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## BOTANISTS REPOSITORY,

FOR
NEW, AND RARE PLaINTS.
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 LINN AUS;
IN ENGLISH, AND LATIN.

## 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

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H E N R Y \quad A N D R E W S \text {, }
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AUTHOR OF THE COLOURED ENGRAVINGS OF HEATHS, IN FOLIO.

LONDON:
PRINTED BY T. BEASLEY,
AND PUBLISHED BY THE AUTHOR, No 5 , KNIGHTSBRIDGE.
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1797
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## PREFACE.

The utility of this undertaking at a crifis, when the tafte for Botanical purfuits fo univerfally prevails, will, it is prefumed, be readily admitted by all thofe engaged in them, whether as theorifts, collectors, or cultivators. Such a work, under the immediate direction of fome principal leader in the fcience, of this country, has been a defideratum of long expectance; but either from the great expence neceffarily incurred, before any adequate return could be made, or from the trouble attendant on publications, where colouring forms fo confiderable a part, as yet, every fimilar attempt has proved abortive. The Bot. Mag. of Mr. Curtis, a work of fingular merit in its way, has occafionally furnifhed, it is true, a few fpecimens of new plants; but the greateft part, as its title-page indicates, confifts of thofe well known, common plants, long cultivated in our gardens; the direct reverfe of the propofals and intentions of the author, in the profecution of this. From a wifh to prevent confufion, it was a determined principle at the outfet of the work, not to give any generic or fpecific fynonims; but to follow the moft generally accepted names, of known and named plants, without a cavil, of our beft Englifh botanifts, or cultivators, if no flagrant error was perceptible, according to the Linnæan fyftem: being fatisfied, nothing contributed fo much to reprefs the ardour of young botanifts as the difficulty of affixing the right name to thofe plants, which, (from a captious defire in every publifher, to foift in fomething of his own coinage, upon the moft trifling fuppofed difference, ) have undergone feveral changes of title. If the plant was a certain novelty, with us, to have followed the fexual fyftem, without a fchifm; upon that truly grand and comprehenfive fcale of nature; when the formation of a new genus was neceffary; if not, to refer it to fome one already made, if fuch was to be found, in any orthodox author: the fjecific name to be formed from fome oppofed, leading feature, in the habits of the different fpecies of the genus. But although fuch were the Author's intentions, when he entered on this bufinefs, yet, from a wifh to oblige many of the fupporters of the work, who have fignified a wifh that fynonims fhould be given, an alphabetical Index, with all the various Synonims collated from the beft authorities, fhall be printed feparate for the ufe of thofe who may wifh for fuch an addition.

As a fair excufe for the Author, (who throws himfelf upon the candour of the Public,) in extenuation of the inaccuracies which have, and will neceffarily occur in the profecution of the work, it is juft to fay, that the difficulties to be encountered, and of which none but thofe engaged in fimilar concerns can form any adequate idea, are incalculable; arifing chiefly from the nature of a monthly publication, compofed entirely of novelty, which cannot be anticipated, and of courfe, fo very little time can be allotted for revifal or correction. To remedy as far as poffible fuch flips, a lift of Erratæ will be given, with the Index, at the clofe of each volume.

## ERRATA, VOL. I.

Plate 2. Springalia, lege, Sprengelia. Bloff. one leaf, read, one petal.
Peri. 4 -valvis, 4 -locul. 1.5 -val. 5 -loc. S. V. 4 val. 4 cells, r. 5 val. 5 cells.
3. Cor. xquila, 1. equalia. Emp. Sheath, r. Sheaths.
7. Calyx, multiflorium, 1. multiflorum.
9. Calyx, diciduis, 1. deciduis. Stam. acumenatx, 1. acuminate.
II. Sp. Ch. poft rofeis, inf. (,).
12. Ord. II. r. IV. Seeds, become, r. becomes.
14. Emp. cup, r. /heath. Poin. put (,) after beneath.
15. Standard, cut, r. cup.
20. Sem. acumenatæ, 1. achminata.
23. Bloff. after fpreading, put (), No, $z$ of Ref. put (the) before chives.
25. Sp. Ch. poft plenis, inf. (,).
27. Ord. II. r. IV.
30. Line 6 th of Defer. leave out (nat).
37. Ord. II. r. IV.
41. Bloff. one leaf, r. one petal; divided into fix, r. with fix divifons.
47. Stam. poft fubulata, inf. (,)
65. Emp. fruit-ftalks, r. fruit-falk.
67. Defcr. line 2 d , for makes an addition to, r. makes one of.

# CORTUSA MATTHIOLI. 

CLASS V. ORDER I.<br>pentandria monogynia. Five Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Perianthium quinquefidum, perfiftens; laciniis obtufis, concavis.
Corolla. Monopetala, rotata, quinquepartita, laciniis fub-rotundis, ad quarum bafin prominent tubercula quinque.
Stamina. Filamenta quinque brevia. Anthere bipartitæ, oblongæ, erectæ, exteriori parte affixx.
Pistillum. Germen ovatum. Stylus filiformis. Stigma fimplex.
Pericarpium. Capfula ovata-oblonga, utrinque longitudinaliter fulcata, unilocularis, apice quinquevalvi, valvularum marginibus involutis.
Semina numerofa, oblonga, fcabra.

Empalement. Cup with five divifions, permanent; the fegments blunt, and concave.
Blossom. One leaf, wheel-fhaped, five divifions, fegments nearly round, having five prominent tubercles at their bafe.
Chives. Five fhort threads. Tips divided in two, oblong, upright, and fixed to the bloffom by their backs.
Pointal. Seed-bud egg-fhaped. Shaft threadfhaped. Summit fimple.
Seed-vessel. Capfule oblong egg-fhaped, channelled on each fide, of one cell, the top has five valves, which are turned inward at their margins.
Seeds many, oblong, and rough.

## SPECIFIC CHARACTER.

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

Sanicle, with heart-fhaped jagged leaves that have foot-ftalks; empalements fhorter than the bloffoms.

## REFERENCE TO THE PLATE.

1. The Empalement, and Fruit-ftalk.
2. The Bloffom cut, and fpread open, to expofe the fituation of the Chives.
3. The Pointal, magnified.

This beautiful little herbaceous plant, a native of the Germanic Alps, was known to, and defcribed by all the elder, as well as modern botanical theorifts; yet till this time, has there not been one good reprefentation of it. Having been nearly loft to us for a number of years, it may be confidered as deferving a place amongtt thofe plants we deem rare; as a fpecimen of fuch it has been given. It delights much in fhade; is perfeetly hardy; thrives beft in a light but pure foil; as dung, or other mixtures, are apt to rot the roots when in a ftate of inaction; flowering in May and June, and producing feeds. But the fureft mode of propagation is by the root, which may be divided with fuccefs about September.


# PLATE II. SPRINGALIA INCARNATA. Star-flowered Springalia. 

CLASS XIX. ORDER VI.<br>Syngenesia monogamia. Tips united. Flowers fimple.

## GENERIC CHARACTER.

Caxyx. Perianthium monophyllum, quinquefidum, perfiftens.
Corolla. Monopetala, quinquefida, rotata, laciniis acumenatis.
Stamina. Filamenta quinque, lineares, receptaculo inferta. Antheræ pilofæ, erectæ, conatæ in cylindrum.
Pistillum. Germen fuperum, turbinatum. Stylus filiformis. Stigma obtufum.
Pericarpium. Capfula quadrivalvis, quadri. locularis.
Semina plurima, minima, rotunda.

Empalement. Cup one leaf, cut into five fegments, and remaining.
Blossom. One leaf, cut into five fegments, wheel-fhaped, the divifions fharp pointed.
Chives. Five threads, linear, fixed into the receptacle. Tips hairy, upright, united into a cylinder.
Pointal. Seed-bud above, turban-fhaped. Shaft thread-fhaped. Summit blunt ended.
Seed-vessel. Capfule four valves, four cells.
Seeds many, fmall, and round.

## SPECIFIC CHARACTER.

Springalia, foliis alternis, amplexicaulibus, mucronatis; corollis fub-folitariis, incarnatis, rigidis, micantibus.

Springalia, with alternate leaves, embracing the ftem, and fharp pointed; bloffoms moftly fingle, flefh-coloured, harfh, and fhining.

## REFERENCE TO THE PLATE.

1. The Empalement, (natural fize).
2. The Bloffom divided from the Empalement.
3. The Chives, Pointal, and Seed-bud, (magnified).
4. The Seed-veffel, and Pointal, (magnified).

The Springalia, muft certainly rank among the moft beautiful of the various new genera which have been introduced from New Holland; the delicacy, brilliancy, and number, of its bloffoms render it particularly attractive, whilf their extreme permanency adds greatly to its merits; the flower being of fuch fingular durability, as to retain nearly the fame appearance when the feeds are perfected, as at their firft opening. The figure before us, was taken from a plant in the nurfery garden of Meffrs. Lee and Kennedy, Hammerfimith, who raifed it from feeds about three years fince, and where it has flowered thefe two fucceffive years. The Botany-bay plants, (as they are generally called) are beft preferved in the greenhoufe; but although this is fufficiently hardy for fuch treatment, yet its fituation muft be dry, being very fufceptible of damps, flourifhing beft in fandy peat earth; continues flowering through the whole fummer; and propagates eafily by cuttings. The characters, and habit of this genus, like almoft all the plants from New Holland, being perfectly new, there was a neceffity to form a frefh generic name for it; which has been done by the defervedly eminent Dr. J. E. Smith, botanical profeffor, and prefident of the Linnæan Society.
*

# PLATE III. NEOTTIA SPECIOSA. Flefh-coloured Neottia. 

## CLASS XX. ORDER II. <br> gynandria Diandria. Chives on the Pointal. Two Chives.

## GENERIC CHARACTER.

Calyx. Spathæ vagæ. Spadix fimplex
Corolla. Petala quinque, longitudine æquila, angufte-lanceolata, erecta.
Nectarium monophyllum, indivifum, acuminatum, intra petala interiora pofitum, bafin ftyli femiamplectens, erectum, fuperne patulum.
Stamina. Filamenta duo, ex limbo ftyli dorfali orta, lanceolata. Antheræ duæ, lineares, longæ, locatæ in loculum filamenti.
Pistillum, Germen inferum, curvatum, fulcatum, inferne attenuatum. Stylus craffus, adnatus labio fuperiori nectarii. Stigma obfoletum.
Pericarpium. Capfula unilocularis, carnofa, longiffima, trivalvis.
Semina numerofa, minutiffima.

Empalement. Sheath fcattered. Fruit-ftalk fimple.
Brossom. Petals five, of equal length, of a narrow feear-fhape, and upright.
Honey-cup one leaf, undivided, fharp pointed, placed between the two inner petals, half embracing the bafe of the fhaft, upright, fpreading at the top.
Chives. Two threads, rifing out of the back of the fhaft, fpear-fhaped. Tips two, linear, long, placed in the cells of the threads.
Pointal. Seed-bud beneath, curved, furrowed, tapering at the bafe. Shaft thick, growing to the upper lip of the honey-cup. Summit indiftinct.
Seed-vessel. Capfule with one cell, flefhy, very long, three valves.
Seeds numerous, very fmall.

## SPECIFIC CHARACTER.

Neottia, foliis radicalibus, undulatis, latolanceolatis, bafi attenuatis; floribus confertis, fpicatis, incarnatis, fpeciociffimis.

Neottia, with leaves growing from the root, waved, of a broad fpear-fhape, tapered at the bafe; flowers preffed together in a fpike, flefh-coloured, and moft beautiful.

## REFERENCE TO THE PLATE.

1. A Bloffom, Seed-bud, and Sheath, (natural fize).
2. The Seed-bud, and three Petals of the Bloffom; the two inner cut out, to fhew the pofition of the Honey-cup, (natural fize).
3. Seed-veffel, and Honey-cup magnified; fhewing the fituation, and flape of the Chives, within the Honey-cup.
4. The fame magnified; fhewing the fituation 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 juftice has determined it a new genus, and given it the name it here bears; the whole habit of the plant being entirely diffimilar to any old genera. It certainly mult be placed fomewhere near Limodorum, or Epidendron, from either of which, however, it ftands perfectly diftinct. This is the only fpecies yet in England, and was introduced from the ifland of Jamaica, about the year 1793, by the Hon. Mrs. Barrington. The drawing from which the prefent figure is taken, was made (by her kind permiffion) from a plant in the extenfive collection of the Hon. Lady Archer, Ham-common. Like all plants from that ifland, it requires the heat of a pine-ftove, and rich earth, to make it flourinh; is increafed by the root, and flowers in the early part of the year.


# RHODODENDRON DAURICUM. 

## Dauric Rhododendron.

CLASS X. ORDERI.<br>decandria monogynia. Ten Chives. One Pointal.

## GENERIC CHARACTER.

Calyx quinquepartitus, perfiftens.
Corolla. Monopetala, rotato-infundibulifor. mis: limbo patente; laciniis rotundatis.

Stamina. Filamenta decem, filiformia, longitudine corollæ, declinata. Antheræ ovales.
Pistillum. Germen pentagonum, retufum. Stylus filiformis, longitudine corollæ. Stigma obtufum.
Pericarpium. Capfula ovata, quinquelocularis. Semina numerofa, minima, lineares.

Empalement of five divifions, and remaining. Brossom. One leaf, of a roundith funnel-fhape: the limb freading; and its regments rounded.
Chives. Ten hair-like threads, the length of the bloffom, bent downward. Tips oval. Pointal. Seed-bud five-fided, and dented. Shaft thread-fhaped, the length of the bloffom. Summit blunt-ended.
Seed-vesser. Capfule oval, five-celled.
Seeds many, fmall, and linear.

## SPECIFIC CHARACTER.

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

Rhododendron, with fmooth leaves, naked on both fides, and long foot-ftalks; the bloffoms light purple, larger than the leaves, and wheel-fhaped.

## REFERENCE TO THE PLATE.

1. The Bloffom, (natural fize).
2. The Chives, and Pointal, (natural fize); one tip detached, (magnified).
3. The Seed-veffel, and Pointal, (magnified).

Alteover this fhrub has been defcribed, and is well known to botanifts, it has not, till within thefe very few years, been feen in Great Britain. It is a perfectly hardy plant, being a native of the coaft of the Black and Cafpian feas, and parts adjacent; from whence it has been conveyed to Peterfburg by Dr. P. Pallas, and figured by him in his Flora Ruffica. Mr. Buth was the perfon who brought it to England, on his return from Ruffia. The flowers begin to appear in the month of March, continuing through April and May. As yet (from its fcarcity) the beft method of cultivating it can fcarcely be known; but it feems to like a fheltered fituation, and light foil, like moft of the genus; and has been increafed by layers. The drawing was made from a plant, at the nuriery of Meffrr. Lee and Kennedy, Hammerfmith.


# PLATE V. <br> GLADIOLUS LONGIFLORUS. <br> Long-flowered Gladiolus. 

## CLASS III. ORDER I.

## triandria monogynia. Three Chives. One Pointal.

Calyx. Spathæ bivalves.
Corolla, fexpartita, ringens. Petala oblonga, omnia unguibus in tubum conata.

Stamixa. Filamenta tria, fubulata, divifuris alternis petalorum inferta. Anthere oblonga.
Pistillum. Germen inferum. Stylus fimplex, longitudine ftaminium. Stigma trifidum, concavum.
Pemicarpium. Capfula oblonga, obtufa, trilocularis, trivalvis.
Semina plura, fubrotunda.
SPECIFIC
Gladiolus, foliis enfiformibus, plicatis, villofis; corollis tubiformibus, longiffimis; petalis undulatis, reflexis.

## GENERIC CHARACTER.

Empalement. Sheath two valves.
Blossom, cut into fix fegments, and gaping. Petals oblong, having all their claws connected into a tube.
Chives. Three threads, awl-fhaped, fixed into each alternate divifion of the petals. Tips oblong.
Pointar. Seed-bud beneath. Shaft fimple, the length of the chives. Summit divided in three, and concave.
Seed-vesser. Capfule oblong, obtufe, three cells, three valve.
Seeds many, nearly round.
CHARACTER.
Gladiolus, with fword-flaped, plated, hairy leaves; bloffoms trumpet-fhaped, and very long; petals waved, and bent back.

## REEERENCE TOTHE PLATE,

1. A Bloffom cat open, to fhew the fituation, and infertion of the Threads; the Threads, and

Tips, remaining attached.
2. The Seed-bud, Shaft, and its Summit.

Thrt fpecies of Gladiolus, (as are moft of the genus) is a native of the Cape of Good Hope, about Table Mountain; where the roots of Ixia, Antholyza, Gladiolus, 8c. form a chief part of the fond of the inhabiting monkies. It came to England amongit many other roots and feeds of beautiful and rare plants, collected by J. Pringle, Efq. of the ifland of Madeira, when on an excurfion at the Cape; and fent by him to Meffrs. Lee and Kennedy, of Hammerfmith. Like moft bulbs, it has its period of reff; during which, it thould be kept without moifture, but whilf growing, requires abundance; flowering about June, or July, and producing good feeds. It flould be treated as a greenhoufe plant, and planted in light fandy earth. Like the Crocus, the old root periming, a number of frefle ones are produced, which may, (if thought neceffary) be kept out of the ground twe or three months.


# PLATE VI. HEMEROCALLIS CeRULEA. <br> Blue Day Lily. 

CLASS VI. ORDER I.

hexandria monogynia. Six Chives. One Pointal.

## GENERIC CHARACTER.

Carty. Nullus.
Corolla, fexpartita, infundibuli-campanulata.
Stamina. Filamenta fex, fubulata, longitudine corollæ, declinata; fuperiora breviora. Antheræ oblongæ, incumbentes, affurgentes.

Pistillum. Germen fulcatum, fuperum. Stylus filiformis, longitudine et fitu ftaminium. Stigma obtufe-trigonum, affurgens.

Perićafpium. Capfula trigona, trilocularis, trivalvis.
Semina plurima, fubrotunda.

Empalement. None.
Blossom, has fix fegments, of a funnel bell. fhape.
Chives. Six awl-fhaped threads, the length of the bloffom, bent downwards; the upper ones the fhorteft. Tips oblong, fixed by their fides, and turned up at the ends.
Pointal. Seed-bud furrowed, and above. Shaft thread-fhaped, of the length and pofition of the chives. Summit bluntly threecornered, turned up at the point.
Seed-vesser. Capfule three-fided, three cells, three valves.
Seeds many, nearly round.

SPECIFIC CHARACTER.
Hemerocallis, foliis cordatis, petiolatis; corollis cæruleis.

Day Lily, with leaves that are heart-fhaped, and have foot-ftalks; the bloffoms blue.

## REFERENCE TO THE PLA'TE

1. The Chives, and Pointal, as placed in the Bloffom.
2. The Seed-bud, Shaft, and Summit.
3. A Seed of the thape and fize when ripe.

The variety of character exhibited in this new fpecies of Hemerocallis, fo different from its congeners, in foliage, flower, and feed; would almoft induce us to think like Gærtner, a generic divifion neceffary; if we were not withbeld, by that ftrong rule of Linnæus, (from which, it will be a leading feature of this work, not to fwerve) not to increafe the number of genera, but where abfolutely neceffary. This fpecies, as well as a white variety, which has been figured by Kæmpfer; and continued fince him by Welldenow, in his new Species Plantarum, under its prefent denomination; is a native of China, and introduced to our gardens from thence by G. Hibbert. Efq of Clapham, from whofe moft extenfive and beautiful collection this fipecimen was taken. It is as yet cultivated as a hothoufe plant, where it flowers in the fpring months, perfecting its feeds: perhaps when better known, it may be found, like many Chinefe plants, to bear our climate. It is propagated as well by parting its roots, as from the feeds.


# PRIMULA CORTUSOIDES. 

Siberian Primroje.

## CLASS V. ORDER I.

## pentandria monogynia. Five Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Involucrum polyphyllum, multifiorium, minimum. Perianthium monophyllum, tubulatum, pentagonum, quinquedentatum, acutum, ereetum, perfiftens.
Corolla. Monopetala. Tubus cylindraceus, longitudine calycis, terminatus colo parvo hemifphærico. Limbus patens, femi-quinquefidus; laciniis obcordatis, obtufis. Faux pervia.

Stamina. Filamenta quinque, breviffima, intra collum corollæ. Antheræ acumenatæ, crêtr, conniventes, inclufæ.
Pistillum. Germen globofum. Stylus filiformis, longitudine calycis. Stigma globofum.
Pericarpium. Capfula teres, longitudine fere perianthii, unilocularis, dehifcens apice decem dentato.
Semina numerofa, fubroturda. Receptaculum ovato-oblongum, liberum.

Empalement. Fence of many leaves, including feveral flowers, and fmall. Cup one leaf, tubular, five-fided, five-toothed, fharp, upright, and remaining.
Blossom. One petal. Tube cylindrical, the length of the cup, terminated by a fhort bemifpherical neck. Border fpreading, half cut into five divifions; the fegments are inverfely heart-fhaped, and blunt. Mouth open.
Chives. Five threads, very fhort, within the neck of the bloffom. Tips pointed, upright, approaching, within the tube.
Pointal. Seed-bud globular. Shaft threadthaped, the length of the cup. Summit globular.
Seed-vessel. Capfule cylindrical, nearly as long as the cup, of one cell, opening at the top, with ten teeth.
Seeds numerous, and roundifh. Receptacle oblong egg-fhaped, and loofe.

SPECIFIC CHARACTER.
Primrofe, whofe leaves have foot-ftalks, are heart-Ihaped, flightly lobed, and fcolloped; bloffoms of a bright purple.

## RERERENCE TO THE PLATE.

1. The Cup, and Fruit-flalk.
2. A Bloffom cut open, to fhew the fituation of the Chives, and its internal formation.
3. The Seed-bud, Shaft, and Summit, (magnified).

This fpecies of Primrofe is figured by Gmelin, in his Flora Siberica. It was in the year 1\%9t, that the feeds of this plant were fent by Profeffor P. Pallas, from Sioeria, to Meffrs. Lee and Kennedy, of Hammerfmith; at whofe nurfery the drawing of this moft charming plant was made: though a native of fo cold a clime, it feems with difficulty to endure the feverity of ours; thriving beft in a pot, under any flight fhelter, or a very dry fituation if planted out: it is increafed by the root, which fhould be parted in March; and flowers in June, and July.

exlu Civeluserifes

# PLATE VIII. <br> GLADIOLUS ALATUS. <br> Wing-flowered Gladiolus. 

## CLASS III. ORDER.I.

## triandria monogynia. Three Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Spathæ bivalves.
Corolla, fexpartita, ringens. Petala oblonga, omnia unguibus in tubum conata.

Stamina. Filamenta tria, fubulata, divifuris alternis petalorum inferta. Antheræ oblonga.
Pistillom. Germen inferum. Stylus fimplex, longitudine ftaminium. Stigma trifidum, concavum.
Pehicarpium. Capfula oblonga, obtufa, trilocularis, trivalvis.
Semina plura, fubrotunda.

Empalement. Sheath two valves.
Blossom, of fix divifions, and gaping. Petals oblong, having their claws formed into a tube.
Chives. Three awl-fhaped threads, fixed into the alternate divifions of the petals. Tips oblong.
Pointal. Seed-bud beneath. Shaft fimple, the length of the chives. Summit cut into three, and concave.
Seed-vessel. Capfule oblong, blunt ended, three cells, three valves.
Seeds many, nearly round.

## SPECIFIC CHARACTER.

Gladiolus, foliis enfiformibus, coftatis; petalis lateralibus latiffimis.

Gladiolus,' with fword-fhape, ribbed leaves; the fide petals of the bloffom the broadeft.

## REFERENCE TO THE PLATE.

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

Tins fpecies of Gladiolus, although fo fcarce with us, is certainly one of the moft common found near Cape Town; and, notwithftanding its extreme beauty, has been overlooked by moft collectors; who, from its great frequency, have generally confidered it as forming, undoubtedly, part of every collection of exotics. It is of an extreme delicate nature, and overmuch wet eafily deftroys it; differing from moft Cape bulbs, in requiring a light loamy earth, and the affiftance of a dry ftove, to make it flower well; which it will do by fuch aid, about May, or June; feldom producing feeds, and propagating but flowly by the root. From the fugitive character of this plant, it is difficult to afcertain the firf cultivator; for although it does not appear amongit the Gladiolus in the Hortus Kewenfis, it muft undoubtedly have come into that immenfe collection at different periods, but never flowered; which is the reafon we do not find it there defcribed, 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 fynonims. This figure was taken from a plant that flowered at Meffrs. Lee and Kennedy's in 1796.


Slourifiruatuenc

# ATRAGENE CAPENSIS. Cape Atragene. 

## CLASS XIII. ORDER VII.

## polyandria polygynia. Many Chives. Many Pointals.

## GENERIC CHARACTER.

Calys. Perianthium tetraphyllam; foliolis ovalibus, patentibus, obtufis, diciduis.
Corolla. Petala duodecim, linearia, bafi ańguftiffima, obtufa, patula.
Stamina. Filamenta plurima, breviffima. Antheræ oblongæ, acumenatæ.
Pistillum. Germina plurima oblonga. Styli villofi. Stigmata fimplicia, longitudine antherarum.
Pericarpium. Nullum.
Semina plarima, definentia in caudam pilofam.

Empalement. Cup four-leaved, which are oval, fpreading, blunt, and deciduous.
Blossom. Petals twelve, linear, narroweft at bafe, blunt, and fpread open.
Chtves. Threads many, very hort. Tips oblong, pointed.
Pointal. Seed-buds numerous, oblong. Shafts hairy. Summits fimple, the length of the tips.
Seed-vesser. None.
Seeds many, terminating in a hairy tail.

## SPECIFIC CHARACTER.

Atragene, foliis ternatis; foliolis incifis, dentatis, rigidis; flore incarnato, femipleno.

Atragene, with three divifions; the fmaller divifions jagged, tonthed, and harfh; the flower flefh-coloured, and femidouble.

## REYERENCE TO THE PLATE.

1. A Petal cut off clofe to the receptacle.
2. The Fruit-ftalk, Chives, and Pointals; the Chives thrown to one fide, to expofe the fituation of the Pointals; one tip magnified.
3. A Seed of the fize when ripe.

Tais plant has been confidered by Burmann, Hermann, and other Cape botanifts, as an Anemone, to which genus it certainly may as eafily be referred as Atragene: but as it has been clearly defcribed by Linnæus, under that genus, we have not'hardinefs enough to difpute his authority. It is (as the trivial name implies) a native of the Cape of Good Hope, but at fome confiderable diffance within land; whence it requires a dry ftove to preferve it, fuffering much from damps. It is only fince the year 1795, that this plant has been found in our greenhoures; being then introduced by Meffrs. Lee and Kennedy, nurferymen, where it has flowered and perfected feeds; which feems to be the only means of propagating it: the foil it prefers is a mixture of peat and loam; flowering about March, or April.


# PLATE X. <br> ARISTEA CYANEA. <br> Blue-flowered Ariftea. 

## CLASS III. ORDERI.

## triandria monogynia. Three Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Spathæ bivalves, laceræ, perfiftentes.
Conolla, hexapetala, oblonga, equalia, obcordata, perfiftentia, patens.
Stamina. Filamenta tria, erecta, fubulata. Antheræ fub-fimplices, magnæ.
Pistilluas. Germen inferum. Stylus filiformis, erectus. Stigma trifidum, concavum, reflexum.
Pericarfium. Capfula oblonga, triquetra, trilocularis, loculis compreffis, trivalvis.
Semixa plura, compreffa, fcabrida, fub-femicircularia.

Empalement. Sheath two valves, ragged, and remaining.
Blossom, of fix petals, oblong, equal, inverfely heart-fhaped, remaining, fpreading.
Chives. Three threads, upright, awl-fhaped. Tips almoft fimple, and large.
Pointal. Seed-bud beneath. Shaft threadfhaped and ereat. Summit cut into three, concave and reflected.
Seed-vessel. Capfule oblong, three-fided, three cells, cells compreffed, three valves.
Seeds many, flat, rough, nearly femicircular.

## SPECIFIC CHARACTER.

Ariftea, foliis enfiformibus, radicalibus; floribus capitatis, cyaneis.

Ariftea with fword-fhaped 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 fpread open.
2. The Chives, Pointal, and Seed-bud, (magnified.)
3. A perfect Seed, (magnified.)

The Ariftea is a native of the Cape of Good Hope, and has been defcribed under various fynonyms; by Plukenett as a Gramen, by Petiver as Bermudiana Capenfis, and by Van Royen, Burmann, and Linnæus, as an Ixia. But although differing from Linnæus is againft the fixed intention of this undertaking, where there is a poffibility of avoiding it; yet in this inflance of alteration he muft have acquiefced, having undoubtedly never feen the plant himfelf. The bloffom, feed-veffel, feeds, habit, root, and growth, of the plant, fo totally differ from the character of Ixia, \&cc. that we have not hefitated, in accepting the name given it in the Hortus Kewenfis; where, it is faid to have been introduced, to that colleetion, by Mr. F. Maffon in 17\%4; though no fpecific defcription is given of it; from which we may conjecture, it never Howered there. The figure here given, was taken from a plant which flowered at Meffrs. Lee and Kennedy's, in 1797. The Ariftea being rather a delicate plant, requires an airy, warm fituation in the greenhoufe, flowering readily about the month of July, or Auguft; requiring to be kept in a fmall pot, the foil a light loam. It propagates by feeds, and flips.


# PLATE XI. <br> GLADIOLUS ROSEUS. 

Rofe-coloured Gladiolus.

## CLASS III. ORDER I.

## triandria monogynia. Three Chives. One Pointal.

## GENERIC CHARACTER.

Calitx. Spathe bivalves.
Corolla, fexpartita ringens. Petala oblonga, omnia unguibus in tubum conata.

Stamina. Filamenta tria, fubulata, divifuris alternis petalorum inferta. Antheræ oblongæ.
Pistilium. Germen inferum. Stylus fimplex, longitudine ftaminium. Stigma trifidum, concavum.
Penicarpium. Capfula oblonga, obtufa, trilocularis, trivalvis.
Srimisa plura, fubrotunda.

Empalement Sheath two valves.
Blossom, of fix divifions, and gaping. Petals oblong, having their claws formed into a tube.
Chives. Three awl-fhaped threads fixed into the alternate divifions of the petals. Tips oblong.
Pointal. Seed-bud beneath. Shaft fimple, the length of the chives. Summit cut into three, and concave.
Seed-vesser. Capfule oblong, blunt-ended, three cells, three valves.
Sexds many, nearly round.

## SPECIPIC CHARACTER.

Gladiolus, foliis lanceolatis, tortis, rubro marginatis, pubefcentibus; floribus rofeis odoratiffimis.

Gladiolus, with fpear-fhaped leaves, twifted, red-edged, and downy; bloffoms rofe colour, and fweet fcented.

## REFERENCE TO THE PLATE.

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

Tels moft beautiful fpecies of Gladiolus, is but of very recent date in England; in the year 1795 it was feen firft to blow here, in the collection of J. Ord, Efq. Purfer's-crofs, Fulham; but has fince, repeatedly, at the nurfery, Hammerfmith, from whence this figure was taken. Profeffor Jacquin has figured this plant, in his laft Fafciculus; but, undoubtedly, from a dried fpecimen, as his figure gives no idea of the brilliancy of this delightful plant. The fragrance of its flowers, added to the fingularity and beauty of its leaves, muft place it in the foremoft rank of its congeners. To preferve the bulb of this delicate Gladiolus, as foon as the ftem begins to decay, it fhould be taken from the pot, and kept dry till Oetober; when it thould be replanted, and treated as other Cape bulbs. It increafes by offects, and flowers about the month of May, or June.

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# PLATE XII. GERANIUM GRANDIFLORUM. Largeft flowered Crane's-bill. 

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

GENERXC CHARACTER.

Calyx. Perianthium pentaphyllum: foliolis
(2) ovatis, acutis, concavis, perfiftentibus.

Corolla. Petala quinque, obcordata, feu ovata, patentia, magna.
Stamina. Filamenta decem, fubulata, corolla breviora. Antheræ oblongæ, verfatiles.

Pistileum. Germen quinquangulare, roftratum. Stylus fubulatus, ftaminibus longior, perfiftens. Stigmata quinque, reflexa.
Pericarpium nullum, Fructus pentacoccus, roftratus.
Somina folitaria, reniformia, fepe arillata; Arifta longiffima, demum firali.

Empalement. Cup five leaves: leaves eggfhaped, fharp pointed, concave, and permanent.
Blossom. Five petals, inverfely heart-haped, or egg fhaped, fpreading, and large.
Chives. Ten threads, awl-fhaped and fhorter than the bloffom. Tips oblong, eafily turned round.
Pointar. Seed-bud five-angled, and beaked. Shaft awl-fhaped, longer than the chives and remaining. Five reflexed fummits.
Seed-vessel none. Fruit five dry berries, beaked.
Seeds, folitary, kidney-fhaped, often furnifhed with a dry hufky coat, and a very long awn, which become firal.

SPECIFIC
Geranium, calycibus monophyllis, foliis quin-que-lobis, glabris, dentatis; floribus ampliffimis, fub-albidis.

Geranium, empalements of one leaf; leaves fivelobed, finooth, and toothed; the flowers very large, nearly white.

REFERENCE TO THE PLATE.

1. The Empalement cat open, to fhew its tubular ftructure.
2. The Chives, and Pointal, as placed in the flower, (natural fize.)
3. The Shaft, Summits, and Seed-bud, (magnified.)

Or all the fpecies of this numerous tribe, introduced to us, from the Cape of Good Hope, this flands fingularly pre-eminent; whether for delicacy of foliage, or beauty of flower, of which, the moft finithed drawing would convey but a faint idea. The figure before us, was taken from a plant in the valuable collection of G. Hibbert, Efq. Clapham; from whom we underftand, that it was fent im 1494 to the Royal Gardens at Kew, by Mr. F. Maffon. To keep this plant in a flourifing condition, it thould be kept in a window of the ftove, in winter, as the heat of a greenboufe is fcarce fufficient at that feafon. It flowers in July, or Auguft, and requires the foil generally ufed for Geraniums, a mixture of rotten dung, and loam; being eafily propagated by cuttings.

To diffent from moft of the late publications on the fcience of Botarfy, may feem prefuming; yet, when it thall be confidered, that we take Linnæus for our fole guide, where that great mafter has inconteftibly fixed a Generic character, to a tribe of plants, which undoubtedly, came clearly under his infection; from his dictates, ours muft emanate, although his authority may be queftioned by others. If any good reafons had been found, to difunite a Genns, which nature has fo palpably diftinguifhed throughout all its numerous fecies; he certainly, who had minutely examined fo many, would not in his factitious Syftem have allied them; though nature had apparently fo done. We muft therefore, after him, think no Generic divifion neceffary. For the fake of correctnefs, where a Genus is fo extended in its fpecies as Geranium, Erica, 8xc. are; the conformity of particular parts, may form a fecondary arrangement, as we find it conftantly in Linnæus; the Heaths, from the thape of their tips, the Geraniums, from the number of fertile Chives; which a French Botanift of the name: of L'Heritier, has thought of fufficient moment to create two new Genera on, Erodium and Pelargonium, retaining the old name Geranium for thofe only, with ten perfect Chives. Monf. LHeritier and his followers mult, therefore, forgive us for ranking one of his Pelargoniums under the old ftandard.


# PLATE XIII. <br> EPIDENDRUM COCHLEATUM. <br> Purple flowered Epidendrum. 

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

## GENERIC CHARACTER.

Calyx. Spathæ vagæ. Spadix fimplex. Perianthium nullum.
Corolra. Petala quinque, oblonga, longiflima, patentiflima.
Nectarium bafi tubulatum, turbinatum, intra petala deorfum pofitum, ore obliquo, bifido: fuperiori labio breviffimo, trifido; inferiori in acumen producto.

Stamina. Filamenta duo, brevifima, piftillo infidentia. Antheræ tectr labio fuperiore neetarii.
Prefileum. Germen tenue, longum, contortum, inferum. Stylus breviffimus, adnatus labio fuperiori nectarii. Stigma obfoletum.
Pericarpium. Siliqua longiffima, teres, carnofa.
Semina numerofa, minutiffima.

Empalement. Sheaths fcattered. Fruit-ftalk fimple. Cup none.
Brossom. Five petals, oblong, of a great length, and fpreading much.
Honey-cup tubular at the bafe, turbanfhaped, placed between the lower petals, mouth oblique and divided: the upper lip very fhort, cut into three divifions; the lower terminating in a point.
Chives. Two very thort threads, fixed on the pointal. Tips covered by the upper lip of the honey-cup.
Pointal. Seed-bud flender, long, twifted, and beneath. Shaft very fhort, fixed to the upper lip of the honey-cup. Summit blunt.
Seed-vessel. Pod very long, round, and flefhy.
Seeds numerous, extremely fmall.

## 8PECIFIC CHARACTER.

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

Epidendrum with oblong leaves growing by pairs, fmooth, rifing from the bulb; ftalk many flowered; honey-cup heart-fhaped and purple.

## REFRRENCE TO THE PLATE

1. The Bloffom, without the Honey-cup; difpofed to thew the fituation of the Chives, and Pointal, which are covered by the Honey-cup.
2. The Honey-cup.
3. The Tips.
4. The Summits.

Or all plants, none furnith a more agreeable fpeculation to the Botanift, than thofe of this clafs; the fingular conftruction of the whole flower, leads the obferver to form analogous comparifons from it to animal life: particularly amongft the Orchis, and Ophris, of our own country; where bees, flies, lizzards, and butterflies are accurately shaped in the honey-cup. The Genu: Epidendrum, takes its Generic title from its place of growth, being what Botanifts term parafitical, that is, growing on another plant; which is the cafe, with moft of the fpecies of this Genus: yet is cultivated here with fuccefs, by planting it in a mixture of rotten wood, and loam. A plant, from which this figure was taken, was a prefent to Meffrs. Lee and Kennedy from the Honourable Mrs. Barrington, who received it from Dr. Dancer's botanical garden Jamaica, of which ifland it is a native; therefore mut be kept in the ftove. It is propagated by dividing the bulbs.

## Reflex flowered Ixia.

## CLASS III. ORDER I.

triandria monogynia. Three Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Spathæ bivalves, oblongæ, perfiftentes, germina diffinguentes.
Coholla. Petala fex, oblonga, æqualia, lanceolata.
Stamina, Filamenta tria, fubulata, corolla breviora, fitu æqualia. Antheræ fimplices.
Pistillum. Germen inferum, ovatum, triquetrum. Stylus fimplex, erectus, longitudine ftaminum. Stigma trifidum, craffiufculum.
Pericarpium. Capfula fubovata, triquetra, trilocularis, loculis compreffis, trivalvis.

Semina fubrotunda, plurima.

Empalement. Cup two valves, oblong, remaining, and dividing the feed-buds.
Blossom. Six oblong petals of an equal length, and fpear-fhaped.
Chives. Three awl-fhaped threads, fhorter than the bloffom, placed equally. Tips fimple.
Pointal. Seed-bud beneath egg fhaped, and three-fided. Shaft fimple, upright, the length of the chives. Summit cut into three, and thickifh.
Seed-vessel. Capfule, nearly egg-fhaped, three-fided, three cells, preffed together, three valves.
Seeds many, nearly round.

## SPECIFIC CHARACTER.

Ixia floribus fpicatis, reflexis; foliis enfiformibus, glabris.

Ixia, with flowers growing in a fpike, and bent backward; leaves fword-fhaped, and fmooth.

## REFERENCE TO THE PLATE.

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

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# PLATE XV. ANTHYLLIS ERINACEA. <br> Blue Broom of Spain. 

## CLASS XVII. ORDER III. <br> DIADELPHIA DECANDRIA. Chives in two fets. Ten Chives.

## GENERIC CHARACTER.

Calix. Perianthium monophyllum, ovatooblongum, parum inflatum, villofum; ore quinquedentato, inæquali; perfiftens.
Corolla papilionacea:
Vexillum longius, lateribus reflexis, ungue longitudine calycis.
Alæ duæ, oblongæ, vexillo breviores.
Carina compreffa, longitudine alarum, alis fimilis.
Stamina. Filamenta decem, connata, affurgentia. Antheræ fimplices.
Pistillum. Germen oblongum. Stylus fimplex, adfcendens. Stigma obtufum.
Pericarpium. Legumen fubrotundum, tectum intra calycem, minimum, bivalve.
Semen unum, alterumve.

Empalement. Cup of one leaf, oblong eggfhaped, a little fwelled, and hairy; mouth cut into five unequal teeth; permanent.
Blossom, butterfly-fhaped.
Standard longer, fides bent back, the claws as long as the cut.
Wings two, oblong, fhorter than the ftandard.
Keel compreffed, as long as the wings, and like them.
Chives. Ten threads, connected, rifing upwards. Tips fimple.
Pointal. Seed-bud oblong. Shaft fimple, afcending. Summit blunt.
Seed-vessel. Pod roundifh, covered by the cup, very fmall, of two valves.
Seeds. One or two.

## SPECIFIC CHARACTER.

Anthyllis fruticofa, fpinofa; foliis fimplicibus; floribus ex cæruleo purpurafcentibus.

Broom, fhrubby, and covered with prickles; leaves fimple; bloffoms of a purplifh blue.

## 1. The Cup.

## REPERENCE TO THE PLATE.

2. A Bloffom, the cup taken off to thew the exact fituation and fhape of its various parts.
3. The Chives, as they inclofe the pointal (natural fize.)
4. The Threads magnified, and cut open, to fhew their tubular fhape.
5. The Pointal, magnified.

Ownes to the difficulty in propagating and preferving fome plants, although frequently introduced to us, and well known; yet are they more fcarce to be found, in our beft collections, than plants of fynonyms by moft ;botanical authors from Clufius downwards. Mr. T. Johnfon, in his edition of Gerard of 1633 , has given a defcription of this plant from Clufius, and a cut; both of which are excellent (confidering the then infant fate of the art of engraving), under the title of Genifta finofa humilis; Dwarf Furze. It is termed Erinacea by Clufius (fays he), from the Spanifh 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 cafe. It muft be kept as a greenhoufe plant, and watered but fparingly. The foil it prefers is a light loam; is propagated by cuttings, and flowers in April, or May.

# PLATE XVI. AZALEA PONTICA. <br> Yellow Pontic Azalea. 

CLASS V. ORDER I. pentandria monogynia. Five Chives. One Pointal.<br>\section*{GENERIC CHARACTER.}

Calyx. Perianthium monophyllum, quinquepartitum, acutum, erectum, parvum, perfiftens.
Corolla. Monopetala, campanulata, limbus quinquefidus: laciniarum lateribus inflexis.
Stamina. Filamenta quinque, filiformia, receptaculo inferta, libera. Antheræ fimplices.
Pistillum. Germen ovatum. Stylus filiformis, longitudine corolla, perfiftens. Stigma obtufum.
Pericarpium. Capfula ovata, quinquelocularis, quinquevalvis.
Semina plurima, compreffa.
Obs. Figura petali in aliis infundibuliformis, in aliis campaniformis eft; ftamina in quibufdam declinata longiffima.

Empalement. Cup one leaf with five divi. fions, fharp pointed, upright, fmall, and permanent.
Blossom. One petal, bell-fhaped, margin fivecleft: fegments with the edges bent inwards.
Chives. Threads five, thread-fhaped, fixed to the receptacle, and loofe. Tips fimple.
Pointal. Seed-bud egg-fhaped. Shaft threadfhaped, the length of the blollom, permanent. Summit blunt.
Seed-vessel. Capfule egg-haped, with five cells, and five valves.
Seeds many, and ftat.
$\mathrm{O}_{\text {bs. }}$. The flape of the petal in fome is funnel. fhaped, in others bell fhaped; the chives in fome are bent downward, and very long.

## SPECIEIC CHARACTER.

Azalea, foliis ovato-oblongis, pilofis, alternis; floribus ampliffimis, luteis ; ftaminibus longiffimis, declinatis.

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

REFERENCE TO THEPLATE.

1. The Empalement, (natural fize.)
2. The Chives as they appear within the bloffom.
3. The Seed-bud, Shaft, and Summit.
4. A Capfule cut horizontally, expofing the number of its cells.

America has furnifhed our gardens with an extenfive variety of beautiful fhrubs; amongit them, the Azaleas hold a diftinguifhed place; fome for the beauty, others for the fragrance, of their blolfoms: the prefent fpecies far furpaffes all of them for both. It is a native of the coaft of the Black Sea, or Pontus Euxinus, through the whole of its extent, on the Afiatic fide, from the city of Trebifonde; from whence its trivial name. That a plant of fuch extreme beauty, and fweetnefs, fhould folong have been a ftranger to our European gardens, though known to, and defcribed by, fo many botanical travellers, muft feem matter of wonder; but fill it is an uncontefted fact. Monf. Tournefort, in his Voyage to the Levant, has given an ample defcription of it, under the title of Chamærhododendros Pontica maxima, mefpili folio, flore luteo; where he fays, it grows to the height of feven or eight feet, and that the flowers are of a moft exquifite flavour. Dr. P. Pallas, in his Flora Roflica, has likewife figured, and defcribed it, under the name it here bears; but apparently his drawing was made from a dried fpecimen, as the brilliancy of the flower is by no means preferved; 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 feeds of this, amongft many other valuable and rare plants; parcels of moft of which were fent by him to Meffrs. Lee and Kennedy, Hammerfmith; by whom plants were raifcd of it, and many other forts, the next year. It is a deciduous Arub, extremely hardy, and blows early in the fpring; is propagated, like other Azaleas, by layers and feeds; grows beft in peat earth, with a fmall portion of loam.


# Plate XVII. PROTEA FORMOSA. 

Coronet Protea. CLASS IV. ORDER I. tetrandria monogynia. Four Chives. One Pointal.

GENERIC CHARACTER.

Calyx. Perianthium commune, imbricatum; fquamis inæqualibus, perfiftentibus. Proprium nullum.
Conolla tetrapetala. Petala frepe cohærentia, fæpius divifa, lineari-oblonga: unguibus erectis, limbo patenti.
Stamina. Filamenta nulla. Antheræ quatuor, lineares, vel oblongæ, fub apice limbi corollæ infertæ.
Pistillum. Germen fuperum, oblongum. Stylus filiformis, corolla longior. Stigma fimplex, clavatum.
Pericarfium nullum. Calyx patens, induratus, vix mutatus.
Semina folitaria, fubrotunda, vel compreffa.
Receptaculum commune nudum, villofum, paleaceum, vel conus.

Empalement. Cup common, fcaled; fcales unequal, and remaining. Proper none.
Blossom four-leaved. Petals frequently adhering, oftener divided, of a linear oblong fhape: claws upright, border fpreading.
Chives. Threads none. Tips four, linear, or oblong, fixed within the border of the bloffom.
Pointal. Seed-bud above, and oblong. Shaft thread-flhaped, longer than the bloffom. Summit fimple, and club-fhaped.
Seed-vessel none. Cup freading, hard, and fcarcely changing.
Seeds folitary, nearly round, or flat.
Receptacle the common, is naked, hairy, chaffy, or a cone.

## SPECIFIC CHARACTER.

Protea, folis lanceolatis, pubefícentibus; caule villofo; flore aurantio flavo; femine fubrotundo, glabro, magnitudine pifi majoris.

Protea, with lance-fhape downy leaves; ftem hairy; bloffom orange yellow; feed nearly round, fmooth, the fize of a large pea.

## REFERENCE TO THE PLATE.

1. The Flower complete, as it ftands on the Receptacle.
2. The Bloffom expanded, to thew the fituation of the Chives.

Or all the varied genera of plants which decorate that mine of botanical riches, the Cape of Good Hope, and the adjacent country, no one ftands more confpicnous than Protea. Few travellers who have not noticed the fingularity and beauty of their foliage; indeed they are of fuch extreme brilliancy, that no one, however indifferent to botanical refearches, can pafs them unobferved; forefts of them being fo numerous, the Protea Argentea, or Silver Tree, produces almoft the only wood of the country; growing to the height of thirty or forty feet. But although the leaves of this numerous tribe are moftly beautiful, many of their blofloms are but trifling, except in the eye of the botanift: the Protea Formofa. however, is one amongft many which ftand 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. Marfon, botanical collector to his prefent Majefty; from whofe liberal patronage the fcience of Botany has of late been brought into fuch general effimation. This fpecies, from the downy character of the whole plant, is apt to damp, if not kept in an airy fituation in winter; though the warmth of a common greenhoufe is quite fufficient for its protection. It is with difficulty propagated by cuttiugs; and has not hitherto perfected its feeds in this kingdom. Our drawing was made from a plant which flowered in the nurfery of Mefirs. Lee and Kennedy, in the year 1796 , about the month of Auguft.


## CORREA ALBA.

## White Correa.

## CLASS VIII. ORDER I.

## octandria monogynia. Eight Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Perianthium monophyllum, quadridentatum, campanulatum, erectum, perfiftens.
Corolla. Petala quatuor, oblonga, concava, apice reflexa, marginibus craffis.
Stamina. Filamenta octo, erecta, filiformia, receptaculo inferta.
Pistilzum. Germen turbinatum, fuperum. Stylus filiformis, longitudine ftaminium. Stigma obtufum.
Pericarpium. Capfula coriacea, lanata, quadrilocularis, quadrivalvis.
Semina quatuor, folitaria, fubrotunda.

Empalement. Cup of one leaf, five-toothed, bell-hlaped, upright, and permanent.
Blossom. Four petals, oblong, concave, reflexed at the end, and thick at the edges.
Chives. Eight threads, upright, thread fhaped, and fixed into the receptacle.
Pointal. Seed-bud turban-fhaped, and above. Shaft thread-fhaped, the length of the chives. Summit blunt.
Seed-vesser. Capfule leathery, and woolly, four cells, four valves.
Seeds four, folitary, and nearly round.

## SPECIFIC CHARACTER.

Correa, foliis fubrotundis, fupra tomentofis, fubtus lanigeris; floribus terminalibus, quaternis, albidis.

Correa, with leaves nearly round, downy on the upper furface, woolly on the under furface; 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 Jackfon, in New Holland, and commonly termed a Botany-bay plant: it was firft raifed in the year 1793, from feeds which were given by Sir Jofeph Banks, Bart. to J. Vere, Efq. of Kenfington-gore, and from a plant in whofe collection our figure was taken. It receives its generic title from Mr. Jofeph Correa de Serra, a native of Portugal; a gentleman of very diftinguifhed

- talents as a man of fcience in general, and botany in particular. Of this genus there are as yet but few fpecies difcovered; the Alba grows to a fhrub of the height of four or five feet, woody and tough; both ftem and leaves are covered with a thick flannelly fubftance, particularly the under fide of the leaves, which gives the whole plant a whitith appearance. It continues to flower through the months of April, May, and June; may be propagated eafily by cuttings, fhould be kept as a hardy greenhoufe plant, and thrives beft in peat earth.



# PLATE XIX. <br> GLADIOLUS VERSICOLOR. <br> Changeable Gladiolus. 

## CLASS III. ORDER I.

## triandria monogynia. Three Chives. One Pointal.

## GENERIC CHARACTER.

Caryx. Spathæ bivalves.
Corolla, fexpartita, ringens. Petala oblonga, omnia unguibus in tubum connata.

Stamina. Filamenta tria, fubulata, divifuris alternis petalorum inferta. Anthera oblongæ.
Pistillum. Germen inferum. Stylus fimplex, longitudine ftaminum. Stigma trifidum concavum.
Pericahfium. Capfula oblonga, obtufa, trilocularis, trivalvis.
Semina plura, fubrotunda.

Empalement. Sheath two valves.
Brossom, of fix divifions, and gaping. Petals oblong, having their claws formed into a tube.
Chives. Three awl-fhaped threads, fixed into the alternate divifions of the petals. Tips oblong.
Pointal. Seed-bud beneath. Shaft fimple, the length of the chives. Summit cut into three, and concave.
Seed-vesser. Capfule oblong, blunt-ended, three cells, three valves.
Seeds many, nearly round.

SPECIFIC CHARACTER.
Gladiolus, foliis lineari-cruciatis; floribus maximis, verficoloribus.

Gladiolus, with linear crofs fhaped 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 divifions of the Summit magnified.
3. A ripe Seed, natural fize, in its tunic.

That colour bears the character given it by Sir Iface Newton, our prefent fubject (as did the prifm) adds another proof. The Gladiolus verficolor might, like the camelion, equally be a fubject of contention, to thofe who have feen its bloffom at different periods of the fame day; for, ftrange 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 priftine colour; and this change is effected diurnally, whilft the flower is in its vigour; but upon the decay, the change is lefs powerful, gradually fixing in a dark brown; which, however, does not take place in lefs than nine or ten days. This is the only flower, we have ever noticed, to regain the colour that has once forfook it. A drawing was began about ten o'clock in the morning, but before it was finifhed the plant was fo totally altered in colour that there was an abfolute neceflity for taking a fecond day to complete it. The bulbs of this plant were fent from the Cape of Good Hope by J. Pringle, Efq. of Madeira, in 1794, amongft many others, to Meffrs. Lee and Kennedy, of Hammerfmith, where the drawing was made. It flowers about the month of June; is increafed by the root or feed; and thrives beft in peat earth.


# ECHIUM GRANDIFLORUM. 

Large-flowered Viper's Buglofs.

CLASS V. ORDER I.<br>pentandria monogynia. Five Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Perianthium quinquepartitum, erectum perfiftens; laciniis fubulatis erectis.
Corolla. Monopetala, campanulata. Tubus breviffimus. Limbus ereetus, fenfim ampliatus, quinquefidus obtufus; laciniis frepius inæqualibus; fuperioribus duabus longioribus, infimis minoribus, acutis, reflexis. Faux pervia.
Stamina. Filamenta quinque, fubulata, longitudine corollæ, declinata, inæqualia. Anthere oblongæ, incumbentes.
Pistillum. Germina quatuor. Stylus filiformis, longitudine faminum. Stigma obtufum, bifidum.
Pericarpium nullum. Calyx rigidior, in finu femina fovens.
Semina quatuor, fubrotunda, oblique acumenata.

Empalement. Cup with five divifions, upright, permanent; fegments awl-fhaped, upright.
Blossom. One petal, bell-fhaped. Tube very fhort. Border gradually widening, with five clefts, blunt. Segments ofteneft unequal, the two upper ones the longeft; the lower ones fmaller, fharp, and reflexed. The mouth open.
Chives. Five threads, awl-fhaped, the length of the bloffor, declined, and unequal. Tips oblong, fixed fideways to the threads.
Pointal. Seed-buds four. Shaft thread-fhaped, the length of the chives. Summit blunt, and two-cleft.
Seed-vessel none. The cup growing more harfh, contains the feeds.
SEEDS four, roundifh, obliquely tapering.

## SPECIFIC CHARACTER.

${ }^{-}$Echium, foliis nitidis, lanceolatis, hifpidis; caule fruticofo; corollis maximis, æqualibus, rubris.

Viper's Buglofs, with fhining, lance-fhaped, hairy leaves; ftem fhrubby; bloffoms very large, equal, and red.

## REFERENCE TO THE PLATE.

1. The Empalement.
2. A Bloffom cut open, to expofe the fituation of the Chives.
3. The Shaft and its Summit magnified.
4. A ripe feed.

The Echium Grandiflorum is a native of the Cape of Good Hope, was fent from thence by Mr. F. Maffon to the Royal Gardens at Kew, about the year 1791. The fuperior beauty of this fpecies to the reft of its congenors makes it confidered as a valuable greenhoufe plant, although its intrinfic merit is fufficient to enfure it that character; the rich green of its foliage, contrafted to the colour of the bloffoms, gives to each a fingular brilliancy. It is rather a tender greenhoufe plant, grows about two feet high, and becomes naked at the lower part of the ftem; is with difficulty propagated by cuttings, feldom perfecting its feeds; thrives beft 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.


# 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, perfiftentibus.
Conolla monopetala, ventricofa; limbus patens, revolutus quadripartitus; laciniis ovatis, acuminatis.
Netararia quatuor; fingulum fquamula debilia, minima, fingulo germini ad bafin extrorfium inferta.
Stamina. Filamenta octo, brevia, quorum quatuor medio, quatuor vero ad bafin corollæ adnatæ. Antheræ fubrotundæ fimplices.
Prstillum. Germina quatuor, oblonga, definentia in flylos fubulatos. Stigmata obtufa.
Pbricarpium. Capfulæ quatuor, ovatæ acuminatæ, rectæ, trigonæ, longitudinaliter futura introrfum dehifcentes.
Semina plurima minima.

Empalement. Cup four leaved, which are lance-fhaped, concave, upright, fharppointed, and permanent.
Blossom of one leaf, big bellied; border fpreading, rolled back, and divided into four egg-fhaped, pointed fegments.
Honey-cups four, each confifting of a fmall flight fcale, fixed on the outfide the bafe of each feed-bud.
Chives. Eight fhort threads, four of which are fixed to the middle, and four to the bafe of the bloffom. Tips nearly round, and fimple.
Pointal. Four feed-buds, oblong, ending in awl-haped fhafts. Summits blunt.

Seed-vessel. Four capfules, egg-fhaped, tapering, upright and three fided, opening inwards along the feam.
Seeds many, very fmall.

SPECIFIC CHARACTER.
Vereia, foliis oppofitis, crenatis, patentibus; racemis longiffimis laxis; floribus luteis.

Vereia, with oppofite, fcolloped, fpreading leaves; very long loofe fipes, and yellow flowers.

## REFERENCE TO THE PLA'EE

1. The Empalement, (natural fize.)
2. A Bloffom cut open to fhew the fituation of the Chives.
3. The Seed-veffel, Shafts, and Summits, with the fcales of the Honey-cups, as they ftand in the bloffom, (magnified.)
4. One Capfule of the Seed-veffel detached.

This genus of Plants muft ciafs with Linnæus's natural order of Succulents, nearly approaching Craffula in habit; but as the Sexual Syftem is the bafis of our theory, we cannot admit it under that or any other yet defcribed genus; we have therefore named it after James Vere, Efq. long and well known for his extended and liberal patronage to the profeffors and cultivators of the fcience; in whofe beautiful and felect collection at Kenfington Gore, the prefent fpecies, has for the firft time, flowered in this kingdom. Mr. Anderfon the gardener informs us, that this plant is a native of Sierra Leone; from whence it was fent to England, by Profeffor Eld. Elfzelius, in the year 1793; that he has treated it as a tender hot-houle plant, keeping it conftantly in the tan bed, by which means he has made it flower; but from every appearance of the plant, we thould be led to think the common treatment of hot-houfe Succulents would anfwer for this. It is eafily propagated by cuttings; grows to the height of three or four feet, having when in flower the appearance of a middle fized flurub; blows in the winter months, and thrives beft in rich mould.


# GOODENIA CALENDULACEA. 

Cape Marygold-leaved Goodenia.

CLASS V. ORDER I.<br>pentandria monogynia. Five Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Perianthium quadrifidum, fuperum, perfiftens.
Corolla monopetala, fupra longitudinaliter fiffa, genitalia exferens; limbo quinquefido, fecundo.
Stamina. Filamenta quinque, receptaculo inferta. Anthere lineares.
Pistillum. Germen inferum. Stylus fimplex. Stigma urceolatum, ciliatum.
Pericarpium. Capfula oblonga, bilocularis, bivalvis; diffepimento parallelo.

Skmina plura, fcabrida.

Empalement. Cup four-cleft, above, and remaining.
Blossom of one leaf, cleft longitudinally on the upper fide, expofing the organs of fructification; border five-cleft, leaning one way.
Chives. Five threads fixed into the receptacle. Tips linear.
Pointal. Seed-bud beneath. Shaft fimple. Summit pitcher-fhaped, and fringed.
Seed-vessel. Capfule oblong, with two cells, and two valves; partition parallel to the valves.
Seeds many and rough.

## SPECIFIC CHARACTER.

Goodenia, foliis obovatis, craffis, fcabridis; floribus axilaribus, cæruleis.

Goodenia with inverfely egg-fhaped, thick rough leaves; flowers fitting clofe to the ftem, and blue.

## REFERENCE TO THE PLATE.

1. A Flower with all its parts complete.
2. A Bloffom 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, Prefident of the Linnæan Society; in honour of the Rev. Dr. Goodenough, whofe valuable differtation on the Britilh fpecies of Carex, does him the higheft honour, as a botanift. The fpecies of this genus (as jet difcovered) are ten, from which we may infer that they are numerous; thofe only yet introduced to Britain are, the lævigata, ovata, and the prefent fpecies; the others are defcribed by the Prefident, in the fecond volume of the Linnæan Tranfactions. This plant, though not to be ranked amongft the handfomeft productions of that country, fo replete with novelty, is yet poffeffed of fufficient merit to give it a place in our collections of greenhoufe plants, flowering about the month of Auguft; delighting moft in an airy fizuation, and light foil. It is eafily propagated by cuttings. Our figure was taken from a plant which flowered at the Hammerfmith nurfery, in 1797; where it had been raifed from feeds, communicated by Colonel Paterfon, then commanding at Port Jackfon; to whofe affiduous labours in collecting feeds, \&cc. the cabinets and collections of our natural hiftorians are fo very much indebted.

## PLATE XXIII.

## IXIA CAPITATA. Var. ovata. Bunch-flowering Ixia. Var. Egg-fhaped purple Petals.

## CLASS III. ORDER I.

## Triandria monogynia. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Corolla 6 petala, patens, aqualis. Stigmata 3, erectinfculo-patula.

Blossom fix petals, fpreading equal. Summits three, nearly upright, fpreading.
See Ixia reflexa, Plate XIV.

## SPECIFIC CHARACTER.

Ixia, foliis radicalibus, enfiformibus; floribus capitatis, confertis, purpureis, petalis bafi obicuris.

Ixia with leaves growing from the root, and fword-fhaped; bloffoms in clofe bunches, purple, and dark at the bafe.

## REFERENCE TO THE PLATE.

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

This fine fpecies of Ixia, a native of the Cape of Good Hope, was introduced to our collections about the year 1795, by Meffrs. Lee and Kennedy, nurferymen; they having raifed it from feeds received by them, from the Royal Gardens at Vienna; is certainly amongft the tendereft of its tribe: the root, being extremely fubject to injury by wet, it fhould be dried as foon as it has done flowering. It is one of the earlieft Ixias in bloom, being in high perfection about the middle of April; is increafed but flowly by the root, thriving beft in very fandy peat, or fand only. The figure here given was drawn from a plant which flowered at the nurfery, Hammerfmith, in 1798, for the firft time.


# PLATE XXIV. CINERARIA AURITA. <br> Two-coloured-leaved Cineraria. 

CLASS XIX. ORDER II.
SYNGENESLA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

## generic character.

Calyx. Communis, fimplex; polyphyllus; fo. liolis æqualibus.
Conolla. Compofita, radiata. Corollulæ hermaphroditæ, æquales; numerofæ, in difco. Femineæ ligulatæ, numero foliorum calycis in radio.

Propria bermaphroditi, infundibaliformis; limbo quinquefido, erecto.
Feninea ligulata, lanceolata, apice denticulata.
Stamina. Filamenta quinque, filiformia brevia. Antheræ cylindracea, tubulofa, apice quinquefida.
Pistillum, hermaphroditis. Germen oblongum. Stylus filiformis, longitudine flaminum. Stigmata duo erectiufcula.

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

Pericarpiem nullam. Calyx immutatus.
Semina hermaphroditis folitaria, linearia, quadrangula. Pappus pilofus, copiofus.

Receptaculem nudum, planiufculum.

Empaebment. Common, fimple; of many leaves; fmall 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 funnelfhaped; border five cleft, upright.
Individuals with pointals only, ligulate, lance-fhaped, toothel at the point.
Chives. Five threads, thread-thaped and fhort. Tips forming a hollow cylinder, with five clefts at the top.
Pointal of florets with chives and pointals. Seed-bud oblong. Shaft thread-fhaped, the length of the chives. Summits two, a little upright.
Of florets with pointals only. Seed bud oblong. Shaft thread-fhaped, and fhort. Summits two, oblong, rather blunt, and rolled back.
Seed-vessel none. Cup not changing.
Seens of florets with chives and pointals, folitary, linear and four-fided. Feather, hairy, abundant.
Receptacle naked, rather flat.

Cineraria, foliis cordatis, dentatis, pilofis, fubtus purpurafcentibas; petiolis auritis: floribus purpareis.

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

## REFERENCE TO THE PLATE.

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

Iv the Sert. Anglic. of Monf. L'Heritier, this fpecies of Cineraria has been defcribed and figured under the fpecific character of Cruenta, from the botanic garden at Kew; where, according to the catalogue, it was firft introduced by Mr. F. Maffon, from the Canary Iflands, about 1777; and by which feecific it has hitherto been titled: but from what appearance or part of the plant, he could denominate it bloody, will not be eafy to determine; from our idea of colour, he might as well have named it blue. Finding, therefore, a fpecific charatter 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 fentiments, than altering any publifhed name) if there had been any glimple of affinity to the plant in that title. This is unqueftionably the handfomeft fpecies of Cineraria yet known, growing to the height of near three feet if encouraged. The fpecimen from which this figure was taken, and which was fent laft March to the author, by Mr. James Colville, King's road, Chelfea, had attained that fize. By night it is extremely fragrant, continuing its bloffoms from the month of February, till Auguft; feeding abundantly, by which it may be propagated, producing many varieties; or by the fuckers which are thrown up from the roots; thriving beft in light mould or peat.


## PLATE XXV.

# CAMELLTA 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.

Emfalement tiled, of many leaves: the inmer leaves the largeft.

SPECIFIC CHARACTER OF TAR.
Camellia floribus ampliffimis, plenis albidis. || Camellia with large double white flowers.

THOUGH it may be confidered by fome, as deviating from the botanical rule we prefcribed to ourfelves, at the outfet of this work, not to figure any flower, but what could be fyftematically afcertained; double flowers, \&c. having loft thofe conftituent characters neceffary to the Sexual Syftem; yet haring feen this moft delightful plant in bloom laft year, the temptation was too powerful to be refifted, for giving a figure of it in the Botanift's Repofitory. This fine variety of the Camellia, was firft imported from China about the year 1793, by Captain Connor of the Carnatic Faft-indiaman, for the gardens of the late I. Slater, Efq. a gentleman of moft indefatigable fpirit, for the introduction of new plants to this kingdom; indeed, it is to him we owe moft of the plants reccived from China within thefe few years; he having procured a catalogue to be printed of all the defcribed Chinefe plants in that language, with the defcriptions tranflated, and by various hands tranfmitted it to that country. The fineft plants in this kingdom, of the double white Camellia, are now in the collection of Sir Jofeph Banks, Bart. P.R.S. This, like the others of this genus, we may confider of fufficient hardinefs to refift our winters; being a native of the Japanefe ifles, where, as well as in China, it was feen by Thunberg. As yet (from its fcarcity) that cannot be afcertained; but from the eafy method by which it is propagated by cuttings, we are in hopes it foon may. It is at prefent cultivated as a hot-houfe plant, where certainly it will be always feen in the greateft perfection; the flowers being of fo delicate and brilliant a white, their beauty is eafily deftroyed, even by watering. Flowers in the autumnal months, and thrives beft in rich loam.


## PLATE XXVI.

## CRASSULA ODORATISSIMA.

Sweet-fiented Crafiula.

CLASS V. ORDER V.<br>pentandria pentagynia. Five Chives. Five Pointals.

## GENERIC CHARACTER.

Calyx. Perianthinm pentaphyllum; foliolis lanceolatis, canaliculato-concavis, erectis, acutis, conniventibus in tubum, perfiftentibus.
Corolla. Petala quinque, unguibus longis, linearibus, rectis, conniventibus, reflexopatentibus.
Nectaria quinque; fingulum fquamula minima, emarginata bafi germinis extrorfum annexa.
Stamina. Filamenta quinque, fubulata, Iongitudine tubi, unguibus corollæ inferta. Antheræf fimplices.
Pistillum. Germina quinque, oblonga, acuminata, definentia in ftylos fubulatos, longitudine ftaminum. Stigmata obtufa.
Pericarpium. Capfulæ quinque, oblongæ, acuminate, rectæ, compreffæ, longitudinaliter introrfum dehifcentes.
Semina plura, parva.

Empalement. Cup of five leaves; the fmall leaves are lance-fhaped, concave and channelled, upright, fharp, formed into a tube, and remaining.
Blossom. Petals five, claws long, linear, upright, joined together, bent back, and fpreading.
Honey-cups five, each confifting of a fmall fcale notched at the end, and fixed on the outfide the bafe of each feed-bud.
Chives. Five threads, awl-fhaped, the length of the tube, fixed into the claws of the bloffom. Tips fimple.
Pointal. Seed-buds five, oblong, pointed, ending in awl-fhaped fhafts, the length of the chives. Summits blunt.
Seed-vbssel. Five capfules, oblong, pointed, upright, preffed together, and opening inwards along the feam.
Seeds, many, fmall.

## SPECIFIC CHARACTER.

Crafula foliis oppofitis, amplexicaulibus, ciliatis, linearibus; floribus capitatis, odoratiffimis, luteis.

Craffula with oppofite leaves that embrace the ftem, fringed and linear; the flowers grow in bunches, are fweet-fcented and yellow.

## REFERENCE TO THE PLATE.

1. The Empalement.
2. A Bloffom cut open to thew the infertion of the threads.
3. One Petal of the blofforn.
4. The five Pointals as they ftand in the bloffom, with their honey-cups attached to the bottom of the Seed-buds.
5. One Pointal (magnified).

Tre Craffula Odoratiffima 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 fcent of this plant at night is fo very powerful, that by many it may be deemed almofl offenfive, though by others it is confidered as moft agreeable; the flavour is nearly affined to the taberofe. This is not a very thewy plant, growing about a foot high, and flowers from March, till May or June. It is moft eafily propagated by cuttings, lives in the common greenhoufe with very little care, and in almoft any fort of earth. This figure was taken at Meffrs. Lee and Kennedy's, nurferymen, Hammerfmith, where the plant was firft raifed.


## PLATE XXVII.

## GLADIOLUS RINGENS. Var. cinereo odorato.

Gaping Afl-coloured fweet Gladiolus.

CLASS III. ORDER I.

## triandria monogynia. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Conoles 6 -partita, ringens.
Stamina adf́cendentia.

Blossom fix divifions, gaping. Chives afcending.

See Plate XI.

## SPECIFIC CHARACTER.

| Gladiolus foliis linearibus, coftatis; floribus |
| :---: |
| ringentibus, cineriis, odoratiffimis. |


| Gladiolus with linear, ribbed leaves; the blof- |
| :---: |
| foms gaping, afh-coloured, and very fweet- |
| fcented. |

## reference to the plate.

1. The two fheaths of the Empalement.
2. A Bloffom cut open to expofe the infertion of the Chives.
3. The Pointal (one Summit magnified).
4. A Seed in its coat.

This moft defirable Gladiolus, is not a perfeet novelty in the greenhouie; although extremely fcarce, it has been introduced to us conftantly from the Cape of Good Hope, but from its great delicacy has been repeatedly loft. The plants now in England, bave been imported from Holland, from the collection of Meffrs. Voorhelm and C . who about the year 1793, purchafed the largeft collection ever formed at the Cape, from a Frenchman who had been many years refident there. The Gladiolus ringens about mid-day has the flavour of violets fo powerfully, that a fingle plant is fufficient to fcent a whole greenhoufe. It is with difficulty preferved from rotting at the root; therefore fhould be grown in very fandy peat, and fhould be expofed to dry as foon as the flower is gone. Is propagated by the root, or by feed, which may be procured by great care not to over-water the bulb after flowering; but herein there is great danger.


## PLATE XXVIII.

## GERANIUM ELEGANS.

## Round-leaved Geranium.

## CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Monogyna. Stigmata 5. Fructus roftratus, 5-coccus.

One Pointal. Five Summits. Fruit furnihhed with long awns, 5 dry berries.
See Geranium grandiflorum, Plate XII.

## SPECIFIC CHARACTER.

Geranium pedunculis muitifforis; calycibus monophyllis, foliis orbiculatis, ferratis rigidis, petiolis longiffimis; caule herbaceo.

Geranium, the fruit-ftalks fupporting many flow. ers; cups of one leaf; the leaves round, fawed, and harfh, with very long foot-falks; ftem herbaceous.

## RERERENCE TO THE PLATE.

1. The Empalement cut open, to fhew its tubular fhape to its bafe.
2. The Chives, and Pointal, natural fize.
3. The Pointal, magnified.

Thrs truly elegant fecies of Geranium was introduced to us from the Cape of Good Hope, in the year 1795; being raifed from feeds, received from thence, by Meffrs. Lee and Kennedy, in whofe collection it flowered for the firf time this year, about the latter end of May, and from which feccimen this figure was taken. It is one of thofe that have in general feven fertile tips, and, therefore, muft be placed under Mr. L'Heritier's genus Pelargonium, by thofe who follow his new arrangement. It is a hardy plant, and requires only a common greenhoufe for its protection, where it will reed; which feems to be the readieft mode of propagating it, as it produces but very few branches; thriving beft in rich earth.


## PLATE XXIX.

## IXIA SPICATA. Var. viridi nigra. <br> Sea-green fpiked Lxia.

## CLASS III. ORDER I.

triandria monogynia. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Corolla 6 petala, patens, æqualis.
Sticmata 3, erectiufculo-patula.

Blossom fix petals, fpreading, equal.
Summits three, nearly upright, fpreading.
See Ixpa replexa, Plate XIV.

## SPECIFIC CHARACTER.

Ixia foliis linearibus, coffatis; corolla viridi, petalis bafi obfcuris; fpicis longiffimis.

Ixia with linear, ribbed leaves; green bloffom, the bafe of the petals dark; fpikes very long.

## REFERENCE TO THE PLATE.

1. The two fheaths of the Empalement.
2. A Bloffom cut open, to fhew its tubular character, and the infertion of the Chives at the mouth.
3. The Pointal complete, one of its Summits magnified.

Thr fingularity of colour exhibited in this very fine fpecies of Ixia, the extraordinary length of the fpikes, the flowers of which are moftly all expanded at the fame time; and which grow fometimes 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 firf introduced it from the Cape; and it is from them we received it but a few years fince. It is amongft the hardieft, and eafieft propagated of this genus; requiring a fmall degree of heat when near blowing, to make the flowers expand with luftre; thriving beft in peat earth; propagating itfelf by the bulb; and flowering during the months of May and June.

# PLATE XXX. VACCINIUM ARCTOSTAPHYLLUS. Madeira Whortle-berry. 

CLASS VIII. ORDER I. octandria monogynia. Eight Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Perianthium minimum, fuperum, perfiftens.
Corolla. Monopetala, campanulata, quadrifida; laciniis revolutis.
Stamina. Filamenta octo, fimplicia. Antheræ bicornes, dorfo ariftis duabus patentibus inftructæ, apice dehifcenteg.
Pistillum. Germen inferum. Stylus fimplex, ftaminibus longior. Stigma obtufum.
Pericarpium. Bacca globofa, umbilicata, quadrilocularis.
Semina pauca, parva.

Empalement. Cup very fmall, above, and permanent.
Blossom. One petal, bell-fhaped, four-cleft; fegments rolled back.
Chyves. Eight threads, fimple. Tips with two horns, and furnifhed with two fpreading awns at the back, opening at the points.
Pointal. Seed-bud beneath. Shaft fimple, longer than the chives. Summit blunt.
Seed-vessel. A globular berry, with a hollow dimple, and four cells.
Seeds few, and fmall.

## SPECIFIC CHARACTER.

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

Whortle-berry, with flowers growing in bunches; leaves flightly fcollopped, egg-fhaped, and pointed; ftem woody.

## REFERENCE TO THE PLATE.

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

Numerous are the difficulties which occur in arranging plants according to any yet invented fyftem; and although the fexual fails in the feweft inftances, yet that is fometimes the cafe. The plant before us, although in habit, fruit, \&c. feemingly perfectly allied to Vaccinium, and, from which characters, it has been placed under that genus, yet we douot whether if Linnæus had examined the flower himfelf, (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 claffed it in Octandria; for certainly it has in every inftance ten chives, with the border of the bloffom of five fegments; the threads attached to the bloffom. But, as it is the profeffed intention of this work as little as poffible to confufe, by the introduction of new names for plants already known by eftablifhed, and generally accepted ones; though erroneous from incorrectnefs, or otherwife, in the author who firlt publifhed them; we fhall attempt an alteration but rarely, and that cautioully, or for very glaring reafons; being thoroughly convinced of the difficulty of retaining only one name for each plant. The Vaccinium Arctoftaphyllus is a native of the inland of Madeira, where it grows to a confiderable height: it has not been many years cultivated in our gardens; having been introduced to us firft by Mr. F. Maffon about the year 1786. The winters in common of this climate are too fevere for it, therefore fhould be protected, although it will furvive a mild one: it is beft preferved in a pot, and kept as a greenhoufe plant, where it is very ornamental; flowering about the months of July and Auguft; thriving beft in light mould, or peat; and is propagated by cuttings, or the feed, which it produces in abundance.


# PLATE XXXI. BORBONIA CORDATA. <br> Heart-hape leaved Borbonia. 

## CLASS XVII. ORDER IV.

diadelphia Decandria. Threads in two fets. Ten Chives.

## Generic character.

Calyx. Perianthium monophyllum, quinquefidum, turbinatum, corolla dimidio brevius; laciniis lanceolatis, acuminatis, fubæqualibus.
Corolla pentapetala papilionacea.
Vexillum reflexum, obtufum, ungue calycis longitudine.
Ale femicordatæ, vexillo paulo breviores.
Carina dipetala, lunulata, obtufa.
Stamina. Filamenta decem, coalita in cylindrum, fuperne longitudinaliter dehifcentem, apicibus affurgentia. Antheræ parvæ.
Pistillum. Germen fubulatum. Stylus breviffimus, adfcendens. Stigma obtufum, emarginatum.
Pericarpium. Legumen fubrotundum, acuminatum, uniloculare, finina mucronatum.
Semina reniformia.

Empalement. Cup one leaf, cut into five fegments, turban-thaped, Mhorter by half than the bloffom; fegments lance-fhaped, pointed, nearly of the fame length.
Blossom of five leaves, butterfly-fhaped.
Standard bent back, blunt, the claw the length of the cup.
Wings half heart-flaped, a little fhorter than the ftandard.
Keel of two leaves, half moon-haped, and blunt.
Chives. Threads ten, joined in a cylinder, fiplitting at the upper fide, turned up at the ends. Tips ímall.
Pointar. Seed-bud awl-fhaped. Shaft fhort, turned up at the end. Summit blunt, and bordered.
Seed-vessel. Shell roundifh, pointed, of one cell, and pointed with a fipine.
Seeds kidney-fhaped.

## SPECIFIC CHARACTER.

Borbonia foliis cordatis, multinerviis, integerrimis.

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

## REFERENCE TO THE PLATE.

## 1. The Empalement.

2. The Standard, or upper petal of the Bloffom.
3. A Wing, or fide petal of the Bloffom
4. The Keel, or lower petals of the Bloffom.
5. The Pointal and Chives, natural fize.
6. The Seed-veffel, attached to the Empalement.

The Borbonia cordata, with its various fynonyms, may be found in the fecond volume of Limneuss Species Plantarum, page 994, from whence our fpecific character is copied. This plant, as well as moft of the genus, are fubject to lofe their leaves from the lower part of the fiem, which gives it rather a naked appearance when not in flower; but that is amply compenfated by the very handfome appearance of its magnificent bunch of yellow bloffoms. It grows to the height of three or four feet, producing but few branches. This figure was taken from a plant fent to the author, about the beginning of July, in full bloom, by Mr. Colville, nurferyman, of the King's Road, Chelfea; who informs him that he raifed it about the year 1795 , from feeds which he had received from the Cape of Good Hope. The Borbonias are mofly hardy greenhoufe plants, and delight in light earth; either peat, or very light dungy earth: they are in general difficult to propagate by cuttings; the fureft method is by the feed, which they for the moft part perfect in this climate.


# ANTHOLYZA RINGENS. <br> Gaping Antholyza. 

## CLASS III. ORDER I.

triandria monogynia. Three Chives. One Pointal.

## GENERIC CHARACTER.

CALyX. Spathr bivalves, alternatæ, flores diftinguentes, perfiftentes.
Corolla. Petalum unicum e tubo fenfim di. Jatatum in faucem compreffam, ringentem.
Sramina. Filamenta tria, longa, tenuia, fublabio fuperiori. Antheræ acutæ.

Pistillum. Germen inferum. Stylus filiformis, fitu et longitudine faminum fuperiorum. Stigma trifidum, capillare, reflex. um.

Pericarpium. Capfula fubrotunda, 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 bloffom. Tips fharp.
Pointal. Seed-bud beneath. Shaft threadfhaped, in the fame place, and of the fame length of the upper chives. Summit cut into three halr-like divifions, which are bent back.
Seed-vessel. Capfule nearly round, three cells, three valves.
Seeds many, triangular.

## SPECIFIC CHARACTER.

Antholyza corollæ labiis divaricatis; fauce compreffa. ous directions; the mouth flattened.

## REFERENCE TO THE PLATE.

1. The Empalement.
2. A Bloffom cut open, to thew the infertion of the Chives.
3. The Pointal (natural fize).

Although this fpecies of Antholyza is not new in our gardens, yet has it been feen in flower but by few, as it blows fo feldom; though the roots are by far the largeft of any of the genus. The bulb from which this figure was taken, had received a little affiftance from heat early in the feafon, 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 fame earth as Ixias, propagates by the root, or feed, and flowers in the month of June; at which time a drawing was made from a plant then in bloom at the Hammerfmith nurfery.


# PLATE XXXIII. <br> DIOSMA LATIFOLIA. <br> Broad-leaved Diofma. 

CLASS V. ORDER I.<br>pentandria monogynia. Five Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Perianthium quinquepartitum; laciniis tenuibus, acutis, perfiftentibus; bafi plana.

Conolla. Petala quinque, ovata, obtufa, feffilia, erecto-patula.
Nectarium coronæ forma, excavatum, quinquefidum, obtufum, germini impofitum.
Stamina. Filamenta quinque, fubulata. Antheræ fubovatæ, erectæ.
Pistillum. Germen coronatum nectario. Stylus fimplex, longitudine ftaminum. Stigma obfoletum.
Pericarpium. Capfula quinque, ovato-acuminatæ, compreffæ, margine introrfum coali$t x$, apicibus diftantes, futura fuperiori dehifcentes.
Semina folitaria, oblonga.
Arillus elafticus, hinc dehifcens; fingulam involvens femen.

Empalement. Cup of four divifions; fegments thin, fharp, and permanent; fmooth at the bare.
Blossom. Five petals, egg-fhape, blunt, fitting clofe, erect, and open.
Honey-cup crown-fhaped, hollow, with five divifions, blunt, fixed on the feed-buds.
Chives. Five threads, awl-fhaped. Tips nearly egg-fhaped, upright.
Pointal. Seed-bud crowned by the honeycup. Shaft fimple, the length of the chives. Summit blunt.
Seed-vessel. Five capfules, egg-ihaped, pointed, flattened, joined together by the inner edge, the points ftanding apart, fplitting at the upper future.
Seeds folitary, oblong. Secd-coat elaftic, fplitting from bence, and inclofing a fingle feed.

## SPECIFIC CHARACTER.

Diofma, foliis oppofitis, ferratis, ovalibus, latiffimis; floribus terminalibus, albidis, feffilibus.

Diofma with oppofite leaves, fawed, oval, and very broad; flowers terminal, white, and fitting clofe to the branches.

## REFERENCE TO THE PLATE.

1. A Bloffom complete.
2. The Chives and Pointal, with the furrounding Seed-buds and Honey-cups.
3. The Pointal, natural fize, with the Empalement attached.
4. The fame magnified.
5. A Seed taken from its coat.

There are few genera of plants more deferving our notice than Diofma; the fragrance of the leaves of moft of the fpecies, and the beauty of the flowers of others, has rendered them fo common, (being eafily propagated by cuttings) that few collections but have a number of the different fpecies. They are all very hardy greenhoufe plants, the prefent fpecies excepted; this, requiring a dry fituation, and rather more warmth than the reft. It was fent to the royal gardens at Kew, about the year 1791, by Mr. F. Maffon, to whofe induftry botany ftands fo much indebted. Of all the Diofmas this is the higheft grower, afpiring to three or four feet, or more, if encouraged; delights in peat earth, and fowers about the month of Augut.


# PLATE XXXIV. CHELONE RUELLIOIDES. 

 Scarlet Chelone.CLASS XIV. ORDER II.

didynamia angiospermia. Two Chives longer. Seeds covered.

## GENERIC CHARACTER.

Calyx. Perianthium monophyllum, quinquepartitum, brevifimum, perfiftens; laciniis erectis, ovatis.
Corolla monopetala, ringens; tubus cylindraceus, breviffimus; faux inflata, oblonga, fupra convexa, infra plana; limbus claufus parvus; labium fuperius obtufum, emarginatum; limbus inferius cum fuperiori fere æquale, læviffime trifidum.
Stamina. Filamenta quatuor, fub dorfo corollæ recondita, quorum duo lateralia paulo longiora; antheræ incumbentes.

Rudimentum quinti filamenti, mucronis inftar, intra fuperius ftaminum par.

Pistillum. Germen ovatum. Stylus filiformis, fitu, et longitudine ftaminum. Stigma obtufum.
Pericarpium. Capfula ovata, bilocularis, calyce longior.
Semina plurima, fub-rotunda, margine membranaceo cincta.

Empalement. Cup one leaf, five divifions very fhort, permanent; fegments upright and egg-fhaped.
Blossom. One petal, gaping; tube cylindrical, very fhort; mouth fwelled, oblong, rounded on the upper, and flat on the lower part; border fhut, and fmall; upper lip blunt, bordered; lower lip nearly as long as the upper, flightly divided into three at the end.
Chives. Threads four, hid under the upper part of the bloffom; of which the two fide ones are a little longer than the others. Tips fixed fideways to the threads.
The rudiment of a fifth thread, like a fharp point is placed equal with, and between the upper chives.
Pointal. Seed-veffel egg-fhaped. Shaft threadfhaped, of the fame length, and place as the chives. Summit blunt.
Seed-vessel. Capfule egg-fhaped, two cells longer than the empalement.
Seeds many, nearly round, bound at the edge by a thin k kin.

## SPECIFIC CHARACTER

Chelone with fpathulate, fmooth leaves on the lower part of the ftem; and lance-fhaped, oppofite ones on the upper; bloffoms hanging down, and fcarlet; the lowerlips bearded.

## REFERENCE TO THE PLATE.

1. A Leaf from the lower part of the Stem.
2. The Empalement.
3. A Bloffom cut open, to thew the fituation of the Chives, and the imperfeet rudiments of a fifth.
4. The Seed-veffel, and Pointal, (natural fize).

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 fon of the gardener to the King of Spain, who was then in England purfuing his botanical ftudies. It is (apparently) a hardy plant, and fit to endure the open borders, but, as yet, we have not had a fufficient trial to afcertain it; hitherto it has been treated as a greenhoufe plant. Being herbaceous, it is propagated by parting the roots, which thould be done in fpring, about the month of March. The proper feafon of its flowering cannot well be determined, as it has undergone fuch various treatment. The plant from which this figure was made was in full bloom at the gardens of G. Hibbert, Efq. Clapham, in the month of June 1797, where it was feen to flower, for the firft time in this country. The foil it feems to thrive in moft, is a compofition of loams, and rotten dung.


## PLATE XXXV.

IXIA CRISPIFOLIA. Var. flore caruleo. Crijped-leaved Ixia. Blue Variety.

## CLASS III. ORDER I.

Triandria monogynia. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Corolla 6-petala, patens, æqualis. Stigmata 3, erectiufculo-patula.

Blossom fix petals, fpreading equal. Summits three, nearly upright, and fpreading.

See Ixia reflexa, Plate XIV.

## SPECIFIC CHARACTER.

Ixia foliis crispis; fcapus ramofus, flexuofus, fpithamæus; floribus fub-umbellatis, cæruleis.

Ixia with crifped leaves; flower-ftem branched, waved, and a fpan high; flowers grow in partial umbels, and are blue.

## REFERENCE TO THE PLATE.

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

This fingular fpecies of Ixia, is one amongft the many given by the Dowager Lady De Clifford to Meffrs. Lee and Kennedy Hammerfmith, in the year 1794; at which time, her ladyfhip had juft received the bulbs in a prefent from the Cape. It is defcribed by Thunberg, in his Differtatio de Isia, publifhed in 1783. The ront of this plant is of a moft curious fhape, having the appearance of being the half, rather than the whole; it is very delicate, is eafily deftroyed by moifture, therefore (except when in flower) thould 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 hothoufe to expand its bloffoms. Like other Cape bulbs, it mould be planted in fandy peat.


# PLATE XXXVI. <br> RHODODENDRON PUNCTATUM. 

## Dotted-leaved Rhododendron.

## CLASS X. ORDER I.

## decandria monogynia. Ten Chives. One Pointal.

* 

Asential generic character.
Calyx 5-partitus. Corontrotato-infundibu-* Empalement of five divifions. Bloflom of a liformis. Stamina declinata. Capfula 5- rounded funnel-fhape. Chives bent down-
locularis. ward. Capfule of five cells.
See Rhododendgon Dauricum, Mlate IV.

## SPECIFIC CHARACTER.

Rhododendron foliis glabris, fubtus punctatis; viminibus laxis; corollis crifpis, violaceopurpureis.

Rhododendron with fmooth leaves, dotted on the under part; flender loofe branches; bloffoms crifped, and of a blueifh parple.

## REPERENCE TO THE PLATE.

1. A Bloffom.
2. The Chives, and Pointal (natural fize); one tip detached (magnified).
3. The Seed-veffel, and Pointal, (natural fize).

Ir is to the induffrious refearches of J. Frafier, nurferyman, of the King's Road, Chelfea, we are indebted for this charming fpecies of Rhododendron, who introduced it in the year 1792 from the back fettlements of Carolina, North America, where it is native. This fpecies is by far the mot delicate of any yet difcovered on that continent; grows to the height of three, or four feet, and of fufficient hardinefs to refift our winters in the open ground: a flight protection infures its flowering, as our late frofts are apt to injure the buds, which are very often withrut that affifance defroyed. The beft method of propagating this fhrub is by layers, which fhould be taken off in autumn, and protected the firft winter. It flowers about the month of July, at which feafon this year a drawing was made from a plant, in the nurfery of Lee and Kennedy, Hammerfmith. It (like moft American plants) delights in fandy peat.


## PLATE XXXVII.

# GERANIUM FRAGILE. 

## Brittle-falked Geranium.

## CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

## ESSENTIAL GENERIC CHARACTER.

Monogyna. Stigmata 5. Fructus roftratus, 5-coccus.

One Pointal. Summits five. Fruit furnifhed with long awns, five dry berries.
See Geranium Grandiflorum, Plate XII.

## SPECIPIC CHARACTER.

Geranium foliis carnofis, pinnatis; caulis fruticofus, ramofus, fragilis; petalis linearibus, pedunculis erectis.

Geranium with flefhy winged leaves; ftem fhrubby, branched and brittle; petals linear, fruit-ftalks upright.

## REFERENCE TO THE PLATE.

1. The Empalement cut open, to fhew its tubular fhape to its bale.
2. The Chives, and Pointal, (natural fize).
3. The Pointal, (magnified).

The Geranium fragile has in general feven fertile tips, and thus comes under Linnæus's firft arrangement; and Monf. L'Heritier's Genus Pelargonium. It is a native of the Cape of Good Hope, and was introduced by Meffrs. Lee and Kennedy in the year 1792. This plant feldom grows more than a foot high, but during the months of July, Auguft, and September, it is covered with bloffoms, which are of a pale yellow, ftriped at the bottom with red, ftanding nearly upright. It is rather a tender plant, requiring a dry ftove, or hothoufe, to preferve it in winter, being very fubject to damp in the leaves; is eafily propagated by cuttings, and thrives beft in rich mould.


" $\quad$ "


## GLADIOLUS PR $\mathbb{E} C O X . V a r$. flore mbro.

## Red early-flowering Gladiolus.

CLASS III. ORDER I.<br>TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Corolea 6-partita, ringens. Stamina adícendentia.

Blossom fix divifions, gaping. Chives afcending.

See Plate XI. Gladiolus roseus.

## SPECIFIC CHARACTER.

Gladiolus foliis enfiformibus, apicibus tortis, lineari-cruciatis; corollis fub-campanulatis, rubris; petalis acuminatis.

Gladiolus with fword-fhaped leaves, twifted at the ends, linear, and crofs-fhaped; bloffoms nearly bell-fhaped, and red; petals tharppointed.

## REFERENCE TO THE PLATE.

1. The two Sheaths of the Empalement.
2. A Bloffom cat open, to expofe the fituation of the Chives.
3. The Pointal, one of the Summits magnified.
4. A seed.
$O_{\text {r }}$ all the fpecies of this numerous Genus, this is the firft to expand its bloffoms, feldom flowering later than April; is extremely hardy, fcarce requiring the warmth of a greenhoufe for its protection, although a native of the Cape. About the year 1791, the bulbs of this plant were purchafed of Meffrs. Voorhelm, and Co. of Haarlem, in Holland, by Meffrs. Lee and Kennedy, Hammerfmith, at whofe nurfery it has repeatedly flowered, and where this figure was taken. It is propagated by the root, as other Gladiolus, and requires the fame earth, a light fandy peat.

## PLATE XXXIX.

## ECHIUM FEROCISSIMUM.

## Prickly Viper's Buglofs.

## CLASS V. ORDER I.

pentandria monogynia. Five Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

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

## SPECIFIC CHARACTER.

Echium caule fruticofo; ramis, foliifque acu. leatis; floribus fpicatis, violaceis; corollis fub-æqualibus.

Viper's Buglofs, with a Ahrubby ftem; branches and leaves covered with fharp prickles; flowers growing in fpikes, and violet coloured; bloffoms nearly equal.

## REFERENCE TO THE PLATE.

1. The Empalement.
2. A Bloffom cut open, to fhew the infertion of the Chives in the tube.
3. The Shaft and its Summit, magnified.

Although there are few fecies of this genus, but are rough, or hairy; yet this by far exceeds any of them, or almoft any other plant not actually finy, for its extreme coarfenefs to the touch; never. thelefs it is a very handfome fhewy greenhoufe 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 Meffrs. Lee and Kennedy in 1794; at whofe nurfery it flowered for the firf 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 courfe, this, as well as the other fpecies, are very fcarce: they delight moft in rich light mould.


## PLATE XL.

# CHELONE CAMPANULOIDES. 

Bell-flowered Chelone.

CLASS XIV. ORDER II.<br>didynamia angiospermia. Two Chives longer. Seeds covercd.

ESSENTIAL GENERIC CHARACTER.

Calyx 5 -partitus. Rudimentum filamenti quinti inter fuprema ftamina. Capfula bilocularis.

Empalement of five divifions. The rudiment of a fifth thread is found placed between the upper chives. Capfule of two cells.
See Plate XXXIV. Chelone Ruellioides.

## SPECIFIC CHARACTER.

Chelone foliis oppofitis, feffilibus, acuminatis, profunde ferratis; corollis campanulatis, purpureis.

Chelone with oppofite leaves fitting clofe to the ftem, tapering to the point, and deeply fawed; bloffoms bell-fhaped, and purple.

## REFERENCE TO THE PLATE.

1. A Bloffom cut open, to fhew the fituation of the four Chives, and fation of the fifth imperfect thread.
2. The Pointal, (natural fize).
3. The Seed-veffel, with the Empalement and Shaft ftill remaining attached.

Thrs fpecies of Chelone is of the fame date in our gardens as the Chelone Ruellioides, and was introduced through the fame medium: it is a native of Mexico in South America; will make a pretty addition to our greenhoufe exotics; and is defrribed and engraved by A.J.Cavanilles, in his firft volume of Spanifh plants. It feems to thrive beft in rich, dungy earth, and is eafily propagated by cuttings, or feeds; 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 fuppofe for the firft time in England) in the colleation of B. Robertion, Efq. of Stockwell in Surry, and kindly communicated by him to the author.


# PLATE XLI. LACHENALIA PENDULA. Drooping-flowered Lachenalia. 

CLASS VI. ORDER I.<br>hex andria monogynia. Six Chives. Onc Pointal.

## GENERIC CHARACTER.

Calyx, nullus.
Corolla monopetala, cylindracea, fexpartita; tubus gibous; laciniis tribus exterioribus brevioribus.
Stamina. Filamenta fex, fubulata, longitudine corollæ, inferta bafi laciniarum corollæ. Antheræ oblongæ, incumbentes.

Pistillum. Germen trigonum, trifulcum. Stylus fimplex, corolla paulo longior. Stigma obtufum.
Pericarpiùm. Capfula triquetra, trilocularis, trivalvis.
Semina plurima, globofa.

Empalement, none.
Blosson one leaf, cylindrical, divided into fix; tube gouty; the three outer divifions the fhorteft.
Chives. Threads fix, awl-fhaped, the length of the bloffom, fixed into the bafe of the divifions of the bloffom. Tips oblong, laying on the threads.
Pointal. Seed-bud three-fided, three-furrowed. Shaft fimple, a little longer than the blof. fom. Summit blunt.
Seed-vessel. Capfule three-fided, three cells, three valves.
Seeds many, globular.

## SPECIFIC CHARACTER.

Lachenalia foliis longiffimis, ovato-oblongis, immaculatis; corollis feciocifimis, maximis, tricoloratis, pedunculatis, cernuis.

Lachenalia with very long egg-fhaped oblong leaves, without fpots; bloffoms very fhewy, large, three-coloured, having foot-ftalks, and nodding.

## REFERENCE TO THE PLATE.

1. A Flower fpread open, to thew the infertion of the Chives.
2. The fame, exhibiting the character of the outer Petals.
3. The Pointal, natural fize.

Tre genus Lachenalia is certainly an infringement on Hyacinthus; the fmall diftinetion on which this new genus is founded can, at moft, be confidered but of fufficient confequence to form a fpecific character; fo thought Linnæus: the fon of Profefior Jacquin has thought otherwife, having called it after a botanift 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 fuch weight to corroberate our opinion. The Lachenalias are natives of the Cape of Good Hope, yet are of fo hardy a nature as to require no farther protection than fhelter from the feverc frofts. Our fpecies is the bandromeft jet known, flowering about September; was, according to the Kew catalogue, introduced there by Mr. F. Maffon in the year 1774: It was from a plant in the extenfive collection of G. Hibbert, Eiq. Clapham Common (to whole kind communications the author acknowledges himfelf much indebted), that this figure was taken, the latter end of September this year. No plant is more eafy or certain to increafe than this; the young offsets are produced in fuch abundance from the old bulb, which delights in a light foil; but its flowering is not fo certain.

a reingendula

# PLATE XLII. <br> ORCHIS CILIARIS. <br> Fringed Orchis. 

CLASS XX. ORDER I.<br>gYnandria diandria. Chives on the Pointal. Two Chives.

## GENERIC CHARACTER.

Calyx. Spathæ vagæ. Spadix fimplex. Perianthium nullum.
Cororla. Petala quinque; tria exteriora; duo interiora furfum conniventia in galeam.

Netarium monophyllum, a latere inferiore inter divifuram petalorum receptaculo affixum. Labio fuperiore erecto, breviffimo. Labio inferiore magno, patente, lato. Tubo poftice corniformi, nutante.

Stamina. Filamenta duo, tenuiffima, brevifflma, piffillo infidentia. Antheræ obovatæ, erectæ, tectæ duplicatura biloculari labii fuperioris nectarii.

Pistillum. Germen oblongum, contortum, in. ferum. Stylus adnatus labio fuperiori nectarii, breviffimus. Stigma compreffum, obtafum.
Pbricarfium. Capfula oblonga, unilocularis, tricarinata, trivalvis; fub carinis trifariam dehifcens, apice et bafi cohærens.

Semisa numerofa, minima.

Empalement. Sheaths fcattered. Fruit-ftalk fimple. Cup none.
Blossom. Petals fire; three outer ones; two inner ones approaching upwards in form of a helmet.
Honey-cup one leaf, fixed by the lower fide to the receptacle betwixt the divifion of the petals. Upper lip upright, and very fhort. Lower lip large, fpreading, broad. Tube flanding behind, thaped like a horn, and hanging down.
Chives. Two threads, very flender, and very fhort, fixed on the pointal. Tips inveriely egg-fhaped, upright, covered by a folding of the upper lip of the honey-cup, forming two cells.
Pointal. Seed-bud oblong, twifted, and beneath. Shaft fixed to the upper lip of the honey-cup, very fhort. Summit flattened, and blunt-ended.
Seed-vessel. Capfule oblong, of one cell, three keels, three valves; fplitting in three places under the keels; faftened at the point, and the bafe.
Seeds numerous, very fimall.

## SPECIFIC CHARACTER.

Orchis with roots nearly hand-fhaped, fpreading; lip of the honey-cup lance-fhaped, and fringed, horn twifted, very long; flowers yellow.

## REFERENCE TO THE PLATE.

1. The Honey-cup with its Horn.
2. The upper Petal.
3. A fide 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.
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# PLATE XLIII. <br> 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 longiffima, fubtus ventricofa; limbus quinque partitus; laciniis duabus fuperioribus reflexis; inferioribus patulis.
Stamina. Filamenta quatuor, fubulata, corolla breviora, quorum duo reliquis longiora. Antheræ reflexæ, oblongæ, velut dupli. catæ。
Pistillum: Germen oblongum. Stylus filiformis, fitu et figura ftaminum. Stigma capitátum.
Pericarrium. Siliqua bilocularis, bivalvis.
Semina plurima, imbricata, compreffa, utrinque membranaceo alata.

Empalement. Cup one leaf, upright, cupfhaped, and cut into five divifions.
Blossom of one bell-fhaped petal; tube fmall, the length of the cup; mouth very long, fwelled at the bottom; border of five divifions; the two upper fegments reflexed, the lower ones fpreading.
Chives. Threads four, awl-fhaped, fhorter than the bloffom, two of which are longer than the others. Tips bent back, oblong, and appear doubled.
Pointal. Seed-bud oblong. Shaft threadfhaped, of the fame fituation and fhape 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 fide.

## SPECIFIC CHARACTER.

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

Trumpet Flower with fingered leaves; the fmall leaves entire, egg-fhaped, tapered; ftem upright, growing to a tree; with flowers like the oleander; feed winged.

## REFERENCE TO THE PLATE.

1. The Empalement.
2. A Bloffom cut open, fhewing the proportionate length of the Chives to the Bloffom, and their infertion; one of the Tips detached, and magnificd.
3. The Pointal, (natural fize); the Summit detached, and magnified.

This fpecies of Bignonia is well known in moft collections of hothoufe plants, and was firft introduced to the Chelfea gardens by Mr. P. Miller, the then gardener, in 1759, and may be found defcribed in his Dictionary; but, notwithftanding its frequency, few have feen its bloffoms. Owing to the naked appearance of the ftem, and its growing to fo confiderable a height before it flowers, and that but rarely, has rendered it a plant but of little confideration; though perhaps, from the great beauty of its bloffoms, it deferves more attention. Being a native of the Weft Indies, it does not flourifh without the affiftance of $\tan$ heat; but will live in any fituation of the hothoufe; thriving beft in a mixtare of loam and peat, and is readily propagated by cuttings. It was from a plant in the feleet and valuable collection at Paddington, belonging to the Hon. Dowager Lady De Clifford (to whom the author, as well as all the cultivators and profeffors of the fcience, ftand much indebted for the zeal and patronage which her lady fhip has thewn, in her endeavours to promote it), that this figure was taken in July this prefent year 1798.


# IXIA CINNAMOMEA. <br> Cinnamon-fmelling Ixia. 

## CLASS III. ORDER I.

triandria monogynia. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER

Cororla 6-petala, patens, equalis. Stigmata tria, erectiufculo patula.

Blossom fix petals, fpreading, and equal. Sum mits three, nearly upright, fpreading.

See Ixia reflexa, Plate XIV.

## SPECIFIC CHARACTER

Inia foliis falcatis, crifpis; floribus alternis, noctiflorens, cinnamomi odore.

Ixia with fcimitar-fhaped leaves, waved at the edge; flowers alternate, blowing at night, and fmelling of cinnamon.

## REPERENCE 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 Bloffom, the border cut off, (magnified).
4. The Shaft, Summit, and Seed-bud, (magnified).

Amongst this moft extenfive genus no fpecies ftands more diftinet than this. The extreme fweetnefs and delicacy of its bloffoms, which expand only by night, and clofe in the morning, give it a decided fuperiority over many of its congeners. Thunberg, who faw it at the Cape, has defcribed it under the name it here bears; but till the year 1792 we had no knowledge of it, when it was firft introduced by Meffrs. Lee and Kennedy, Hammerfmith, from the Cape of Good Hope; at whofe nurfery it flowered the following year; where it continues to blow annually, and whence this figure was taken. It is rather a tender bulb, fmall, and eafily rotted; fhould therefore be placed in the warmeft part of the greenhoufe, and kept dry when out of flower; is rather difficult to increafe, as each bulb feldom produces more than one offset, nor that always, and rarely feeds.

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# PLATE XLV. <br> IRIS LONGIFOLIA. <br> Long-leaved Iris. 

## CLASS III. ORDER I.

triandria monogynia. Three Chives. One Pointal.

## GENERIC CHARACTER。

Calyx. Spathæ bivalves, flores diftinguentes, perfiftentes.
Corolla fexpartita; petala oblonga, obtufa, tria exteriora reflexa, tria interiora erecta, acutiora; omnia unguibus conata.

Stamina. Filamenta tria, fubulata, petalis reflexis incumbentia. Antheræ oblongæ, rectæ, depreffe.
Pistillum. Germen inferum, oblongum. Stylus fimplex, breviffimus. Stigma maximum, tripartitum, laciniis petala mentientibus, latis, reflexis, ftamina et petala alterna deprimentibus, apicibus bifidis.
Pericarpium. Capfula oblonga, angulata, trilocularis, trivalvis.
Semina plurima, ovata, glabra.

Empalement. Sheaths of two valves, feparating the flowers, permanent.
Blossom with fix divifions; petals oblong, blunt, the three outer ones reflexed, the three inner ones upright, and flharper; all connected by the claws.
Chives. Threads three, awl-fhaped, laying on the reflexed petals. Tips oblong, ftraight, depreffed.
Pointal. Seed-bud beneath, oblong. Shaft fimple, very fhort. Summit very large, divided into three fegments, refembling petals, broad, bent back, and alternately preffing down the chives and petals, cleft at the ends.
Seed-vessel. Capfule oblong, angular, of three cells, and three valves.
Seeds many, egg-fhaped, and fmooth.

## SPECIFIC CHARACTER.

Iris foliis linearibus, canaliculatis, longiffimis, glancis; fcapus teres, multiflorus; radix bulbofus.

Iris with linear, channelled leaves, very long, and bluifh; flower-ftem 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 Meffrs. Voorhelm and Schnevoght, of Haarlem in Holland, about the year 1792. The leaves of this delicate Iris grow fometimes to the length of three feet, giving it a very fingular appearance: it fhould be treated like the Cape Ixias, and protected from the weather, whilft in bloom, as the flower is injured by the lighteft wind, and the duration of each bloffom is but a few hours; there is, however, a good fucceffion, which rife diurnally from the fane fheath, feldom more than one at a time. This figure was taken in the month of June 1797, at the Hammerfmith nurfery. It has a fingular mode of propagating itfelf; the old root dying, two young ones are formed above it, from whence the flowerftem arifes: feldom ripe feeds are produced.

# PLATE XLVI. <br> MASSONIA VIOLACEA. <br> Purple-flowered Mafonia. 

CLASS VI. ORDER I. hexandria monogynia. Six Chives. One Pointal.

## GENERIC CHARACTER.

Cazex, nullus.
Corolla fex-petala. Petala nectario impofita, lanceolata, patentia.
Ncitarium inferum, cylindricum, membranaceum.
Sramina. Filamenta fex, nectarii dentibus inferta, filiformia dectinata, petalis paulo longiora. Antheræ ovatx.

Pistillum. Germen (refpectu nectarii) fuperum. Stylus fubulatus, declinatus, longitudine, ftaminum. Stigma fimplex, acutum.
Pbricafifiem. Capfula triquetra, glabra, trilocularis, trivalvis, angulis dehifcens.

Semina plurima, globofa, glabra, magnitudine feminum finapios.

Empalbment none.
Blossom fix-petals. Petals placed on the honeycup, are lance fhaped and fpreading. Honey-cup beneath, cylindrical and 1kinny.

Chives. Six threads, fixed into the teeth of the honey-cup, thread-flhaped, bent downward, and a little longer than the petals. Tips egg-haped.
Pointal. Seed-bud (with regard to the honeycup) above. Shaft awl-fhaped, and bent downward the length of the chives. Summit fimple, and pointed.
Seed-vessel. Capfule three-fided, and frmooth, of three cells and three values, fplitting at the angles.
SEEDS many, globular, fmooth, the fize of a muftard feed.
SPECIfic Character.
Maffonia with fpatula - fhaped, and finooth leaves; flower-ftalk thread-thaped, upright, two inches high; the flowers have foot-ftalks, are of a violet colour, and grow fcattered; the foot-ftalks have each but one flower.

## REFERENCE TO THE PLATE.

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

Tais genus of plants perpetuates the name, as a botanift, (would it could likewife the mild, unaffuming, and univerfally allowed amiablenefs of character) of Mr. Francis Maffon, botanical collector to his Majefty; now exploring the untrod regions of North America, to add to the extenfive collections of his royal and munificent Mafter, which fland fo much indebted to his indefatigable induffry for their prefent fplendour. The Maffonias are all rather tender, and require the fame fituation as Hæmanthus \&c; that is, a dry ftove; they are natives of the Cape of Good Hope, or, at leaft, grow within that point of Africa generally fo called, but at fome diftance from the Cape town, near a mountain (according to Thunberg) of the name of Bocklands Berg. The root of this fpecies is very fubject to rot when the leaves are decayed, if watered at that time; therefore, like the Ixias, fhould be put afide, or taken out of the pot for two or three months, after flowering. It is very difficult to propagate, as the feeds are feldom 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, Efiq. Clapham Common. It appears to thrive beft in a mixture of peat and fandy loam.

# PLATE XLVII. MUSA COCCINEA. 

# CLASS XXIII. ORDER I. 

## polygamia monoecia. Various difpofitions. Upon one Plant.

## GENERIC CHARACTER.

## Hermapliroditi feminei flores.

Calyx. Spatha partialis ovato-oblonga, planoconcava, magna.
Corolla inæqualis, ringens; petalo conftituente labium fuperius, nectario vero labium inferius.
Petalum erectum, ligulatum, quinquedentatum, bafi antice connivens.
Nectarium monophyllum, naviculare, petalo, brevius, intra finum petali infertum.
Stamina. Filamenta fex, fubulata erecta, petalo dimidio breviora. Antheræ abortivæ.
Pistillum. Germen infra receptaculum foris, maximum, longiffimum. Stylus erectus, longitudine petali. Stigma capitatum, fubrotundum.
Pericarfium. Bacca carnofa, corio tecta, longiffima, pulpa trifariam, abique diffepimentis.
Semina plurima, globofa.

## Hermapliroditi mafculi flores.

Calyx ut in feminæo.
Corolla ut in feminæo.
Stamina. Filamenta ut in feminæo, at longiora, tenuiora. Antheræ lineares, fulcatæ, erectæ, magnæ.
Pistillum. Germen ut in feminæo, ut minus. Stylus, et ftigma ut in fæmineo, at minora.
Pericarpium abortit.

Hermaphrodite flowers, where the female parts are perfect.
Empalement. Partial theath oblong, egg. thaped, fmoothly-concave, and large.
Blossom unequal and gaping; the petal forming the upper lip, the honey-cup the under.
$P_{\text {etal }}$ upright, ligulate, five-toothed, and meeting at the bale in front.
Honey-cup one leaf, thip-fhaped, thorter than the petal, and inclofed within it.
Chives. Threads fix, awl-fhaped, upright, thorter 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 flefhy berry, covered with a tough 1 kin, 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 fame as in the female, but fmaller. Shaft and fummit like the female, but fmaller.
SEed-vessel is abortive.

## SPECIFIC CHARACTER.

Mura fpadice erecto; floribus capitatis; fpathis confertis, coccineis, maximis, apicibus lu-

Planiain-tree with an upright fruit-fialk; flowers growing in heads; theaths crowded together, fcallet, very large, points yellow.

## REFERENCE TO THE PLATF.

1. The upper lip of the bloffom, fhewn in front, as cut off clofe to the feed-bud.
2. The fame, fhewing the hinder parts, with the three fmall claws on the border.
3. The honey-cup, which forms the lower lip of the bloffom.
4. The feed-bud, chives, ftyle, and fummit, of a female hermaphrodite flower.
5. A feed-bud cut obliquely, to expofe the fituation character of the feeds.
6. The chives, feed-bud, fhaft, and fummit, of a male hermaphrodite flower.

The honour of having introdnced this fupremely beautiful plant, pertains to, Thomas Evans Efq. of Stepney; a gentleman to whofe zeal for the introduction of new plants our tioves are of late much beholden; he having received it, amongft many others, about the year 1792 from China, where, as well as in Cochin-China, Sumatra, Java, \&cc. it is very commonly found. Our figure was taken, in part, from a plant which flowered at James Vere's, Efq. Kenfington Gore, laft December, and partly, from one in bloffom about the fame time, at the Hon. Lady Archer's, Ham Common. The Mula Coccinea grows to the height of about three, or four feet before it blows, and without queftion, has no rival but Strelitzea Regina in the hothoufe, where its brilliancy, tends in fome degree, to difpel the gloom of winter, for at leaft three months. It increafes itfelf by fuckers, which are thrown up in abundance from a vigorous plant; may be taken off at any time, and will arrive, at a flowering fize in twelve months; if planted in rich earth, and kept growing in pine heat, or on a ftrong hotbed.



## PLATE XLVIII.

## IXIA BULBIFERA. Var: flore luteo.

## Bulb-bearing Ixia. Var: yellow-flowered.

CLASS III. ORDER I.<br>Triandria monogynia. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Comolra 6 -petala, patens, æqualis. Stigmata tria, erectiufculo patula.

Blossom fix petals, fpreading, and equal. Summits three, nearly upright, and fpreading.

See Ixia reflexa, Plate XIV.

## SPECIEIC CHARACTER.

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

Ixia with fcimitar-fhaped leaves, fmooth, and fhorter than the flower-ftem, bearing bulbs at their infertion into the flalk; 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 fingular fporting of Nature in the Ixia bulbifera is not uncommon; its viviparous charater (if it may be fo called) conftitutes a fpecific difference in many genera; Lilium, Lyfimachia, \&cc. partake of it. The bulbs produced from the ftem blow the fecond year, whereas thofe from feeds do not till the third. The flowers of this variety are the firft that open, amongit the numerous fpecies yet introduced, of this extenfive genus; they are of a brilliant yellow, and feldom expand more than one at a time. The ufual treatment of other Cape Ixias is fuitable for this. The drawing was made at Meffrs. Lee and Kennedy's, in the month of March 1798, they having introduced it about the year 1784.


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# PLATE XLIX. <br> MALPIGHIA CRASSIFOLIA. <br> Thick-leaved Malpighia. 

CLASS X. ORDER III.<br>decandria trigynia. Ten Chives. Three Pointals.

## GENERIC CHARACTER.

Calyx. Perianthium pentaphyllum, erectum, minimum, perfiftens, connivens. Glandulæ melliferæ dux, ovales gibbæ, foliolis calycinis externe inferneque adnatæ.

Corolla. Petala quinque, reniformia, magna, plicata, ciliata, patentia, concava; unguibus longis, linearibus.
Stamisa. Filamenta decem latiufcula, ereefa, in cylindrum pofita, parva. Antheræ cordatæ.
Pistileum. Germen fubrotundum, minimum. Styli tres, filiformes. Stigmata obtufa.

Pericarpium. Bacca globofa, torulofa; magua, unilocularis.
Semina tria, offea, oblonga, obtufa, angulata.

Empalembet. Cup five leaves, upright, very fimall, remaining and clofing 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-fhaped, large, plaited, lafhed, fpreading, and concave; claws long, linear.
Chives. Threads ten, rather broad, upright, placed cylindrically, and fmall. Tips heartfhaped.
Pointal. Seed-bud nearly round, very fmall. Shafts three, thread-fhaped. Summits blunt.
Pericarpium. Berry globular, knobby, large, of one cell.
Seeds three, bony, oblong, blunt, and angulated.

## SPECIFIC CHARACTER.

Malpighia foliis lanceolato ovatis, fubtus tomentofis, integerrimis; floribus terminalibus, ficatis, pallide-luteis.
beneath, and entire; flowers terminate the branches in fpikes, and are pale yellow.

## Reference to the plate.

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

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## PLATE L.

IXIA CAPITATA. Var: flore aurantio.
Bunch-flowering Ixia. Var: Blofom gold colour.

## CLASS III. ORDER I.

trlandria monogynia. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Corolla 6-petala, patens, æqualis. Stigmata tria, erectiufculo-patula.

Blossom fix petals, fpreading, and equal. Summits three, nearly upright, and fpreading.

See Plate XIV. Ixia reflexa.

## SPECIFIC CHARACTER.

Ixia foliis radicalibus, enfiformibus; floribus capitatis, confertis, aurantiis, petalis bafi obfcuris.

Ixia with leaves growing from the root, and fword-fhaped; bloffoms grow in a clofe bunch, gold coloured, and the petals dark at the bafe.

## 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).

Tais variety of Ixia capitata was introduced at the fame time as the Ixia bulbifera, flore luteo, vir. in 1784, by Meffrs. Lee and Kennedy, Hammerfmith, from the Cape of Good Hope, and requires the fame treatment. It flowers the latter end of May, or beginning of June; propagating itfelf abundantly by the root, which produces annually numerous young bulbs.


# PLATE LI. XERANTHEMUM SPECIOCISSIMUM. <br> Largef-flowering Everlafting Flower. <br> CLASS XIX. ORDER II. 

## syngenesla polygamia superflua. Tips united. Superfluous Pointals.

## GENERIC CHARACTER.

Cslyx. Communis imbricatus; fquamis lanceolatis, quarum intimæ difco longiores, membranaceæ, nitidæ, radium conftituentes.
Corolea. Compofita inæqualis; corollula hermaphroditæ plurimæ, tubulofæ in difco. Feminex pauciores, tubulatæ, in ambitu.

Propria hermaphroditis infundibuliformis, calyce longe brevior; limbo quinquefido, patulo.
Femineis tubulofa, longitudine hermaphroditi, quinquefida, minus æqualis.

Stamixa. Hermaphroditis filamenta quinque, breviffima. Anthere cylindracea, tubulofa, longitudine fere corollulæ.
Pistillum. Hermaphroditis germen breve. Stylus filiformis, ftaminibus longior. Stigma bifidum.
Femineis germen ut in hermaphroditis. Stylus filiformis, longitudine hermaphroditorum. Stigmata duo, oblonga reflexa.

Penicarpium nullum. Calyx vix mutatus.
Semina oblonga, coronata.
Receptaculum nudum, planiufcalum, punctaturn.

Empalement. Common tiled; feales fpearfhaped, the inner ones longer than the difk, fkinny, thining, and forming the ray of the flower.
Blossom. Compound, unequal; florets with chives and pointals numerous and tubular in the difk. Female florets fewer, and tubular in the circumference
Individuals with chives and pointals funnelfhaped, much fhorter than the empalement; border with five clefts, fpreading.
Individuals with only pointals, tubular the length of the hermaphrodites, five cleft, and rather fmaller.
Chives. The threads in the hermaphrodites are fiye, and very finall. Tips forming a cylinder, tubular alinoft the length of the florets.
Pointal. Seed-bud of the hermaphrodites fhort. Shaft thread-fhaped, longer than the chives. Summit cloven.
Seed-bud of the female florets the fame as the hermaphrodites. Shaft thread-fhaped the length of the hermapirodites. Summits two, oblong and bent back.
Sted-vessel none. Empalement farcely changing.
Serds oblong, and crowned with a feather.
Regeptacee naked, flatifh, and dotted.

## SPECIFIC CHARACTER.

Xeranthemum fruticofum, erectum; foliis amplexicaulibus, lanceolatis, trinerviis; ramis unifforis, fubundis.

Everlafting flower with an upright fhrubby frem; leaves embracing the ftem, lance-fhaped, and three-nerved; branches with one flower, and nearly naked.

## REFERENCE TO THE HLATE.

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

This handfome fecies of Xeranthemum was introduced, according to the Kew catalogue, by Mr. F.. Maffon from the Cape of Good Hope, in the year 1787; it is, neverthelefs, a very icarce plant, being fubject to decay from our winter damps; therefore requires a dry ftove for its protection. The blof. forns (or rather the flower-cups, for they are the perfiftent parts) are eafily preferved for many years, in all their brilliancy, by cutting them, when they firft expand; but our atmofphere feems uncongenial to the ripening of their feeds, and is with great difficulty increafed by cuttings. The foil it moft approves is fandy peat, with a fmall portion of loam. Our figure was taken in September laft year, at the Hammerfmith nurfery.


## Noun


A



# PLATE LII. <br> GNIDIA PINIFOLIA. <br> Pine-leaved Gnidia. 

## CLASS VIII. ORDER I. octandria monogynia. Eight Chives. One Pointal.

## GENERIC CHARACTER.

Calyx. Perianthium monophyllum, infundibuliforme, coloratum; tubo filiformi, longiffimo; limbo quadripartito, plano.
Corolra. Petala quatuor, feffilia, plana, calyce breviora, eique inferta.

Stamiva. Filamenta octo, fetacea, erecta, longitudine fermè floris. Antheræ fimplices.

Pistillum. Germen ovatum. Stylus filiformis, germinis lateri infertus, longitudine faminum. Stigma capitatum, hifpidum.

Pericafpium nullum. Fructus in fundo calycis.
Semex unicum, ovatum.

Emfalement. Cup one leaf, funnel-fhaped and coloured; tube thread-hhaped, very long; border of four fegments, which are flat.
Blossom. Petals four, fitting clofe to the cup, flat, fhorter than the cup, and fixed within it.
Chives. Threads eight, awn-like, upright, fcarcely the length of the flower. Tips fimple.
Pointal. Seed-bud egg-fhaped. Shaft threadfhaped, fixed into the fide of the feed-bud, and of the length of the chives. Sumnit headed, and hairy.
Seed-vessel none. Fruit in the lower part of the cup.
Seed one, egg-fhaped.

## SPECIFIC CHARACTER.

Gnidia, feliis fparfis, lineari-fubulatis; ramis verticillatis; floribus aggregatis, terminalibus.

Gnidia with fcattered, linearly awl-maped leaves; brathes grow in whorls; the flowers termi. nating the branches in clufters.

## REFERENCE TO THE PLATE.

1. A Flower with its feed, (natural fize).
2. The fame cut open, to fhew the fituation and infertion of the Chives into the tube of the Empalement.
3. The Pointal, (magnified).

The effential diftinguifhing character, in Pafferina, Gnidia, Struthiola, and Lachnæa, muft certainly be confidered as amonght the flighteft generic divifions made by Linnæus. It is no fmall difficulty to diftinguifh the bloffom in Gnidia, and Lachnæa, from the empalement in Pafferina, and Struthiola; the fame exact natural ftructure being alike in them all; and to us, appear noticeable in their fmall variations, rather as forming fpecific, than generic diftinctions. As our plan is not to alter, upon any terms, what has been determinately fettled by that great mafter in the arcana of nature, let our opinions be what they will; we are determined to prevent confufion (which has been but little attended to of late), to give it only as fuch, without prefuming upon alteration. But as in the prefent in. ftance, when a plant long named, but otherwife unknown to cultivators, has unfortunately been foitted from its rank by another, no ways anfivering to the characters of the defcriber; we fhall confider it as our particular province to rectify the miftake, however generally the error may have obtained. -The Gnidia pinifolia is a native of the Cape of Good Hope, the feeds having been received from thence in 1795, by Meffrs. Lee and Kennedy, Hammerfmith, at whofe nurfery it has flowered, for the firft time in England, in the month of February this year, and where the drawing was taken. It is a hardy greenhoufe plant, but is propagated with difficulty by cuttings; growing to the height of eighteen inches, being moft exquifitely fcented by night, continuing in flower at leaft three months, and thriving beft in a light peat foil.

A figure of the plant generally known by the name of $\mathcal{G}$. pinifolia, will be given with the next number; to the end our affertions may be properly inveftigated.


## PLATE LIII.

## MIMOSASTRICTA. Hargh-leaved upright Mimofa.

CLASS XXIII. ORDER I.

## polygamia monoecia. Various difpofitions. Upon one Plant.

## GENERIC CHARACTER.

Perianthium monophyllum, quinquedentatum, minimum.
Corolla. Petalum unicum, infundibuliforme, femiquinquefidum, parvum.
Stamina. Filamenta capillaria, longiffima. Antheræ incumbentes.
Pistileum. Germen oblongum. Stylus filiformis, ftaminibus brevior. Stigma truncatum.
Pericarpium. Legumen longum, diffepimentis tranfverfis, pluribus.
Sbmina plurima; figura varia.

Empalement. One leaf, five-toothed, and very fmall.
Blossom. One petal, funnel-fhaped, cut half way down into five divifions, and fmall.
Chives. Threads like fine hairs, and very long. Tips laying on the threads.
Pointal. Seed-bud oblong. Shaft threadfhaped, fhorter than the chives. Summit appearing cut off.
Seed-vessel. A long pod, the partitions run acrofs the pod, and are numerous.
Seeds many; of different fhapes.

## SPECIFIC CHARACTER.

Mimofa foliis fimplicibus, utrinque venofis, linearibus, obtufis; ramis ftrictiffimis; capituli geminati, oppofiti, ex alis foliorum.

Mimofa with fimple leaves, veiny on both fides, linear, and blunt ended; branches growing clofe and upright; flower heads grow by pairs, oppofite, and at the infertion of the leaf into the ftem.

## REFERENCE TO THE PLATE.

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

This fpecies of New Holland Mimofa, has as yet, efcaped even the indefatigable, and accurate Dr. Smith; it is from Port Jackfon, whence the feeds were tranfmitted by Colonel Paterfon in the year 1793. Being eafily raifed, it is found in moft collections; the feeds preferving their vegetative quality many years, and ftriking readily by cuttings. It has the peculiar character attached to the Mimolas of that country, viz. winged feed-leaves, which are loft after the firft year's growth. This fecies bas no fmell, and grows to the height of three or four feet before it flowers; perfectly ftraight and compalt, from which circumftance we have taken its trivial name.


# CLASS VI. ORDER I. hexandria monogynia. Six Chives. One Pointal. 

## GENERIC CHARACTER.

Calyx, nullus.
Conolla, monopetala, oblonga; limbi laciniis lanceolatis, acuminatis, erectis; perfiftens.

Stamina. Filamenta fex, fubulata, longitudine corollx, inferta bafi laciniarum corollæ. Antheræ oblongæ, erectæ.

Pistillum. Germen ovatum. Stylus fubulatus, longitudine faminium. Stigma trifidum.
Pericarpium. Capfula ovata, triquetra, acuminata, trilocularis.
Semina plurima.

Empalement, none.
Blossom, one leaf, oblong; the fegments of the border are lance-fhaped, tapering, and upright; remaining.
Ceives. Threads fix, awl-fhaped, the length of the bloffom, and inferted into the divifions of it, at the bafe. Tips oblong, upright.
Pointal. Seed-bud egg-fhaped. Shaft awlfhaped, the length of the chives. Summit three-cleft.
Sbed-vessel. Capfule egg-fhaped, three-fided, tapered, and of three cells.
Seeds many.
HARACTER.
Baftard Aloe, without a ftem; having fwordfhaped, weak leaves; flowers grow in fikikes of a foft red colour; roots producing fuckers from the joints.

## REFERENCE TO THE PLATE.

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

Tars fpecies of Aletris was introduced to us, from the Cape of Good Hope, about the year 1789; it is a hardy plant, requiring the fame management as Aletris Capenfis, that is, to be kept in a dry part of the greenhoufe; although the plant fhould be frequently watered when in bloom, as fhould moftly all plants, notwithftanding (as in the prefent inftance is the cafe) their flowering in the winter months. This caution we have thought neceffary, as it is a general rule with gardeners during that feafon, to put as little moifture as poffible to their plants, whether in flower or not, to avoid damps. The little difficulty in propagating this handfome fpecies of Aletris, will render it foon common; the roots grow nearly horizontally, and from their joints numberlefs young plants are produced; which character we were defirous of expreffing in the figure, as from thence we have taken our trivial name; but from the fize of the work, it was found impracticable. The drawing was made in December 1798, from a plant then in flower, at the Hammerfmith nurfery: we are neverthelefs informed, that from being planted in a light, rich foil, it may be made to grow to the height of three feet; with a fpike of flowers, one fourth the length of the flower-ftem.

# PLATE LV. ZINNIA VIOLACEA. Purple Zimia. 

## CLASS XIX. ORDER II. syngenesia polygamia superflua. Tips united. Superfluous Pointals.

## generic character.

Calyx. Communis ovato-cylindricus, lævis, imbricatus; fquamis plurimis, obtufis, erectis, perfiftentibus.
Corolea. Compofita radiata; corollule hermaphroditæ plures in difco elevato. Femineæ plurimæ in radio.

Propria hermaphroditi infundibuliformis, quinquefida intus villofa.
Feminea ligulata, fubrotunda, retufa, perfiftens.
Stamina. Hermaphroditis; flamenta quinque, brevifima. Anthera cylindracea, tubulofa.
Pistillum. Hermaphroditis; germen oblongum, triquetrum. Stylus filiformis, femibifidus. Stigmata duo, obtufa.
Femineis; germen oblongum, triquetrum. Stylus capillaris, femibifidus. Stigmata duo, recurvata.
Pericarpidm. Calyx immutatus.
Semina. Hermaphroditis folitaria, oblonga, te-tragono-ancipitia. Pappus maconibus duobus.
Femineis folitaria, mutica, coronata petalo perfiftente.
Receptaculum paleaceum; paleis lingulatis, canaliculatis, longitudine calycis, deciduis.

Empalement. Common cylindrically eggfhaped, fmooth, and tiled; fcales 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 funnelfhaped, five-cleft, and hairy within.
Individuals with pointals only, ligulate, roundith, dented at the end, and remaining.
Chives. Hermaphrodites; five fhort threads. Tips forming a hollow cylinder.
Pointal. Hermaphrodites; feed-bud oblong, three-fided. Shaft thread-fhaped,fplit nearly half way down. Summits two, blunt. Females; feed-bud oblong, three-fided. Shaft hair-like, fplit half way down. Summits two, bent backward.
Seed-vessel. Cup not changing.
Seeds. Hermaphrodites; folitary, oblong, threefided, but tharp at two edges. Feather of two fharp points.
Females, folitary, without points, being crowned with the perfiftent petal.
Receptacle chaffy; chaff tongue-fhaped, channelled, the length of the cup, and falling off.

SPECIFIC CHARACTER.
Tinnia foliis oppofitis, amplexicaulibus, latolanceolatis, fcabris; floribus pedunculatis, purpureis, folitariis.

Zinnia with oppofite leaves, embracing the ftem, broadly lance-fhaped, and rough; flowers have foot-ftalks, are purple, and grow folitary.

## REFERENCETO THE PLATE.

1. The Empalement.
2. A Floret of the ray with the feed attached, (natural fize).
3. A Floret of the dink with the feed attached, (magnified).
4. The Chives and Pointal of an hermaphrodite floret
5. The chaffy fubftance dividing the florets.

This elegant new ppecies of Zinnia, is defcribed and figured by J. A. Cavanilles, in his firft volume of Spanifh plants; where he fays, it is a native of Mexico, South America, and was tranimitted from thence to the royal gardens, where it perfected its feeds. In the year 1796, the Marchionefs of Bute received it amongft many other curious feeds, from Madrid, through the medium of Profeffor Ortega. Being rather a tender annual, it fhould be fown in March, on a gentle hotbed; and tranfplanted into the open borders the begioning of May. The plant grows to the height of three feet or more, and makes in the months of Auguft and September, a very confiderable addition to the fplendor of the flower garden. The feeds ripen freely, though the flower fhould be plucked before it appears decayed.

## PLATE LVI.

# ANTHOLYZA SPICATA. <br> Spike-flowered Antholyza. 

## CLASS III. ORDER I. triandria monogyniA. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Conolla tubulofa, irregularis, recurvata. Capfula infera.

Blossom tubular, irregular, and bent backward. Capfule beneath.
See Plate XXXII. Antholyza ringens.

## SPECIFIC CHARACTER.

Antholyza, floribus infundibuliformibus, fpicatis, incarnato-pallidis; foliis falcatis, breviffimis.

Antholyza with funnel-fhaped, fpiked flowers, of a pale flefh colour; leaves fcimitarfhaped, and very fhort.

## REFERENCE TO THE PLATE.

1. The Empalement.
2. A Bloffom cut open, to fhew the infertion of the Chives.
3. The Pointal, (natural fize).

There are few fecies of this genus but furnifh beautiful flowers; this is certainly among the moft handfome, from the foftnefs of its colour, and the regularity of the fike: what adds confiderably to its merit, is, that the bloffoms remain a confiderable time before they fall, which unfortunately, is feldom the cafe with the flowers of this genus. It was received from the Cape of Good Hope in bulbs, fent by J. Pringle, Efq. of Madcira, in 1794, to Meffrs. Lee and Kennedy of Hammerfmith; the drawing was made in the month of June 1797 at their nurfery. Not being eafily injured by damp, there is no neceffity for removing it from its pot, as is neceffary for moft bulbs, but to increafe it; one, or two young bulbs being annually produced, in addition from the old one. The beft foil is a fandy peat, with a fmall proportion of loam.


# MESEMBRYANTHEMUM GLABRUM. <br> Smooth-leaved annual Fig Marygold. 

CLASS XII. ORDER IV.<br>icosandria pentagynia. Twenty Chives. Five Pointals.

## GENERIC CHARACTER.

Calyx. Perianthium monophyllum, femiquinquefidum, fuperum, patens, perfiftens.

Corolla. Monopetala; petala lanceolato-linearia, numerofiffima, ferie multiplici nata, calyce longiora, unguibus læviter connatis in unum.
Stamina. Filamenta numerofa, capillaria, longitudine calycis. Antheræ incumbentes.

Pistileum. Germen inferum, angulis quinque, obtufis. Styli quinque fæpius, fubulati, erecto-reflexi. Stigmata fimplicia.

Pericarpium Capfula carnofa, fubrotunda, loculamentis numero ftylorum refpondentibus.
Semina plurima, fubrotunda.

Empalement. Cup one leaf, cut nearly half way down into five divifions, above, fpreading, and remaining.
Blossom. One petal; petals linearly lancefhaped, very numerous, rifing in a number
 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 obtufe angles. Shafts moftly five, awl-fhaped, upright, and a little bent outwards. Summits fimple.
Seed-vessel. A flefhy capfule, nearly round, the cells anfwering to the number of the chives.
Sreds many, nearly round.

## SPECIFIC CHARACTER.

Mefembryanthemum foliis amplexicaulibus, gla. berrimis, fpathulatis; pedunculislongitudine foliorum; calycibus hemifphæricis; corollis luteis.

Fig Marygold with leaves embracing the ftem, very fmooth, and fpatula-fhaped; the footftalks the length of the leaves; cups hemifpherical; bloffoms yellow.

## REFERENCETOTHE PLATE。

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

As the extreme brilliancy of this plant cannot be done juftice to in painting, we muft reft fatisfied with having done our beft; every perfon in the leaft acquainted with the art, muft know, that in yellow the thining colour exifting in nature cannot be retained in a drawing. This fpecies is annual, and according to the Kew Catalogue, was introduced to the royal gardens by Mr. F. Maffon in the year 178\%. The feeds fhould be fown on a hotbed in the month of February, and by the end of Augurt the plants will flower, and continue to bloffom till the end of October; never failing to perfect their feeds.


# PLATE LVIII. BORONIA PINNATA. Hawthorn-fcented Boronia. 

## CLASS VIII. ORDER I. uCtandria monog ynia. Eight Chives. One Pointal.

## generic character.

Calyx. Perianthium quadripartitum; laciniis acutis, perfiffentibus.
Corolla. Petala quatuor, ovata, feffilia.
Necarriums coronx forma, excavatum, glandulofum.
Stamina. Filamenta octo, plana, ciliata, incurvata, receptaculo inferta. Anthere infra apicem filamentorum pedicillatæ, incumbentes.

Pistillum. Germen fuperum, conicum, quadrifulcatum. Stylus brevidimus, fimplex. Stigma capitatum, glabrum, fulcatum.
Pericalpium. Capfule quatuor, ovato-acuminatee, compreffe, margine introrfum coalite, apicibus diftantibus, futra fuperiori dehiicentes, bivalves.
Semina folitaria fepius, nitida, reniformia, arillata.

Emfalement. Cup with four divifions; fegments fharp pointed, and remaining.
Blossom. Petals four, egg-fhaped, fitting clofe to the cup.
Honey-cup of the fhape 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 infide of the threads, on fhort foot-ftalks, and lying on them.
Pointal. Seed-bud above, conical, and fourfurrowed. Shaft very fhort, and fimple. Summit headed, fmooth, and furrowed.
Serd-vessel. Capfules four, of a pointed eggfhape, flattened, joined by the interior edge, the points ftanding feparate, flitting from the upper future, two-valved.
Seeds moflly folitary, fhining, kidney-fhaped, and covered with an elaftic coat.

SPECIfic Character.

Boronia foliis impari-primatis, integerrimis; pedunculis axillaribus, dichotomis; filamentis apice obtufis, glandulofis.

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

## REFERENCE TO THE PLATE.

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

Tuis is the only fecies yet in our gardens, of a moft beautiful new genus of plants, natives of New South Wales, firlt named, defcribed, and with three other fpecies, figured in the Tracts relating to Natural Hilfory by Dr. F. E. Smith, F.R.S. P. L.S. Ef. Thus eternizing the name of an efteemed and faithful fervant, who by his ardour in botanical purfuits, had merited the honour; rejecting the ufual confidertions, riches, or learning, does the Dr. no lefs credit as a man, for the kindnefs of his heart, than what his diftinguifhed talents have gained him, by placing him in the firft botanical feat in this kingdom. In the thort hiftory of the unfortunate end of Borone, the Dr. informs us, he bad refigned him to Dr. Sibthorpe, as a moft fit perion to attend him in his laft journey through Greece; where. at Athens, he met his death, by an accidental fall from a balcony: the Dr. did not long furvive him.

The Boronia pinnata has much of the aromatic flavour of Diofma in its leaves and ftem; the flowers, which appear about February, and continue till May, have the fcent of the Hawthorn flower; it grows to a thrub of the height of eighteen inches, is propagated with difficulty by cuttings, and has not hitherto perfccted its feeds in this country; requiring a dry fituation in the greenhoufe, and flurifhes moft in light fandy peat. The figure was taken from a plant which flowered laft year, in tie nurlery of Melfrs. Lee and Kennedy, Hammerfmith, where it was railed from feeds in 1794.


## IXIA FISTULOSA.

Hollow-leaved Ixia.

## CLASS III. ORDERI. triandria monogynia. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolea 6-petala, patens requalis. Stigmata tria, erectiufculo-patula.

Blossom fix petals, fpreading, equal. Summits three, nearly upright, and fpreading.

See Ixia reflexa. Plate XIV.

## SPECIFIC CHARACTER.

Ixia foliis linearibus, fiftulofis; floribus fecundis, noctu fragrantes; bulbus campanulatus, margine acuto-fibrofo.

Ixia with linear, hollow leaves; flowers pointing one way, and fragrant by night; bulb bellflaped, the margin edged with ©harp fibres.

## REFERENCE TO THE PLATE.

1. The outer fpath of the Empalement.
2. The inner fpath 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 fubject to rot foon after the fiower decays, if not then removed from its pot, and dried; the flowers expand about four $o^{\prime}$ clock in the afternoon, and are fo extremely fragrant that they are fmelt at a confiderable diftance. 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 laft year at Meffrs. Lee and Kennedy's, Hammermith, who had fone of them in a prefent from her ladychip. Like other Ixias, it fhould be planted in light peat, and watered but feldom; its propagation is but now, as feldom more than one new bulb is produced, upon the decay of the old one.

## PLATE LX. <br> GERANIUM PUNCTATUM. Dotted-flowered Geranium.

## CLASS XVI. ORDER IV. Suppl. Syftem. Veget. 1781.

 MONODELPHIA DECANDRIA. Threads united. Ten Chives.
## ESSENTIAL GENERIC CHARACTER.

Monogyna. Stigmata 5. Fructus roftratus, $\|$ One Pointal. Five fummits. Fruit furnifhed 5.coccus.
with long awns, five dry berries.
See Geranium grandiflorum, Plate XII.

## SPECIFIC CHARACTER.

Geranium foliis radicalibus; floribus umbellatis, diandris; petalis duobus fuperioribus punctatis; fligmata quatuor.

Geranium with leaves growing from the root; flowers grow in umbels, two fertile chives; the two upper petals being dotted; fummits four.

## REFERENCE TO THE PLATE.

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

Perbaps amongft plants, there is no genus exhibits fuch varied and numerous fpecies as Geranium; no one, in which the fpecies are fo allied in natural character, or fo unfavourable to the fexual fyftem, if fome deviation from general rules was not allowed: the founder thought fuch licence neceffary, and we implicitly follow him. Thus far we have thought proper to extenuate in the prefent inflance; for fhould we follow Monf. L'Heritier, (as moft of the modern correctors of Linnæus have done,) a new genus muft inevitably be formed for this plant. Upon a clofe examination of the flowers, from a dozen different plants, invariably, only feven threads were found; two only with tips, and thofe placed immediately behind the thaft, whofe fummits were but four. This Geranium is rather tender, and requires a dry-ftove heat to make it flower, which it will readily do with fuch affiftance, in-April; about the beginning of which month, this year, a drawing was made from a plant in the collection of Meffrs. Lee and Kennedy. The roots or bulbs of this plant were firft received in England by Thomas Johnes, Efq. in the year 1794, in whofe magnificent confervatory at Havod they flowered the next year.


# PLATE LXI. <br> ASTER DENTATUS. <br> Toothed-leaved Starwort. 

CLASS XIX. ORDER II.<br>syngenesia polygamia Superflua. Tips united. Superfluous Pointals.

## GENERIC CHARACTER.

Calyx. Communis fquamofo-imbricatus; fquamis interioribus apice prominulis.
Corolla. Compofita radiata; corollulx hermaphroditæ numerofæ in difco; femineæ ligulatæ, decem plures in radio.

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

Stamna. Filamenta quinque, capillaria, breviffima. Anthera cylindracea, tubulofa.
Pistillom. Hermaphroditis; germen oblongum. Stylus filiformis, longitudine faminum. Stigma bifidum, patens.

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

Pericarpium nullum. Calyx vix mutatus.
Semina. Hermaphroditis folitaria, oblonga, ovata. Pappus pilofus.
Femineis fimilia hermaphroditis.
Receptaculum nudum, planiafculum.

Empalement. Common, fcales tiled; the inner fcales ftanding 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, funnelfhaped; border with five-clefts, fpreading. Individuals with only pointals, ligulate, fpear-fhaped, with three teeth.
Chives. Five hair-like threads, very fhort. Tips forming a hollow cylinder.
Pointal. To thofe with chives and pointals, feed-bud oblong. Shaft thread-fhaped, the length of the chives. Summit two-cleft, expanding.
Seed-bud to thofe with pointals only, oblong. Shaft thread-fhaped, the length of the hermaphrodites. Summits two, oblong, bent back.
Seed-vessel none. Cup farcely changing.
Seeds to the hermaphrodites folitary, oblong, egg-fhaped. Feather hairy.
Females the fame as hermaphrodites.
Rbceptacle naked, almoft flat.

## SPECIFIC CHARACTER.

After canlis fruticofus; foliis dentatis, fubtus ferrugineis; floribus terminalibus; pedunculis unifloris, bracteatis.
iron colour beneath; flowers terminate the branches; fruit-ftalks 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 fame, (magnified).

Tiris plant canmot undoubtedly be confidered as amongft the moft beautiful of the vegetable productions of New Holland; but nevertheles, from the continuance of its flowering, is very defirable as a greenhoufe plant, as it begins to expand its bloffoms about December, and from that time till Auguit is feldom feen without flowers. It is a low-growing fhrub, feldom exceeding a foot in height, and very branching. Like moft plants from Botany Bay, it delights in a light fandy peat foil, is eafily propagated by cuttings, and leeds. The drawing was made from a plant in the nurfery of Meffrs. Lee and Kennedy, who raifed it firf from feeds in the year 1793.

# GLADIOLUS GRAMINEUS. Grafs-like Gladiolus. 

## CLASS III. ORDER I.

triandria monogynia. Three Chives. One Pointal.

## BSSENTIAL GENERIC CHARACTER.

Corolla fexpartita, ringens.
Stamina adfecendentia.

Blossom with fix divifions, gaping. Chives afcending.

See Gladiolus longiflorus. Plate V.

## SPECIFIC CHARACTER.

Gladiolus polyftachyus, fcapo laxo, fpicis capillaribus, flexuofis; foliis enfiformibus; corolle fexpartitæ, abfque tubo.

Gladiolus with many fpikes, upon a flexible flower ftem, fpikes hair-like, growing zigzag; leaves fword-fhape; bloffom of fix divifions, without a tube.

## REFERENCE TO THE PLATE.

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

This fipecies of Gladiolus has been defcribed by Thunberg, and from him by Linnæus, in his Suppl. Plant. p. 95, under the fecific name it here bears. It is a little ftraining on the genus to introduce this ipecies into it; as it is deficient in moft of the effential characters; having a bloffom without a tube, and the petals equal. From the Kew Catalogue we learn it was introduced in the year 1787, by Mr. F. Maffon, to the royal gardens; is there faid to flower moft part of the year: a plant of fuch character is moft defirable, but unfortunately we have never feen it in bloffom but at the ufual feafon for the flowers of this tribe; that is, from April till June. The capfules of this plant bear a ftrong refemblance to thofe of the Euonymus: generally perfecting their feeds. It is a very hardy bulb, blows early, and may be kept in a pit protected from the froft.

[^3]
# PLATE LXIII. USTERIA SCANDENS. Climbing Ufteria. 

## CLASS XIV. ORDER II. <br> didynamia angiospermia. Two Chives longer. Seeds covered.

## GENERIC CHARACTER.

Calyx. Perianthium monophyllum, quinquepartitum, perfiftens; laciniis erectis, fubulatis.
Corolla. Monopetala, ringens, tubus ventricofus, bafi areta; limbus bilabiatus, labium fuperius bifidum, rotundatum, reflexum; labium inferius trifidum, laciniis rotundatis, intermedia minore.

Stamina. Filamenta quatuor, fub labio fuperiori recondita, quorum duo lateralia longiora, fundo corollæ inferta, bafi incraffata, lanata, apice incurvata. Antheræ erecto, verfatiles, approximatæ.

Pistilzem, Germen fub-rotundum. Stylus filiformis, perfiftens; longitudine ftaminum. Stigma obtufum.
Pbricarpium. Capfula fub-rotunda, bilocularis, calyce longior, obtufa.
Semina plurima, fub-rotunda, fcabrida.

Empalement. Cup one leaf, five divifions, permanent; fegments upright, and awlfhaped.
Blossom. One leaf, gaping, tube fwelled out in the middle, and pinched in at the bare; border with two lips, the upper divided into two lobes, which are rounded, and bent back; the lower has three divifions, the fegments rounded, the middle one the fmalleft.
Chives. Threads four, hid under the upper lip, of which the two fide ones are the longeft, fixed into the bottom of the bloffom, thickened at the bafe, woolly, and turned inward at the point. Tips upright, flightly fixed by the middle, and approaching.
Pointal. Seed-bud nearly round. Shaft threadfhaped, remaining, the length of the chives. Summit blunt.
Seed-veserl. Capfule nearly round, of two cells, longer than the cup, blunt ended.
Seeds many, almoft round, and very rough.

## SPECIFIC CHARACTER.

Ufteria caulis volubilis; foliis haftatis; floribus folitariis, purpureis; pedunculis tortis, longiffimis. fhaped; flowers folitary, and purple; fruitftalks twifted, very long.

## REFERENCE TO THE PLATE.

1. A Bloffom cut open, to expofe the fituation of the Chives.
2. One Chive, (magnified).
3. The Pointal, (natural fize).
4. The Empalement, and Seed-veffel nearly ripe, of its natural fize.

This is another of thofe plants raifed in the year 1797 by the Marchionefs of Bute, at her charming Iittle villa, Brompton, from feeds, fent to her lady fhip from Spain by Dr. Ortega. It is a native of Mexico, North America, and will live through our winters with the protection of a greenhoufe, 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 eafily propagated by cuttings, or from feeds, which are ripened by November, or earlier; thriving beft in light rich earth.


# PLATE LXIV. P $\mathbb{E}$ ONIA ALBIFLORA. White Peony. 

CLASS XIII. ORDER II. polyandria digynia. Many Chives. Two Pointals.

## GENERIC CHARACTER.

Calyx. Perianthium pentaphyllum, parvum, perfiftens; foliolis fubrotundis, concavis, reflexis, inequalibus magnitudine et fitu.
Corolra. Petala quinque, fubrotunda, concava, bafi anguftiora, patentia, maxima.
Stamina. Filamenta numerofa, capillaria. Antheræ oblongæ, quadrangulæ, erectæ, quadriloculares, magnæ.
Pistileum. Germina duo, ovata, erecta, tomentofa. Styli nulli. Stigmata compreffa, obtufa, colorata.
Pericarpium. Capfule oblonge, acuminate, reflexo-patentes, tomentofx, uniloculares, univalves, longitudinaliter introrfum dehifcentes.
Semina plura, ovalia, nitida, colorata, faturæ dehifcenti affixa.

Empalement. Cup five-leaved, fmall, and remaining; leaves roundifh, concave, bent back, and unequal both in fize and fituation.
Blossom. Petals five, roundifh, concave, fmaller at the bafe, fpreading, and very large.
Chives. Threads numerous, and hair-like. Tips oblong, four-fided, upright, with four cells, and large.
Pointal. Seed-buds two, egg-fhaped, upright, and downy. Shaft none. Summits flattened, oblong, blunt, and coloured.
Seed-vessel. Capfules oblong, tapered, bent back, and fpreading, downy, of one cell, and one valve, fplitting lengthways from the inner part.
Seeds many, oval, fhining, coloured, and fixed to the future where it fplits.

SPECIFIC CHARACTER.

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

Pæony with leaves divided into lobes, and fhining; bloffoms white; feed-buds three, or four.

## REFERENCE TO THE PLATE.

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

This new fpecies of Prony is a native of Mongol Tartary, and the parts adjacent; of courfe, is fuff. ciently hardy to endure our fevereft winters. It has been defcribed by Gmelin, in his Flora Sibirica; and figured by Dr. Pallas, in his Flora Roffica, under the fpecific title it here bears. J. Bell, Efq. of Ineworth, procured tome plants of it from St. Peterburg, about the year 1791; where it had been introduced by Dr. Pallas fome time before, when on his travels through Tartary. It forms a handfome, upright growing, herbaceous plant; the flowers ftanding much above the foliage, are much handfomer before they are expanded, than when fully fo; as the under part of the petals are tinged with red, which contrafted with the purity of the white of the other parts, renders them at that period extremely beautiful. The figure was taken at the nurfery of Meffrs. Lee and Kennedy, this year, in the month of June, during which month it is in perfection. Like the reft of the Pæonies, it is eafily propagated by the root; requiring little attention in its cultivation, as it will live in almoft any foil or firuation.

# 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 fimplex. Perianthium nullum.
Corolla. Petala quinque, oblonga, furfum conniventia, æqualia; duo horum exteriora.

Nectarium petalis longius, dependens; poftice tantum carinatum.
Stamina. Filamenta duo, breviffima, piftillo infidentia. Antheræ erecta, tectæ margine interiore nectarii.
Pistillem. Germen oblongum, contortum, inferum: Stylus margini interiori nectarii adnatus. Stigma obfoletum.
Pericarplum. Capfula fubovata, trigona, obtufa, ftriata, trivalvis, unilocularis, angulis carinatis dehifcens.

Semina numerofa, fcobiformia.
Receptaculum lineare, adnatum fingule val. vulæ pericarpii.

Empalement. Sheaths fcattered. Fruit-ftalks fimple. 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 fhort, fixed to the pointal. Tips upright, covered by the inner edge of the honey-cup.
Pointal. Seed-bud beneath, oblong, twifted beneath. Shaft fixed to the inner edge of the honey-cup. Summit imperfect.
Seed-vessel. Capfule nearly egg-fhaped, threefided, blunt, channelled, three-valved, and one cell, opening at the keel-fhaped angles.
Seeds numerous, like faw-duft.
Receptacle linear, growing to each valve of the feed-veffel.

## SPECIFIC CHARACTER.

Ophrys bulbo fubrotunda; fcapo nudo; foliis ovato-oblongis, radicalibus; nectarii labio integro; petalis dorfalibus linearibus.

Ophrys with roundifh roots; ftem naked; leaves oblong, egg-fhaped, growing from the root; the two back petals linear.

## REFERENCE TO THE PLATE.

1. The Honey-cup cut off the bloffom.
2. The Seed-bud and Pointal (natural fize) fhewn fideways.
3. The fame (magnified) fhewn in front, with the cup lifted up, to expofe the parts of fruelification.

Gronovius, in his arrangement of the plants difcovered by Mr. J. Clayton in Virginia, P. i, page 185, has defcribed this plant; and Linnæus after him, in his fecond edition of the Species Plantarum, page 1341, has it likewife, but thought it only a large variety of a fpecies found in marihy grounds in Sweden; however that may be, it is perfectly new to Britain, as a plant in our gardens. This fpecies of Ophrys feems much more eafy to preferve than moft of its congeners, as, fince its introduction, the bulbs feem to acquire additional fize, and the fikes of flowers to grow larger each year. Our drawing was taken from a plant in the extenfive collection of the Right Hon. the Marquis of Blandford, Bill-hill, Berkhire, in the year 1797, about the beginning of the month of July; having been fent the preceding year from Philadelphia, by J. Lyons, gardener to William Hamilton, Efq. of that State. It is a hardy plant, and will thrive in a theltered border, if planted in light earth, and kept moift; is propagated but flowly by the root, which feems the only method; as the feeds are too fmall of all this natural order to raife them by that means:


## PLATE LXVI.

# GLADIOLUS POLYSTACHIUS. <br> Branching Gladiolus. 

## CLASS III. ORDER I. <br> triandria monogynia. Three Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Cororla 6-partita, ringens. Stamina adfcendentia.

Blossom of fix divifions, and gaping.
Chives afcending.
See Plate XI. Gladiolus roseus.

## SPECIFIC CHARACTER.

Gladiolus foliis falcatis; caule polyfachio; corollis fub-regularibus, carneis.

Gladiolus with cymitar-fhaped leaves; ftem many branches; bloffoms nearly regular, and flefh colour.

## REFERENCE TO THE PLATE.

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

This fpecies 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 fpecific names of Scillaris, Fabricii, \&c. but notwithftanding, we have no hefitation in placing it under its true genus Gladiolus. The upright character of the chives, their infertion into the tube of the bloffom, and not at the mouth, the difference in the fhape of the petals, the fituation of the fummits behind the chives, \&c. leave no room for doubt where its ftation flhould be. Although plentiful at the Cape, it has not been long an inhabitant of this clime; having flowered for the firf time in the year 1\%97, at Bulftrode, the feat of his Grace the Duke of Postland. What contributes much to the value of this plant is, that it continues in flower at leaft two months, from the beginning of June till the end of July; propagates itfelf abundantly by the roots, which are not fubject to rot, though not removed from the pots in which they have flowered. Thrives in peat earth.


## PLATE LXVII.

## GERANIUM INCISUM. <br> Jagged-leaved Geranium.

## CLASS XVI. ORDER IV.

## MONODELPHIA DECANDRIA. Threads united. Ten Chives.

## ESSENTIAL GENERIC CHARACTER.

Monogrna. Stigmata quinque. Fructus rof- $\|$ One Pointal. Five fummits. Fruit furnifhed tratus, 5-coccus.
with long awns, five dry berries.
See Geranium grandiflorum, Plate XII.

## SPECIFIC CHARACTER.

Geranium foliis multifidis, craffis, confertis; floribus umbellatis, pedunculis longiffimis; caule erecto, fraticofo.

Geranium with leaves of many clefts, thick, and crowded together; flowers grow in bunches, on very long foot-ftalks; ftem upright, and fhrubby.

## REPERENCE TO THE PLATE.

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

Thrs pretty fpecies of Geranium, from the Cape of Good Hope, is one of thofe having feven fertile tips; therefore a Pelargonium of Monf. L'Heritier. It is a low growing plant, feldom exceeding eight or nine inches in height, keeping very compact; but is fubject to damp in the leaves, if kept moift in winter, though otherwife pretty hardy. Mr. C. Loniges, of Hackney, firft raifed it from feeds which he received from Vienna, about the year 1\%93. It is readily propagated by cuttings, or feeds, and continues to flower all the fummer month; requiring light rich earth to make it flourifh.


## PLATE LXVIII.

# GOODENIA OVATA. Oval-leaved Goodenia. 

CLASS V. ORDER I.<br>pentandria monogynia. Five Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Conolla fupra longitudinaliter fiffa, genitalia exferens, quinquefida. Stigma urceolatum, ciliatum.

Blossom longitudinally cloven on the upper fide, expofing the organs of generation, and fivecleft. Summit cup-fhaped, and fringed.
See Goodenia calendulacea. Plate XXII.

## SPECIFIC CHARACTER.

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

Goodenia with egg-fhaped leaves, fawed at the edges; bloffoms yellow, the two outer fegments grow upright.

## REFERENCE TO THE PLATE.

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

In the fecond volume of the Linnæan Tranfactions, Dr. Smith enumerates ten fpecies of the genus Goodenia; this fpecies makes an addition to the number. The oval-leaved Goodenia is a half woody plant, making long willow-like branches, which moffly decay in the winter, though a great part of the plant remains; it is a hardy greenhoufe plant, requiring little trouble either to keep or propagate; the latter of which is done by cuttings. About the year 1793, a parcel of feeds was received by Meffrs. Lee and Kennedy, fent to them by Colonel Paterfon from Port Jackfon, New Holland; amongft them, the feeds of this plant; it neverthelefs did not flower till the year 1798, about the month of June. It is certainly a defirable plaht, never failing to flower from June till September, if kept growing in vigour, which it will furely do if planted in light peat earth.

# PLATE LXIX. <br> 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, fquamis interioribus, longioribus.
Corolla. Univerfalis uniformis, feptem-florus.
Propria monopetala, tubulofa, limbus quadrifidus, laciniiis revolutis, ftameniferis.

Stamisa. Filamenta quatuor, fubulata, breviffima, inferta limbo corollæ, intra finguo lam laciniam fingula. Antheræ lineares, erectæ.
Pistillum. Germen fubrotundum, apice pilofum. Stylus fetaceus, erectus. Stigma fubulatum, fulcatum.
Pericabpium. Capfula tricornuta, unilocularis, difperma.
Sbmina bina, alata, feabra, nigra.

Empalement, Common cup tiled, the inner fcales the longest.
Blossom. General regular compofed of feven flowers.
Individuals of one petal, tubular, border four-cleft, the fegments rolled back, and fupporting the chives.
Chives. Threads four awl-fhaped, very fhort, fixed into the border of the bloffom, one within each fegment. Tips linear, and upright.
Pointal. Seed-bud nearly round, the upper part hairy. Shaft awn-like, upright. Summit awl-fhaped, and furrowed.
Seed-vessel. Capfule three-horned, of one cell, and two feeds.
Sexds two, winged, rough, and black.

SPECJFIC CHARACTER.
Lambertia foliis ternis, apice mucronato-pungentibus; corollis ftriatis, extus fuave rtibentibus; antheris cæruleis.

Lambertia with leaves growing by threes, the ends terminating in fharp points: bloffoms ftriped, of a light red without; tips blue.

REFERENCE TO THE PLATE.

1. The Empalement.
2. A Bloffom cut open, with the Pointal as it ftands in the Bloffom.
3. One fegment of a Flower, with the Chive attached.
4. The Pointal (magnified).
5. A Capfule.
6. A Seed.

Of all the Plants yet introduced from New Holland, that have hitherto flowered with us, this unqueftionably takes the lead for beauty, confidering the plant altogether. It is a hardy greenhoufe plant, growing to the height of fix or eight feet before it flowers; when the bloffoms break from the ends of almoft every branch. The feeds of this plant were among the firft which arrived from Botany Bay, in the year 1788; when two varieties of it were raifed by Meffrs. Lee and Kennedy, at their nurfery, who were fortunate enough to procure all the feeds which came bome that feafon. This fine genus has received its title, (under the fanetion of Dr. Smith, fee the Limn. Tranf. page 214, vol. 3.) from Aylmer Bourke Lambert, Efq. fellow of the Royal and Linnæan Societies; a gentleman whofe zeal for the advancement of the fcience is unbounded, and whofe labours to that end, as well as his endeavours to render botany of univerfal benefit, by combining the ufeful with the pleafing; (witnefs his work on the Cinchonas, or Jefuits Barks) do him the greateft credit. Our drawing was made from a plant which flowered for the firft time in this kingdom, in the collection of J. Robertfon, Efq. of Stockwell, Surry, in July 1798. It is without difficulty raifed by cuttinga, and thrives in peat earth.

## PLATE LXX.

## G N I D I A S I M PLEX. <br> Heath-leaved Gnidia.

## CLASS VIII. ORDER I. <br> octandria monogynia. Eight Chives. One Pointal.

## ESSENTIAL GENERIC CHARACTER.

Calyx infundibuliformis, quadrifidus. Petala quatuor, calyci inferta. Semen unictim, fubbaccatum.

Empalbment funnel-fhaped, and four-cleft. Petals four, inferted into the empalement. One feed, fomething like a berry.

See Gnidia pinifolia, Plate LII.

## SPECIFIC CHARACTER.

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

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

## REFERENCETO THE PLATE.

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

The flowers of this fecies of Gnidia, like moft plants of this natural order, are fragrant, which increafes much towards night. It is one of thofe delicate Cape plants requiring a dry fove, or an airy warm fituation in the greenhoufe; where it continues to flower through the months of April and May, and frequently will bloffom a fecond time in September and October. It is eafily propagated by cuttings; delighting moft in peat earth, and feldom grows more than a foot high. Our drawing was made, (by his kind permiffion) at the beautiful and unique coniervatory of R. James, Efq. Grofvenorplace, from a plant in his valuable and felect collection, in May this year.

Unfortunately the G. Simplex having been introduced to our gardens before the G. Pinifolia, (fee our figure, PI. LII.) it was found in moft collections under that title; but we have no hefitation in placing this plant under the fpecific name given it by Linnæus, in his Mantiff Plantarum of 1767 , page 67; where, to the ufual fecific character, be has fuperadded an accurate defcription of it.


# PLATE LXXI. <br> CLEMATIS VIORNA. <br> Blue thick-petal'd Virgin's Bower. 

## CLASS XIII. ORDER VII. <br> polyandria polygynia. Many Chives. Many Pointals.

## GENERIC CHARACTER.

Perianthium. Calyx nollus.
Corolla. Petala quatuor, oblonga, laxa.
Stamina. Filamenta plurima, fubulata, corolla breviora. Antheræ lateri filamentorum adnatæ.
Pistillum. Germina plurima, fubrotunda, compreffa, definentia in ftylos fubulatos, ftaminibus longiores. Stigmata fimplicia.
Pekicarpium nullum. Receptaculum capitatum, parvum.
Semina plurima, fubrotunda, compreffa, ftylo (figura varia) inftructa.

Emfalembnt. Cup none.
Blossom. Petals four, oblong, flexible,
Chives. Threads many, awl-fhaped, fhorter than the blofrom. Tips fixed to the fides of the threads.
Pointal. Seed-buds many, nearly round, flattened, ending in awl-fhaped fhafts, longer than the chives. Summits fimple.
Seed-vessel none. Receptacle forming a round head, and fmall.
Seeds many, roundifh, flattened, retaining the fhaft, which is varioully flaped.

## SPECIFIC Character.

Virgin's Bower, with compound and doubly compound leaves; fome of the little leaves fplit 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 fize).

Doubts have been entertained, among fome botanifts, whether this plant is the Clematis viorna of Lintreus, as given by him, with various fynonims, in his Sp. Plan. By collating the different fpecific characters from the fynonims adopted by him, we have no hefitation in our decifion. Being a native of Virginia and Carolina, it is not $f_{0}$ hardy as fome 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 fhoots till late. In a warm fituation againft a wall or trellis, it will begin to bloffom in July, and continne to fiower till deffroyed by the froft. As yet it is rather fcarce in our gardens, being but of a late introduction, though long known by delcription. Our figure was taken at the Hammerfinith ourfery, where it is in high perfection, being planted in a mixture of loam and peat earth: it is moft readily increafed, by parting the roots in fring; as the feeds feidom come to maturity in this climate.


# PLATE LXXII. STYPHELIA TRIFLORA. Three-flowered Styphelia. 

# CLASS V. ORDER.I. <br> <br> pentandria monogynia. Five Chives. One Pointal. 

 <br> <br> pentandria monogynia. Five Chives. One Pointal.}

## GENERIC CHARACTER.

Perianthium. Calyx imbricatus, perfiftens; foliolis interioribus longioribus, acutis, erectis.
Corolla tubulofa, quinquefida; lacinis revoJutis, hirfutis.
Nectarium membranaceum, lacerum, germen cingens.
Stamina. Filamenta quinque, tubo inferta. Antheræ apice bifidæ, verfatiles.

Pistillum. Germen globofum, fulcatum, nectario cinctum. Stylus capillaris. Stigma capitatum, quinquepartitum.
Pericarpium. Drupa quinquelocularis, fubrotunda, glabra.
Semina, bina.

Empalement. Cup tiled, and remaining; the inner leaves the longeft, fharp-pointed, and upright.
Buossom tubular, five-cleft ; the fegments rolled back, and hairy.
Honey-cup fkinny, torn, and furrounding the feed-bud.
Chives. Five threads, fixed into the tube of the bloffom. Tips fplit at the top, and loofely 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 divifions.
Seed-vessel. A pulpy fruit with five cells, roundifh, and fmooth.
Seeds, two together.

SPECIFIC CHARACTER.

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

Styphelia, with leaves tiled, fcattered, bluifh, egg-fhaped, and fharp-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 fhew their infertion into the tube of the Bloffom.
3. The Pointal, (natural fize, the Summit detached, and magnified.
4. The Honey-cup, (magnified).

The Styphelias conffitute 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 obferved) is expreffive of the habit of this whole genus, having its origin in $\sigma \tau 0 \varnothing \varepsilon \lambda \dot{0}$, , harfh, or hard; a character which feems invariable in every fecies that has come under our notice. The S. tubiflora, although fet off by Dr. Smith, in his fourth number of New Holland Botany, with fo much grace, muft, (and we have no doubt of his concurrence) give place to S. triflora, which undoubtedly claims the falm from all its congeners hitherto difcovered. The only fpecimen 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 extenfive collection of G. Hibbert, Efq. Clapham-common; from whofe exertions the exotic collections of this kingdom, are likely to acquire fuch confiderable additions.

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


## I N D E X

TO THE PLANTS CONTAINED IN VOL. I.

Plate

Protea formofa.
Correa alba.
Gladiolus verficolor.
F.chium grandiftorum.

Vereia crenata.
Goodenia calendulacea.
Ixia capitata. Var. ovata.
Cineraria aurita
Camellia Japonica. Var. flo albo pleno.
Craffula odoratiffima. .
Gladiolus ringens. Var. cinereo odorato.
Geranium elegans.
Ixia fpicata. Var, viridi nigra.
Vaccinium Aretoftaphyllus.
Borbonia cordata.
Autholyza ringens
Diofma latifolia.
Chelone Ruallioides.
Ixia crifpifolia. Var. flo. carulco.
Rhododendron punctatum. .......... Geranium fragile.
Gladiolus precox. Var. Hore rubro. Echium ferociffinum.
Chelonè campanuloides.
Lachenalia pendula.
Orchis ciliaris.
Bignonia Lcucoxylon.
Ixia cinnamomea.
Iris longifolia.
Maffonia violacea.
Mufa coccinea.
Ixia bulbifera. Var. flo. luteo.
Malpighia crafifolia.
Ixia capirata. Var. flore anrantio.
Xeranthemum (peciocifimum.
Gnidia pinifolia.
Mimofa Atricta.
Aletris farmentofa.
Zinnia violacea.
Antholyza ficica.
Mefembryanthemum glabrum.
8 Boronia pinnata.
Ixia fiftulofa.
Geranium punctatum.
After dentatus.
Gladiolus gramineus. ..... ...........
3 Ufteria fcandens.
Prenia albiflora.
65 Ophrys lilifolia.
66 Gladiolus poly fachius.
67 Geranium incifum.
68 Goodenia ovata.
69 Lambertia formofi. Var. lougifolia. .
yo Guidia fimplex.
71 Clematis viorna.
72 Stypichia triatura.

Alpine Sanicle. Star-flowered Sprengelia. Flefh-coloured Neottia.
Dauric Rhododendron.
Long-flowered Gladiolus.
Blue Day Lily.
Siberian Primrofe
Wing-flowered Gladiolus.
Cape Atragene.
Blue-flowered Ariftea. .
Rofe-coloured Gladiolus.
Largeft-flowered Geranium.
Purple-flowered Epidendrum.
Reflex-flowered Ixia.
Blue Broom of Spain.
Yellow Pontic Azalea.
Coronet Protea.
White Correa.
Changeable Gladiolus.
Large-flowered Viper's Buglofs.
Scolloped-leaf Vereia.
Cape Marygold-leaved Goodenia
Bunch-flowering Ixia. Var. egg-fhaped.
Two-coloured-leaved Cineraria.
Double white Camellia.
Sweet-fcented Craffula.
Gaping Afh-coloured fweet Gladiolus.
Round-leaved Geranium.
Sea-green fpiked Ixia.
Madeira Whortle-berry.
Heart-fhape-leaved Borbonia.
Gaping Antholyza.
Broad-leaved Diofma.
Scarlet Chelone.
Crifped-leaved Ixia, blue variety. ....
Dotted-leaved Rhododendron.
Brittle-ftalked Geranium
Red early-flowering Gladiolus.
Prickly Viper's Buglofs
Bell-flowered Chelone.
Drooping-flowered Lachenalia.
Fringed Orchis.
Oleander-flowered Trumpet Flower.
Cinnamon-fmelling Ixia.
Long-leaved Iris.
Purple-flowered Maffonia.
Scarlet-flowered Plantain-tree.
Bulb-bearing Ixia. Var. yellow-flowered.
Thick-leaved Matpighia.
Bunch-flowering Ixia. Var. gold colour.
Largeft-llowering Everlafting Flower.
Pine-leaved Gnidia.
Harfh-leaved upright Mimofa.
Creeping-rooted Batard Aloe.
Purple Zinnia.
Spike-flowered Antholyza..
Smocth-leaved annual Fig Marygold.
Hawthorn-fcented Boronia.
Hollow-leaved Ixia.
Dott dowered Geranium ........
Dotted-fowered Geranium
Grafs-like Gladiolus.
Climbing Ufteria.
White Preny.
Lily-leaved Ophrys.
Branching Gladiolus.
Jagged-leaved Geranium.
Oval-lerved Goodenia.
Red-ffowered Lambertia. Long-leavedvar.
Heath-leaved Guidia.
Biue thick-peral'd Virgin's Bower.
Three-flowered Styphelia.

| Har. | Herb. | May, June. |
| :---: | :---: | :---: |
| G. H. | Shrub. | All Summer. |
| H. H. | Herb. | Ma ch, April. |
| Har. | Shrub. | April, May. |
| G. H. | Herb. | June, July. |
| H. H. | Herb. | Septem. or Feb. |
| Har. | Herb. | June, July. |
| G. H. | Herb. | May, June. |
| G. H. | Shrub. | March, April. |
| G. H. | Herb. | July, Auguf. |
| G. H. | Herb. | May, June. |
| G. H. | Shrub. | July, Auguft. |
| H. H. | Herb. | July. |
| G. H. | Herb. | May, June. |
| G. H. | Shrub. | April, May. |
| Har. | Shrub. | May, June. |
| G. H. | Shrub. | Augutt. |
| G. H. | Shrub. | April, May. |
| G. H. | Herb. | June. |
| G. H. | Shrub. | April, May. |
| H. H. | Shrub. | July. |
| G. H. | Shrub. | Auguit. |
| G. H. | Herb. | April. |
| G. H. | Herb. | All Summer. |
| G. H. | Shrub. | Octob. Novem. |
| G. H. | Shrub. | April, May. |
| G. H. | Herb. | June. |
| G. H. | Shrub. | May. |
| G. H. | Herb. | May, June. |
| Har. | Shrub. | July, Augut. |
| G. H. | Shrub. | July. |
| G. H. | Herb. | June. |
| G. H. | Shrub. | Auguft. |
| Har. | Herb. | Auguit. |
| G. H. | Herb. | July. |
| Har. | Shrob. | July. |
| G. H. | Shrub. | Auguft. |
| G. H. | Herb. | April. |
| G. H. | Shrub. | July. |
| Har. | Herb. | Auguf, Septem. |
| G. H. | Herb. | September. |
| Har. | Herb. | July. |
| H. H. | Shrub. | July. |
| G. H. | Herb. | June. |
| G. H. | Heri. | June. |
| G. H. | Herb. | September. |
| H. H. | Shrub. | Decem. Jan. |
| G. H. | Herb. | May. |
| H. H. | Shrub. | September. |
| G. H. | Herb. | May. |
| G. H. | Shrub. | September. |
| G. H. | Shrub. | Feb. March. |
| G. H. | Shrub. | March, April. |
| G. H. | Herb. | Decem. Jan. |
| Har. | Ann. | Auguft ${ }_{\text {e }}$ Sept. |
| G. H. | Herb. | June. |
| G. H. | Ann. | July. |
| G. H. | Shrub. | All Summer. |
| G. H. | Herb. | June. |
| G. H. | Herb. | April. |
| G. H. | Shrub. | All Summer. |
| G. H. | Herb. | May, June. |
| G. H. | Bien. | All Summer. |
| Har. | Herb. | June. |
| Har. | Herb. | july. |
| G. H. | Herb. | July. |
| G. H. | Shrub. | All Summer. |
| G. H. | Shrub. | Augufi, Sept. |
| G. H. | Sirub. | July. |
| G. H. | Shrub. | April, Sept. |
| Har. | Herb. | All Summer. |
| G. H. | Shrub. | Junc. |


[^0]:    No genus exhibits greater diverfity, either in the figure, or colour of the bloffoms, of its various fecies than Ixia; the extreme delicacy of their colours, rendering it abfolutely neceffary to protect them both from wind and rain; even watering them over their heads (as is ufual with greenhoufe plants), at once deftroys their brilliancy. The bulbs of this fpecies were gathered at the Cape, by J. Pringle, Efq. from whom they were fent to Meffrs. Lee and Kennedy in 1795, at whofe nurfery they flowered the enfuing fpring, when this figure was taken. No particular treatment is neceflary for this plant, other than what is given to Cape bulbs in general, viz, an airy fituation, and light foil. Is propagated by feeds, and by the roots.

[^1]:    This handfome Orchis is a native of North America, and is found in all the fates from Virginia as far north as Canada: it has been treated of by Ray, Morifon, Gronovius, Royen, Linnæus, and others; but although fo long known by name, it was not introduced to our gardens before the year 1796; having been fent that year from Philadelphia by Mr. J. Lyons, from the gardens of J. Hanilton, Efq. to Meffrs. Lee and Kennedy, Hammerfmith; at whofe nurfery it flowered this year, in the month of July, when the drawing was made. It is a hardy herbaceous plant, thriving beft in a fhady border, and thould be planted in a mixture of loam and peat earth. The propagation of this plant, like moft of the genus, is difficult, the feeds being too fmall to be collected, and the root feldom producing more than one bud.

[^2]:    Although, we have given to this fpecies of Malpighia, the fpecific name under which it has been introduced; yet, there is much doubt, whether it is not the Verbafcifolium of Linnæus; or indeed if they are not both the fame plant, named from different fpecimens. Our fpecies makes a very handfome bothoufe plant, growing to the height of five, or fix feet, before it flowers. It is a native of Jamaica, and moft of the adjacent illands, and was introduced by Meffrs. Lee and Kennedy about the year 1792. From the extreme tendernefs of the young leaves, and fhoots, it muft be kept in a ftrong growing pine heat during the winter months; otherwife, they are fubject to damp off. It is raifed by cuttings, and feems to delight in a rich foil. The figure was made from a fipecimen communicated by the Right Hon. Lord Vifcount Courtenay, in whofe moft fuperb collection at Powderham Caftle, near Exeter, it flowered, for the firft time in England, in the month of September 1798.

[^3]:    (2)
    $\%$

