.

Correa, foliis ſubrotundis, ſupra tomentoſis, ſubtus lanigeris; floribus terminalibus, quaternis, albidis.

Correa, with leaves nearly round, downy on the upper ſurface, woolly on the under ſurface; flowers terminate the branches by fours, and are white.

REFERENCE TO THE PLATE.

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

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

ra alba.

PLATE XIX.

GLADIOLUS VERSICOLOR.

Changeable Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA, ſexpartita, ringens. Petala oblonga, omnia unguibus in tubum connata.

STAMINA. Filamenta tria, ſubulata, diviſuris alternis petalorum inſerta. Antheræ oblongæ.

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

PERICARPIUM. Capſula oblonga, obtuſa, trilocularis, trivalvis.

SEMINA plura, ſubrotunda.

EMPALEMENT. Sheath two valves.

BLOSSOM, of ſix diviſions, and gaping. Petals oblong, having their claws formed into a tube.

CHIVES. Three awl-ſhaped threads, fixed into the alternate diviſions of the petals. Tips oblong.

POINTAL. Seed-bud beneath. Shaft ſimple, the length of the chives. Summit cut into three, and concave.

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

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Gladiolus, foliis lineari-cruciatis; floribus maximis, verſicoloribus.

Gladiolus, with linear croſs-ſhaped leaves; flowers very large, and changeable.

REFERENCE TO THE PLATE.

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

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

Cyrtopodium Parviflorum.

PLATE XX.

ECHIUM GRANDIFLORUM.

Large-flowered Viper's Bugloss.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

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

COROLLA. Monopetala, campanulata. Tubus breviſſimus. Limbus erectus, ſenſim ampliatus, quinquefidus obtuſus; laciniis ſæpius inæqualibus; ſuperioribus duabus longioribus, infimis minoribus, acutis, reflexis. Faux pervia.

STAMINA. Filamenta quinque, ſubulata, longitudine corollæ, declinata, inæqualia. Antheræ oblongæ, incumbentes.

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

PERICARPIUM nullum. Calyx rigidior, in ſinu ſemina fovens.

SEMINA quatuor, ſubrotunda, oblique acumenata.

EMPALEMENT. Cup with five diviſions, upright, permanent; ſegments awl-ſhaped, upright.

BLOSSOM. One petal, bell-ſhaped. Tube very ſhort. Border gradually widening, with five clefts, blunt. Segments oftenеſt unequal, the two upper ones the longeſt; the lower ones ſmaller, ſharp, and reflexed. The mouth open.

CHIVES. Five threads, awl-ſhaped, the length of the bloſſom, declined, and unequal. Tips oblong, fixed ſideways to the threads.

POINTAL. Seed-buds four. Shaft thread-ſhaped, the length of the chives. Summit blunt, and two-cleft.

SEED-VESSEL none. The cup growing more harſh, contains the ſeeds.

SEEDS four, roundiſh, obliquely tapering.

SPECIFIC CHARACTER.

Echium, foliis nitidis, lanceolatis, hiſpidis; caule fruticoſo; corollis maximis, æqualibus, rubris.

Viper's Bugloſs, with ſhining, lance-ſhaped, hairy leaves; ſtem ſhrubby; bloſſoms very large, equal, and red.

REFERENCE TO THE PLATE.

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

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

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PLATE XXI.

VEREIA CRENATA.

Scolloped-leaf Vereia.

CLASS VIII. ORDER IV.

OCTANDRIA TETRAGYNIA. Eight Chives. Four Pointals.

GENERIC CHARACTER.

CALYX. Perianthium tetraphyllum, foliolis lanceolatis, concavis, erectis, acutis, perſiſtentibus.

COROLLA monopetala, ventricoſa; limbus patens, revolutus quadripartitus; laciniis ovatis, acuminatis.

Nectararia quatuor; ſingulum ſquamula debilia, minima, ſingulo germini ad baſin extrorſum inſerta.

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

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

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

SEMINA plurima minima.

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

BLOSSOM of one leaf, big bellied; border ſpreading, rolled back, and divided into four egg-ſhaped, pointed ſegments.

Honey-cups four, each conſiſting of a ſmall ſlight ſcale, fixed on the outſide the baſe of each ſeed-bud.

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

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

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

SEEDS many, very ſmall.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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PLATE XXII.

GOODENIA CALENDULACEA.

Cape Marygold-leaved Goodenia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quadrifidum, ſuperum, perſiſtens.

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

STAMINA. Filamenta quinque, receptaculo inſerta. Antheræ lineares.

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

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

SEMINA plura, ſcabrida.

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

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

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

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

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

SEEDS many and rough.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

rdenia calendulacea.

PLATE XXIII.

IXIA CAPITATA. *Var. ovata.*

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

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6 petala, patens, æqualis. Stigmata 3, erectiuſculo-patula.	Blossom ſix petals, ſpreading equal. Summits three, nearly upright, ſpreading. See Ixia reflexa, Plate XIV.

SPECIFIC CHARACTER.

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

REFERENCE TO THE PLATE.

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

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

a capitata.
ar ovata.

PLATE XXIV.

CINERARIA AURITA.

Two-coloured-leaved Cineraria.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

Calyx. Communis, ſimplex; polyphyllus; foliolis æqualibus.

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

Propria hermaphroditi, infundibuliformis; limbo quinquefido, erecto.

Feminea ligulata, lanceolata, apice denticulata.

Stamina. Filamenta quinque, filiformia brevia. Antheræ cylindracea, tubuloſa, apice quinquefida.

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

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

Pericarpium nullum. Calyx immutatus.

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

Receptaculum nudum, planiuſculum.

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

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

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

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

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

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

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

Seed-vessel none. Cup not changing.

Seeds of florets with chives and pointals, ſolitary, linear and four-ſided. Feather, hairy, abundant.

Receptacle naked, rather flat.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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PLATE XXV.

CAMELLIA JAPONICA. *Var. Flore albo pleno.*

Double white Camellia.

CLASS XVI. ORDER V.

MONODELPHIA POLYANDRIA. Threads united. Many Chives.

ESSENTIAL GENERIC CHARACTER.

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

SPECIFIC CHARACTER OF *VAR.*

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

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

Camellia Japonica.

PLATE XXVI.

CRASSULA ODORATISSIMA.

Sweet-ſcented Craſſula.

CLASS V. ORDER V.

PENTANDRIA PENTAGYNIA. Five Chives. Five Pointals.

GENERIC CHARACTER.

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

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

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

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

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

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

SEMINA plura, parva.

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

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

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

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

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

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

SEEDS, many, ſmall.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

rafsula odoratiſsima.

PLATE XXVII.

GLADIOLUS RINGENS. *Var. cinereo odorato.*

Gaping Aſh-coloured ſweet Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6-partita, ringens.	Blossom ſix diviſions, gaping.
Stamina adſcendentia.	Chives aſcending.
	See Plate XI.

SPECIFIC CHARACTER.

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

REFERENCE TO THE PLATE.

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

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

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PLATE XXVIII.

GERANIUM ELEGANS.

Round-leaved Geranium.

CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

One POINTAL. Five Summits. Fruit furniſhed with long awns, 5 dry berries.
See GERANIUM GRANDIFLORUM, Plate XII.

SPECIFIC CHARACTER.

Geranium pedunculis multifloris; calycibus monophyllis, foliis orbiculatis, ſerratis rigidis, petiolis longiſſimis; caule herbaceo.

Geranium, the fruit-ſtalks ſupporting many flowers; cups of one leaf; the leaves round, ſawed, and harſh, with very long foot-ſtalks; ſtem herbaceous.

REFERENCE TO THE PLATE.

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

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

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Geranium elegans.

PLATE XXIX.

IXIA SPICATA. *Var. viridi nigra.*

Sea-green ſpiked Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6 petala, patens, æqualis.	Blossom ſix petals, ſpreading, equal.
Stigmata 3, erectiuſculo-patula.	Summits three, nearly upright, ſpreading. See Ixia reflexa, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis linearibus, coſtatis; corolla viridi, petalis baſi obſcuris; ſpicis longiſſimis.	Ixia with linear, ribbed leaves; green bloſſom, the baſe of the petals dark; ſpikes very long.

REFERENCE TO THE PLATE.

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

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

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PLATE XXX.

VACCINIUM ARCTOSTAPHYLLUS.

Madeira Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium minimum, ſuperum, perſiſtens.

COROLLA. Monopetala, campanulata, quadrifida; laciniis revolutis.

STAMINA. Filamenta octo, ſimplicia. Antheræ bicornes, dorſo ariſtis duabus patentibus inſtructæ, apice dehiſcentes.

PISTILLUM. Germen inferum. Stylus ſimplex, ſtaminibus longior. Stigma obtuſum.

PERICARPIUM. Bacca globoſa, umbilicata, quadrilocularis.

SEMINA pauca, parva.

EMPALEMENT. Cup very ſmall, above, and permanent.

BLOSSOM. One petal, bell-ſhaped, four-cleft; ſegments rolled back.

CHIVES. Eight threads, ſimple. Tips with two horns, and furniſhed with two ſpreading awns at the back, opening at the points.

POINTAL. Seed-bud beneath. Shaft ſimple, longer than the chives. Summit blunt.

SEED-VESSEL. A globular berry, with a hollow dimple, and four cells.

SEEDS few, and ſmall.

SPECIFIC CHARACTER.

Vaccinium, floribus racemoſis; foliis crenulatis, ovatis, acutis; caule arboreo.

Whortle-berry, with flowers growing in bunches; leaves ſlightly ſcollopped, egg-ſhaped, and pointed; ſtem woody.

REFERENCE TO THE PLATE.

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

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

Pl. 5

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...um Arctostaphullus.

PLATE XXXI.

BORBONIA CORDATA.

Heart-ſhape leaved Borbonia.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Threads in two ſets. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquefidum, turbinatum, corolla dimidio brevius; laciniis lanceolatis, acuminatis, ſubæqualibus.

COROLLA pentapetala papilionacea.

Vexillum reflexum, obtuſum, ungue calycis longitudine.

Alæ ſemicordatæ, vexillo paulo breviores.

Carina dipetala, lunulata, obtuſa.

STAMINA. Filamenta decem, coalita in cylindrum, ſuperne longitudinaliter dehiſcentem, apicibus aſſurgentia. Antheræ parvæ.

PISTILLUM. Germen ſubulatum. Stylus breviſſimus, adſcendens. Stigma obtuſum, emarginatum.

PERICARPIUM. Legumen ſubrotundum, acuminatum, uniloculare, ſpina mucronatum.

SEMINA reniformia.

EMPALEMENT. Cup one leaf, cut into five ſegments, turban-ſhaped, ſhorter by half than the bloſſom; ſegments lance-ſhaped, pointed, nearly of the ſame length.

BLOSSOM of five leaves, butterfly-ſhaped.

Standard bent back, blunt, the claw the length of the cup.

Wings half heart-ſhaped, a little ſhorter than the ſtandard.

Keel of two leaves, half moon-ſhaped, and blunt.

CHIVES. Threads ten, joined in a cylinder, ſplitting at the upper ſide, turned up at the ends. Tips ſmall.

POINTAL. Seed-bud awl-ſhaped. Shaft ſhort, turned up at the end. Summit blunt, and bordered.

SEED-VESSEL. Shell roundiſh, pointed, of one cell, and pointed with a ſpine.

SEEDS kidney-ſhaped.

SPECIFIC CHARACTER.

Borbonia foliis cordatis, multinerviis, integerrimis.

Borbonia with heart-ſhaped leaves, many-nerved, and very entire.

REFERENCE TO THE PLATE.

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

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

ea cordata.

PLATE XXXII.

ANTHOLYZA RINGENS.

Gaping Antholyza.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

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

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

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

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

PERICARPIUM. Capſula ſubrotunda, trilocularis, trivalvis.

SEMINA plura, triangularia.

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

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

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

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

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

SEEDS many, triangular.

SPECIFIC CHARACTER.

Antholyza corollæ labiis divaricatis; fauce compreſſa.

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

REFERENCE TO THE PLATE.

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

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

Stadtmannia ringens.

PLATE XXXIII.

DIOSMA LATIFOLIA.

Broad-leaved Dioſma.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

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

COROLLA. Petala quinque, ovata, obtuſa, ſeſſilia, erecto-patula.
Nectarium coronæ forma, excavatum, quinquefidum, obtuſum, germini impoſitum.

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

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

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

SEMINA ſolitaria, oblonga.
Arillus elaſticus, hinc dehiſcens; ſingulum involvens ſemen.

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

BLOSSOM. Five petals, egg-ſhape, blunt, ſitting cloſe, erect, and open.
Honey-cup crown-ſhaped, hollow, with five diviſions, blunt, fixed on the ſeed-buds.

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

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

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

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

SPECIFIC CHARACTER.

Dioſma, foliis oppoſitis, ſerratis, ovalibus, latiſſimis; floribus terminalibus, albidis, ſeſſilibus.

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

REFERENCE TO THE PLATE.

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

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

Vinca latifolia

PLATE XXXIV.

CHELONE RUELLIOIDES.

Scarlet Chelone.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

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

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

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

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

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

PERICARPIUM. Capſula ovata, bilocularis, calyce longior.

SEMINA plurima, ſub-rotunda, margine membranaceo cincta.

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

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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Lobelia nudicaulis

PLATE XXXV.

IXIA CRISPIFOLIA. *Var. flore cæruleo.*

Criſped-leaved Ixia. Blue Variety.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6-petala, patens, æqualis. Stigmata 3, erectiuſculo-patula.	Blossom ſix petals, ſpreading equal. Summits three, nearly upright, and ſpreading. See Ixia reflexa, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis crispis; ſcapus ramoſus, flexuoſus, ſpithamæus; floribus ſub-umbellatis, cæruleis.	Ixia with criſped leaves; flower-ſtem branched, waved, and a ſpan high; flowers grow in partial umbels, and are blue.

REFERENCE TO THE PLATE.

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

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

...ria crispifolia.
...flore cæruleo.

PLATE XXXVI.

RHODODENDRON PUNCTATUM.

Dotted-leaved Rhododendron.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-partitus. Corolla rotato-infundibuliformis. Stamina declinata. Capsula 5-locularis.

EMPALEMENT of five divisions. Blossom of a rounded funnel-shape. Chives bent downward. Capsule of five cells.
See RHODODENDRON DAURICUM, Plate IV.

SPECIFIC CHARACTER.

Rhododendron foliis glabris, subtus punctatis; viminibus laxis; corollis crispis, violaceo-purpureis.

Rhododendron with smooth leaves, dotted on the under part; slender loose branches; blossoms crisped, and of a blueish purple.

REFERENCE TO THE PLATE.

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

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

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Rhododendron punctatum

PLATE XXXVII.

GERANIUM FRAGILE.

Brittle-ſtalked Geranium.

CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

SPECIFIC CHARACTER.

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

REFERENCE TO THE PLATE.

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

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

Geranium fragile.

PLATE XXXVIII.

GLADIOLUS PRÆCOX. *Var. flore rubro.*

Red early-flowering Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6-partita, ringens.	Blossom ſix diviſions, gaping.
Stamina adſcendentia.	Chives aſcending.
	See Plate XI. Gladiolus roseus.

SPECIFIC CHARACTER.

Gladiolus foliis enſiformibus, apicibus tortis, lineari-cruciatis; corollis ſub-campanulatis, rubris; petalis acuminatis.	Gladiolus with ſword-ſhaped leaves, twiſted at the ends, linear, and croſs-ſhaped; bloſſoms nearly bell-ſhaped, and red; petals ſharp-pointed.

REFERENCE TO THE PLATE.

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

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

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PLATE XXXIX.

ECHIUM FEROCISSIMUM.

Prickly Viper's Bugloſs.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla irregularis, fauce nuda.	Blossom irregular, mouth naked. See Echium grandiflorum, Plate XX.

SPECIFIC CHARACTER.

Echium caule fruticoſo; ramis, foliiſque aculeatis; floribus ſpicatis, violaceis; corollis ſub-æqualibus.	Viper's Bugloſs, with a ſhrubby ſtem; branches and leaves covered with ſharp prickles; flowers growing in ſpikes, and violet coloured; bloſſoms nearly equal.

REFERENCE TO THE PLATE.

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

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

PLATE XL.

CHELONE CAMPANULOIDES.

Bell-flowered Chelone.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

Calyx 5-partitus. Rudimentum filamenti quinti inter ſuprema ſtamina. Capſula bilocularis.	Empalement of five diviſions. The rudiment of a fifth thread is found placed between the upper chives. Capſule of two cells. See Plate XXXIV. Chelone Ruellioides.

SPECIFIC CHARACTER.

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

REFERENCE TO THE PLATE.

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

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

Lobelia campanulata.

PLATE XLI.

LACHENALIA PENDULA.

Drooping-flowered Lachenalia.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

COROLLA monopetala, cylindracea, ſexpartita; tubus gibbus; laciniis tribus exterioribus brevioribus.

STAMINA. Filamenta ſex, ſubulata, longitudine corollæ, inſerta baſi laciniarum corollæ. Antheræ oblongæ, incumbentes.

PISTILLUM. Germen trigonum, triſulcum. Stylus ſimplex, corolla paulo longior. Stigma obtuſum.

PERICARPIUM. Capſula triquetra, trilocularis, trivalvis.

SEMINA plurima, globoſa.

EMPALEMENT, none.

BLOSSOM one leaf, cylindrical, divided into ſix; tube gouty; the three outer diviſions the ſhorteſt.

CHIVES. Threads ſix, awl-ſhaped, the length of the bloſſom, fixed into the baſe of the diviſions of the bloſſom. Tips oblong, laying on the threads.

POINTAL. Seed-bud three-ſided, three-furrowed. Shaft ſimple, a little longer than the bloſſom. Summit blunt.

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

SEEDS many, globular.

SPECIFIC CHARACTER.

Lachenalia foliis longiſſimis, ovato-oblongis, immaculatis; corollis ſpecioſiſſimis, maximis, tricoloratis, pedunculatis, cernuis.

Lachenalia with very long egg-ſhaped oblong leaves, without ſpots; bloſſoms very ſhewy, large, three-coloured, having foot-ſtalks, and nodding.

REFERENCE TO THE PLATE.

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

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

Lachenalia pendula.

PLATE XLII.

ORCHIS CILIARIS.

Fringed Orchis.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix ſimplex. Perianthium nullum.

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

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

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

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

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

SEMINA numeroſa, minima.

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

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

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

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

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

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

SEEDS numerous, very ſmall.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

Orchis ciliaris.

PLATE XLIII.

BIGNONIA LEUCOXYLON.

Oleander-flowered Trumpet Flower.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, erectum, cyathi-forme, quinquefidum.

COROLLA monopetala, campanulata; tubus minimus, longitudine calycis; faux longiſſima, ſubtus ventricoſa; limbus quinque partitus; laciniis duabus ſuperioribus reflexis; inferioribus patulis.

STAMINA. Filamenta quatuor, ſubulata, corolla breviora, quorum duo reliquis longiora. Antheræ reflexæ, oblongæ, velut duplicatæ.

PISTILLUM. Germen oblongum. Stylus filiformis, ſitu et figura ſtaminum. Stigma capitatum.

PERICARPIUM. Siliqua bilocularis, bivalvis.

SEMINA plurima, imbricata, compreſſa, utrinque membranaceo alata.

EMPALEMENT. Cup one leaf, upright, cup-ſhaped, and cut into five diviſions.

BLOSSOM of one bell-ſhaped petal; tube ſmall, the length of the cup; mouth very long, ſwelled at the bottom; border of five diviſions; the two upper ſegments reflexed, the lower ones ſpreading.

CHIVES. Threads four, awl-ſhaped, ſhorter than the bloſſom, two of which are longer than the others. Tips bent back, oblong, and appear doubled.

POINTAL. Seed-bud oblong. Shaft thread-ſhaped, of the ſame ſituation and ſhape as the chives. Summit headed.

SEED-VESSEL. Pod of two cells, and two valves.

SEEDS many, laying one over the other, flat, and winged at each ſide.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

Lawsonia Lawsonia.

PLATE XLIV.

IXIA CINNAMOMEA.

Cinnamon-ſmelling Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6-petala, patens, æqualis. Stigmata tria, erectiuſculo patula.	Blossom ſix petals, ſpreading, and equal. Summits three, nearly upright, ſpreading. See Ixia reflexa, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis falcatis, criſpis; floribus alternis, noctiflorens, cinnamomi odore.	Ixia with ſcimitar-ſhaped leaves, waved at the edge; flowers alternate, blowing at night, and ſmelling of cinnamon.

REFERENCE TO THE PLATE.

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

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

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PLATE XLV.

IRIS LONGIFOLIA.

Long-leaved Iris.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, flores diſtinguentes, perſiſtentes.

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

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

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

PERICARPIUM. Capſula oblonga, angulata, trilocularis, trivalvis.

SEMINA plurima, ovata, glabra.

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

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

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

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

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

SEEDS many, egg-ſhaped, and ſmooth.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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PLATE XLVI.

MASSONIA VIOLACEA.

Purple-flowered Maſſonia.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

COROLLA ſex-petala. Petala nectario impoſita, lanceolata, patentia.
Nectarium inferum, cylindricum, membranaceum.

STAMINA. Filamenta ſex, nectarii dentibus inſerta, filiformia declinata, petalis paulo longiora. Antheræ ovatæ.

PISTILLUM. Germen (reſpectu nectarii) ſuperum. Stylus ſubulatus, declinatus, longitudine, ſtaminum. Stigma ſimplex, acutum.

PERICARPIUM. Capſula triquetra, glabra, trilocularis, trivalvis, angulis dehiſcens.

SEMINA plurima, globoſa, glabra, magnitudine ſeminum ſinapios.

EMPALEMENT none.

BLOSSOM ſix-petals. Petals placed on the honey-cup, are lance-ſhaped and ſpreading.
Honey-cup beneath, cylindrical and ſkinny.

CHIVES. Six threads, fixed into the teeth of the honey-cup, thread-ſhaped, bent downward, and a little longer than the petals. Tips egg-ſhaped.

POINTAL. Seed-bud (with regard to the honey-cup) above. Shaft awl-ſhaped, and bent downward the length of the chives. Summit ſimple, and pointed.

SEED-VESSEL. Capſule three-ſided, and ſmooth, of three cells and three valves, ſplitting at the angles.

SEEDS many, globular, ſmooth, the ſize of a muſtard ſeed.

SPECIFIC CHARACTER.

Maſſonia, foliis ſpathulatis, glabris; ſcapus filiformis, erectus, bipollicaris; flores pedunculati, violacei, ſparſi, pedunculi uniflori.

Maſſonia with ſpatula-ſhaped, and ſmooth leaves; flower-ſtalk thread-ſhaped, upright, two inches high; the flowers have foot-ſtalks, are of a violet colour, and grow ſcattered; the foot-ſtalks have each but one flower.

REFERENCE TO THE PLATE.

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

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

Alstroemia violacea.

PLATE XLVII.

MUSA COCCINEA.

Scarlet-flowered Plantain-tree.

CLASS XXIII. ORDER I.

POLYGAMIA MONOECIA. Various diſpoſitions. Upon one Plant.

GENERIC CHARACTER.

Hermaphroditi feminei flores.

CALYX. Spatha partialis ovato-oblonga, plano-concava, magna.

COROLLA inæqualis, ringens; petalo conſtituente labium ſuperius, nectario vero labium inferius.

Petalum erectum, ligulatum, quinquedentatum, baſi antice connivens.

Nectarium monophyllum, naviculare, petalo, brevius, intra ſinum petali inſertum.

STAMINA. Filamenta ſex, ſubulata erecta, petalo dimidio breviora. Antheræ abortivæ.

PISTILLUM. Germen infra receptaculum floris, maximum, longiſſimum. Stylus erectus, longitudine petali. Stigma capitatum, ſubrotundum.

PERICARPIUM. Bacca carnoſa, corio tecta, longiſſima, pulpa trifariam, abſque diſſepimentis.

SEMINA plurima, globoſa.

Hermaphroditi maſculi flores.

CALYX ut in feminæo.

COROLLA ut in feminæo.

STAMINA. Filamenta ut in feminæo, at longiora, tenuiora. Antheræ lineares, ſulcatæ, erectæ, magnæ.

PISTILLUM. Germen ut in feminæo, ut minus. Stylus, et ſtigma ut in fæmineo, at minora.

PERICARPIUM abortit.

Hermaphrodite flowers, where the female parts are perfect.

EMPALEMENT. Partial ſheath oblong, egg-ſhaped, ſmoothly-concave, and large.

BLOSSOM unequal and gaping; the petal forming the upper lip, the honey-cup the under.

Petal upright, ligulate, five-toothed, and meeting at the baſe in front.

Honey-cup one leaf, ſhip-ſhaped, ſhorter than the petal, and incloſed within it.

CHIVES. Threads ſix, awl-ſhaped, upright, ſhorter by half than the petal. Tips abortive.

POINTAL. Seed-bud below the receptacle of the flower, large and very long. Shaft upright the length of the petal. Summit headed, nearly round.

SEED-VESSEL. A fleſhy berry, covered with a tough ſkin, very long, the pulp laying three ways, without partitions.

SEEDS many, round.

Hermaphrodite flowers, where the male parts are perfect.

EMPALEMENT as in the female flower.

BLOSSOM as in the female flower.

CHIVES. Threads as in the female flower, but longer, and thinner. Tips linear, channelled, upright, and large.

POINTAL. Seed-bud the ſame as in the female, but ſmaller. Shaft and ſummit like the female, but ſmaller.

SEED-VESSEL is abortive.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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PLATE XLVIII.

IXIA BULBIFERA. *Var: flore luteo.*

Bulb-bearing Ixia. Var: yellow-flowered.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6-petala, patens, æqualis. Stigmata tria, erectiuſculo patula.	Blossom ſix petals, ſpreading, and equal. Summits three, nearly upright, and ſpreading. See Ixia reflexa, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis falcatis, glabris, ſcapo brevioribus, axillis bulbiferis; floribus alternis, luteis.	Ixia with ſcimitar-ſhaped leaves, ſmooth, and ſhorter than the flower-ſtem, bearing bulbs at their inſertion into the ſtalk; flowers alternate, and yellow.

REFERENCE TO THE PLATE.

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

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

Ixia bulbifera.

PLATE XLIX.

MALPIGHIA CRASSIFOLIA.

Thick-leaved Malpighia.

CLASS X. ORDER III.

DECANDRIA TRIGYNIA. Ten Chives. Three Pointals.

GENERIC CHARACTER.

CALYX. Perianthium pentaphyllum, erectum, minimum, perſiſtens, connivens. Glandulæ melliferæ duæ, ovales gibbæ, foliolis calycinis externe inferneque adnatæ.

COROLLA. Petala quinque, reniformia, magna, plicata, ciliata, patentia, concava; unguibus longis, linearibus.

STAMINA. Filamenta decem latiuſcula, erecta, in cylindrum poſita, parva. Antheræ cordatæ.

PISTILLUM. Germen ſubrotundum, minimum. Styli tres, filiformes. Stigmata obtuſa.

PERICARPIUM. Bacca globoſa, toruloſa, magna, unilocularis.

SEMINA tria, oſſea, oblonga, obtuſa, angulata.

EMPALEMENT. Cup five leaves, upright, very ſmall, remaining and cloſing at the points. Two honey-bearing glands, oval and gouty, are fixed to the outer and lower part of the leaves of the cup.

BLOSSOM. Petals five, kidney-ſhaped, large, plaited, laſhed, ſpreading, and concave; claws long, linear.

CHIVES. Threads ten, rather broad, upright, placed cylindrically, and ſmall. Tips heart-ſhaped.

POINTAL. Seed-bud nearly round, very ſmall. Shafts three, thread-ſhaped. Summits blunt.

PERICARPIUM. Berry globular, knobby, large, of one cell.

SEEDS three, bony, oblong, blunt, and angulated.

SPECIFIC CHARACTER.

Malpighia foliis lanceolato-ovatis, ſubtus tomentoſis, integerrimis; floribus terminalibus, ſpicatis, pallide-luteis.

Malpighia with oval ſpear-ſhaped leaves, downy beneath, and entire; flowers terminate the branches in ſpikes, and are pale yellow.

REFERENCE TO THE PLATE.

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

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

Malpighia crassifolia

PLATE L.

IXIA CAPITATA. *Var: flore aurantio.*

Bunch-flowering Ixia. Var: Bloſſom gold colour.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6-petala, patens, æqualis. Stigmata tria, erectiuſculo-patula.	Blossom ſix petals, ſpreading, and equal. Summits three, nearly upright, and ſpreading. See Plate XIV. Ixia reflexa.

SPECIFIC CHARACTER.

Ixia foliis radicalibus, enſiformibus; floribus capitatis, confertis, aurantiis, petalis baſi obſcuris.	Ixia with leaves growing from the root, and ſword-ſhaped; bloſſoms grow in a cloſe bunch, gold coloured, and the petals dark at the baſe.

REFERENCE TO THE PLATE.

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

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

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Iris capitata.
Var: flore aurantio.

Publ.d as the Act directs March 1.st 1793
by H. Moore No. 26 Pall Mall

PLATE LI.

XERANTHEMUM SPECIOCISSIMUM.

Largeſt-flowering Everlaſting Flower.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

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

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

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

Femineis tubuloſa, longitudine hermaphroditi, quinquefida, minus æqualis.

STAMINA. Hermaphroditis filamenta quinque, breviſſima. Antheræ cylindracea, tubuloſa, longitudine fere corollulæ.

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

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

PERICARPIUM nullum. Calyx vix mutatus.

SEMINA oblonga, coronata.

RECEPTACULUM nudum, planiuſculum, punctatum.

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

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

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

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

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

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

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

SEED-VESSEL none. Empalement ſcarcely changing.

SEEDS oblong, and crowned with a feather.

RECEPTACLE naked, flatiſh, and dotted.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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Leucadendrum speciosissimum.

PLATE LII.

GNIDIA PINIFOLIA.

Pine-leaved Gnidia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, infundibuliforme, coloratum; tubo filiformi, longiſſimo; limbo quadripartito, plano.

COROLLA. Petala quatuor, ſeſſilia, plana, calyce breviora, eique inſerta.

STAMINA. Filamenta octo, ſetacea, erecta, longitudine fermè floris. Antheræ ſimplices.

PISTILLUM. Germen ovatum. Stylus filiformis, germinis lateri inſertus, longitudine ſtaminum. Stigma capitatum, hiſpidum.

PERICARPIUM nullum. Fructus in fundo calycis.

SEMEN unicum, ovatum.

EMPALEMENT. Cup one leaf, funnel-ſhaped and coloured; tube thread-ſhaped, very long; border of four ſegments, which are flat.

BLOSSOM. Petals four, fitting cloſe to the cup, flat, ſhorter than the cup, and fixed within it.

CHIVES. Threads eight, awn-like, upright, ſcarcely the length of the flower. Tips ſimple.

POINTAL. Seed-bud egg-ſhaped. Shaft thread-ſhaped, fixed into the ſide of the ſeed-bud, and of the length of the chives. Summit headed, and hairy.

SEED-VESSEL none. Fruit in the lower part of the cup.

SEED one, egg-ſhaped.

SPECIFIC CHARACTER.

Gnidia, foliis ſparſis, lineari-ſubulatis; ramis verticillatis; floribus aggregatis, terminalibus.

Gnidia with ſcattered, linearly awl-ſhaped leaves; branches grow in whorls; the flowers terminating the branches in cluſters.

REFERENCE TO THE PLATE.

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

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

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

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PLATE LIII.

MIMOSA STRICTA.

Harſh-leaved upright Mimoſa.

CLASS XXIII. ORDER I.

POLYGAMIA MONOECIA. Various diſpoſitions. Upon one Plant.

GENERIC CHARACTER.

PERIANTHIUM monophyllum, quinquedentatum, minimum.

COROLLA. Petalum unicum, infundibuliforme, ſemiquinquefidum, parvum.

STAMINA. Filamenta capillaria, longiſſima. Antheræ incumbentes.

PISTILLUM. Germen oblongum. Stylus filiformis, ſtaminibus brevior. Stigma truncatum.

PERICARPIUM. Legumen longum, diſſepimentis tranſverſis, pluribus.

SEMINA plurima; figura varia.

EMPALEMENT. One leaf, five-toothed, and very ſmall.

BLOSSOM. One petal, funnel-ſhaped, cut half way down into five diviſions, and ſmall.

CHIVES. Threads like fine hairs, and very long. Tips laying on the threads.

POINTAL. Seed-bud oblong. Shaft thread-ſhaped, ſhorter than the chives. Summit appearing cut off.

SEED-VESSEL. A long pod, the partitions run acroſs the pod, and are numerous.

SEEDS many; of different ſhapes.

SPECIFIC CHARACTER.

Mimoſa foliis ſimplicibus, utrinque venoſis, linearibus, obtuſis; ramis ſtrictiſſimis; capituli geminati, oppoſiti, ex alis foliorum.

Mimoſa with ſimple leaves, veiny on both ſides, linear, and blunt ended; branches growing cloſe and upright; flower heads grow by pairs, oppoſite, and at the inſertion of the leaf into the ſtem.

REFERENCE TO THE PLATE.

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

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

Pl 53.

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PLATE LIV.

ALETRIS SARMENTOSA.

Creeping-rooted Baſtard Aloe.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

COROLLA, monopetala, oblonga; limbi laciniis lanceolatis, acuminatis, erectis; perſiſtens.

STAMINA. Filamenta ſex, ſubulata, longitudine corollæ, inſerta baſi laciniarum corollæ. Antheræ oblongæ, erectæ.

PISTILLUM. Germen ovatum. Stylus ſubulatus, longitudine ſtaminium. Stigma trifidum.

PERICARPIUM. Capſula ovata, triquetra, acuminata, trilocularis.

SEMINA plurima.

EMPALEMENT, none.

BLOSSOM, one leaf, oblong; the ſegments of the border are lance-ſhaped, tapering, and upright; remaining.

CHIVES. Threads ſix, awl-ſhaped, the length of the bloſſom, and inſerted into the diviſions of it, at the baſe. Tips oblong, upright.

POINTAL. Seed-bud egg-ſhaped. Shaft awl-ſhaped, the length of the chives. Summit three-cleft.

SEED-VESSEL. Capſule egg-ſhaped, three-ſided, tapered, and of three cells.

SEEDS many.

SPECIFIC CHARACTER.

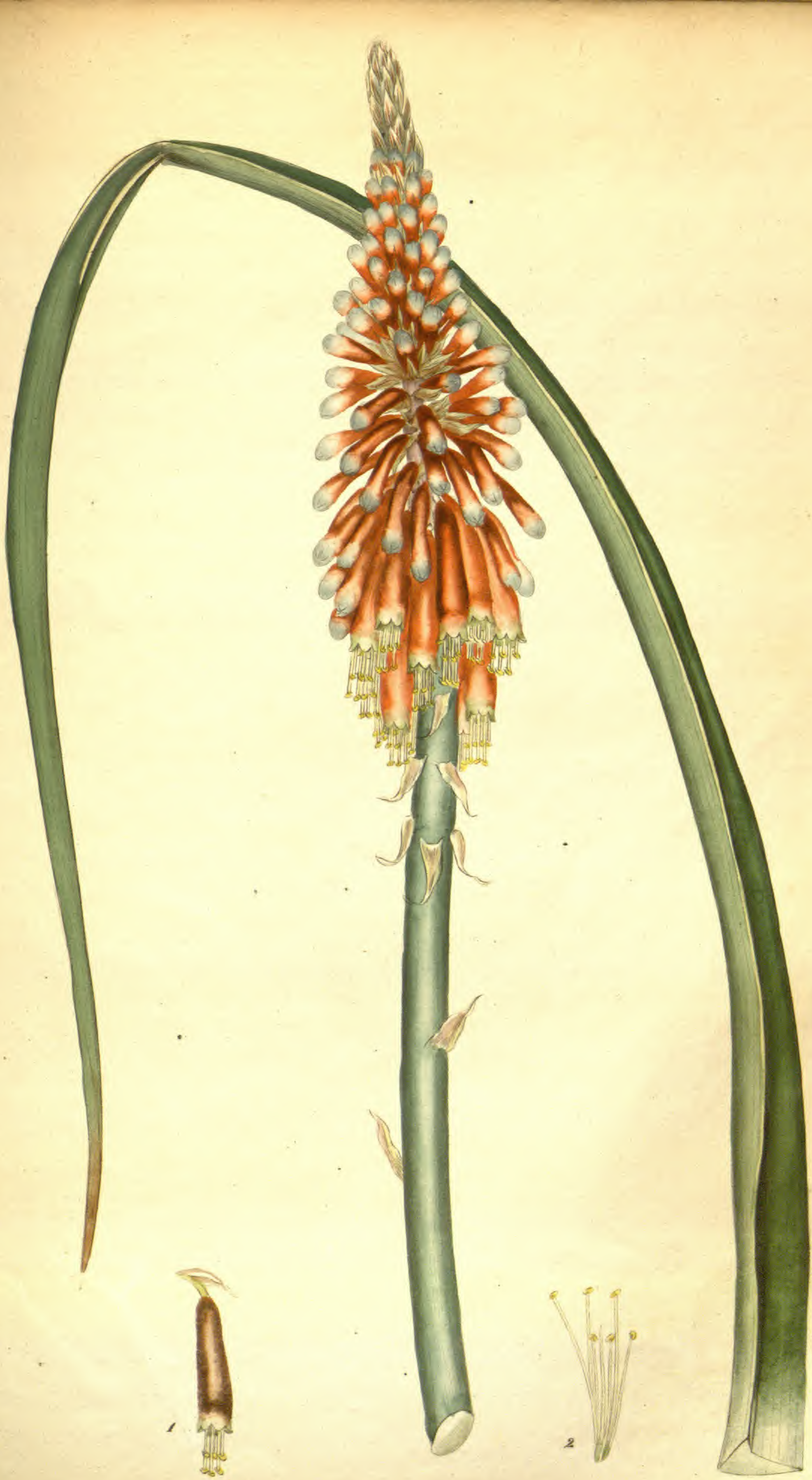
Aletris, acaulis; foliis enſiformibus, laxis; floribus ſpicatis, ſuave rubentibus; radicibus ſarmentoſis.

Baſtard Aloe, without a ſtem; having ſword-ſhaped, weak leaves; flowers grow in ſpikes of a ſoft red colour; roots producing ſuckers from the joints.

REFERENCE TO THE PLATE.

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

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



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Aletris sarmentosa.

Pub.d as the Act directs April 1.st 1791 by A. Swainson, Birmingham.

PLATE LV.

ZINNIA VIOLACEA.

Purple Zinnia.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

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

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

Propria hermaphroditi infundibuliformis, quinquefida intus villoſa.

Feminea ligulata, ſubrotunda, retuſa, perſiſtens.

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

PISTILLUM. Hermaphroditis; germen oblongum, triquetrum. Stylus filiformis, ſemibifidus. Stigmata duo, obtuſa.

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

PERICARPIUM. Calyx immutatus.

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

Femineis ſolitaria, mutica, coronata petalo perſiſtente.

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

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

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

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

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

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

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

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

SEED-VESSEL. Cup not changing.

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

Zinnia violacea.

Publ.d as the Act directs May 1.st 1799

PLATE LVI.

ANTHOLYZA SPICATA.

Spike-flowered Antholyza.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA tubulosa, irregularis, recurvata. Capsula infera.	BLOSSOM tubular, irregular, and bent backward. Capsule beneath. See Plate XXXII. ANTHOLYZA RINGENS.

SPECIFIC CHARACTER.

Antholyza, floribus infundibuliformibus, spicatis, incarnato-pallidis; foliis falcatis, brevissimis.	Antholyza with funnel-shaped, spiked flowers, of a pale flesh colour; leaves scimitar-shaped, and very short.

REFERENCE TO THE PLATE.

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

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

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PLATE LVII.

MESEMBRYANTHEMUM GLABRUM.

Smooth-leaved annual Fig Marygold.

CLASS XII. ORDER IV.

ICOSANDRIA PENTAGYNIA. Twenty Chives. Five Pointals.

GENERIC CHARACTER.

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

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

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

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

PERICARPIUM. Capſula carnoſa, ſubrotunda, loculamentis numero ſtylorum reſpondentibus.

SEMINA plurima, ſubrotunda.

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

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

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

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

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

SEEDS many, nearly round.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

Chrysanthemum glabrum.

PLATE LVIII.

BORONIA PINNATA.

Hawthorn-ſcented Boronia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quadripartitum; laciniis acutis, perſiſtentibus.

COROLLA. Petala quatuor, ovata, ſeſſilia.

Nectarium coronæ forma, excavatum, glanduloſum.

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

PISTILLUM. Germen ſuperum, conicum, quadriſulcatum. Stylus breviſſimus, ſimplex. Stigma capitatum, glabrum, ſulcatum.

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

SEMINA ſolitaria ſæpius, nitida, reniformia, arillata.

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

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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

Linnæa pinnata

Pub.d as the Act directs June 1.st 1799.
by R. Pulteney & Knightsbridge.

PLATE LIX.

IXIA FISTULOSA.

Hollow-leaved Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6-petala, patens æqualis. Stigmata tria, erectiuſculo-patula.	Blossom ſix petals, ſpreading, equal. Summits three, nearly upright, and ſpreading. See Ixia reflexa. Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis linearibus, fiſtuloſis; floribus ſecundis, noctu fragrantes; bulbus campanulatus, margine acuto-fibroſo.	Ixia with linear, hollow leaves; flowers pointing one way, and fragrant by night; bulb bell-ſhaped, the margin edged with ſharp fibres.

REFERENCE TO THE PLATE.

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

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

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Iris fistulosa

Publ. in the Bot. Mag. June 1795 by Wm. Curtis.

PLATE LX.

GERANIUM PUNCTATUM.

Dotted-flowered Geranium.

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

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

SPECIFIC CHARACTER.

Geranium foliis radicalibus; floribus umbellatis, diandris; petalis duobus ſuperioribus punctatis; ſtigmata quatuor.	Geranium with leaves growing from the root; flowers grow in umbels, two fertile chives; the two upper petals being dotted; ſummits four.

REFERENCE TO THE PLATE.

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

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

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PLATE LXI.

ASTER DENTATUS.

Toothed-leaved Starwort.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

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

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

Propria hermaphroditi infundibuliformis; limbo quinquefido, patulo.
Femineæ ligulata, lanceolata, tridentata.

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

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

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

PERICARPIUM nullum. Calyx vix mutatus.

SEMINA. Hermaphroditis ſolitaria, oblonga, ovata. Pappus piloſus.
Femineis ſimilia hermaphroditis.

RECEPTACULUM nudum, planiuſculum.

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

BLOSSOM. Compound, radiate; florets with chives and pointals, many in the center; florets with only pointals, ligulate, ten or more in the circumference.
Individuals with chives and pointals, funnel-ſhaped; border with five-clefts, ſpreading.
Individuals with only pointals, ligulate, ſpear-ſhaped, with three teeth.

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

POINTAL. To thoſe with chives and pointals, ſeed-bud oblong. Shaft thread-ſhaped, the length of the chives. Summit two-cleft, expanding.
Seed-bud to thoſe with pointals only, oblong. Shaft thread-ſhaped, the length of the hermaphrodites. Summits two, oblong, bent back.

SEED-VESSEL none. Cup ſcarcely changing.

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

RECEPTACLE naked, almoſt flat.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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PLATE LXII.

GLADIOLUS GRAMINEUS.

Graſs-like Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla ſexpartita, ringens.	Blossom with ſix diviſions, gaping.
Stamina adſcendentia.	Chives aſcending.
	See Gladiolus longiflorus. Plate V.

SPECIFIC CHARACTER.

Gladiolus polyſtachyus, ſcapo laxo, ſpicis capillaribus, flexuoſis; foliis enſiformibus; corollæ ſexpartitæ, abſque tubo.	Gladiolus with many ſpikes, upon a flexible flower ſtem, ſpikes hair-like, growing zig-zag; leaves ſword-ſhape; bloſſom of ſix diviſions, without a tube.

REFERENCE TO THE PLATE.

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

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

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PLATE LXIII.

USTERIA SCANDENS.

Climbing Uſteria.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

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

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

STAMINA. Filamenta quatuor, ſub labio ſuperiori recondita, quorum duo lateralia longiora, fundo corollæ inſerta, baſi incraſſata, lanata, apice incurvata. Antheræ erectæ, verſatiles, approximatæ.

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

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

SEMINA plurima, ſub-rotunda, ſcabrida.

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

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

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

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

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

SEEDS many, almoſt round, and very rough.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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Ipomoea scandens.

Pub. 2nd the Act. 1st 1794
by R. Anderson, Engraver

PLATE LXIV.

PÆONIA ALBIFLORA.

White Pæony.

CLASS XIII. ORDER II.

POLYANDRIA DIGYNIA. Many Chives. Two Pointals.

GENERIC CHARACTER.

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

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

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

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

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

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

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

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

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

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

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

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

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PLATE LXV.

OPHRYS LILIFOLIA.

Lily-leaved Ophrys.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix ſimplex. Perianthium nullum.

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

Nectarium petalis longius, dependens; poſtice tantum carinatum.

STAMINA. Filamenta duo, breviſſima, piſtillo inſidentia. Antheræ erectæ, tectæ margine interiore nectarii.

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

PERICARPIUM. Capſula ſubovata, trigona, obtuſa, ſtriata, trivalvis, unilocularis, angulis carinatis dehiſcens.

SEMINA numeroſa, ſcobiformia.

RECEPTACULUM lineare, adnatum ſingulæ valvulæ pericarpii.

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

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

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

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

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

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

SEEDS numerous, like ſaw-duſt.

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

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

Ophrys liliifolia.

PLATE LXVI.

GLADIOLUS POLYSTACHIUS.

Branching Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla 6-partita, ringens.	Blossom of six divisions, and gaping.
Stamina adscendentia.	Chives ascending.
	See Plate XI. Gladiolus roseus.

SPECIFIC CHARACTER.

Gladiolus foliis falcatis; caule polystachio; corollis sub-regularibus, carneis.	Gladiolus with cymitar-shaped leaves; stem many branches; blossoms nearly regular, and flesh colour.

REFERENCE TO THE PLATE.

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

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

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Gladiolus polystachious.

PLATE LXVII.

GERANIUM INCISUM.

Jagged-leaved Geranium.

CLASS XVI. ORDER IV.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

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

SPECIFIC CHARACTER.

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

REFERENCE TO THE PLATE.

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

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

Pelargonium incisum.

Pub.d as the Act directs Sept.r 1.st 1794

PLATE LXVIII.

GOODENIA OVATA.

Oval-leaved Goodenia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla ſupra longitudinaliter fiſſa, genitalia exſerens, quinquefida. Stigma urceolatum, ciliatum.	Blossom longitudinally cloven on the upper ſide, expoſing the organs of generation, and five-cleft. Summit cup-ſhaped, and fringed. See Goodenia calendulacea. Plate XXII.

SPECIFIC CHARACTER.

Goodenia foliis ovatis, ſerratis; corollis luteis, laciniis duobus exterioribus erectis.	Goodenia with egg-ſhaped leaves, ſawed at the edges; bloſſoms yellow, the two outer ſegments grow upright.

REFERENCE TO THE PLATE.

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

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

Grodenia cuneata

PLATE LXIX.

LAMBERTIA FORMOSA. *Var. longifolia.*

Red-flowered Lambertia. Long-leaved variety.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

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

COROLLA. *Univerſalis* uniformis, ſeptem-florus.

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

STAMINA. Filamenta quatuor, ſubulata, breviſſima, inſerta limbo corollæ, intra ſingulam laciniam ſingula. Antheræ lineares, erectæ.

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

PERICARPIUM. Capſula tricornuta, unilocularis, diſperma.

SEMINA bina, alata, ſcabra, nigra.

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

BLOSSOM. *General* regular compoſed of ſeven flowers.

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

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

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

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

SEEDS two, winged, rough, and black.

SPECIFIC CHARACTER.

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

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

REFERENCE TO THE PLATE.

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

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

Billbergia formosa.

PLATE LXX.

GNIDIA SIMPLEX.

Heath-leaved Gnidia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

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

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

See GNIDIA PINIFOLIA, Plate LII.

SPECIFIC CHARACTER.

Gnidia, foliis linearibus, acutis, lævibus; floribus terminalibus, ſeſſilibus, luteis.

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

REFERENCE TO THE PLATE.

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

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

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

Cnidia simplex.

PLATE LXXI.

CLEMATIS VIORNA.

Blue thick-petal'd Virgin's Bower.

CLASS XIII. ORDER VII.

POLYANDRIA POLYGYNIA. Many Chives. Many Pointals.

GENERIC CHARACTER.

PERIANTHIUM. Calyx nullus.

COROLLA. Petala quatuor, oblonga, laxa.

STAMINA. Filamenta plurima, ſubulata, corolla breviora. Antheræ lateri filamentorum adnatæ.

PISTILLUM. Germina plurima, ſubrotunda, compreſſa, definentia in ſtylos ſubulatos, ſtaminibus longiores. Stigmata ſimplicia.

PERICARPIUM nullum. Receptaculum capitatum, parvum.

SEMINA plurima, ſubrotunda, compreſſa, ſtylo (figura varia) inſtructa.

EMPALEMENT. Cup none.

BLOSSOM. Petals four, oblong, flexible.

CHIVES. Threads many, awl-ſhaped, ſhorter than the bloſſom. Tips fixed to the ſides of the threads.

POINTAL. Seed-buds many, nearly round, flattened, ending in awl-ſhaped ſhafts, longer than the chives. Summits ſimple.

SEED-VESSEL none. Receptacle forming a round head, and ſmall.

SEEDS many, roundiſh, flattened, retaining the ſhaft, which is variouſly ſhaped.

SPECIFIC CHARACTER.

Clematis foliis compoſitis decompoſitiſque; foliolis quibuſdam trifidis; floribus violaceis, coriaceis.

Virgin's Bower, with compound and doubly compound leaves; ſome of the little leaves ſplit into three; flowers blue, and tough.

REFERENCE TO THE PLATE.

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

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

Clematis viorna.

PLATE LXXII.

STYPHELIA TRIFLORA.

Three-flowered Styphelia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

PERIANTHIUM. Calyx imbricatus, perſiſtens; foliolis interioribus longioribus, acutis, erectis.

COROLLA tubuloſa, quinquefida; laciniis revolutis, hirſutis.

Nectarium membranaceum, lacerum, germen cingens.

STAMINA. Filamenta quinque, tubo inſerta. Antheræ apice bifidæ, verſatiles.

PISTILLUM. Germen globoſum, ſulcatum, nectario cinctum. Stylus capillaris. Stigma capitatum, quinquepartitum.

PERICARPIUM. Drupa quinquelocularis, ſubrotunda, glabra.

SEMINA, bina.

EMPALEMENT. Cup tiled, and remaining; the inner leaves the longeſt, ſharp-pointed, and upright.

BLOSSOM tubular, five-cleft; the ſegments rolled back, and hairy.

Honey-cup ſkinny, torn, and ſurrounding the ſeed-bud.

CHIVES. Five threads, fixed into the tube of the bloſſom. Tips ſplit at the top, and looſely fixed by the middle to the threads.

POINTAL. Seed-bud globular, furrowed, encircled by the honey-cup. Shaft hair-like. Summit headed, and of five diviſions.

SEED-VESSEL. A pulpy fruit with five cells, roundiſh, and ſmooth.

SEEDS, two together.

SPECIFIC CHARACTER.

Styphelia, foliis imbricatis, ſparſis, glaucis, ovato-mucronatis; floribus axillaribus, ternis.

Styphelia, with leaves tiled, ſcattered, bluiſh, egg-ſhaped, and ſharp-pointed; flowers growing from the lower part of the leaves by threes.

REFERENCE TO THE PLATE.

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

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

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

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1	Cortuſa Matthioli.	Alpine Sanicle.	Har.	Herb.	May, June.
2	Sprengelia incarnata.	Star-flowered Sprengelia.	G. H.	Shrub.	All Summer.
3	Neottia ſpecioſa.	Fleſh-coloured Neottia.	H. H.	Herb.	March, April.
4	Rhododendron Dauricum.	Dauric Rhododendron.	Har.	Shrub.	April, May.
5	Gladiolus longiflorus.	Long-flowered Gladiolus.	G. H.	Herb.	June, July.
6	Hemerocallis cærulea.	Blue Day Lily.	H. H.	Herb.	Septem. or Feb.
7	Primula Cortuſoides.	Siberian Primroſe.	Har.	Herb.	June, July.
8	Gladiolus alatus.	Wing-flowered Gladiolus.	G. H.	Herb.	May, June.
9	Atragene Capenſis.	Cape Atragene.	G. H.	Shrub.	March, April.
10	Ariſtea cyanea.	Blue-flowered Ariſtea.	G. H.	Herb.	July, Auguſt.
11	Gladiolus roſeus.	Roſe-coloured Gladiolus.	G. H.	Herb.	May, June.
12	Geranium grandiflorum.	Largeſt-flowered Geranium.	G. H.	Shrub.	July, Auguſt.
13	Epidendrum cochleatum.	Purple-flowered Epidendrum.	H. H.	Herb.	July.
14	Ixia reflexa.	Reflex-flowered Ixia.	G. H.	Herb.	May, June.
15	Anthyllis erinacea.	Blue Broom of Spain.	G. H.	Shrub.	April, May.
16	Azalea Pontica.	Yellow Pontic Azalea.	Har.	Shrub.	May, June.
17	Protea formoſa.	Coronet Protea.	G. H.	Shrub.	Auguſt.
18	Corræa alba.	White Correa.	G. H.	Shrub.	April, May.
19	Gladiolus verſicolor.	Changeable Gladiolus.	G. H.	Herb.	June.
20	Echium grandiflorum.	Large-flowered Viper's Bugloſs.	G. H.	Shrub.	April, May.
21	Vereia crenata.	Scolloped-leaf Vereia.	H. H.	Shrub.	July.
22	Goodenia calendulacea.	Cape Marygold-leaved Goodenia.	G. H.	Shrub.	Auguſt.
23	Ixia capitata. Var. ovata.	Bunch-flowering Ixia. Var. egg-ſhaped.	G. H.	Herb.	April.
24	Cineraria aurita.	Two-coloured-leaved Cineraria.	G. H.	Herb.	All Summer.
25	Camellia Japonica. Var. flo. albo pleno.	Double white Camellia.	G. H.	Shrub.	Octob. Novem.
26	Craſſula odoratiſſima.	Sweet-ſcented Craſſula.	G. H.	Shrub.	April, May.
27	Gladiolus ringens. Var. cinereo odorato.	Gaping Aſh-coloured ſweet Gladiolus.	G. H.	Herb.	June.
28	Geranium elegans.	Round-leaved Geranium.	G. H.	Shrub.	May.
29	Ixia ſpicata. Var. viridi nigra.	Sea-green ſpiked Ixia.	G. H.	Herb.	May, June.
30	Vaccinium Arctoſtaphyllus.	Madeira Whortle-berry.	Har.	Shrub.	July, Auguſt.
31	Borbonia cordata.	Heart-ſhape-leaved Borbonia.	G. H.	Shrub.	July.
32	Antholyza ringens.	Gaping Antholyza.	G. H.	Herb.	June.
33	Dioſma latifolia.	Broad-leaved Dioſma.	G. H.	Shrub.	Auguſt.
34	Chelone Ruellioides.	Scarlet Chelone.	Har.	Herb.	Auguſt.
35	Ixia criſpifolia. Var. flo. cæruleo.	Criſped-leaved Ixia, blue variety.	G. H.	Herb.	July.
36	Rhododendron punctatum.	Dotted-leaved Rhododendron.	Har.	Shrub.	July.
37	Geranium fragile.	Brittle-ſtalked Geranium.	G. H.	Shrub.	Auguſt.
38	Gladiolus præcox. Var. flore rubro.	Red early-flowering Gladiolus.	G. H.	Herb.	April.
39	Echium ferociſſimum.	Prickly Viper's Bugloſs.	G. H.	Shrub.	July.
40	Chelone campanuloides.	Bell-flowered Chelone.	Har.	Herb.	Auguſt, Septem.
41	Lachenalia pendula.	Drooping-flowered Lachenalia.	G. H.	Herb.	September.
42	Orchis ciliaris.	Fringed Orchis.	Har.	Herb.	July.
43	Bignonia Leucoxylon.	Oleander-flowered Trumpet Flower.	H. H.	Shrub.	July.
44	Ixia cinnamomea.	Cinnamon-ſmelling Ixia.	G. H.	Herb.	June.
45	Iris longifolia.	Long-leaved Iris.	G. H.	Herb.	June.
46	Maſſonia violacea.	Purple-flowered Maſſonia.	G. H.	Herb.	September.
47	Muſa coccinea.	Scarlet-flowered Plantain-tree.	H. H.	Shrub.	Decem. Jan.
48	Ixia bulbifera. Var. flo. luteo.	Bulb-bearing Ixia. Var. yellow-flowered.	G. H.	Herb.	May.
49	Malpighia craſſifolia.	Thick-leaved Malpighia.	H. H.	Shrub.	September.
50	Ixia capitata. Var. flore aurantio.	Bunch-flowering Ixia. Var. gold colour.	G. H.	Herb.	May.
51	Xeranthemum ſpecioſiſſimum.	Largeſt-flowering Everlaſting Flower.	G. H.	Shrub.	September.
52	Gnidia piniſolia.	Pine-leaved Gnidia.	G. H.	Shrub.	Feb. March.
53	Mimoſa ſtricta.	Harſh-leaved upright Mimoſa.	G. H.	Shrub.	March, April.
54	Aletris farmentoſa.	Creeping-rooted Baſtard Aloe.	G. H.	Herb.	Decem. Jan.
55	Zinnia violacea.	Purple Zinnia.	Har.	Ann.	Auguſt, Sept.
56	Antholyza ſpicata.	Spike-flowered Antholyza.	G. H.	Herb.	June.
57	Meſembryanthemum glabrum.	Smoeth-leaved annual Fig Marygold.	G. H.	Ann.	July.
58	Boronia pinnata.	Hawthorn-ſcented Boronia.	G. H.	Shrub.	All Summer.
59	Ixia fiſtuloſa.	Hollow-leaved Ixia.	G. H.	Herb.	June.
60	Geranium punctatum.	Dotted-flowered Geranium.	G. H.	Herb.	April.
61	Aſter dentatus.	Toothed-leaved Starwort.	G. H.	Shrub.	All Summer.
62	Gladiolus gramineus.	Graſs-like Gladiolus.	G. H.	Herb.	May, June.
63	Uſteria ſcandens.	Climbing Uſteria.	G. H.	Bien.	All Summer.
64	Pæonia albiflora.	White Pæony.	Har.	Herb.	June.
65	Ophrys lilifolia.	Lily-leaved Ophrys.	Har.	Herb.	July.
66	Gladiolus polyſtachius.	Branching Gladiolus.	G. H.	Herb.	July.
67	Geranium inciſum.	Jagged-leaved Geranium.	G. H.	Shrub.	All Summer.
68	Goodenia ovata.	Oval-leaved Goodenia.	G. H.	Shrub.	Auguſt, Sept.
69	Lambertia formoſa. Var. longifolia.	Red-flowered Lambertia. Long-leaved var.	G. H.	Shrub.	July.
70	Gnidia ſimplex.	Heath-leaved Gnidia.	G. H.	Shrub.	April, Sept.
71	Clematis viorna.	Blue thick-petal'd Virgin's Bower.	Har.	Herb.	All Summer.
72	Styphelia triflora.	Three-flowered Styphelia.	G. H.	Shrub.	June.