## CURTIS'S BOTANICAL MAGAZINE; *atesturyaniof OR

## 

In which the most Ornamental Foreign Plants cultivated in the Open Ground, the Green-House, and the Stove, are accurately represented and coloured.

> To which are added,
> THEIR NAMES, CIASS, ORDER, GENERIC AND SPECIFIC CHARACTERS, according to the system of linnewus;

> Their Places of Growth, Times of Flowering, and most approved Methods of Culture.

## CONDUCTED

## By SAMUEL CURTIS, F. L. S.

THE DESCRIPTIONS

# By Sir WILLIAM JACKSON HOOKER, K. H. 

LLD. F. R. A. and L. S. and Regius Professor of Botany in the University of Glasgow.

VOL. X. (1)
OF THE NEW SERIES;
Or Vol. LXIII, of the whole Work.
" Nature, exerting an unwearied power, Forms, opens, and gives scent to ev'ry flower; Spreads the fresh verdure of the field, and leads The dancing Naiads through the dewy meads."

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And to be had of all Boolisellers in Town and Country.
1836.

## TO

## D R. F I S C H E R,

COUNSELLOR OF STATE,

DIRECTOR OF THE IMPERIAL BOTANIC GARDEN OF ST. PETERSBURG, \&c. \&c. \&c. THE PRESENT VOLUME IS DEDICATED, IN TESTIMONY OF

THE UNFEIGNED AND AFFECTIONATE

REGARD AND ESTEEM OF

THE AUTHOR.

Glasgow, December 1, 1836.


## （ 3458 ）

## Cereus Napoleonis．Napoleon＇s Cereus．

粎米米 $* * * * * * * * * * * * * * * * *$
Class and Order．
Icosandria Monogynia．
（ Nat．Ord．－Cactee．）
Generic Character．
Sepala numerosissima，imbricata，basi ovario adnata，in tubum elongatum concreta，exteriora breviora calycinalia， media longiora colorata，intima petaliformia．Stamina nu－ merosissima，cum tubo concreta．Stylus filiformis，apice multifidus．Bacca sepalorum reliquiis areolata，tuberculosa aut squamata．Cotyledones nullæ？－Frutices carnosi，elon－ gati，axi ligneo internè medullifero donati，angulis verticali－ bus spinarum fasciculos gerentibus regulariter sulcati．An－ guli seu alæ nunc plurime，nunc paucissima，rariùs dua tantùm et tunc rami compresso－alati．Flores ampli è spi－ narum fasciculis aut crenis angulorum orti．DC．

## Specific Character and Synonyms．

Cereus Napoleonis；ramis diffusis repentibus triangularibus rarissime articulatis repandis，tuberculis $4-5$－spinosis， spinis rigidis patentibus．
Cereus triangularis，var．major．Salm－Dyck．Olto，Alge－ meine Gartenzeitung， 1833.
Cactus Napoleonis．Hort．

We received this plant at the Botanic Garden，Edin－ burgh，from Mr．M•KAY，at Clapton，about ten years ago． It has repeatedly formed buds，but no blossoms expanded till now（September，1835）．The flower opened in the morn－ ing，and closed towards the afternoon；it is very like that of C．grandiflorus，and is slightly，not very agreeably，per－ fumed．The far greater length of its joints，their different form，and the shape of the edges between the tubercles， prevent me from considering it a variety of C．triangularis．

Descr．
VOL．X．

Descr. Stem much branched; branches diffused, rooting, very distantly jointed, light green, with three acute angles, and concave sides; angles tubercled, with repand intervals, about an inch and a half long, tubercles with four or five rigid, stellate prickles (about four and a half lines long) having tumid bases. Flower (eight inches long, and when fully expanded six inches across) ascending; tube (three inches long, ten lines broad) green, furrowed, intervening ridges round, and having a few triangular subappressed deep-red scales, gradually enlarging upwards, and passing into the straw-coloured, lanceolato-linear, outer segments of the perianth, the inner segments of which are pure white, somewhat shorter, broader, spathulato-lanceolate and crenate at the apex. Stamens numerous, yellow, declined, ascending at the apex, shorter than the perianth; anthers erect, small. Pistil sub-exserted ; stigma yellow, multifid, segments subulate, spreading from their middle; style stout, cylindrical, ascending. Germen incorporated with the base of the tube of the perianth, one-celled. Ovules numerous, fixed to a long seed-stalk. Graham.


Pub by S. Curtis, Glazerweod. Bisser. Tany 7 IS35 6.

## Pimelea hispida. Hispid-flowered

Pimelea.

Class and Order.
Diandria Monogynia.
( Nat. Ord.-Thymelee. )

## Generic Character.

Perianthium infundibuliforme, limbo 4 -fido, fauce esquamatâ. Stamina duo fauci inserta, laciniis exterioribus opposita. Stylus lateralis. Stigma capitatum. Nux corticata, rarò baccata.-Frutices. Folia opposita (rarò alterna.) Flores capitati, terminales, foliis involucrantibus, sapè dissimilibus, interdum connatis, rariùs spicati vel axillares, quandoque dioici. Perianthii tubus in plerisque medio articulatus, articulo inferiore persistenti. Br.

## Specific Character and Synonyms.

Pimelea hispida; involucris tetraphyllis: foliolis ovatis margine simplici intùs subsericeis capituli dimidio brevioribus, perianthii tubo dimidio inferiore hispido, foliis lanceolatis linearibusve. Br .
Pimelea hispida. Br. Prodr. p. 360. Spreng. Syst. Veg. v. 1. p. 92. Bot. Reg. t. 1578.

This is assuredly the handsomest of this very pretty Australian Genus, whether we consider the beauty of its blossoms or the great quantity of them produced by a single plant: of which one now before us, scarcely a foot high, is loaded with upwards of forty heads of flowers. It requires the usual treatment of those New Holland plants, which we derive from the Southern coast, where the present species was discovered by Mr. Brown.

Descr. An erect shrub, with numerous, upright, slender, glabrous branches. Leaves opposite, broadly lanceolate, obtuse,
obtuse, yellow-green above, paler and of a glaucous hue below. Peduncles terminal, solitary, in fact, a continuationl of the branches, bearing a single, rather large head of delicate, rose-coloured, hairy flozoers; surrounded by a four-leaved involucre: its leaflets ovate, concave, often tinged with red at the margin. Flozoers sessile. Perianth salver-shaped: its tube much elongated, slender, clothed below with very long, spreading hairs : limb of four spreading, oblong segments, beset with long spreading hairs on the under side. Filaments short, exserted. Anthers oblong, deep orange. Germen oblong, green, furrowed, with a tuft of hairs at the base.

Fig. 1. Flower:-magnified.


Pub. by S: Gurts. Glazenwod. Rsser . Tin' 1.1836.

## Coreopsis coronata. Crowned Coreopsis.


Class and Order.
Syngenesia Frustranea.
( Nat. Ord.-Composite.)

## Generic Character.

Receptaculum paleaceum. Semina compressa, emarginata. Pappus bicornis. Calyx duplex uterque polyphyllus.

## Specific Name and Character.

Coreopsis coronata; annua, caule erecto debili flexuoso glabro, foliis spathulatis integris vel ternatim-pinna-timve-sectis integerrimis flaccidis basi ciliatis, infimis longè petiolatis, pedunculis elongatis, involucro interiore piloso, radii corollis profundè quadrifidis corouâ macularum atro-sanguineâ, achenio bi- tripaleaceo.

Seeds of this beautiful Coreopsis, gathered in Texas, were received from Mr. Drummond in the spring of 1835, and the plants raised from them blossomed copiously in the summer and autumn, those in the open air continuing to display their handsome flowers, remarkable for the circle of brown spots placed at a distance from the disk, till October, when they were cut off by the frost. Those sheltered in a frame continued much longer in perfection. Only one specimen, exactly corresponding with this, is found in Mr. Drumimond's Mexican Herbarium, from which it may be inferred that the flowering season was passed when he discovered it.

Descr. Root annual, small, aud subfusiform. Stem erect, but weak and flexuose, a foot to a foot and a half or two feet long. Leaves opposite, in remote pairs, spathulate, tapering much at the base, undivided, or cut in a pinnated manner into two, three, or five segments, the ultimate lobe or pinnule the largest, the lower ones into long petioles,
the base ciliated: the rest quite glabrous and of a very flaccid texture. Peduncles much elongated, sometimes almost a foot long, each tipped with a large handsome deep yellow flower, bearing a circle or crown of deep brown or blood-coloured spots at a distance from the disk. Corollas of the ray neuter, large, cuneate, deeply four-fid, the two middle segments the longest and often emarginate: those of the disk (which is small,) infundibuliform. Anthers black, the appendage deep-orange. Achenia compressed, oblong-obovate, bearing two or three small lanceolate, white, chaffy scales. Involucre double: outer of about eight leaflets, which are linear, herbaceous, and glabrous; inner, about as long as the outer, oval, membranaceous, clothed externally with white, succulent hairs. Receptacle scaly; scales linear-subulate, chaffy, nearly as long as the flower.

Fig. 1. Floret of the Ray. 2. Floret of the Disk, with a Scale of the Receptacle :-magnified.


Fud by. S.Curtis, Hazenwood Essor Jany LUSSG.

## Veronica labiata. Fragrant whiteflowered Speedwell.


Class and Order.
Diandria Monogynia.
( Nat. Ord.-Scrophularine. )

## Generic Character.

Calyx 4-partitus, rarò 3-partitus. Corolla subrotata. Tubus calyce brevior. Limbus 4-partitus, inæqualis, lobis indivisis. Stamina 2 antherifera, sterilia nulla. Capsula valvis medio septiferis, v. bipartibilis.-Herbæ vel frutices. Folia opposita, quandoque verticillata vel alterna, sapè dentata vel incisa. Inflorescentia varia. Calyces ebracteati. Br.

## Specific Character and Synonyms.

$V_{\text {eronica }}$ labiata; erecta, foliis lato-lanceolatis longè acuminatis sessiíbus argutè inæqualiter serratis, racemis axillaribus oppositis elongatis, corollis bilabiatis patentibus labio superiore indiviso, inferiore tripartito lobo medio minore.
$V_{\text {eronica labiata. Br. Prodr. p. 434. Spreng. Syst. Veget. }}^{\text {at }}$ v. 1. p. 74.
$V_{\text {eronica }}$ Derwentia. Andr. Rep.t. 531.

A very pretty species of Veronica, with leaves much acuminated at the extremity, and long axillary racemes of fragrant white flowers. It is a native of the Southern shores of New Holland and also of Van Diemen's Land, from which latter country it has been transmitted to the Glasgow Botanic Garden, where it grows in the greenhouse, by Ronald Gunn, Esq.

Descr. Stem two feet high, simple, nearly glabrous, under a lens are seen two opposite lines of hairs. Leaves opposite, three to four inches long, sessile, broadly lanceo-
late, very much attenuated, glabrous, the margins sharply and unequally serrated; the colour full green above, paler beneath, indistinctly nerved. Peduncles axillary, opposite, longer than the leaves, bearing a raceme of rather large, white, fragrant flowers. Bracteas subulate, about as long as the pedicels. Calyx small, four-partite, segments lanceolate, acute, two of them a little smaller. Corolla rotate, formed of two spreading lips: the upper of one ovate segment; the lower of three of the same form, but of which the middle one is the smallest. Stamens two: filaments white: anthers purplish. Germen ovate, two-celled. Siyle filiform, declined.

Fig. 1. Flower. 2. Young Fruit with the Calyx:-magnified.

For the information of our readers, we take the opportunity of occupying a spare page, with brief descriptive characters of three unpublished species of the Genus of our present subject, recently discovered in New Zealand by Mr. Richard 'Cunningham.
V. speciosa (R. Cunn. MSS.); glaberrima, racemis terminalibus brevibus erectis confertifloris, bracteis ovato-lanceolatis pedicello dimidio brevioribus, laciniis calycis ovatis acutiusculis tenuissimè ciliatis dimidium tubi corollæ subæquantibus, foliis (oppositis) planis obovatis coriaceis decurrentibus, apiculo calloso obtuso, marginibus integerrimis incrassatis coloratis, caule fruticoso erectiusculo v. diffuso.
Napuka ab Indigenis vulgò vocatur.
$\mathrm{H}_{\mathrm{ab}}$. In Novæ Zelandiæ insula septentrionali : in collibus arenosis juxta æstuarium fluvii Hokianga, ad oram occidentalem, ubi in mense Decembri lautè floret. 1833. Rich. Cunningham.
Frutex spectabilis 3-6 pedalis, caulibus pluribus robustis adscendentibus, et in loco natali valdè insignis. Folia 3-4 pollicaria. Flores speciosi cyaneo-violacei, ferè facie Lysimachice atropurpurec. Stamina exserta pistillum æquantia. Capsula bipartibilis, elliptica, acuminata, glabra, calyce duplò longior.
Obs. Of all the plants of New Zealand, with which Botanists, either as attached to voyages of discovery, or as occasional visitors to those Islands, have made us acquainted, we know of no shrub more to be desired to enrich our collections-the gorgeous Clianthus being already fully established in our gardens-than this very remarkable and beautiful Speedwell; judging, as we do, from the fine specimens we have received, and from the description given of it on its native hills by its discoverer. Since the country around its locality, at the mouth of the Hokianga River, is now occupied by Europeans, let us hope soon to receive the seeds of this very interesting plant, which we may reasonably expect will succeed, as well as its compatriot the Clianthus
has, in our open borders; the elevated grounds, occupied by our Veronica in its native-land, being greatly exposed to the prevalent tempests of its weather-beaten coast, in nearly the same degree of southern latitude (about $36^{\circ}$ ), in which, we believe, the Clianthus has been lately found on the Eastern Coast.
V. ligustrifolia; racemis pedunculatis terminalibus pubigeris folium subæquantibus, bracteis oblongo-lanceolatis pedicello duplò brevioribus, laciniis calycis ovato-lanceolatis acutiusculis longitudine tubi corollæ, foliis ovali-oblongis angusto-lanceolatisve obtusiusculis integerrimis glabris, caule fruticoso.
Hab. In Insula septentrionali Novæ Zelandiæ: in collibus sylvosis umbrosisve ad ripas fluminis Kaua-Kaua, Bay of Islands. 1833. Rich. Cunningham.
Frutex gracilis bipedalis. Folia opposita, ovalia, vel attenuato-lanceolata, sessilia. Flores albidi, spicato-racemosi. Calyx persistens, laciniis æqualibus. Corollæ laciniœ acutiusculæ.
Obs. V. angustifolia, A. Richard (Fl. Nov. Zel. p. 187.), cui affinis differt: spicis gracilibus pedunculatis axillaribus folio duplò et ultrà longioribus, laciniis calycinis obtusis tubo corollæ duplò brevioribus, foliis lineari-angustis acutis subtus glaucescentibus.
V. diosmifolia ( R. Cunn. MSS.) ; corymbis axillaribus terminalibusve multifloris, bracteis ovatis pedicello duplò brevioribus, laciniis calycis ovalibus obtusis dimidium tubi corollæ æquantibus, foliis decussatis petiolatis lanceolatis acutis integerrimis serrulatisve, serraturis simpliciter incisis remotis, suprà concavis lævibus subtùs discoloribus, caule fruticoso erecto.
$\mathrm{H}_{\mathrm{Ab}}$. In Nova Zelandia: in sylvis densis prope ortum fluminis Wycaddy ; etiam circa cataractas præruptas rivi Keri-Kerı, ad sinum Bay of Islands dictum; alibique in insula septentrionali. 1834. Rich. Cunningham.

Ab Incolis Piriti dicitur.
Frutex gracilis virgatus 3 -12 pedalis, cum habitu omninò Trachymenes. Rami stricti, erecti, foliosi. Folia 9-lineas longa, avenia, subtus carinata. Flores albi. Capsula elliptica, acuta, compressa, bipartibilis, calyce ciliato triplò longior.
With the above enumerated species, specimens were received of another, which appears identical with one originally discovered by Mr . Brown, in Van Diemen's Land: viz.
V. calycina ( $R . B r$.); racemis lateralibus pedunculatis paucifloris strictis folio multoties longioribus, foliis latè ovatis subcordatis rugosis inæqualiter serrato-crenatis petiolatis cauleque hirsutis, calycibus pilosis ciliatis capsulâ longioribus.
Veronica calycina. Brown Prodr. Fl. Nov. Holl. 1. p. 435. Röm. et Schult. Syst. Veget. 1. p. 119.
Hab. In Novæ Zelandiæ ins. sept. : ad ripas amnis Keri-Keri, inter $^{\text {a }}$ gramina. 1834. Rich. Cunningham.
Caulis herbaceus elongatus (sæpe $5-6$ pedalis) in locis graminosis latè repens v. decumbens. Folia opposita grossè serrata, subtùs discolora, hispida. Calyx quadripartitus capsulâ longior, laciniis obovatis obtusiusculis nervosis. Capsula rotundata, compressa, emarginata s. obcordata polysperma, dissepimento contrario. A.C.


## ( 3462 )

## Troximon glaucum. Guaucous-leaved Troximon.

********************

> Class and Order.

Syngenesia Æqualis.
( Nat. Ord.-Composite. )

## Generic Character.

Involucrum duplex : ext. e foliolis laxè imbricatis ovatolanceolatis; int. e foliolis $10-12$ æqualibus uniformibus infra medium coadunatis. Receptaculum planum, leviter foveolatum, subfimbriatum. Achenium oblongum, nunc in rostrum attenuatum. Pappus pilosus seu scaber, pluriserialis.

## Specific Character and Synonyms.

Troximon glaucum; foliis lanceolatis inferne attenuatis glaucis integerrimis dentatisve, flore maximo flavo, corollæ fauce valdè pilosâ.
(a.) scapo involucrique foliolis patentibus hirsuto-tomentosis. Hook. Fl. Bor. Am. v. 1. p. 300.
Troximon glaucum. Nutt. in Frazer's Cat. 1813. Pursh, Fl. Am. v. 2. p. 505. Rich. in Frankl. 1st Journ. ed. 2. App. p. 29. Spreng. Syst. Veget. v. 3. p. 633.
( $\beta$.) scapo involucrique foliolis erectis glaberrimis. Hook. l.c.

Troximon glaucum. Sims, Bot. Mag. t. 1667.
Troximon cuspidatum ? Pursh, Fl. Am. v. 2. p. 742.
Troximon marginatum? Nutt.l.c.

So different is the appearance of this handsome plant from that of Troximon glaucum of Dr. Sims in the Botanical Magazine, that were I not possessed of native specimens, exhibiting intermediate gradations, I should certainly have published it as a new species. But, as the original glaucum
glaucum of Mr. Nuttall has a pubescent involucre, we must claim for that which is here represented, the right of being considered the original type of the species, and, as we have already done in the Flora Boreali-Americana, consider Dr. Sims's plant (which has a flower scarcely half so large as this, a glabrous scape and involucre, of which the outer scales of the latter are erect and imbricated; also having narrower and quite entire leaves) as a variety.

Our plants, which are quite hardy, were raised from seeds gathered by Mr. Drummond in the prairies of the Rocky Mountains, during Capt. Sir John Franklin's Expedition. It flowers from June to August.

Descr. Whole plant abounding in milky juice. Root somewhat fusiform, perennial, sending out runners, by which the plant increases to a very great extent. Stem none. Leaves numerous, from the crown of the root, six to eight or ten inches long, and of a glaucous colour, thus forming very conspicuous tufts, lanceolate, more or less downy, acute, tapering below into a broad footstalk, the margin entire, or sometimes very distinctly but irregularly toothed. Scapes longer than the leaves, thick, striated, woolly, single-flowered. Flowers very large, of a bright but not deep yellow. Involucre of numerous scales, of which an inner series is composed of nearly equal, upright, linear-lanceolate scales, united at their base, the outer of many lax, spreading, and broader scales, thickly clothed with white, woolly hairs. Receptacle minutely pitted, the margins of the pit obscurely fimbriated. Corollas ligulate: the tube long, slender, about the mouth, or the outside, very villous. Germen oblong, by no means rostrate : Pappus white, rough. Anthers narrow, linear, orange.

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## ( 3463 )

## Gilia tricolor. Three-coloured

Gilia.

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 Class and Order. Pentandria Monogynia. ( Nat. Ord.-Polemoniacee. )
## Generic Character.

Calyx campanulatus, 5 -fidus, margine et sinubus membranaceis. Corolla infundibuliformis vel subcampanulatus, limbo 5-partito, laciniis obovatis integris. Stamina ad faucem vel vix intra tubum inserta. Anthere ovato-subrotundæ. Capsulæ loculi polyspermi.-Herbæ foliis alternis pinnatisectis, segmentis integris dissectisve, (vel oppositis palmatisectis, segmentis integris subulatis). Benth. in Bot. Reg.

## Specific Character and Synonyms.

Gilia tricolor ; caule erecto glabro folioso, foliis bipinnatisectis, segmentis lineari-subulatis, corymbis 3-6floris virgato-paniculatis, corollis calyce subtriplo longioribus. Benth.
Gilia tricolor. Benth. in Bot. Reg. fol. 1622 (in the text). Hort. Trans. N. S. v. 1. t. 18. f. 3. Lindl. Bot. Reg. $t .1704$.

The lamented Douglas, during his excursions in California, had the satisfaction of adding no less than twentyfive new species to the hitherto comparatively very limited Order of Polemoniacee, besides those which have been detected elsewhere on the Pacific side of America. All of them are remarkable for gracefulness and beauty, and are well suited to ornament our flower-borders, to which, indeed, several have been introduced, through the medium of the Horticultural Society, by the same indefatigable Naturalist. An epitome of these, and a few others from the North-west coast
coast of America, from Chili, and Peru, are given by Mr. Bentham in the Botanical Register, where they are with much skill and judgment, grouped into seven distinct and Natural Genera. Of these Genera, the most numerous is Gilia, comprising fourteen species: and of these, the present one is undoubtedly that which bears the palm for beauty. "Nothing can well be prettier," observes Professor Lindley, " than this is, when thickly filling a bed a few feet in length and breadth." Thus cultivated in thick tufts, it flourishes as well in the unfavourable climate of the West of Scotland as in its native country, continuing for a long time in perfection during the summer months.

Descr. Root annual. Whole plant slightly pubescent. Stem erect, a foot to a foot and a half high, erect, branched in a paniculated manner almost from the base. Leaves bitripinnatifid, the lower ones petiolated, upper ones sessile, the segments narrow, linear, subulate, somewhat fleshy, and compressed. Flowers corymbose, almost capitate, six to eight or ten at the extremity of the branches of the panicle, extremely handsome. Pedicels short. Caly $x$ of five, deep, lanceolate, acute, erect segments, with the margins scariose, not half so long as the corolla. Corolla infundibuliform : the tube yellow; the faux very dark purple, the limb spreading, of five broadly cordate segments, white, or nearly so at the base, tinged with bluish-purple towards the extremity. Filaments short, incurved, situated in the faux. Anthers oval, pale blue. Style as long as the corolla. Stigma trifid.


Pub. by S. Curtus GlazemwodZsies. Tant 1.1836.

# Vesicaria granimiflora．Large－flowered Vesicaria． 

＊米米米米米米米料粎米米米米 Class and Order． Tetradynamia Siliquosa．

> ( Nat. Ord.-Crucifere. )

## Generic Character．

Silicula globosa，inflata，valvis hemisphæricis．Semina plırima（ultrà 8）sæpiùs marginata．Petala integra．DC．

## Specific Name and Character．

Vesicarta＊grandifora；annua，stellatim pubescens，cauli－ bus crectis flexuosis，foliis oblongis radicalibus sub－ lyrato－pinnatifidis petiolatis caulinis sinuato－dentatis sessilibus，racemis elongatis multifloris，petalis rotun－ datis patentibus brevissime unguiculatis，siliculis sub－ stipitatis membranaceis globosis glaberrimis 4－6－sper－ mis stylo longioribus，stigmate capitato．

No less than three new species of Vesicaria were disco－ vered by M．Berendier in Texas of Mexico，all of which are in my Herbarium，V．lasiocarpa，Ноoк．MSS．，V．gra－ cilis，and the subject of the present plate．Of these，the two last have been also found by Mr．Drummond．V．gra－ cilis is n ．13．of Mr．Drummond＇s third Texas Collection ： the present one（of which specimens are distributed in Mr． Drummond＇s first Texas Collection）is further known to us by seeds sent in the spring of last year，which produced plants in the summer，exhibiting a profusion of blossom and a brightness and size in the flower equalled by few plants of this Nat．Order，and which render the species most highly deserving

[^1]deserving of cultivation, whether in the flower-border or on the shelves of a cool greenhouse. The almost sessile spreading and concave petals give it an appearance very unlike that of most cruciform flowers. The blossoms are long-lived, and the same plant will yield a succession of flowers from July to October.

Descr. Root annual, subfusiform. Stems one or several from the same root, a foot or more high, erect, but flexuose and weak, so that it is desirable to prop them with a stick in cultivation ; clothed, as is the whole herbage, with short stellated down, but much less so than most of the known downy Vesicarie. Radical leaves oblong, or almost spathulate, tapering below into a footstalk, pinnatifid and somewhat lyrate, the lobes obtuse; cauline ones oblong, sessile, subamplexicaul, more or less sinuato-dentate; all of them paler and more downy beneath. Raceme, when fully advanced, eight or ten inches and not unfrequently a foot in leugth, bearing numerous large, bright-yellow flowers. Pedicels, in fruit, nearly an inch long. Calyx of five oblong-oval, hoary, spreading leaves. Corolla of five rounded, spreading, concave petals, scarcely unguiculate. Stamens six, tetradynamous, yellow: Filaments subulate: Anthers oblong. Pouch globose, membranous, glabrous, situated on a very short stalk, and longer than the style. Stigma capitate. Seeds generally about four or six in number.

Fig. 1. Stamens and Pistil. 2. Petal. 3. Stamens. 4. Silicule:-magnified. 5. Root-leaf:-nat. size.


# ( 3465 ) <br> Pentstemon Cobea. Cobea-flowered Pentstemon. 

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Class and Order.
Didynamia Angiospermia.
( Nat. Ord.-Scrophulatine. )
Generic Character.
Calyx 5-partitus. Corolla bilabiata ventricosa. Rudimentum filamenti quinti superne barbatum. Capsula bilocularis.

## Specific Character and Synonym.

Pentstemon Cobca; elatus puberulus, foliis oblongo-ovatis denticulatis nitidis, panicula terminali foliosa, pedunculis 3-5-floris, pedicellis bracteatis, corolla pubescente (magna) tubo inflato, limbo bilabiato quinquelobo, lobis 2-3 rotundatis patentibus intus lineatis, appendice intus barbato, calycis pubescentis laciniis oblongo-lanceolatis erectis.
Pentstemon Cobæa. Nutt. Pl. of Arkansa, in Amer. Phil. Journ. 1834, p. 182.

Handsome as is this species of Pentstemon, the native specimens gave me reason to expect a more splendid plant than that which is here represented, of which seeds and well-dried specimens were sent to Europe by Mr. Drummond in the spring of the past year (1835) from the interior of Texas*, about St. Austin. But, unfortunately, owing to the

[^2]the lateness of the season, our plants did not produce their blossoms till the period of the autumnal colds, and then do not appear to have obtained either the size of those on wild specimens, or the colour, as described by Mr. Nuttall, who called it P. Cobcea, on account of the magnitude and a sort of general resemblance in its flowers to those of Cobea scandens. Certain it is, that the flowers on some of our dried specimens are nearly twice as large as those here represented. It was first discovered by Mr. Nuttall,
which, we flatter ourselves, only needs to be more known in order to meet with still further encouragement; for it is expressly undertaken with the view of recording such useful Botanical information, as is not suited to the pages of the Magazine. In the seven numbers which have now appeared, we may confidently refer to the following articles, many of them original communications prepared solely for the work, as being such, as will, we are sure, be read with interest even by those who are not deeply versed in Science :-Journal of an Ascent to the summit of Adam's Peak, Ceylon;-Account of Mr. Mathews' Journeys in the Peruvian Andes;Excursions in the neighbourhood of Quito, and towards the summit of Chimborazo, in 1830, by the late Colonel Hall; -Notice respecting Dr. Siebold's residence in Japan;-Mr. Watson on the Distribution of Trees and Shrubs in Britain, and towards the Arctic Regions;-the same gentleman's Remarks on the Numerical Proportions of the Natural Orders of British Plants at different elevations;-Drummond's Letters from Texas in Mexico;-Dr. Philippi on the Vegetation of Etna;-Physical and Geographical Observations made in Colombia, by Professor William Jameson of Quito;-Dr. Pöppig's Picture of the Vegetation of Chili;-a Memoir of the Life of the late Mr. William Jack, including many of the Letters of that accomplished individual from Sumatra and the East Indies, \&c.; -M. Durieu's Botanical Excursions in the Mountains of Asturias;Dr. Pöppig's highly interesting account of the Uses of Coca, a Drug, which is to the Peruvians what Opium is to the Inhabitants of the East; -the same gentleman's Memoir of the Cinchona- (or Medicinal Bark-) districts at Huanuco, with the mode of collecting it. The above, together with notices respecting Botanical publications, the Contributions towards the Flora of the East Indies (by Messrs. Wight and Arnott,) of North and South America, of Britain, \&cc., with Memoirs communicated by various distinguished Botanists, cannot fail to be acceptable to every man of science. -A Memoir of the Life of the late Mr. David Douglas, whose tragical death in the Sandwich Islands excited so much interest and such deep sympathy throughout the whole Botanical world, accompanied by a Portrait, (already prepared from an excellent original likeness in the possession of Dawson Turner, Esq.,) is in a state of considerable forwardness. Our readers will at once perceive that the Proprietor of the work, Mr. Curtis, is not actuated by sordid motives in its publication; but mainly by a desire to promote the study of Botany ; when it is known that each monthly number (consisting of thirty-two closely-printed pages of letter-press, in double columns, with two plates, partially coloured) is offered at the low price of 1 s . when stitched with the Magazine, or 1 s .6 d . if taken separately. It is hoped that this appeal to our Botanical friends, in behalf of a work so well calculated to further the cause of Science, will not be made in vain.



Dithographed for the
Compamion to Cartis's Botanical Magazine.
in calcareous soil on the prairies of the Red River : and I have one of his own original specimens now before me.

Descr. Root perennial. Stem two feet and more in height, erect, stout, roundish, or very obtusely angular, slightly downy, as is the whole plant. Leaves opposite, the upper ones oblong, or even oblongo-cordate, and semiamplexicaul, the middle ones oblong, narrower at the base but sessile; the root-leaves oval-spathulate, petiolate, all of them somewhat glossy, denticulate at the margin. $P a$ nicle terminal, leafy. Peduncles opposite from the axils of these leaves, bearing three to five large, downy flowers, the short pedicels bracteated. Calyx cut into five deep, erect, oblongo-lanceolate segments. Corolla with the tube considerably inflated, pale, almost white tinged with purple, the limb of five spreading segments, within white, slightly suffused with yellow and streaked with red. Filaments (fertile) four, included, two didynamous, curved : the anthers somewhat reniform. Fifth filament elongated, slightly clavate, furnished with long hairs internally at the apex. Capsule conical-ovate, acuminate, splitting open into two valves, whose margins are curved inwards. Seeds chaffy, attached to a central receptacle.

[^3]$2-20-20-2$

## ( 3466 )

## Telekia speciosa. Large-flowered Telekia.

# *** * * * * 米 $* * * * * * * * * * * * * * *$ 

Class and Order. Syngenesia Superflua.
( Nat. Ord.-Composite. )
Generic Character.
Radius uniserialis. Achenium lineare, elongatum, multicostatum, exalatum, triquetro-obcompressum, conforme. Pappus coroniformis, denticulatus, subcartilagineus et conformis. Corolla exalata, disco teres tuboque inferne sensim angustato.-Herbæ procere in Europa media crescentes, foliis scabris, integris, alternis, inferioribus amplis cordatis; involucris pluriserialibus, squarrosis, disco aqualibus, foliolis ellipticis seu linearibus; lingulis radii angustis v. oblongo-ellipticis. Less.

## Specific Name and Synonyms.

Telekia* speciosa.
Telekia speciosa. Baumg. Enum. Stirp. Transylv.-Lessing, Compos. p. 209.
Molpadia suaveolens. Cass. in Dict. Sc. Nat. v. 32. p. 400. Buphthalmum speciosum. Schreb. Ic. et Deser. Dec. 1. p. 11. $t .6$.

Buphthalmum cordifolium. Waldst.et Kit. Ic. et Descr. Pl. Rar. Hung. v. 2. p. 117. t. 113. Spreng. Syst. Veget. v. 3. p. 605.

Inula Caucasica. Pers. Syn. Pl.v. 2 p. 450. Inula macrophylla. Bieb.

[^4]A fine stately plant, better suited, however, to a shrubbery than to the borders of a small garden, on account of its great size and luxuriant foliage. Although introduced into our gardens so long ago as the year 1739, when it was, according to the Hortus Kewensis, cultivated by Mr. Philip Miller, it has never been figured in any publication of our country. It is a native of woody places in the vallies of the Bannatian and Croatian Mountains : and I also possess specimens, through the kindness of Dr. Fischer, which were gathered at Guriel on the eastern shore of the Black Sea, a province of Georgia. It is quite hardy, and bears its copious blossoms in July and August.

Descr. Root perennial. Stems herbaceous, many from the same root, erect, four to six feet high, simple, or panicled only at the top with the flowers, stout, hairy, rounded, obscurely furrowed. Flowers very large, often a foot in length, alternate, the lower ones cordate and petiolate, the upper gradually smaller, sessile and ovate, or even lanceolate, all of them more or less acuminated, coarsely serrated, pubescenti-scabrous, dark green above, paler beneath, copiously and reticulatedly veined. Peduncles long, thickened upwards, naked or bearing one or two small leaves. Involucre of many spreading, oblongo-lanceolate scales, the outer ones larger, leaf-like, and more or less reflexed. Receptacle chaffy, with numerous subulate scales. Florets of the ray; undoubtedly not in a single, but in several (2-3) series, very numerous: Corollas narrow-linear. Florets of the centre tubular. Akenium (immature) oblong, crowned with a minute, jagged cup.

Fig. 1. Central Floret. 2. Part of a Floret of the Circumference : magnified.


# ******************** 

Class and Order. Diadelphia Decandria.<br>( Nat. Ord.-Leguminose. )

Generic Character.
Calyx profunde bilabiatus. Corolla papilionacea, vexillo lateribus reflexis, carina acuminata. Stamina monadelpha, vagina integra, antheris 5 parvis subrotundioribus præcorioribus, 5 oblongis serioribus. Stylus filiformis. Stigma terminale, subrotundum, barbatum. Legumen coriaceum, oblongum, compressum, oblique torulosum. Cotyledones crassæ, per germin. in folia conversæ. DC.

## Specific Name and Character.

Lupinus subcarnosus ; herbaceus annuus, caule pubescentisericeo, foliolis quinis obovato-lanceolatis subcarnosis supra glaberrimis subtûs (margineque præcipue) sericeis, stipulis elongato-subulatis, racemo pyramidali, pedicellis alternis longitudine florum, calycibus sericeis bibracteatis bilabiatis, labio superiore breviore bifido inferiore lanceolato apice tridentato dente intermedio longiore, vexillo orbiculari intense cæruleo medio macula alba plica longitudinali divisa.

An extremely beautiful, and, apparently, very distinct species, of which specimens exist in my Herbarium, which were collected at Bejar in Texas, by M. Berendier in 1828. It has been again gathered most abundantly by $\mathbf{M r}$. Drummond, between Brazoria and San Felipe, particularly about the latter place. Seeds arrived in England from the last mentioned Naturalist, and have produced their handsome flowers in July of the present year, 1835.

Descr. Root apparently annual. Stem eight to ten inches to a foot high, simple or branched, downy. Leaves upon long petioles, of five obovato-lanceolate, singularly thick, and almost fleshy, retuse leaflets, those of the lower leaves the shortest and broadest; all of them quite glabrous on the upper surface, below slightly silky with scattered hairs; the margin ciliated with white appressed silky hairs. Stipules half to three-fourths of an inch long, subulate, appressed. Racemes terminal, pedunculated, pyramidal, composed of many extremely richly-coloured flozers. Peduncle downy, silky above. Pedicels about as long as the flowers, silky. Calyx silky, purplish-green, two-lipped, bearing a bractea on each side near the middle. Standard bent back, especially at the sides, orbicular, deep rich blue, with a nearly quadrangular white or yellowish-white spot in the centre, which appears to be divided in the middle by a longitudinal fold: alce (combined by their lower margin, and wholly concealing the carina) oval, deep blue: keel white, much acuminated, purple-black at the tip. Legunies, in my native specimens, an inch and a half in length, linearobloug, compressed, torulose from the four or five seeds contained within, and silky.

[^5]

# Collomia Cavanillesif. Cavanilles' Collomia. 



Class and Order.
Pentandria Monogynia.
( Nat. Ord.-Polemoniacee.)
Generic Character.
Calyx campanulatus 5 -fidus vel sub 5 -partitus, lobis lanceolatis linearibusve æqualibus integris. Corolla hypocrateriformis, tubo tenui exserto, limbo patente 5 -partito, laciuiis oblongis integris. Stamina versus medium tubi inserta. Antheree ovato-subrotundæ. Capsule loculi 1-2-spermi.-Herbæ, folia alterna, rarius inferiora opposita, integra inciso-dentata vel rarius pinnatifida. Flores dense capitati, bracteis late ovatis integerrimis suffulti. Benth.

## Specific Character and Synonyms.

Collomia Cavanillesii; foliis lanceolato-linearibus supremis ovato-lanceolatis integerrimis vel apice profunde 3-4dentatis, calyce semi-5-fido, laciniis lato-lanceolatis obtusis, corollis calyce plus duplo longioribus, staminibus inclusis, capsulæ loculis monospermis. Benth.
Collomia Cavanillesii. Hook. et Arn. Bot. of Beech. Voy. v. 1. p. 37, 1831.

Collomia coccinea. Lehm. Hort. Hamb. 1832. Benth. in Bot. Reg. t. 1662.
Collomia lateritia. Sw. Br. Fl. Gard.t. 206.
Phlox linearis. Cav. Ic.v.6.p. 17. t. 527. (not Collomia linearis, Nutt.)

It is singular that two authors, who have described this plant, should both have overlooked the figure and description of it in Cavanilles. Nuttall mistook them for those
of his North American Collomia, quoting it indeed doubtfully, but adopting the specific name; whereas the two plants are totally distinct. It was introduced to our gardens from Chili by Mr. Cuming, and is a very desirable annual, flowering in Scotland in the latter part of the summer. Professor Lindley observes, that if the seeds are sown in March, in the open border, the blossoms will appear in June; if again sown, shortly after that time, a second crop of flowers may be had in September and October, seasons which suit it rather better than the dog-days. In Chili it seems to be abundant. Cavanilles found it at Talcahuano; Mr. Cuming at Valparaiso (n. 549 of his collection), and in the Cordillera (n. 221); Mr. Bridges at Los Ojos de Agua (n. 146), and in Valdivia (n. 611), and the officers of Captain Beechey's Voyage at Conception.

Descr. Annual. Stem erect, a foot high, rounded, more or less branched and hairy, as well as the foliage, especially in the upper part of the plant. Leaves alternate, at the base only opposite, linear-lanceolate, entire, or incised at the extremity, those near the flowers broader at the base. Flowers umbellato-capitate ; pedicels short. Calyx glandu-loso-pilose, nearly half five-cleft. Corolla with a long, narrow, deep-yellow tube, which is slightly downy, and twice as long as the calyx; limb of five spreading, narrowovate segments; of a dull, but rather deep red on the upper side, pale birch red at the back; eye yellow. Capsule as long as the calyx, one-celled, three-valved; valves obcordate.

Fig. 1. Flower:-magnified.


# Petropiila acicularis. Needle-leaved 

Petrophila.

Class and Order.
Tetrandria Monogynia.
( Nat. Ord.-Proteacee. )

## Generic Character.

Perianthium quadrifidum, totum simul deciduum. Squame nullæ hypogynæ. Stylus basi persistente. Stigma fusiforme, apice attenuato. Strobilus ovatus. Nux lenticularis, hinc comosa vel Samara basi barbata.-Frutices rigidi. Folia glabra, varia, filiformia v. plana, indivisa, lobata $v$. pinnatifida, quandoque in eodem frutice diversiformia. Amenta ovata, vel oblonga, terminalia et axillaria, nunc aggregata. $B r$.

## Specific Character and Synonyms.

Petrophila* acicularis; foliis filiformibus supra obsolete sulcatis, squamis strobili nervosis ovatis.
Petrophila acicularis. Br. in Trans. Linn. Soc. v. 10. p. 69. Ibid. Prodr. Fl. Nov. Holland, p. 364. Roem. et Schult. v. 3. p. $338 . \quad$ Spreng. Syst. Veget. v. 1. p. 459.

This plant was raised at the Botanic Garden of Edinburgh from seed, having been communicated from King George's Sound, New Holland, by Col. Lindesay in 1830, under the name of Petrophila filifolia, and specimens flowered in the greenhouse both last year and this, in April.

Descr. Shrub erect; branches erect, glabrous, yellowishgreen. Leaves (three to six inches long) filiform, obscurely furrowed

[^6]furrowed on the upper side, glabrous, mucronate, bright green, smaller and cartilaginous at the base. Capitulum terminal, receptacle densely covered with short white wool. Bracteas ovate, acute, the outer ones having a leaf-like apex. Perianth silky, deciduous, four-parted, concave and red internally in the apices of the segments. Anthers oblong, yellow, sessile in the apices of the perianth ; Pollengranules angular. Stigma articulate, the upper portion hairy, about twice as long as the green, glabrous, angular, turbinate lower portion. Style longer than the perianth, capillary. Germen sessile, every where covered with long, white, erect hairs, green, corticular, ovule solitary. Graham.

Fig. 1. Flower, with its Bractea. 2. Bractea. 3. Pistil : magnified.


Pub. by S. Curtis Glazenvood, Eisser Foby1.1836.
Swan Se

## （ 3470 ）

Potentilla atro－sanguinea；hybrida，Russelliana． Mr．Russell＇s hybrid variety of the Deep Blood－coloured Cinqueforl．

料粎料料粎粎粎粎米粎料
Class and Order．
Icosandria Polygynia．
（ Nat．Ord．－Rosacee．）

## Generic Character．

Calyx decemfidus，segmentis alternis minoribus．Petala 5．Pericarpia receptaculo sicco affixa．

## Specific Character and Synonyms．

Potentilla atro－sanguinea；caule erecto pubescente ra－ moso，foliis ternis petiolatis superne sessilibus foliolis ellipticis profunde serratis subtus niveo－tomentosis，sti－ pulis magnis ovatis，petalis obcordatis（atro－sangui－ neis．）
Potentilla atro－sanguinea．Lodd．Bot．Cab．t．786．Don， Prodr．Fl．Nepal．p．232．De Cand．Prodr．v．2．p． 579．Bot．Mag．t． 2689.
Hybrida，Russelliana；foliis subtus concoloribus，corollis maximis intense sanguineo－coccineis．Russell＇s Po－ tentilla．Bot．Reg．t．1496．－Tab．nostr．（3470）．

Perhaps no plant，bearing the open air in our cli－ mate，produces flowers of a richer hue than the present， which is an hybrid，said to have been first raised by Mr． Russell of Battersea，between $P$ ．atro－sanguinea and $P$ ． Nepalensis；but far exceeding in the size and beauty of its blossoms either of its parents．It is perfectly hardy，brav－ ing the severest winters of our island with impunity and flowering during the summer and autumn．


## ( 3471 )

## Trifolium reflexum. Buffalo Clover.

********************
Class and Order.
Diadelphia Decandria.
( Nat. Ord.-Leguminosa. )

## Generic Character.

Caly $x$ tubulosus, persistens, eglandulosus, 5 -fidus, laciniis subulatis. Carina alis et vexillo brevior. Stamina diadelpha. Legumen parvum vix dehiscens, sæpius ovatum 1-2spermum, calyce brevius et ab eo tectum rarius oblongum, 3- $\boldsymbol{4}$-spermum calycem paululum superans.-Herbæ. Stipulæ petiolo adnata. Folia palmatim 5-aut rarissime 5-foliolata. Flores capitati aut dense spicati, bracteati, purpurei, albi aut ochroleuci. Petala in quibusdam omnia inferne basi coalita.

## Specific Character and Synonyms.

Trifolium reflexum; adscendens, foliolis rhomboideo-ovalibus denticulatis, capitulis globosis terminalibus, floribus defloratis reflexis, calycis tubi brevissimo dentibus elongatis subulatis rectis corolla persistente brevioribus, alis vexillo obovato brevioribus carina apiculata longioribus, legumine oblongo 3-4-spermo.
Trifolium reflexum. Linn. Sp. Pl. p. 1079. Mich. Am. v. 2. p. 39. Pursh Fl. Am. v. 2. p. 477. Spreng. Syst. Veget. v. 3. p. 205. De Cand. Prodr. v. 2. p. 201. (not of Waldst. and Kit. nor of De Cand. l. c. p. 197.)

This handsome species of Trefoil, though long cultivated in the Southern States of North America, and even as far North as Kentucky, by the name of Buffalo-Clover, is very little known to European Botanists, nor are we aware that it has ever been raised in our gardens, though eminently deserving a place in every collection, until Mr. Drummond
sent seeds from Texas in the spring of 1835. Its flowers are in perfection in the open border in June and July.

Descr. Stems herbaceous, decumbent, branched, six to eight inches in length, more or less hirsute, sometimes, as in our specimens, almost entirely glabrous. Leaflets ternate, oval, approaching to rhomboidal, the lower ones obovate, denticulate, especially in their upper half, frequently spotted with brown and white; petioles one to two inches long. Stipules obliquely cordate, acuminate. Peduncles terminal and lateral, two to three inches long. Heads large, globose, many-flowered, very handsome. Pedicels short. Calyx with a short cup-shaped tube and five upright, subulate teeth much shorter than the petals. Corolla persistent, not withering. Vexillum broadly obovate, beautiful rosered, the claw scarcely forming a tube. Wings white, at first straight, shorter than the vexillum, but longer than the mucronated, white keel. After flowering, the wings spread considerably and by slightly cohering with the sides of the alce, they cause it to dilate and to have the appearance of a white bird with its wings expanded. Stamens diadelphous. Germen linear. Style long. Legume oblong, stipitate, three to four-seeded, terminated by the long persistent style. Seeds greenish-brown, spotted.

[^7]

## Pentstemon Murrayanus．Mr．Murray＇s Scarlet Pentstemon．

料米米米粎米粎粎米米粎粎粎粎＊ Class and Order． Didynamia Angiospermia． （ Nat．Ord．－Scrophularine．）

Generic Character．
Calyx 5 －partitus．Corolla tubulosa，subventricosa，bi－ labiata．Filamentum 5 sterile．Capsula bilocularis，bival－ vis，dissepimento duplicato e marginibus valvarum inflexis demum bipartibili．Semina nuda．

## Specific Name and Character．

Pentstemon Murrayanus；elatus glaberrimus glaucus，foliis integerrimis oblongis inferioribus spathulatis superio－ ribus seu bracteatis connato－perfoliatis，floribus race－ mosis，corollis glaberrimis，tubo subcylindraceo longi－ tudine staminum，filamento quinto nudo．

A native of San Felipe，in Texas：discovered by Mr． Drummond，in 1834，and by him sent to our gardens，where it promises to be a very great acquisition，being remarkable for its stately growth，its singularly glaucous and large foliage，and for the number and size and rich colouring of the flowers．The seeds arrived rather late in the spring of 1835，so that，in the Glasgow Botanic Garden，the autumn advanced rapidly upon us before the blossoms were gene－ rally expanded．Under more favorable circumstances we may judge of the beauty of the plant，from the fact that，on one specimen，we counted eleven pairs of floral leaves，from the axils of which sprang two to four flower buds：and in one of the dried native specimens a single raceme had fifty－ six blossoms．It will probably prove quite a hardy，her－ baceous perennial．I am anxious it should bear the name
of the skilful Curator of our Glasgow Botanic Garden, who has been the means of rearing so many of Mr. Drummond's plants, and to whose undeviating kindness and friendship that zealous Naturalist was greatly indebted for much of the success that attended his exertions.

Descr. Root perennial. Stem three feet high, erect, simple, rounded, purplish below. Leaves remarkably glaucous, and all quite entire, large, opposite : the radical ones six to seven inches long, spathulate, those of the lower part of the stem oblong, gradually becoming shorter and broader upwards and united at the base, till at length among the flowers (where they may be considered bracteas) they are remarkably connate, perfoliate, and cup-shaped, sensibly diminishing towards the extremity, so that the upper part of the stem forms a paniculated raceme, each pair of floral leaves bearing two, generally four, and often six, large, pedunculated, somewhat drooping, very handsome flowers. $\boldsymbol{P e d u n c l e}$ as long as the space between the leaves. Calyx deeply cut into five, nearly equal, slightly-spreading, linearoblong segments. Corolla an inch and a half or more long, of a rich glossy scarlet especially at the base, slightly enlarged upwards : limb two-lipped; upper lip small, bifid ; lozver large, of three spreading, oval segments. The fifth abortive filament deep red, curved at the extremity, which is filiform and not at all bearded. Germen ovate, green, seated upon a glandular disk, tapering into a deep red, filiform style: Stigma obtuse.

Fig. 1. Flower from which a portion of the Corolla is cut away, to show the Stamen, the fifth Filament, and the Styles :-magnified.


Pub by S. Curlas. Glacervood: Essex:Marl 18.36.

# ( 3473 ) <br> Linaria Canadensis. American ToadFlax. <br> ** * * * * 米 $* * * * * * * * * * * * * * ~$ 

Class and Order.
Didynamia Angiospermia.
( Nat. Ord.-Scrophularine. )
Generic Character.
Calyx 5-partitus persistens. Corolla personata, tubo in cornu producto: limbo bilabiato: lab. sup. erectum emarginatum aut bifidum lateribus reflexis; inf. palato elevatum, trilobum. Stamina conniventia. Anthere ovales, biloculares. Stylus filiformis. Stigma capitatum subbilobum. Capsula bilocularis, apice dentibus pluribus dehiscens: dissepimento utrinque placentifero. Semina compressa, marginata, vel solida. Spr.

## Specific Character and Synonyms.

Linaria* Canadensis; erecta glabra glauca, foliis linearibus obtusis, floribus racemosis, labio inferiore maximo palato obsoleto, calcare subulato, stolonibus procumbentibus.
Linaria Canadensis. Spreng. Syst. Veg. v. 2. p. 797. Antirrhinum Canadense. Linn. Sp. Pl. p. 861. Pursh, Fl. Am. v. 2. p. 421. Elliott, Carol. v. 2. p. 113.

Many Botanists object to the use of the names of countries, as applied to the specific denomination of plants, on the ground that they may be, and are frequently, found in other localities besides that from which the species derives its appellation: and such is eminently the case with the

[^8]the present individual, which, though called Canadensis, is not only found in all the temperate and warm regions of North America, but extends likewise through the greater part, if not the whole, of South America, * both on the Atlantic and Pacific sides; so that few phœnogamous plants can boast so extended a range. If we exclude the very dubious Linaria tenella, $\mathrm{P}_{\mathrm{h}}$. (not Cav.) this is the only species indigenous to North America; and except the Linaria glabrata of Humboldt, there seems to be no other found in South America. The present species is remarkable for the very large lower lip of the corolla and the very slightly projecting palate: the faux, however, as Willdenow well observes, is not pervious, whence it differs from the Genus Anarrhinum.

Although a plant known since the days of Linneus, and even Gronovius, it does not appear to have been introduced to our gardens till the spring of last year, when Mr . Drummond sent seeds (as well as specimens) from Texas, which produced flowering plants the ensuing summer. It is a hardy annual, and, on account of its comparatively large and delicate flowers, well worthy of being perpetuated in our gardens.

Descr. Annual. Stems often several from the same root, erect, a foot or more high, simple or branched, throwing out several procumbent stolones or barren shoots at the base, as in Linaria simplex, and especially L. Pelisserianum. Leaves linear, alternate, and rather remote on the flowering-stems, on the procumbent shoots crowded, often ternate and quaternate, all of them perfectly glabrous, entire, slightly glaucous. Racemes terminal, of several handsome, large, and extremely delicate, pale purple flowers, streaked with darker veins. Pedicels short. Calyx of five deep, glabrous segments. Corolla with the lower lip remarkably large and deflexed, cut into three truncated or retuse lobes, the disk pale, slightly prominent, but presenting no manifest projection or palate, yet closing the faux. Capsule globose, compressed, scarcely longer than the calyx, crowned with the short persistent style.

[^9]

## Coreopsis diversifolia. Various-leaved Coreopsis.


Class and Order.
Syngenesia Frustranea.
( Nat. Ord.-Composite.)

## Generic Character.

Receptaculum paleaceum. Achenia compressa, emarginata. Pappus bicornis vel obsoletus. Involucrum duplex; utrumque polyphyllum.

## Specific Character and Synonym.

Coreopsis * diversifolia; annua, hirsuta vel glabra, ramosa, foliis ternatis pinnatis etiam bipinnatis, foliolis rhom-beo-rotundatis obovatis obtusis integerrimis, pedunculis elongatis glaberrimis unifloris, involucro utroque monophyllo suboctopartito, radiis apice 4 -fidis, acheniis ovalibus muticis subincurvis hinc disco plano margine incrassato.
Coreopsis auriculata; var. diversifolia. Elliott, Corol. v. 2. p. 437 .

Sent from Texas by the late Mr. Drummond, who was much struck with its beauty, and who gathered it, not only upon the coast at Brazosia, but in the interior of the country round San Felipe. Seeds which arrived in February of the past year (1835) produced plants, which displayed their large and bright orange-coloured flowers with a dark eye in the open air, in the month of July. So that it promises to be a hardy and most desirable annual. Its nearest affinity,

[^10]affinity, as a species, is undoubtedly with C. auriculata, with which Mr. Elliott appears, though doubtfully, to have united it. It differs from that plant in its much smaller size, thinner, and usually more divided leaves, with broader and blunter segments, in its much larger flowers, and above all, the truly annual duration of the root.

Descr. Root annual. Stem a foot, or a foot and a half high, branched, varying exceedingly in hairiness, sometimes thickly clothed with rather long, spreading hairs, at other times quite glabrous. Leaves generally glabrous, petiolated, extremely variable, sometimes obovato-spathulate, and quite undivided, sometimes ternate, with the two lateral segments or leaflets smaller, at other times pinnatifid, and not rarely even bipinnate, the leaflets obovate, or oval and very obtuse, those of the lowermost leaves almost orbicular. Peduncles terminal and axillary, long, slender, glabrous. Involucre double, small; both monophyllous and about eight-partite; the outer lax with linear, green segments : the inner with broadly-elliptic, brown, glossy, membranaceous ones. Florets of the ray eight, very large, obovate, spreading, bright orange, with a dark brown spot at the very base, neuter, cut at the extremity into five, large, unequal teeth, the two middle ones the longest. Germen compressed, abortive. Disc small; its florets dark purple, black above, the anthers and styles and tips of the anthers alone orange. Germen ovate, compressed, slightly curved. Achenia oval, slightly curved, minutely dotted, the inner face with a depressed disk. Receptacle chaffy; the scales long, lanceolato-subulate, dark purple-brown, pale below.

Fig. 1. Floret of the Ray. 2. Floret of the Disk 3. Scale of the Receptacle. 4. Achenia: magnified.


# Rosa centifolia，muscosa；cristata． Crested var．of the Moss Rose． 

＊米米米 $* * * * * * * * * * * * * * *$

> Class and Order.

Icosandria Polygynia．
（ Nat．Ord．－Rosacete．）
Generic Character．
Calycis tubus urceolatus carnosus，achenia plurima hir－ suta includens．Receptaculum villosum．

## Specific Character and Spnonyms．

Rosa centifolia；armis inæqualibus majoribus falcatis，folio－ lis glanduloso－ciliatis，floribus cernuis，calycibus visco－ sis，fructu oblongo．Lindl．
Rosa centifolia．Linn．Sp．Pl．p．704．Lindl：Ros．p． 64. （ß．）muscosa ；calycibus pedunculisque muscosis．Lindl． l．$c$ ．
Rosa muscosa．Mill．Dict．n．22．Sims，Bot：Mag．t． 69. （a．）cristata．（Tab．nostr．3475．）

The Moss Rose of our gardens，having been by Professor Lindley，in his excellent work above quoted，satisfactorily， as we think，referred to Rosa centifolia，we rank this plant as a subvariety of that well－known favourite of our gardens， and proceed to extract from Mr．Curtis＇s letter the remarks that accompanied the beautiful drawing，from the pencil of Miss Adams，daughter of Capt．Adams，R．N．of Witham， Essex．
＂This variety of the＂Moss Rose，like many of the more novel sorts，was obtained from France．Independently of the curious mode in which the moss springs in tufts from the edges of its calyx，giving to the early buds a most remarkable appearance，this Rose，when fully expanded，is large，
large, and of the loveliest hue, vying in beauty with any Provins Rose. In luxuriaut plants the leaf-stalks are adorned with moss, and the foliage is very ample, rich, and of a lively green colour. Amongst the Roses which I cultivate here, to the number of more than a thousand different kinds, this variety promises, when more generally known, to become the universal favorite. Its beauty and rarity will, I hope, plead an excuse for departing from the rule against figuring varieties in this work, the Moss Provins Rose having already found a place ; but, to avoid repetition, it may be desirable to state, for the information of those who desire to possess the most eligible kinds of Moss Rose, that, among the newer sorts now cultivated, the White, the Scarlet or Tinzoell, and the De Meaux, with a White Perpetual Moss Rose, which grows in a clustering manner, and resembles in habit the Quatre Saisons, are the most generally approved varieties. These are well worthy of a conspicuous place in every flower-garden, and their vigor is generally increased by budding them on the stock of the Dog Rose, whether it be desirable to keep them in a dwarf state, or to rear them into standards." S. C.


## （ 3476 ）

Euphorbia bupleurifolia．Hare＇s－Ear－ leaved Spurge．

类米米米米米粎米粎粎粎米粎米
Class and Order．
Moneecia Monandria．
（ Nat．Ord．－Euphorbiacee．）

## Generic Character．

Involucrum androgynum 4－5－fidum，extus appendiculis glandulosis rotundatis $\mathbf{v}$ ．bicornibus．Flores apetalis mas－ culi peripherici．Pedicelli incerti numeri，singuli cum sin－ gulis staminibus articulati．Anthere biloculares loculis discretis，sursum dehiscentibus．Germen pedicellatum cen－ trale．Styli 3，bifidi．Caps．tricocca．Cocci bivalves． Sem．albuminosa．Spr．

## Specific Character and Synonyms．

Euphorbia bupleurifolia；caule bulbiformi tuberculato－ areolato，foliis terminalibus fasciculatis lanceolatis in petiolum attenuatis，pedunculis axillaribus monoce－ phalis，involucri universalis foliolis subrotundatis basi coadunatis．
Euphorbia bupleurifolia．Jacq．Hort．Schoenbr．v．1．p． 55. $t .106$. Spreng．Syst．Veget．v．3．p． 787.

Among the many curious forms of this extensive and varied Genus which exist in Southern Africa，the present is， perhaps，the most remarkable，having a thick，succulent， bulbiform stem，marked all over with the scars occasioned by the falling away of the old leaves，giving a reticulated appearance to the surface，the areolæ constituting tubercles， which are umbilicated in the centre．The whole foliage arises from the extremity of the stem．The Glasgow Bo－ tanic Garden is indebted for its first possession of this plant
to the Royal Gardens of Kew, where it has been long cultivated; and very lately we have received living specimens through the liberality of Baron von Ludwig, which, arriving in the month of April, quite destitute of leaves, soon produced both foliage and flowers as here represented. The whole plant abounds with milky juice.

Descr. Stem four to five inches high, and about three broad, oval or obovate, brown, greenish above, marked all over with the tuberculiform scars, arising from fallen leaves, of which the interstices exhibit a reticulated appearance. Leaves all terminal, clustered, erecto-patent, four to six inches long, lanceolate obtuse, with a few oblique veins from the costa, below tapering into a footstalk. From within these leaves the peduncles arise, two to three inches long, erect, bearing each only one capitulum or head of flowers. Germen: Involucre of two roundish or obcordate leaves, of a rather thick and coriaceous texture, united at their bases, within which, and quite sessile, is the partial involucre, cup-shaped, with five equal, nearly erect, rounded, minutely crenated, fleshy lobes, and alternating with them are five smaller, somewhat membranaceous and fimbriated ones. Staminiferous flowers numerous. The pistilliferous one had fallen away when this drawing and description were made. But Jacquin describes the germen as smooth, and the stigma trifid, with the segments obscurely bifid.


Anchusa versicolor. Changeable-flow-

## ered Alkanet.


Class and Order.

> Pentandria Monogynia.
( Nat. Ord.-Boraginee. )
Generic Character.
Calyx 5-partitus, fructiferus erectus v. nutans, inflatus. Corolla infundibuliformis, fauce fornicibus erectis obtusis clausa. Stamina tubo adnata, inclusa. Stylus stigmate bilobo. Nuces turbinatæ, basi foveolatæ. Spr.

Specific Character and Synonyms.
Anchusa* versicolor; calycibus quinquefidis, fructiferis maxime inflatis cernuis, corollis æqualibus, foliis oblongis obtusiusculis floralibus latioribus, caulibus prostratis, nucibus rugosis.
Anchusa versicolor. Stev. Act. Mosq. p. 21. Roem. et Sch. v. 4. p. 93.
Lycopsis rosea. Reich. Ic. Bot. t. 330. (excl. syn.)

An exceedingly pretty annual, which we are surprised is not more known and more cultivated. The corollas are large, for plants of this family, at first sight resembling those of Convolvulus tricolor, and are remarkable for the striking change of colour which they undergo, being almost red in the state of the bud; then, when expanded, reddish purple; at length bright blue with a yellow eye, from which diverge several delicate rays of a pale yellowish-white colour. Reichenbach and Sprengel have strangely confounded

[^11]founded it with the Anchusa rosea of Bieberstein, admirably figured in the Cent. Plant. Ross. Merid. t. 43, but that has much smaller, deep rose-coloured flowers, sharper teeth to the calyx, and acuminated leaves. A. versicolor is an inhabitant of the Caucasian Alps, about Chinalung and Kasbek. In the Glasgow Botanic Garden it flowers in July.

Descr. Root annual. Stem weak and decumbent, branched, slightly angular, and moderately hispid. Leaves slightly hispid, entire, the radical ones spathulate, those of the stem oblong, the uppermost or floral leaves broader, inclining to ovate, all rather obtuse at the extremity. Racemes elongated, leafy. Flowers arising from the axil of each leaf or bractea, on a very short stalk. Calyx five-toothed, oblong, erect, at length singularly inflated and deflexed, slightly five-angled. Corolla large, salver-shaped rather than funnel-shaped: tube as long as the calyx: limb five-lobed, spreading, at first deep rose-red, then purple, at length blue with pale yellow rays. A little below the mouth of the tube are five small, rounded scales, hairy at the margin. Stamens with their filaments very short; the anthers oblong, dark coloured. Nuts (immature) five, ovate, compressed, much wrinkled, fixed by their base.

Fig. 1. Section of the Calyx with young Fruit. 2. Corolla laid open. 3. Scale of the Corolla. 4. Stamen :-magnified.


# ( 3478 ) <br> Pereskia Bleo. Rose-coloured <br> Pereskia. 

*******************
Class and Order.
Icosandria Monogynia.
( Nat. Ord-Cactee. )

## Generic Character.

Sepala plurima ovario adnata et super fructum sæpe persistentia foliiformia. Corolla rotata fere Opuntice. Stamina numerosa petalis multo breviora. Stylus filiformis. Stigmata spiraliter aggregata. Bacca globosa aut ovata. Semina in pulpa nidulantia.-Frutices aut arbores, ramis teretibus. Aculei ad axillam foliorum solitarii aut in caule fasciculati. Folia distincta plana in ordine maxima. Flores subpaniculati solitarii ramulos terminantes aut sublaterales. $\boldsymbol{D} \boldsymbol{C}$.

## Specific Character and Synonyms.

Pereskia * Bleo; foliis ellipticis acutis, aculeis axillaribus fasciculatis, pedunculis in axillis supremis 3-5-floris, petalis obovatis retusis demum reflexis.
Pereskia Bleo. Humb. et Kunth, Nov. Gen. v. 6. p. 69. De Cand. Prodr. v. 3. p. 474. Lindl. Bot. Reg. t. 1473.

A very handsome stove plant, which few at the first sight with its large, glossy, nerved leaves, and spreading and even reflexed petals, would take for one of the Cactus family. It appears to have been discovered on the banks of the Magdalena,

[^12]Magdalena, South America, by Humboldt, who retained, for its specific name, the uncouth appellation given to it by the natives of New Grenada. Mr. Tate introduced it to the stoves of this country from Mexico, and to him the Glasgow Botanic Garden owes the possession of it. With us it flowers in May and June.

Descr. The specimen before us is scarcely a foot in length; its stem rounded, fruticose, brownish-green, with several tufts of deciduous spines, two to five in number, from one-half to three-fourths of an inch long, imbedded in a dense mass of hairs, or soft bristles. Leaves alternate, four to six inches long, rather soft and fleshy, elliptical, acute, tapering at the base into a very short footstalk; and bearing, in the axils which do not contain peduncles, similar tufts of spines and hairs. The upper axils bear peduncles, which are thick, rounded, and fleshy, about an inch or more long, with from three to five handsome rose-coloured flowers. Calyx fleshy, green, of several somewhat imbricated teeth, with a small leafy appendage at the extremity, the outer ones with a small dense tuft of hairs on each side at the base ; petals ten, in two series; the outer smaller, greenish on the back ; the inner larger and deeper coloured, all obovate, more or less retuse, soon reflected. Filaments numerous, inserted upon the calyx. Anthers yellow. Style as long as the stamens. Stigma large, of five to six erect rays.

V. Bartholoment Esq" ass. or the Soc" ct Paint in W. Col.delt

## Peristeria pendula．Pendulous Dove－Flower．

料料米料粎粎 $* * * * * * * *$
Class and Order．
Gynandria Monandria．

> ( Nat. Ord.-Orchidee. )

## Generic Character．

Perianthium globosum．Sepala concava，subcarnosa， basi connata，ita calyx submonophyllus．Petala confor－ mia paulo minora．Labellum carnosum，medio articulatum ； dimidio superiore erecto apice reflexo，inferiore lobo utrin－ que dilatato．Columna basi petalorum adnata inferne pro－ ducta et labello continua，utrinque in alam vel lobum producta．Anthera ecristata，bilocularis．Pollinia 2 pos－ tice fissa，glandula sessili nuda．－Herba terrestris，pseudo－ bulbosa．Folia plura，plicata．Scapus radicalis vaginatus， pluriflorus．Flores speciosi，odorati．

## Specific Name and Character．

Peristeria pendula；scapo brevi paucifloro，columnæ alis seu lobis parvis porrectis，labelli basi disco cristato crasso，lobo superiore disco canaliculato ecristato．

This fine plant unquestionably belongs to the curious Genus Peristeria，of which only one species（P．elata， Bot．Mag．t．3116，）was hitherto known，and that is a native of Panama．The present one was imported with many other rarities from Demerara，by John Allcard，Esq． in whose stove at Stratford Green it flowered in January of the present year，and who kindly sent us the drawing here engraved，from the pencil of V．Bartholomew，Esq．Asso－ ciate of Painters in Water Colours．

Descr．Bulb oblong－ovate，grooved，partially sheathed with membranaceous scales，and bearing at its summit three
to four lanceolate, wavy, striated, somewhat membranaceous leaves. From the base of this bulb descends a scape, six to seven incheslong, clothed with membranaceous scales, and bearing about five large, handsome, globose, fleshy, fragrant flowers of a pale, greenish-white without, within tinged with blush, and sprinkled with purple dots. Sepals roundish, rather obtuse, very concave, united at the base, especially the two lower ones, under the lip: petals rather smaller, but similar in form and texture. Lip of a very remarkable shape, thick and fleshy, dingy white, spotted with purple, jointed in the middle; the lower portion with a membranous, rounded lobe on each side, and its disk remarkably cristate, having a thick, elevated projection : the upper joint or lobe erect, ligulate, its disk deeply grooved, the apex recurved. Column semiterete, standing forward, with a horizontal lobe or wing on each side, singularly dilated downwards below, and gradually passing into the lip. Anther-case depressed. Pollen-masses obovate.

Fig 1. View of the base of a Flower, to show the combined Sepals. 2. Front view of the Column and Lip, the floral coverings being cut away. 3. Side view of ditto. 4. Side view of the same, the upper lobe of the Lip (fig. 5.) being removed. 6. 7. Anther. 8. 9. Pollen-masses.-Fig. 2 to 9 more or less magnified.


## ( 3480 )

# Linum Berendieri. Berendier's Yellowflowered Flax. 

**********************
Class and Order.
Pentandria Pentagynia.
( Nat. Ord.-Linee. )

## Generic Character.

Flores proportione partium quinaria. Sepala integra. Styli rarissime 3, cum petalis staminibus sepalisque 5 .

## Specific Character and Synonym.

Linum Berendieri; annuum monogynum multicaule ramosum, caule angulato, foliis alternis linearibus rigidiusculis glabris mucronato-acuminatis- marginibus lævibus, floribus subcorymbosis, fructibus racemosis, sepalis bracteisque lanceolato-acuminatis marginibus serrulato-scabris, capsulis globosis acutis.
Linum Plotzii. Hook. MSS. in Herb. Tex.

An exceedingly beautiful and new species of Linum, first known to me by means of specimens in a small collection of plants gathered by M. Berendier, (at first erroneously supposed to be by M. Plotz,) in Texas. These specimens were from "Bejar," where they were found blossoming in March, 1828. By Mr. Drummond it was afterwards detected at Rio Brazos and San Felipe, in the same country, and introduced to our gardens in 1835. With us it has been kept in a cool frame, where it flowered in August ; but there is reason to think it will prove a hardy annual, and a most valuable acquisition to our gardens.
Descr. Root annual, sending up from its summit many stems, which are more or less branched, especially upwards ;
wards; the branches angular. Leaves scattered, linear, three-fourths of an inch to an inch in length, mucronate, glabrous and quite entire at the margin, slightly glaucous. The flowers are, at first, before expansion, corymbose, afterwards the rachis is lengthened out, and in the state of fruit there is an elongated raceme, the pedicels half an inch long, pointing one way. Bracteas lanceolato-acuminate, aristate, as well as the sepals, which, have three to five prominent ribs, and are serrulate at the margin. Corolla large, yellow, deeper and almost orange at the base. Petals obovate, entire ; the claw at the very base hairy. Stamens five. Anthers sagittate. Germen globose. Style longer than the stamens, dividing at the extremity into five patent branches, each tipped with a globose stigma. Capsule globose, acute, five-celled, five-valved.

[^13]

## ( 3481 )

Chetogastra gracilis. Slender ChetoGASTRA.
******************** Class and Order. Decandria Monogynia.
( Nat. Ord.-Melastomacee.)
Generic Character.
Calycis tubus turbinatus pilosus aut squamosus; lobi 5 persistentes. Petala 5 obovata. Staminum filamenta glabra; Anthere 10 oblongæ consimiles porosæ, connectivo basi producto nunc in calcar simplex aut bifidum nunc in tubercula 2 obtusa interdum minima. Ovarium liberum, apice setosum et sæpe denticulatum. Capsula 5-locularis. Semina cochleata. DC.

## Specific Character and Synonyms.

Chetogastra* gracilis; herbacea, erecta subsimplex apice nuda, caule tereti-tetragono villoso, foliis subsessilibus lanceolato-linearibus acutis integerrimis $3-5$ nerviis villosis, pedicellis axillaribus 1-floris et terminalibus ternis, calycis tubo ovato lobis lanceolatis acuminatis subæquali.
Chetogastra gracilis. De Cand. Prodr. v. 3. p. 133. Chamisso in Linncea, v. 9. p. 407.
Rhexia gracilis. Humb. et Kunth, Rhex. t. 52.

An extremely beautiful Melastomaceous plant; for dried specimens of which we are indebted to several travellers in Brazil, where the species appears to be common; and for the seeds, from which our living plants were raised in the Glasgow

[^14]Glasgow Botanic Garden, to Mr. Tweedie, who collected them at Rio Grande do Sul, in South Brazil. It requires the heat of a stove, and blossomed with us in June. CHAmisso speaks of it as a very variable species, and is inclined to refer to it the C. strigillosa, hieracioides, repanda (Martius, Osbeckia, D C.), and even C. frateria and hirsuta, DC.

Descr. Root perennial. Stem herbaceous, erect, nearly simple, rounded, or obscurely four-sided, clothed with long, spreading, rigid hairs. Leaves lanceolate, or oblongo-lanceolate, patent, rather rigid, three-nerved, clothed on both sides, and ciliated, with copious, harsh hairs, or bristles. Upper part of the stem nearly bare of leaves, or the leaves are reduced to small, oblong bracteas. Panicle subspicate. Flowers large and handsome. Calyx ovato-turbinate, bristly, with five acute, spreading segments. Petals five, large, broadly obovate, approaching to cordate, spreading, concave, rose-lilac, deeper at the base. Stamens ten, declined, unequal. Filaments bright rose-red. Anthers long, curved, attenuated upwards, yellow, opening by a single pore; the base with two rounded tubercles. Germen oval, crowned with a silvery tuft of hairs or bristles. Style about as long as the stamens, flexuose.

Fig. 1. 2. Stamens. 3. Calyx laid open to show the Pistil:-magnified.


# Cooperia chlorosolen. Green-tubed 

## Cooperia.



Class and Order.
Hexandria Monogynia.

> ( Nat. Ord.-Amaryllidee. )

## Generic Character.

Scapus cavus. Germen erectum. Perianthium tubo erecto cylindrico ore ampliato, limbo albo regulari $\mathbf{1}_{\frac{1}{8}}$ unciali sub sole patente. Filamenta decurrentia, subæqualia, apice ad faucem tubi libera. Anthere subulato-lineares, (dein lineares) erectæ, non versatiles, a tertiâ parte inferiore dorso affixæ. Pollen difforme (quod in Zephyranthe acutè ovale). Stigma crassum trilobum vix trifidum. Semina complanata testâ tenui nigrâ. W.H.

## Specific Character.

Cooperia chlorosolen; scapo ultra-pedali viridi, infra rubescente; foliis sesquipedalibus, $\frac{1}{8}$ unc. latis, canaliculatis, tortilibus, acutis, viridibus; germine sessili ; spathâ $1 \frac{1}{2}$ unciali tubata, apice fenestrato; perianthii tubo $4 \frac{1}{4}$ unciali viridi limbo $1 \frac{1}{8}$ unciali albo, sepalis viridi-apiculatis, extus viridi-lineatis; filamentis $\frac{1}{8}$ unciæ liberis; stylo incluso semiunciam vel ultra tubo breviore. W.H.

This singular plant, the second species of the Genus that has flowered in this country, was sent, as well as Cooperia Drummondi from Texas by Drummond. It flowered at Spofforth in the greenhouse at the beginning of January, and differs from Cooperia Drummondi, which had bloomed in the autumn at Wentworth House, in having a much larger limb, the tube green, and the sepals lined with green on the outside, the leaves longer and wider, the filaments
free from the tube one-eighth instead of one-sixteenth, and the style shorter than the tube. They both differ from the Genus Zephyranthes, in having anthers subulate before their inversion, erect, and not versatile, and in the deformity of the pollen, which in Zephyranthes is acutely oval. The remarkable long tube which distinguishes these two species, is perhaps not essential to the Genus; and Zephyranthes candida (supra 2607) which refuses to breed with Zephyranthes, differing from it, and agreeing with Cooperia in the more important points, will probably be found to belong to another section of this Genus. Cooperia Drummondi has the leaves twelve or thirteen inches long, about one-twelfth wide ; the tube four inches and a half, red; the limb five-eighths, lined with red on the outside; the filaments free, one-sixteenth only; the style longer than the tube, shorter than the anthers.

There is a third Cooperia amongst Drummond's bulbs, which has not yet flowered ; and it is uncertain whether it will prove different from C. chlorosolen or not. There is also a Zephyranthes, of which the flower is known by his specimens, which it is proposed to call Texana.
Z. Texana, foliis viridibus, rectis, infra lineam latis, flore pedunculato luteo, extus cupreo.

The Genus Cooperia is named, in compliment to $\mathbf{M r}$. Cooper, who has during a very long course of years had the superintendence of the rich collection of plants which he has brought together at Wentworth House, the seat of Earl Fitzwilliam, in Yorkshire.

The point of the perianth was not naked at the first appearance of the bud, as seems usual with Zephyranthes : it was yellowish before it acquired its full size, turning gradually to clear white. $W . H$.

[^15]

# Rhodanthe Manglesii．Captain Mangles＇ Rhodanthe． 

米粎粎料粎米粎粎米料粎当
Class and Order．
Syngenesia Æqualis．
（ Nat．Ord．－Composite．）
Generic Character．
Capitulum multiflorum，homogamum．Pappus unise－ rialis，piliformis，plumosus，distinctus．Achenium erostre， lanatum．Receptaculum nudum．Lindl．

## Specific Name and Synonym．

Rhodanthe＊Manglesii．
Rhodanthe Manglesii．Lindl．Bot．Reg．t． 1703.

A beautiful，hardy annual，drawn by Miss Maria Curtis， at her father＇s extensive nursery－grounds of Glazenwood， where it bears its brilliant rose－coloured and yellow blos－ soms in the early summer months．In July，Professor Lindeey observes，it becomes shabby，and，by the begin－ ning of August，its seed is ripe，and its life departed．We are indebted for its introduction to Captain Mangles，R．N．， who brought the seeds from the Swan River Colony，New Holland，to the gardens of Robert Mangles，Esq．，Sun－ ning Hill．The genus seems very nearly related to Po－ dolepis，of which one species is figured at t． 2904 of this work．The involucre，however，is different，and the pappus is plumose in our present plant．

Descr．Root annual．Stem（as is the whole plant） glabrous，rounded，slightly glaucous，branched in a dicho－ tomous

[^16]tomous manner, with a leaf at the setting on of the branches. Branches wavy, slender, forming a sort of panicle upwards ; peduncles single-flowered, more or less drooping. Leaves oblong-obtuse, cordate, and amplexicaul at the base, dark green above, paler beneath. Involucre turbinate, much tapering at the base, formed below of numerous laxly imbricated, purplish-grey, membranaceous, ovato-lanceolate scales, gradually, as they proceed upwards, larger and longer, and of a fair rosecolour, toothed at the apex ; the uppermost forming a beautiful concave ray around the disk, which consists of numerous yellow, tubular florets. Receptacle naked. Achenium very hairy. Hairs of the pappus feathery.


# Coreopsis senifolia. Six-leaved Co- 

REOPSIS.
> *********************

Class and Order.
Syngenesia Frustranea.
( Nat. Ord.-Composite. )

## Generic Character.

Receptaculum paleaceum, Achenium compressum, emarginatum. Pappus bicornis (quandoque obsoletus). Involucrum duplex, utrumque polyphyllum.

## Specific Character and Synonyms.

Coreopsis senifolia; perennis, erecta, foliis oppositis sessilibus ad basin usque tripartitis laciniis lanceolatis integerrimis rigidiusculis, floralibus plerumque indivisis, radii flosculis integerrimis.
Coreopss senifolia. Mich. Am.v.2.p. 138. Willd. Sp. Pl.v. 3. p. 2054. Pursh, Fl. Am. v. 2. p. 568. Ell. Carol.v. 2. p. 433. Spreng. Syst. Veget. v. 3. p. 614.

A native of Carolina and Georgia, and introduced to our gardens by Mr. John Lyon, in 1812. Notwithstanding that it is peculiar to the Southern States of North America, where the summer heats are excessively great, it flourishes well in the open air, with us, even in Scotland; flowering in the latter end of the summer and autumn. It is readily distinguished by its leaves being opposite, and each deeply three-partite, the segments generally spreading; so that it appears as if there was, at every joint, a whorl of six leaves, whence the specific name. The species is certainly very variable in the breadth of the segments of its leaves, and in the whole plant being more or less downy, or quite glabrous : hence, as it appears to me, Nuttall has lately constituted
constituted two species, C. stellata and C. senifolia; the former being characterized by the broader leaves, and the whole plant being glabrous; the latter, by the narrow leaves and downy plant. Thus the specimen we have given is destitute of hair, like C. stellata, but has the narrow leaves of C. senifolia of this author. This species will probably unite with the C. tripteris, L. to form Lessing's Genus of Chrysostemma.

Descr. Root perennial. Stem erect, straight, rigid, angled, glabrous, as is the whole plant in our specimens; which, in other instances, is more or less downy : branched upwards in a subtrichotomous manner, the flowering branches forming a sort of corymb. Leaves opposite, deeply tripartite, somewhat rigid, the segments lanceolate, (sometimes broadly so,) spreading, entire, acute, the uppermost ones, among the flower-stalks, not unfrequently undivided. Involucre glabrous: outer of about eight linear, nearly erect, green leaves; inner of about as many ovate, membranaceous, brownish ones. Radical florets about eight, spreading, oval, full yellow, abortive ; those of the disk greenishyellow; the fruit oblongo-cuneate, compressed, slightly winged at the margin, especially upwards. Pappus obsolete; in the perfectly ripe fruit constituting a small bidentate membrane.

[^17]
## ( 3485 )

## Nemophila insignis. Showy Nemophila.

********************
Class and Order.
Pentandria Monogynia.
( Nat. Ord.-Hydrophyllee.)

## Generic Character.

Cal. inferus, persistens, 10 -fidus; laciniis alternis reflexis. Cor. campanulata, 5 -loba : lobis emarginatis. Nect. foveolæ 10 ad marginem faucis. Stam. brevia. Antherce lunatæ. Caps. unilocularis. Sem. unum supra alterum receptaculis duobus parietalibus inserta.

## Specific Character and Synonyms.

Nemophila* insignis ; foliis (superioribus) oppositis pinnatifidis basi in petiolum angustatis lobis integerrimis 1-2-dentatisve, calycis sinubus reflexis, corollis calyce duplo longioribus, ovariis multi-ovulatis. Benth.
Nemophila insignis. Benth. in Hort. Trans. v. 1. N. S. p. 479. Bot. Reg. t. 1703.

This, again, is one of the many highly ornamental plants of California, for the discovery and introduction of which to our gardens we are indebted to the exertions of the lamented Douglas. The flowers are large, and of so bright a blue, that no artificial colouring can do justice to them. It blossoms in July and August.

Descr. Root annual. Stem procumbent, branched, slender, hairy. Leaves alternate in the lower, and opposite in the upper, part of the stem, petiolate, pinnatifid, hairy, the segments rather remote, oblong, one- to two-toothed. Pedun-

[^18]cles long, axillary, hairy, solitary, one-flowered. Calyx hairy, of five ovate, nearly erect segments, and as many smaller, lanceolate, reflexed ones, alternating with them. Corolla rotato-campanulate, deeply divided into five obcordate lobes, of an intense blue within, paler externally: the tube hairy within at the base. Stamens inserted at the base of the tube, shorter than the limb: Anthers purple brown. Germen broadly ovate, very hairy, inserted upon a fivelobed, fleshy disk: Style as long as the stamens, bifid: Stigmas small, capitate.


## （ 3486 ）

## Oncidium cornigerum．Horned Oncidium．

粎米粎米米粎料米米米米米米米米
Class and Order．

Gynandria Monandria．

（ Nat．Ord．－Orchidee．）

## Generic Character．

Perianthium explanatum．Sepala sæpius undulata ：late－ ralibus nunc sub labello connatis．Petala conformia．$L a-$ bellum maximum，ecalcaratum，cum columna continuum， varie lobatum，basi tuberculatum vel cristatum．Columna libera semiteres，apice utrinque alata．Anthera semibilo－ cularis，rostello nunc abbreviato，nunc elongato rostrato． Pollinia 2，postice sulcata ；caudicula plana ；glandula ob－ longa．－Herbæ epiphyte，nunc pseudo－bulbose．Folia co－ riacea．Scapi paniculati vaginati，rarius simplices．Flores speciosi，sapius maculati，rarius albi．Lindl．

## Specific Character and Synonym．

Oncidium cornigerum；pseudo－bulbis oblongis sulcatis mo－ nophyllis，foliis ovalibus acutis sessilibus striatis scapo elongato paniculato multifloro brevioribus，sepalo supremo petalisque obovatis concavis undulatis obtu－ sis，inferioribus minoribus angustioribus basi connatis， labelli lobis lateralibus linearibus cornutis intermedio obovato subrepando undulato，crista antice verrucosa truncata postice lamella crenata transverse cornuta， columna alis linearibus obtusis porrectis．Lindl．（pauc． verb．mut．）
Oncidium cornigerum．Lindl．Bot．Reg．t．1542．Gen．et Sp．Orchid．p． 199.

This plant，which，from our first knowledge of it，pro－ mised，by its very few－flowered scape and the small size of those flowers，to be little deserving of attention on the score
score of beauty, now, as cultivated in the collection at Wentworth, whence our fine specimen was kindly communicated in August of last year, 1835, must be allowed to possess considerable beauty and gracefulness. Lord Fitzwilliam received the plant from the Hon. and Rev. W. Herbert of Spofforth, who imported it from Brazil ; and the scape here represented was produced by an offset of the same year's growth.

Descr. Bulbs, or pseudo-bulbs, about three inches long, rounded, a little tapering upwards, furrowed, dark green; bearing, at the extremity, a solitary, oval-oblong, dark green, striated, rather obtuse leaf. Scape from the base of the bulb, fourteen to sixteen inches long, slender, bearing a drooping, many-flowered panicle, or rather compound raceme. Perianth yellow, spotted with red. Sepals and petals obovate, concave, the two lower sepals the smallest : the upper one forming a kind of hood over the column. The lip may be called panduriform, with a horn-shaped lobe on each side at the base : the apex rounded and broad, emarginate, the disk below the apex with a sort of double crest, of which the lowest projects into a horn on each side at the base. Column short, with two projecting, elongated lobes or wings. Lip hemispherical, truncated in front. Pollen-masses pear-shaped, stalked.

Fig. 1. Flower. 2. Lip. 3. Column. 4. Apex of the Column, from which the Anther is removed, showing the Pollen-masses : magnified.
 <br> \title{
Senecio ampullaceus. Flask-flowered <br> \title{
Senecio ampullaceus. Flask-flowered American Groundsel.
}

Class and Order.
Syngenesia Superflua.
( Nat. Ord.-Composita. )
Generic Character. .
Anthodium multipartitum apice maculatum basi subinvolucratum seu bracteatum. Receptaculum nudum. Spreng.

## Specific Name and Character.

Senecio ampullaceus; herbaceus, erectus, glaberrimus, striatus, foliis oblongis obtusis carnosis inferne præcipue dentatis basi subcordatis semiamplexicaulibus, infimis spathulatis, panicula corymbosa, involucris demum ampulliformibus nitidis, radiis paucis patentibus, acheniis cylindraceo-attenuatis sericeo-pubescentibus striatis.

A handsome, showy species, but too near perhaps, in the appearance of its flowers, to some of our larger European Groundsels, to become a general favourite. Its leaves, indeed, are very different from those of any species with which I am acquainted, and peculiarly thick and fleshy ; nor do I find any described Senecio that will accord with it. It is one of Mr. Drummond's discoveries in Texas, but he probably did not meet with it in a good state of flower ; for there are very few specimens in the herbarium, and those in a most indifferent condition, and with their lower leaves much more toothed than in the cultivated state. Nor do these specimens, probably owing to pressure, exhibit the remarkable contraction in the upper part of the involucre, which is so striking in the recent individual, giving the old flowers the form of the capsule of Splachnum ampullaceum.

Descr. Root annual ? Stem one to two feet high, herbaceous, erect, glabrous, as is the whole plant, striated, green, tinged with purple, branched upwards. Leaves three to four or five inches long, remote, oblong, obtuse, or the upper ones alone acute, semiamplexicaul at the base, of a thick and fleshy substance, the margin entire, or more or less toothed, particularly below the middle, the radical leaves spathulate. Branches panicled above, the branchlets corymbose. Pedicels with subulate bracteas at the base. Flowers rather large, handsome. Involucre cylindrical, of many closely-placed, linear scales, sharp and discoloured at the point, and with a few small scales or bracteas at the base. Florets of the ray six to eight, rather large, spreading : those of the disk twenty to thirty. Style and stamens considerably exserted: segments of the stigma revolute. Achenia oblong, attenuated upwards. Pappus copious, white.

Fig. 1. Floret of the Disc. 2. Floret of the Ray. 3. Achenium : magnified.


# ( 3488 ) <br> <br> Collinsia bicolor. Two-coloured <br> <br> Collinsia bicolor. Two-coloured Collinsia. 

 Collinsia.}

Class and Order
Didynamia Angiospermia.
( Nat. Ord.--Scrophularine.)

## Generic Character.

Calyx 5 -fidus, æqualis. Corolla bilabiata, tubo supra gibbo, limbo inæquali ; labio superiore erecto bifido inferiore trifido. Stamina didynama. Capsula globosa, 4valvis, oligosperma.

## Specific Character and Synonyms.

Collinsia * bicolor; foliis ovato-acuminatis serratis basi subcordatis, nervis subparallelis, verticillis (infimis exceptis) aphyllis.
Collinsia bicolor. Benth. in Hort. Soc. Trans. N. S v. 1. p. 480. Bot. Reg. t. 1734.

A very handsome hardy annual ; detected in California by the late Mr. Douglas, and by him introduced to the garden of the Horticultural Society in 1833; whence it has been liberally distributed to other collections. Our plants flowered in August in the Glasgow Botanic Garden.

Descr. The stems are upright, but weak and flexuose, slightly downy. Leaves opposite or ternate, sessile, ovateacuminated, glabrous, serrated, somewhat cordate at the base, marked, with a few nerves which run nearly parallel with

[^19]with the midrib. Flowers arranged in several wohorls, towards the extremities of the branches, large, and striking from the contrast of colour between the upper and lower lip : each whorl subtended by a pair of bracteas, which, in the upper ones, are obsolete. Calyx campanulate, five-fid; the segments ovate-acuminate. Corolla with the tube white, swollen on the upper side. Lozoer lip large, pendent, purple; upper lip erect, white.


Jaborosa integrifolia. Entire-leaved Jaborosa.
> **********************

Class and Order.
Pentandria Monogynia.
(Nat. Ord.-Solanee.)

## Generic Character.

Calyx parvus, 5 -fidus. Corolla tubulosa seu subcampanulata. Anthere subsessilia intra faucem. Stigma clavatum 3-5-fidum. Bacca bi- (tri-, Commers.) locularis.

## Specific Character and Synonyms.

Jaborosa integrifolia; acaulis, radice repente, foliis petiolis ovalibus subintegerrimis, corolla longe tubulosa limbi laciniis valde acuminatis.
$J_{\text {aborosa integrifolia. Lam. Encycl. v. 3. p. 189. Illustr. }}$ t. 114. Spreng. Syst. Veget. v. 1. p. 700. Hook. Bot. Misc. ซ. 1. p. 348.

The Genus, which has derived its name from Jaborosa, or Jaboròhh, the Arabic name for the Mandragora, to which our plant is allied, was founded upon the present and another species, (J. runcinata,) by Jussieu, in the Genera Plantarum, from specimens collected by Commerson, at Buenos Ayres. These plants, I apprehend, however, were little, if at all, known to Botanists till many years after ; when the late Dr. Gillies gathered them both in the same country, and added a third, which we had the pleasure of figuring and describing in the first volume of the Botanical Miscellany, and which he found in the Andes of Mendoza. The two original species have been again sent to us by Mr. Tweedie from the Pampas of Buenos Ayres, accompanied likewise by seeds, from which plants have been raised both at the Liverpool and Glasgow Botanic Gardens, and which, planted
planted in the open border, and in a favorable situation, prove perfectly hardy, flowering in July and August.

Descr. Root, or rather subterraneous stem, much creeping, rounded, about the thickness of a goose-quill, here and there sending out fibrous radicles from the underside, and leaves from the upper, which latter are solitary or two together, erect, four to six inches long, oval, obtuse, obscurely and distantly toothed, running down at the base into a rounded, purplish petiole. The surface of the leaf is distinctly marked with nerves, and is full green above, paler below. Peduncle from the base of a leaf, or between two leaves, about as long as the petiole, rounded, erect, bearing a solitary, upright flower. Calyx small, cupshaped, five-cleft. Corolla large, externally pale yellow green, interually white. Tube long, rather thick, curved; limb of five lanceolate, much acuminate, spreading segments. Anthers five, oblong-ovate, acute, sessile, or rather the filaments are combined with the tube of the corolla. Germen small, ovato-globose. Style exserted, much longer than the tube: Stigma clavate, three to five-cleft : the segments erect, green.

[^20]

## ( 3490 )

## Rosa microphylla. Small-leaved Chinese Rose.

*********************
Class and Order.
Icosandria Polygynia.
( Nat. Ord.-Rosacee.)

## Generic Character.

Calycis tubus urceolatus carnosus, achenia plurima hirsuta includens. Receptaculum villosum.

## Specific Character and Synonyms.

Rosa microphylla; foliolis nitidis argute serratis, calyce aculeis densissimis muricata, sepalis brevibus late ovatis apiculatis. Lindl.
Rosa microphylla. "Roxb. Fl. Ind. ined." Lindl. Ros. Monogr. p. 9. Bot Reg. t. 919.

Whether the single-flowered state of this plant is in cultivation, I am ignorant. Certain it is, that the highly double blossoms, so much admired by cultivators, cannot be exceeded in delicacy of form, shadow, and colouring by any species of this highly-prized Genus : and no where, perhaps, is the present kind brought to so high a degree of perfection as in Mr. Curtis's extensive Nursery at Glazenwood, near Coggeshall, Essex, where the accompanying figure was made.

It is a native of China, and is stated to have blossomed for the first time in Mr. Colville's Nursery, about ten years ago.

We are indebted to Mr. Curtis for the following remarks, which cannot fail to be acceptable, to our Horticultural friends. "Rosa microphylla is hardy enough to bear our mild winters without protection, but with very sharp frosts it is liable to be destroyed in the open ground, a circumstance
stance owing to the tenderness of its roots: for when budded on the dog-rose stock, it becomes much more hardy.
"Those who are curious in Roses, should always have a few potted plants of the present kind reserved in a pit; lest the severity of winter should destroy those in the open border. It is well adapted for a standard-rose on a lawn, since it flowers freely throughout the autumn, and has besides a graceful, drooping kind of growth. I have, however, found it to succeed best when budded on the common blush China Rose, and placed against a wall. In such a situation it would seldom be injured, even by the hardest of our winters. It strikes freely from cuttings."


# Leptosiphon androsaceus. Androsacelike Leptosiphon. 



Class and Order.<br>Pentandria Monogynia.<br>( Nat. Ord.-Polemoniacee.)

## Generic Character.

Calyx tubuloso-campanulatus, æqualis, semi- 5-lobus, lobis lineari-subulatis, acutis, sinubus membranaceis. Corolla infundibuliformis (hypocrateriformis); tubo longe exserto tenuissimo ; limbo campanulato (patenti) 5 -fido; lobis ovalibus obtusis integerrimis. Stamina fauce inserta : anthere oblongæ, basi sagittatæ. Capsula loculi polyspermi. -Herbæ annuæ, basi glabra, apice pubescentes. Folia sessilia, opposita, palmatisecta, segmentis linearibus vel subulatis. Flores dense corymboso-capitati, axi sublanato. Bracteæ imbricate, foliis conformes, segmentis ciliato-hirsutis. Bentham.

## Specific Character and Synonyms.

Leptosiphon * androsaceus ; foliis 5-7-fidis oblongo-linearibus, corollæ tubo limbo 2-3-plo longiore, staminibus limbo corollæ triplo longioribus. Benth.
Leptosiphon androsaceus. Bentham, in Bot. Reg. fol. 1622. Hort. Trans. N. S. v. 1. t. 18.f. 1.

A Genus of five species, established by our valued friend Mr. Bentham in the work above quoted, all of which are remarkable for their graceful habit, slender foliage, and exceedingly pretty flowers, and which make a very hand-

[^21]some appearance when planted thickly in an open border. It was remarked, however, by Mr. Bentham, how much better this Genus and the nearly allied one Gilia succeeded in our Glasgow Botanic Garden, than in the environs of London; doubtless owing to our cooler temperature and moister climate. Professor Lindley indeed, observes of this plant, in the noble gardens of the Horticultural Society, that, " although it is perfectly hardy, yet it cannot bear our summer heats, and only flourishes in the spring, and more particularly in autumn, when the sun has lost its power, and the nights are cool with heavy dews." It should therefore be sown either in the autumn, so as to flower early; or in June, in order that it may be ready for blossoming in September. In our Scottish climate, it has been in its greatest beauty at the hottest season of the year (1835) the latter end of July, expanding its varied blossoms, white and various degrees of lilac, always with a black eye and deep yellow anthers and stigmas, to the full blaze of the sun.

Descr. Root fibrous, annual. Stem eight inches to a foot high, throwing out sparingly axillary, opposite branches chiefly from near the base, which, as well as the stem itself, are spreading below, then erect, purplish-green, downy. Leaves opposite, hairy, deeply pinnatifid, or rather almost digitate, with from five to seven linear, acute, and almost cuspidate segments; upper ones constituting bracteas to the head of flowers : lowermost ones with only one or two spreading segments at the base. Calyx tubular, with five subulate, erect, equal, hairy teeth. Corolla salver-shaped; tube very long, slender, purplish: limb spreading, of five ovate segments, the faux almost black, with a pale yellowish circle round it. Filaments short, black, inserted just within the faux. Anthers oval-oblong, orange-yellow. Siyle exserted. Stigmas three-cleft.

Fig. 1. Flower: magnified


## ( 3492 ) <br> Lupinus Texensis. Texas Lupine.

********************
Class and Order.
Diadelphia Decandria.

( Nat. Ord.-Leguminose. )

## Generic Character.

Caly $x$ profunde bilabiatus. Corolla papilionacea, vexillo lateribus reflexis, carina acuminata. Stamina monadelpha, vagina integra ; antheris 5 parvis subrotundioribus præcocioribus, 5 oblongis serioribus. Stylus filiformis. Stigma terminale subrotundum barbatum. Legumen coriaceum oblongum compressum, oblique torulosum. Cotyledones crassæ, per germin. in folia conversæ.-Herbæ aut Suffrutices. Stipulæ petiolo adnata. Folia sapius foliolis 5-9 digitatis constantia, rarius simplicia. Folia ante explic. aut per somnum complicata. Pedunculi oppositifolii terminales. Flores racemoso-spicati alterni, aut verticillati aut sessiles. Bractea sub pedicellis. Bracteolæ 2 lateraliter calyci adnata caduce aut nulle.

## Specific Name and Character.

Lupinus Texensis; herbaceus, annuus, caule pubescentisericea, foliolis quinis lanceolatis acutiusculis supra glaberrimis, subtus (margineque præcipue) sericeis, stipulis subulatis, racemo pyramidali, pedicellis alternis longitudine florum, calycibus sericeis bibracteatis bilabiatis utrinque bractea parva, labio superiore breviore bifido, inferiore acuminato integerrimo, vexillo orbiculari intense cæruleo medio macula alba plica longitudinali divisa.

Much and closely as this plant resembles the Lupinus subcarnosus figured at tab. 3467, it nevertheless appears to me to be really distinct. The habit is stouter, the leaves
are by no means fleshy, nor are their leaflets retuse, but acute : the flowers are deeper coloured, and the alæ or wings of the corolla are more projecting. The lower lip of the calyx I find to be always entire. Equally with the L. subcarnosus, the L. Texensis is an inhabitant of Texas; but the former is found near the coast, the latter at San Felipe in the Interior. Our present plant continues longer in flower, its blossoms are larger, deeper coloured, and the raceme is broader. The chief distinction is, however, certainly to be looked for in the foliage.

Fig. 1. Flower. 2. Calyx : magnified.

AErezamio $T$
Axtronsum



## Poinsettia pulcherrima．Showy Poinsettia．

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## Class and Order．

## Mongesia Monandria．

（ Nat．Ord．－Euphorbiacee．）

Generic Character．
Involucrum monophyllum，androgynum，basi 5 －loculare， extus appendiculatum，nectariferum．Flores pedicellati， nudi ；masculi bifariam in singulis loculis，monandri；femi－ nei solitarii，germen trilobum，ovulum solitarium singulis lobis．

## Specific Name and Synonyms．

Poinsettia＊pulcherrima．Graham in Edin．New Phil． Journ．March， 1836.
Euphorbia pulcherrima．Willd．Herb．！
Euphorbia Poinsettiana．Buist MSS．

By whom this truly splendid plant was communicated to Willdenow＇s Herbarium，I am not informed，but it was again discovered by Mr．Poinsette in Mexico，and sent by him to Charleston in 1828，and afterwards to Mr．Buist of Philadelphia，who has within a very few years brought together a choice collection of plants，equally creditable to his enterprise，and promising，as a point from which will be diffused a greater knowledge of the vegetation of North America．From Mr．Buist it was brought by Mr．James $\mathbf{M}^{\top} \mathbf{N}_{\mathbf{A b}}$ ，to the Botanic Garden，Edinburgh，and to several other establishments in this country，in November，1834， and from the information communicated by him it has since been imported into other British collections from Mr．Buist＇s garden．It flowered twice with us last year，but too imper－ fectly to allow of its being figured．It subsequently flowered with Dr．Neill，Canonmills，and again with us this month （February，1836）．Nothing can be more ornamental in the stove．The rose－like whorls of bracteæ which termi－ nate

[^22]nate the branches, have been seen on the large plants cultivated at Philadelphia as much as twenty inches across, and equal in colour to the finest tints of Hibiscus Rosasinensis. The structure seems to me to constitute a new generic type, though in several species of Euphorbia, as in E. splendens, there are the rudiments of the remarkable septe found in the involucre here. I have dedicated it, if not to its original discoverer, at least to one who has first brought it into cultivation, and into general notice among Botanists, and from whose exertions many additions to the plants in cultivation from Mexico are expected. The period of flowering both at Philadelphia and here seems to be in winter, or early in spring. I entirely agree with Sir W. J. Ноокеr that Euphorbia cyathophora, Bot. Reg. t. 765, will be found to be a member of the same Genus.

Descr. Shrub erect, ramous; branches round, young shoots bluntly four-angled, green, glabrous, hollow. Leaves scattered, occasionally opposite, spreading, petiolate, ovato-elliptical, subacute, sinuated, veined, soft and pubescent on both sides, bright green above, paler below. Petioles furrowed above. Bractece similar in shape to the leaves, but aggregated at the extremities of the branches, and of splendid vermilion colour, paler below. Cymes terminal, subtrifid, at length falling off at a joint in the common foot-stalk. Involucres on short, stout foot-stalks, articulated at the base, green, ovato-orbicular, toothed, marked by five sutures on the outside, with which alternate, on the inside, five falcate processes, beginning with narrow extremities at the mouth of the involucre, and, adhering to this with their backs, they become gradually broader below, passing inwards, and attached to an elevation in the centre, they divide the lower part of the involucre into five distinct cells, and supporting on their edges erect fimbrix, they divide the upper part also, but less completely; teeth of the involucre numerous, coloured like the bracter, woolly on the inside, connivent; appendage single, on the outside of the involucre towards the axis of the cyme, round, entire, peltate, folded in the middle so as to appear two-lipped, nectariferous; four yellow teeth placed round the mouth of the involucre are abortive appendages. Male flowers about fourteen, in two rows in each loculament and rising from its base, erect, petiolate, naked, monandrous, mixed with chaffs (abortive male flowers? ). which are woolly at the apex, and occasionally tinged red there. Petioles colourless, as long as the involucre; filament red, anther's two-lobed, lobes divaricated, so that those which are next each other in the two rows overlap, opening at a deep furrow along their outside. Pollen granules yellow, lenticular. Female flower, solitary, central, on a short, stout pedicel, naked; germen threelobed, each lobe emarginate ; style awanting (?). Ovule solitary in each lobe. These appearances I describe as I saw them, but the female flowers were probably imperfect, none enlarged, projected beyond the involucre, nor produced seed; but after awhile, a small number of the male flowers having been perfected, and protruded beyond the involucre, this became yellow, and separated at the articulation near the base of the footstalk, the bractex for some time remaining, and then the whole cyme dropped at the articulation in the common peduncle. Graham.

[^23]


Physostegia truncata. Blunt-calyxed Physostegia.
********************* Class and Order.
i Didynamia Gymnospermia.
( Nat. Ord.-Labiate.)

## Generic Character.

Calyx per anthesin tubuloso-campanulatus, post anthesin inflato-campanulatus, obscure sub 10 -venius, subæqualiter 5 -dentatus vel truncatus vix dentatus. Corolla tubo longe exserto, intus exannulato, fauce inflata, limbo bilabiato, labio superiore suberecto subconcavo integro vel marginato, inferiore patente trífido, lobis rotundatis, medio majore emarginato. Stamina 4, sub labio superiore adscendentia, subdidynama, inferioribus eminentibus. Anthere approximatæ, biloculares, loculis parallelis distinctis nudis. Stylus apice subæqualiter bifidus, lobis subulatis apice stigmatiferis. Achenia sicca, lævia. Benth.

## Specific Character and Synonyms.

Physostegia truncata; annua, calyce bilabiato, labio superiore latissime trilobo, inferiore bidentato segmentis omnibus cuspidato-acuminatis.
Physostegia truncata. Benth. Lab. Gen. et Sp. p. 505.

My first knowledge of this plant was derived from very indifferent specimens in my Herbarium, gathered in Texas by M. Berlandier, the same as were described by Mr. Bentham in the admirable work just quoted. So conspicuous a plant could not escape the researches of Mr. Drummond, who, on visiting the same country in 1833 and 1834 found it abundantly about San Felipe de Austin, and communicated specimens and seeds to Europe. Our figures were drawn
drawn from plants which flowered in the open borders of the Glasgow Botanic Garden.

Descr. Root decidedly annual. Stem erect, eight or ten inches to a foot in height, branched in a brachiated manner, acutely four-angled, glabrous. Leaves oblong, or oblongo-lanceolate, serrated, glabrous. Flowers opposite on the racemes, leafless, but each with an ovato-acuminate bractea at the base of the short slightly glandular pedicel. Caly $x$ gibbous and downy at the base, two-lipped; upper lip very broad, and cut into three rounded, spinulosoacuminated lobes; the lower much smaller, ovate, with two sharp teeth, the whole veiny and distinctly reticulated when dry. Corolla more than twice as long as the calyx, purple-rose-coloured, slightly downy; the throat inflated. Upper lip convex, entire; lower lip of three spreading, nearly equal, rounded lobes, the middle part white, spotted with purple. Filaments slightly woolly, rather distant, included. Anthers each of two rounded, almost black lobes.

Fig. 1. Back view of a Flower. 2. Front view of a Calyx.


Class and Order.

Polyandria Tetragynia.

( Nat. Ord.-Papaveracee.)

## Generic Character.

Receptaculum ampliatum, hypocrateriforme, limbo expanso integro. Calyx mitræformis, caducus. Corolla 4petala, petalis unguibus fauci receptaculi insertis, staminiferis. Capsula siliquæformis, bivalvis ; Semina marginibus valvarum affixa.

## Specific Character and Synonyms.

Eschscholtzia crocea; caule ramoso folioso, foliorum segmentis linearibus, pedunculi cyatho infundibuliformi limbo maximo dilatato, calyce longe acuminato. Benth.
Eschscholtzia crocea. Benth. in Hort. Soc. Trans. v. 1. N. S. p. 406. Lindl. Bot. Reg. t. 1677.

It has been remarked by several of my English friends, that the many beautiful, hardy, herbaceous plants which have been lately introduced to our gardens by the indefatigable Douglas, succeed better in the humid climate of Scotland, than in the vicinity of London; they remain longer in perfection, the flowers are frequently larger, and the colours brighter. The present individual is a striking instance of the correctness of this remark: for beautiful as it certainly is, in every situation, I have no where seen it dyed with so brilliant a saffron hue as in the specimen here figured from the gardens of Hamilton Palace. Together with the true E. crocea and Californica, there came from the
same garden a third kind, (see fig. 2,) which was raised from seeds of the former species, but which produced flowers exactly intermediate between the two: the colour of the petals was neither so yellow as in E. Californica, nor so much inclining to red as in E. crocea; and the limb of the cup was much smaller than in the latter species, but larger than in the former. Still, I agree with Mr. Bentham and Professor Lindley, that our crocea is a truly distinct species, (all the characters existing in the wild native specimens equally as in the cultivated ones) and further, that the variety just mentioned, though raised from seeds of E. crocea, was derived from a plant whose flowers had been fertilized by the pollen of E. Californica. As this last mentioned species is fully described at t .2887 of this work, we deem any remarks on the present individual quite unnecessary, further than to say, in the words of its first describer, that it is chiefly distinguished from that species "by the widely expanded limb of the curious appendage of the peduncle beneath the insertion of the calyx, which is characteristic of the Genus, and by the long attenuated point of the calyx;"-which latter circumstance I do not find to be the case in our specimens.

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Class and Order. Pentandria Digynia.
( Nat. Ord.-Gentianee.)

## Generic Character.

Calyx 4-5-fida. Corolla subcampanulata, infundibuliformis vel hypocrateriformis, basi tubulosa, gland. nect. destit. Styli sæpe coherentes. Capsula 1-locularis, 2-valvula.

Specific Character and Synonyms.
Gentiana quinqueflora; caule ramoso tetragono-alato ; floribus congestis terminalibus; calycibus brevissimis, acutis; corolla clavata, quinquefida, laciniis aristatis, fauce nuda ; foliis amplexicaulibus deltoideo-cordatis 3-5-nerviis.
Gentrana quinqueflora. Pers. Synops. Plant. 1. 285. Schultes Syst. Veget. 6. 150. Elliott, Bot. of S. Carolina et Georgia, v. 1. p. 341? Torrey, Fl. of Mid. et North Sections of United States, p.288? Beck, Bot. of North and Mid. States, 239?
Gentiana amarelloides. Pursh, Fl. Amer. Septent. v. 1. p. 186. Nuttall Genera, 1. 172.

This very pretty annual was raised at the Botanic Garden, Edinburgh, from seeds sent without name by Mr. Thomas Churnside, Nurseryman, of New York; and flowered in the greenhouse in the end of October. It was seen by Mr. James M•Nab growing on the grassy banks of streams among the Alleghany Mountains, and his native specimens differ in no respect from those raised at the garden, excepting in having smaller flowers. One which I have from the collection of Mr. Beyrich, gathered on the Peaks of Otter, has flowers as large as the garden specimens.

From the synonyms I have excluded Gentiana quinquefolia of Flora Danica, because, in the plant figured there, the leaves are ovate, the flowers axillary as well as terminal and much smaller, and because the identity of an Iceland and Virginian plant seems unlikely. I have likewise excluded
cluded the Gentiana quinquefolia of the various works of Linneus, and the Gentiana quinqueflora of Willdenow, Lamarck, and Sprengel; because reference is by them made to Flora Danica, and because the leaves are generally described as ovate or oblong, and the stem simple. I have abstained from quoting Gentiana amarelloides of Michaux, because he describes his plant as smaller than G. amarella, with oval leaves; small, lateral as well as terminal flowers, of pale yellow colour; and having the segments of the limb lanceolate. In all these respects does our plant differ. I have quoted with doubt Elliott, Torrey, and Веск, on account of references they make, and because some parts of their descriptions neither accord with native nor cultivated specimens; yet I think they must allude to the plant now described. In the other writers quoted, the references are, I think, sometimes mistaken, but the characters are corrected.

Descr. Root annual, dichotomously branched. Stem (nine to twenty inches high) single, erect, square, winged, branched ; branches decussating, spreading. Leaves stemclasping, deltoideo-cordate, glabrous on both sides, palest below, three to five-nerved and obscurely reticulate, entire in the margin, slightly crisped, nerves prominent below. Flowers clustered at the extremity of the stem and branches, generally from three to five together, pedicellate, or if single in the axils of the leaves, it is only from the degeneration of the branches ; pedicels erect. Calyx small, green, quinquefid, segments lanceolate, slightly spreading. Corolla (before expansion of the limb ten lines long, three lines in its greatest diameter in cultivated specimens, in native specimens often smaller) pale lilac: tube (seven lines and a half long) clavate ; limb five-parted, segments ovate, aristate ; throat naked. Stamens as long as the tube; filaments adhering to the corolla as far as their middle, to which point they enlarge, and then gradually contract upwards, channelled on their inner surface, unconnected with each other ; anthers small, leaden coloured, bursting on their outer surface; pollen pale, its granules nearly spherical. Pistil as long as the stamens : Stigmas small, acute : Germen linearlanceolate, greenish-leaden-coloured. Graham.
(This is undoubtedly the G. quinqueflora of the American Botanists, from whom I have received many specimens, and from Dr. Short, a beautiful drawing, which is that here represented. The dissections are from Dr. Graham's specimens.)

Fig. 1. Flower. 2. The same laid open. 3. Calyx and Pistil.


## ( 3497 )

## Rodriquezia Barkeri. Mr. Barker's Rodriguezia.

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Class and Order.
Gynandria Monandria.
(Nat. Ord.-Orchidee. )

## Generic Character.

Perianthium patens, subæquale, sepalis 2 lateralibus connatis labello suppositis. Labellum integrum, unguiculatum, basi cornutum, medio callosum; ungue cum columna parallelo. Columna teres, apice barbata. Anthera unilocularis, carnosa. Clinandrium nudum, retrorsum declive. Pollinia 2, postice excavata, caudicula elastica.Herbæ epiphyta, subpseudobulbosa. Folia coriacea, vel membranacea, plicata. Spicæ secunda. Flores spicati.

## Specific Name and Character.

Rodriguezia Barkeri; bulbis ancipiti-compressis oblongis, foliis lineari-lanceolatis enerviis lævibus, perianthio undulato, sepalo inferiori (e duobus formato) fere ad medium bifido, segmentis patentibus, labello apice integro.

A Brazilian plant, imported from Brazil by George Barker, Esq. of Birmingham, and communicated to us in full flower, January, 1836, by Mr. Cameron of the Birmingham Botanic Garden. It is in many respects allied to the Gomeza (Rodriguezia, Lindl.) recurva, of Bot. Mag. t. 1748, and to the plant of the same name in Bot. Cab. t. 660 (Rodriguezia planifolia, Lindl.) ; from the former it differs in the smooth not striated and plaited leaves; and from both, as well as from R. suaveolens, Lindl. (Pleurothallis foliosa, Hook. Bot. Mag. t. 2746.), by the very deep
deep division, and, consequently, long segments, which are spreading, of the lower (combined) sepal. The whole flower, too, is of an uniform pale green colour, nearly destitute ${ }^{\circ}$ of fragrance.

Descr. Bulb three to four inches in length, oblong, compressed so as to be ancipitate, striated, having on each side a small leaf with a long compressed sheathing base, and below them three or four sheathing brown scales. A pair of leaves also terminates the bulb, they are linear-lanceolate, and except the costa, which is keeled at the back and depressed in front, have no nerve or plica whatever. Scapes two, one from the axil of the leaf on each side the bulb, curved so as to have the long spike of flowers drooping. Flowers numerous, directed to all sides, pale green. Sepals and petals spreading, linear-oblong, much waved, the two lateral sepals placed under the lip, combined for rather more than half their length, so as to represent one deeply cleft sepal. Lip ovato-oblong, at the base having two, erect, thin plates, and on the disk near the middle two prominent callous lines, where the lip becomes suddenly and singularly reflexed. Column semiterete, marked with a bright orange line round the stigma. Anther-case hemisphærical, with a little point. Pollen-masses nearly globose.

Fig. 1. Flower. 2. Lip: magnified.


## Fuchsia discolor. Port-Famine Fuchsia.

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Class and Order.
Octandria Monogynia.
( Nat. Ord.-Onagrariee.)

## Generic Character.

Calycis tubus basi ovario adhærens, superne productus in tubum cylindraceum 4 -lobum post anthesin articulatim deciduum. Petala 4 summo tubo inserta lobis alterna, rarius 0. Stamina 8. Ovarium glandula urceolata coronatum. Stylus filiformis. Stigma capitatum. Bacca ob-longo- aut ovato-globosa, 4 -locularis, 4 -valvis, polysperma. -Frutices. Folia sapius opposila. Pedunculi axillares 1-flori, interdum ad apices ramorum racemosi. Flores sepius nutantes, rubri rarius albi, interdum 5-fidi 10-andri.

## Specific Character and Synonyms.

Fuchisia discolor: ramis brevibus densis compactis strictis, foliis ternis longiuscule petiolatis ovato-lanceolatis nitidis denticulatis subcomplicato-carinatis, floribus folio multo longioribus, staminibus exsertis, stigmate ovali.
Fuchia discolor. Lindl. Bot. Reg. t. 1805.
Fuchisia Lowei. Hort.

The difficulty of discriminating those different kinds of Fuchsia, now so common in our gardens, of which F. macrostemma of the Flora Peruviana may be considered the original type, has been felt by every one who has turned his attention to the subject; and this difficulty has been increased by cultivation and the skill of the horticulturist in fertilizing one kind with the farina of another ; so that what few characters were supposed to exist to entitle them
to rank as species, are, of necessity, obliterated. Closely allied as the present is to that which goes under the name of F. gracilis, (especially the $\beta$. multiflora of Lindl., Bot. Reg. t. 1053) it will, nevertheless, I think, be found distinct; and possesses one strong claim to our attention, inasmuch as it is a native of the most southern portion of the world which has yet been visited by any Botanist, Port Famine in the Strait of Magelhaens, whence seeds were procured by Mr. Anderson, who accompanied Captain King in his late voyage, for the purpose of surveying the southern extremity of South America, Tierra del Fuego and the Strait of Magelhaens. This able officer has given us, in the 1st vol. of the Journal of the Royal Geographical Society, the following interesting account of the vegetation of that singular country, in which our Fuchsia is particularly alluded to. "At Port Famine, and in its neighbourhood, the Evergreen Beech (FAGUs betuloides) grows in the greatest abundance and reaches a very large size. Trees of this species, three feet in diameter, are abundant; of four feet there are many; and there is one tree (perhaps the very same noticed by Commodore Byron), which measures seven feet in diameter for seventeen feet above the roots, and then divides into three large branches, each of which is three feet through. Besides this, there are but few other trees in the Strait that can be considered as timber : such an appellation only belongs to two other species of Beech and the Winter's Bark. The last, which is also an evergreen, may be found, mixed with the first, in all parts of the Strait; so that the country and hills, from the height of two thousand feet above the sea to the very verge of the high water mark, are covered with a perpetual verdure which is remarkably striking, particularly in those places where the glaciers descend into the sea; the sudden contrast, in such cases, presenting to the view a scene as agreeable as it seems to be anomalous. I have myself seen vegetation thriving most luxuriantly, and large woodystemmed trees of Fuchsia and Veronica, in England considered and treated as tender plants, in full flower, within a very short distance of the base of a mountain, covered for two-thirds down with snow, and with the temperature at $36^{\circ}$. The Fuchsia, certainly, was rarely found but in sheltered spots; but not so the Veronica, for the beaches of the bays on the west side of St. John's Island, at Port San Antonio, are lined with trees of the latter, growing even in the very wash of the sea. There is no part of the Strait

Strait more exposed to the wind than this, for it faces the reach to the west of Cape Froward, down which the wind constantly blows, and brings with it a succession of rain, sleet, or snow ; and in the winter months, from April to August, the ground is covered with a layer of snow from six inches to two or three feet in depth. There must be, therefore, some peculiar quality in the atmosphere of this otherwise rigorous climate, which favours vegetation ; for, if not, these comparatively delicate plants could not live and flourish through the long and severe winters of this region."

The author further remarks ; "Whilst upon this subject, there are two facts which may be mentioned, as illustrative of the mildness of the climate, notwithstanding the lowness of its temperature. One is the comparative warmth of the sea near its surface, between which and the air, I have in the month of June, the middle of the winter season, observed a difference of $30^{\circ}$, upon which occasion the sea was covered with a cloud of steam. The other is, that parrots and humming-birds, generally the inhabitants of warm regions, are very numerous in the southern and western parts of the Strait; the former feeding upon the seeds of the Winter's Bark, while the latter have been seen by us, chirping and sipping the sweets of the Fuchsia and other flowers, after two or three days of constant rain, snow, and sleet, during which the thermometer has been at freezing point. We saw them also in the month of May upon the wing, during a snow shower; and they are found in all parts of the south-west and west coasts as far as Valparaiso. I have since been informed that this species is also an inhabitant of Peru; so that it has a range of more than $41^{\circ}$ of latitude, the southern limit being $53 \frac{1}{2}^{\circ}$ south."

It is possible that, like the humming-birds, the same species of Fuchsia may inhabit the valleys of the Chilian Andes, as well as the almost antarctic regions of Port Famine ; and in such widely different latitudes it may put on different appearances. As may be expected, F. discolor, is the most hardy of its kind, growing in a short space of time into a dense bush, and putting forth numerous shoots, which are never injured by the winters even of Scotland. Our plants were received from Mr. Lowe of Clapton, who was the first to raise the species in this country.


## （ 3499 ）

## Oncidium crispum．Crisped－flowered Oncidium．

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## Class and Order．

## Gynandria Monandria．

（ Nat．Ord．－Orchidee．）

## Generic Character．

Perianthium explanatum．Sepala sæpius undulata ：late－ ralibus nunc sub labello connatis．Petala conformia．La－ bellum maximum，ecalcaratum，cum columna continuum， varie lobatum，basi tuberculatum vel cristatum．Columna libera，semiteres，apice utrinque alata．Anthera semibilo－ cularis，rostello nunc abbreviato，nunc elongato rostrato． Pollinia 2，postice sulcata，caudicula plana，glandula ob－ longa．－Herbæ epiphyta，nunc pseudo－bulbosa．Folia cori－ acea．Scapi paniculati vaginati，rarius simplices．Flores speciosi，lutei，sæpius maculati，raro albi．Lindl．

## Specific Character and Synonyms．

Oncidium crispum；pseudobulbis oblongis sulcatis rugosis diphyllis，foliis lanceolatis coriaceis acutis，scapo sim－ plici multifloro，sepalis recurvis undulatis obtusis， lateralibus semiconnatis，petalis duplo majoribus ob－ longis undulatis unguiculatis，labelli lobis lateralibus cornuformibus recurvis nanis intermedio maximo un－ guiculato subrotundo－cordato undulato，crista duplici serie deltoidea dentata，columnæ alis rotundatis denti－ culatis carnosis．Lindl．
Oncidium crispum．Lodd．Bot．Cab，t．1854．Lindl．Gen． et Sp．Orchid．p． 197.

A large－flowered and very handsome species of Oncidium， a native of the Organ Mountains in the neighbourhood of Rio，Brazil，and first made known by Mr．Loddiges in his Botanical

Botanical Cabinet. We are indebted for a drawing and specimen, to our often-mentioned contributor, Mrs. Horsfall, of Everton, Liverpool, in whose rich collection it flowered in the autumn of 1835.
Descr. Bulbs oblong-oval, rather compressed, deeply furrowed, bearing two oblong-lanceolate, dark green, coriaceous, obscurely nerved leaves. Scape from the base of the bulb, a foot or a foot and a half high, with a simple raceme of large flowers at the extremity. Perianth spreading. Sepals more or less reflexed, oblong, acute, attenuated below, the two lateral ones connate for some way up from the base, all of them waved, of a greenish-brown colour, spotted. Petals broadly obovate, obtuse, much waved and crisped, of a rich brown colour, the claw yellow, spotted with red above, beneath green. Lip much contracted at the base, where it has a thick double crest, yellow spotted with red, and bearing two small, yellow, horn-shaped lobes, the central lobe very large, roundishcordate, much crisped, coloured like the petals. Column yellow, marked and spotted with deep red, expanding upwards into two deep serrated wings. Anther-case ovate, acuminated, but truncated at the apex. Pollen-masses oval, yellow, on a long and broad white caudicula, which has an ovate brown gland at its base.

Fig. 1. Column. 2. Anther-case. 3. Pollen: magnified.


# Dryandra pteridifolia. Fern-leaved Dryandra. 

## *********************

Class and Order.
Tetrandria Monogynia.
( Nat. Ord.-Proteacee.)
Generic Character.
Perianthium quadripartitum vel quadrifidum. Stamina apicibus concavis laciniarum immersa. Squamula hypogonæ 4. Ovarium uniloculare biovulatum. Ovula post fæcundationem cohærentia. Folliculus ligneus. Dissepimentum ligneum semibifidum frûctus maturi omninò simile. Receptaculum commune planum, floribus indeterminatim confertis; paleis angustis, rarò nullis. Involucrum commune imbricatum.-Frutices plerumque humiles. Rami dum adsint sparsi vel umbellati. Folia sparsa, pinnatifida $v$. incisa, planta juvenilis conformia. Involucra solitaria, terminalia, rarò lateralia, sessilia, foliis confertis, interioribus quandoque nanis obvallata, hemisphœrica, bracteis adpressis, in quibusdam apice appendiculatis. Stylus sepè perianthio vix longior. $B r$.

Specific Character and Synonyms.
(§. Aphragma.)
Dryandra pteridifolia; foliis pinnatifidis caule abbreviato erectiusculo, vel propensè decumbente tomentoso longioribus : lobis elongato-linearibus acutis, s. oblongolinearibus obtusis mucronatis, margine revolutis, perianthii laminis colorato-lanatis apice penicillatis, involucri squamis exterioribus lato-ovatis spadiceo-tomentosis.
(a.) lobis foliorum obsoletè nervosis basi dilatatis, caule erectiusculo. (Tab. nostr. 3500.)


#### Abstract

Dryandra pteridifolia. Brozon in Linn trans, v. 10. p. 215. Ejusd. Prodr. v. 1. p. 399. Röm. et Schult. Syst. Veget. v. 3. p. 447. ( $\beta$.) lobis foliorum manifestè trinervibus, basi simplici, caule perquam humili, ramis floriferis præsertim prostratis.

Dryandra blechnifolia. Br. in Linn. trans, et Prodr. necnon. Röm. et Schult. Syst. Veget. in locis citatis.


When Mr. Brown published the first volume of his invaluable Prodromus, the plant here figured, which was discovered by that very eminent Botanist on rocky hills, at King George's Sound, was regarded by him, as possibly a distinct species from another named D. blechnifolia, of which specimens without fructification, and originally gathered also on the shores of the Sound, by our highly respected and venerable friend Mr. Menzies, in his voyage with Vancouver, were preserved in the Banksian Herbarium. A subsequent examination however, of more perfect specimens, has proved them to be but varieties of one species, differing from each other chiefly in habit, and in some measure in the figure of the lobes of the leaves, although in some native specimens examined, there is manifestly a disposition to produce the two shapes of leaves upon the same plant.

The present remarkable and variable subject was raised from seeds, collected by the late very indefatigable botanic-voyager, Mr.W. Baxter, during his first visit to the South-western shores of Australia, in 1823; and the specimens transmitted us from Kew, by the liberality of Mr , Arton, last spring, were taken from a plant, which we understand, is not only the first that has produced flowers in Britain, but is the only example of the species at this time alive in Europe. It may here be added, that for its presence at all in our collections, as indeed for the introduction to England, of many others of the rarer and more beauteous of Australian vegetables, cultivators of ornamental exotic plants are entirely indebted to the disinterested liberality of F. Henchman, Esq.

Descr. Our plant in cultivation exhibits the contour of a dwarf, bushy shrub, with short, flexuose branches, clothed with a whitish wool. Leaves exceedingly rigid, crowded, and pinnatifid; lobes alternate, for the most part linear, an inch and a half to two inches long, terminated by a sharp, rigid mucro, the margins revolute, base dilated, covered on the under side with a ferruginous tomentum and nerved, the nerves eventually obsolete; upper paginee of a very dark green and glossy. Flowers in terminal heads, surrounded by coloured leaves, of a faint honey-scent. Involucre closely imbricated, clothed with a very dense reddish-brown tomentum, having the outer bractes elliptical, acuminate, very smooth within, and the inner scales linear, covered with orange-coloured appressed, rigid hairs, pencilled at the apex. Perianth deeply divided into four equal segments, invested with a pink-coloured, curled wool, barer towards the base: lamina linear, much longer than the unguis, tipped with a pencil-like tuft of soft, spreading hairs. Stamens four, inserted in the long, concave extremities of the laminæ. Anthers linear, apiculated,
lated, bursting longitudinally. Style terete, obscurely sulcated, exserted, longer than the perianth, very smooth, slightly subulate, thickened towards the base. Stigma simple. Hypogynous glands four, oblong, bilobed.

The eager avidity with which spirited, liberal-minded gentlemen in this country, have, at various periods in the course of the last forty years, sought to possess and maintain in their collections living examples of the many Genera of Protelcee, affords an abundant proof of the great interest they have excited, and of the high estimation in which plants of a family, possessing forms no less extraordinary than numerous, whether indigenous to the Cape of Good Hope, or to the arid shores of Australia, have been held.

At one period, within, doubtless the recollection of some of our readers, not only the King's gardens at Kew, and the rich Conservatories of George Hibbert, Esq. at Clapham, but the gardens of other gentlemen, and especially the sale-collections of the more eminent nurserymen around London, could boast of many choice specimens of Cape Proteaceous plants, which, in the present day, are nowhere to be seen ; for having been urged by culture to put forth their showy flowers, they immediately afterwards, in many instances, exhibited, from some mistreatment, debility and sickness, and eventually dying, have ever since been lost to Britain. Since an ignorance at the time, of the proper mode of managing the plants of this family, whether natives of the Cape or of New Holland, doubtless led to the mortality that prevailed at periods not many years subsequent to their having been raised from the imported seeds, perhaps it may not be out of place in this work, to give our readers the substance of a few practical observations offered us, on the successful treatment of certain of the Order, as pursued at Kew by the principal very able cultivator in that garden, Mr. Jонn Smith, to whose horticultural knowledge is superadded a critical botanical discrimination of plants generally, and especially of that numerous and beautiful tribe, the Filices, and to whose talents in these particulars, we are happy, in common with other Botanists in Britain and on the continent, especially attached to the study of Cryptogamic vegetation, to bear ample testimony.

Adverting to the interesting pamphlet of Mr. Macnab, the excellent Superintendent of the Royal Botanic Garden at Edinburgh, on the propagation and culture of Cape Heaths, which appeared in 1831, Mr. Smith observes, that he had pursued with success for some time antecedent to that date, the same mode of treatment of Proteacee under his care, that is recommended in that publication, with respect to the culture of Heaths, viz. in regard to shifting the plants into fresh and larger pots; in the process of which, it is very important to afford, by means of potsherds, or fragments of half-baked pottery, a good drainage below, and especially to avoid deep potting, by placing the plant, with its ball of earth round the roots quite entire, so as to be some two or three inches above the surface of the soil at the edge of the pot, which will have the effect of carrying off any superabundant moisture from the roots to the circumference, and thus prevent the chance of water becoming stagnant round the base of the stem; by inattention to this latter circumstance, many a Banksia and Dryandra in other collections have been killed; whilst a steady regard to free drainage, to an abundant circulation of air, and a low temperature, he has succeeded in preserving many fine proteaceous plants longer than is generally effected in other gardens in the neighbourhood of London.
" Even in the present day," he observes, " there may be some few gardeners, who may object to the mode of potting certain plants here insisted on, on the ground that, by being thus raised in their pots above the soil at the edge, they have not a handsome look; and this practice, now adopted and recommended
recommended by Mr. Macnab with regard to Cape Heaths, \&c., had its prejudice on his mind for years, for no other reason, as he himself tells us, "than that I fancied the plant looked as if it were ill potted, and, to my view, unsightly." "But we now see, how much other and more judicious management, founded on physiological principles, has overcome the prejudices of former days, and the difficulties attendant on the culture of not simply these, but the plants of other tribes:-witness our orchideous Epiphytes.
"The soil," continues this intelligent cultivator, "which I use in the culture of most of the Proteacee, is a good fresh loam, with which, if stiff, I mix a portion of sand, so as not to admit of its being retentive of water. In time, after being potted as already directed, the main roots next the stem of the plant will become uncovered: this circumstance I regard as favourable to the health of the plant: there will be no danger of its dying suddenly, as I have known many to do, that have been buried alive,-in other words, been deeply potted!"
"In the winter months, care should be taken not to saturate the earth with water, nor wet the leaves or stem more, than can be avoided. In dry weather however, during the summer season, water may be freely given to the plants about sunset, and a very essential point to be observed is, that, when they are placed out in the open air in groups, the sun's rays should not be allowed to fall directly on the sides of the pots, for if they are, all the feeding spongioles of the tender roots round the inner side of the pot, will assuredly be destroyed, and the life of the plant greatly endangered. Repeatedly have I known a Banksia to have been killed by the solar ray having been thus allowed to act on the side of the pot, which six months' afterwards retained so much of a life-like look-being kept yet in its pot-as to appear to the eye of a superficial observer, to be still alive, and in perfect vigour. The lowest greenhouse-temperature that can judiciously be allowed, to prevent the effects of frost, is sufficient for the generality of the family now in cultivation in Britain, and no artificial heat is required for their preservation, excepting in severe frosty weather." He adds, with reference to pruning, that " as the rapid upright-growing species are, if left to themselves, shorterlived, than others naturally more robust, the free use of the knife is recommended, and the growth of the plants checked, by keeping the luxuriant shoots cut back. This remark is especially applicable to those beautiful plants of the Order, with simple, straight, wand-like stems, such for example as Banksia Brownii and Dryandra Serra, Br., the former of which has been lost to several collections that could once have boasted of it, by its having been suffered to shoot up into exuberant growth, far beyond what the slender, tapering, thinly-fibred root could at all furnish sustenance. By heading these down somewhat, and thus reducing the ascending axis, or column of circulation, a more robust habit is induced, a growth of roots in their pots takes place, lateral branches are thrown out, and the plants thus treated at Kew, are now in the best possible health, with every indicative of being fully established in that garden".

To the above observations of an intelligent and practical man, may be added a few very brief remarks on the habits, economy, and indispensable treatment, in cultivation, of a division of Australian Proteacee, growing naturally on the sea coasts, or upon barren tracts within the influence of the sea air, in the tropical regions of that continent. The Genera hitherto observed on the equinoctial shores of New Holland are Grevillea, Hakea, Persoonia, Stenocarpus, and Banksia, and these comprise a group collectively of thirty-three species, of peculiar constitution entirely governed in their growth, and general development, by the circumstances and modifications of the climate in which they exist.

It is a well-known fact, that what constitutes the change of season in intertropical
intertropical regions, is not any approach to the winter of countries within the temperate zones, much less of those of the higher latitudes, in respect to any material difference of atmospheric temperature at opposite periods of the year, but (we are speaking of the climate of the sea coast) is due to that periodical, well-defined break-up, from great drought to extreme humidity, commonly called the dry and rainy seasons. With such perfect regularity do these changes of season take place on the N. W. coast, that our friend Capt. P. King, R. N., who was employed, during nearly five years on its survey, could look forward almost to the very day when the break-up of the easterly monsoon, and with it the period of drought, would oblige him peremptorily to stand off shore, and immediately to quit the coast. It was during the existence of that monsoon, which prevails between May and October, when the wind blows steadily off shore, that portions of that survey were annually conducted, and the Botanist of the voyage, although he landed almost daily from the vessel to pursue his researches, 'twas oftentimes but to behold vegetable life in a state of extreme langour, by the aridity of the atmosphere, and its uniformly high fervid temperature.

The Graminee, and, indeed, herbaceous plants generally, had suffered in the early part of the season : these were all burnt up, and the more woody vegetables, the shrubs, arbusculæ, and stunted timber trees bore the marked evidences of participation in the general distress. None were detected in a Howering state, whilst all were laden with their ripened fruits. The Acacias, of which every sandy beach and rocky islet furnished some species, bore their clustered pods on branches, in many species incrusted with a brittle concrete matter, that had exuded through the cuticle, which appeared by thus covering the bark, the phyllodia, and buds, to suspend for a time, the operation of their respective functions, and thus lull vegetable life into a state of quiescence. All nature wore an air of desolation, and the vegetable world assumed an aspect unusually gray and gloomy. But it was its season of rest-that period of repose which appears essential to vegetation generally in tropical countries, to enable it upon the return of the rains, to burst forth with a renovated strength into fresh life, and undergo with vigour that sudden and prodigious development of leaves and flowers, which constitutes the beauty and grandeur of the vegetables of warm countries.

During the surveys of Capt. King just noticed, the seeds of no less than twelve species of Proteaceous plants, (and chiefly of Mr. Brown's last section of the Genus Grevillea, ) were received at Kew. Plants of each were readily raised, which afterwards, with the treatment they received, grew to the stature of large shrubs, and some eventually flowered, to the admiration of all visitors. But these goodly plants were not destined to long life in the King's gardens, for, inattentive to the conditions under which alone, those lovelier forms of Australian vegetation exist on their native coasts, they were urged immediately after flowering, into a new and unnatural vigorous growth. In vain they looked for some short season of rest, by perhaps a dryer warmth, with but the slightest possible watering afforded, to sustain life-a treatment, to which their constitutions, inherited from their parents, appeared so fully adapted. They found none; but debility resulting from forced culture, was followed by extreme exhaustion, and death closed the scene! But we have yet to discover, in our future endeavours to cultivate the shrubby vegetables of the sands of the intertropical shores of that vast country, by what mode of treatment, plants delighting in a high atmospheric temperature, and subject to the extremes of drought and humidity at opposite periods of the year, can possibly be cultivated in Britain. It is to be hoped that our government may, ere long, be induced to re-establish settlements on the northern coasts of New Holland, whence the seeds of those beautiful plants, to which we have particularly referred, may be again obtained, and other methods of culture tried, in which their native habits
should be more consulted, than they were, some few years since, when one or two collections only, about London, could, for a short period, boast of possessing living specimens. We will just observe, that these are considerations of vegetable life well worthy of the attention of the intelligent botanic gardener: it should ever be his business to imitate nature in the care and treatment of her vegetable subjects, by affording them, as far as practicable, the soil, the temperature, and situation in which they flourish in their native regions, when these can be ascertained; and it should be no less the duty of the botanic-traveller to communicate these and other circumstances, in respect to the seasons of growth and cessation from it of plants of equinoctial countries, in which he may have extended his labours, as all such will greatly aid the skill of the intelligent cultivator.


## ( 3501 )

## Tradescantia Virginica, fl. albo. Virginian Spider-Wort, White-flowered var.

*********************

Class and Order.

> Hexandria Monogynia.
( Nat. Ord.-Commelinee. )

## Generic Character.

Calyx et Corolla profunde tripartitæ. Filamenta plerumque villosa. Capsula 3 -locularis. Spr.

## Specific Character and Synonyms.

Tradescantia Virginica; caule erecto subsimplici, foliis oblougo-lanceolatis canaliculatis glabris, umbellis terminalibus, floribus congestis.
Tradescantia Virginica. Linn. Sp. Pl. p. 411. Curt. Bot. Mag. t. 105. Willd. Sp. Pl. v. 2. p. 16. Spreng. Syst. Veget. v. 2. p. $116 . \quad$ Schultes, Syst. Veget. v. 7. p. 1173. Mich. Am.v. 1.p. 195.
(9.) flore albo. Schultes, l. c. p. 1174.-(Tab. nostr. t. 3501.)

The purple-flowered and more usual state of the Virginian Spiderzoort is not uncommon in our gardens. Mr. Curtis in his description of it, under our tab. 105, has alluded to the white-flowered sort, which we have now the pleasure of presenting: it is one of the numerous varieties which are raised from seed, and may be continued by parting the roots. Although the species was originally introduced from Virginia, as its name implies, to our gardens, " it bears the severity of a British climate uninjured," observes Mr. Curtis, " and being a beautiful as well as hardy perennial, is found in almost every garden." The white-flowered variety, which is generally tinged with purple near the base of the petals, is equally deserving a place in our collections, and is quite as hardy as the purple.


# Acacia prominens. Conspicuous Acacia, or Nepean Wattle. 

*** * * * * * * * * * * * * * * * * * * * * * Class and Order. Polygamia Mongecia.
( Nat. Ord.-Leguminose.)

## Generic Character.

Flores polygami. Cal. 4-5-dentatus. Pet. 4-5, nunc libera, nunc in corollam 4-5-fidam coalita. Stam. numero varia 10-200. Legumen continuum exsuccum bivalve.Frutices aut arbores, habitu et foliatione valde varic. Spinæ stipulares sparse aut nulla. D C.

Specific Character and Synonyms.
Acacia prominens; glabra, phyllodiis (sesquiuncialibus) lineari-lanceolatis acutis patentibus retrorso-falcatis rectisve uninervibus tenuissime ciliatis, mucrone subuncinato terminatis, margine antico versùs basin uniglanduloso, glandulâ leviter elevatâ, racemis terminalibus axillaribusve 6-10-cephalis phyllodio paulò longioribus, capitulis (in racemo) solitariis geminisve pedicello brevioribus, floribus quinquepartitis, petalis ovato-oblongis subacuminatis, stylo staminibus parum longiore. Allan Cunn.
Acacia prominens. Allan Cunn. MSS. (1817.) G. Don's Syst. of Gard. v. 2. p. 406. n. 67.

A charming conservatory shrub, native of New South Wales, where it inhabits barren forest-grounds, in the immediate vicinity of the Nepean river; and although it may, in its native regions, be truly said to be, like Goldsmitr's village thorn, "unprofitably gay,"-no one caring to receive it into his garden, it nevertheless seldom fails, even there, in the month of September, when decked with
blossoms,
blossoms, to commend itself to the notice and admiration of the passing, way-worm colonist, not less by the extreme richness and profusion of its golden flowers, than by the delicious fragrance they diffuse around. It has been several years at Kew, where it flowers annually in the months of spring ; and our acknowledgments are due to Mr. Aiton for the opportunity now afforded us of publishing a figure of it.

Descr. A tall, slender shrub, often ten feet high, of erect growth, numerously branched, the branches being smooth, greenish, and slightly angular. Phyllodia copious alternate for the most part, an inch and a half in length and two and a half to three lines in breadth, spreading, linearlanceolate, acute, mucronated, mucro rather hooked, towards the apex often retrosely falcate, with several slightlymarked veins diverging from the midrib, on the upper edge near the base is a rather prominent gland. Flowers goldenyellow, very fragrant, formed in axillary and terminal racemes, each raceme having from six to ten heads, generally longer than the phyllodia. Heads many-flowered, distinct, solitary or in pairs. Pedicels patent, very smooth, longer than the heads, having at the bases short, brown bractes. Calyx very short, five-parted. Petals five, ovate-oblong, subacute, erect or slightly spreading. Stamens numerous, shorter than the style. Stigma simple.

The following closely allied, but very distinct species, may be characterized as follows :
A. fimbriata; villosa, phyllodiis (sesquiuncialibus) linearibus obtusis (cum mucronulo) erectis introrso-falcatis rectisve uninervibus, angulisque ramorum densè ciliato-fimbriatis, mucronulo recto, margine antico versùs basin uniglanduloso, glandulâ subimmersâ, racemis axillaribus terminalibusve polycephalis phyllodio sæpè duplo longioribus, capitulis (in racemo) plerumque solitariis pedicellos æquantibus, floribus quinquepartitis, petalis ovatis acutis, staminibus stylum subæquantibus.
A. fimbriata. Allan Cunn. MSS. G. Don's Syst. of Gard. v. 2. p. 406. n. 68.

Hab. In Nova Cambria Australi : secus flumen Brisbane, Moreton Bay, versus tropicum : precipue ad margines petrosos aquaductuum in sylvis apertis aridis. Florens mense Septembri, 1828, Allan. Cunn.
Arctê affinis A. prominenti, sed frutex humilior (vix orgyalis,) ramis omninó villosis angulatis, angulis phyllodiisque fimbriatis. Phyllodia angustiora recta vel interdum introrso-falcata, racemi etiam, flexuosi graciliores: Capitula florum numerosiora et confertiorá pedicellos vix excedentes.


# Passiflora kermesina. Crimson Passion- 

 FLOWER.********************
Class and Order.
Monadelphia Pentandria.
( Nat. Ord.-Passifloree. )

## Generic Character.

Calyx 10-partitus, laciniis interioribus corollinis. Corona radiata perigyna. Nectarium in fundo calycis. Tubus staminifer stylum cingens. Stigmata 3 clavata. Pepo 1-locularis, placentatio parietalis.

## Specific Character and Synonym.

Passiflora kermesina; scandens glaberrima cirrhata, foliis cordato-trilobis obtusis integerrimis subtus discoloribus, petiolo bi-triglanduloso, stipulis semicordatis magnis, pedunculo unifloro nudo, calycis segmentis uniformibus lineari-oblongis demum reflexis, corona erectiuscula, columna elongata.
Passiflora kermesina. Hort. Berol. Lindl. Bot. Reg.t. 1633.

I regret to know nothing of the history of this extremely beautiful Passion-flozoer, further than that it was received at the Glasgow Botanic Garden from that of Berlin, by favour of Mr . Отто, and under the name here adopted. It is, probably, a native of Brazil. It requires the heat of the stove, and bears numerous flowers during the summer and autumnal months, which open towards evening and close in the morning of the following day, not again to expand.

Descr. Stems slender, branched, climbing to a considerable height. Leaves petiolate, cordate, three-lobed, glabrous (as is every part of the plant) : lobes nearly equal, oval,
oval, obtuse, here and there glanduloso-dentate, green above, purplish beneath. Petioles slender, bearing two or three elongated, dark-purple glands: from the axil a simple tendril arises, and from each side, at the base, a large semicordate, obtuse stipule, of the same colour and texture as the leaves. Calyx on both sides crimson-red, the segments ten, uniform, narrow-oblong, at first horizontal, afterwards reflexed, whitish at their base; they are combined below into a short tube, swollen at the base: at the mouth of this tube is a filamentous crozon of several series of nearly erect, dark-purple filaments, the outer ones paler at the extremity, within this is another and smaller circle of white filaments, united for the greater part of their length into a conical tube. Column much elongated. Stigmas club-shaped.


# Rodriguezia planifolia. Even-leaved Rodriguezia. 

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Class and Order.
Gynandria Monandria.

(Nat. Ord.-Orchidee.)

Generic Character.
Perianthium patens, subæquale, sepalis 2 lateralibus connatis labello suppositis. Labellum integrum, unguiculatum, basi cornutum, medio callosum; ungue cum columna parallelo. Columna teres apice barbata. Anthera unilocularis, carnosa. Clinandrium nudum, retrorsum declive. Pollinia 2, postice excavata ; caudicula elastica.Herbe epiphyta, subpseudobulbosa. Folia coriacea vel membranacea, plicata. Spicæ secunda. Flores speciosi. Lindl.

## Specific Character and Synonyms.

Rodriguezia planifolia; bulbis valde compressis ovatooblongis, foliis lanceolatis enerviis lævibus, perianthio undulato, sepalo inferiori (e duobus formato) apice solummodo bifido, labello apice integro.
Rodriguezia planifolia. Lindl. in Hort. Trans. v. 7. p. 67. ejusd. Gen. et Sp. Orchid. p. 195.
Gomeza recurva. Lodd. Bot. Cab. (not Bot. Mag.) t. 660 .

This deliciously fragrant plant, named Gomeza (Rodriguezia, Lindl.) recurva by Mr. Loddiges, but distinguished from that species by Professor Lindley on account of the even (not striated) surface of its leaves, and the entire, not emarginate, lip, has been kindly communicated to us by Mr. John Campbell, of the Botanic Garden, Belfast, where it was imported from Brazil. It flowers in February.

Descr. Bulbs clustered, scarcely more than two inches high, pale coloured, much compressed and sharp-edged, bearing
bearing a pair of leaves at the extremity, which are lanceolate, even on the surface, and more or less recurved. Scape arising from the base of the bulb on one side, and from within a leafy sheath, short, bearing rather a long, drooping raceme of many fragrant greenish-yellow flowers, more remarkable for their scent than their beauty. Sepals oblong, waved, acute, the two lateral or lower ones combined together for nearly their whole leugth, the extremities straight, not in the least spreading. Lip broadly oblong, yellow, crested at the base with two crenate white membranes, and bearing two oblong tubercles near the middle, where the lip is very suddenly and much reflexed, the apex rather acute, entire. Column nearly white, semicylindrical, with a deep orange margin round the stigma. Anthers hemisphærical. Germen clavate, subtended by a white, membranous, sheathing bractea, nearly as long as itself.

Fig. 1. Flower: magnified.


# Coreopsis filifolia．Thread－leaved Coreopsis． 

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## Class and Order．

Syngenesia Frustranea．

（ Nat．Ord．－Compositer．）

## Generic Character．

Receptaculum paleaceum．Achenia compressa，emargi－ nata．Pappus bicornis vel obsoletus．Involucrum duplex； utrumque polyphyllum．

## Specific Character．

Coreopsis filifolia；glaberrima，caule erecto striato，foliis oppositis pinnatifidis bipinnatifidisque foliolis lineari－ filiformibus subcarnosis supra canaliculatis，radii co－ rollis 8－9 obovatis luteis，disco purpureo－sanguineo．

Of all the narrow and divided－leaved species of Coreopsis， this has unquestionably the narrowest foliage，and which，if examined carefully，exhibits the most fleshy texture，the under side semiterete，and presenting no appearance of a nerve or costa，which indeed is only indicated on the upper side by the presence of a furrow．Its nearest ally is perhaps the C．tenuifolia；but there，besides the difference in foliage， the disk is described as being of the same colour as the ray， and the florets of the ray are much narrower．Its seeds were sent by Mr．Drummond to this country from Texas， in the spring of 1835，and the plants flowered in the open air in August and September．The same species is distri－ buted to the friends of Mr．Drummond＇s Expedition，marked ＂Texas，II．$n$ ．101．＂

Descr．Annual．Stem erect，but slender，branched， especially upwards，striated and glabrous，as is every part of the plant．Leaves opposite，pinnatifid or bipinnatifid，
the segments very narrow-linear, almost filiform, entire, somewhat fleshy, convex or nearly semicylindrical on the under side, above marked with a furrow. Peduncles terminal, slender, single-flowered. Flower rather large, handsome. Involucre almost globose : inner of six to eight somewhat imbricated, ovate scales; outer of the same number of linear-subulate, spreading ones, arising from the base of the inner, and there forming one with them. Ray of eight to nine, obovate, irregularly three to five-toothed, spreading, orange-yellow corollas: their tube short: Germen linear, abortive, destitute of pappus. Corolla of the disk tubular, dark blood-coloured, glabrous. Anther-tube black, exserted. Pollen yellow.


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## （3506）

# Gaura parviflora．Small－flowered 

Gaura．
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Class and Order．
Octandria Monogynia．
（Nat．Ord．－Onagrarie．）
Generic Character．
Calyx tubulosus 4－partitus．Petala 4．Nux angulata 1 －sperma．Spreng．

## Specific Character and Synonyms．

Gaura parviflora；pubescenti－mollis，foliis lato－lanceolatis acuminatis remote－denticulatis，spica multiflora，peta－ lis（parvis）obovatis erectis，stamina stylumque æquan－ tibus，fructibus oblongo－fusiformibus．
Gaura parviflora．Douglas，MSS．Hook．Fl．Bor．Am． v．1．p． 208.

This very distinct species of Gaura does not appear to be noticed by any writer on North American plants，not－ withstanding that it has been found in two widely different parts of that vast continent．The specimens here figured were raised from seeds sent by Mr．Drummond from Texas； and，on a careful examination，the plant proves to be iden－ tical，as to species，with the G．parvifora（Fl．Bor．Am．）， which Mr．Douglas found on the banks of the Wallawalla River，on the North－west Coast of America．As an orna－ mental plant it has，indeed，little to recommend it；but when the flower is carefully examined，it will be found to be possessed of no little beauty．The habit and inflo－ rescence are very similar to those of G．biennis，but the flowers，independent of the great difference in size， are widely different．In the latter，the calyx bursts on one side，the segments continuing combined at their ex－ tremities，
tremities, the petals are all directed to one side upwards, the stamens and style downwards, and both these latter, especially the style, are longer than the petals; the four lobes of the stigma are erect and close placed. In our plant, the four segments of the calyx are separate and reflexed, the petals are erect, the stamens and style equal to them in length, the four lobes of the stigma spreading. O. parviflora is quite hardy, flowering in August and September.

Descr. Biennial. Stems two to four feet high, erect, simple or branched, clothed with soft patent hairs. Leaves broadly lanceolate, the lower ones ovato-lanceolate, all of them sessile, acuminate, denticulate, more or less downy with soft hairs, especially at the margin and on the midrib, gradually becoming smaller and narrower upwards, till they pass into the small subulate and ciliated bracteas of the flowers. Spike elongated, many-flowered. Germen fusiform, downy, sessile. Calyx-tube shorter than the germen, equal in length to the four linear, free, reflexed segments. Petals four, small, erect, deep rose-coloured, obovate, slightly clawed, of the same length with the erect stamens and style. Filaments rose-coloured, inserted below the middle of the back of the oblong dark purple anthers: Pollen yellow. Style red: stigma four-lobed, the lobes ovate, spreading, white. Fruit fusiform, obscurely fourangled, constituting an indehiscent nucumentaceous capsule, four-celled, each cell containing one pendent, obovate seed, attached to the inner angle of the cell by a rather long seed-stalk: dissepiments thin, membranaceous.

[^25]
# Cyrtopodium pungtatum. Spotitedflowered Cyrtopodium. 


Class and Order.
Gynandria Monandria.
( Nat. Ord.-Orchidee. )

## Generic Character.

Perianthium explanatum, æquale, sepalis petalisque liberis. Labellum unguiculatum, cum basi producta columnæ continuum, tripartitum, explanatum, ecalcaratum. Columna semiteres. Anthera bilocularis. Pollinia 2, postice biloba; caudicula lineari brevi, glandula ovata.-Planta terrestres, fruticose, caulibus fusiformibus, carnosis; foliis plicatis; scapis radicalibus, vaginatis; floribus speciosis. Lindl.

## Specific Character and Synonyms.

Cyrtopodium punctatum; bulbis elongatis, foliis linearilanceolatis tenuiter acuminatis, scapo paniculato, bracteis magnis membranaceis, sepalis petalisque undulatis acutis maculatis, labello stipitato profunde trilobo, lobis lateralibus obovato-cuneatis incurvis intermedio late obcordato margine granuloso, disco basi calloso. Cyrtorodiem punctatum. Lindl. Gen. et. Sp. Orchid. p. 188.

Epidendrum punctatum. Linn. Sp. Pl. p. 1348. Willd. Sp. Pl.v. 4.p. 116. Spreng. Syst. Veg.v. 3. p. 736. Helleborus ramosissimus cauliculis et floribus maculosis. Plum. Sp.p.9.t. 187.

This superb plant, of which only a small portion is represented on our plate, flowered in the Glasgow Botanic Garden, in the spring of 1835 . It was sent many years ago from Brazil by Wm. Swanson, Esq., and has never till the period
period above mentioned shown any disposition to blossom. Dr. Lindeey obliged us by naming it, or we should probably have had a difficulty in determining it; the figure refered to in Plumier being in some respects, particularly in the bulb and foliage, considerably at variance with our specimen. It was originally discovered by Plumier, in Hispaniola, and Professor Lindley has specimens from the same country, collected by Charles Mackenzie, Esq.

Descr. Pseudo-bulbs a foot and a half, or two feet long, cylindrical, or slightly compressed, tapering at each extremity, clothed with pale brown, faintly-striated, acuminated, sheathing scales, and crowned with a tuft of six to eight long, linear-lanceolate, much acuminated leaves. Scape arising from the base of the pseudo-bulb, erect, including the panicle, nearly three feet high: spotted, as are the branches, with purple. Bracteas oblong, lanceolate, exceedingly large, spreading, membranous, yellow, the upper ones chiefly spotted. Flowers large, handsome. Petals and sepals oblong, wavy, yellow, the latter chiefly spotted with red-purple. Lip stipitate, jointed upon the decurrent base of the column, deeply three-lobed, yellow, two lateral lobes obovato-cuneate, incurved, with a broad red-purple margin ; intermediate one broadly obcordate, the margin granulated and dotted with purple, the disk at the base crested and dotted with purple. Column semiterete, singularly produced, at the base, between the two lower sepals, yellow-green. Anther-case almost nectariform, tapering at the back. Pollen-masses two, oblongo-obovate, having a deep furrow at the back, attached to a white, ovate gland. Germen long, slender, slightly clavate, spotted.

[^26]

# Rheum Emodi．Officinal Rhubarb． 

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Class and Order．
Enneandria Trigynia．
（ Nat．Ord．－Polygonee．）

## Generic Character．

Perianthum simplex，6－partitum，persistens，laciniis al－ ternis minoribus．Achenium triquetrum，perianthio majus， marginibus membranaceo－marginatis．Stigmata verrucoso－ papillata．

## Specific Character and Synonyms．

Rheum＊Emodi；foliis rotundato－cordatis scabriusculis，pe－ tiolis lateraliter compressis pedunculisque sulcatis ver－ rucoso－scabris，racemis compositer elongatis strictis， floribus minutis atro－sanguineis．
Rheum Emodi．Wall．MSS．Cat．E．I．C．Mus．n． 1727. Rheum Australe．Don，Prodr．Nep．p．75．Sweet，Br．Fl． Gard．t．269．Spreng．Syst．Veget．v．4．（cur．post．） p． 156.

The true officinal Rhubarb，long known in commerce， as one of the most valuable of drugs，had been considered by different writers and travellers，as the root of either Rheum undulatum，R．compactum，R．Rhaponticum，or in the opin－ ion of the majority of authors，of R．palmatum；but it does not appear that any one had ascertained the fact in the coun－ try whence the Rhubarb had been imported，so that no de－ pendance can be placed upon these statements．Indeed， being a native of the vast range of the Thibetian and Himalaya mountains，it was scarcely possible that the plant itself could be known to Europeans，until that vast and interesting region was visited by Dr．Wallich and his collectors．There，at Emodus，a mountainous district of Gossam Than，by Dr．$_{\text {r }}$ Wallich，and abont Kamoun by Robert

[^27]Robert Blenkworth, the present plant was discovered, and seeds of it sent by the former, in 1828, as the true officinal Rhubarb of commerce, to Mr. Lambert, in whose garden at Boyton House, Wiltshire, plants were soon raised and distributed. For it proves perfectly hardy, even in Scotland, where in common soil, it attains a height of seven and eight feet and recommends itself, independently of its commercial interest, by the large handsome foliage and deep blood-coloured flowers, which are succeeded by conspicuous pendent seed-vessels of the same colour as the blossoms. The root used to be sent from China to Ormuz and Aleppo, thence by Alexandria to Vienna, and hence it obtained the name of Turkey, or Levant Rhubarb; now our vessels obtain it dried from Canton and Ormuz (in the Persian Gulf). But the best, Mr. Don assures us, " is what comes by way of Russia, as greater care is taken in the selection ; and on its arrival at Kiachta, within the Russian frontiers, the roots are all carefully examined and the damaged pieces destroyed. This is the fine rhubarb of the shops." It is much to be regretted however, that we have as yet no authentic particulars respecting the mode of collecting and preparing the roots by the natives.

Descr. Stems six to ten feet high, much branched and sulcated, very thick below, gradually attenuated upwards into the large panicles, and there rough with minute warts or excrescences: the colour is yellow-green, streaked with red-brown. Leaves very large, but gradually smaller upwards, roundish-cordate, entire, somewhat wavy, slightly rough upon the surface, and at the margin. Petioles thick, angled and furrowed, rough, embracing the stem by means of the large, bifid, sheathing membranous stipules. Panicles, or rather compound racemes, terminal, very long, the branches erect, virgate, rough. Pedicels solitary or clustered, somewhat verticillate, short, spreading, in fruit, deflexed. Flowers very small, of a deep blood-red colour. Perianth of six spreading, ovate, deep segments, three alternate ones smaller. Stamens nine, shorter than the perianth. Filaments subulate, monadelphous at the base. Germen short, triquetrous, often abortive. Styles three, spreading. Stigmas large, warty. Fruit pendent, dark blood-coloured, shining, an achenium which is cordate, triangular, the angles sharply winged, covered at the base with the persistent perianth, of which the three smaller segments are applied to the three winged angles. Seed ovato-triquetrous.


## Sisyrinchium grandiflorum．Large－ flowered Sisyrinchium．

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（Nat．Ord．－Iridee．）
Generic Character．
Spatha diphylla．Calyx o．Petala 6，subæqualia，plana． Filamenta connata．Stylus 1．Capsula trilocularis，infera．

## Specific Character and Synonym．

Sisyrinchium grandiflorum；caule stricto compresso foliis erectis vaginantibus longiore，spatha biflora pedun－ culos subæquante，perianthio late campanulato，fila－ mentis longissimis subulatis basi contracta solummodo connatis erectis demum patentibus．
Sisyrinchium grandiflorum．Dougl．in Bot．Reg．t． 1364.

A most lovely and graceful plant，remarkable for the large size and peculiarly bright purple colour of its flowers． The very long filaments，broad at the base，below which they are contracted and where alone they are combined， seem to be at variance with the characters of other species of Sisyrinchium，and may，perhaps，entitle the subject of our plate to rank as a distinct Genus．It was discovered by the late Mr．Douglas，on low hills of the Columbia，from the Great Falls to Oakanagan，in dry soils，flowering in May；and introduced to the gardens of the Horticultural Society of London．Our wild specimens precisely accord with those here figured，only they are rather smaller and the flower is less drooping．It appears yet to be a rare plant in collections，and though stated by Professor Lindiey to be perfectly hardy，the shelter of a greenhouse is afforded it at Glasgow，where it flowers in March．

Descr．

Descr. Roots truly fibrous, the fibres moderately slender, branched. Stem six to eight or ten inches high, simple, erect, compressed; bearing, chiefly below, three or four leaves, which are erect, sheathing and shorter than the stem. Spatha terminal, of two unequal leaves, pale and membranous at the margin, two-flowered, though I find one flower only expanded at a time. Peduncle nearly as long as the spatha, slender, curved, as if from the weight of the flower, which thus droops. Perianth of six oblong slightly concave, obtuse, bright purple, moderately spreading sepals, faintly striated externally. Stamens three. Filaments erect, about as long as the sepals, white, broad and purplish below, quite distinct (except at the contracted base) eventually spreading. Anthers oblong, yellow. Germen, inferior, pyriform, obtusely trigonal. Style filiform, longer than the stamens. Stigmas three.

[^28]

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# Helianthus decapetalus. Ten-rayed Sun-flower. 

> ********************* Class and Order.

Syngenesia Frustranea.

( Nat. Ord.-Composite. )

## Generic Character.

Achenium compressum, conforme, paleis magis minusve deciduis, binis pluribusve minoribus coronatum.-Herbe scepe altissimee, rarius frutices, Americe indigeni, foliis oppositis vel alternis integris (vel fissis) asperis ; capitulis luteis solitariis et terminalibus vel corymbosis; involucris polyphyllis imbricatis, rachi plana. Less.

## Specific Character and Synonyms.

Helianthus decapetalus; foliis oppositis (supremis bracteantibus exceptis) subrhombeo-ovatis acuminatis grosse serratis utrinque scabris supra basin triplinerviis, involucri foliolis lineari-acuminatis squarrosis paleis integris radii corollis subdecem.
Helianthus decapetalus. Linn. Sp. Pl.p. 1277. Pursh, Fl. Am. v. 2. p. 571. Ell. Carol. v. 2. p. 42 ō.
(阝.) frondosus ; involucri squamis elongatis foliosis.
Helianthus frondosus. Linn. and other authors.

Few plants are less understood by Botanists, or more ill defined in books, than the species of the Genus now before us; especially those which are natives of North America. And it is much to be regretted that Sir James Smith has not even noticed the Linnean species in Rees' Cyclopædia, so that we are at a loss to distinguish accurately those whose names are the most familiar to us. As far as can be judged from description, the present is the H. decapetalus of the Species Plantarum, where its affinity
with H. multiflorus, (Bot. Mag. t. 227,) from which it principally ${ }^{\circ}$ differs in the smaller flowers and much fewer rays, and in the lower leaves not being cordate, is noticed. It is a hardy perennial, an inhabitant of the northern and middle States of North America and of Canada, and blossoming in the autumn. By luxuriance the scales of the involuere are enlarged and become leafy, and, as it appears to me, have given rise to the Linnean $\mathbf{H}$. frondosus.

Descr. Stem four to five feet high; much branched upwards, and there principally scabrous. Leaves all opposite, (except the uppermost ones, which are smaller and narrower and less distinctly serrated, and which as arising from the flower-bearing stalks, may rather be considered bracteas,) ovate, but tapering below so as to be somewhat rhomboidal, three-nerved above the base, acuminated, coarsely and distantly serrated, scabrous on both sides, of a rather lively green above, paler beneath, but scarcely at all downy, the lower one petiolated. Flowers about two inches across, slightly drooping. Scales of the involucre numerous, squarrose, linear-acuminate, ciliated at the margin, especially below, where they are of a blackish colour, sometimes, in $\beta$, becoming leafy. Receptacle slightly conical, chaffy: the scales linear, acute, usually quite entire, and nearly as long as the florets of the disk. Florets of the ray bright yellow, their germens abortive, destitute of pappus; those of the disk, orange. Anthers purple-black: their germens compressed, with two soft, subulate, opposite scales, and sometimes, two or three other minute ones.

[^29]

# Calliopsis tinctoria: var. atropurpurea. Dyeing Calliopsis; dark-flowered var. 

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## Class and Order.

Syngenesia Frustranea.
( Nat. Ord--Composite. )

## Generic Character.

Achenium obcompressum, omnino calvum, intus curvatum, apice truncatum, anguste bialatum, disco epigyno minuto, alis concoloribus, integerrimis. Stylus disci ramiş truncatis apiceque solo penicillatis.-Herbæ Boreali-Americanc, glabre, foliis magis minusve sectis; capitulis geminis v. corymbosis, radio luteo basi macula atropurpurea notato v. roseo; involucris biserialibus, serie interiori gamophylla. Less.

## Specific Character and Synonyms.

Calliopsis* tinctoria; caule ramosissimo foliisque glaberrimis, radicalibus pinnatis foliolis spathulato-lanceolatis, caulinis bi-tripinnatifidis summisque 3 -partitis linearibus, pedunculis subcorymbosis, flosculis radii inciso-dentatis.
Calliopsis bicolor. "Reichenb."-Spreng. Syst. Veget. v. 3. p. 611.

Coreopsis tinctoria. Nutt. Journ. Acad. Sc. Phil. 1821, p. 114. Sims, Bot. Mag. t. 2512. Bot. Reg. t. 846. Szo. Brit. Fl. Gard. t. 72. Bart. Fl. of N. Am. v. 2. t. 45.
(ß.) floribus atropurpureis, nunc limbo fulvo circumdatis. (Tab. nostr. 3511 .)

[^30]The ordinary state of this pretty plant is given at t. 2512, where it will be seen that the flower is a bright and full yellow colour, with a deep blackish-purple or blood-red eye. Cultivation shows that these colours are liable to vary, and has made us acquainted with a state of this plant of great beauty and richness as concerns the flower. In some specimens the whole of the ray is atro-sanguineous; in others there is a tawny narrow margin, forming, as it were, a kind of limb around it. Mixed with the common yellow sort in large patches, they add greatly to the charms of a flower-garden.

Our specimen here figured was from the garden of Mr. James Tait, Merry Flats, and was one of the twelve best species of hardy annuals which gained the prize at the September Meeting (1835) of the Glasgow Hoticultural Society.

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# Thunbergia alata；（albiflora）．Winged Thunbergia；White－flowered var． 

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Class and Order．<br>Didynamia Angiospermia．<br>（ Nat．Ord．－Acanthacee．）

## Generic Character．

Calyx duplex ：ext．diphyllus；int．subduodecim－den－ tatus．Capsula bilocularis rostrata．

## Specific Character and Synonyms．

Thunbergia alata；pubescenti－sericea，foliis cordatis acutis angulatis，petiolis alatis，caule volubili．
（a．）Corolla lutea．
Thunbergia alata．Bojer MSS．－Hook．Ex．Fl．p． 177. Sims，Bot．Mag．t． 2591.
（ $\beta$. ）Corolla alba．（Tab．nostr．3512．）

Thunbergia alata，is a plant discovered by Professor Bojer of the Mauritius in grassy places of Zanzibar and Pemba，two small islands on the eastern coast of Africa，in about the fifth or sixth degree of South latitude：and it was by the late Mr．Telfair sent to Mr．Barclay＇s collection at Bury Hill．Through his liberality，the buff－flowered variety is become general in the stoves of our collections， where it is greatly admired for its copious blossoms，marked with a deep purple－brown eye in the centre．The variety now figured，with a white limb to the corolla，forming a still greater contrast with the dark stain in the centre，is， we believe，much more uncommon，since we are only ac－ quainted with it from plants given to the Glasgow Botanic Garden by the kindness of Mr．Lowe of the Clapton Nursery． It flowers during the summer and autumn months，and re－ quires the same treatment as the buff－stained kind．

Descr．

Descr. Stems long, slender, twining, clothed, as well as the leaves and calyx, with short, pale, silky pubescence. Leaves opposite, cordate, or cordato-hastate, membranous, acute, angled at the margin more or less, particularly near the base, dark green above, paler beneath. Petioles about as long as the leaves, singularly winged on each side; the wings broader towards the upper extremity. Peduncles axillary, solitary, opposite, longer than the petioles. Exterior calyx of two large ovato-cordate, inflated, membranaceous leaves: inner one small, cup-shaped, with several irregular teeth or segments. Corolla large; the tube longer than the outer calyx, inflated upwards, black purple within, paler without: limb oblique, of five, nearly equal, somewhat obcordate, spreading lobes, buff-coloured in $\alpha$, white in our var. $\beta$. Stamen wholly concealed within the tube: Anther white, two-celled, ciliated. Germen ovato-globose. Style white, filiform: Stigma of two unequal lips, the lower one the broadest, and concave.

Fig: 1. Outer Calyx (or bracteas). 2. Stamen. 3. Calyx and Pistil:magnified,


# Dryandra tenuifolia. Slender-leaved Dryandra. 

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Class and Order.

Tetrandria Monogynia.

( Nat. Ord.-Proteacee.)
Generic Character.
Perianthium quadripartitum v. quadrifidum. Stamina apicibus concavis laciniarum immersa. Squamule hypogynæ 4. Ovarium uniloculare, biovulatum. Ovula post focundationem cohærentia. Folliculus ligneus: Disepimentum ligneum semibifidum fructûs maturi omninò simile. Receptaculum commune planum, floribus indeterminatim confertis; paleis angustis, rarò nullis. Involucrum commune imbricatum.-Frutices plerumque humiles. Rami dum adsint sparsi vel umbellati. Folia sparsa, pinnatifida v. incisa, plante juvenilis conformia. Involucra solitaria, terminalia, rarò lateralia, sessilia, foliis confertis, interioribus quandoque nanis obvallata, hemispherica, bracteis adpressis in quibusdam apice appendiculatis. Stylus sapè perianthio vix longior. $\quad$ R. $B r$.

## Specific Character and Synonyms.

Dryandra tenuifolia; foliis elongato-linearibus pinnatifidis subtruncatis subtùs niveis basi attenuatâ integerrimâ petioliformi: lobis triangularibus decurrentibus divaricatis margine recurvis, involucro longitudine florum : bracteis tomentosis : exterioribus ovato-lanceolatis, perianthio stylum subæquante: unguibus basi lanatis suprà cauleque glabris; laminis subsericeis. $B r$. in Linn. Trans. 10. p. 215, ejusd. Prodr. 1. p. 398. Röm. et Schult. Syst. Veg. 3. p. 447.

A native of barren heaths on the shores of King George's Sound, where it forms rather a dense bush, flowering in the month
month of January. In our conservatories, where, according to Hortus Kewensis, it has been an inhabitant since the year 1803, it usually puts forth its oval heads of flowers in March ; and continuing its blossoms during the two succeeding months, is a most desirable plant for greenhouse cultivation among other compatriots in our possession from the sterile shores of South-western Australia-a locality, so desert-like in aspect, yet so rich in the rarer and more diversiformed species of the great and splendid family to which our plant belongs. Beyond its remarkable habit, and the density of its extremely attenuated foliage, it holds out other recommendations to the care of the botanic cultivator; namely, its freedom of growth, and the readiness with which well-ripened cuttings take root. Our thanks are again due to our liberal friend, Mr. Arton, for the specimen furnished us last spring, by which, the means of publishing the first figure of so interesting a plant, has been afforded us.

Descr. A robust shrub, usually about three feet high, very much branched; branches smooth, densely clothed with leaves, spreading, often pendent. Leaves very linear, six to eight inches long, pinnatifid, truncated at the apex, smooth and dark green on the upper side, clothed with a white tomentum beneath, very attenuated and entire at the base: lobes alternate, triangular, decurrent, spreading, apex acute and uncinated, the margins recurved. Involucre terminal, solitary, oval, formed of numerous, imbricated bractes; the outer ones ovate, acute, inner oblong and bluntish, ciliated, and clothed with a thin adpressed tomentum. Receptacle chaffy. Flowers numerous, bright-brown, included within the involucre. Perianth deeply divided into four parts; each segment very linear, thinly clothed with spreading, white hairs towards the claws, which are themselves very woolly, base, however, quite smooth. Lamina slightly silky. Stamens four, inserted in the concave laminæ. $A n$ thers linear, apiculated, shorter than the concavities in which they repose. Style smooth, terete, enlarged somewhat at the base, and angular, the length of the perianth. Stigma simple. Hypogynous scales four, each lanceolate, and attenuate.

We know not that we can do better in occupying another page, thau by giving publication to a note furnished us by Allan Cunningham, regarding another subject of the highly
highly interesting Order of the plant here figured; namely, a species of Persoonia, of goodly arborescent stature, and moreover, the inhabitant of a country, in which the Geuus has never been supposed to exist.

It may be just premised, that as far as the Botany of the Islands of New Zealand has been investigated, from the days of Sir Joseph Banks and Dr. Solander in the first voyage of our great circumnavigator, down to the present period, Botanists have been made acquainted with but a solitary example of the family Proteacees, existing on those Islands. In that individual, truly, the Order has there, a very noble representative, viz. Knightia excelsa, a large tree, often to be seen from sixty to eighty feet in height, in the drier forests. This observation of the bare existence of an Order on those Islands, so abundant in the neighbouring continent of Australia, is the more remarkable, since in the southern latitudes of this latter vast country, (in which is included Van Diemen's Land,) and in the same parallels in South America, which also intersect New Zealand, Embothrium as limited by Mr. Brown, and Lomatia of the same very eminent botanist, furnish several species ; which, affecting as they do cool regions, and rather humid localities, might reasonably be expected to hold a standing also, on the latter intermediate Islands. Neither the one Genus, nor the other, have yet been discovered there, but a species of Persoonia-a Genus hitherto limited in geographic range to New Holland and Van Diemen's Land, was observed at Wangaroa, in 1826, and may be thus defined :-
P. Toru; foliis elongato-lanceolatis acutis basi attenuatis strictis subfalcatisve obsoletè trinervibus utrinque glabris nitidis, racemis axillaribus lateralibusve multifloris, pedunculis perianthiisque tomento ferrugineo tectis, ovariis glabris dispermis epedicellatis, caule arborescenti, cortice lævi.
Incolis Toru audit, unde nomen triviale.
Hab. In Novæ Zelandiæ insula septentrionali: prope sinum Bay of Islands dictum ; et in montosis sylvaticis viciniâ oppidulum Wangaroa, (altitudine supra oceanum 1000 circiter pedum); nec non in sylva primæva, ("Great Forest" dicta) versus flumen Hokianga ; alibique inter pagulos Indicos Wytangy et Keri-Keri, in nemoribus.

Lecta cum fructibus immaturis mense Novembri, et verosimiliter in mensibus Septembri, Octobrique, florens. 1826. All. Cunn. 1833. b. Rich. Cunningham.

Arbor sempervirens, viginti ad quadraginta pedes alta, potiùs gracilis, admodum venusta, et in habitu omnino aliquot specierum Acaciarum aphyllarum ; trunco erecto ad basin diametro 6 -uncias æquante, cortice
lævi, sursum ramosissimo. Ramuli patentes, glabri, rugosi, cinereoatri, lapsu foliorum cicatricibus prominentibus notati. Folia alterna, versùs apices ramulorum confertiora, elongata, coriacea, valdè glabra, suprà nitidissima, venosa, sæpè sex uncias longa, et semunciam lata. Racemi plerumque axillares, erecti, multiflori tomento rubiginoso tecti : Flores (in specimine immaturi et nondum aperti) unibracteati. Ovarium glabrum, dispermum, sessile, v. epedicellatum. Glandula hypogyne 4, brevissimæ. Stigma depresso-capitatum. Drupa baccata, putamine biloculari.

Obs. Affinis P. articulato, et inter hanc et P. longifoliam fere media. Folia longiora, angustiora quàm in P. articulato, perianthiaque tomentosa. Inflorescentia P. longifolice, a qua differt, foliis latioribus, ovariisque sessilibus. A. $C$.


Myanthus barbatus; var. labello albo. Beardef Flywort; white-lipped var.


Class and Order.
Gynandria Monandria.
( Nat. Ord.-Orchidee.)

## Generic Character.

Perianthium explanatum. Sepala libera, æqualia, lateralibus paululum adscendentibus. Petala conformia, angustiora, sepalo supremo supposita. Labellum planum, obovatum, tridentatum, sepalis brevius. Columna erecta, teres basi bicirrhosa, postice ad cardinem antheræ longe producta. Antheree et pollinia Cataseti.-Epiphyta, Cataseti omnino vegetatione.

## Specific Character and Synonyms.

Myanthus* barbatus; labello in pilis succulentis barbæformibus dissoluto basi supra unicorni. Lindl.
Myanthus barbatus. Lindl. Bot. Reg. t. 1778.
(B.) labello albo. (Tab, nostr. 3514.)

The Genus Myanthus was founded by Professor Lindley (see Bot. Reg. t. 1721,) upon a plant which I had referred, when I was ignorant of the Myanthus of Lindley, to Catasetum (Catasetum trifidum, Bot. Mag. t. 3262,) from which it appears to me only to differ in the spreading, three-lobed lip. In his valuable "Genera et Species Orchidearum," the learned author remarks that, "Catasetum cristatum is intermediate between this Genus and Catasetum." The present plant is, however, by the same Botanist, in the Register,

[^32]Register, referred to Myanthus, without any allusion to its exceedingly close affinity with his Catasetum cristatum, a similarity so great, that I was at first disposed to consider our plant with a white lip the same species, differing chiefly in being furnished with a spur or tooth-like process at the base of the lip. The two plants are indeed, I doubt not, specifically distinct; but they cannot be separated generically, and perhaps Professor Lindley will agree with me in thinking, that Myanthus should only form a section of Catasetum.

Our kind friend, Mr. Allcard, imported the plant here figured, from Demerara ; and it blossomed in his collection at Stratford Green, Essex, in the month of May, of the present year (1836). The flowers, when the box was opened which contained the specimen, yielded an odour very similar to that of Juniper Berries.

Descr. Bulb ovate, sheathed with large, broad, striated scales, which, in the upper part, bear several distichous obovato-lanceolate, striated and somewhat plaited, membranous leaves, tapering at the base. Scape arising from the base of the bulb, in our specimen at once drooping, bearing a many-flowered raceme, green below, dark purple above. Flowers spreading. Petals and sepals narrowoblong, grooved, dark green, spotted with dark purple within, with paler spots on the outside. The upper sepal and two petals meet together in a nearly erect position above the column ; the two lateral sepals, at first patent, become eventually singularly deflexed. Column elongated, semiterete, greenish-brown, with a long, acuminated point, beneath which the anther is lodged: in front, one on each side the stigma, are two deflexed setæ. Lip deflexed, shorter than the sepals, linear-oblong, with a short, pale greenishbrown sack a little above the middle, fringed with numerous long, upright, white, fleshy hairs; in the disk, at the base, is a long, white, curved, fleshy, horn-like process. Anthercase with a long, acuminated point. Pollen-masses as in Catasetum. Germen clavate, dark purple.

[^33]

# Sarracenia rubra. Red Side-Saddle- 

 Flower.********************

## Class and Order.

Polyandria Monogynia.

( Nat. Ord.-Sarraceniee.)

## Generic Character.

Calyx persistens pentaphyllus, involucratus; involucro triphyllo. Petala 5, decidua. Stigma magnum peltatum, 5 -angulare, persistens, stamina obtegens. Capsula 5-locularis, 5 -valvis, polyspermis, valvis medio septiferis.

## Specific Character and Synonyms.

Sarracenia rubra; foliis scapo brevioribus, tubo angusto superne sensim dilatato venoso, appendice ovato-acuminata planiuscula erecta.
Sarracenia rubra. Walt. Carol. p. 152. Ait. Hort. Keto. ed. 2. v. 3. p. 291. Hook. Ex. Fl. v. 1. t. 13. (excl. the Syn. of S. psittacina). Lodd. Bot. Cab. t. 308.

This truly beautiful Sarracenia is, we believe, rarely seen in this country, though the plant has, perhaps, been not unfrequently imported; for it is a species of difficult cultivation, and shy of flowering. Many roots were sent by Mr. Drummond from New Orleans, and from one of these, which flowered in the stove of the Glasgow Botanic Garden, in March, 1836, our figure and description are taken. The species seems wholly confined to the southern United States. The S. psittacina is totally different from this, and very little known to Botanists. Numerous plants of it have also been received from Mr . Drummond, collected in Louisiana; but I have not heard that it has flowered in any collection.

Descr.

Descr. Leaves tufted, eight to ten inches and a foot in length, somewhat ensiform, broader upwards, the back dilated into a tube, very narrow for the greater part of the length, gradually enlarged towards the oblique mouth, which is terminated on the upper side by a nearly erect, ovato-lanceolate, slightly concave, acuminated appendage. Often the leaves are imperfect at the extremity, without tube, and without appendage. Scape, in our plant, two feet long, rounded, erect but wavy, curved at the apex so that the fine large flower is drooping. Involucre of three ovate leaves, pressed close to the flower. Calyx of five broadly ovate leaves or sepals, curved downwards at the extremity, the margins a little recurved, green, the base and sides red. Petals five, broadly-obovate, the base spreading, the rest suddenly decurved, flaccid, rich and deep red, greenish at the base. Stamens numerous. Anthers two-celled, yellow, each with a large opening at the extremity. Pistil: Germen roundish-ovate, green. Style short, dilated into an immense five-cleft, convex, membranous stigma, the segments bifid, with a spur within, bent down : so that the whole covers the rest of the organs of fructification like a spread umbrella : the stigmatic surface being undermost, and slightly papillose.

Fig. 1. Stamen. 2. Pistil.


## flowered Streptanthus.

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Class and Order.<br>Tetradynamia Siliquosa.

(Nat. Ord.-Cruciferee.)
Generic Character.
Calycis foliola erecta, colorata, basi saccata. Filamenta subulata. Anthere elongatæ, acuminatæ. Siliqua longissima compressa, utrinque linea dorsali subtetragona. Semina uniserialia, compressa, marginata. Cotyledones accum-bentes.-Herbæ elat๕, аппи๔. Folia glaucescentia. Flores purpurascentes.

## Specific Name and Character:

Streptanthus hyacinthoides; foliis oblongo-linearibus acuminatis, petalis linearibus limbo reflexo, filamentis duobus coadunatis abortivis, floribus pendulis.

There are perhaps few persons who would at the first sight of the inflorescence of this plant, in long racemes of pendent deep purple flowers, and much protruded stamens, suppose that it belonged to the Cruciferous family, but rather to some kind of Hyacinth, or still more to the Genus Uropetalum. Its real affinity is, however, soon detected, and notwithstanding some striking peculiarities its identity with the Genus Streptanthus : of which all the species that we yet know are confined to the southern part of North America. The present species is a native of Texas, and was discovered by the late Mr. Drummond at San Felipe de Austin. Seeds, as well as specimens, were sent to this country, and the plants from which our figure was taken flowered in the greenhouse of the Glasgow Botanic Garden in

August

August of 1835. It will no doubt bear the open air exceedingly well.

Descr. Root annual. Stem two to three feet high, and, as well as the whole plant, glabrous and glaucous, rounded, branched in a somewhat paniculated manner, with the branches erect. Leaves oblongo-linear, sessile and semiamplexicaul, acuminated, entire, or very obscurely toothed, the upper ones gradually narrower. Racemes elongated, bearing numerous flowers on short pedicels, green at first in the bud, then drooping, and when the flowers are fully expanded almost wholly deep bluish-purple. Calyx-leaves ovato-acuminate, coloured greenish only at the apex, saccate at the base, two opposite ones less so than the other two. Petals linear: the claw straight, the limb wavy, slightly twisted and reflexed, pale at the apex. Stamens six, much exserted. Filameuts subulate, purple, pale below: of the two opposite pairs, one pair is short, combined into one, forked at the apex, and bearing each an abortive, linear anther: the two which are opposite to these are distinct, and the longest of the six : the two solitary ones intermediate in length, and as well as the two longest ones, bearing large, subsagittate anthers, of a greenish-purple colour with yellow pollen. Pistil shorter than the perfect stamens, linear. Style scarcely any, stigma obtuse. Pod long, slender, linear, compressed, with a dorsal line on each valve, but not tetragonous. Seeds compressed and margined, similar to those of S. obtusifolius (Bot. Mag. t. 3317.)

[^34]

## Strobilanthes Sabiniana. Mr. Sabine's Strobilanthes.

> *** * * * * * * * * * * * * * * * * * *
> Class and Order. Didynamia Angiospermia.
> ( Nat. Ord.-Acanthacee.)
> Generic Character.

Calyx 5-partitus. Corolla infundibuliformis. Anthera erectæ, loculis parallelis. Capsula in medio tetrasperma ad basin bilocularis v . brevissimo tantum spatio a basi clausa, tetragona. Retinacula in papillæ formam contracta semina ferentia nec fulcentia. Semina parva scrobiculata. Nees.

## Specific Character and Synonyms.

Strobilanthes Sabiniana: herbacea (v. suffrutex), foliis ovatis acuminatis in petiolum attenuatis repando-subcrenatis glabris, opposito minore, summis cordatis amplexicaulibus, spicis axillaribus terminalibusque laxiusculis viscido-pubescentibus, bracteis orbiculatis basi cuneiformibus. Nees.
Strobilanthes Sabiniana. Nees ab Esenb, in Wall. Pl. As. Rar. v. 3. p. 86.
Ruellia Sabiniana. Wall. Cat. n. 2338. Lindl. Bot. Reg. t. 1238.

Ruellia macrocarpa. Wall. Cat. n. 2348. ex parte.
( $\beta$.) argentea, Nees; spicis minoribus maxime pubescentibus viscidisque, foliis minoribus.
Ruellia argentea. Wall. Cat. n. 2339.

A very beautiful stove plant, a native of Nepal, whence it was introduced to our gardens by Dr. Wallich, who named it in compliment to Joseph Sabine, Esq. to whom Horticulture, no less than Natural History in general, is most
deeply indebted. Its flowering season with us is the latter end of winter, when several of the numerous purple spikes have a succession of flowers; two on each, never more, being open at one time.

Descr. Stem two to three feet high, shrubby below, much branched; branches erect, glabrous, the younger ones quadrangular. Leaves opposite, unequal, oval, much acuminated, oblique, obscurely crenato-serrate, tapering at the base into a winged petiole; often of a fine purple beneath, nerves oblique, united by reticulated nervelets, slightly prominent above, much so below. Spikes axillary and terminal. Bracteas imbricated, in four rows, broadly ovate or rounded, coloured, somewhat spreading, cuneate below, clothed with glandular down. Calyx in five deep-coloured, spathulate segments. Corolla funnel-shaped, the lower part of the tube yellow and much curved, the rest bright bluish-purple, pitted and reticulated : the limb of five nearly equal, rounded lobes. Filaments declined, hairy at the base on one side; the two longer ones reaching a little beyond the mouth. Style rather longer than the longest stamens.


# ( 3518 ) <br> Bletia patula, Spreading-Flowered Bletia. <br>  

Class and Order.<br>Gynandria Monandria.<br>( Nat. Ord.-Orchidee. )<br>Generic Character.

Sepala patentia æqualia. Petala nunc patentia, nunc conniventia, sepalis æqualia. Labellum cucullatum, cum columna articulatum, nunc basi saccatum, trilobum, disco sæpius lamellato vel tuberculato. Columna elongata, semiteres. Anthera carnosa, 8 -locularis. Pollinia 8 æqualia, caudiculis 4 pulvereis cohærentibus.-Herbæ subterrestres, foliis ensiformibus plicatis, scapis racemosis multifloris, floribus sapius speciosis. Lindl.

## Specific Name and Character.

Buetia patula; foliis radicalibus lanceolatis plicato-nervosis, scapo elato subramoso, floribus patentissimis, sepalis lanceolato-ellipticis basi attenuatis subæqualibus patulis, labello cucullato, lobis lateralibus rotundatis, medio emarginato transverse plicato, disco lamellis 6 subramosis inæqualibus.

This handsome species was received at the Botanic Garden, Edinburgh, from Dr. Fischer, St. Petersburgh, in 1830, without specific name, but marked as a native of Hayti. It has repeatedly since flowered finely in our stove.

Descr. Bulb round, at first, when it pushes up the scape, very small, gradually enlarging to the size of a small orange; in the second year green, shining, nearly smooth, and crowned by the withered bases of the leaves, marked with three or four circular bands, and furrowed at the apex when these fall, persisting for some years, and becoming gradually
gradually smaller without shrivelling much; young bulbs are formed at the base, or near the apex of those of the preceding year. Leaves arising from the apex of the bulb after the flowers, lanceolate, plicato-nervose. Scape (above three feet high ) terminal, but from its appearing in the very young state of the bulb, seeming to be lateral, the old bulb only being conspicuous, purplish and spotted at the base, with a few distant, sheathing scales, greener above, subramous. Raceme (above twenty-flowered) gradually elongating. Flowers large, very handsome, each springing from the axil of a small, acute bractea, of a nearly uniform reddish-lilac colour, only the base of the labellum and its ridges being white. Sepals (an inch and a half long) lan-ceolato-elliptical, nearly equal in size, the uppermost being rather the narrowest, all attenuated at the base and spreading. Lip much broader than the sepals, the lateral lobes erect, rounded, the central broad-linear, notched, plaited transversely; disk with six waved, somewhat branched lamellæ, those at the sides being the shortest, and passing into diverging veins. Column more than half as long as the sepals, projecting into the centre of the flower, somewhat clavate, rounded on the upper, flat on the lower side, with a single tooth on each edge at its middle, a small terminal tooth, and two others on each edge immediately below the apex, the lower being rounded and decurrent. Anther-case rounded, notched at its apex, two-celled, each cell divided longitudinally. Pollen-masses four, parallel, each two-lobed, laid along a thin plate spread above the stigmatic surface. Germen (an inch and a half long) twisted, spreading at right angles to the rachis. Graham.


## Cotoneaster.

## **********************

Class and Order.
Icosandria Digynia.
( Nat. Ord.-Rosacee. )

## Generic Character.

Flores abortu polygami. Calyx turbinatus obtuse 5-dentatus. Petala brevia erecta. Stamina dentium calycis longitudine. Styli glabri staminibus breviores. Carpella 2-3 parietalia calyce inclusa biovulata.-Frutices : foliius simplicibus integerrimis subtus lanatis, corymbis lateralibus patentibus bracteis subulatis deciduis, petalis parvis persistentibus. D C.

## Specific Character and Synonyms.

Cotoneaster * laxiflora; cymis elongatis dichotomis pendulis nitidissimis sub lente pilosis, foliis oblongo-ovatis supra glabris nitidis subtus incano-tomentosis deciduis. Cotoneaster laxiflora. "Jacq. fil. in. litt.-Lindl. Bot. Reg. t. 1229.

Like the Mespilus lobata, lately figured, the native country of this plant is not known to us. It was introduced to our gardens through the Horticultural Society by means of seeds, which were sent from Vienna by Professor Jacquin, under the name here given. A species, indeed, nearly allied to this, has recently been discovoured by Ledebour in the Altai Mountains, and figured and described by that Author under the name of C. multiflora, Bunge, but our specimens

[^35]of this plant have much thicker, broader, and rounder leaves, with generally a deep notch at the extremity. The inflorescence is extremely similar in the two. With us, the flowering season is May, when the pendent, reddish blossoms, and the glossy leaves have at first the appearance of some Vaccinium, rather than a Cotoneaster.

Descr. It forms an upright shrub, from four to five feet high, clothed with brown and glossy bark, the young branches only having a deciduous down. Leaves shortly petiolate, elliptical, or nearly oblong, frequently approaching to ovate, almost acute, entire, glabrous and shining above, pale and hoary with down beneath, but by no means so much so as in the more common species of our gardens. Cymes longer than the leaves, the terminating short branches of the preceding (as is the case with the C. multiflora, described by Ledebour) much divided in a dichotomous manner, gracefully pendulous. Peduncles and pedicels dark greenish-red, with minute bracteas, glossy, yet when seen under a microscope slightly hairy. Calyx glossy, glabrous, red, green on the side less exposed to the light. Petals concave, incurved, delicately tinged with blush.

Fig. 1. Flower:-magnified.



## ( 3520 )

# Begonia sanguinea. Blood-Red Begonia. 

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## Class and Order.

Moneecta Polyandria.
( Nat. Ord.-Begoniacee. )

## Generic Character.

Masc. Calyx o. Corolla polypetala. Petala plerumque 4, inæqualia. Fєм. Calyx ○. Corolla petalis 4-9, plerumque inæqualibus. Styli 3, bifidi. Capsula triquetra, alata, trilocularis, polysperma.

## Specific Character and Synonyms.

Begonia sanguinea; caule ramoso, foliis inæqualiter cordatis acuminatis coriaceo-carnosis glaberrimis subtus sanguineis, margine crenulato revoluto, germinis alis tribus æqualibus.
Begonia sanguinea. Radd. in Sprengel, Syst. Veget. v. 2. p. 625. Link et Otto, Icones Plant. Rarior. Hort. Reg. Bot. Berol. p. 25. t. 13.

This plant, more remarkable for the colour and texture of its leaves than elegant in its form, was raised at the Botanic Garden of Berlin, from seed transmitted by M. Sello, from Brazil, in 1823, and communicated to the Botanic Garden in Edinburgh in 1832. It flowers in the stove in April.

Descr. Stems several from the crown of the root, subligneous, red, with scattered oblong paler spots. Leaves (four to six inches long, two and a half to three and a half inches broad) subpeltate, unequally cordate, acuminate, the apex soon withering, leathery-succulent, perfectly glabrous and shining on both sides, green above, blood-red below,
low, the edge crenulate and revolute all round, nerves about ten, radiating, the larger branched, the smaller subsimple. Petioles of very unequal length, round, resembling the stem. Stipules intra-foliaceous, large, ovate, acute, keeled, marcescent. Peduncle (ten inches long) terminal, becoming axillary, tapered, similar to the stem but without spots, repeatedly dichotomous at the apex (primary branches about one inch long, the others gradually shorter). Bracteas lanceolato-elliptical at each subdivision. Flowers white, rather small. Male flowers in the clefts of the cyme, or on the inner side, where the ultimate branches are reduced to two flowers (the outer being a female), or, occasionally, solitary on the ultimate branches. Petals four, the two outer subrotund, slightly crenate, the two inner linearelliptical, very narrow, entire. Stamens numerous; filaments free, excepting at the base, where they are monodelphous; anthers spathulate. Female flowers with five subequal petals, expanding later than the earlier of the males. Stigmas pale-rose coloured. Germen with three subequal wings.

I was at some pains to ascertain the relative position of the male and female flowers when only these two were found at the extremity of the ultimate branch. It seems to me that the normal form is the conversion of the last dichotomous ramification of the cyme into the pedicels of two female flowers, and that the male flower here, as elsewhere, is placed in the cleft ; the loss of the inner female flower being an illustration of the opinion, that internal parts, from pressure, more frequently abort than those which are external. As the common support of these two flowers generally turns half round on its axis, their true position may not be obvious unless examined when they are very young. Graham.


## ( 3521 )

## Fuchsia macrostema; var. recurvata. Large-stamened Fuchsia; recurved var.

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Class and Order.

Octandria Monogynia.

(Nat. Ord.-Onagrarie.)

## Generic Character.

Calycis tubus basi ovario adhærens, superne productus in tubum cylindraceum 4 -lobum post anthesin articulatim deciduum. Petala 4 summo tubo inserta lobis alterna, rarius o. Stamina 8. Ovarium glandula urceolata coronatum. Stylus filiformis. Stigma capitatum. Bacca oblongo- aut ovato-globosa, 4 -locularis, 4 -valvis, polysperma.-Frutices. Folia sapius opposita. Pedicelli axillares 1-flori interdum ad apices ramorum racemosi. Flores sapius nutantes, rubri rarius albi, interdum $5 \cdot$ fidi, octandri. D C.

## Specific Character and Synonym.

Fuchsia macrostema; glabra, foliis oppositis ternisve petiolatis ovatis acutis denticulatis, floribus axillaribus solitariis, staminibus productis, stigmate 4-lobo. Don. Fuchsia macrostema. Ruiz et Pav. Fl. Peruv. v. 3. p. 88. t. 324. f. b.

Mr. Don includes the following Synonyms.
(Thilco. Feuill. Per. 2. p. 64. t. 47.-F. discolor. Lindl. Bot. Reg. t. 1805. Hook. Bot. Mag. t. 3498.
(阝.) conica.-F. conica. Lindl. Bot. Reg. t. 1062.
(r.) globosa.-F. globosa. Lindl. Bot. Reg. t. 1556. Hook. Bot. Mag. t. 3364.
(১.) gracilis.-F. gracilis. Lindl. Bot. Reg. t. 847. et t. 1052.-F. decussata. Grah. Sims in Bot. Mag. t. 2507.)
(ء.) recurvata; ramis pendentibus, floribus foliisque majoribus. (Tab. nostr. t. 3521.)

Of all the Fuchisias which we have yet seen in our Botanic Gardens, this strikes us as the most handsome, whether we consider the graceful mode of growth, the delicate green of the large foliage, the deeply-coloured branches, or the size and form of the flowers, and their exceedingly rich hues. It was raised from seeds, probably of hybrid production, by Mr. Niven, at the Glasnevin Botanic Garden, Dublin, and sent to Mr. Murray at the Glasgow Botanic Garden, under the name of F . recurvata.

I so entirely agree with Mr. Don in the view he takes of the Fuchsias above named, and considered by many Botanists as species, that I have here followed that author in the varieties and synonyms which he has referred to F. macrostema, adding to the list our present one, which indeed accords better with the original figure of Ruiz and Pavon, than with any of the other kinds.


## ( 3522 )

## Vaccinium virgatum. Pale Greenishflowered Whortleberry.

***********************
Class and Order.
Decandria Monogynia.
(Nat. Ord.-Vacciniee. )
Generic Character.
Calyx 4-5-dentatus. Corolla urceolata seu campanulata, limbo 4-5-fido reflexo. Anthere bicornes vel mutice. Bacca 4-5-locularis.

## Specific Character and Synonyms.

Vaccinium virgatum; ramis floriferis plerumque aphyllis, racemis subcorymbosis secundis nutantibus bracteatis, corollis subcylindraceis, calycibus erectis, foliis obo-vato-oblongis integerrimis utrinque acutis membranaceis deciduis subtus pubescentibus, germine semisupero.
Vaccinium virgatum. Ait. Hort. Kew. ed. 1. v. 2. p. 12. Willd. Sp. Pl. v. 2. p. 353. Spreng. Syst. Veg. v. 2. p. 210. Andr. Bot. Rep. t. 181 ? (ramis floriferis foliosis).
V. virgatum, B. var. Wats. Dendr. t. 34 (non 33.)
V. corymbosum. Linneus.

The excellent collection of American Whortle-berries possessed by the Glasgow Botanic Garden has given me an opportunity of studying their peculiarities, which few perhaps have enjoyed to such an extent : yet, I confess myself much at a loss to find characters to distinguish some of the species, which, even to a common observer, appear sufficiently marked : and such is the case with the present individual, which goes by the name of V . virgatum in our gardens, and which, I have reason to believe, is the plant so designated
designated by Arton. Mr. Arton's plant, however, is now almost universally referred to the $\mathbf{V}$. corymbosum, an opinion which I once entertained myself: yet a more accurate examination has led me to a different conclusion. But others must determine for themselves, and I will be content with giving an accurate figure and description of the plant in question.

Descr. A rather small bush, three to four feet high, much branched in a straggling manner, clothed with smooth brown bark, the younger branches green and downy. Leaves an inch or an inch and a half long, obovato-oblong, entire, acute at both extremities, nearly sessile, above glabrous and shining, often tinged with brown, below paler and downy, especially when seen under a magnifier. Racemes corymbose, on branches which are generally destitute of leaves, each of several flowers, pointing one way and drooping. Calyx-lobes nearly erect, tinged with rich brown. Corolla cylindrical, generally a little broader at the base, the mouth slightly contracted, with five reflexed teeth; the colour a pale yellow green, on one side more or less tinged with red. Stamens as in V.corymbosum. Germen partly superior. Style included.

Fig. 1. Flower. 2. Pistil and Calyx :-magnified.


# Sollya heterophylla. Various-leaved Sollya. 

## 

 Class and Order. Pentandria Monogynia. ( Nat. Ord.-Pittosporee. )
## Generic Character.

Cal. 5-phyllus. Petala 5, patentia. Anthere conniventes, loculis apice dehiscentibus. Stigma obscure bilobum. Pericarpium biloculare, polyspermum, seminibus substantia carnosa nidulantibus.-Frutex Australasicus scandens. Pedunculi corymbosi, terminales vel laterales, oppositifolii.

## Specific Name and Synonyms.

Sollya* heterophylla.
Sollya heterophylla. Lindl. Bot. Reg.t. 1466. Don, Brit. Fl. Gard. t. 232. Lodd. Bot. Cab. t. 1975.
Billardiera fusiformis. Labill. Nov. Holl. v. 1. p. 65. $t$. 90. De Cand. Prodr. v. 1. p. 345. Spreng. Syst. Veget.v.1.p. 792.

This charming plant, which has been ascertained by Mr. Don, to be the Billardiera fusiformis of Lablllardiere, was discovered by the Botanist now mentioned in Van Diemen's Land : but our native specimens were gathered at King George's Sound, New Holland, by Allen Cunningham, Esq. and by Mr. Baxter. It is undoubtedly a great acquisition to our gardens. We have seen it blossoming in the open air, even in Scotland ; and, in very high perfection, in the

[^36]the extensive and well-kept nursery-grounds of Mr. Mackie, Norwich: yet Mr. Curtis, who cultivates it with remarkable success at Glazenwood, where our drawing was made by Miss Adams, observes, that it cannot be considered a hardy plant, even when trained against a wall; that it is with difficulty kept in a brick pit ; and that its proper situation, and where it comes to the highest perfection, is the back wall or the trellis-work of a conservatory.

Some difference of opinion exists in regard to the continuance of Sollya as a Genus, Mr. Don remarking that the fruit is the same as that of Billardiera, while Dr. Lindeey observes that the seeds are imbedded in a fleshy or pulpy substance, which circumstance, added to the inflorescence being opposite to the leaves, to the "short, somewhat campanulate corollas, short staments with the anthers adhering in a cone round the style, and opening by two pores at the points," would seem to constitute a distinct Genus. Mr. Allan Cunningham has described another closely allied Genus, under the name of Cheiranthera, (see Bot. Reg. sub fol. 1719,) having a dry and leathery pericarp and stamens, which bend to one side of the ovary, forming themselves into a slightly curved line, like the fingers of the hand. I possess another Australian plant, from the Swan River, with blue, corymbose flowers, similar to those of Sollya and Cheiranthera; but having the stamens distant, the anthers curiously contorted, and opening by longitudinal clefts*.

Descr. A twining shrub, three to four feet high. Leaves oblong, glabrous, entire, or rarely sinuato-serrate, shortly petiolate. Corymbs terminal, or axillary and opposite the leaves, of several patent, nearly campanulate, bright blue flowers. Calyx small, of five ovate acute segments. Petals oval, obtuse. Stamens : Filaments five, short ; Anthers subsagittate, connivent, opening at the extremity, bent for some way down by a long pore or short fissure. Germen oblong, tapering upwards, very silky : Style linear : Stigma obscurely two-lobed.

[^37]1. S. Fraseri. Hab. Swan River, N. Holl. Mr. Fraser.


## ( 3524 )

## Rodriguezia secunda. Side-flowered Rodriguezia.


Class and Order.
Gynandria Monandria.
(Nat. Ord.-Orchidet. )

## Generic Character.

Perianthium patens, subæquale, sepalis 2 lateralibus connatis labello suppositis. Labellum integrum, unguiculatum, basi cornutum medio callosum ; ungue cum columna parallelo. Columna teres, apice barbata. Anthera unilocularis, carnosa. Clinandrium nudum, retrorsum declive. Pollinia 2, postice excavata, caudicula elastica.-Herbæ epiphyte, subpseudo-bulbosa. Folia coriacea, v. membranacea, plicata. Spicæ secunda. Flores speciosi. Lindl.

## Specific Character and Synonyms.

Rodriguezia * secunda; pseudo-bulbis compressis ovalibus, foliis lanceolatis apice emarginatis obliquis, spica cylindracea foliis longiore recurva, sepalo supremo fornicato, petalis ovatis obtusis, labello abrupte deflexo disco calloso apice cuneato emarginato. Lindl.
Rodriguezia secunda. Humb. Nov. Gen. et Sp. Pl. v. 1. t. 92. Lindl. Bot. Reg. t. 930.

Rodriguezia lanceolata. Lodd. Bot. Cab. t. 676 (non Ruiz et Pav.)
Pleurothalis? coccinea. Hook. Ex. Fl.t. 129.

A very beautiful Orchideous plant, native of Trinidad, also of the Province of Popayan near Carthagena, where Humboldt's original specimen was found, and of Demerara, whence

[^38]whence plants have been lately brought by Capt. Bispham, with several other rarities, to the garden of my valued and often-mentioned friend, C. A. Parker, Esq., Liverpool. In his stove this species has come to a much higher degree of perfection than I have ever seen before. It there too varies considerably in the length and breadth of the bulb, and in its surface being more or less deeply wrinkled, in the breadth of the leaves, and in the deeper or paler hue of the flowers. From the finest of them, drawn by Henry Sandbach, Esq. aided by specimens sent by Mr. Parker, the accompanying figure was made.

Descr. Pseudo-bulbs, when fully formed, usually elliptical, much compressed, with a prominent line on each face and often wrinkled, bearing one or many leaves. Leaves linear-oblong, lanceolate, thick, coriaceous, nerveless, more or less keeled or complicate. Peduncles several on the same plant, at first nearly erect, with the flower-buds completely distichous, so as to form a flattened spike, afterwards curved or drooping. Bracteas lanceolate, membranous, pale. Flowers sometimes twenty or more on a spike, constantly unilateral, of a deep rose colour. Sepals and petals erect. Upper sepal (as well as the petals) ovate, convex : two lower sepals combined into one, deeply carinated under the lip, gibbous at the base. Lip obovate-oblong, waved, emarginate, with two small lobes near the base which runs down into a kind of spur. Disk with a deeply furrowed tubercle: the colour of the lip is deeper than the rest of the flower, almost orange in the disk. Column rather short, cylindrical, pure white. Anther-case hemisphærical, fixed to the back of the column. Pollen-masses two, pale coloured, fixed to a filiform stalk, which has, at its base, an oblong gland. Germen clavate, red.

Fig. 1. Side view of a Flower. 2. Lip, slightly magnified.


# Silphium terebinthaceum. Terebinthine Silphium. 

****** $* * * * * * * * * * * * * * * * ~$
Class and Order.
Syngenesia Necessaria.
( Nat. Ord.-Composite. )

## Generic Character.

Receptaculum paleaceum. Pappus marginato-bicornis. Involucrum squamosus.

## Specific Character and Synonyms.

Silphium terebinthaceum ; foliis inferioribus amplis cordatis profunde dentato-serratis longe petiolatis subtus margineque scabris, paniculis bracteatis.
Sllphium terebinthaceum. Linn. Suppl. p. 383. Jacq. Hort. Vind. v. 1. p. 16. t. 43. Mich. Fl. Am. v. 2. p. 245. Pursh, Fl. Am. v. 2. p. 577. Ell. Carol. v. 2. p. 463. Spreng. Syst. Veget. v. 3. p. 629.

A very fine and handsome species of Silphium, to which the specific name seems to be applied on account of a terebinthine gum, which exudes from the plant, as in the Silphium gummiferum of Mr. Elliott, and probably in other species of the Genus, during the hot summers which are experienced in their native climates. But in our chilly and damp country, no such exudation is observable: though the sap yields a peculiar odour. It is a stately plant, remarkable for the great size of its lower leaves; and though inhabiting the western mountains of Carolina and Georgia and the prairies of St. Louis on the Missouri, it bears the open air in England and even in Scotland, remarkably well: flowering in the autumnal months.

Descr. Perennial. Stem herbaceous, four to six feet in height, quite glabrous, striated, branched, erect; lower leaves ample, some of them a foot long, cordate, coriaceous, acute, smooth
smooth above, beneath and at the margin beset with numerous short bristles, each seated on a small white callous point. Petiole very long, sometimes measuring a foot or a foot and a half, below dilated into a sheathing base. The leaves gradually become smaller and narrower and less stalked upwards, and among the flower-stalks they pass into bracteas about an inch long, often spreading and with their margins involute. Flowers paniculate, large, handsome, yellow. Involucre globose, of several roundish, green, closely imbricated, glabrous scales, innermost ones smaller and longer. Corollas of the ray numerous, ligulate, entire at the apex, each bearing a pistil. Segments of the style long, filiform. Achenium obovate, flat, scarcely downy, bearing a small blunt awn. Florets of the disk each subtended by a blunt, linear-oblong scale. Corolla yellow. Anthers protruded, dark brown. Style linear, filiform, entire. Germen cylindrical, slightly downy, abortive.

[^39]

## Monarda aristata．Awned Monarida．

# ＊＊＊＊＊＊＊＊㫧米米 $\boldsymbol{*} * * * * * * * * * *$ 

## Class and Order．

Diandria Monogynia．
（Nat．Ord．－Labiate．）
Generic Charaoter．
Calyx cylindricus 15 －nervis subæqualis 5 －dentatus，intus fauce villosus．Corolla tubo longe exserto，fauce subinflata， bilabiata，labiis subæqualibus；superiori erecto lineari in－ tegro，inferiori patente trifido．Stamina fertilia 2，ascenden－ tia，e labio superiori exserta．Antherce margine connexæ， biloculares，loculis divaricatis．Stylus apice subæqualiter bifidus．Achenia sicca lævia．

## Specific Character and Synonyms．

Monarda aristata；canescens，foliis oblongo－lanceolatis basi angustatis，floralibus bracteisque exterioribus ses－ silibus subcoloratis apice longe subulato－aristatis，caly－ cibus striatis pubescentibus，fauce barbata，dentibus subæqualibus longe subulatis apice penicellatis，co－ rollæ tubo dentes calycinos vix excedente．Benth．
Monarda aristata．Nutt．in Herb．Hook．－Coll．tozoards a Fl．of the Arkansas，p．187．Benth．Lab．p． 318. Monarda citriodora．Cervant．，ex Lag！Nov．Gen．et Sp． 2.

Apparently first detected in the Arkansa Territory by Mr． Nuttall，from whom we long ago received specimens under the above name，though it has only lately been published in a valuable memoir by that author on the plants of the Arkansas，given in the American Philosophical Transactions． My collection also contains specimens found by M．Beren－ dier，at Bejar and Rio de la Trinidad in Texas，and again it has been gathered about San Felipe，in the same pro－ vince of Mexico，by Mr．Drummond，who likewise introduc－
ed it into our gardens in the early part of the spring of the present year. It is quite hardy, flowering in July and August, and is a desirable acquisition to our borders.

Descr. "Perennial and annual," according to Mr. Nuttall. Stem a foot or more long, very obscurely four-sided, downy. Leaves oblongo-lanceolate, remotely and acutely serrated, narrower and ciliated and tapering into a footstalk at the base, marked with several nerves which run almost parallel with the midrib. Whorls several, closely crowded in the axils of the upper pairs of leaves, and accompanied by several broadly ovate, strongly aristate, downy bracteas, forming a kind of involucre. Calyx downy, tubular, striated, the mouth closed with dense white hairs : teeth subulate, brown, nearly as long as the tube, bearing and terminated by a little tuft of hairs. Corolla pale rose-coloured. Upper lip arched, sharply keeled at the back, two-toothed at the apex: lower one trifid, with the sides much reflexed, the disk spotted with purple. Filaments of the stamens glabrous. Cells of the anther narrow, spreading.

[^40]

Pub.by S. Curtis Glownwood Essecs. Oot"Ll886.

# Euphorbia Bojeri. Mr. Bojer's Spurge. 



> Class and Order.

Monesia Monandria.

( Nat. Ord.-Euphorbiacee. )

## Generic Character.

Involucrum androgynum, 4-5-fidum, extus appendiculis glandulosis (petala vel nectaria aliorum) : peripherici pedicelli incerti numeri, singuli cum singulis staminibus articulati. Germen pedicellatum, centrale : Styli 3, bifidi. Capsula 3 -cocca. Spr.

## Specific Character.

Euphorbia Bojeri; fruticosa spinosa, foliis numerosis coriaceis patentissimis obovato-oblongis retusis cum mucrone basi utrinque spina valida patente, pedunculis axillaribus cymosis dichotomis, bracteis duabus semiorbiculatis coloratis basi unitis concavis involucrum includentibus, involucri glandulis 5 semiorbiculatis.

A most beautiful plant, and better meriting the name of splendens than its near ally so called, which is represented at t. 2902, and which was, equally with the present, introduced from Madagascar to Mauritius and to Europe, through the indefatigable exertions of Professor Bojer. It seems to be a plant of humbler growth than E. splendens; it has fewer spines, more coriaceous, more obovate and retuse leaves, richer-coloured bracteas, and simple filaments. It flowers in the stove of the Glasgow Botanic Garden, in the latter end of winter, and in early spring; and more or less through the greater part of the year.

Descr. Stem woody, obtusely and irregularly angular, smooth, and of a pale gray colour. Leaves spreading, dark 'green, coriaceous, on short petioles, obovato-oblong, retuse with a mucro, quite entire. Each leaf is situated between
two spreading, strong spines. Peduncles axillary, dichotomously divided, subcymose. Each involucre is subtended by two semiorbicular, spreading, brick scarlet bracteas, united at their bases, within which the involucre is lodged, and sessile. This is cup-shaped, yellow-green, with five short, red, incurved segments, alternating with the five orange yellow, waxy, semiorbicular, spreading glands. Male flowers several : Filaments simple ; Anthers dark purple, of two globose distinct cells. Pistil or female flower on a short pedicel: Styles three, nearly erect; Stigmas twolobed.

Fig. 1. Involucre (with one Bractea removed,) and from which the Male Flowers are protruded. 2. Section of the Involucre (one of the Bracteas being removed) ; showing the Female Flower:-magnified.


[^41]
# Amaryllis psittacina, hybrida. Hybrid var. of the Parrot Amaryllis. 

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Class and Order.
Hexandria Monogynia.
( Nat. Ord.-Amaryllidee. )

## Generic Character.

Corolla 6 -partita, regularis vel ringens, fauce nuda vel squamis coronata. Stamina declinata vel recta. Capsula trilocularis. Spr.

## Specific Character and Synonyms.

Amaryllis psittacina; biflora subsemiringens, tubi membrana brevissima bicolori denticulata, staminibus inclusis.
Amarylels psittacina. Ker, Bot. Reg. t. 199. Lodd. Bot. Cab. 1204. Spreng. Syst. Veget. v. 2. p. 50.
Hybrida : 4 -flora, perianthii laciniis angustioribus.
Amarylels psittacina-Johnsoni. Gowan in Hort. Soc. Trans.v. 5. p. 361. (Tab. nostr. 3528.)

For this truly splendid Hybrid, the offspring, it is reported, of Amaryllis Johnsoni (itself, I believe, a hybrid,) fertilized by the pollen of A. psittacina, the Glasgow Botanic Garden is indebted to the late Lord Caernarvon. The first notice we have of it is from Mr. Gowan, in the Horticultural Transactions above quoted, where he observes:-
"It was given to Lord Caernarvon by my friend, W. Griffin, Esq., who raised it in his hothouse at South Lambeth, previous to the year 1820. The knowledge of its parentage led me to form great expectations of its beauty, and to pay it particular attention. It has grown rapidly here, and a few days ago produced two scapes, which have
just expanded their flowers. My expectations have been fully realized, and I think it may fairly be pronounced the most splendid individual of this splendid Genus. The corolla of the hybrid Amaryllis psittacina-Johnsoni is nearly an inch longer than that of A. psittacina: and expands about an inch wider. The upper lacinia of the corolla of A. psittacina assumes a horizontal position, in the hybrid it is inclined upwards, and the laciniæ are altogether more regularly and widely expanded, so that the flower shows itself to greater advantage. The faucial membrane of A. psittacina is minutely denticulated: in the hybrid, it is conspicuously bearded. But the superior beauty of the subject of our present plate arises chiefly from its colours; for while in A. psittacina the crimson tint is confined almost entirely to a small terminal portion of the petals, and a few small streaks proceeding thence; in the hybrid, the hue is not only much richer, but occupies a considerably larger space, being diffused over the whole margin of the laciniæ, besides a most delicate pencilling of the same fine colour, which is streaked over the greater part of their surface with an inimitable richness of effect, much enhanced by a creamcoloured stripe, proceeding from the central green mass, and prolonged to their tips. But it is so difficult to convey in words an adequate idea of the complicated colouring of the flowers, that I must refer you to an actual inspection of it, and would only add, that the foliage differs materially, as might be expected, from that of its parents: but approaches more nearly to the male than to the female parent : the leaves being rather broader than those of A. psittacina.

Our plant produced four of its richly coloured blossoms on one scape, in the month of April, 1836.


Rub. by S. Curtis GlacmwortEsecx Nov11836.
Swan sex

## Convallaria oppositifolia. Oppositeleaved Solomon's Seal.

****** $* * * * * * * * * * * * * * * * * *$ Class and Order.

Hexandria Monogynia.

( Nat. Ord.-Smilacine. )

## Generic Character.

Perianthium campanulatum, vel tubulosum, limbo 6-fido. Stamina corolla breviora, filamenta tubo adnata; anthere lineares, rectæ. Stylus erectus. Bacca sphærica, 3-locularis, loculis dispermis ; seminibus sæpe abortivis.

## Specific Character and Synonyms.

Convallaria* oppositifolia; caule tereti, foliis oppositis oblongis acuminatis nitidis breviter petiolatis, pedunculis axillaribus umbellatis 3 - 10 -floris nutantibus, perianthio tubuloso basi ventricoso.
Convallaria oppositifolia. Wall. in Asiat. Res. v. 13. p. 380. cum Icone. Lodd. Bot. Cab. t. 640. Hook. Ex. Fl. v. 2. t. 125.

A very desirable greenhouse plant; for though it has been now introduced from Nepal many years, by Dr. $W_{\text {allich, }}$ I am not aware that it has been found sufficiently hardy to bear the open air of our fickle climate. It is of graceful growth, the leaves are of a bright and glossy green ; and the copious flowers, which continue for a long time in the latter end of the winter months, are elegantly marked with reddish lines.

Descr. Stem a foot to a foot and a half high, erect, rounded, simple, green, tinged with red. Leaves copious, three

[^42]three to five inches long, opposite, distichous, oblong, acuminate, striated, of a glossy green colour, the petiole short. Flowers drooping at the back of the plant, copious, in axillary, almost sessile umbels of from three to eight or ten blossoms. Pedicels reddish, three-fourths of an inch long. Perianth nearly an inch long, tubular, greenish-white, marked with six lines of reddish dots: the tube swollen below, the throat contracted, the limb greenish, of six spreading segments. Stamens six, inserted near the middle of the tube. Filaments white, curved. Anthers arrowshaped, yellow. Germen ovate, with three obtuse angles : Style included: Stigma trifid, villous.

Fig. 1. Single Flower :-magnified.


## Ribes speciosum. Showy Gooseberry.

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Class and Order.
Pentandria Monogynia.
( Nat. Ord.-Grossulariee. )

## Generic Character.

Calyx 5-lobus, laciniis plus minusve coloratis. Petala 5, parva, albida, Iutea vel rubra. Stamina 5, rarissime 6, filamentis liberis. Stylus 1, 2, 3, 4-fidus. Bacca unilocularis, receptaculis lateralibus. Semina arillata (an in omnibus ?) oblonga, compressa. DC.

## Specific Character and Synonyms.

Ribes speciosum; ramis setosis, aculeis stipularibus rigidis tripartitis, foliis glabris trilobis incisis basi cuneatis, racemis nutantibus 2-5-floris, calycibus tubulosis basi dilatatis, staminibus (plerumque 4) longissime exsertis.
Ribes speciosum. Pursh, Fl. Am. v. 2. Suppl. p. 731. De Cand. Prodr. p. 478. Lindl. Bot. Reg. t. 1557. Sro. Br. Fl. Gard. t. 149.
Ribes stamineum. Sm. in Rees. Cycl. De Cand. Prodr. v. 3. p. 477. Hook. Fl. Bor. Am. v. 1. p. 229.

Ribes fuchsioides. "Fl. Mex. ined. Berland Mem. Soc. Phys. Genev. v. 3. t.3."
Ribes triacantha. Menz. MSS. cum Icon. nitidiss.

This fine Ribes, so remarkable for its leaves resembling those of the White-Thorn, and its flowers those of a Fuchsia, was first discovered by the venerable Menzies in California, during the voyage of Capt. Vancouver, and his beautiful drawing and description made on the spot, are now before me. It was introduced to our gardens by Mr. Collie, the surgeon of H. M. S. Blossom, in 1829. Our drawing was
made by Mr. William Curtis, at the extensive Nursery Grounds of Glazenwood. In native specimens, the leaves are smaller, and the racemes only two-flowered. In England the plant seems to be perfectly hardy: in Scotland it requires the protection of a wall, or the flowers will effectually, in most years, be destroyed, by our fickle springs. Its flowering season is April and May; its growth is rapid and vigorous during summer, and the plant is now becoming common.

Descr. A shrub, three to five feet high, with sextose, red-brown branches, and at the base of each cluster of leaves a strong, three-forked spine. Leaves on short petioles, small, three-lobed and irregularly cut into sharp lobes or teeth; the base cuneate. Racemes of from three to five flozvers. Bracteas ovate, acuminate, much shorter than the piloso-glandular pedicels. Calyx deep scarlet, glandular, tubular, swollen at the base; segments straight. Petals included, red. Stamens twice or thrice as long as the flower, straight, red. Anthers ovate. Germen small, glandular. Style as long as the stamens: Stigma bifid.


## Allium Cowani. Mr. Cowan's Onion.

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Class and Order.
Hexandria Monogynia.
( Nat. Ord.-Asphodelee. )
Generic Character.
Corolla 6 -petala, patens. Filamenta vel æqualia petalorum basi inserta, vel basi dilatata subconnata, vel 3 -cuspidata. Capsula 3 -locularis. Embryo excentricus.

## Specific Character and Synonyms.

Allium Cowani; scapo nudo semitereti, foliis lineari-lanceolatis longe attenuatis flaccidis, spatha monophylla, umbella multiflora, sepalis ovatis obtusis (albis), filamentis subulatis uniformibus.
Allium Cowani. Lindl.Bot. Reg.t. 758. Hort.Soc. Trans. v. 6. p. 98. Spreng. Syst. Veget.v.2. p.36. Roem. et Schult. Syst. Veget. v. 7. p. 1109.

A native of elevated situations in Peru, according to Professor Lindley, whence bulbs were sent to the Horticultural Society of London by James Cowan, Esq. To that valuable Society, as well as to John Mac Lean, Esq. of Lima, we owe the possession of the plant in the Glasgow Botanic Garden, where it flowered in the stove in September, 1835.

Descr. The bulb I have not seen. Leaves all radical, linear-lanceolate, flaccid, attenuated into a very long point, keeled, in our plant much longer than the scape, the young ones obscurely ciliated. Scape a foot or a foot and a half high, semiterete, naked, bearing an umbel of many flowers. Spatha of a single, whitish membranous, pointed leaf. Pedicels two inches or more long. Sepals white, ovate, obtuse, concave, spreading. Filaments subulate, equal : Anthers oblong, green. Germen globose, threelobed, lobes with a deep furrow. Style reaching about the length of the stamens.


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# （ 3532 ） <br> Begonia Fischeri．Dr．Fischer＇s Begonia． 

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Class and Order．
Moneecia Polyandria．

（ Nat．Ord．－Begoniacee．）

Generic Character．
Masc．Calyx o．Corolla polypetala，petalis plerumque 4，inæqualibus．

Fem．Calyx o．Corolla petalis 4－9，plerumque inæ－ qualibus．Styli 3，bifidi．Capsula triquetra，alata，trilo－ cularis，polysperma．

## Specific Character．

Begonia Fischeri；caulescens，foliis oblongis acutis inæqua－ liter cordatis dentato－serratis utrinque glabris nitidis， stipulis ovatis integerrimis，floribus masculis 4 －petalis， petalis exterioribus rotundatis concavis marginibus plano－revolutis，floribus fæmineis 6 －petalis petalis ovato－lanceolatis，alis germinis inæqualiter rotundatis． Begonia Fischeri．Otto，MSS．

This plant，which has small flowers，but exquisitely beautiful foliage，was received at the Botanic Garden， Edinburgh from Berlin，in 1835，and flowered in the stove in February and March， 1836.

Descr．Stem erect，branched，fleshy，swollen at the joints，red，shining．Leaves unequally cordate，acute，in－ distinctly sinuated，slightly undulate，unequally dentato－ serrate，glabrous on both sides，when young bright red behind，paler at the veins，and pink above，with a peculiar silvery lustre which continues on the old leaves，the colour being then beautifully delicate yellowish green，and the redness behind much less considerable；petioles nearly round，
round, half as long as the leaves. Stipules large, ovate, acute, entire. Peduncles axillary, twice as long as the petioles. Cyme twice or oftener forked; branches divaricated. Male flowers in the forks of the cyme, four-petalous, the outer petals rounded, with a sinuosity on one side where the pedicel is attached, hollow in the centre, with flattened, slightly revolute edges, forming a perfect miniature of a barber's basin; inner petals obovato-cuneate, undulate. Stamens united only at their insertion. Female flowers 6petalous, the petals ovato-lanceolate. Germen rather unequally winged, the wings unequally rounded. Graham.


# Vesicaria gracilis. Slender-stemmed <br> Vesicaria. 


Class and Order.
Tetradynamia Siliculosa.
( Nat. Ord.-Crucifere. )
Generic Character.
Silicula globosa, inflata, valvis hemisphæricis. Semina plurima (ultra 8) sepius marginata. Petala integra. DC.

## Specific Character.

Vesicaria gracilis; annua multicaulis, caulibus filiformibus rigidis scabriusculis, foliis lanceolatis integris vel subangulatis inferioribus subspathulatis petiolatis omnibus nudiusculis, racemis elongatis, petalis patentibus obcordatis subsessilibus, siliculis globosis membranaceis glaberrimis tetraspermis stylum æquantibus.

A native of the same country with our V. grandiflora (TAB. 3464), namely, Texas, and discovered at the same time by Mr. Drummond. It is less showy than the latter, but a lively and graceful plant, and well adapted for ornamenting rocks. It continues long in flower, during almost the whole summer; and the blossoms are succeeded by the numerous, small, and exactly-globose seed vessels. Another and very similar Vesicaria is in my Herbarium, from Texas, gathered by M. Berlandier, in which the leaves and stems are rather thickly clothed with short, dense stellated pubescence.

Descr. Root annual, sending from its upper extremity several stems, which are slender, filiform, wiry, branched, minutely scabrous, more or less procumbent, from eight to ten inches long. Leaves remote, and chiefly at the base of the racemes : lanceolate, almost entirely glabrous, their maroin
margin quite entire or obscurely angled, narrow at the base and subpetiolate; the lowermost ones decidedly so and spathulate. Racemes axillary and terminal, elongated. Flowers remote, bright yellow. Pedicels scabrous, with short, stellated hairs, considerably elongated after flowering. Caly $x$ of four linear-lanceolate, appressed, glabrous leaves. Petals obcordate, scarcely clawed, very patent. Germen elliptical, stipitate, shorter than the style : Stigma capitate. When the fruit is ripe, the pedicels are almost horizontal, curved upwards at the extremity, and bearing the erect, exactly globose pedicellate silicula, or pouch, which is smooth and shining, membranous, and not larger than hemp seed. The fully-ripe fruit does not readily separate into valves Cells two, each containing about four, depressed, dark brown seeds.

Fig. 1. Petal. 2. Stamens and Pistil. 3. Pistil. 4. Seed-vessel. 5. Ditto, from which one valve is removed, showing the four Seeds:-magnified.


# Epidendrum macrochilum. Large-lipped <br> Epidendrum. 

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Class and Order.
Gynandria Monandria.
(Nat. Ord.-Orchidex.)
Generic Character.
Sepala patentia, subæqualia. Petala sepalis æqualia vel angustiora, rarius latiora, patentia vel reflexa. Labellum cum marginibus columnæ omnino vel parte connatum, limbo integro vel diviso, disco sæpius calloso, costato vel tuberculato; nunc in calcar productum ovario accretum et cuniculum formans. Columna elongata; clinandrio marginato, sæpe fimbriato. Anthera carnosa, 2-4-locularis. Pollinia 4, caudiculis totidem replicatis annexa.-Herbæ (Americanæ) epiphyte, caule nunc apice vel basi pseudo-bulboso, nunc elongato apice folioso. Folia carnosa, rarissime venis elevatis striata. Flores spicati, racemosi, corymbosi vel paniculati terminales vel laterales. Lindl.

## Specific Character.

Epidendrum macrochilum; bulbis ovatis rugosis diphyllis, foliis lineari-oblongis, coriaceis obtusiusculis, sepalis petalisque obovato-lanceolatis patentibus apicibus incurvis, labello libero trilobo lobis lateralibus ovatis acutis columnam amplectantibus, intermedio maximo obcordato disco calloso ecristato lateralibus reflexis, columna aptera.

A charming Epiphyte, introduced from Mexico, by Charles Horsfall, Esq., in whose fine collection at Everton it flowered in June, 1836, when a drawing and specimen of the handsome flowers were kindly communicated by

Mrs. Horsfall. In the general structure of the flower it resembles my Encyclia * patens (Bot. Mag. t. 3013.), that is, it has, like that, the lip distinct from, not united with, the column, and the two lateral lobes of the lip enfolding the column. The two species are, however, totally distinct, the flowers here being thrice the size of the other, and the lip of a totally different form and colour.

Descr. Bulbs clustered, ovate, about the size of a pigeon's egg, the older ones wrinkled ; the younger ones bearing two leaves at the extremity about six to eight inches long, linear-oblong, rather obtuse, recurved, somewhat coriaceous. Scape arising from between the two leaves, a span or more high, bearing a raceme of three to four large, handsome inodorous flowers. Sepals and sidepetals uniform, spreading, obovato-lanceolate, or nearly spathulate, singularly incurved at the extremity, as well represented in Mrs. Horsfall's drawing, of a greenishbrown, paler on the outside, and pale green at the base. Lip very large, of three lobes: the two side lobes, at the very base, ovate, acute (the apices reflexed) completely enveloping the column, and even crossing each other on the upper side of the column, the middle one is very large, broadly ovate, or rather obcordate, having a deep notch at the base, the sides bent back : this lip is pure white (changing to cream-colour in age), having a red purple spot at the base, where there is a flattened fleshy disk, and another near the middle. Column quite distinct from the lip, triangular, compressed, wingless. Anthers deep yellow, large: cells small, each containing two pollen-masses of a bright orange colour.

[^43]
# Banksia occidentalis. <br> West-Coast Banksia. 

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Class and Order.
Tetrandria Monogynia.
( Nat. Ord.-Proteacee.)
Generic Character.
Perianthium quadripartitum (raro 4 -fidum). Stamina apicibus concavis laciniarum immersa. Squamulce hypogynæ 4. Ovarium biloculare, loculis monospermis. Folliculus ligneus: dissepimento libero, bifido. Amentum flosculorum paribus tribracteatis. Br.

## Specific Name and Character.

Banksia occidentalis; foliis linearibus extra medium spinu-loso-dentatis subtus aveniis, bracteis amenti apice glabris, perianthiis marcescentibus, unguibus basi intus barbatis, folliculis ventricosis tomentosis, apice compressiusculo nudo, caule fruticoso, ramulis glabris. $B r$.
Banksia occidentalis. Brown, Linn. Soc. Trans. v. 10. p. 204. Ibid. Prodr. p. 392. Ibid. Hort. Kew. ed. 2. v. 1. p. 215. Roem. et Schult. Syst. Veget. v. 3. p. 438. Sprengel, Syst. Veget. v. 1. p. 484.

This handsome species flowered in the greenhouse of the Botanic Garden, Edinburgh, in September, 1835.

Descr. Shrub erect. Branches ascending, red, glabrous, when young angled and having a few adpressed hairs. Leaves (four inches long, two lines broad) verticillate, linear, glabrous above, covered with white tomentum and veinless below, revolute in the edge, beyond the middle distinctly spinuloso-dentate, terminated with three mucros,
of which that in the centre is the shortest. Inflorescence terminal. Perianth dark red, but appearing leaden coloured from a covering of adpressed hairs, glabrous at the apex. Styles glabrous, reddish-purple, spreading horizontally, about three times as long as the perianth, connivent in double rows, and tipped with the yellow pollen. Graham.


## ( 3536 )

## Broughtonia coccinea. Crimsonflowered Broughtonia.



## Class and Order.

Gynandria Monandria.

( Nat. Ord.-Orchidea. )

Generic Character.
Sepala angustia, patentia, lateralia basi obliqua, cum labelli basi connata et decurrentia. Petala latiora. Labellum indivisum, adscendens, basi columnæ adnatum, in calcare lineari mellifluo, ovario connato decurrens. Columna brevis, crassa, apice dilatata. Anthera 4 -locularis, septorum marginibus membranaceis. Pollinia 4, caudiculis re-plicatis.-Herba epiphyta, pseudo-bulbosa; foliis carnosis; scapo terminali multifloro. Lindl.

Specific Name and Synonyms.
Broughtonia sanguinea.
Brovghtonia sanguinea. Br. in Hort. Kew. ed. 2.v. 5. p. 217. Lodd. Bot. Cab. t. 793. Spreng. Syst. Veget. v. 3. p. 734. Lindl. Gen. et Sp. Orchid. p. 118.

Dendrobium sanguineum. Sco. Fl. Ind. Occ. v. 4. p. 1529.
Epidendrum sanguineum. Szo. Prodr. p. 124.
$V_{\text {iscum radice bulbosa minus, \&c. Sloane, Jam. v. 1. p. }}^{\text {p }}$. 250. t. 121.f. 2.

Satyrium parasiticum; foliis paucioribus, \&c. Brozone, Jam. p. 324.
(ß.) foliis longioribus, petalis angustioribus. Broughtonia sanguinea. Hook. Bot. Mag. t. 3076.

When the figure of Broughtonia sanguinea was given at tab. 3076 of this work, from the pencil of Mrs. Horsfall, I had not seen the usual state of the plant; but now that this has blossomed in the stove of the Glasgow Botanic Garden,

I cannot but consider the former as a variety, having longer leaves and narrower petals; with a colour, very inferior in brilliancy, to that which we now represent, and which may indeed be reckoned among the handsomest, and certainly the most richly coloured of this splendid family. Their blossoms also continue for a considerable length of time in perfection. Though introduced to Kew from Jamaica since 1793, it appears to be yet a rare plant in our gardens. Its blossoming season is May and June.

Descr. Bulbs or pseudo-bulbs clustered, roundish-ovate, compressed, often richly stained with brown, and bearing, from the apex, one or two leaves, which are linear-oblong, three to four inches high, somewhat coriaceous. Peduncle also arising from the same point, eight to ten inches or more high, jointed and bracteated, and bearing a raceme of six to nine flowers at the summit, which are of a very rich crimson colour. Caly $x$ of three equal, spreading, equidistant, lanceolate sepals. Petals spreading; two lateral ones broadly ovate, acute, slightly crisped; lower one or labellum rotundato-cordate, obscurely two-lobed, waved and delicately crenate at the margin : the base beneath running down into a very long, adnate spur upon the scarlet germen. Column short, whitish. Anther-case small, hemisphærical : Pollen-masses, two compressed pairs, with the caudicles folded down upon them.

Fig. 1. 1. Column, with the Germen and Spur. 2. Inner view of the Anther, containing the Pollen:-magnified.

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## Class and Order.

Monodelphia Polyandria.
( Nat. Ord.-Malvacee. )

## Generic Character.

Calyx cinctus involucro triphyllo rarius 5-6-phyllo, bracteolis oblongis setaceisve. Carpella capsularia plurima in orbem disposita. De Cand.

## Specific Name and Character.

Malva Munroana; herbacea glaucescens, foliis cordatis obtusis 3-5-lobis lobis crenato-lobatis pubescentibus pilis brevibus stellatis, stipulis subulatis deciduis, pedicellis axillaribus solitariis vel binis 1-pauci-floris longitudine florum, involucri foliolis subulatis longitudine calycis.
Malva Munroana. Douglas' MSS.—Lindl. Bot. Reg. t. 1306.

A very pretty showy species, flowering in June in the greenhouse. It seems to be hardy in England, but its beauty suffers by exposure to the wet. Introduced by Mr. Douglas from the barren plains of the Columbia, NorthWest America. I was disposed at first to refer it to M. miniata, which it considerably resembles in the size and colour of its flowers : but I find, on a careful examination, that the leaves are shorter and more obtuse, and the peduncles are shorter and fewer-flowered. It blossoms during the summer months.

Descr. Stems weak and trailing, if not artificially supported, rounded, glaucous, slightly downy. Leaves or petioles about equal to the blade in length, alternate, distant, cordate, very obtuse, glaucous, three to seven-lobed, and those
those lobes again crenato-lobate, above, and below more so, clothed with short, inconspicuous, stellated down. Stipules small, subulate, soon falling away. From the upper leaves, in the axils, appear one or two pedicels rather more than half an inch long, each bearing one or more flowers. Calyx cup-shaped, quinquefid, hoary with stellated down. Involucre of three subulate bracteas, about as long as the calyx. The fruit I have not seen.

Fig. 1. Flower :-magnified.


# Ornithogalum conicum. Pure-whiteflowered Star of Bethlehem. 

****** 粎 $\boldsymbol{*} * * * * * * * * * * *$ Class and Order.

Hexandria Monogynia.
( Nat. Ord.-Asphodelew. )
Generic Character.
Corolla 6 -petala, patens. Filamenta basi dilatata receptaculo inserta. Capsula trilocularis. Embryo axilis.Flores racemosi.

## Specific Character and Synonyms.

Ornithogalum conicum; racemo conico, filamentis subulatis, bracteis membranaceis (longitudine pedicellorum), foliis lanceolatis planis ciliato-marginatis, sepalis (albis) lanceolatis.
Ornithogalum conicum. Jacq. Coll. v. 3.p. 232. Ic. Rar. v. 2. t. 428. Roem. et Schult. Syst. Veget. v. 7. p. 514. Spreng. Syst. Veget. v. 2. p. 31.

We are indebted for our knowledge of this plant to Baron Ludwig, who sent bulbs from the Cape of Good Hope to the Glasgow Botanic Garden, in 1835. Flowering specimens were produced in the greenhouse in the summer of the same year. The flowers are large, handsome, pure white, the sepals acuminate, spreading, but never curled back as in O. revolutum, to which this plant, in other respects, bears some affinity.

Descr. Leaves few and springing from the root, or from the base of the scape, lanceolate, plane, acuminate, bright but pale green, the margin white and delicately fringed ; the lower part is sheathing. Scape a foot high, terminated by a raceme of flowers, at first conical, afterwards more elongated. Pedicels an inch long, erecto-patent, having
a large ovato-acuminate, membranous bractea, about its own length. Sepals pure white, lanceolate, acuminate, spreading. Filaments much shorter than the sepals, and, as well as the anthers, yellow. Pistil (probably imperfect) yellow.

Fig. 1. Portion of the Leaf, to show the margin :-magnified.


# （ 3539 ） <br> Isopogon Baxteri．Mr．Baxter＇s Isopogon． 

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## Class and Order．

Tetrandria Monogynia．

（ Nat．Ord．－Proteacee．）

## Generic Character．

Perianthium quadrifidum，tubo gracili，diutices persis－ tente．Squame nullæ hypogynæ．Stylus totus deciduus． Stigma fusiforme vel cylindraceum．Nux sessilis，ventri－ cosa，undique comosa．－Frutices rigidi．Folia glabra， plana vel filiformia，divisa vel integerrima．Capitula termi－ nalia，raro axillaria．Flores modo densissime imbricati； strobilo globoso，modo fastigiato，receptaculo communi pla－ niusculo subinvolucrato，paleis deciduis，congestis． Br ．

Specific Character and Synonyms．
Isopogon Baxteri；foliis dilatato－cuneiformibus，fruticis adulti trifidis lobis incisis lacinia mucronatis，juve－ nilis indivisis apice dentato，capitulis aggregatis，re－ ceptaculo plano． Br ．
Isopogon Baxteri．Br．Prodr．Fl．Nov．Holl．Suppl．v． 1. p．9．Grah．Descr．of Plants in Edin．Phil．Journ． for Jan．， 1836.

A handsome species，of which seeds were sent by Colonel Lindesay from New Holland to the Botanic Garden，Edin－ burgh in 1830．It was raised the following year，and flow－ ered in the greenhouse in March and April， 1835.

Descr．Shrub erect，the specimen described two feet high．Stem round．Bark brown，densely covered with short，soft pubescence，mixed with longer hairs，on the branches red．Leaves hard，stiff，with glands on both sur－ faces，
faces, having pubescence and hairs similar to those on the stem, especially when young; subglabrous when old; strongly marked on both sides with elevated veins, which are generally trichotomously branched, once or twice trifid, cuneate and once or twice twisted at the base, edges placed vertically; the segments terminated with long, pungent mucros; the lower leaves undivided, rounded and toothed at the apex, the teeth terminating in pungent mucros. Heads of Flowers crowded at the termination of the stem? and branches. Scales of the Involucre pubescent and hairy, smaller inwards, acute, reflected, subdentate. Perianth soft, rose-coloured, darkest at the tip, densely covered with spreading, white hairs, tube very slender, segments of the limb reflexed. Anthers linear, yellow. Pollen granules roundish-triangular, shining, orange yellow. Style as long as the perianth, fusiform at the apex, below it tumid, and densely covered with yellow, reflected, crystalline pubescence. Stigmatic surface terminal. Graham.

Fig. 1. Flower:-magnified.


# ( 3540 ) <br> Drosera filiformis. Narrow-leaved Sun-dew. 

****************** **
Class and Order.
Pentandria Pentagyila.
( Nat. Ord.-Droseracee.)
Generic Character.
Sepala petalaque 5 inappendiculata. Stamina 5. Styli 3-5, bipartiti.-Herbæ in uliginosis sphagnosis crescentes. Folia ciliis glandulosis rubidis irritabilibus ornata. DC.

## Specific Character and Synonyms.

Drosera* filiformis; scapis lateralibus, foliis lineari-filiformibus glanduloso-pilosis, dorso glabris canaliculatis, basi lanatis, staminibus 5 , stylis 8 basi in paribus coalitis.
Drosera filiformis. Rafinesque, in Need. Rep. 2. 360. Ibid. in Desv. Journ. de Bot. 1. 227. Pursh, Fl. Amer. Sept. 1. 211. Nutt. Gen. 1. 142. Roem. et Schult. Syst. Veget. 6. 763. De Cand. Prodr. 1. 1318. Torrey, Fl. of North. and Mid. Sect. of the United States, v. 1. p. 332. Spreng. Syst. Veget.v. 1. p. 955 . Beck, Bot. of North and Mid. States, p. 42.
Drosera tenuifolia. Willd. Enumer. p. 340. Roem. et Schult. 1. 763. Bigelow, Plants of Boston. p. 124.

This remarkable species was found by Mr. James Macnab, in a swamp about ten miles above Tuckerton, New Jersey, United States, and introduced by him into the gardens

[^44]gardens about Edinburgh in 1834. It flowered freely in the stove at Dr. Neile's, also at Comely Bank Nursery, and with us. I cannot hesitate to agree with those who consider Drosera tenuifolia of Willd., as synonymous with D. filiformis of Rafinesque, which, being the earliest published name I retain.

Descr. Primordial leaves deltoideo-subulate, glabrous; secondary leaves radical, linear, circinate, very woolly at their base, channelled and glabrous behind, in front rounded and covered with spreading, greenish hairs, which support, on their summit, a red gland, and exude a viscid, colourless juice. Scape lateral, with us always simple, green, glabrous, about as long as the leaves. Spike racemose, unilateral. Pedicels, and five-cleft persisting calyx, covered with green, glandular hairs. Corolla glabrous, rose-coloured, more than twice as long as the calyx, marcescent; petals five, obovate, claws greenish. Stamens five, scarcely longer than the calyx ; filaments colourless ; anthers erect, oblong, yellow. Pollen-granules round, yellow. Styles eight, spreading at their base in pairs, above erect and clavate, colourless. Germen round, green; ovules numerous, oblong. Graham.


Ack. by S. Garki, Garenwood Esser Decilis3b.

# Verbena Tweedieana. Mr. Tweedie's Scarlet Vervain. 

## 

Class and Order. Didynamia Angiospermia.
( Nat. Ord.-Verbenacee. )

## Generic Character.

Calyx 5 -fidus, dente unico subbreviore. Cor. limbus irregulariter 5 -lobus. Stam. inclusa. Utriculus 4 -spermus, cito rumpens, ut maturi fructus caryopses sistant. Spr.

## Specific Character and Synonym.

Verbena $^{\text {Troeedieana; pubescenti-hirsuta erecta suffruti- }}$ cosa ramosa, foliis ovato-lanceolatis acuminatis membranaceis grosse inæqualiter serratis basi cuneatis integerrimis in petiolum gracilem attenuatis, spica corymbosa, calycibus cylindraceis 5 -costatis tubo corollæ $\frac{2}{3}$ brevioribus, limbo 5 -lobo segmentis cuneatis emarginatis subæqualibus.
Verbena Tweedieana. Niven, in litt.

The accompanying drawing, together with excellent dried specimens of this most lovely plant, were sent by the kindness of Mr. Niven, the able and zealous curator of the Glasnevin Botanic Garden, under the name here adopted. The same has been raised by Mr. Murray at Glasgow, and in both cases from seeds sent by Mr. Tweedie. Our native specimens, corresponding with these, were collected by Mr. Tweedie in boggy places at Laguna de la Molina in the Banda Orientale, where, he says, what we can well conceive, that the plant makes a most splendid appearance with its large and brilliant heads of crimson flowers. We have also the same species gathered at Rio Grande do Sul by M. Isabelle.

It will be at once seen, that the species has much affinity with V. chamedrifolia, Bot. Mag. t. 3333 (V. Melindres, Gill. in Bot. Reg. t. 1184): but it is a tall, upright-growing plant, clothed with soft, downy hairs, of a much more delicate texture, especially in the leaves, which are considerably larger, more acuminate and serrated, more cuneate at the base, and decidedly petioled. The flowers are larger, and more inclining to rose-colour, ("rich rosy crimson,") in greater number, and the raceme more capitate. The same characters hold good in the native specimens in my Herbarium as in the cultivated ones.

Hitherto it has only been treated as a stove plant: but it will in all probability be found to bear the open air as well as V. chamedrifolia. It flowered with Mr. Niven in September, 1836.

In which the Latin Names of the Plants contained in the Tenth Volume of the New Series (or Sixty-third of the Work) are alphabetically arranged.


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3502 Acacia prominens.
3531 Allium Cowani.
3528 Amaryllis psittacina, var. hybrida.
3477 Anchusa versicolor.
3535 Banksia occidentalis.
3532 Begonia Fischeri.
3520 sanguinea.
3518 Bletia patula.
3536 Broughtonia coccinea.
3511 Calliopsis tinctoria, var. atropurpurea.
3458 Cereus Napoleonis.
3481 Chætogastra gracilis.
3488 Collinsia bicolor.
3468 Collomia Cavanillesii.
3529 Convallaria oppositifolia.
3482 Cooperia chlorosolen.
3460 Coreopsis coronata.
3474 $\qquad$ diversifolia.
3505

- filifolia.

3484 senifolia.
3519 Cotoneaster laxiflora.
3507 Cyrtopodium punctatum.
3540 Drosera filiformis.
3500 Dryandra pteridifolia.
3513 - tenuifolia.
3534 Epidendrum macrochilum.
3495 Eschscholtzia crocea.
3527 Euphorbia Bojeri.
3476

- bupleurifolia.

3498 Fuchsia discolor.
3521

- macrostema, var. recurvata.
3506 Gaura parviflora.
3496 Gentiana quinqueflora.
3463 Gilia tricolor.
3510 Helianthus decapetalus.
3539 Isopogon Baxteri.
3489 Jaborosa integrifolia.
3491 Leptosiphon androsaceus.
3473 Linaria Canadensis.
3480 Linum Berendieri.
3467 Lupinus subcarnosus.
3492 - Texensis.


## Pl.

3537 Malva Munroana.
3526 Monarda aristata.
3514 Myanthus barbatus, var. labello albo.
3485 Nemophila insignis.
3486 Oncidium cornigerum.
3499 crispum.
3538 Ornithogalum conicum.
3503 Passiflora kermesina.
3465 Pentstemon Cobæa.
3472 Murrayanus.
3478 Pereskia Bleo.
3479 Peristeria pendula.
3469 Petrophila acicularis.
3494 Physostegia truncata.
3459 Pimelea hispida.
3493 Poinsettia pulcherrima.
3470 Potentilla atro-sanguinea; hybrida, Russelliana.
3508 Rheum Emodi.
3483 Rhodanthe Manglesii.
3530 Ribes speciosum.
3497 Rodriguezia Barkeri.
3504 - planifolia.
3524 _ secunda.
3475 Rosa centifolia; muscosa, cristata.
3490 - microphylla.
3515 Sarracenia rubra.
3487 Senecio ampullaceus.
3525 Silphium terebinthaceum.
3509 Sisyrinchium grandiflorum.
3523 Sollya heterophylla,
3516 Streptanthus hyacinthoides.
3517 Strobilanthes Sabiniana.
3466 Telekia speciosa.
3512 Thunbergia alata (albiflora).
3501 Tradescantia Virginica, fl. alb.
3471 Trifolium reflexum.
3462 Troximon glaucum.
3522 Vaccinium virgatum.
3541 Verbena Tweedieana.
3461 Veronica labiata.
3533 Vesicaria gracilis.

## I N D E X,

In which the English Names of the Plants contained in the Tenth Volume of the New Series (or Sixty-third of the Work) are alphabetically arranged.

Pl.
3502 Acacia, conspicuous or Nepean Wattle.
3477 Alkanet, changeable-flowered.
3528 Amaryllis, hybrid var. of the Parrot.
3535 Banksia, West-coast.
3520 Begonia, blood-red.
3532 Dr. Fischer's.
3518 Bletia, spreading-flowered.
3536 Broughtonia, crimson-flowered.
3511 Calliopsis, dyeing, dark-flowered var.
3458 Cereus, Napoleon's.
3481 Chætogastra, slender.
3470 Cinquefoil, Mr. Russell's var. of the deep blood-coloured.
3471 Clover, Buffalo.
3488 Collinsia, two-coloured.
3468 Collomia, Cavanilles'.
3482 Cooperia, green-tubed.
3460 Coreopsis, crowned.
3484 - six-leaved.
3505 - thread-leaved.
3474 _ various-leaved.
3519 Cotoneaster, loose-clustered.
3507 Cyrtopodium, spotted-flowered.
3479 Dove-flower, pendulous.
3500 Dryandra, Fern-leaved.
3513 slender-leaved.
3534 Epidendrum, large-lipped.
3495 Eschscholtzia, saffron-coloured
3480 Flax, Berendier's yellow-flowered.
3514 Flywort, bearded, whitelipped var.
3521 Fuchsia, large-stamened recurved var.
3498 Port-Famine.
3506 Gaura, small-flowered.
3496 Gentian, five-flowered.
3463 Gilia, three-coloured.
3530 Gooseberry, showy.
3487 Groundsel, flask-flowered American.
3539 Isopogon, Mr. Baxter's.
3489 Jaborosa, entire-leaved.
3491 Leptosiphon, Androsace-like.
3467 Lupine, fleshy-leaved.
3492
3537 Mallow, Mr. Munro's.

## Pl.

3526 Monarda, awned.
3485 Nemophila, showy.
3499 Oncidium, crisped-flowered.
3486 horned.
3531 Onion, Mr. Cowan's.
3503 Passion-flower, crimson.
3465 Pentstemon, Cobæ-flowered.
3472 Mr. Murray's scarlet.
3478 Pereskia, Rose-coloured.
3469 Petrophila, needle-leaved.
3494 Physostegia, blunt-calyxed.
3459 Pimelea, hispid-flowered.
3493 Poinsettia, showy.
3483 Rhodanthe, Capt. Mangles'.
3508 Rhubarb, officinal.
3504 Rodriguezia, even-leaved.
3497 Mr. Barker's.
3524 side-flowered.
3490 Rose, small-leaved Chinese.
3475 Moss, crested var.
3515 Side-saddle-flower, red.
3525 Silphium, terebinthine.
3509 Sisyrinchium, large-flowered.
3523 Sollya, various-leaved.
3529 Solomon's Seal, oppositeleaved.
3461 Speedwell, fragrant whiteflowered.
3501 Spider-wort, Virginian, whiteflowered var.
3476 Spurge, Hare's-ear-leaved.
3527 —Mr. Bojer's.
3538 Star of Bethlehem, pure whiteflowered.
3516 Streptanthus, Hyacinth-flowered.
3517 Strobilanthes, Mr. Sabine's.
3540 Sun-dew, narrow-leaved.
3510 Sun-flower, ten-rayed.
3466 Telekia, large-flowered.
3512 Thunbergia, winged, whiteflowered var.
3473 Toad-flax, American.
3462 Troximon, glaucous-leaved.
3541 Vervain, scarlet, Mr. Tweedie's
3464 Vesicaria, large-flowered.
3533 slender-stemmed.
3502 Wattle, Nepean, or conspicuous Acacia.
3522 Whortleberry, pale greenishflowered.

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| 55 | 2821 | Sida globiflora. |
| 62 | 3436 | - inæqualis. |
| 54 | 2759 | - mollis. |
| 54 | 2753 | - pulchella. |
| 59 | 3150 | -rosea. |
| 55 | 2857 | - sessiliflora. |
| 55 | 2863 | Sieversia Peckii. |
| 55 | 2858 | triflora. |
| 61 | 3342 | Silene Virginica, |
| 61 | 3354 | Silphium perfoliatum. |
| 63 | 3525 | - terebinthaceum. |
| 61 | 3355 | trifoliatum. |
| 54 | 2786 | Sisyrinchium Chilense. |
| 63 | 3509 | - grandiflorum. |
| 59 | 3197 | maculatur |
| 57 | 2965 | - pedunculatum. |
| 55 | 2828 | Solanum Balbisii, var. purpurea. |
| 54 | 2708 | coriaceum. |
| 54 | 2739 | Quitense. |
| 62 | 3385 | Tweedianum. |
| 63 | 3523 | Sollya heterophylla. |
| 62 | 3390 | Sophora tomentosa, $\beta$. |
| 57 | 2993 | Sphacele Lindleyi. |
| 58 | 3042 | Sphenogyne crithmifolia. |
| 61 | 3359 | Stanhopea eburnea. |
| 56 | 2949 | Ibid. |
| 56 | 2948 | Stanhopea insignis. |
| 56 | 2930 | Stenochilus viscosus. |
| 63 | 3516 | Streptanthus hyacinthoides. |
| 61 | 3317 | -obtusifolius. |
| 63 | 3517 | Strobilanthes Sabiniana. |
| 59 | 3136 | Stylidium scandens. |
| 59 | 3194 | hirsutum. |
| 62 | 3417 | Stypandra propinqua. |
| 59 | 3188 | Symphytum Caucasicum. |
| 60 | 3224 | Symplocarpus foetidus. |
| 60 | 3278 | Syringa Josikæa. |
| 59 | 3191 | Tecoma Stans. |
| 63 | 3466 | Telekia speciosa. |
| 54 | 2751 | Telfairia pedata. |
| 54 | 2752 | Ibid. |
| 57 | 3004 | Terminalia Catappa. |
| 59 | 3148 | Thea viridis. |
| 63 | 3512 | Thunbergia alata (albiflora). |
| 55 | 2841 | Tillandsia psittacina. |
| 60 | 3275 | - setacea. |
| 58 | 3104 | Torenia scabra. |
| 58 | 3096 | Tournefortia heliotropioides. |
| 61 | 3334 | Trachymene lanceolata. |
| 56 | 2935 | Tradescantia crassula. |
| 61 | 3291 | - pilo |
| 63 | 3501 | $\qquad$ Virginica, flore albo. |
| 54 | 2779 | Trifolium alpestre. |
| 54 | 2790 | - Olympicum. |
| 63 | 3471 | - reflexum. |
| 58 | 3097 | Trillium discolor. |
| 60 | 3250 | $\qquad$ erectum, var. viridiflorum. |
| 57 | 3002 | - erythrocarpum. |
| 54 | 2765 | Trixis auriculata. |


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| 61 | 3324 | Trochocarpa laurina. |
| 62 | 3375 | Tropæolum majus, var. atrosan- |
| 59 | 3190 | guineum. |
| 59 | 3169 | pentaphyllum. |
| 63 | 3462 | Troximon glaucum. |
| 54 | 2762 | Tulipa stellata. |
| 58 | 3054 | Tupistra nutans. |
| 57 | 2956 | Ulantha grandiflora, sub nom. |
| 58 | 3043 | Neottia? grandifl. |
| 62 | 3428 | Urena lobata. |
| 62 | 3429 | Vaccinium albiflorum. |
| 62 | 3446 | cæspitosum. |
| 62 | 3433 | Canadense. |
| 62 | 3447 | corymbosum. |
| 62 | 3434 | Pyrtilloides. |
| 63 | 3522 | vennsylvanicum. |
| 62 | 3416 | Vanda Roxburghi, var. unicolor. |
| 57 | 3014 | Vangueria velutina. |
| 62 | 3456 | Veltheimia glauca, (var. floribus |
|  |  | rubescenti-purpureis). |


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| 61 | 3333 | - chamædrifolia. |
| 63 | 3541 | Verbena Tweedieana. |
| 59 | 3127 | venosa. |
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| 57 | 2975 | Veronica Alpina, var. Wormskioldii. |
| 63 | 3461 | - labiata. |
| 56 | 2882 | Vesicaria arctica. |
| 63 | 3533 | gracilis. |
| 63 | 3464 | - grandiflora. |
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| 62 | 3384 | Wedelia? aurea. |
| 61 | 3307 | Westringia cinerea. |
| 61 | 3308 | - Dampieri. |
| 62 | 3438 | - eremicola. |
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| 54 | 2748 | Zygopetalon Mackaii. |
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| 55 | 2819 | - rostratum. |

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# THE PLANTS CONTAINED IN THE FIRST TEN VOLUMES OF THE NEW SERIES, 

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| 63 | 3502 | conspicuous, or Nepean Wattle. |
| 56 | 2928 | - downy stemmed. |
| 61 | 3366 | - feathery. |
| 54 | 2754 | - feather-nerved. |
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| 61 | 3341 | little halberd-lea |
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| 61 | 3312 | Alyxia, Butcher's-broom leaved |
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| 57 | 2962 | particolored. | 54 | 2711 | Candollea |
| 55 | 2849 | two-petaled. | 54 | 2783 | Candy-tuft, serrate,fleshy-leaved |
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| 55 | 2817 | Bignonia, General Cole's. | 60 | 3274 | Cargillia, southern. |
| 57 | 2976 | Mrs. Telfair's. | 62 | 3435 | Cassia, glandular-leaved. |
| 56 | 2892 | Billbergia, blood-stained. | 62 | 3388 | Catasetum, spotless. |
| 61 58 | 3304 | - Rose-purple. | 61 | 3329 | - three-toothed |
| 58 | 3117 | Bitter-Vetch, canescent. | 60 | 3262 | trifid-lipped. |
| 55 | 2796 | - sessile-leaved. | 60 | 3269 | Catchfly, Pyrenean. |
| 60 | 3240 | Blechnum, lance-shaped. | 61 | 3342 | - Virginian. |
| 55 | 2818 | long-leaved. | 55 | 2851 | Cattleya, middle-size-flowered. |
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| 63 | 3518 | spreading-flowe | 58 | 3115 | Centroclinium, close-press scaled. |
| 5 | 2719 | Woodfordian. | 58 | 3114 | $\xrightarrow{\text { scaled. }}$ reflexed-sc |
| 55 | 2865 | Blumenbachia, palmated. | 58 | 3118 | Cephalotus, follicled. |
| 56 | 2926 | Bonatea, showy. | 58 | 3119 | Ibid. |
| 56 | 2939 | Botany-Bay Fig, rusty-leaved. | 54 | 2758 | Ceratiola, Heath-like. |
| 57 | 3016 | Brachystelma, waved-leaved. | 62 | 3381 | Cereus, large-flowered, or night- |
| 60 | 3247 | Brake, pedate-leaved. |  |  | blowing. |
| 62 | 3453 | Bramble, Nutka. | 63 | 3458 | - Napoleon's. |
| 58 | 3098 | Brassavola, elegant. | 59 | 3125 | - Van Royen's. |
| 60 | 3229 | - fragrant. | 57 | 3015 | Ceropegia, beautiful. |
| 56 | 2878 | - tuberculated | 60 | 3267 | - Dr. Wight's. |
| 62 | 3451 | Brassia, long-tailed. | 61 | 3300 | Mr. Lush's. |
| 55 | 2869 | Bread-Fruit Tree ( $\alpha$ and $\beta$ ). | 56 | 2929 | Cestrum, Alaternus-leaved. |
| 55 | 2870 | Ibid. | 57 | 2974 |  |
| 55 | 2871 | Ibid. | 55 | 2836 | Chæetogastra, lance-leaved. |
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| 68 | 3076 | Broughtonia, crimson-flowered. | 59 | 3141 | Cherry, Noyau. |
| 63 | 3536 | Ibid. | 54 | 2782 | Chickweed, Taurian, mouse- |
| 58 | 3069 | Browallia, large-flowered. |  |  | eared. |
| 62 | 3413 | Bucku, or crenulated Diosma. | 62 | 3405 | Chilodia, Scutellaria-like. |
| 54 | 2713 | Buddlea, Brazilian. | 60 | 3215 | Cineraria, Colt's-foot. |
| $\begin{aligned} & 55 \\ & 55 \end{aligned}$ | 2853 2824 | connate-leav | 63 | 3470 | Cinquefoil, Mr. Russell's var. |
| 59 | 3155 | Bur-marigold, striated-flowered | 57 | 2982 | of the deep blood-coloured. <br> snowy, large-leaved |
| 97 | 3029 | Butcher's-broom, climbing. |  |  |  |
| 62 | 3411 | Cactus, sweet-scented, spiny. | 57 | 2984 |  |
| 55 | 2820 | wing-stemmed. | 56 | 2918 | Clarkia, beautiful. |
| 61 | 3318 | Cælogyne, drooping. | 59 | 3137 | Cleome, gigantic. |
| 58 | 3059 | Calabash-Nutmeg, Jamaica. | 61 | 3296 |  |
| 62 | 3430 | -Tree. | 58 | 3049 | Clerodendron, dro |
| 61 | 3345 | Caladium, or Indian Kale, large leaved. |  |  | ed. |
| 61 | 3314 |  | 56 | 2925 |  |
| 61 | 3369 | Calandrinia, large-flowered. |  |  | Madagascar. |


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| 59 | 3165 | Clitoria, woody | 57 | 2999 | Crowfoot, American, heart- |
| 54 | 2749 | Clove Spice. |  |  |  |
| 54 | 2750 |  | 57 | 3009 |  |
| 59 | 3153 | Clove-tree, wild, or Bay-berry | 60 | 3208 | Cryptophragmium, stately. |
|  |  | Myrtle. | 54 | 2743 | Cunninghamia, lance-leaved. |
| 63 | 3471 | Clover, Buffalo. | 61 | 3335 | Currant, red-flowered. |
| 54 | 2790 | long-flower | 57 | 3008 | waxy |
| 54 | 2779 | narrow-leaved, round- | $56$ | 2911 | Custard-Apple, netted. |
| 60 | 3221 | Coburgia, |  | 2912 |  |
| 60 | 2741 | Cochineal Fig, spineless. |  |  | Custard-Apple, undulated, Su-gar-apple, or Sweet-sop. |
| 54 | 2742 | Ibid. | 55 | 2826 | Cycas, broad-leaved. |
| 58 | 3051 | Codiæum, painted-leaved. | 55 | 2827 | Ibid. |
| 61 | 3340 | Coleonema, beautiful. | 57 | 2963 | Cycas, narrow-leaved. |
| 54 | 2734 | Cocoa-nut, double, or Seychel-les-Island | $57$ | 2964 | Ibid. |
| 54 | 2735 | Ibid. | 63 | 3522 | Cyminosma, ob Cyrtopodium |
| 54 | 2736 | Ibid. | 62 | 3455 | Daisy, American. |
| 54 | 2737 | Ibid. | 59 | 3196 | Daviesia, twiggy. |
| 54 | 2738 | Ibid. | 54 | 2717 | Deeringia, Celosia-like. |
| 63 | 3488 | Collinsia, two-coloured. | 58 | 3058 | Delima, climbing. |
| 63 | 3468 | Collomia, Cavanilles'. | 58 | 3074 | Dendrobium, great. |
| 56 | 2894 | - large-flowered. | 62 | 3418 | - many-flowered. |
| 56 | 2895 | row-leaved. | 56 | 2906 |  |
| 56 | 2893 | mall-flowered. | 57 | 2960 | Desmodium, doubtful. |
| 57 | 2970 | Columbo Plant. |  | 2867 | drooping-flowered |
| 57 | 2971 | Ibid. | 54 | 2721 | Dichorisandra, sharp-petaled. |
| 58 | 3081 | Columnea, hairy. | 55 | 2875 | Didiscus, blue-flowere |
| 61 | 3325 | Colvillea, splendid. | 57 | 3005 | Didymocarpus, Cape. |
| 61 | 3326 | Ibid. | 57 | 3031 | Dielytra, Canadian. |
| 56 | 2944 | Combretum, large-flowered. | 62 | 3413 | Diosma, crenulated, or Bucku. |
| 59 | 3188 | Comfrey, Caucasian. | 62 | 3382 | Diplopappus, hoary. |
| 58 | 3047 | Commelina, slender. | 56 | 2916 | Dischidia, Bengal. |
| 55 | 2850 | Conospermum, Heath-leaved. | 59 | 3156 | Diuris, spotted. |
|  | 2724 | Yew-leaved | 55 | 286 | Dodonæa, attenuated-leaved |
| 57 | 2989 | Conostylis, prickly. | 56 | 2905 | Dombeya, angle-leaved. |
| 63 | 3482 | Cooperia, green-tubed. | 54 | 2760 | Dorstenia, cleft. |
| 60 | 3234 | Coral-tree, or Erythrina, nakedflowering. | $\begin{aligned} & 55 \\ & 58 \end{aligned}$ | $\begin{aligned} & 2804 \\ & 3116 \end{aligned}$ | $\qquad$ Peziza-flowere Dove-flower, lofty. |
| 55 | 2810 | Corchorus, bristly-leaved, or | 63 | 3479 | - pendulous. |
|  |  | Jew's Mallow. | 55 | 2835 | Dracæna, New Zealand, white- |
| 63 | 3460 | Coreopsis, crowned. |  |  |  |
| 63 | $\begin{aligned} & 3484 \\ & 3505 \end{aligned}$ |  |  | $\begin{aligned} & 3264 \\ & 3500 \end{aligned}$ | Dracophyllum, se <br> Dryandra, Fern-le |
| $\begin{aligned} & 63 \\ & 63 \end{aligned}$ | $\begin{aligned} & 3505 \\ & 3474 \end{aligned}$ | - |  | $\begin{aligned} & 3500 \\ & 3063 \end{aligned}$ | Dryandra, Fern-le |
| 57 | 3032 | Cornflag, splendid. | 60 | 3236 | - sharp-pointe |
| 58 | 3102 | Coryanthes, spotted-lipped. | 63 | 3513 | slender-leaved. |
| 60 | 3242 | Corydalis, bracteated. | 62 | 3449 | Dyckia, few-flowered. |
| 60 | 3230 | - long-flowered. | 58 | 3107 | Echinocactus, Mr. Otto's. |
| 63 | 3519 | Cotoneaster, loose-clustered. | 57 | 2994 | Elecampane, autumnal. |
| 61 | 3299 | Cotton-Thistle, Arabian. | 56 | 2881 | Elichrysum, hoary-leaved. |
| 59 | 3158 | Couroupita, Guiana, or Cannon- | 55 | 2831 | Encyclia, green-flowered. |
|  |  | ball tree. | 57 | 3013 | - spreading-flowered. |
| 59 | 3159 | Ibid. | 62 | 3407 | Epacris, foveolated. |
| 59 | 3124 | Crane's-bill, white-flowered. | 59 | 3168 | -_Onosma-flowered |
| 62 | 3415 | Craspedia, large-headed. | 60 | 3253 | - snowy. |
| 56 | 2908 | Crinum, plaited-leaved. | 60 | 3257 | - varying-stemmed |
| 57 | 2986 | Crocus, golden. | 60 | 3243 | - wax-flowered |
| 57 | 2991 | - least, purple. | 62 | 3410 | Epidendrum, acute-petaled. |
| 54 | 2714 | Crotalaria, dichotomous. | 55 | 2844 | - dingy-flowered. |
| 57 | 3006 | oval-leaved, hairy |  | 3233 | dwa |
| 59 | 3200 | striated-flowered. | 62 | 3457 | id |
| 57 | 3034 |  | 63 | 3534 | large-lip |
| 55 | 2794 | Croton, Chesnut-leaved. | 60 | 3209 | Mrs. Harrison's. |


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| 61 | 3298 | Epidendrum, night-smelling. |
| 57 | 2980 | pale-flowered. |
| 61 | 3332 | $\square$ two-horned |
| 59 | 3151 | $\cdots$ variegated. |
| 62 | 3448 | Epimedium, twin-leaved. |
| 58 | 3068 | Eranthemum, upright. |
| 56 | 2923 | Erigeron, smoothish-leaved. |
| 59 | 3180 | Eriostemon, cuspidate. |
| 55 | 2854 | - Willow-leave |
| 60 | 3227 | Erythrina, or Coral-tree, velvety. |
| 56 | 2909 | Erythrolæna, conspicuous. |
| 56 | 2890 | Escallonia, red-flowered. |
| 56 | 2887 | Eschscholtzia, Californian. |
| 63 | 3495 | Saffron-colour |
| 60 | 3223 | Eucalyptus, Almond-leaved. <br> Eugenia, three-nerved |
| 56 | 2931 | Eulophia, twisted-petaled. |
| 62 | 3399 | Eurycles, small-flowered, or Brisbane Lily. |
| 57 | 2985 | Eutoca, Capt. Franklin's. |
| $57$ | 3 |  |
|  | 2889 | Evening Primrose, decumbent, small-flowered. |
| 59 | 3189 | largewh |
| 55 | 2873 | frowered. |
| 61 | 3361 | ple-flowered, twiggy. |
|  | 3 | mond's. |
|  | 2 | leaved |
| 59 | 3123 | Everlasting Pea, ten-leafletted. |
| 58 | 3087 | Farsetia, Lunaria-like. |
| 61 | 3305 | Fig, tufted or comose. |
| $\begin{aligned} & 60 \\ & 60 \end{aligned}$ | 3282 | T sharp-pointed. |
| 60 | 3258 | Flat-pea, or Platylobium, ob-tuse-leaved. |
| 63 | 3480 | Flax, Berendier's yellow-flowered. |
| 59 | 3199 | - New Zealand. |
| 63 | 3514 | Flywort, bearded, white-lipped var. |
| 55 | 2829 | Franciscea, short-flowered. |
| 59 | 3178 | Francoa, appendiculated. |
| 61 | 3309 | - Sow-thistle-leaved. |
| 56 | 2896 | Frankenia, few-flowered. |
| 60 58 | 3280 | Fritillary, lesser, Altaic. |
| 61 | 3364 | Fuchsia, balloon-flowered |
| 63 | 3521 | $\qquad$ large-stamened recurved var. |
| 63 | 3498 | - Port-Famine. |
| 61 | 3368 | Gaillardia, two-coloured, Drummond's var. |
| 56 | 2940 | $\xrightarrow{\text { drumole-coloured. }}$ |
| 61 | 3328 | Gastrolobium, blunt-leaved. |
| 55 | 2843 | Gaultheria, Shallon. |
| 63 | 3506 | Gaura, small-flowered. |
| 59 | 3131 | Geitonoplesium, cymose. |
| 60 | 3231 | Gelonium, clustered-flowered, |
| 63 | 3496 | Gentian, five-flowered. |
| 58 | 3041 | Gesneria, bulbous |
| 54 | 2725 | - cluster-flowered. |
| 54 | 2776 | verticillate. |



| $\begin{aligned} & \text { Vol. } \\ & 61 \\ & 61 \end{aligned}$ | $\begin{gathered} \text { No. } \\ 3353 \\ 3336 \end{gathered}$ | Monkey-flower, Rose-coloured. - yellow Chilian | $\left\lvert\, \begin{gathered} \text { Vol. } \\ 62 \\ 63 \end{gathered}\right.$ | $\begin{array}{\|c} \text { No. } \\ 3391 \\ 3472 \end{array}$ | Pentstemon, Dr. Richardson's. $\qquad$ Mr. Murray's scar- |
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| 61 | 3363 |  |  |  |  |
|  |  | oung' | 56 | 2945 |  |
| 58 | 3122 | Monnina, blunt-leaved. | 56 | 2954 |  |
| 57 | 3007 | Moricandia, field. | 56 | 2943 | Peperomia, clusia-leaved. |
| 61 | 3351 | Morinda, Jasmine-like. | 59 | 3132 | Pepper, Betel. |
| 54 | 2705 | Mutisia, handsome, pinnateleaved. | 59 | $\begin{aligned} & 3139 \\ & 3478 \end{aligned}$ | $\qquad$ black, or common Pereskia, Rose-coloured. |
| 60 | 3222 | Myrsine, cluster-flowered. | 63 | 3469 | Petrophila, needle-leaved. |
| 62 | 3375 | Nasturtium, or Indian Cress, dark-red var. | 62 | 3452 | Phacelia, cluster-flowered. |
| 63 | 3485 | dark-red var. | 62 | 3441 3010 | Phlox, Mr. Drummond's. |
| 54 | 2730 | Neottia | 57 59 | 3010 | Phrynium, coloured-spike |
| 57 | 2956 | Neottia? large-flowered, is Ulantha, large-flowered. | 59 58 | 32011 | Physianthus, whitish-leaved. Physic-Nut, eatable-rooted, bit- |
| 55 | 2797 | Neottia leafless. |  |  | ter Cassada, Manioc, or Taрioca. |
|  | 3403 | - spurre | 63 | 3494 | Physostegia, blunt-cal |
|  | 3371 | Nierembergia, large-flowered. | 62 | 3386 |  |
| $\begin{aligned} & 58 \\ & 61 \end{aligned}$ |  |  | 54 | 2744 | Picotees, two varieties. |
| 55 | 2328 | slender-stemm | 63 | 3459 | Pimelea, hispid-flower |
|  |  | htshade, Balbis', purple- | $61$ | 3330 | Hypericum-le |
| 58 | 30 |  | 60 | 1 | ong-flowered. |
| 54 | 2756 | Nutmeg Tree, aromatic. | 60 | 3288 |  |
| 54 | 2757 | Ibid | 60 | 3276 |  |
|  | 3287 | Nuttallia, Poppy-li | 62 | 3380 | Pimpernel, Italian, |
|  | 2764 | Octomeria, Grass-leaved. |  |  | more's var. |
|  |  |  | 59 | 3126 | Pipe-wort, |
| 55 | 2832 | Cnothera, large-flowered, four- | 55 | 2813 | Pitcairnia, brac |
|  |  | otted. | 55 | 2798 | Pitcher-plant, mal |
| 58 | 3089 | live, wavy-leaved, fragrant | 59 | 3161 | Pittosporum, cornel-leaved |
|  |  | ape. | 58 | 3066 | Pladera, decussate. |
| 54 | 2795 | Oncidium | 62 | 3396 | Plagianthus, Sida-lik |
| 63 54 | 3499 |  | $\begin{aligned} & 60 \\ & 60 \end{aligned}$ | $\begin{aligned} & 3271 \\ & 3259 \end{aligned}$ | obium, or Flat-Pe |
| $54$ | 2773 |  |  |  | Murray's. |
| $\begin{aligned} & 63 \\ & 57 \end{aligned}$ | $3486$ |  | 54 | 2746 | Pleurothallis, leafy, fragr |
| 62 | 3393 |  |  |  |  |
| 58 | 3109 |  |  |  |  |
| 63 | 3531 | Onion, Mr. Cow | 63 |  | al |
| 61 | 3306 | Ornithidium, white. | 60 | 3238 | tia, sh |
| 62 | 3426 | Orchis, narrow-lipped military, crowded-flowered var. | 56 55 | 2884 | Poinciana, super |
| 56 | 2937 | Orobus, large-stipul | 59 | $\begin{aligned} & 2800 \\ & 3145 \end{aligned}$ |  |
| 55 | 2838 | Osbeckia, cluster-flowered. | 5 |  | Polygonum, berry-bearing, Macquarie-harbour Grape. |
| 55 | 2830 | Oxalis, Rose-coloured. | 60 | 3219 | Pomaderris, Andromeda-leave |
| 54 | 2706 | Ox-eye, large-flowered, Marsh. | 60 | 3212 |  |
| 60 | 3249 | Oxylobium, elliptic-leaved. | 56 | 2932 | Pontederia, large-flower |
| 62 | 3431 | Pæony, crimson. | 57 | 3035 | Poppy, orange-flowered. |
| 59 | 3175 | the | 55 | 2801 | Pothos, large-leaved. |
|  |  | mone-1 | 56 | 2953 | - small-leaved. |
| 56 |  |  | 57 | 2987 | thick-rib |
|  |  | with Rose-coloured flowers. | 61 | 3293 | Prickly-Pear, Brazilia |
| 58 | 2898 |  | 61 |  | Pround-stemmed. |
| $56$ | 2899 | Ibid. | 60 5 5 | 32 | eya, villous. |
| $57$ | 2967 | Passion-flower, ample-leaved | 57 |  | Primrose, bird's-ey American. |
| 55 | $\begin{aligned} & 2868 \\ & 3503 \end{aligned}$ | ted. | 57 | 3020 |  |
| 55 | 2809 | Penæa, imbricated. |  |  | American. |
| 63 | 3465 |  | $\begin{aligned} & 62 \\ & 60 \end{aligned}$ | $\begin{aligned} & 3414 \\ & 3259 \end{aligned}$ | Palinurian. |
|  |  | Pentstemon, Cobr-flowered. | 60 | 3259 | purple Caucasian. |


|  | No. |  |  | No. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Primrose Siberian. Siberian, entire- | $62$ | 3406 | Saxifrage, fringe-leaved. |
|  |  | ar Siberian, entire-leav- | $\begin{aligned} & 57 \\ & 57 \end{aligned}$ | $\begin{aligned} & 2959 \\ & 3026 \end{aligned}$ | ov-eye |
| 55 | 2842 | wered. | 54 | 2732 | Scævola, shrubby |
| 56 | 2921 | Privet, Nepal, glabrous var. | 54 | 2712 | Schelhammera, wave-lea |
| 54 | 2720 | Protea, long-flowered, creamcoloured. | $58$ | 3070 3045 | Schizanthus, acute-petaled. |
| 60 | 3228 | Psychotria, Daphne-like. | 58 | 3045 3044 |  |
| 62 | 3401 | Pterostylis, acuminated. | 59 | 3166 | S |
| 59 | 3172 | $\longrightarrow$ large-leaved. |  |  | leaved, Leather-coat Tre |
| 62 | 3400 |  | 59 | 3130 |  |
| 58 | 3085 | red | 57 | 3028 | Selago, Dr. Gill's. |
| 55 | 3086 289 |  | $54$ | 2753 | whit |
| 62 | 3443 | harp heart-leaved. | 62 | 3436 |  |
| 60 | 3254 | ubumbellate. | 59 | 3150 |  |
| 56 | 2885 | Purslane, large-flowered | 55 | 2857 | sessile-flowe |
| 58 | 3064 | Dr. Gillies. | 54 | 2759 | soft-leaved. |
| 62 | 3409 | Randia, Mr. Bowie's. | 63 | 3515 | Side-saddle-flower, red. |
| 57 | 3022 | Ranunculus, yellow, mountain. | 55 | 2863 | Sieversia, Mr. Peck's. |
| 57 | 2997 | Renanthera, scarlet. | 55 | 2858 | C-three-flowered. |
| 57 | 2998 | Ib | 61 | 3360 | Silk-Cotton Tree, five-stamened, |
|  | 3079 | Rhipsalis, cluster-branched. |  |  | ean var. |
| 58 | 3078 | -Fig-marimold-like | 61 | 3354 | Silphium, perfoliated. |
| $54$ | 2740 | - flo | 63 | 3525 |  |
|  |  |  |  |  | whorl-le |
| 63 | 3483 | Rhodanthe, Capt. Mangles' | 54 | 2786 | Sisyrinchium, Chilian |
| 61 | 3367 | Rhodochiton, twining | 63 | 3509 |  |
| 62 | 3422 | Rhododendron, Caucasian, straw-coloured var. | $\begin{aligned} & 57 \\ & 59 \end{aligned}$ | $\begin{array}{\|} 2965 \\ 2107 \end{array}$ |  |
| 62 | 3439 | d, | 55 | 2874 | cobwe |
|  |  |  | 56 | 2876 |  |
| 58 | 3106 |  | 60 | 3255 | - crenate-flowered. |
|  |  |  |  |  |  |
| 62 | 3423 | e, | 54 | 2775 | rple-flowered. |
|  |  |  | 56 | 2915 |  |
| 61 | 3290 | ee, white- | $57$ | 3036 | coloured. |
| 63 | 3508 |  | 55 | 2855 |  |
| 57 | 3021 | Rock Cress, h | 54 | 2739 | Solanum, angular-leave |
| 60 | 3246 | - Rose-coloure |  |  |  |
| 63 | 3504 | Rodriguezia, even-leave | 54 | 2708 | coriaceous. |
| 63 | 3497 | 's | 62 | 3385 | Mr. Tweedie's. |
| 63 | 3524 | ered. | 63 | 3529 | Solomon's Seal, opposit |
|  |  | ree | 63 | 3523 | Sollya, various-leav |
| 59 | 3149 | amtschatka. | 62 | 3390 | Sophora, downy va |
| 63 | 3475 | oss, crested var | 54 | 2727 | Souari, or Butter-n |
| 63 | 3490 | small-leaved Chinese. | 54 | 2728 | İbid. |
| 62 | 3389 | Ruellia, neat blue-flowered. | 55 | 2791 | Sour-gourd, Ethiopian, or Mon- |
| 59 | 3182 | Rulingia, nut-leaved. |  |  | key Bread. |
| 59 | 3135 | Sage, erect-flowered. | 55 | 2792 | Ibid. |
| 55 | 2872 | large-bra | 57 | 2975 | Speedwell, alpine, Wormskiold's |
| 55 | 2864 | scarlet, hairy-stalked |  |  |  |
| 55 | 2811 | Salpiglossis, deep-purple-flow ered. | 63 | 3461 | fragrant white-flow- <br> ered. |
| 58 | 3113 |  | 57 | 2993 | Sphacele, large-flowered |
| 60 | 3256 | aved. | 58 | 3042 | Sphenogyne, Sampire-leave |
| 61 | 3365 | loured | 61 | 3291 | Spider-wort, hairy |
|  |  |  | 63 | 3501 | flow Virgini |
| 60 | 3235 | Sandal-wood. |  |  | flowered var. |
| 58 | 3111 | Sapota, common or Bully-tree. | 54 | 2767 | Spindle-wood, Spinous-fruited. |
| 58 | 3112 | Ibid. | 58 | 3101 | Spleen-wort, bird's-nest. |


| Vol. | No. |  |
| :---: | :---: | :---: |
| 61 | 3321 | Spurge, blood-flowered. |
| 63 | 3476 | - Hare's-ear-leaved. |
| 63 | 3527 | - Mr. Bojer's. |
| 56 | 2902 | - showy, red-flowered. |
| 57 | 2992 | - white-flowered. |
| 57 | 3023 | Squill, dwarf. |
| 54 | 2774 | $\qquad$ esculent, or Camass; white-flowered $v a r$. |
| 60 | 3211 | -- hairy-leaved. |
| 61 | 3359 | Stanhopea, ivory-lipped. |
| 56 | 2948 | - splendid. |
| 56 | 2949 | Ibid. |
| 58 | 3072 | Star-Apple, broad-leaved. |
| 61 | 3303 | $\qquad$ Date-shaped, or Damascene Plum. |
| 58 | 3077 | Star of Bethlehem, hairy-leaved. |
| 59 | 3179 | Peruvian. |
| 63 | 3538 | $\qquad$ pure whiteflowered. |
| 56 | 2930 | Stenochilus, clammy. |
| 60 | 3277 | St. John's Wort, Hyssop-leaved. |
| 61 | 3352 | Stramonium, horn-stemmed. |
| 61 | 3317 | Streptanthus, blunt-leaved. |
| 63 | 3516 | ered. Hyacinth-flow- |
| 63 | 3517 | Strobilanthes, Mr. Sabine's. |
| 59 | 3194 | Stylidium, hairy. |
| 59 | 3136 | climbing. |
| 62 | 3417 | Stypandra, slender, azure-flowered. |
| 58 | 3082 | Sun-dew, forked-leaved. |
| 63 | 3540 | - narrow-leaved. |
| 54 | 2778 | Sun-flower, Illinois. |
| 61 | 3295 | $\qquad$ showy Mexican. |
| 63 | 3510 | ten-rayed. |
| 60 | 3224 | Symplocarpus, stinking, Skunk Weed, or Skunk Cabbage. |
| 57 | 2968 | Tanghin, poison. |
| 59 | 3148 | Tea, green. |
| 59 | 3191 | Tecoma, Ash-leaved. |
| 63 | 3466 | Telekia, large-flowered. |
| 54 | 2751 | Telfairia, pedate. |
| 54 | 2752 | Ibid. |
| 57 | 3004 | Terminalia, broad, downyleaved. |
| 63 | 3512 | Thunbergia, winged, whiteflowered var. |
| 55 | 2841 | Tillandsia, gaudy-flowered. |
| 60 | 3275 | - setaceous-leaved.' |
| 63 | 3473 | Toad-flax, American. |
| 56 | 2941 | . small, fleshy-leaved. |
| 56 | 2919 | Tobacco, acuminated-leaved. |
| 55 | 2837 | - glaucous-leaved. |
| 54 | 2785 | - night-flowering. |
| 55 | 2814 | Tomato, large-flowered. |
| 58 | 3104 | Torenia, rough. |
| 58 | 3096 | Tournefortia, Heliotrope-like. |
| 61 | 3334 | Trachymene, lance-leaved. |
| 56 | 2935 | Tradescantia, white-flowered. |
| 57 | 3002 | Trillium, blood-stained. |
| 58 | 3097 | $\longrightarrow$ green-flowered. |


| Vo | $N$ |  |
| :---: | :---: | :---: |
| 60 | 3250 | Trillium, upright-stalked, pale green-flowered var. |
| 54 | 2765 | Trixis, auriculated. |
| 61 | 3324 | Trochocarpa, Cinnamon-leaved. |
| 63 | 3462 | Troximon, glaucous-leaved. |
| 57 | 3011 | Trumpet-flower, giganticleaved. |
| 54 | 2762 | Tulip, stellated, East Indian. |
| 58 | 3054 | Tupistra, droo |
| 57 | 2956 | Ulantha, large-flowered, under the name Neottia? large-flowered. |
| 58 | 3043 | Urena, angular-leav |
| 62 | 3416 | Vanda, Dr. Roxburgh's wholecoloured var. |
| 57 | 3014. | Vangueria, velvetty. |
| 62. | 3456 | Veltheimia, glaucous-leaved, (red-purple-flowered $v a r$.) |
| 56 | 2910 | Verbena, bracteated. |
| 58 | 3062 | Vernonia, sharp-leaved. |
| 61 | 3333 | Vervain, scarlet-flowered |
| 63 | 3541 | t Mr. Tw |
| 59 | 3127 |  |
| 56 | 2882 | Vesicaria, Arctic. |
| 63 | 3464 | large-flow |
| 63 | 3533 | V- slender-st |
| 56 | 2946 | Vetch, silver-leaved. |
| 57 | 3027 | Viper's-Grass, soft. |
| 61 | 3331 | W all-Cress, early-flowering. |
| 63 | 3502 | Wattle, Nepean, or conspicuous Acacia. |
| 62 | 3384 | Wedelia, golden. |
| 61 | 3307 | Westringia, ash-coloured. |
| 61 | 3308 | Dampie |
| 62 | 3438 | Desert. |
| 62 | 3432 | Whitethorn, large-flowered American. |
| 56 | 2934 | Whitlow-Grass, golden-flowered. |
| 62 | 3429 | Whortleberry, dwarf, tufted. |
| 62 | 3446 | - Canadian. |
| 62 | 3447 | - flask-flowered. |
| 62 | 3433 | many-flowered. |
| 63 | 3522 | pale greenish- <br> flowered. |
| 62 | 3434 |  |
|  |  | leaved. |
| $62$ | $\begin{aligned} & 3428 \\ & 2768 \end{aligned}$ |  |
| $54$ | $2768$ | Witheringia, Mountain, or St. Lorenzo Potatoe. |
| 58 | 3103 | Woodbine, hairy American. |
| 55 | 2866 | Wood-sorrel, flesh |
| 54 | 2781 |  |
| 58 | 3088 | Xanthochymus, sweet-fruited. |
| 55 | 2825 | Yam, or Dioscorea, Cinnamonleaved. |
| 57 | 3019 | Yellow-root, Canadian |
| 54 | 2748 | Zygopetalon, Mr. Mackay's. |
| 62 | 3402 | Mr. Mackay |
| 55 | 2819 | strate |


[^0]:    Fig. 1. Floret: magnified.

[^1]:    ＊From Vesica，a bladder；on account of the bladdered fruit．

[^2]:    * The particulars respecting Mr. Drummond's journeys in the Southern States of North America, and in Mexico, have lately been given in the "Companion to the Botanical Magazine," a periodical Journal, which,

[^3]:    Fig. 1. Flower, from which the Corolla is cut away. 2. Capsule, nat. size. 3. Capsule. 4. Capsule burst open, magnified.

[^4]:    * Probably so named in compliment to some person with whose name and merits I am unacquainted.

[^5]:    Fig. 1. Inside view of the Vexillum. 2. Calyx with the Carina:-magnified.

[^6]:    * From $\pi \varepsilon \tau \rho o s$, a stone, or rock, and $\varphi \cdot \lambda \varepsilon 0$, to love: from the species inhabiting rocky or stony places.

[^7]:    Fig. 1. Back view of a Flower. 2. Side view of ditto. 3. Keel. 4. Pistil. 5. Fruit:-magnified.

[^8]:    * From linum, flax, which the leaves of this and many other of the species considerably resemble.

[^9]:    * I have specimens from Lurin, in Peru, gathered by Mr. Mathews; from Chili, by Mr. Cruckshanks and Mr. Cuming; from Valdivia, by Mr. Bridges; from Paraguay, by Mr. Baird; from Maldonado, by Dr. Gillies ; and from Rio Grande do Sul, by Mr. Tweedie : whilst Sellow detected it in other parts of South Brazil, according to Chamisso in Linnæa, v. 2. p. 591.

[^10]:    * From ropbs, a bug, and oұ $\stackrel{-}{ }$, a resemblance, from a fancied likeness in the fruit to that insect.

[^11]:    * From arxovaa, paint; the roots of one species, A. tinctoria, yield a red dye, which was formerly used to stain the face.

[^12]:    * In honour of Nicolas Fabricius Peireskius, Counsellor in Parliament of Aix en Provence. "Son nom seul fait son éloge, dit Tourne-FORT."-Théis.

[^13]:    Fig. 1. Calyx, including the Stamens and Pistil. 2. Petal.

[^14]:    * From $\chi^{\alpha} \boldsymbol{r} \eta$, a bristle, and raorns; so named, I apprehend, from the copious bristles which crown the ovary.

[^15]:    Fig. 1. Stamen. 2. Style. 3. Pollen, magnified. 4. Petal and Stamen.
    Back of a Sepal. 5. Back of a Sepal.

[^16]:    ＊So named by Professor Lindley，from pooor，a rose，and $\alpha v \theta o s$, a flower， in allusion to the colour of the flowers．

[^17]:    Fig. 1. Floret of the Circumference. 2. Floret of the Disk:-magnified.

[^18]:    * From $\nu \in \mu \circ \varsigma$, a grove, and $\varphi_{\bullet \lambda} \boldsymbol{\varepsilon N}$, to love: from its place of growth, in woods or thickets.

[^19]:    * So named by Mr. Nuttall, in compliment to Mr. Zaccheus Collins, a Botanist and Mineralogist of Philadelphia.

[^20]:    Fig. 1. Calyx and Pistil. 2. Stamen.

[^21]:    * From $\lambda_{s \pi r o s, ~ s l e n d e r, ~ a n d ~}^{\text {o }}$, of the corollas.

[^22]:    ＊In compliment to Mr．Poinsette，who rediscovered the plant，and gave occasion to its introduction in a living state into Europe．

[^23]:    Fig. 1. Involucre. 2. The same a little more advanced. 3. Section of ditto showing the five cells. 4. Male Flower with its Scale. 5. Female Flower, abortive: magmified.

[^24]:    Fig. 1. Cup of the Calyx, including the Pistil, magnified. 2. Hybrid var.

[^25]:    Fig. 1. Flower. 2. Immature Fruit: magnified.

[^26]:    Fig. 1. Column and Lip. 2. Lip. 3. Column. 4. Anther-case. 5. Upper side of a Pollen-mass. 6. Underside of ditto:-magnified.

[^27]:    ＊From Rha，the river so called，now the Volga ；because the true $R h u$－ barb was supposed to be derived from thence．

[^28]:    Fig. 1. Pistil and Stamens. 2. Interior view of a Stamen :-magnified.

[^29]:    Fig. 1. Floret of the Ray. 2. Floret of the Disk, with its accompanying Scale:-magnified.

[^30]:    * From xaג入os, beauty, and o $\downarrow \stackrel{1}{ }$, an appearance; I presume, from the beautiful appearance of the blossoms.

[^31]:    Fig. 1. Floret from the Disk :-Magnified.

[^32]:    * From $\mu v i \alpha$, a $f l y$, and $\alpha v \theta_{0}$, a flower. "The flowers look when dried very much like a pressed fly."

[^33]:    Fig. 1. Column and Lip. 2. Anther-case. 3. and 4. Pollen-masses : magnified.

[^34]:    Fig. 1. Flower. 2. Sepal. 3. Petal. 4. Stamen and Pistil. 5. Pistil. 6. Pod (nat. size). 7. Seed.-All but fig. 6, magnified.

[^35]:    * Named from Cotoneum (xvowrior), Gr., the Quince.

[^36]:    * So named in compliment to Richard Horsman Solly, Esq. author of a work on the use of the Microscope, and ardently attached to the study of Vegetable Physiology.

[^37]:    * It may be thus characterized:-Spiranthera. Sepala 5, acuminata. Petala 5, acuminatissima, patentia, vix unguiculata : Anthere liberæ, lineares, spiraliter contortæ. Ovarium oblongum villosum, biloculare, intus pulposum. Pericarpium?-Frutices scandentes; foliis oblongis. Flores terminales, corymbosi, carulei.

[^38]:    * So named by Ruiz and Pavon in compliment to Emanuel Rodriauez, a Spanish Botanist, and Apothecary to His most Christian Majesty.

[^39]:    Fig. 1. Florets of the Ray. 2. Discal or abortive Floret, with its accompanying Scale. 3. Achenium :-magnified.

[^40]:    Fig. 1. Flower. 2. Calyx with the tuft of white hairs at the mouth :magnified.

[^41]:    Pud by is Aurtis Mlaverwood Essex Nov:I 1856

[^42]:    * From convallis, a valley, in allusion to the place of growth of many of the species.

[^43]:    * More correctly an Epidendrum, as suggested by Professor Lindley, and the E. odoratissimum of that author.

    Fig. 1. Lip. 2. Column. 3. Anther inverted. 4. Two of the Pollen-masses:-magnified.

[^44]:    * From dpooos, dew. A pellucid fluid exudes from the glands of the foliage, whence the plant appears as if covered with dew.

