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## BOTANICAL REGISTER :

## CONSISTINGOF

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$\mathrm{OF}^{\mathrm{F}}$

## EXOTIC PLANTS,

CULTIVATED IN
BRITISH GARDENS:

WITII TMEIR

HISTORY AND MODE OE TREA'MEN「.

THE DESIGNS BY
SYDENHAM EDWARDS,
AND OTHERS.

> VOL. XII.
___ viret semper__ nec fronde caducâ Carpitur.

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# DRACAENA stricta: 

## Upright Draccena.

## IIEXANDRIA MONOGYNTA.

Nat. ord. Asphodelet.

- DRACAENA L. - Corolla 6-partita. Filanenta medio incrassata corollæ inserta. Stigma 3-fidum. Bacca 3-locularis loculis 2-spermis. Spreng. syst.veg. 2.8.
D. stricta; caule fruticoso indiviso, foliis densis lineari-lanceolatis cuspidatis recurvo-patentibus integris, racemo terminali composito multifforo.
D. stricta. Bot. mag. 2575.

Caulis fruticosus, strictus, simplex, 6-7 pedalis, foliis densè vestitus. Folia recurvi-patentia, lineari-lancoolata, margine scabriuscula, cuspidata, glabra, basi dilatata. Racemus paniculatus, terminalis, multiflorus, subcrectus. Flores violacei, basi bracteis tribus parvis suboppositis suffulti, cito decidui.

Plants of this fine Dračna have been remarked for several years in some of the extensive collections near London; but not having flowered, their genus was a subject of doubt.

Last year we saw their blossoms for the first time, at nearly the same period, in the Nurseries of Mr. Samuel Brookes, of the Ball's Pond Nursery, and of Mr. Colvill. At the latter establishment our drawing was made, in March.

The structure of the flowers is so very similar to that of D. terminalis, that there can be no doubt of that species and the present being of the same genus.

Seventeen species are enumerated by Professor Sprengel, to none of which does this appear referable. Dracena australis, of Forster, which is the most nearly related, has been ascertained by Dr. Sims to be a distinct plant.

Requires the heat of a conservatory, to which it is a noble ornament.

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Stem shrubby, upright, simple, six or seven feet high, very closely covered with leaves. Leaves recurved-spreading, linear-lanceolate, roughish at edge, cuspidate, smooth, dilated at base. Raceme panicled, terminal, many-flowered, nearly erect. Flowers violet, supported at base by three small nearly opposite bracteæ.
J. L.


# INDIGOFERA incana. 

Hoary Indigofera.

## dIADELPHIA DECANDRIA.

Nat.ord. Leguminose. Tribus Loteæ. Decandolle. INDIGOFERA. Suprà in notis appendicis, vol. 3.
I. incana ; caule decumbente basi suffrutescente ramosissimo, ramis sericeopubescentibus, foliis petiolatis 3 -foliolatis, foliolis ovatis acutis sericeis, leguminibus reflexis acutis sericeis. Dec. prodr. 2.232.
I. incana. Thunberg. prodr. 132. Willd. sp. pl. 3.1224. Thunb. fl. cap. 596.
Rami teretes, apice tantùm subangulati, pube brevi appressá leviter pubescentes. Foliola 3-nata, subrotundo-ovata, ovata, et obovata, apiculata, suprà glabra, subtùs pubescentia. Racemi pedunculati, foliis quadruplò longiores, erecti. Flores amœeǹ rubro-purpurei. Vexillum dorso pilosum, alæque apice rotundate.

This pretty species of Indigofera is nearly related to I. amœna, already published at folio 300 of this work; but is readily distinguished by the bluntness of all the petals, the downiness of the back of the vexillum, and the smallness of the leaves, which vary from roundish-ovate to obovate with a little point, are always sessile, or nearly so, upon the common petiole, and smooth on their upper surface.

Our drawing was made from a plant in Mr. Colvill's Nursery, which had been raised by Mrs. Marryat, of Wimbledon, from Cape seeds. A free-flowering greenhouse plant, of much beauty.

There is a remarkable peculiarity in the genus Indigofera, by which it may be readily recognised. The hairs of the leaves are attached by their middle, and not by one end.

Branches round, a little angular at the ends only, slightly covered with a short appressed down. Leaflets ternate, roundish-ovate, ovate, and obovate, with a little point, smooth above, downy beneath. Racemes stalked, four times as long as leaves, crect. Flowers of a beautiful red purple. Vexillum downy at the back, and the wings rounded at end.
J. L.


# MASSONIA grandiflora. 

Large-flowered Massonia.

heXANDRIA monogynit.

Nat. ord. Asphodelet.
MASSONIA. Suprà vol. 9. fol. 694.
M. grandifora; foliis flaccidis subrotundo oblongis, obtusis, carnosis, nervosis glaberrimis, laciniis perianthii patenti-reflexis obtusis staminibus paulò brevioribus, melle copiosissimo.
Folia binu, humi prona, 9-uncialia, subrotundo-oblonga, carnosa, glabervima, obtusa, ad basin attenuata, et paululìm rubicunda. Capitulum (racemus depressus) subsessile, in sinu foliorum, circiter 30-forum; depressum, diametro 2 unciarum; bracteis magnis, imbricatis, ovatis, acuminatis, glabris obvallatum. Flores cum pericellis unam unciam longi, bracted ovato-acuminate apice viridi suffulti. Estivatio serid duplici imbricata. Perianthium infundibulare, tubo terete carnoso, glabro, albo, melle copiosissimo amariusculo repleto; limbo exactè 6-partito, laciniis ovatis obtusis margine membranaceis, albis, medio viridibus, staminibus paululùm brevioribus, basi intrusis: interioribus, angustioribus. Stámina 6, carnosa, basibus connata in annulum orcm tubi coronantem, erecta, éstivatione conniventia; filamenta viridia, subulata; anthere anticce, adnata, biloculares; loculis longitudinaliter dehiscentibus. Pollen lutcum, sub lente fortissimo filis paucis hic illic coharens; granulis minutis glabris oblongis: siccitate depressis medio foveatis; humectatis sub-rotundo-oblongis, superficic lavigatâ, foveâ nullâ, demùm, si non dehisceant, rugulosis (non autem areolatis). Ovarium superum, obovatum, hexangulare, triloculare, polyspermum, inter loculos lacunosum, ovulis parvis seriebus $2 v .3$ placentá insertis, horizontalibus. Stylus subulatus, staminum longitudinc, spiralis, 3 -sulcatus. Stigma punctum simplex.

We scarcely know whether this plant is more than a variety of M. longifolia figured in volume 9, p. 694 of this work. It agrees with that species in habit, and in the general arrangement of its parts, but it seems to be materially distinguished by the form of the divisions of the perianthium, by the greater magnitude of all its parts, and by the copious secretion of honey which the tube of the
perianthium supplies: this is so abundant, that nearly a tea-spoonful may be obtained from every flower.

Our drawing was made last October, from a plant in Mr. Colvill's Nursery, which had been brought from the interior of the Cape of Good Hope by Mr. Synnet.

If the pollen of this plant is examined under a high magnifying power, the grains will be found to be united occasionally by little filaments like those which are so conspicuous in Onagrariæ, - a remarkable circumstance, which we are not aware has been noticed in any other neighbouring plant. When the granules are dry, they have an irregular, oblong, depressed figure, strongly marked with a little pit, or hole, on one side; but as soon as moisture is applied to them, they dilate, and become of a regular oblong figure, with a perfectly smooth surface, which, after a time, if the granule does not burst, assumes a shrivelled appearance.

In M. longifolia Mr. Ker noticed the presence of three pores between the angles of the ovarium at the base of the stigma, whence he found the honey to be secreted. In this species, in which the honey is exceedingly abundant, we did not notice these pores; but we are disposed, nevertheless, to suspect that they were only overlooked, and that they do in fact exist. At least there is a curious conformation in the ovarium, which seems to indicate the probability of their existence, and which in the foregoing description is briefly alluded to, by the terms inter loculos lacunosum. If the ovarium is cut across, it will be seen to present six apparent cells, of which three are ovuliferous, and opposite the sides of the ovarium, and three are empty, and opposite its angles. The latter must be considered as cavities occasioned by the imperfect union of the sides of the cells of the ovarium, and as pointing out, in a distinct manner, the accuracy of Richards's truly excellent notion, that the dissepiments of a pericarpium are occasioned by the cohesion or conferrumination of the two sides of a given number of simple unilocular ovaria in juxtaposition round a common axis. We have no hesitation in declaring our opinion that it is in such correct and philosophical views of the structure of plants as this is, and in such alone, that scientific Botany can be said to consist; although we
know very well that there are Botanists in this country who think them far too transcendental.

Leaves two, spreading upon the ground, about nine inches long, roundish-oblong, fleshy, very smooth, obtuse, tapering at the base, and a little stained with red. Head (which is a depressed raceme) somewhat sessile in the bosom of the leaves, containing about thirty flowers, depressed, with a diameter of about two inches; surrounded by large ovate, acuminated, imbricated, smooth bracteæ. Flowers, together with the pedicels, about an inch long, supported by a bractea, which is ovate-acuminate, and green at the end. Estivation imbricated in a double row. Perianthium funnel-shaped; tube round, fleshy, smooth, white, filled with an abundance of a bitterish liquid honey; limb exactly 6 -parted, with ovate obtuse blunt white segments, which are membranous at the edge, green in the middle, a little shorter than the stamens, and pushed inwards at the base: the inner segments are the narrowest. Stamens 6, fleshy, united by their bases into a ring crowning the mouth of the tube, erect, before expansion conniving; filaments green, subulate; anthers facing inwards, adnate, 2 -celled; the cells opening lengthwise. Pollen yellow, under a very strong lens appearing to cohere by a few threads; granules minute, smooth, oblong; when dry depressed with a pit in the middle: being moistened, becoming roundish-oblong, with a smooth surface, and no pit; becoming, if they do not burst, wrinkled, but not divided into areolæ. Ovarium superior, obovate, hexangular, 3 -celled, many-seeded, lacunose between the cells; ovules small, inserted on the placenta in two or three rows, horizontal. Style subulate, the length of stamens, spirally twisted, with three furrows. Stigma a simple dot.
J. L.


# PODOLOBIUM staurophyllum. 

Pungent-leaved Podolobium.

## DECANDRA MONOGYNIA.

Nat. ord. Lecuminose'. Tribus I.'Sophoreæ, Dec. prodŕ.
PODOLOBIUM R. Br-Calyx 5 -fidus, bilabiatus: labio superiore bifido, inferiore 3 -partito. Corolle carina compressa, longitudine alarum vexillum explanatum subæquantium. Ovarium simplici serie 4 -spermum. Stylus ascendens. Stigma simplex. Legumen pedicellatum lineari-oblongum modice ventricosum intùs love.- Suffrutices Chabitu horizematis, et cum hoc genere forsan, Smithio prceunte, conjungende. Dec. prodr. 2.103.
P. staurophyllum; foliis oppositis trifidis, lobis subæqualibus integris apice spinosis, ovario glabro. Dec. l.c.
Suffutex, ramis rectis, subangulatis, rufo-pubescentibus. Folia opposita, sulisessilia, rigida, pungentia, triloba, utrinque glabra, subtùs reticulata; lobis aqualibus lineari-ovatis, acuminatis, spinosis: posticis sapiùs bilobis. Flores subgominati, axillares: pedicollis bractcolatis, pubescentibus. Calyx campanulatus, bilabiatus; labio superiore bilobo, inferiore 3-partito, laciniis parvis ovatis acutis. Corolla parva, lutca, carina et alis porrectis vexillo brevioribus; vexillo subrotundo, apice retuso. Stamina decem; distincta. Ovarium glabrum, stamiribus brevius. Stylus ascendens, subulatus. Stigma ninimum.

A pretty little green-house plant, native of the eastern coast of New Holland, where seeds were collected by Mr. John Richardson.

Our drawing was made at Mr. Colvill's Nurscry, in March last.

It does not appear to have been described until it was defined in M. De Candolle's work, from a collection of New Holland dried specimens, published by Sieber. De Candolle observes that he has seen it confounded with $P$. trilobatum, from which it is quite distinct.

A small shrub, with straight, somewhat angular, rufousdowny branches. Leaves opposite, subsessile, rigid, pungent, 3 -lobed, smooth on each side, netted beneath ; lobes equal, linear-ovate, acuminate, spiny; those at the back generally 2 -lobed. Flowers usually in pairs, axillary, with bracteolate downy pedicels. Calyx campanulate, 2-lipped: upper lip 2 -lobed, lower 3 -parted; with small ovate-acute segments. Corolla small, yellow; keel and alæ projecting, shorter than the vexillum; vexillum roundish, retuse at end. Stamens 10, distinct. Ovarium smooth, shorter than stamens. Style ascending, subulate. Stigma very small.
J. L.


## 960

## CLEOME rosea.

## Rose-coloured Cleome.

## HEXANDRIA MONOGYNIA:

Nat. ord. Capparidee.
CLEOME L. Calyx 4 -sepalus patens subæqualis. Petala 4. Torus subhemisphæricus. Stamina 6, rarius 4. Siliqua dehiscens in calyce stipitata aut sessilis. Decand. prodr. 1.238.

Sect. I. Pedicellaria. Torus carnosus subglobosus. Thecaphorum elongatum. Dec.l.c.
C. rosea; herbacea inermis glabra, foliis 5 -foliolatis, infimis floralibusque

3 -foliolatis, summis ovatis sessilibus, siliquâ glabrâ thecaphori longitu-
dine. Dec.l.'c.
C. rosea. "Vahl. ined." Spreng. syst. 2.122.

Annua, undique glaberrima. Caulis erectus, ramosus, sesquipedalis, inermis, angulatus, altè sulcatus atrovirens purpureo livido coloratus. Folia longè petiolata, petiolis patentibus, sulcatis, purpureo coloratis : superiora et inferiora 3 -foliolata; intermedia quinata; summa simplicia. Foliola ovalilanccolata, utrinque acuminata, altc̀ penninervia, venis subtùs coloratis; summa simplicia sessilia, in bractcarum loco, cordato-ovata, obtusa. Racemus terminalis, corymbosus, pedicellis filiformibus longis rigidis patentibus. Sepala ovata, acuminata. Petala rosea, limbo ovato, integro. Torus carnosus hemisphericus. Stamina subequalia, patentia. Ovarium cylindricum, sub lente minutè scabrellum, in stipite filamentorum ferè longitudine. Stigma ovario angustius.

This beautiful plant was raised from seeds sent to the Horticultural Society, from Rio Janeiro, in 1824, by Mr. James McRae, a collector in the service of the Society. Our drawing was made at the Chiswick Garden, in July last.

A tender annual, requiring the same kind of management as Browallias, and plants of that description.

The flowers have a strong smell of elder. We did not discover aculei upon any of the plants we examined.

This plant is quite smooth in every part. Stem erect, branched, a foot and a half high, unarmed, angular, deeply
furrowed, dark green coloured with livid-purple; the upper and lower with three leaflets; the intermediate with five; the upper simple. Leaflets oval lanccolate, acuminate at each end, deeply nerved, with veins coloured beneath; the upper simple sessile, placed in the room of bracteæ, cordate-ovate, obtuse. Raceme terminal, corymbose, with long, rigid, filiform, spreading pedicel. Sepals ovate acuminate. Petals rosy, with an ovate entire limb. Torus fleshy, hemispherical. Stamens nearly equal, spreading. Ovary cylindrical, slightly rough bencath the microscope, placed on a stalk nearly as long as filaments. Stigma narrower than the ovary.
J. L.


## 962

# DUMASIA pubescens. 

Downy Dumasia.

## DIADELPHIA DECANDRIA.

Nat. ord. Leguminose. Tribus Loteæ, Dec:
DUMASIA D.C.-Calyx cylindricus, obliquè truncatus edentulus basi bibracteolatus. Cor. papilionacea, petalorum unguibus calycis longitudine, carina obtusa. Stamina diadelpha persistentia. Stylus medio dilatatus. Stigma terminale. Legumen basi attenuatum bivalve compressum oligospermum seminibus torulosum.-Herbe scandentes, forsan basi suffruticose terctes. Folia unijuga cum impare, foliolis ovatis. Racemi axillares folio sapiùs breviores. Legumina pube brevi conferta velutina. Bracteolæ 2 minime subulate sub calyce. Dec. Prodr. 2.241.
D. pubescens; ramis petiolis pedunculis foliisque pubescentibus, foliolis ovatis, legumine calyce quadruplò longiore. Dec. 1. c.
Caules graciles, volubiles, angulati, pube brevi rufo retrorsùm pilosi. Stipulæ subulate. Folia ternata; foliolis ovato-oblongis obtusis pubescentilus membranaceis petioli retrorsìm pilosi longitudine. Racemi axillares densi, multifori, foliorum longitudine. Pedunculus pilosus. Bracteolæ setacea, eleganter ciliatc. Calyx cylindricus, pedicello longior, glabriusculus, basi obtusus, apice integer, obliquè truncatus. Corolla pallide fava, demùm in sicco violacea. Vexillum oblongum, incumbens, carina et alis pauld longius. Stamina diadelpha persistentia. Legumen lineare, arcuatum, torulosum, calyce quadruplo longius, sericeum, compressum, basi calyce discolore persistente vestitum.

A hardy conservatory climber, raised from Nepal seeds, presented to Mr. Colvill by Mr. Hood, of South Lambeth. Our drawing was made in October last.

This genus has been established upon two species, communicated to Professor De Candolle by Dr. Wallich, without name. It is placed next to Glycine, to which it would formerly have been referred.

We take this opportunity of observing, that the Glycine vincentina of fol. 799 of this Work must now be called

Chatocalys vincontina, D.C.; that Glycine sinensis fol. 650, is Wisteria chimensis of De Candolle, and that the plant called Glycine bitumizosa, fol. 261, is referred to the genus Fagelia of Necker, by the same author.

Stems slender, turning, angular, hairy backwards, with a short rufous pubescence. Stipules subulate. Leaves ternate; Leaflets ovate-oblong, obtuse, downy, membranous, the length of the petiole, which is hairy backwards. Racemes dense, axillary, many-flowered, the length of the leaves. Peduncle pilose. Bracteola setaccous, elegantly ciliated. Calyw cylindrical, longer than pedicel, smoothish, obtuse at base, entire and obliquely truncate at end. Corolla pale yellow, becoming when dry violet coloured. Vexillum oblong, incumbent, rather longer than keel and wings. Stamens diadelphous, persistent. Pod linear, arcuate, torulose, four times as long as calyx, silky, compressed, having at the base the discoloured persistent calyx.
J. L.


## 961

# CALATHEA violacea, 

# Violet-Jowering Calathea. 



MONANDRIA MONOGYNYA.

Nat.ord. Canneq.<br>CALATHEA. Suprà vol. 11. fol. 932.

C. violacea; caulescens, foliis ovalibus erecto-patentibus subtùs purpurascentibus, capitulo ovali multifloro, perianthii laciniis exterioribus ovalibus acutis: interiorum laterali difformi apice cucullatâ, filamenti lobo sterili apice dentato.
C. violacea. Lindl. suprà fol. 932, in textu.

Herba 2-3-pedalis; caule erecto, terete, ab ima basifolioso. Folia crectopatentia, ferè exactè ovalia, apice tantùm paululùm attenuata, suprà viridia unicolora, subtìs leviter purpurascentia; collo terete, pallido, suprà leviter pubescente, semunciali; petiolo vaginante, membranacco, dilatato, margine lenui paulò ultrà collum in dente brevi elongato; superioribus ventricosis. Flores terminales, in capitulo ovali multifloro petioli proximi longitudine. Bractex magna, virides; exteriores cucullate, latissimè ovato-rhomboidea, acuminata, marginata; interiores ovata, membranacece, diaphana, binerves, bicarinata marginibus circa flores involutis graminearum modo. Calyx triphyllus, tubi longitudine, foliolis oblongis acutis, membranaccis, convolutis. Corolla bilimbis, infundibularis, tubo arcuato dorso fisso; limbo violaceo; exteriore 3-partito, laciniis ovalibus acutis simpliciter 5-7-nerviis; interiore exterioris longitudine, 3-partito -lacinid superiore coloratá, superiori exterioris opposita, margine altero cum margine fissurce dorsalis connato, altero cum filamento -_lac. infcriore coloratâ, cuneatd, emarginatâ, inter lacinias duas exteriores anticas: margine altero libero, altero cum filamento connato-lac.laterali alba, deformi, apice cucullata, stigma involvente, hinc cornutá. Filamentum laciniis multò brevius, album, apice bilobum; lobo antcriore sterili apice dentato, posteriore angusto antherifero. Anthera margini postico flamenti adnata, alba, unilocularis. Stylus laciniam supremam interiorom respiciens, albus, carnosus, teres à lacinia laterali interiore involutus et cucullatus. Stigma fistulosum, rostratum; rostro deflexo, constricto, apice tantum aperto, integro. Squamæ nullice epigyna. Ovarium glabrum, parvum, turbinatum, 3-loculare; loculis monospermis, ovulis crectis.

This is the new species of Calathea to which reference was made at fol. 932. It was imported from Rio Janiero
by the late Mr. Ross of Stoke Newington, in the beginning of last year, and flowered in a stove in July and August.

It seems to grow freely in peat and loam, and to require no particular management, beyond what is demanded by this tribe of plants in general. In habit it makes an approach to the now common C. zebrina, from which, however, it is very different.
J. L.


## 963

## TRIBRACHIA pendula.

## Drooping Tribrachia.

## GYNANDRIA MONANDRIA.

Nat. ord. Orcmimes. Tribus Malaxideæ Lindl. coll. bot. in app. TRIBRACHIA. Suprà, t. 832.-Pollinia duo cereacea posticè sulcata: caudiculâ et glandulâ nullis. Anthera terminalis, opercularis, decidua, semibilocularis membranacea. Columna apice bicirrhosa. Labellum posticum, integrum, cum basi productâ columnæ unguiculatum. Sepala patentia: lateralibus exterioribus cum basi columne connatis; interioribus nanis.Herbæ epiphyte, acaules, bulbosæ (Asiæ temperatæ et Africæ æquinoctialis); caudicibus reptantibus; scapis radicalibus ; floribus parvis. Lindley collect. bot. tab. 41, A.
T. pendula ; foliis ovalibus subtùs discoloribus apice inæqualibus emarginatis in bulbis ovatis compressis solitariis, scapis pendulis, spicis imbricatis, sepalis ovatis acuminatis: interioribus obovatis. Lindl. l. c. in textu.
Bulbi ovati, carnosi, subteretes. Folia solitaria, 2-3-uncialia, ovalia, patentia, apice obliquè emarginata, carnosa, plana, subtùs purpureo maculata. Scapi radicales, penduli, bracteis distantibus angustis acutis squamosi. Flores in spicd quadrifariàm imbricati, parvi, recti. Bracteæ florum longitudine, ovate, acuminata, diaphanc, rubicunde. Ovarium breve, rectum, turbinatum, ecostatum. Perianthium regulare, patens, ovario longius. Sepala exteriora aqualia, triangularia, acuta, valvata, enervia, viridia, ciliata: lateralia basibus cum columnce pede connatis; interiora abbreviata, obovata, pallidè viridia, obtusa. Labellum parvum, rubro-purpureum, ovatum, integerrimum, per axin carnosum, basi excavatum, cum sinu sepalorum lateralium exteriorum articulatum, in columnd incumbens. Columna brevis, recta, semiteres, ad basin producta usque ad sinum sepalorum exteriorum lateralium. Stigma excavatum, marginibus inflexis semiclausum, apice utrinque aristatum. Anthera terminalis, opercularis, persistens, ut credo 1-locularis. Pollinia duo, subrotunda; quodque intùs sulco exaratum obscuro, lobum minorem simulante: Caudicula et glandula nulla.
very impatient of culture. We belicve it will succeed better in a hot, damp, shady frame, than in any other situation.

All the other species of this genus which have been published are natives of Nepal; but we have reason to believe, that there are several other Sierra Leone species in the gardens, besides that which is now for the first time figured.

A very tender stove plant, with small ovate, fleshy, roundish bulbs. Leaves solitary, two or three inches long, oval, spreading, obliquely emarginate at the end, fleshy, flat, beneath spotted with purple. Scapes radical, pendu. lous, scaly, with distant narrow acute bracteæ. Flowers imbricated in a 4 -cornered spike, small, not inverted. Bractes the length of the flowers, ovate-acuminate, trans. parent, reddish. Ovarium short, straight, turbinate, without ribs. Pcrianthium regular, spreading, longer than the ovary. Outer sepals equal, triangular, acute, valvate, nerveless, green, ciliated ; the lateral ones united at their bases with the foot of the columna: imer shorter, obovate, pale green, obtuse. Labellum small, red-purple, ovate, entire, fleshy in the axis, excavated at the base, jointed with the sinus formed by the cohesion of the lateral outer sepals, incumbent upon the colamna. Columna short, straight, half-round, elongated at the base as far as the sinus of the lateral exterior sepals. Stigma hollowed out, half-closed up by the inflexed margins, awned at the upper end on each side. Anther terminal, opercular, persistent, as it appears to me, one-celled. Pollen-masses two, roundish, each furrowed on the inside so as to appear as if furnished with a smaller lobe. Caudicula and gland none.
J. L.

Erratum.-In part of the impression of the last Number, fols. 961 and 962 were by accident transposed. The letter-press of fol. 961 belongs to tab. 962, and of fol. 962 to tab. 961.


## 964

# ISOTOMA axillaris. 

Axil-flowering Isotoma.

SYNGENESIA MONOGAMIA.

## Nat. ord Lobeliacee.

ISOTOMA R. Br.- Corolla hypocrateriformis: tubo sub-integro; limbo 5-partito subregulari. Anthere connatæ imberbes; duabus inferioribus aristatis. Stigma capitatum. Ovarium biloculare, polyspermum.
I. axillaris; foliis sessilibus pinnatifidis dentatis, pedunculis axillaribus foliis multò longioribus.
Lobelia senecioides, Hort.
Annua.-Caulis teres, subpubescens. Folia alterna, sessilia, pinnatifida, glabriuscula; lobis linearibus subfalcatis acutiusculis, sinubus scpiùs 1-dentatis. Flores axillares, solitarii, longè pedunculati. Pedunculi filiformes, glabri, foliis triplò longiores. Calyx glaber: dentibus a lata basi subulatis. Corolla hypocrateriformis; tubo terete, viridescente, expallente, apice tantum paululum diviso; limbo 5 -partito, subregulari: laciniis amenè caruleis, lineari-lanceolatis, patentibus. Filamenta monadelpha. Antheræ connate, ferè imberbes, inœquales: duabus inferioribus minoribus, apice hinc processu setaceo aristatis. Ovarium glabrum biloculare, placentis centralibus carnosis polyspermis. Stigma antheris pauloे evectius, capitatum, obscurc̀ bilobum.

A beautiful annual, for which we are obliged to Mr. Mackay, of the Belgrave Nursery, Pimlico, by whom it was raised from seed received from New Holland, and believed to have been collected in the neighbourhood of the cow-pastures near Sydney.

This plant agrees so well with the characters assigned by Mr. Brown to his last section of Lobelia, which he calls Isotoma, that we do not scruple to refer it thither, notwithstanding our unacquaintance with the original species. It also appears to us to be one of those deviations from Lobelia which possess character of sufficient importance to constitute a division of a higher class than a section. We hope to be able shortly to offer some remarks upon the relative value of the variations which exist in the genus Lobelia, with a view to effect some further generic separations.

Flowers in July, and, we believe, through most of the months of summer.

An annual. Stem round, somewhat pubescent. Leaves alternate, sessile, pinnatifid, smoothish; lobes linear, somewhat falcate, rather acute, generally having a denticulation in their sinuses. Flowers axillary, solitary, on long stalks. Peduncles filiform, smooth, three times as long as the leaves. Calyx smooth; its teeth subulate from a broad base. Corolla hypocrateriform; tube round, greenish, becoming pale, a little divided at the upper end only; limb 5 -parted, somewhat regular; segments bright blue, linear-lanceolate, spreading. Filaments monadelphous. Anthers connate, almost beardless, unequal ; the two lower smaller, furnished on one side with a setaceous process. Ovarium smooth, 2-celled, with central, fleshy, many-seeded placentæ. Stigma a little higher than the anthers, capitate, obscurely 2-lobed.
J. L.
w.


# BIGNONIA pallida. 

Pale-flowered Bignonia.<br>didynamia angiospermia.

## Nut. ord. Bignoniacee.

BIGNONIA. Supra, vol. 3. fol. 249.
B. pallida; foliis oppositis unifoliolatis oblongis obtusis basi sub-cordatis, floribus axillaribus subsolitariis, pedicellis calycibusque lepidotis.
Frutex? in caldrio 6-pedalis, erectus. Rami teretes, apice compressi, olivacei, squamis minutis albidis versùs apices ramorum confertis atro-brunneis lepidoti. Folia opposita, unifoliolata, patentia; petioli longi, albovirides, teretes, cum foliolis articulati, oblonyis, basi sub-cordatis, apice paululum acuminatis, obtusis tamen, planis, glabris, atro-viridibus, costâ distinctá, pallida, subtùs reticulatis, squamis paucis raris precipuè secùs costam lepidotis. Flores subsolitarii, cernui, axillares, pedicellis lepidotis. Calyx elongatus, turbinatus, ut pedicellus squamis plurimis minutis fuscis lepidotus, apice irregulariter disruptus. Corolla 2 uncias longa, infundibularis; tubo lutescente paulò incurvo, subtùs concavo; palato hirsuto elevato; limbo delicato, corrugato, pallidè lilacino, diametro $1 \frac{1}{2}$-unciali; labium superius bilobum, inferius majus 3 -partitum: lobis omnibus crenatis ciliatis; inferioribus per axin lilacino lineatis. Stamina tubo multò breviora, versùs basin inserta; rudimentum subulatum, basi hirsutum. Filamenta glabra; antheræ glabre, lobis divaricatis.

This undescribed species of Bignonia was sent to the Horticultural Society, from the Botanic Garden at St. Vincent's, in 1823, by Mr. George Caley. It grows freely in the stove, where it produces its delicate fugacious flowers in July.

The species is remarkable for the profusion of minute scales with which the calyx, peduncles, and young shoots are closely covered:

In the stove, 6 feet high, erect. Branches round, compressed at the end, like the common ash, olive-green, covered over with minute, whitish scales, which, at the end
of the shoots, are very densely clustered, and dark brown, so as to give the ends of the branches a sooty appearance. Leaves opposite, spreading on long, pale, whitish-green, round stalks, with which they are jointed; oblong, cordate at base, a little pointed, but blunt at end, flat, quite smooth, dark green, with a very distinct pale green rib; paler green, and firmly netted beneath, with a very few scattered scales, which are chiefly on the midrib. Flowers nearly solitary, cernuous, with a very scaly stalk. Calyix long, turbinate, dotted like the stalk with minute brown scales, bursting irregularly at the end. Corolla two inches long, one inch and a half across the limb, imfundibuliform, with a yellowish tube, a little curved, and on the under side concave, a hairy prominent palate, and a very delicate crumpled, whitish lilac, oblique limb; upper lip 2 -lobed, lower 3 -parted larger; lobes all crenate and ciliate, the lower with three faint lilac lines along the axis of each. Stamens much shorter than tube, united towards its base. Rudiment subulate, hairy at base. Filaments smooth. Anthers with smooth, divaricating lobes.

J. L.



# CATASETUM cristątum. 

Crested Catasetum.

GYNANDRIA MONANDRIA.
Nat. ord. Orcimper. Tribus Vandeæ. Lindley.
CATASETUM.-Suprà, vol. 10. tab. 840.
C. cristatum; sepalis patentibus; superioribus conniventibus, labello cristato saccato expanso. Lindley in hort. trans. vol. 6, p. 83.
Habitus omninò C. tridentati, sed folia paulò latiora et magis nervosá. Spica radicalis, suberecta, multiflora, foliis brevior. Bracteæ parve, ovate. Ovarium unciale longiusve teres. Perianthium explanatum, viride; sepalis duobus anterioribus patentibus, oblongo-lanceolatis, canaliculatis, tribus posticis erectis subparallelis: interioribus brevioribus tenuioribus. Labellum cum columnd articulatum, patens, basi saccatum, in margine et disco processubus plurimis carnosis albidis cristatum. Columna omninò Cataseti.

The first account which appeared of this singular plant was in the sixth volume of the Transactions of the Horticultural Society, in a Report upon the New or Rare Plants which had flowered in their Garden at Chiswick, from its first formation to March 1824. To this establishment the plant was introduced from Bahia de St. Salvador, in 1823, by Mr. George Don. Our drawing was made in the Society's garden, in August 1824.

The present plant differs from all the other species of Catasetum in the form and nature of its labellum, and in the manner in which the sepals are expanded. But in every other respect, in its habit, foliage, inflorescence, and especially in the structure of its columna, it entirely agrees with Catasetum.

The unimportance of the peculiarity which exists in the labellum is manifested in a singular manner by a curious monster of this plant which we observed on an individual in the Horticultural Society's Garden. Among flowers of the ordinary structure, two or three others were observed in
which the labellum was precisely of the same nature as that of Catasetum tridentatum, that is to say, destitute of the crested appendages, and perfectly galeate and naked.

An extremely rare stove plant, easily cultivated in decayed earth, and propagated very slowly by the fleshy bulbs on which the leaves are seated.

The plants have altogether the appearance of C. tridentatum; but the leaves are rather broader, and more nerved. Spike radical, nearly erect, many-flowered, shorter than the leaves. Bractece small, ovate. Ovary an inch or more long, rounded. Perianth expanded, green; the two anterior sepals spreading, oblong-lanceolate, channelled; the three posterior erect, and nearly parallel; the innermost being shorter and thinner. Labellum jointed with the columna, spreading, saccate at base, crested on the margin and disk with numerous fleshy, whitish processes. Columna in all respects that of Catasetum.
J. L.


# DESMODIUM dubium. 

Doubtful Desmodium.

## dIADELPHIA DECANDRIA.

Nat. ord. Leguminose. Tribus II. Hedysareæ Dec. prodr.
DESMODIUM Desv.-Calyx basi bibracteolatus, ad medium obscurè bilabiatus, labio superiore bifido, inferiore 3-partito. Corolla papilionacea vexillo subrotundo, carinâ obtusâ non truncatâ, alis carinâ longioribus. Stamina diadelpha (9 et 1) filamentis sub-persistentibus. Legumen constans articulis plurimis, ad maturitatem secedentibus compressis monospermis membranaceis coriaceisve, non aut vix dehiscentibus.-Herbæ aut suffrutices plerique cquinoctiales. Folia nunc 3-foliolata seu 1-juga cum impare, nunc simplicia dicta nempè ad impar foliolum reducta, ided unifoliolata. Stipellæ 2 ad basin folioli extremi, 1 ad quodque laterale. Racemi terminales sapiùs laxi. Pedicelli 1 aut sapiùs tres ex bractearum axilla orti filiformes 1-flori. Flores purpurei, ccerulei, aut albi, minores quim in Hedysaro, Dec. prodr. 2.325.

## Sect. III. Cifilarium Dec.

Leguminum articuli membranacei indehiscentes ovales aut orbiculati, lateribus duobus convexis aut superiore rectiusculo, ad utramque extremitatem attenuati.- Folia unifoliolata aut pinnatim trifoliolata. Racemi laxi elongati, pedicellis 3 ex quâque bracteâ. Dec. l.c.
§. 2. Foliis pinnatim 3-foliolatis, foliolo impare ceteris parum majore; trifoliolata.
D. dubium; caule suffruticoso, ramis angulatis secùs angulos præcipuè pilosis, foliolis oblongis ebovatisve obtusis apiculatis suprà sericeis subtùs villosis glaucis, racemis laxis terminalibus multifloris, bracteis aridis acuminatis deciduis pedicellis longioribus, calycibus subpilosis dentibus acuminati.
Ramuli subtriquetri, inter angulos striati, secus angulos ad nodos pracipuè, pilosi. Folia longè petiolata, erecto-patentia; stipulæ ovata, acuminate, subfalcate, aride, pilosiuscula; petiolus angulatus, pubescens; stipellæ parve subulata; foliola lateralia oblonga, petiolata, obtusa, apiculata, impar majus, obovatum, apiculatum; omnia suprà opaca, viridia, sericea, subtùs glauca villosa. Racemi terminales, laxi, multifori, erecti; rachi pilosa; bracteis ovatis, acuminatis, aridis, pilosiusculis, quàm pedicelli longioribus, cito deciduis. Flores latè rubicundi, binati; pedicelli fliformes pubescentes; calyx subcampanulatus, subpilosus, 4-dentatus, dentibus acuminatis: superiore bilobo.

A native of the Hymaleya Mountains, whence seeds were sent by Dr. Wallich, in 1823, to the Horticultural Society, in whose Garden at Chiswick our drawing was made in July 1824. A delicate greenhouse undershrub, producing flowers in abundance during most of the summer months. Propagated by cuttings, which will strike root freely in peat and sand.

We have in vain expected to be able to procure ripened seed-vessels of this pretty species of Desmodium, by which only its history can be accurately stated; but the flowers have constantly fallen off with the petiole immediately after blossoming. It belongs to a section of the genus, the species of which are so numerous, nearly allied, and difficult of determination, that M. de Candolle, in his recent work upon the subject; has found himself unable to point out any mode of division more satisfactory than one derived from their geographical distribution.

We have compared it with many of Roxburgh's Indian species, of which we are in possession of authentic specimens, and it agrees with none. Neither does it appear referable to any of the Nepal species hitherto made known. We must therefore content ourselves for the present with indicating the points in which it appears to us to differ from those species to which it is most nearly allied.

With D. multiflorum it agrees in the triangular figure of the branches, in the form of stipulæ, and in the situation of the inflorescence; but it differs in the outline of the leaflets, which are not ovate, and in the degree of hairiness of the racemes, which are by no means hirsute. To this De Candolle cites, with doubt, the Hedysarum floribundum of Mr. Don, to which ovate-leaves are also attributed, and aggregate pedicels. We have never seen the pedicels of this plant more than binate; nor would the names of either. of these authors be likely to suggest itself for this species.

With D. angulatum it agrees in having the angles of the stem more hairy than the sides, but it differs in most other points.

With D. sambuense it appears to agree in the form of the leaflets and stipulæ, and in some other respects; but the racemes cannot be called one-sided; besides which,
the leaflets of that plant are said by Mr. Don to be hoary beneath.

With D. podocarpum it may be compared, on account of its ascending round stem, and angular downy branches; but the description of the leaves and inflorescence of that plant will not apply to this.

Upon the whole, we are disposed to believe that of the above species the D . sambucnse will be found most nearly related to this.
M. de Candolle gives the following definition of the extensive tribe to which Desmodium belongs.
"Embryo homotropous (having the same direction as the seed). Corolla papilionaceous. Stamens rarely separate, generally monadelphous, or diadelphous in different degrees, namely, being 9 and 1 , or 5 and 5 . Legumen divided across into one-seeded cells, or articulations. Cotyledons nearly flat, in the course of germination converted into folioles, which are furnished with pores. A very natural tribe, which is easily recognised, except in the following cases: viz., $1^{\circ}$. In a few genera, which cannot with propriety be separated from Hedysarum, the legumen, perhaps by the abortion of the upper cells, is one-celled, as Onobrychis, Eleiotis, Lespedeza, \&c.; 2 $2^{\circ}$. In a very few genera, which are referred to Loteæ, and can scarcely be divided from that tribe, the legumen, by means of transverse contractions, becomes almost multilocular, as in certain species of the genera Anthyllis and Medicago, in Nissolia, Sesbania, \&c.".
D. dubium has nearly triangular branches, which are striated between the angles, and hairy along the angles, especially towards their joints. Leaves on long stalks, erect-spreading; the stipulce ovate, acuminate, somewhat falcate, arid, rather hairy; petiole angular, pubescent; stipellec small, subulate; lateral leaflets oblong, stalked, obtuse, apiculate; the odd one larger, obovate, apiculate; all opaque on the upper side, green, and silky on the under side, glaucous and villous. Racemes terminal, lax, manyflowered, erect; rachis pilose; bractece ovate, acuminate, arid, rather hairy, longer than the pedicels, soon falling off. Flowers bright pink, in pairs; their pedicels filiform and pubescent; calyw somewhat campanulate; rather hairy, 4 -toothed; teeth acuminate; the upper two-lobed.
J. L.


# PSORALEA pubescens. 

Downy Psoralea.



## DIADELPHIA DECANDRIA.

Nat.ord. Legumivos re. Tribus II. Loteæ Dec.
PSORALEA L.-Sepala 5 ad medium concreta in calycem 5 -fidum persistentem, tubo sæpiùs glanduloso, lobis acuminatis infimo paulò productiore. Stamina 10 seppius diadelpha, decimo interdùm basi cum certeris connexo. Legumen calycis longitudine evalve monospermum interdùm in rostro desinens.-Frutices aut Herbæ tuberculis glandulosis sapius verrucosa. Folia varia, stipulis petiolo basi adnatis. Flores dispositione varii, carulei, albi, v. parpurascentes. Dec. prodr. 2. 216.
P. pubescens; foliis ternatis, foliolis ovato-oblongis pubescentibus, spicis interruptis pedunculatis axillaribus folio brevioribus, ramis petiolisque villosis. Willd. enum. 2. 788.
P. pubescens. Balbis in Pers, syn. 2. 347. Link enum. 2. 258. "Poir. dict. 5. 686-suppl. 4.-590." sec. Dec. prodr. 1. 220.

- frutescens. "P Poir. dict.?" sec. D. C.

Caulis teres, pube densa, incanus. Folia longa petiolata, patentia; petiolo communi villoso demùm glabro, glandulis parvis resinosis intermixtis : nodis, villosis eglandulosis. Foliola subaqualia, ovato-oblonga, obtusa, utrinque puncticulata, pubescentia, ad venas villosa. Spicæ in axillis foliorum superiorum, foliis breviores, pilis albis villosissimi. Bracteæ obovate, acuminatce, extùs villosissime, calyce pauld breviores. Calyx villosus sericeus. Corolla amoenè ccrulca, calyce paulò longior.

This beautiful species of Psoralea was discovered in the neighbourhood of Lima, by the late Mr. Cowan, who communicated its : seeds to his friends in England. The plant from which our drawing was made was raised by Aylmer Bourke Lambert, Esq., to whom we are indebted for the opportunity of examining specimens from his Herbarium. We are not acquainted with the plant in a living state.

We have no hesitation in referring this species to the $P$. pubescens of Balbis, who long ago raised it in the garden
of Turin, without being informed of its native country. It is stated, indeed, in Persoon's Synopsis, that the leaflets of that species are ovate-lanceolate, and the flowers disposed in racemes. But Willdenow, who had the plant growing in a greenhouse at Berlin, expressly declares that the leaflets are ovate-oblong, and the flowers disposed in spikes; which is not contradicted by Link, who had the same plants still alive in the Royal Garden of Berlin in 1822. De Candolle, who had seen an authentic specimen from Balbis, confirms Willdenow's account of the spicate nature of the inflorescence; but he agrees with Persoon in describing the form of the leaflets to be ovate-lanceolate. In this confusion of descriptions, it is to be inferred, that the form of the leaflets is subject to some variation, and does not constitute the most important character of the species.

A hardy greenhouse or frame plant, of a suffrutescent habit. Stem round, hoary, with dense pubescence. Leaves on long stalks, spreading; common petiole villous, afterwards becoming smooth, with a few resinous glands intermixed : the swellings at the base of the leaflets villous, and not glandular. Leaflets of nearly equal size, ovate-oblong, obtuse, dotted on each side, pubescent, but villous at the veins. Spikes proceeding from the axillæ of the upper leaves, and shorter than the leaves, shaggy, with white hairs. Bractes obovate, acuminate, shaggy externally, and a little shorter than the calyx. Calyx shaggy silky. Corolla bright blue, a little longer than calyx.
J. L.


# SOLANUM Seaforthianum. 

Lord Seaforth's Solanum.

PENTANDRIA MONOGYNIA.
Nat. ord. Solanem.
SOLANUM. Suprà, vol. 1, fol. 71.
S. Seaforthianum ; caule scandente herbaceo, foliis pinnatisectis undulatis, superioribus simplicibus lanceolatis, racemis cymoso-paniculatis, interdüm petiòlis longioribus. Dunal. syn. 7.
S. Seaforthianum. Bot. rep. t. 504. Römer et Schultes, sp. pl. 4.575. Spireng. syst. 1. 678.

This truly elegant species of a genus not usually remarkable for the beauty of its flowers or foliage, is said to be a native of the West Indies, whence it was imported by the late Lord Seaforth.

Trained to the rafter of a conservatory, for which purpose its rapid growth and climbing habit render it particularly well adapted, it is one of the most strikingly ornamental plants with which we are acquainted. Yet it is seldom met with in collections.

Our drawing was made from a plant in the possession of Henry Bellenden Ker, Esq., in June 1825.

> J. L.

Note.-We beg to correct an error into which we inadvertently fell in our last Number, fol. 958, in attributing the theory of the nature of the dissepiments of multilocular pericarpia to the late M. Richard, instead of to Mr. Brown. We were misled by an imperfect recollection of some passages in the Analyse du Fruit of the former botanist, which, upon subsequent examination, we find are not susceptible of the interpretation we assigned to them.


# LESSERTIA fruticosa. 

## Slirubby Lessertia.

## DIADELPHIA DECANDRIA.

## Nat. ord. Leguminosse. Tribus Loteæ Decandolle.

LESSERTIA Dec.-Calyx semiquinquefidus. Vexillum explanatum. Carina obtusa. Stamina diadelpha, 9-1. Stigma capitatum. Stylus anticè barbâ transversâ apicis, posticè imberbis. Legumen scariosum, indehiscens, compressum aut inflatum, latere superiore breviore.--Herbæ, rarius Suffrutices Capenses. Folia impari-pinnata. Pedunculi axillares. Flores racemosi, purpurei, nutantes. Dec. prodr. 2.271.
L. fruticosa; foliis linearibus obtusis 5-6-jugis, caule petiolis pedunculis calycibusque pilosis, racemis erectis dissitifloris foliis paulo longioribus, leguminibus oblongis sessilibus 4 -spermis.

We are acquainted with this plant only by the accompanying figure, which was made some years ago at Mr. Colvill's Nursery, where it was at that time cultivated under the name here adopted. We do not find any published species to which it is referable.

## A native of the Cape of Good Hope.

In the Botanical Appendix by Mr. Brown to Major Denham's travels in Africa, which has just appeared, we notice a curious observation upon the distinctions between Leguminosæ and Rosaceæ.
" No clear character," Mr. Brown observes, " is pointed out in the late elaborate work of M. de Candolle, by which Leguminosæ may be distinguished from Terebintaceæ and Rosacer, the orders supposed to be most nearly related to it. It is possible, however, that such characters, though hitherto overlooked, may really exist; and I shall endeavour to shew that Leguminosæ, independent of the important but minute differences in the original structure and developement of its ovulum, may still be distinguished, at least, from Rosaceæ."

Mr. Brown then procceds to shew that in families, the division of whose flower is quinary, the usual relation which the parts of the flower bear to the bractea, or spike, is that the 5 th segment of the calyx is posterior or superior, and the 5th petal anterior or inferior. This also is the relation which is borne to the axis of inflorescence by the flowers of Rosaceæ. But in Leguminosæ the relation is different; the fifth segment of the calyx being anterior or inferior, and the 5th petal superior or posterior. In Leguminosæ, the pistillum is also within the 5 th anterior segment of the calyx; in Rosaceæ, it is within the 5th anterior petal. "But in those Rosaceæ in which the pistillum is solitary, and placed within the anterior petal, its relation to the axis of the spike is the same as that of Leguminosæ, in which it is within the anterior division of the calyx. And in all families, whether dicotyledonous or monocotyledonous, this I believe is uniformly the position of the simple, solitary pistillum, with regard to the spike or bractea."
J. L.


## 971

# VELLELA paradoxa. 

Paradoxical Velleia.

## PENTANDRIA MONOGYNIA.

Nat. ord. Goodenovie.
VELLEIA. Suprà, vol. 7. fol. 551.

> I. Calyx 5-phyllus. Corolla basi calcarata, calcare persistente. Menoceras. V. paradoxa; pubescens foliis obtusè dentatis. Brown prodr. 580 . Spreng. syst. 1.722.
> Herba depressa, pubescens. Folia radicalia, lyrata, pubescentia, obtusè dentata, petiolata, nunc incio-lobata. Scapi ascendentes, teretes, pubescentes, ramosi; bracteis parvis, oppositis, integris trilobisve. Flores speciosi, lutei.

At folio 551 of this work we published a species of this pretty genus, belonging to the section which Mr. Brown considers the genuine form of Velleia; the subject of this article differs in its 5 -leaved calyx, and calcarate corolla.

Introduced from New Holland by Mr. Mackay, of the Belgrave Nursery, from whose collection, at Upper Clapton, our drawing was made, at the same time as that of the curious little Isotoma axillaris, published at folio 984.

A depressed, pubescent, herbaceous plant. Leaves growing from the root, lyrate, downy, bluntly toothed, petiolate, occasionally cut-lobed. Scapes ascending, round, pubescent, branched; with small opposite, entire, or threelobed bracteæ. The flowers are yellow and showy.

We observe that Professor Sprengel sinks Mr. Brown's genus Euthales in Velleia, to which it undoubtedly approaches closely in habit; but we think with the learned author of the genus, that it is sufficiently distinguished by
its tubular calyx. We have no doubt that there are two species confounded under the name of $E$. trinervis; namely, that represented in the Botanist's Repository, which we have never seen elsewhere; and the kind that is at present known in our gardens, which is distinguished by its coarsely lyrate leaves, and more pubescent surface.
J. L.
5


## PROCKIA Crucis.

Santa Cruz Prockia.

## POLYANDRIA MONOGYNIA.

Nat. ord. Bixinew. Kunth.
PROCKIA, Browne.-Calyx persistens, 3-5-partitus, lobis subrotundis inæqualibus. Petala nulla. Stamina plurima, disco inserta, antheris subrotundis. Ovarium unicum, subrotundum. Stigma integrum. Bacea subexsucca 4-6-sperma subrotunda.- Frutices Americani aut Mauritiani, glabri. Folia alterna, integra aut dentatu. Flores interdùm abortu unisexuales. Dec. prodr. 1. 260.
P. Crucis; foliis cordato-ovatis dentatis, pedunculis terminalibus subracemosis. Willd.sp.pl.2.1213.
P. Crucis. Linn. sp. 745. Vahl. symb. 3. p. 69. t. 64. Decand. prodr. 1. 260. Lindl. in Hort. trans. vol. 6. p. 268.

Frutex erectus, ramis teretibus glabris. Folia cordato-ovata, acuminata, obtusè serrata, subpubescentia, petiolata. Stipulæ dimidiato-ovate, subfalcata, glandulosa, petiolo breviores. Racemi terminales, 3-5 flori. Pedicelli pilosi. Calyx 3-4-sepalus, reflexus: sepalis latè ovatis. Petala nulla. Stamina suberecta, lutea, stylo paulò breviora. Stylus subulatus. Stigma
simplex.

Seeds of this rare plant were collected at the Havannah, and brought to the Horticultural Society in 1823, by Mr. George Don. It is a neat shrub, flowering in the stove during the summer, and easily propagated by cuttings. It should be potted in light peaty loam.

That now published is the only coloured figure of this plant which has yet been given. M. de Candolle appears to be acquainted with the species only from other authors, and not to have examined any specimen.

An erect shrub, with round smooth branches. Leaves cordate-ovate, taper-pointed, bluntly serrated, rather pubescent, stalked. Stipules half-ovate, somewhat falcate,
glandular, shorter than the petiole. Racemes terminal, 3-5-flowered. Pcdicels pilose. Calyw of 3 or 4 reflexed sepals, which are broadly ovate. Petals none. Stamens rather erect, yellow, a little shorter than style. Style subulate. Stigma simple.

Bixineæ constitute a small family of plants, first proposed by M. Kunth, in 1822, and subsequently adopted by De Candolle, with some exceptions. It is distinguished from Tiliaceæ by its unilocular ovarium with parietal placentæ, and by the imbricate æstivation of the calyx. From Homalineæ it differs in having indefinite hypogynous stamina, and ovarium superum. The genera referred to Bixineæ by Kunth are Bixa, Linn., Banara, Aubl., Lætia, Lafl., Prockia, Ludia, Comm., Patrisia, Rich., and Abatia of the Flora Peruviana. De Candolle excludes the two last from the order, and places them at the head of Richard's Flacourtianeæ, and he enriches the order with Azara of the Flora Peruviana.
J. L.


## 973

# LOBELIA arguta. 

Fine-toothed Lobelia.

PENTANDRIA MONOGYNIA.

Nat. ord. Lobeliacee.<br>LOBELIA. Suprà, vol. l. fol. 60.

L. arguta; suffruticosa, caule subsimplice, foliis lineari-lanceolatis serrulatis utrinque glaberrimis, floribus axillaribus glabris foliis brevioribus, calyce hemisphærico nudo.
Suffrutex 2-pedalis. Caulis subsimplex, foliosus, crassus, teres, glaber. Folia persistentia, lanceolata vel lineari-lanceolata, sepius 6 uncias longa, in petiolo attenuata, plana, serrulata, glaberrima. Flores luteo-aurantiaci, axillares, foliis multoे breviores, solitarii, pedunculati. Pedunculus erectus, glaber, medio bibracteatus. Calyx glaber, foveolatus, 5-dentatus, dentibus subulatis, erectis, integris. Corolla bilabiata, labio superiore laciniis duabus ad basin usque liberis, inferiore semitripartito, laciniis secundis ——omnibus linearibus canaliculatis apice semper coherentibus. Columna staminum cum corolld concolor, laciniis corolla brevior, et inter duas labii superioris lacinias protrusa. Antheræ circa stylum summum coharentes, brunneæ, lineares, glabriuscula. Stigma bilobum, lobis anticis et posticis patentibus, carnosis, ovatis, obtusis.-Obs. Lacinice corolla minutissimè papilloso-ciliata.

Introduced from Chili by Mr. Place, by whom seeds were communicated to the Horticultural Society in 1824. A frame, half-shrubby plant, which may be even preserved in the open border by means of a slight shelter in the winter. Our drawing was made in the Chiswick Garden, in September last.

This species is not referable to any of the numerous South-American Lobelias described in botanical books. It belongs to the same tribe as L. amygdalina, persicifolia, foliosa, and similar the South-American species, which are easily distinguished by their axillary inflorescence, and
should surely be generically divided from $L$. cardinalis and its allies. This whole genus would richly reward any botanist for an analytical investigation.

An undershrub, about two feet high. Stem simple, leafy, thick, round, smooth. Leaves persistent, lanceolate, or linear-lanceolate, generally about 6 inches long, tapering into the stalk, flat, serrulate, quite smooth. Flowers yellowish orange-colour, axillary, much shorter than the leaves, solitary, stalked. Peduncle erect, smooth, with two bracter in the middle. Calyx smooth, pitted, 5 -toothed, with subulate, erect, entire teeth. Corolla two-lipped; the upper lip with two segments, which are separate as far as the base; the lower lip half 3-parted, with one-sided segments, which are all linear and channelled, and always cohere by the tips. Columna of stamens of the same colour as the corolla, shorter than the segments of the corolla, and protruding between the two segments of the upper lip. Anthers cohering around the top of the style, brown, linear, nearly smooth. Stigma two-lobed; lobes anterior and posterior, spreading, fleshy, ovate, obtuse.-Obs. The segments of the corolla are fringed with very minute papillæ.
J. L.


# UROPETALUM longifolium. 

Mozambique Uropetalum.

HEXANDRIA MONOGYNIA.

## Nat. ord. Asphodelez.

UROPETALUM. Suprà, vol. 2, fol. 156.
U. longifolium; foliis lineari-ligulatis acuminatis debilibus, racemo laxo paucifloro, floribus cernuis, sepalis obtusis.
Bulbus ovatus, pallidus, scariosus, ovi passerini magnitudine. Folia debilia, humifusa; primordialia filiformia fistulosa; adulta lata, ligulata, planiuscula, carnosa, longè acuminata, $2 \frac{1}{2}$ pedes longa, luteo-viridia. Scapus erectus, teres, glaber, semidiaphanus, foliorum longitudine. Racemus laxus, 4-5 florus. Flores nutantes, fusco-virides: bractea ovata, brunnece, sphacelata, acumine subulato, floribus breviores. Perianthium duplex, laciniis apice reflexis, linearibus, obtusis, in tubum conniventibus; exterius altè tripartitum; interius ferè ad apicem cohcerens, apicibus tantùm solutis. Stamina sex, versùs basin laciniarum inserta, laciniis paulò breviora, filamentis subulatis, laciniarum faciei internce adhcerentibus; antheris pallidè viridibus, linearibus, introrsis. Ovarium oblongum, triquetrum, 3-loculare, loculis polyspermis, ovulis distichis. Stylus triangularis, levissimè pubescens, facie utriusque anguli sulcatâ. Stigma trilobum, in angulos styli decurrens.

A new addition to the known species of this very distinct genus. It was discovered by the late Mr. Forbes, in the Island of Mafmale, off the coast of Mozambique, growing among fine loose sand; and sent by him to the Horticultural Society.

A stove plant, increased by offsets, which are produced in tolerable abundance. Our drawing was made at the Horticultural Society's Garden, in August last.

Bulb ovate, pale, scarious, about as large as a sparrow's egg. Leaves weak, drooping on the ground: the first filiform and fistular; the next broad, ligulate, flattish, fleshy, with long points, about $2 \frac{1}{2}$ feet long, yellow-green.

Raceme lax, of 4 or 5 flowers. Flowers nodding, brownishgreen; bractes ovate, brown, sphacelate, with a subulate point, shorter than the flowers. Perianthium double, the segments reflexed at end, linear, obtuse, conniving in a tube; the outer deeply 3 -parted ; the inner cohering almost as far as the end, the tips of the petals only being distinct. Stamens 6, inserted towards the base of the segments, and a little shorter than they are; filaments subulate, adhering to the inner surface of the segments; anthers pale green, linear, turned inwards. Ovary oblong, 3-cornered, 3-celled; cells many-seeded; ovules in two rows. Style triangular, slightly pubescent, with the face of each angle furrowed. Stigma 3 -lobed, running down the angles of the style.


# GARDENIA propinqua. 

Short-spined Gardenia.

PENTANDRIA MIONOGYNIA.

Nat.ord. Rubincef.<br>GARDENIA. Supra, vol. 1. fol. 73.


#### Abstract

G. propinqua; foliis ovato-cordatis undulatis acuminatis pubescentibus petiolatis, floribus fasciculatis terminalibus, spinis rectis infra-axillaribus. Frutex 6-8-pedalis, ramulis teretibus leviter pubescentibus versùs apicem spinis 4, rectis, decussatis, brevibus armatis. Folia ad apicom ramulorum congesta, petiolata, ovato-cordata, undulata, acuta, pubescentia, floribus pauld longiora. Flores magni, alli, terminales, fasciculati. Corolla hypocrateriformis: tubo filiformi, limbo rotato 5-partito, laciniis cordato-ovatis acutis, planis, tubo longioribus. Antheræ semi-inclusa.


A pretty hot-house plant, drawn at the Nursery of Mr. Colvill, in July 1824. It is so nearly related to Posoqueria dumetorum that we have little doubt that it will be eventually placed in that genus. The principal apparent difference between the two species consists in the larger flowers and differently-shaped leaves of the present plant. We also judge it to be closely akin to Genipa esculenta of Loureiro, a plant with smaller leaves, and long, straight, opposite spines.

The fruit of P. dumetorum, if bruised and thrown into ponds where there are fish, soon intoxicates them. The fish are not esteemed the less from having been subject to the influence of this poison.

A shrub 6 or 8 feet high, with round slightly pubescent branches, which are armed towards their extremities with 4 short straight spines, placed crosswise. The leaves are
clustered at the ends of the branches, petiolate, ovatecordate, wavy, acute, pubescent, rather longer than the flowers. The latter are large and white, in terminal fascicles. Corolla hypocrateriform; tube filiform; limb rotate, 5 -parted, with cordate-ovate, acute, flat segments, longer than the tube. Anthers half included.
J. L.

## ROSA Woodsii.

Mr. Joseph Woods's Rose.



ICOSANDRIA POLYGYNIA.
Nat. ord. Rosaced.
ROSA.-Supra, vol. 1. fol. 46.

## Div. IV. Cinnamomer.

R. Woodsii ; stricta, aculeis rectis sparsis subæqualibus, foliolis opacis glabris cuneato-oblongis penninerviis basin versùs integris subtùs glaucis, stipulis planis subintegris.
R. lutea nigra. Pronv. nomencl. 24.
R. Woodsii. Lindl. Ros. mon. 21. "Spreng. neu. Entd. 3. 244." sec. Trattinnick synod.2.167. Spreng. syst. 2. 547. Lindl. ros. mon. ed. gall. 38. Seringe in Dec. prodr. 2. 604.
Obs. Descriptio in Rosarum Monographiâ, quoad stipulas, erronea; plance sunt nec convoluta, ut, exemplare manco gelato, olim credidi; cateroquin sat fidelis.

It has been the fate of this rose to have been the subject of error or misapprehension with every author who has noticed it.

It was first mentioned in a little work on the nomenclature of Roses, by M. Pronville; and stated, upon the authority of a cheating gardener, to bear yellow flowers, with a black centre. It was subsequently named and published by the writer of these remarks, and its natural station in the genus was assigned to it; but the specimens which were examined for that purpose, were so imperfect, that, upon a comparison of the character ascribed to the species with fresh specimens, they were ascertained to be materially erroneous; the stipulæ, which were stated to possess the remarkable peculiarity of being convolute, like those of R. carolina, proving to be, in fact, plain, like those of R. lucida.

It appears from Trattinnick's Synodus, that the next notice which was taken of the species was by Sprengel, in the 3d volume of his Neue Entdeckungen, a work we have not at hand. In this publication, the specific character
originally given to the plant is altered and extended, but probably without any knowledge of the species, as the definition is still erroneous as regards the stipulæ, and as the other members of the definition may have been obtained from the description in the Rosarum Monographia. As usual, no information is given on the part of M. Trattinick, except such as is borrowed from Sprengel. In Sprengel's Systema, the definition of that author in his Neue Entdeckungen is retained.

But in M. de Candolle's Prodromus a new character is proposed for this plant. M. Seringe, by whom the article Rosa was prepared, had an opportunity of examining specimens in De Candolle's Herbarium, of the authenticity of which there can be no question, as they had been communicated by Mr. Lyell ; that the specimens were also perfect will be doubted by no one who has had the advantage of knowing in how singularly beautiful a manner Mr. Lyell's specimens are prepared. And yet our original error is still retained by M. Seringe, who has added to it more than one of his own. He defines the leaflets to be shining, while in fact they are the reverse; the sepals to be naked, which are covered with glands; and the lower pair of leaflets to be placed at a distance from the others, and fringed with glands, a peculiarity which we believe does not exist. We hope that the figure and definition now given of this species will serve to prevent such errors as we have pointed out from recurring. We take shame to ourselves that we should have been, in any degree, the cause of them.
R. Woodsii is a dwarf bush, with upright dull red branches, and dull bluish-green leaves, which are unusually obtuse, and strongly veined. It is distinguished from most of the American roses of a similar habit by the early season in which it flowers; from R. laxa, (which continental writers call R. Lindleyi) by its compact upright mode of growth, more numerous aculei, and short obtuse leaves.

We cannot dismiss this subject without expressing our regret that the general brilliancy of M. de Candolle's Prodromus should be tarnished by an article so inaccurately compiled as the genus Rosa is, in the $2 d$ volume of that work. Our limits prevent our entering upon the nature of these inaccuracies for the present; but we shall endeavour to find an early opportunity of indicating some of those which are of the most material importance.

Our drawing was made in the Horticultural Society's Garden.
J. L.


# ASPIDISTRA punctata. 

## Large-flowered Aspidistra.

OCTANDRIA MONOGYNIA.

Nat. ord. Aroidea?
ASPIDISTRA.-Supra, vol. 8. fol. 628.
A. punctata; foliis longè petiolatis, perianthio 8 -fido.

Herba acaulis, rhizomate cpigreo, prostrato, corrugato, iridis more. Folia erecta, pedalia, lanceolata, cartilaginea, plana, acuminata, atro-viridia, obsoletè 7-nervia, utrinque glaberrima, concolora, margine tenui pallido, petiolo rigido, compresso, semitercte, canaliculato, circa 3 uncias longo. Flores solitarii, radicales, ex humo vix elevati; scapo brevissimo, squamis inflatis membranaceis ovatis acuminatis purpureo punctatis vestito, quarum duce ad ipsam basin perianthii applicentur et ejusdem tubum ferè adaquant. Perianthium cernuum, campanulatum, cariosum, extùs pallidè viride, tubo hemisphicrico, limbo erecto tubi longitudine, laciniis 8, ovatis, obtusis, intùs obtusè bicarinatis, scabris, purpureo-lurido densissimè punctatis. Stamina 8, in medio tubo inserta, laciniis perianthii opposita. Antheræ sessiles, parva, lutea, oblonga, biloculares, anticè longitudinaliter dehiscentes, per connectivum crassum carnosum tubo perianthii accreta. Pollen luteum, sphøricum, subopacum. Ovarium parvum, superum, ovatum, tetragonum, superficie glabriusculâ punctatâ, 4-loculare, 4-spermum, ovulis placenta centrali facie totd internd affixis. Stylus brevis, turbinatus. Stigma maximum, clypeatum, carnosum, album, totum orem perianthii occupans et antheras superincumbens, circumscriptione orbiculari, obtusè 8-gono, disco radiis 4 à centro radiantibus ante angulum marginalem dichotomis.

For the opportunity of publishing this new species of the singular genus Aspidistra we are indebted to the Horticultural Society, in whose garden our drawing was made, in March last. It was imported from China, for the Society, by Mr. Parks, in 1824.

It differs from A. lurida, formerly published in this work, and which is said to be the same as Macrogyne convallariafolia of Link, in its larger flowers, which are paler, and divided into 8 , not 6 segments. The leaves are also seated upon longer petioles.

The nature of the singular body which occupies the place of the stigma in this genus deserves investigation. Which part of it is the stigmatic surface? What is the nature of the four lines which radiate from the centre of the disk, and become forked just withinside the margin? Does the under surface of the disk exercise any functions connected with those of the stigma? By what means is the pollen conveyed to the apparent stigma?

A stemless, herbaceous plant, with a prostrate, shrivelled root-stock, like that of Iris. Leaves erect, a foot long, lanceolate, cartilaginous, flat, acuminate, dark-green, obsoletely 7 -nerved, quite smooth on each side; footstalk rigid, compressed, half-round, channelled, about three inches long. Flowers solitary, growing from the root, and scarcely elevated above the surface of the soil. Perianth cernuous, campanulate, fleshy, pale green outside, dotted with purple on the inside; segments 8 , ovate, obtuse. Anthers 8, sessile. Stigma clypeate, very large, filling the whole orifice of the flower.

Requires the heat of a stove. The proper soil is a light peaty loam.
J. L.


## ERIA rosea.

Pink Chinese Eria.

## GYNANDRIA MONANDRIA.

Nat. ord. Orcindex. Tribus Malaxideæ Lindl.
ERIA.-Suprà, vol. ll. fol. 904.
E. rosea; bulbis costalis rugosis, foliis solitariis coriaceis lanccolatis, spicâ axillari paucifora, sepalis glabris.
Herba caspitosa, bulbosa, bulbis epigais, ovatis, irregulariter costatis, rugosis, vestigits squamarum parcè vestitis, sœpiùs omninò denudatis. Folia terminalia in apice bulborum, solitaria, coriacea, atro-viridia, lanceolata, petiolata; petiolo crasso terete hinc canaliculato. Spica 2-3 fora, foliis mult̀o brevior, ex axilla folii terminalis, ante squamarum inferiorum decessum. Flores rosei. Sepala exteriora ovato-oblonga: anteriora latd basi dorso carinata, basi subsaccata; interiora membranacea oblonga subunguiculata. Labellum posticum, in columnâ pronum, trilobum: lobis lateralibus erectis, rubidis, venosis, intermedio obtuso patente; ungue cristis duabus elevatis pallidis; laminâ cristis tribus luteo-aurantiacis. Anthera terminalis, opercularis, decidua, subrotunda, sublutea, posticè purpurascens, bilacularis, loculo utroque semibipartito. Pollinia 8, apice materie viscida cohcerentia, glandula nulla. Stigma oblongum, transversum.

This pretty addition to the genus Eria was brought from China for the Horticultural Society by Mr.J. D. Parks, in 1824. Our drawing was made from a plant which flowered in a stove in the Chiswick Garden, in October last:

The species is easily cultivated in moss and decayed vegetable mould, in which it flourishes more than almost any other plant of the family.

This is the first species of Eria in which the flowers are free from a greater or less degree of downiness; all the others having their flowers protected by hairs in a remarkable manner. The carinate mid-rib of the exterior sepals is also peculiar to this.

A dwarf plant, forming little patches by its fleshy, ovate, ribbed, rugose bulbs, which are generally quite naked. Leaves terminal, on the end of the bulbs, solitary, coriaceous, dark green, lanceolate, stalked; the stalk thick, round, channelled on the upper side. Spike 2 or 3 -flowered, much shorter than leaves, proceeding from the axilla of the terminal leaf before the scales of the bulb fall off. Flowers pink. Outer sepals ovate-oblong: the lateral with a broad base, carinate at back, somewhat saccate at base; the inner membranous, oblong, with a short claw. Labellum at the back, prostrate on the columna, threelobed; the lateral lobes erect, reddish, veiny, the intermediate obtuse and spreading; the claw with two raised pale crests ; the lamina with 3 yellowish orange-coloured crests. Anther terminal, opercular, deciduous, roundish, yellowish, a little purple at back, 2-celled; each cell being half divided in two. Pollen-masses 8, cohering at the end by a viscid matter, but with no gland. Stigma oblong, transverse.
J. L.

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974
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# LEUCADENDRON argenteum. 

Cape Silver-Tree.

TETRANDRIA MONOGYNIA.
Nat.ord. Proteacere. LEUCADENDRON. Suprà, vol. 5. fol. 402.
†. Nux ventricosa, stylo toto calyceque persistentibus.
L. argenteum; arboreum, foliis lanceolatis argenteis: marginibus ramisque villosis, bracteis involucrantibus abbreviatis tomentosis, calycibus masculis sericeis. Brown in Linn. trans. 10. 52.
Scolymocephalos africana, foliis sericeis argenteis longis acutis. Herm. cat.
Conifera salicis facie folio et fructu tomento sericeo candicante obductis, semine pennato. Sloane in phil. trans. 17. p. 664.
Argyrodendros africana, foliis sericeis et argenteis. Comm. hort. 2. p. 51. $t .26$.
Protea, foliis lanccolatis integerrimis acutis hirsutis nitidis. Linn. hort. cliff. 29, \&c.
Protea argentea. Linn. sp.pl. 137. Thunb. diss.p.48. Willd. sp.pl. 1. 529. Lam. ill. gen. t. 53.f. 1.
L. argenteum. Burch. travels in Southern Africa,-1. p. 69., with an uncoloured figure of a branchin fruit. Spreng. syst. 1.

Long as this plant has been cultivated in gardens, it so rarely produces flowers under cultivation, that a coloured figure of it is now for the first time presented to the public. Our drawing was made from fine specimens obligingly communicated to us by Mr. Miller, of Bristol, in June last.

Like Mr. Brown, we have not been so fortunate as to see the female inflorescence. The plant now figured was a male.

At the Cape of Good Hope L. argenteum is of great importance for fire-wood. Its only native station in the Colony is "the sloping ground at the foot of the eastern side of Table Mountain," where, and on the
northern side, large plantations now occupy the soil. By the Dutch Colonists it is called Witteboom, or Silver Tree.

In this country it forms a neat ornament of the greenhouse, where its beautiful silvery leaves furnish a strong but agreeable contrast with the more common green colour of other plants.
J. L.

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## 980

# CUCUMIS africanus. 

African Cucumber:

## MONGECIA MONADELPIIA.

## Nat. ord. Cucurbitacee.

CUCUMIS.-L. Monoicus. Calyx Momordicæ, sed major campanulatus, laciniis exterioribus subulatis.' ©. Stamina Momordice, tegentia discum centralem 3-gonum truncatum: ㅇ. Filamenta 3 sterilia. Stylus brevissimus; stigmata 3 crassa bipartita. Pomum magnum 3 -loculare, dissepimentis membranaceo-succosis, polyspermum, seminibus gemino ordine, ovatis compressis margine acuto.-Folia Colocynthidis et Angurix pal-mato-laciniata, ceterorum cordata; pedunculi breves uni- aut multifori. Fructus Cucumeris T. oblongus subcylindricus superficic incqualis carnosus insipidus cdulis, Melonis T. ovatus carnosus edulis suavior superficic sulcatd aut reticulata, Colocynthidis T. ovatus minor carne siccâ amarâ non eduli, Angurix T. parviflorce ceteris minor echinatus aquosus pulposus edulis. Juss. gen. 396.
C. africanus; pomis ovalibus cehinatis, foliis palmatis sinuatis, caule angulato. Linn. suppl. 423.
C. africanus echinatus minor. Herm. parad. bat. 133. t. 134.
C. africanus. Thunb. prodr. 13. Willd. sp. 4. 611.

It is uncertain at what time this plant was first introduced into our gardens; probably at an early period of our communication with the Cape, of which country it is a native. It is not, however, taken up in the last edition of the Hortus Kewensis.

At present it is often seen among collections of tender annuals in the gardens of the curious. Trained to a few slight stakes in a garden-pot, it forms an elegant ornament of the greenhouse. It will even thrive in the open air, if protected by a hand-glass in chilly weather.

Our drawing was made at Mr. Colvill's Nursery.

The natural order of plants to which this belongs is of great importance to the public, on account of the valuable fruit which is borne by many species, and which forms one of the most common articles of food in all the southern countries of Europe. Every one is familiar with the Gourd, the Melon, the Cucumber, and the numerous tribes which are arranged under one or other of these denominations. Yet they have never found a botanist who would take the pains to reduce their infinite variations into order, to ascertain their respective qualities, or to determine the limits which nature has assigned to the intermixture of their varieties, or to the effect produced by one upon the other. This subject is well deserving attention, and would probably lead to the discovery of some method of rendering the Melon and the Cucumber as hardy and easily cultivated as any of the varieties of the Gourd.

We are therefore glad to see that some pains have been taken with the tribe by M. Sageret, whose obscrvations, it is well known, have for many years been directed to this particular line of investigation. In a paper communicated to the Royal and Central Society of Agriculture of Paris, he has detailed the result of his experience up to the present time. M. Sageret's Memoir is replete with curious information, especially upon the effects of hybridizing Cucurbitacer, in which he seems to have arrived at precisely the same conclusions as Kölreuter with regard to the effect of intermixing distinct species. . We have not at present space to enter upon the question; but we recommend M. Sageret's remarks to the attentive consideration of all who are interested in ameliorating the products of the garden.
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## SARCANTHUS rostratus.

## Long-beaked Sarcanthus.

## GYNANDRIA MONANDRIA.

Nat. ord. Orcmidex. Tribus Vander Lindl.
SARCANTHUS.-Pollinia 2, cereacea, posticè sulcata v. lobata: caudiculâ variâ. Anthera bilocularis. Stigma excavatum v. quadratum : rostello vario. Columna semiteres inappendiculata. Labellum subintegrum difforme cum columnâ articulatum, calcaratum: calcare intùs appendiculato. Sepala patentia subæqualia. Herba epiphyta (Indice orientalis et China) caulescentes, radicibus caulinis tortuosis, foliis distichis planis v. teretibus, floribus vittatis v. fasciatis, racemis foliis oppositis. Lindl. coll. bot. t. 39. B.
S. rostratus; foliis lanceolatis planis subrecurvis, spicâ simplice horizontali foliis subæquali, scpalis ovalibus patentibus subæqualibus, labello antherâque rostratis. Lindl.l.c.
$V$ anda rostrata. Lodd. bot. cab. tab. 1008.
$V$ anda recurva. Hook. ex. fl. tab. 187.
Epiphyta ramosa. Caules crassi, purpurci, teretes. Folia lanceolata, carnosa, subrecurva. Spica pedunculata, oppositifolia, horizontalis, foliis subrequalis. Ovarium teres, album. Sepala patentia, equalia, ovalia, lutescentia, rubro-vittata. Labellum carnosum, amœone purpureum, calcaratum, apice rostratum, incurvum; clacar obtusum, ovario brovius, intùs 1-loculare, anticè valdè carnosum appendice operculari glabro simplice. Columna erecta, clavata, semiteres. Stigma subrotundum, excavatum, rostello in rostro longo producto. Anthera conformis, bilocularis. Pollinia 2, biloba; caudiculâ subulatd elongatd; glandula parva. Lindl. l. c.

This plant belongs to the same genus as the Aerides paniculata of fol. 220 of this work, and has been separated from Vanda, to which it was subsequently referred, by the writer of this article.

The species of Sarcanthus " differ from Vanda in the form and structure of their labellum, which is never saccate, but has always a spur with one or more appendages in its inside, in the texture of their perianthium, and in habit.

The plants which agree with Sarcanthus as above defined are Vanda teretifolia and paniculata, an unpublished species (Sarcanthus succisus) from China, and probably some plants at present referred to Aerides. Vanda trichorhiza of Hooker, which is nearly allied to, if not the very same as, Epidendrum triste of Forster; and the Aerides Arachnitis of Swartz, appear to be species' of Cymbidium, a genus which differs from Vanda in scarcely any thing beyond the absence of a spur from the lip, and in the articulation of the latter with the columna."

A native of China, whence it was imported by the Horticultural Society in 1821. Our drawing was made at Mr. Colvill's Nursery in June 1824.

A branching epiphyte. Stems thick, purple, rounded. Leaves lanceolate, fleshy, somewhat recurved. Spike stalked, opposite a leaf, horizontal, as long as leaves. Ovary round, white. Sepals spreading, equal, oval, yellowish, banded with red. Labellum fleshy, bright purple, spurred, rostrate at point, incurved; Spur obtuse, shorter than ovarium, one-celled inside, very fleshy in front, with an opercular, smooth, simple appendage. Columna erect, clavate, half-round. Stigma roundish, hollowed out, with a rostellum lengthened into a long beak. Anther of the same figure, 2-celled. Pollen-masses two, 2-lobed ; caudicula subulate, elongated; gland small.

J. L.



# CROTALARIA tenuifolia. 

## Narrow-leaved Crotalaria.

## DIADELPHIA DECANDRIA.

Nat. ord. Leguminose. Tribus Loteæ Dec. CROTALARIA. Supri, vol.'2. fol. 128.

## §. 1. Foliis simplicibus.

* Stipulis non decurrentibus, interdum nullis, foribus racemosis, racemis terminalibus aut oppositifoliis.
C. tenuifolia (Roxb.); foliis linearibus acutis sericeo-pubescentibus, caule virgato simplici, racemo laxo elongato terminali, calycibus ovariisque sericeis. Dec. prodr. 2. 126.
Rami angulati, densè tomentosi. Stipulæ minime, subulatæ, deciduc. Folia simplicia, lineari-oblonga, breviter petiolata, acutiuscula, suprà densè scricea, subtùs villosa. Racemi terminales, uunc $1 \frac{1}{2}$ pedem longi, laxi, multiflori. Flores distantes, nunc erecti, nunc penduli resupinati, pedunculis post anthesin retortis. Calyx densè ferrugineo-tomentosus, corolla duplò brevior, altè partitus, laciniis inferioribus apice coherentibus. Corolla magna, lutca, vexillo cordato acuto, dorso ferrugineo. Legumen ventricosum, oblongum, scriceo-ferrugineum, polyspermum, seminibus parvis finiculo longo affixis.

We are glad to have an opportunity of presenting the public with an authentic figure of this species of Crotalaria; because it enables us to indicate the differences which cxist between it and C. fenestrata, a nearly allied plant, with which M. de Candolle has been led. to suspect its identity.

If the figure now published be compared with that of C. fenestrata, in the Botanical Magazine, tab. 1933, it will be seen that the outline of the leaves of the two species is essentially different, and that the subject of this article has a vexillum of a brown colour behind; while, on the contrary, that of C. fenestrata is of the same colour on both sides. To which we may add, that $\mathbf{C}$. tenuifolia is a far more virgate plant, with a suffrutescent stem.

We have carefully compared this plant with specimens of Roxburgh's C. tenuifolia sent from the Botanic Garden, Calcutta, by Dr. Wallich, and we find them accord in every particular.

A stove half-shrubby plant, flowering in July; but not remarkable for its beauty.

Branches angular, closely covered with down. Stipulde very small, subulate, deciduous. Leaves simple, linearoblong, on short stalks, rather acute, covered with a close silkiness on the upper side, and with thick down on the under. Racemes terminal, sometimes a foot and half long, lax, many-flowered. Flowers distant, sometimes erect, sometimes pendulous and resupinate: their peduncles being twisted back after flowering. Calyw downy, ferruginous, twice as short as corolla, deeply 5 -parted, the lower segments cohering at end. Corolla large, yellow, with a cordate, acute vexillum, brown at back. Pod ventricose, oblong, silky, ferruginous, many-seeded; the seeds attached by a long funiculus.

A native of Coromandel, where it flowers from November to February.
J. L.


## 983

# CAMELLIA euryoides. 

## Eurya-like Camellia.

## MONADELPHIA POLYANDRIA.

Nat. ord. Camellite.<br>CAMELLIA. Suprì, vol. 1. fol. 12.


#### Abstract

C. curyoides; ramis debilibus pilosis, foliis ovato-lanceolatis acuminatis truncatis serratis subtùs sericeis, floribus solitariis turbinatis, pedunculis squamosis. Frutex ramis debilibus, virgatis, pilosis vel hirsutis. Folia ovato-lanceolata, truncata, simpliciter serrata, suprà glabra avenia, subtùs pallida sericea, petiolis pilosis. Flores albi, solitarii, turbinati, nucis avellance magnitudine, pedunculati. Pedunculus squamis parvis sericeis imbricatus, Calyx pentaphyllus: sepalis rotundato-ovatis obtusis. Petala 7-8, crecta, obovata, integra, exteriora minora. Stamina plurima, in serie simplici altè monadelpha.


This new species of Camellia so nearly resembles Eurya acuminata of Wallich, that, till it flowered, we felt almost persuaded of their identity. It proves, however, to be a genuine Camellia, as that genus is limited by De Candolle; but, at the same time, serves to throw still further doubt upon the existence of any decisive limits by which Camellia is to be distinguished from Thea. While it offers the imbricated peduncle of Camellia, it also possesses distinctly the five-leaved calyx of Thea.

Perhaps it would be more convenient if the garden Camellia, and perhaps the double C. Sasanqua were alone considered genuine species of that genus, and if all the small-flowered species were referred to Thea.

The present plant has not indeed the beauty of that species which constitutes the greatest charm of our conservatories during the first half of the year; but it is of considerable importance to the cultivator, as being one of
the stocks on which the Chinese graft their varietics of Camellia japonica. The grafted portion of a Camellia, brought from China for the Horticultural Society, by Potts, in 1822, having died, the stock sprang up, and produced this plant, which flowered for the first time in England, in March last, in the Chiswick garden, where our drawing was made. The same accident having befallen a Camellia brought home for the Society, in 1824, by Mr. J. D. Parks, this plant again shot forth. There can, therefore, be no doubt that this is one of the plants employed by the Chinese for propagating their curious varieties of Camellia japonica; and from this circumstance it is well deserving of attention.

A greenhouse shrub, with weak, virgate, hairy branches. Leaves ovate-lanceolate, truncate, simply serrate, smooth and veinless above, pale and silky beneath, with hairy petioles. Flowers white, solitary, turbinate, as large as a hazel nut, on peduncles, which are imbricated with small silky scales. Calyx 5 -leaved, with rounded, ovate-obtuse sepals. Petals 7-8, erect, obovate, entire, the exterior smaller.
J. L.


## 984

## HAEMANTHUS pubescens $\beta$. albiflos.

## White-spathed hairy Hamanthus.



HEXANDRIA MONOGYNIA.
Nat. ord. Amaryleider.
HAEMANTHUS. Supri, vol. 3. fol. 381.
H. pubescens ; foliis oblongo-lanceolatis undique hirsutis, umbella fastigiatorotundata, limbo staminibusque erectis. Hort. Kew. 1. 404.
a. spathe laxd viridi. H. pubescens. Supra, fol. 382.
B. spathd coarctatâ alba.
H. albiflos. Jacq. hort. schönb. 1. 31. t. 59. Willd. sp. pl. 2. 27. Ker in bot. mag. 1239. Redouté Liliac. 398. Hort. Kew. ed. 2. 2. 208.

That the plant now represented is a variety of H. pubescens, figured at Plate 382 of this work, we do not in the least doubt, but we cannot agree in the opinion of their absolute identity.

To us it appears that it is necessary to distinguish the present plant, not only on account of its contracted white, not lax green, spatha, but also because of its more robust habit and greater stature.

Our drawing was made several years since from a bulb in Mr. Griffin's collection, at South Lambeth.
J. L.



# PELEXIA spiranthoides. 

Spiranthes-like Pelexia.

## GYNANDRIA MONANDRIA.

Nat. ord. Orciridee. Sect. Neottieæ Lindl.
PELEXIA.-Poiteau in Richard. Orch. annot.p.37. Sepala in cylindro conniventia: lateralibus exterioribus dependentibus basi labello connatis. Labellum integrum, porrectum, marginibus columnam cum co parallelam amplectentibus, basi in calcare cum ovario connato productum. Herba habitu omnind Spiranthis elate.


#### Abstract

P. spiranthoides.

Satyrium adnatum. .Swartz prodr. 118. Neottia adnata. Swartz fl. ind. occ. 3. p. 1409. Willd. sp. pl. 4.75. Herba habitu omnind Spiranthis elate. Folia radicalia, ovato-lanceolata, subundulata, 3-5 nervia, glabervima, longè petiolata, more Ponthievæ petiolatæ. Scapus centralis, pedalis et ultri, teres, basi squamis vaginatus, apicem versils pilosus. Bracteæ ovato-lanceolate, acuminatc, apice glabra. Flores sessiles, bractearum circiter longitudine. Ovarium leviter pubescens. Sepala exteriora pallidè viridia: lateralibus linearibus intùs allis, dependentibus, et cum basi labelli connatis; interiora alba superiori arctè appressa. Labellum basi calcaratum: calcare cum ovario connato; marginibus cum columnd parallelis; lamina ovatâ acutâ integra. Columna Spiranthis.


This exceedingly rare plant was brought from the island of St. Vincent's, by Mr. James M‘Rae, in 1823, and by him presented to the Horticultural Society, in whose garden, at Chiswick, our drawing was made in March last.

It is an herbaceous plant, with the habit of Spiranthes clata, and requires the same mode of treatment. It is propagated slowly by dividing the roots.

The leaves grow from the root, and are ovate-lanceolate, somewhat wavy, 3 or 5 -nerved, very smooth, on long stalks, are very like those of Ponthieva petiolata. Scape a foot and more in height, round, sheathed with scales at the base, hairy towards the upper part. Bractece ovate-lan-
ccolate, acuminate, smooth at tip. Flowers sessile, about as long as bracteæ. Ovarium slightly downy. Outer sepals pale green: the lateral white inside, linear, hanging down, and connate with the base of the labellum; the inner white, and closely pressed against the upper. Labellum calcarate at base; the spur being connate with the face of the ovarium; its margins parallel with the columna; its lamina ovate, acute, and entire. The Columna as in Spiranthes.
J. L.


# CHORIZEMA Henchmanni. 

Mr. Henchman's Chorizema.

## DECANDRIA MONOGYNIA.


#### Abstract

Nat. ord. Leguminosx. Tribus Sophoreæ Dec. CHORIZEMA. - Labill. Calyx semiquinquefidus bilabiatus, labio superiore bifido, inferiore 3 -partito. Cor. carina ventricosa alis breviore. Stylus brevis uncinatus. Stigma obliquum obtusum. Legumen ventricosum uniloculare polyspermum sessile aut subsessile.-_Suffrutices Ausiralasici. Folia alterna simplicia sinuato-dentata aut integra. Dec. prodr. 1. 102.


C. Henchmanni; foliis acicularibus pungentibus solitariis v. ternatim fascièulatis, calycibus villosis.
C. Henchmanni. R. Brown ined.

Frutex pulcherrimus, ramis teretibus fuscis villosis. Folia acicularia, pilosiuscula, pungentia, solitaria v. ternatim fasciculata, exterioribus tum semper minoribus, axillis scpiùs pulvinatis villosis. Flores in racemis longis terminalibus foliosis dispositi, solitarii v. geminati, foliorum longitudine. Calyx pilis albidis villosus, basi bibracteolatus, tubuloso-camparulatus, bilabiatus, labio inferiore semitrifido, superiore bidentato. Vexillum petalis multò majus, laminá lunulatá, emarginatá, patente, pulcherrimè purpureá, basi viridi, ungue viridi canaliculato sursùm sensim dilatato. Alæ falcata, obtusce, pallidè purpurece, vexillo breviores, basi auriculata, unguibus linearibus calyce multò brevioribus. Carina alis multò brevior et pallidior, ovata, acuta, ventricosa, laciniis bási auriculatis. Stamina 10, perigyna, carinâ inclusa.' Filamenta filiformia, glabra, subequalia. Antheræ subrotunde, biloculares, cordate, emarginatte, connectivo tenui inconspicuo. Pollen parvum, album, glabrum, angulatum. Ovarium lineare, villosum, polyspermum, pedicello brevi glabro, ovulis arcuatis funiculo affixis. Stylus uncinatus, glaber. Stigma capitulatum.

This plant, which recedes very much in habit from the species of Chorizema previously published, has been named by Mr. Brown in honour of Francis Henchman, Esq., a very successful importer of New Holland plants, for whom the present subject was collected by Mr. William Baxter, at the same place and time as the Lechenaultia formosa formerly figured at folio 916 of this work.
VOL. Xill, F

Our drawing was made in April last, at Mr. Mackay's Nursery, at Clapton, where a vast number of other equally remarkable and interesting plants from the same country are cultivated.

A beautiful greenhouse shrub, with round fuscous villous branches. Leaves acicular, rather hairy, pungent, solitary, or collected in parcels of threes, when the outermost are smaller than the middle one; the axillæ being often prominent and villous. Flowers disposed in long terminal leafy racemes, solitary, or in pairs, about as long as the leaves. Calyx shaggy, with white hairs, with two little bracteolæ at the base, tubular-campanulate, twolipped, the lower lip half 3 -fid, the upper 2 -toothed. Verrillum much larger than petals, with a lunulate, emarginate, spreading lamina, which is of a beautiful purple colour, green at the base; the claw green, channelled, dilated upwards. Alce falcate, obtuse, pale purple, shorter than the vexillum, auricled at the base, with linear claws much shorter than calyx. Carina much shorter than alæ, and paler, ovate, acute, inflated, its segments auricled at base. Stamens ten, perigynous, included in the carina. Filaments filiform, smooth, nearly equal. Anthers roundish, two-celled, cordate, emarginate, with a thin, inconspicuous connectivum. Pollen small, white, smooth, angular. Ovarium linear, villous, many-seeded, with a short smooth pedicel, and arcuate ovula with a funiculus. Style uncinate, smooth. Stigma capitate.
J. L.

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## 987

# NARCISSUS Macleaii. 

Mr. M'Leay's Narcissus.

HEXANDRIA MONOGYNIA.

## Nat. ord. Amaryllidef.

NARCISSUS. Suprà, vol. 2. fol. 123.
N. Macleaii; spatha 1-2-flora, scapo compresso subancipite, petalis patentibus imbricatis tubo nectarioque cylindrico truncato integerrimo pauld longioribus. Lindl. supra, fol. 762, in textu.

This figure illustrates a note in fol. 762, which seems to have been misunderstood by Professor Sprengel, who refers the plant now represented, to N. moschatus, along with N. Sabini. Although we do not pretend to be able to settle the learned disputes which exist respecting the species of this intricate genus, yet we do not doubt that the principles adopted by the author just mentioned, in reducing the numerous supposed species to an inconsiderable number, are just, although the application of them may be sometimes erroneous. Surely, for example, this is no variety of N . moschatus. It must rather be considered a reduced Tazzetta.

An extremely rare bulbous plant, quite hardy, and flowering in April and May. Our drawing was made in the Horticultural Society's Garden.

Supposed to be a native of Smyrna.
J. L.



# AMARYLLIS vittata $\gamma$. Harrisoniæ. 

## Mrs. Harrison's striped Amaryllis.

## IEXANDRIA MONOGYNIA.

Nat.ord. Amarylliden.
AMARYLLIS. Vide supra, vol. 1. fol. 23.

## A.

vittata; corolla cucullato-campanulata: laciniis exterioribus usque ad basin liberis, internis margine pro tertiâ ferè parte adnatis costæi intùs prominenti externarum. Ker. in journ. science, no. 30.
prototypa; laciniis roseo vittatis. A. vittata. Hort. Kew. ed. 2. 2. 225. Bot. mag. 129. Willd. sp. pl. 2. 55. Schneev.ic. 14. Redout. lil. 10. et aliorum.

- major ; laciniis medio sanguineo vittatis et puncticulatis, foliis latioribus. Lindl. coll. bot. fol. 12. c. ic.
$\%$ Harrisonia; floribus pallidis minoribus, vittis in tubo tantùm abbreviatis.

This variety differs from the original A. vittata in having longer and more tubular flowers, which are less expanded and much more faintly striped with red. From A. vittata major it is readily distinguished by the smaller size and different expansion and colour of its flowers. It is a far more delicate variety than either of the old kinds, producing an abundance of blossoms.

For the specimen from which the annexed drawing was made, we are indebted to Richard Harrison, Esq., in whose collection, at Aigburgh, near Liverpool, it flowered, for the first time in Europe, in 1824. The root had been collected near Lima, by Mr. Crook, and was sent to England by Mr. William Harrison, along with many other
remarkable plants, from his garden, in the neighbourhood of Rio Janeiro.

We were also favoured in April last with a fresh specimen of this variety, by Mrs. Arnold Harrison, in compliment to which accomplished lady the variety has been named.
J. L.



# MEGACLINIUM falcatum. 

Falcate Megaclinium.

## gYNANDRIA Monandria.

Nat. ord. Orcuidee. Tribus Malaxidex, Lindl.
MEGACLINIUM. - Lindl. supra, vol. 10. fol. 832, in notis. Coll. bot. append. Orch. scel. p. x.-Bulbophylli pars. Pet. Th.-Ephippium; sect. 1. Blume. Flor. Nederl. 308-et fortè Diphyes ejusdem, sed habitus obstat.

Pollinia 4 cereacea æqualia geminatim cohærentia, caudiculâ glandulâque nullis. Anthera terminalis, opercularis persistens minuta unilocularis. Stigma parvum intrusum, rostello emarginato. Columna plana, abbreviata, apice bicuspidata. Labellum integerrimum cum pede columnæ elasticè articulatum. Sepala exteriora basi connata: superiore difformi, interioribus nanis.-Herbæ epiphyta, oligophylle, cespitosa, bulbosce (Africæ et Asiæ inter tropicos). Scapi radicales simplices; rachidibus dilatatis.

## Sect. I. Platyclinium. Lindl. ined.

M. falcatum; foliis binis ovalibus emarginatis biplicatis, rachide compressa falcata crenata, perianthii lacinia superiore obtusa apice utrinque callosa, lateralibus exterioribus reflexis bidentatis, interioribus minimis subulatis obtusis.
Bulbi aggregati, caspitosi, oblongi vel ovati, demùm subtetragoni, squamis rigidis striatis sphacelatis ad basin imbricati. Folia bina, erecta, ovalia, cmarginata, utrinque plicata, margine purpurco, suprà viridia, subtùs pallidiora: junioribus subtìs purpureo puncticulatis. Scapus radicalis, teres, squamis paucis vaginantibus, clavatus, in rachide desinens compressd, atropurpured, falcata, crenatd, utrinque in facie forifera. Flores sessiles, parvi, in dentibus faciei rachidis inserti, facie sud rachidem respiciente. Perianthium ringens, laciniis exterioribus basi connatis: superiore erecto, oblongo, obtuso, apiculato, apice utrinque callis duobus luteis; inferioribus concavis, basi connatis, latè ovatis, reflexis, apice bidentatis obliquis; interioribus parvis, subulatis, obtusis, viridibus, apice luteis. Labellum ovatum, obtusum, basi cxcavatum, cum columnd elasticè articulatum. Columna magna, marginata, in ovario incumbens, cum basi sepalorum lat. ext. connata, plana, nitida basi producta, apice tridentata, dentibus lateralibus rotundatis, intermedid antherifert, in modio stigma minutum intrusum fovente. Anthera minima, planiuscula, pqrsistens, unilocularis, cristata. Pollinia 4, ccreacea, binatim coharentia, lutea, compressa, glandula et caudicula nullis.
time, in last April, in the stove, where it grows more readily than most of its compatriots, which are usually extremely impatient of cultivation. It should be planted in rich vegetable mould.

This genus differs from Bulbophyllum of Du Petit Thouars, in the absence of both gland and caudicula from the pollen masses, in the more manifest articulation of the labellum, which is never fringed, nor much unguiculate, with the columna, and in the curiously dilated state of the rachis. In the latter character, the 1st section of Dr. Blume's genus Ephippium appears to offer a transition to Bulbophyllum, to which his second section of the same genus may be actually referable. Whether Diphyes of the same author is really distinct from Megaclinium, we should almost doubt, were it not that the natural habit of the plants referred to it appears to be very different.

J. L.



## GRIFFINIA intermedia.

Mr. William Harrison's Griffinia.

HEXANDRIA MONOGYNLA.
Nat. ord. Amarylifdee.
GRIFFINIA.-Supra, vol. 6. fol. 511.
G. intermedia; foliis ovalibus in petiolum canaliculatum attenuatis, scapo ancipite, floribus breviter petiolatis, laciniis oblongis obtusis planis subrqualibus.
Folia omninò Grifiniarum quoad texturam; formâ autem intermedia, circumscriptione ovali in petiolum subalatum canaliculatum attenuata. Scapus compressus, obtusè anceps, dodrantalis. Spatha erecta, persistens, pedicellis longior, non sub anthesi marcescens. Flores pallidè amethystini, unicolores, in umbella coarctata multiflora congesti, post anthesin nutantes. Laciniæ subaquales oblonge, obtusa, regulariter patentes, exterioribus paululum angustioribus, apice appendiculatis, ut mos est. Stamina laciniis breviora; quinque declinatis inaqualibus, sexto assurgente. Ovula duo cuique loculo, erecta, collateralia.

This interesting addition to the genus Griffinia is, as it were, exactly intermediate between the two species already known. From G. hyacinthina it is distinguished by its smaller flowers, with equal obtuse segments, which have a regular expansion; from $G$. parviflora it is equally different, not only in the greater size of its flowers, and in the form of their segments, which are never acuminate, but also in the compactness of the umbel, and in the channelled somewhat margined petiole of the leaves. In the foliage, indeed, the present species offers obvious marks of difference from both the two former species. The leaves are shorter, much more oval, and more decidedly tapered into the footstalk than in $G$. hyacinthina; they are larger, and more obtuse, and have a very differently formed petiole from those of $G$. parviflora.

In the more minute points of fructification, this new addition confirms Mr. Ker's characters of the genus in all essential particulars; that is to say, in the position, number, and form of the ovula, and in the separation of the sixth or uppermost stamen from the rest, and in its application to the face of the sixth or superior segment of the flower.

Our specimen was produced by a plant in the possession of Richard Harrison, Esq. of Aigburgh, to whom it was sent from Rio Janeiro, by William Harrison, Esq., of that place. Flowers in April, and requires the heat of a stove to be cultivated in perfection.

Leaves similar in texture to those of the other Griffinias, but intermediate, as it were, in outline, their figure being oval, tapering into a somewhat winged, channelled footstalk. Scape compressed, bluntly two-edged, about a foot high. Spatha erect, persistent, longer than the pedicels, not withering at the period of flowering. Flowers pale blue, whole-coloured, disposed in a contracted many-flowered umbel, nodding after flowering. Segments nearly equal, oblong, obtuse, with a regular expansion, the outer ones a little narrower, and bearing the customary appendage at the tip. Stamens shorter than segments, 5 declinate and unequal, the sixth assurgent. Qvules two in each cell, erect and collateral.
J. L.


# INDIGOFERA angulata. 

Angular-stemmed Indigo.

DIADELPHIA DECANDRIA.
Nat. ord. Leguminose. Tribus Loteæ Dec. INDIGOFERA.-Suprà, vol. 5. fol. 386.

1. angulata; caule fruticoso, ramis angulatis discoloribus, foliis pinnatis 2-4-jugis, foliolis oblongis emarginatis æqualibus petioloque glabris, racemis foliorum longitudine.
Frutex virgatus, omni parte purpureo obductus, ramis glabris angulatis. Folia pinnata, 2-4-juga cum impare, glabra, foliolis oblongis v. obovatis obtusis v. emarginatis petiolatis. Racemi multifiori, foliis paulò longiores, rachi, pedicellis, calycibusque purpurcis glabriusculis. Bracteæ minute, pedicellis multò breviores. Calyx truncatus, obsoletè quinque dentatus. Flores lurido-purpurei. Vexillum rotundatum, emarginatum, basi maculd hippocrepica intensiore notatum. Stylus reflexus, teres, et stigma capitatum glabri.

It is not improbable that this species has been confounded by foreign writers with I. australis, to which it bears much primáa facie resemblance. Nor should we be by any means sure that it was not from this very kind that M. Decandolle drew up his character of I, australis, especially as he does not cite the figure in this work, as is his usual practice, had he not stated, in express terms, that the branches of his plant are round, while in ours they are remarkably angular.

In the absence of any means of comparing our garden plants either with Sieber's dried collection, specimens from which are cited by M. Decandolle, or with any authentic specimens from the latter Botanist, we must satisfy ourselves with stating the differences which exist between the I. australis formerly published at folio 386 of this work, and the plant now under consideration.
I. australis has leaves of eight or nine pairs of small
leaflets, which gradually diminish in size as they approach the extremity of the petiole; I. angulata has leaves of from two to four, or rarely five pairs of leaflets, which are equal in size. The former has the leaves, petioles, rachis, and calyx, covered with close down; the latter has the same parts smooth. The flowering branches of $I$. australis are very slightly angular ; those of I. angulata are strongly so. The leaflets of the first are much disposed to taper towards the base; those of the second are generally narrowed towards the apex, if they depart at all from their oblong figure. The latter is a far more robust plant than the former.

Communicated in April last, by Mr. Whitley, of the Fulham Nursery, where it had been raised from New Holland seeds, received, with many other things, from Mr. Joseph Thomas. We have specimens collected in the interior of New Holland, which differ from the garden plant only in their leaves being rather narrower.

A handsome green-house shrub, strongly stained with purple, especially in the stems, which are deeply angular. Leaves pinnated of two or four pairs, smooth, with oblong or obovate leaflets, which are stalked, and usually emarginate. Racemes many-flowered, a very little longer than the leaves, nearly smooth both on the rachis, pedicels, and calyxes, which are purple. Bractec minute, much shorter than pedicels. Calyx truncate, obsoletely 5 -toothed. Flowers lurid purple. Vexillum rounded, emarginate, with a darker horseshoe-like mark at the base. Style reflexed, round, and capitate, stigma smooth.

> J. L.



# GILLIESIA graminea. 

# Grassy-leaved Gilliesia. 

## TRIANDRIA MONOGYNIA.

Nat. ord. Gilliesiex. Ordo adhuc obscurus affinitate, seminibus ignotis, quàm maximè incertà; hinc forte Asphodeleis, inde Cyperaceis et Restiaceis mediante Schœno et Xyride.

GILLIESIA.-Bractea patentes, basi imbricatæ: quinque exterioribus petaloideis, interioribus indefinitis depauperatis. Perianthium irregulare, carnosum, indivisum, anticè labelliforme carnosum, posticè depauperatum. Stamina sex, in cyatho perigyno ovarium cingente connata, tribus anticis fertilibus, posticis sterilibus dentiformibus. Ovarium superum, triloculare. Stylus filiformis. Stigma capitatum, triangulare. Capsula oblonga, trilocularis, trivalvis, polysperma: valvis medio septiferis. Semina parva, subrotunda, testa nigra corrugata, funiculo concolore vesicato seminum magnitudine. Nucleus._Herbæ (Chilenses) bulbosa, foliis linearibus flaccidis radicalibus, floribus viridibus inconspicuis vasculosis. Obs. Speciem fortè alteram inter icones Domini Miers examinavi, prope Concon inventam, omnibus partibus majorem. Descriptio fructûs ex icone Miersiano.
G. graminca.

Gilliesia graminea. Lindl. in Miers trav. Chil. 2. 529.
Bulbus ovatus, elongatus, tunicatus, nucis avellance magnitudine, pallide fusco-purpurcus. Folia radicalia, humifusa, linearia, canaliculata, lete viridia. Scapus debilis, teres, decumbens, foliorum longitudine. Umbella. pauciflora, divaricata. Spatha bivalvis, viridis, erecta, persistens. Flores virides, inconspicui, cernui, (post anthesin secundum Dom. Miers erecti). Pedicelli filiformes. Bracteæ difformes; exteriores 5, petaloidea, ovatce, acuta, carnosce, basi imbricata, duabus interioribus oppositis, minoribus; interiores depauperata, incequales, obtusa, subulata, omninò cellulose, vasis spiralibus tubulosisve nullis, purpurascentes, sub lente papillosa, numero varia, sapiùs 4 v. 6, rariùs 8, nunc basi bractearum lateralium utrinque solitaric inserte, nunc geminatim; nunc in alterd bracteâ solitariè in altera geminatim; posticis rarius cum cyatho staminum connatis; harum exteriores, quando adsunt, semper cateris sunt minores, et ferè semper ex ipso margine bractearum proveniunt. Perianthium forma nonnihil varium, posticè obliteratum, anticè carnosum, ovatum, obtusum, posticè auriculatum, cum cyatho staminum connatum, quandoque venis duabus à basi in auriculas transeuntibus; an igitur revera è partibus tribus conferruminatis conflatum, quarum anterior perfectissima, posteriores paululum depauperata? Stamina sex, flamentis in cyatho carnoso perigyno connatis, quorum anteriora fertilia, posteriora sterilia dentiformia. Antheræ introrsa, ovato-oblonga, innata, . loculis parallelis bivalvibus in facie connectivi carnosi, longitudinaliter dehis-
centibus; intermediâ perfecta biloculari; lateralibus scepiùs dimidiatis. Pollen ...... nunquam inveni. Ovarium superum, oblongum, triloculare, polyspermum, ovulis placente centrali affixis, horizontalibus. Stylus filiformis. Stigma concavum, capitatum, triangulare, papillosum, (nunc 3-partitum laciniis bilobis, monstrosum, ut in icone). Capsula ex icone D. Miers, oblonga, pallidè brunnea, torulosa, trilocularis, 3-valvis, polysperma: valvis medio septiferis. Semina parva nigra corrugata, funiculo nigro vesicato seminis ipsius magnitudine.

First discovered in the neighbourhood of Valparaiso, by Mr. James $M^{\prime}$ Rae, on his voyage to the Sandwich Islands, in the service of the Horticultural Society, on board His Majesty's ship the Blonde, commanded by Lord Byron. It flowered in the Greenhouse in September 1825, within a few weeks of its arrival. An inconspicuous bulbous plant, thriving well in a cool greenhouse, planted in sand and loam.

The whole structure of this most remarkable plant is so peculiar, that we scarcely know whether the definition and description of the parts of fructification above given will not be considered more paradoxical than just: and yet if the analogies the various organs bear to those of other plants be carefully considered, their structure will scarcely admit of any other interpretation. With respect to the five petaloid leaves, which are here described as bracteæ, and which bear a considerable degree of resemblance to a perianthium, it may be observed, that this appearance is more apparent than real. They neither correspond in insertion nor in number with the segments of a monocotyledoneous perianthium, nor do they bear the same relation to the parts contained as a perianthium should bear. The three outer are not inserted on the same line, but are distinctly imbricated at the base; and the two inner do not complete the second series, as would be required in a regular monocotyledoneous perianthium.

But if we were to admit, for a moment, the possibility of these bracteæ being segments of a perianthium, what explanation could be given of the setiform processes proceeding from their base, or of the central fleshy slipperlike body from within which the stamens proceed? The former bear no determinate relation to the other parts of the flower in their insertion; they are subject to much diversity of form and number, being sometimes eight, consisting of two unequal subulate bodies proceeding from each edge of each lateral segment, the outermost of the two being wider than the innermost, and being, moreover, not unfrequently a manifest process of the margin of the segment itself; sometimes having their number reduced to four by the suppression of the exterior processes of each lateral segment; and occasionally having the outer processes suppressed on one segment, and not suppressed on the other. In the many flowers which have been under examination, the processes, moreover, were always constituted of cellular tissue alone, without either tracheæ or tubular vessels. These circumstances being considered, it will scarcely be proposed, we presume, to identify them with abortive stamina. If they are, notwithstanding what has been advanced, determined to be the perianthium itself, what becomes of the outer segments which had previously been referred to perianthium? for it would be difficult to tràce any analogy between the structure of Gilliesia and of those genera in which a third series is added to the usual senary division of Monocotyledones.

But none of the peculiarities adverted to are opposed to those bodies being referred to depauperated or reduced bracteæ.

With respect to the central body from which the stamens proceed, this body, which might be conveniently disposed of by referring it to what Linnæan Botanists call a nectarium, consists, as we have seen, of a fleshy slipper-like lobe, with or without two auricles at the base, and from within which the cup of stamens is exserted. The relation it bears, as regards insertion, to the parts which have been already noticed, is very obscure; it is always opposite the solitary external bractea; but whether it is anterior with respect to the common axis of inflorescence, or posterior, has not at present been ascertained. The reasons which have been offered for the view here taken of the parts surrounding this body, make it obvious that it must be considered the perianthium. But of this more will be said hereafter. For the present it will be sufficient to remark, that it manifestly bears an intimate relation to the stamens, being obliterated in the same direction and degree as they are.

In the view, then, which is here taken of this genus, the petaloid segments are considered perfect bracteæ, the subulate interior processes abortive bracteæ, and the fleshy central labelloid body the perianthium.

However paradoxical this description of Gilliesia may appear, and however inconclusive the arguments adduced in support of the view we have taken of it may have hitherto been considered, they will probably be found more deserving of attention if compared with a nearly allied plant discovered in Chile, by our friend John Miers, Esq., after whom it has been named. This singular genus forms part of a most valuable and remarkable collection of botanical drawings which were made by Mr. Miers during his long residence in Chile, and which, it is to be hoped, will, at some future day, be laid before the public. Having been kindly permitted to make use of the drawing and manuscript description of the plant alluded to, we shall endeavour to explain the analogies and relation which exist between it and Gilliesia.

In Miersis, the bracteæ are six in number, of which two are interior and four exterior, a still more valid reason against their being segments of a perianthium. The subulate processes assume a more regular form, and a more constant mode of insertion, but still bear no very apparent relation to the bractex; and the fleshy labelloid central body is represented by an urceolate six-toothed cup, within the orifice of which six fertile stamens are included. In Miersia, therefore, the perianthium, which was in Gilliesia subject to a certain degree of imperfection, in which the stamens also participated, is in the usual regular form of many Monocotyledones, no irregularity occurring in the stamens. As there can be no doubt of the strict analogy which exists between Gilliesia and Miersia in their fructification, and as there can also be little doubt that the central body of the latter genus is perianthium, it will follow as a necessary consequence, that as the supernumerary appendages of that genus are external, with respect to the perianthium, and therefore neither perianthium nor stamens, so also will the analogous appendages of Gilliesia, not be perianthium. And the central body having been ascertained to be perianthium, all the parts which surround it will nccessarily be bracteæ, or modifications of bracteæ.

The relation which exists between Gilliesia and Miersia will be rendered
more apparent by a comparison of their essential characters. That of Gilliesia has been given above; the character of Miersia is as follows:-

## miersia.

Bractere patentes, basi imbricatce: sex exterioribus petaloideis; interioribus tot bifidis coloratis depauperatis. Perianthium regulare, monophyllum, urceolatum, carnosum, ore constricto sexdentato. Stamina 6, minima, fauce perianthii inserta. Ovarium superum, trilocularc. Stylus filiformis. Stigma capitatum. Capsula triquetra, truncata, trilocularis, ad verticem tantum 3 valvis, polysperma. Semina . . . . . . . . . . . . Herba (Chilensis) bulbo spherico tunicato, nucis castaneee magnitudine. Folia linearia, erecta, - obtusa, glabra. Scapi nudi, spithamai, foliis longiores. Umbella 4-flora, abbreviata. Spatha diphylla, erecta, subventricosa, persistens. Flores virides, inconspicui. Bracteæ exteriores in duabus phalangibus disposita, quarum altera superior, altera inferior; in utrâque adsunt bractece tres ovatce acuminata, intermedia interiore. Bracteæ depauperatæ coccinea, bipartita: superioribus? perfectioribus, sul perianthio inserta, sec. schedas Domini Miers bracteis exterioribus alterna. Perianthium leviter obliquum, striis sex purpurascentibus. Species unica est M. Chilensis Lindl. in Miers trav. vol. 2. p. 529. Descriptio ex icone et mss. Domini Miers.

The natural affinity of these two genera is extremely obscure; and till some accurate information can be obtained of the structure of their seeds, it must necessarily be a subject of much uncertainty. Even with the requisite information upon that point, it is not probable that they will be found to bear any very close relation to the other Monocotyledoneous orders at present known. Their tunicated bulbs, spathaceous inflorescence, and general appearance, place them near Asphodeleæ, with some genera of which, especially Muscari and Puschkinia, Miersia at least agrees in the structure of perianthium; but we are acquainted with no genus of Asphodelere to which the fructification of Gilliesieæ can be otherwise compared. If the one-flowered species of Schoenus, in which a single naked flower is surrounded by several imbricated squamæ, be admitted as a form of inflorescence analogous to that under consideration, it may perhaps be allowable to carry this comparison yet further, and to suggest an identity of origin and function between the depauperated bracteæ of Gilliesia and the hypogynous setæ of Scirpus and other Cyperaceæ. But on account of the presence of a perianthium, and of their polyspermous three-celled capsule, Gilliesieæ may perhaps be with most propricty referred to the neighbourhood of Restiacere, to which their imbricated inflorescence does not offer any very powerful obstacle.

We have named the subject of this article in honour of Dr. John Gillies, a physician resident at Mendoza, in Chile, by whom the Botany of that most interesting country has been assiduously explored, and from whose further exertions we expect very important results.

## J.' L.

## EXPLANATION OF THE PLATE.

1. Flower seen in front. 2. Ditto in profile. 3. Perianthium and stamina, with the style in a monstrous state. 4. Ovarium, and monstrous style and stigma. .5.' Natural stigma. 6. Transverse section of a monstrous ovarium, in which however the ovula are in the true position. 7. Capsule. 8. Seed.


# 993 <br> Acroraing to I.C. Bailey, this is A. Bybrida, D.C. 

ÆSCULUS Pavia; var. arguta.
Fine-toothed Scarlet Horse-Chestnut.

IEPTANDRIA MONOGYNKA.
Nat. ord. Hippocastanem.
ASCULUS. Supra, vol. 4. fol. 310.
I. Pavia; capsulis inermibus, staminibus corollâ tetrapetalà brevioribus, foliolis 5 elliptico-oblongis, utrinque acutis petiolisque glabris, axillis nervorum subtùs pilosis. Dec. prodr. 1. 598. sub Pavia rubra.

The species and varieties of the genus Æsculus, including the Pavia of Boerhaave, have been by no means so well studied as they deserve. There is not amongst all the tribe of hardy trees and shrubs, one which is of more interest to the lover of ornamental gardening than the Horse-chestnut, whether we consider the beauty of its flowers or of its foliage. In the collections of this country, many sorts exist which have not hitherto been distinguished even by name; and in foreign collections, it is not improbable that a still more considerable number is to be found.

Circumstances having placed unusually extensive materials in the hands of the writer of these remarks, it is proposed to illustrate the genus completely in the present work; of which object, indeed, a commencement was made several years since.

The plant now represented was received by the Horticultural Society, in 1824, from Mr. Catros, of Bourdeaux, under the name of Esculus Pavia parviflora. "It is very distinct from any variety hitherto announced, and is perhaps superior in point of beauty to all the genus, except E. hippocastanum and 巩. carnea. Our drawing was made in the Chiswick garden, in April last.

[^0]A very handsome small tree, flourishing in the open border, in common garden soil, and remarkable for the dark, rich, brownish-red of the calyx and corolla. Petiole quite smooth, flat on the upper side. Foliola 5, ovallanceolate, acuminate at each end, finely but rather irregularly serrulate, more acuminate at the base than end. Nerves red, (as also petioles and stem), smooth beneath, covered with short, rusty tomentum above. Leaflets strongly nerved, so as to have a rugose plaited appearance, which is very strongly shewn in this plant. Thyrsus downy all over, red like the flowers. Pedicels nearly the same length as calyx, thickened upwards, with a few black hairs. Calyx tubular, campanulate, oblique at base, where it has several black hairs, red like the petals, with a green blotch on the upper side, not two-lipped, as in $E$. flava, but bluntly 5 -lobed, the two lateral lobes being much the smallest: all ciliated with short black hairs. Corolla tubular, connivent, 4 or 5 -petalled, closely studded with fine brown-red glands; claws downy, longer than calyx, all cohering by the down of their edges, pale outside, strongly coloured with yellow inside. Lamina of the two upper petals projecting a little beyond the lateral, obovate, plaited; of the lateral petals oblong, retuse, concave, appressed cmarginate. Stamens 7, straightish, villous, smooth at end. Anthers orange red. Ovary often abortive, when perfect only slightly downy, pale red. Style thick, subulate, turned upwards at end, pubescent, with a few reddish hairs. Stigma a red point.
J. L.


# SWAINSONA galegifolia, var. albiflora. 

White small-leaved Swainsona.

## DIADELPHIA DECANDRIA.

Nat. ord. Leguminose. Tribus Loter Decandolle.
SWAINSONA Salisb.-Calyx bicallosus, quinque-dentatus. Vexillum explanatum, majus. Stamina diadelpha (9-1). Carina obtusa, alis sublongior. Stigma terminale. Stylus posticè longitudinaliter barbatus, antice imberbis. Legumen turgidum.-Suffrutices Nove Hollandice, habitu Lessertiæ. Folia inpari-pinnata. Racemi elongati axillares. Flores purpurei aut coccinei. Dec. prodr. 2. 271.
S. galegifolia; caule suffruticoso erecto, foliolis 9-jugis ovalibus subemarginatis, leguminis pedicello filamentis persistentibus evidenter longiore. Dec. prodr. 2. 271.
a. coccinea.

Vicia galegifolia. Bot.rep. i. 319.
Colutea galegifolia. Bot. mag. 792.
Swainsona galegifolia. R. Br. in hort. Kew. 4. 326.
B. albifora.

Fruticulus ramis erectis, flexuosis, striatis. Folia pinnata, 5-11-juga, foliolis parvis, ovalibus, obtusis, v. rarò cmarginatis. Flores albi, racemosi, terminales, foliis multò evectiores.

Our drawing of this neat variety of S. galegifolia was made some years since, at Mr. Colvill's. It appears to differ from the species to which we have referred it, in nothing except its colour, which is pure white, without any trace of the brilliant scarlet for which its prototype is remarkable.

If we were accustomed to indulge in a kind of small criticism, which some modern writers seem to think equivalent to scientific investigation, we should here remark, that the reference to the Botanist's Repository is mis-
quoted, t. 139, in the second edition of the Hortus Kewensis, and that the error is copied by M. Decandolle, in the second volume of his Prodromus.

A small bush, with erect, flexuose, striated branches. Leaves pinnated, of from 5 to 11 pairs ; leaflets small, oval, obtuse, or occasionally emarginate. Flowers white, in terminal racemes, much more elevated than the leaves.
J. L.


# HYACINTHUS orientalis. 

## Wild Garden Hyacinth.

IIEXANDRIA MONOGYNIA.
Nat. ord. Asphodelee. HYACINTHUS: Supra, vol. 5. fol. 398.
H. orientalis; corollis infundibuliformibus semisexfidis basi ventricosis. Hort. ups. 85.
Hyacinthus orientalis quibusdam Constantinopolitanus. Bauh. hist. ii. p. 575.

Hyacinthus orientalis modvavès alter. Clus. hist. p. 175. c. icone.
Hyacinthus orientalis græcus. Lob. ic. 104.
Hyacinthus orientalis incolis Zumbul. Rauw. podoep. part 1. c. 9. p. 120.
H. orientalis. Sp. pl.p. Rauw. or. p. 44. Willd. sp."pl. 2. 168. Dec. ft.fr. 3. 207.6.314.

The above are probably genuine synonyms of the Hyacinthus orientalis in its native state. The other references of books seem to refer to cultivated varieties, especially the citation of the Flora Atlantica of M. Desfontaines, who expressly declares that the plants he saw in Barbary were cultivated in the gardens of that country, and not spontaneous, as stated in the Botanical Magazine, fol. 937.

From the Flora orientalis of Rauwolff, it has long been known that this beautiful plant is a native of the country about Aleppo and Bagdat, where it grows in great abundance, flowering in February. But it is only in modern times that a European station has been discovered for it. In the 6 th volume of M. Decandolles' Flore Francaise, published in 1815, it is, we believe for the first time, observed that it had been found in a wild state, growing in open sandy places in the neighbourhood of Toulon, by M. Robert, and that it had also been observed in similar situations in the neighbourhood of Grasse, by
M. Jauvy, and of Nice, by M. Suffren. From the environs of the latter place, the roots, from one of which the annexed drawing was made, were brought, in 1824, by the Earl of Aberdeen, by whom they were presented to the Horticultural Society.

Clusius's figure of his "Hyacinthus orientalis mo alter," sent to him by Jacques Plateau, seems to be this plant in precisely the same state as now represented.

We do not find that any coloured figure of the wild Hyacinth has been previously published.

A hardy border bulbous plant, flowering in March and April.
J. L.


## 996

## ALOE brevifolia.

## Lesser proliferous Aloe.

## HEXANDRIA MIONOGYNIA.

## Nat. ord. Aspiodelee.

ALOE Tourn. - Calyx fundo nectarifer, 6-fidus aut ferè 6-partitus, laciniis rectis aut revolutis, basi staminiferis. Stigma subtrilobum.
Caudex in quibusdam frutescens et foliosus; folia succulenta, imbricata, in pluribus margine et superficic spinosa; spicce axillares aut terminales, interdum ramosa. Seminis germinantis lolus sessilis appingitur lateri vagine primarice. Juss. gen. 52.
A. brevifolia; subacaulis, foliis lanceolatis acutis glaucis: marginibus carinâque apice spinosis vix cartilagineis: subtùs subtuberculatis. Haworth revis. succ. 202.
Aloc Africana caulescens foliis glaucis brevissimis. Comm. prol. 22. Aloe brevioribus foliis, \&c. Mill. dict. ed. 8.
A. prolifera. Haworth in Linn. trans. v.7. 16.

For the synonyms, and what else we can say respecting this plant, we are indebted to Adrian Hardy Haworth, Esq., whose valuable remarks upon the subject we take the liberty of laying before our readers.
"This Aloe," Mr. Haworth informs us, " appears to be the Aloe prolifera of my paper in Lim. Tr.v.7.p. 16 ; and Aloe brevioribus (rectius brevifolia) of Mill. Dict. cd. 8; and, finally, my Aloe brevifolia, in Revis. pl. succ. p. 202-3.
" My reason for not originally calling it brevifolia, in Linn. Tr. in loco, was, because another plant was named A. perfoliata, brevifolia, by Solander, in Hort. Kew. v. 1. p. 467 ; and it was in submission to such authority, that I followed it, but raised Solander's plant to the rank of a species. This last plant, afterwards (from its distant leaves) became the Aloc distans of my Synops. pl. succ."

To this we have only to add, that Professor Sprengel considers the Aloe distans and Aloe brevifolia of Mr. Haworth as the same.

Our drawing was made in Mr. Hood's collection, at South Lambeth.
J. L.


[^1]
# SINNINGIA Helleri. 

Green Brazilian Sinningia.

DIDYNAMIA ANGIOSPERMIA.

## Nat. ord. Gesnerief.

SINNINGIA.-Calyx tubulosus, 5 -angulatus, foliaceo-alatus, ore quinquefido. Corolla fauce inflatâ, subbilabiata. Rudimentum filamenti quinti, basi corollæ supernè insertum. Nectarii glandulæ 5, cum filamentis alternantes. Fructus capsularis. Capsula subcarnosa. C. G. Nees v. Esenbeck in ann. sc. nat. 6. p. 292.

Sinningia Helleri. Nees. l. c.t. 12.
Pedalis v. pauld demissior. Caulis teres, crassus, carnosus, basi nudus. Folia opposita, petiolata, cordatu, ovata, serrata, leviter pubescentia. Flores in racemo foliaceo comoso, pallidè virides. Calyx inflatus, campanulatus; 5-lobus, lobis aqualibus, 5-angulatus, angulis alatis, decurrentibus, ciliatis. Corolla 2 uncias longa, foliis brevior, infundibularis, pubescens, pilis viscidis, glandulosis; fauce dorso inflata inter lacinias superiores; tubo intùs purpureo striato; limbo subregulari, patente, 5 -lobo; lobis ovatis rotundatis cordatis; inferioribus latioribus. Stamina 4, didynama, basi corollce inserta, tubo breviora; filamenta glabra, ascendentia; antheræ glabra, subquadrate, 2-loculares, pallidè lutece, connectivo carnoso, arctissimè coharentes. Ovarium inforum, 5-alatum, 1-loculare, placentis duabus duplicibus. Ovula indefinita. Stylus hirsutus. Stigma cyathiforme.

Named by Dr. C. G. v. Esenbeck in honour of Mr. William Sinning, Gardener to the University of Bonn, in the garden of which establishment it had been raised from Brazilian seeds communicated by M. Heller, the worthy Inspector of the Royal Botanic Garden of Wurtzburg, under the name Columnea $s p$.

Our figure was taken at the garden of the Horticultural Society, in July 1825. It had been received, with many other rare plants, from Rio Janeiro, whence it was sent by Mr. David Douglas, in 1825. A tender stove plant, flowering
abundantly during the summer months, and flourishing in a mixture of peat and loam. It strikes freely from cuttings of the stem, or from leaves.

The plant described and figured in the Annales des Sciences, was, in all respects, much larger than that from which the figure in this work was taken. The author of the genus suggests that Gesneria calycina of Swartz may form another species.

One foot high, or less. Stem round, thick, fleshy, naked at bottom. Leaves opposite, stalked, cordate, ovate, serrate, slightly pubescent. Flowers in a leafy comose raceme, pale greenish ycllow. Calyxes solitary, axillary, inflated, campanulate, 5 -lobed, lobes equal. Opposite the recesses of the calyx are five winged angles, the wings running down the ovarium, and ciliated. Corolla two inches long, shorter than leaves, funnel-shaped, pubescent, with viscid glandular hairs. The orifice with a large inflated hump on the upper side, between the two upper divisions of limb. Tube inside striped with bright purple lines. Limb nearly regular, spreading, 5 -lobed: lobes rounded, ovate, cordate; the lower the widest. Stamens 4, didynamous, inserted into the base of corolla, shorter than the tube ; filaments smooth, ascending. Anthers quite smooth, square, 2-celled, pale yellow, with a fleshy connectivum, firmly cohering in one head. Ovary inferior, 5 -winged, 1-celled, with double placentas. Ovules very numerous. Style hairy. Stigma cyathiform.
J. L.


# PHALANGIUM Nepalense. 

Nepal Phalangium.

## HEXANDRIA MONOGYNIA.

Nat. ord. Asphodelea.
PHALANGIUM.-Infor. racemosa, bracteis simplicibus interstincta. Cal. o. Cor. infera, hexapetaloideo-rotata subæqualis, persistens. Fil. corollæ disco imposita, erecto-divergentia, inclusa; anth. oblongæ, incumbentes. Stylus triquetro-filiformis, decurvo-assurgens, cum stigmate trigono obtuso pruinoso clavato-continuus. Caps. pergamea, rotunda s. ovata, tri-sulco-trigona, polysperma, 3 -loc., 3 -valv., valvis medio septigeris; sem. margini interiori dissepimenti utrinque annexa, obversè attenuata, angulosopressa; alb. carnosum, durum. Herbæ perennantes, caulescentes; radix fasciculato-fibrosa, fibris subfusiformi-crassis; folia plura, radicalia, ambientia, graminea, ligulato-atteruata, canaliculato-explicanda, nervulosa, crecto-divergentia; racemus simplex v. divisus, laxus; pedunculi uniarticulati; corollæ lacinice interiorcs modoे crispata; fil. nunc barbata; seminum testa nigro-fusca, excavato-puncticulata. Anthericum (Phalangium. Juss. et Red.) Liliastrum ad Hemerocallidem, et serotinum ad Gageam referenda sunt. Antherico stylus rectus, attenuatus, pedunculi non articulati, herba crassa aut fistulosa. Hemerocallidi corolla connivens, stamina decurvo-assurgentia, herba ferè Phalangii. Ker, in bot. mag. fol. 1635.
P. nepalense; foliis lineari-lanceolatis scapi longitudine, paniculâ simplice, bracteâ inferiore longissimâ subtùs glaucâ, perianthii laciniis patentibus oblongis obtusis. Lindl. in hort. trans. 6. 277.
Herba bipedalis, perennans, radicibus fasciculatis. Folia plura, radicalia, suberccta, ensiformia, canaliculata, glaberrima, suprà latè viridia, subtùs glauca, striata, margine submembranacea, apice obsoletè trinervia. Scapus teres, ramosus, foliis paulò brevior. Panicula simplex, erecta, ramosa. Bractea inforior lanceolata, obtusa, foliacea, foribus multò longior; superiores sensìm minores, demùm pedicellis vix longiores. Flores albi, sepalis patentibus, oblongis, obtusis, subaqualibus; stamina lutea sepalorum longitudinc. Stylus staminibus paulò longior.

The first account we have of this plant is in the Transactions of the Horticultural Society, in the volume above quoted, where we find the following statement:-
" A perennial plant, raised from seeds from Gossain Than, presented to the Society by the Honourable Court of Directors of the East India Company, in 1824. It is a foot and a half high, quite smooth in every part. The leaves erect, spreading at end, upon the upper surface glossy and bright green, on the under side glaucous and striated, at the end blunt, with three slight nerves, and a somewhat membranous edge. A strong rib passes along the back. The flowers are pure white, with yellow anthers, scentless, when expanded nodding, when closed erect; they appear by threes, in an erect, nearly simple panicle, which is rather shorter than the leaves. Scape dark-green, rounded, a little tumid at the joints. The lower bractea is long, lanceolate, of the same colour and texture as the leaves; the upper bracteæ gradually become smaller, till the uppermost are shorter than the flower-stalks. The capsule is erect, and covered by the persistent remains of the perianthium. This plant flowered in a curvilinear stove, and exhibited no indication of impatience of the heat. It is, however, not improbable that it will be hardy enough for a green-house. It appears to have some affinity with the Phalangium ramosum of Ker, but it is not very similar to any species previously described."

Since the above was printed, the plant has become more robust in all respects, but has not otherwise altered its characters.
J. L.


# CONVOLVULUS pudibundus. 

Various-leaved Convolvulus major.

PENTANDRIA MONOGYNIA.

Nat. ord. Convolvulacem.
CONVOLVULUS. Supra, vol. 2. fol. 133.


#### Abstract

C. pudibundus; foliis cordatis integris trilobisque acuminatis glabris, pe~ dunculis multifloris sepalisque ovatis acutis subfoliaceis glabris, corollæe tubo inflato limbo 5 -dentato longiore. Caulis annuus, volubilis, teres, glaber, ut et omnes partes, si pubem aliquam lavem in ramulis novellis excipias. Folia glabra, nunc triloba, basi altè cordata, acuminata, nunc integra, subrotundo-cordata, acuminata. Pedunculi multiflori, petiolis breviores. Calyces foliacei, glabri, sepalis corolla multò brevioribus. Corolla pulcherrime rosea, tubo subcylindrico inflato, limbo patente 5-dentato, tubo breviore. Stigma capitatum, bilobum, staminibus ferè cquale.


Nearly related to C. purpureus, the Convolvulus major of the gardens, from which it differs in having some of its leaves deeply 3 -lobed, in its general smoothness, in the proportion between the limb and the tube of the flower, and in the absence of all hispidity from the base of the calyx.

Said to be a native of South America. Received from the Botanic Garden of St. Vincent's, by the Comte de Vandes. Requires to be raised in a hot-bed in the spring, and planted out during the summer with other tender annuals.

We trust that no apology is necessary for our having adopted the opinion that Ipomæa and Convolvulus are not generically distinguishable, as at present constituted. But in admitting the propriety of this measure, it is necessary
to add, that we proceed no further with those modern writers whom we follow in this particular, and that, on the contrary, we are persuaded that the group now formed by the union of Ipomæa and Convolvulus contains, within itself, the rudiments of more than one well-marked genus, besides the Callistegia of Mr. Brown, the Argyreia of Loureiro, or Lettsomia of Roxb., and the Dufourea of Kunth.

Stem annual, twining, round, smooth, as are all the parts, except the young shoots, which are slightly downy. Leaves smooth, sometimes 3 -lobed, deeply cordate, acuminate, sometimes entire, roundish-cordate, acuminate. Peduncles many-flowered, shorter than petioles. Caly.xes leafy, smooth; their sepals much shorter than the corolla. Corolla of a beautiful rose colour, with a subcylindrical inflated tube, and a spreading 5 -toothed limb, shorter than the tube. Stigma capitate, 2-lobed, about the length of stamens.
J. L.


## 1000

# BORONIA denticulata. 

Toothletted Boronia.

OCTANDRIA MONOGYNIA.
Nat. ord. Rutacee. §. Diosmece Australasicce. Ad. Juss. mem. p. 99.

BORONIA.—Suprà, vol. 10. fol. 842.
B. denticulata; foliis linearibus retusis submucronatis denticulatis, pedunculis corymbosis, filamentis apice obtusis glandulosis. Dec. prodr. 1. 721 .
B. denticulata. Smith, tr. Linn. soc. 8, p. 284.

Rami teretes, glabri. Folia opposita, lineari-lanceolata, in petiolo attenuata, denticulata, punctata. Flores in corymbis terminalibus. Pedicelli clavati, unibracteati. Calyx tetraphyllus, sepalis ovatis, acutis, deciduis. Petala majora, conformia, purpureo-violacea. Filamenta basi ciliata, apice obtusa, glandulosa.

This pretty plant is a native of King George's Sound, New Holland, where the seeds, from which the individuals now in our gardens were raised, were collected by Mr. William Baxter. Our drawing was made from a plant in the rich collection of Mr. John Mackay, of the Clapton Nursery, in April last.

An elegant green-house plant, with smoothish, round branches. Leaves opposite, linear-lanceolate, tapered into the petiole, toothletted, dotted. Flowers in terminal corymbs. Pedicels clavate, with one bract. Calyx 4 -leaved, with ovate, acute, deciduous sepals. Petals larger than sepals, and of the same form, of a purple violet colour. Filaments ciliated at base, obtuse and glandular at end.
$4$


## 1001

## HIBBERTIA pedunculata.

Long-stalked Hibbertia.

POLYANDRIA Dr.PENTAGYNIA.

Nat. ord. Dilleniacee.
HIBBERTIA. Supru, vol. 4. fol. 282.
§. III. Ovariis 2-4 pube brevi velutinis squamulisve lepidotis. Dec. syst. 1. 430.
H. pedunculata; foliis linearibus obtusiusculis margine subrevolutis, floribus pedicellatis digynis (tri-pentagynis), ovariis subincanis. Dec. l.c.-prodr. 1. 74.
H. corifolia. Bot. mag. 2672.

Suffutex pedalis, in spontaneis suberectus, in cultis decumbens. Rami filiformes, teretes, pilosi. Folia linearia, sessilia, obtusa, margine subdenticulata, parcè pilosa, adultis reflexis. Flores solitarii, terminales, pedunculati, pedunculo filiformi, piloso, colorato. Calyx inferus, unibracteolatus, pentuphyllus, sepalis concavis, pilosis, imbricatis, subinaqualibus, nunc margine nunc dorso coloratis. Petala lutea, sessilia, oblonga, emarginata. Stamina lutea, simplici serie hypogyna; filamenta subulata; antheræ continuce (innatce), obtuse, introrsa, lateraliter dehiscentes. Ovaria 3-5, subrotunda, sericea; ovulis cuique ovario sex, horizontalibus, lateri interiori ovarii adharentibus, exarillatis: foramine obscuro hilo proximo. Styli subulati, patentes. Stigma simplicissimim. Carpella membranacea, 3-4-sperma. Semina immatura arillo lacero diaphano involuta, testí pallida, fragili.

This plate was in the hands of the colourer when the last number of the Botanical Magazine reached us, in which we find the same plant figured under the name of $H$. corifolia. We are, however, enabled, from an examination of authentic specimens in the Banksian Herbarium, to determine that the species is the H . pedunculata of Mr. Brown, and, consequently, that it is a native of Port Jackson, and not of Nepal, as is conjectured by our contemporary.

This plant offers a beautiful proof of the truth of an observation first made, we believe, by Mr. Brown, that in
seeds which are provided with an arillus, that appendage is not developed till after the fecundation of the infant ovulum. If the unimpregnated ovulum of our subject be examined, no traces will be discovered of the arillus, which is subsequently so rapidly formed as, in maturity, to form a complete wrapper for the seed. This may perhaps have given rise to M. Decandolle's mistake in supposing that the seeds of Hibbertia are destitute of arillus.

A neat little greenhouse plant, with the appearance of some small-leaved Helianthemum. Our drawing was made from Mr. Lee's Nursery, in Jụne 1825.

An undershrub about a foot high, in wild specimens nearly erect, in cultivated plants decumbent. Branches filiform, round, hairy. Leaves linear, sessile, obtuse, somewhat toothletted at the edge, slightly hairy, the adult leaves being reflexed. Flowers solitary, terminal, stalked, with a filiform, hairy, coloured peduncle. Caly. $x$ with one little bractea, 5 -leaved; sepals concave, hairy, imbricated, somewhat unequal, coloured either at back or margin. Petals yellow, sessile, oblong, emarginate. Stamens yellow, hypogynous in a simple series; filaments subulate; anthers continuous, innate, obtuse, turned inwards, bursting at the sides. Ovaries $3-5$, roundish, silky; ovules in each ovarium 6, horizontal, adhering to the inner edge of the ovarium, without arillius; with an obscure foramen next the hilum. Styles subulate, spreading ; stigma quite simple. Carpella membranous, 3-4-seeded. Immature seeds involved in a transparent lacerated arillus; testa pale and brittle.
J. L.



# EULOPHIA streptopetala. 

## Twisted-petaled Eulophia.

## GYNANDRIA MONANDRIA.

Nat. ord. Orciimes. Tribus V. Vandeæ. Lindl, coll. et Orch. scel. EULOPHIA.-R.Br. "Pollinia 2, posticè sulcata; caudiculé lineari planâ, glandula reflexâ. Anthera semibilocularis, terminalis; opercularis, decidua. Stigma excavatum, rostello acuto. Columna libera, semiteres, aptera. Labellum cucullatum trilobum calcaratum: lobo medio cristato, cum columna articulatum. Sepala subæqualia, libera.-Herbæ (Africe tropice et Indice orientalis) foliis rigidis, lanccolatis, nervosis, radicalibus, scapis radicalibus, floribus sparsis spicatis.
E. streptopetala; foliis lineari-lanceolatis nervosis, scapis simplicibus, sepalis exterioribus oblongis obtusis : interioribus duplo majoribus coloratis basi tortis, labelli lobo medio rotundato emarginato: calcare conico abbreviato.
Folia è basi bulbosa squamosa assurgentia, lineari-lanceolata, acuta, 3-nervia, basi vaginantia, venis primariis parallelis, contiguis, venulis propriis paucissimis interjectis: communibus nullis. Scapus radicalis, erectus, teres, vaginatus. Spica clongata, multiflora. Flores solitarii, speciosi. Bracteæ ovato-lanceolate, ovario breviores. Perianthium patens. Sepala exteriora oblonga, obtusa, patentia, olivaceo-viridi maculata, basi, nisi ad imum labellum, omninò distincta; duo interiora majora, lutea, subrotunda, venosa, unguis torsione reversa, basi omninò libera. Labellum lutcum, liberum, cum basi columnc articulatum, calcaratum, trilobum ; lobis lateralibus erectis, intermedio oblongo, retuso, suprà 3 -costato; calcare recto, ovario duplo breviore. Columna libera, erecta, semiteres, subclavata; clinandrium planiusculum, anticè declive; rostellum ovatum; stigma cxcavatum. Anthera ovata, ecristata, anticè in rostro pallido cartilagineo acuminata, semibilocularis, valvulis inferioribus subcompletis, membranaceis. Pollinia duo, oblonga, posticè sulcata; caudiculâ planâ, lineari, cartilagineâ, glandulầ parvâ, brunned.

A fine new addition to the genus Eulophia, for a drawing of which we have to thank Mr. Colvill, at whose Nursery it was made in March last. A tender stove plant, requiring to be cultivated in well-drained pots of
light vegetable mould, in which a small portion of loam and silver sand has been mixed.

Said to be a native of Brazil; but this we conceive must be an error; it is more probably an inhabitant of either tropical Africa or India.

Leaves rising from a scaly, bulbous base, linear-lanceolate, acute, 3 -nerved, sheathing at base; vence primaria parallel, contiguous, venule proprice very few, communes none at all. Scape radical, erect, round, sheathed. Spike long, many-flowered. Flowers solitary, shewy. Bractece ovate-lanceolate, shorter than the ovarium. Perianthium spreading. Exterior sepals oblong, obtuse, spreading, spotted with olive-green, at the base, excepting at the bottom of the labellum, entirely distinct; the two inner larger, yellow, roundish, veiny, twisted round by a turn in their unguis, quite separate at base. Labellum yellow, distinct, jointed with the base of the columna, calcarate, 3 -lobed; lateral lobes erect, middle one oblong, retuse, with 3 ribs above; spur straight, twice as short as ovarium. Columna distinct, erect, half-round, somewhat clavate; clinandrium flattish, sloping forwards; rostellum ovate; stigma excavated. Anther ovate, without a crest, lengthened in front into a pale cartilaginous beak, half two-celled, with the lower valves nearly complete, and membranous. Pollen masses 2, oblong, furrowed behind; caudicula flat, linear, cartilaginous; gland small, brown.
J. L.

## 1003

# SALVIA Simsiana. 

Broad-bracted Sage.

DIANDRIA MONOGYNIA.
Nat. ord. Labiate.
SALVIA. Suprà, vol. 4. fol. 347.
S. Simsiana; bracteis concavis aristatis flore longioribus coloratis: summis sterilibus, galea falcata emarginata, foliis ovatis rugosis repando-crenatis. Schultes mantissa; 8. 210.
S. bracteata. Bot.mag. 2320.

This species of Salvia is commonly received from the gardens of the Continent under the name of S. bracteata, which has been adopted by Dr. Sims in the Botanical Magazine. It is, however, so different both from the S. bracteata of Russel's Aleppo, and from the plant described by the Abbe Poiret under the same name, that Professor Schultes has in his Mantissa properly altered its denomination to that under which it stands recorded here.

A beautiful perennial, flowering in abundance in June and July. It is too high for a select flower-bed, but is admirably adapted for the borders of shrubberies, to which it is a striking ornament.

Nearly related to Salvia Sclarea, from which it is found to differ in having the bracteæ and calycine teeth more elongated; in the upper lip of the corolla being narrower, longer, and violet, not red; and in the filaments being more curved.

Native of Russia, whence it was introduced in 1820. From plants raised by the Horticultural Society from seeds sent over by Baron Jacquin, our drawing was made in July 1825.
$10101 \%$


## 1004

# GLOXINTA hirsuta. 

## Hairy Gloxinia.

## DIDYNAMIA ANGIOSPERMIA.

Nat. ord. Gesnmetee.
GLOXINIA. Suprà, vol. 3. fol. 213.
G. hirsuta; foliis oblongis cordatis bullatis utrinque hirsutis, corollæ laciniis distantibus retusis, calycibus acutis.
Radix.-Caulis brevissimus, erectus, lignosus, duas lineas crassus, clandestinus. Folia in apice caulis fasciculata, oblonga, obtusa, crenata, cordata, petiolata, hirsuta; petiolo pallidè viridi, tercte, laminâ bullatâ costâ $\frac{1}{2}$-immersâ, venis altè impressis : primariis baseos obliquis, superioribus patentibus, arcuatis externisque confluentibus, costalibus indistinctis; venulis propriis communibusque subaqualibus, his subsimplicibus. Pedunculi solitarii, erecti, villosi, villis patentibus. Calyx campanulatus, suberectus, villosus, 5-lobus, lobis aqualibus, ovatis, acutis, tubi sui longitudine, obscure 3-nervibus, nervis lateralibus intramarginalibus. Corolla alba, venis marginibusque limbi letè caruleis, infundibularis, inter duos lobos calycis inforiores declinatus, eoque ferè triplo longior; tubo subarcuato, extùs piloso, intùs glabro, purpurco punctato, limbo obliquo, patente, 4-partito, lacinia superiore latiore 2-lobo; laciniis 3 -nervibus: nervis apice furcatis, ramosis, lateralibus intramarginalibus. Stamina 4, didynama, basi tubi inserta, guinto sterili glabro; filamenta glabra; antheræ cordatce, glabra, loculis parallelis. Glandulæ 5, staminibus alterna, parva, alba, crassa, subulata, obtusa. Ovarium semisuperum, uniloculare, placentis duadbus simplicibus parietalibus polyspermis, ovulis minutis, diaphanis, foramine basilari. Stylus subulatus, rectus, teres, pubescens. Stigma concavum, obsoletè bilobum.

This new species of Gloxinia is a native of Brazil, whence it was sent by $\mathrm{Mr}_{r}$. William Harrison, of Rio Janeiro, to his brother, Richard Harrison, Esq., of Aighburgh, near Liverpool, in whose stove it flowered last spring. The accompanying figure has been copied from a drawing made in Brazil, and communicated, with specimens of the plant, by Mr. Harrison. From this it appears that the stipes when old elongates and becomes prostrate, a state in which we have not observed it in this country.

A tender stove plant, requiting the same treatment as its more beautiful congencr, Gloxinia speciosa, from which it differs, besides its foliage, in not having the lobes of the corolla imbricating at their basc.

In the foregoing description of this plant will be found some expressions with respect to the venation, if it may be so called, ot the leaves, which require explanation. It has always appeared to us a great defect in Botanical terminology, that no precise method should have been contrived for explaining the peculiar arrangement of the veins of leaves. The observations of Professor Link upon this subject (elem. 183) are not sufficiently circumstantial to form an exception to this remark. Botanists are accustomed to speak of leaves with reference to their figure, their surface, their margin, or their position, in the most accurate terms; but of the arrangement of the veins, and of the relation which they bear to each other in different parts of the leaf, the mode of expression is usually too indefinite to convey any clear ideas. And yet we believe the subject will be found of the first degree of importance in considering the natural affinities of vegetables. All practical Botanists, and the greater part of common observers, recognise a plant by its foliage as readily as by its inflorescence. It is by the leaves and branches of its trees, and not by their flowers, that the vegetation of a country acquires those peculiarities of appearance for which the different latitudes of the world are remarkable. In our own country, it is not the puny flower of the Oak, and of other Amentaceæ, which gives a character to our forests, but the clothing of verdant foliage with which the All-wise Creator has provided them; neither in the Tropics, does the inflorescence of the Bananas and the numerous tribes of Palm Trees give that extraordinary appearance to the landscape which is produced by the wondrous foliage of those extraordinary trees, which have been well described as the princes of the vegetable world.

As there is something which may be considered heterodox in ascribing so unusual a degree of importance to the characters of an organ which is but little attended to in systematic arrangement, and which has been absolutely in theory, though not in practice, excluded from generic distinctions by Linnæus, we may be permitted to cite in our aid a passage from a modern work, which, without detracting from the merits of other publications, may be pronounced the most perfect introduction to Botany which has yet been produced. "Omnes ferè Botanici," says Professor Link, " genera artificialia constituunt, nam notas ex inflorescentia, foliiis, caule, radice desumtas excludunt. Admittendas esse nullum dubium, quamvis cautè, ne mutabiles constantibus misceas." Elem. 435.

How, indeed, can it be doubted that organs from which vegetation may almost be said to derive its very existence, of which the flowers, and all that depend upon them, are mere metamorphoses, and which thus perform the most essential vital functions of vegetable life, are of the utmost importance in considering the mutual relations of the creations by which they are borne?

Having, then, so high an idea of the relation which the peculiarities of leaves bear to the general arrangements of nature, we may
be permitted to occupy something more than our usual space in endeavouring to explain in what way we conceive it possible to name the various forms of venation, so as to render them capable of being adapted to methodical description.

This object will be most readily effected by describing the idea we attach to a simple leaf, of the most complete kind, in any common Dicotyledonous plant.

Such a leaf has a main bundle of vessels running through its axis from the base to the apex, which bundle of vessels is called a costa. It is usual to ascribe only one costa to a simple leaf, all lateral ramifications, from whencesoever they proceed, being considered to be lateral veins. It is, however, more natural to understand that in truly lobed leaves, which may be supposed to be simple leaves approaching a state of composition, there are several costæ, the bundles of vessels commonly called lateral veins, and passing from the base of the leaf to the apex of each lobe in an uninterrupted right line, being in fact of that nature; as is plainly shewn by the disposition of the veins which pass from each costa.

The costa sends forth, alternately right and left along its whole length, ramifications (vena primaria) of less dimensions than itself, but more nearly approaching it than any other veins. These venæ primarix proceed from the costa at various angles, and are carried towards the margin ; when they arrive at a certain distance from the axis they take a curve in the direction of the margin, again bend inwards towards the axis, and in this course form an anastomosis with the back of the vena primaria which lies next them. That part of the vena primaria which is beyond the anastomosis thus described, having a curved direction, may be called the vena arcuata. Between the latter and the margin, other veins, with a similar direction and of similar power, occasionally intervene; as it will sometimes be necessary to speak of them, they may be distinguished by the name of vena externa. The margin itself and these last are connected by a fine network of minute veins, which we would designate as venula marginales.

From the costa are often produced, frequently at right angles with it, and alternate with the venæ primariæ, smaller veins, which may be considered incomplete venæ primariæ, and may be not improperly named vena costales. The venæ primariæ are themselves connected by veins which proceed from each, and anastomose in the area between them. These veins, where they immediately leave the vena primaria, we would name venula propric, and the reticulation formed by the anastomoses of their extremities, venula communes.

We have said that the venæ primariæ proceed from the costa at angles of various degrees; we conceive that terms should be employed to explain nearly at what angle they leave the costa; as, subparallele when they form an angle of $10^{\circ}$ to $20^{\circ}$, as in most monocotyledones; patentes, if the angle varies from $40^{\circ}$ to $60^{\circ}$, as in the plant which has
given rise to these remarks; obliqua, when the angle exceeds $90^{\circ}$; and so on.

Having thus attempted to establish the necessary nomenclature, we may proceed to shew, as far as our limits will allow us, in what way it may be adapted to practice.

If we view the subject only with reference to the first great divisions of the vegetable kingdom, we shall find that the development of the veins is always in direct proportion to the dignity of the division. Thus, in the lowest tribes, Fungi and Algæ, veins do not exist; in Musci they appear under the simple form of a more or less complete costa; in Filices the costa becomes more perfect, and numerous lateral veins are formed, which do not, however, arrange themselves under the same laws as obtain in the higher divisions, but are all of equal power, and may perhaps be considered as venulx proprix. In Monocotyledones, the next in rank to Filices, venæ primariæ are for the first time formed, and are cither connected or not by means of venulx proprix; but, with the exception of some Aroideæ, plants of this division possess neither venæ arcuatæ, venæ externæ, nor venulæ marginales, these being developed only in those highest tribes of vegetables called Dicotyledones.

If we consider the peculiarities of venation in a more confined sense, we shall find them scarcely less important. True Aroideæ are distinguishable from other Monocotyledones by the presence of venæ arcuate and venulx marginales. In some plants of the same great division, both venulæ propriæ and venulæ communes are absent; in others, the former only cxist ; the latter are rarely discoverable. The absence of venæ arcuatæ and externæ, and the abundance of venulæ, proprix, give the peculiar character of the leaves of Amentacer. Nearly the same observation may be made upon Dilleniaceæ, with the exception of Hiblertia and its allies. Myrtaceæ are well characterised by the parallelism and straightness of the venæ primariæ, the confluence of all the venæ arcuatæ into a continuous line parallel with the margin of the leaf, and the occasional presence of venæ externx in the same direction as the venæ arcuatr. This observation confirms the propriety of excluding Philadelphus from the order, as has lately been proposed by Mr. Don, but is also a strong argument against the separation of Punica, to which, indeed, other and perhaps better objections might be urged.


## 1005

## DAVIESTA cordata.

## Cordate-leaved Daviesia.

## DECANDRIA MONOGYNIA.

Nat, ord. Leguminostac. Tribus I. Sophoreec. Dec. DAVIESIA.-Suprà, vol. 9. fol. 728.
D. cordata; foliis cordatis amplexicaulibus reticulato-venosis, pedunculis axillaribus aggregatis corymbosis multifloris. Dec. prodr. 2. 114.
D. cordata. Smith in act. Linn. 9. 253.

Folia cordata, amplexicaulia, acuminata, glaberrima, cartilaginea, reticulata, venis primariis patentibus, arcuatis externisque ramosissimis, costalibus nullis; venulis propriis communibusque aqualibus, intertextis. Corymbi axillares, pedunculuti, folio breviores. Calyx ebracteolatus, glaberrimus, coloratus, campanulatus, labio superiore lato, truacato, cmarginato, inferiore cequilongo tridentato. Vexillum luteum, erectum, subrotundum, cmarginatum, basi purpureo-fusco maculatum, ad apicem unguis calycis longitudine subcallosum. Alæ oblongce, fusco-lutece, carince longitudine, vexillo breviores, basi hinc v. utrinque cordata. Carina falcata, acuta, purpurco-curantiaca. Stamina 10, basi calycis inserta, incequalia; filamenta linearia, apice retusa.' Anthere parva, subrotunda, innata. Pollen minimum, sphcericum; bi-tripapillosum. Ovarium glabrum, pedicellatum, lanccolatum, trispermum. Stylus subulatus, glaberrimus. Stigma simplex.

Another new acquisition to our gardens, for which we have again to record the collection of Mr. Mackay, of Clapton, to whom it was communicated by Wm. Townshend Aiton, Esq., from his Majesty's Gardens at Kew.

A beautiful greenhouse plant, flowering in profusion in the month of May; native of New Holland.

Leaves cordate, amplexicaul, acuminate, quite smooth, cartilaginous, reticulated; vence primarice diverging at an angle of about $50^{\circ}$, vence arcuatce and externce much branched; costales none; venulice proprice and communes equal and interniingled. Corymbs axillary, pedunculate,
shorter than the leaf. Calyw without bracteolæ, quite smooth, coloured, campanulate; the upper lip broad, truncate, emarginate; the lower of the same length, and 3-toothed. Vexillum yellow, erect, roundish, emarginate, spotted at base with purplish-brown; at the top of the unguis, which is as long as calyx, slightly callous. Alce oblong, brownish-yellow, length of carina, shorter than vexillum, cordate on one or both sides at the base. Carina falcate, acute, purplish-orange. Stamens 10, inserted into the base of the calyx, unequal ; filaments linear, blunt at end; anthers small, roundish, innate. Pollen very small, spherical, with two or three papillæ. Ovarium smooth, pedicellate, lanceolate, 3 -seeded. Style subulate, quite smooth. Stigma simple.

## J. L.

## NOTE.

We are requested by Mr. Mackay to state that the Isotoma axillaris and Velleia paradoxa of this work, were both communicated to him, as well as the above, from the Kew Garden, by Mr. Aiton.

# PYRUS floribunda. 

Many-flowered Aronia.

## ICOSANDRIA DI-PENTAGYNIA.

Nat. ord. Pomacer. Rich. Lindl. Rosacearum, sect. 1. Juss. gen. Tribus VIII. Dec. prodr.

PYRUS. Supra, vol. 8. fol. 651.

Sect. Aronia Nob. (Adenorachis Decand. prodr. 2. 637.)
P. foribunda; foliis obovato-lanceolatis argutè crenulatis costâ glandulosâ : subtus ramis pedicellis calycibusque densè tomentosis, corymbis multifloris, pomis nigris sphæricis pedicellisque glabris, ramis reclinatis.
Frutex, ramis adultis cinereis, lavibus, novellis tomentosis. Folia obovatolanceolata, argutè crenulata, suprà glabra, cosita glandulosd, junioribus obtusis subtùs densè tomentosis; adultis subtùs undique pubescentibus, acuminatis. Venæ inconspicuc, subaquales, primariæ patentes, rectiusculæ, quandoque bifurce, arcuatæ abruptè inflexa, externæ hinc cum primariis continuce elongata; venulæ propriæ subparallele, transverse, communes reticulata.' Corymbi copiosissimi, multiflori, foliis longiores, pedicellis calycibusque undique tomento densissimè vestitis. Flores albi; petalis concavis integris. Antheræ inaperta rosec. Styli semper 5, glabriusculi. Poma ferè tot quot flores, pisi majoris magnitudine, spherica, glabra, atro-purpurea, acerba, calyce parvo staminibusque persistentibus coronata.

So many different plants are to be found either in gardens or herbaria, to which the definitions of the Pyrus arbutifolia and P. melanocarpa of authors are applicable, that we know not on which of those many kinds to fix those names. Without attempting to enter into any critical examination of this point, we may be here permitted to distinguish this species at least as a very distinct form from any to which the name of Pyrus arbutifolia can be applied. In the downiness of its leaves and calyces it agrees with that plant, but in the colour of its fruit it resembles $P$. melanocarpa; in habit, it is in a manner intermediate between the two ; and in its peculiar characters very distinct from both.

Our drawing was made in the Garden of the Horticultural Society, in May last, from a plant presented to the Society by Messrs. Loddiges, under the name of Mespilus floribunda, which we have partially adopted. It has been many years in this country, as appears from the Banksian Herbarium, in which are laid specimens of it, from the Garden of the late Dr. Fothergill. In the same invaluable collection are also two specimens from the Garden of the late Mr. Peter Collinson, marked "Mespilus arbutifolia L. var. calycibus hirtis." Of these, we conceive the smaller one, on the right side, to be of this species; the other is probably from a different plant.

A hardy shrub, forming a dense bush, which in the spring is covered with a profusion of white flowers, elegantly set off by the rosy red of their unburst antheræ; and in the autumn rendered scarcely less an object of ornament by the clusters of dark blackish-purple berries with which its branches are loaded.

A shrub with the full-grown branches reclinate, cinereous, and smooth, the young ones downy. Leaves obovate-lanceolate, finely crenulate, smooth above, with a glandular costa, the younger obtuse, densely downy beneath, the old ones pubescent beneath, and tapering to a point. Corymbs produced in unusual abundance, many-flowered, longer than the leaves; the pedicels and calyxes covered all over with down. Flowers white, with concave, entire petals. Anthers, when unexpanded, red. Styles always 5, smoothish. Haws almost as many as there are flowers, the size of a large pea, round, smooth, dark purple, austere, crowned by the minute calyx and persistent stamens.
J. L.

# ONCIDIUM pubes. 

## Olive-green Oncidium.

## GYNANDRIA MONANDRIA.

Nat. ord. Orciutdex. Tribus V. Vandeæ Lindl.
ONCIDIUM Swz.-Pollinia duo cereacea posticè sulcata: caudicula planâ subulatâ; glandulá minutâ. Anthera infrà-apicilaris terminalis opercularis decidua $\frac{1}{2}$-bilocularis clinandrio marginato. Stigma excavatum apertum, rostello vario. Columna libera semiteres apice alata. Labellum cum columna continuum indivisum disco tuberculato. Sepala libera patentia subæqualia: 2 inferioribus labello suppositis nunc connatis.-Herbæ, rarò bulbosa, (Americæ æquinoctialis), foliis planis carnosis, scapis radicalibus paniculatis, floribus sapius luteis maculatis inodoris.
§. ** Perianthii foliola 2 anteriora connata. Lindl. coll. bot. 27.
O. pubes; bulbis subcylindricis monophyllis, foliis lanceolatis nervosis, paniculâ simplice multiflorâ subsecundâ, sepalis 4 fasciatis: inferiore minore bidentato, labello pandurato, columnæ alis linearibus obtusis, stigmate rostelloque pubentibus.
Bulbi caspitosi, 6 uncias longi, teretes, compressi, corrugati. Folia solitaria, bulbis circiter duplo longiora, elliptico-lanceolata, utrinque acuta, coriacea, plicata, obsoletè nervosa. Scapus radicalis, debilis, teres, foliis longior, squamis paucis distantibus membranaceis vestitus. Panicula simplex, subsecunda, patens, multiflora. Bracteæ ovata, membranacece. Flores vix resupinati, extìs olivacei, intìs spadiceo-fasciati et maculati. Sepala 4, conniventia; 3 superiora obovata obtusa: lateralibus subundulatis; inferius dependens, labello suppositum, oblongo-lanceolatum, canaliculatum, apice bilobum, sepalis superioribus multò minus. Labellum porrectum, unguiculatum, fusco-rubrum, panduratum, cum columne basi continuum; ungue carnoso, margine recurvo, suprà bicristato: cristâ posteriore depressa, transversìm rugosâ, anticè bicorni, anteriore cordatâ, anticè obsoletè 3-dentatâ, dente medio submembranaceo fornicato, lobo lineari canaliculato utrinque è regione criste anterioris dependente: ungue suo subrotundo undulato subrhomboideo, rugis plurimis in disco uniscrialibus elevatis carnosis. Columna compressa, pubescens, basi convexa, apice utrinque alata, alis linearibus intcgris porrectis, apice carnosis, truncatis. Clinandrium marginatum, denticulalum. Stigma excavatum, ovale, basi villis inflexis clausum! Anthera infra-apicilaris, subrotunda, apice recurva, bicornis: cornubus ascendentibus obtusis fimbriatis. Caudicula subulata. Glandula minuta. Rostellum nullum.
plant from which this drawing was taken flowered in the stove in March of the present year.

Easily cultivated in decayed vegetable soil, in a good stove, not exposed to the direct rays of the sun. Being one of the bulbous tribe of Epidendrums, it is not advisable to cultivate it in baskets suspended in the air, such treatment being applicable to those kinds only which are not bulbous.

This species offers the only instance we at present recollect, in the tribe, of hairs being produced around the margin of the stigma; they exist here in the form of a soft, conspicuous, thin, villous border.

Bulbs forming a tuft, about 6 inches long, round, compressed, wrinkled. Leaves solitary, about twice as long as bulbs, elliptical-lanceolate, acute at each end, coriaceous, plaited, obsoletely nerved. Scape radical, weak, round, longer than leaves, clothed with a few distant membranous scales. Panicle simple, rather one-sided, spreading, manyflowered. Bractea ovate, membranous. Flowers scarcely resupinate, olive-green outside, banded and spotted with light brown in the inside. Two lower sepals connate, smaller than the rest. Labellum panduriform, much tuberculated on the disk. Columna with two little linear blunt fleshy wings. Clinandrium with a toothletted margin. Stigma and rostellum downy.
J. L.


# ALSTRÖMERIA pulchella. 

## Red speckled-flowered Alströmeria.

HEXANDRIA MONOGYNIA.
Nat. ord. Amarilidiee.
ALSTRÖMERIA. Suprà, vol. 9. fol. 731.
A. pulchella; caule erecto gracili, foliis obovato-spatulatis lanceolatisque ciliatis, umbella multiflora, pedunculis bifloris, perianthii laciniis quatuor exterioribus obovato-spatulatis æqualibus serratis, duabus interioribus longioribus lineari-spatulatis integerrimis. Hooker's exot. flora, 64.
A. pulchella. Bot.mag.t. 2353.

This noble plant is a native of Chile, from which country it has been sent to England at various times since the year 1822. It is not a very tender species, but, like all its family, flowers best if submitted to the heat of a stove or of a tan-bed during the period of its vegetation. As soon as it has blossomed, the stems begin to decay, which should be encouraged by removing the pots into a drier place. When the stem is entirely withered, the roots should either be taken up, and preserved in paper bags, in a warm place, till the succeeding season, or the pots should be placed on shelves out of the reach of water and of frost.

The roots of all the species abound in a nutritive fæcula, which may be prepared for food; from those of a kind lately introduced by the Horticultural Society from the native country of our present subject, and which we do not at present distinguish from the Alströmeria versicolor of the Flora Peruviana, a substance resembling Arrow-root is prepared in large quantities by the people of Chile.

Our drawing was made in June of the present year, at VOL. XII.
the Nursery of Mr. Samuel Brookes, of Ball's Pond. The leaves were more acute than they have been hitherto represented. Thrives in a mixture of fresh loam and sand, and is to be increased, we presume, either by offsets or seeds.

To the ample description given by Professor Hooker we find nothing to add.

A vacant page gives us an opportunity of continuing the remarks upon the venation of leaves which formed part of the subject of our last number, and which have since excited some degree of interest among Botanists. Upon that occasion, the attention of the public was called chiefly to a proposed new method of naming the veins of leaves, so as to enable the observer to express, with greater precision than heretofore, the real nature of the differences which are to be found in venation. Whether any advantage is likely to accrue to Botany from the use of such terms, or whether they are the best which could be contrived for the purpose, it is for others to judge. The immediate object of the remarks now about to be made, will be to shew how far our opinion of the importance of systematic distinctions drawn from foliage is confirmed by the authority of previous writers.

To begin with one of the highest authorities of this age, we shall first cite the learned M. Decandolle, who, in the first edition of his Théoric élémentaire de la Botanique, describes fourteen modes of venation, to which he attaches as many distinctive names; to these another is added in the second edition of the same work. They have been subsequently applied by him to characterise the vegetation of those natural orders of plants which have been under. his consideration during the progress of his Systema.
M. Achille Richard adopts the terminology invented by Decandolle for leaves with particular forms of venation, and observes that they are of the very first importance, and may even serve to characterise certain divisions of plants; which he exemplifies by noticing the peculiar venation of Monocotyledones, with the exception of Aroideæ.

Professor Link defines several kinds of venation, and
attributes to Scitaminer and Orchidex one which he calls hinoideum. But he does not exemplify the application of the terms to practice.

Professor Oken, of Jena, has also distinguished two sorts of leaves, the differences of which depend upon their venation; the one is that of Monocotyledones, to which he applies the common name of Blatt, the other is the leaf of Dicotyledones, which he terms Laub, and which he considers a higher degree of evolution ; and, fully aware of the great importance that attaches to these two forms, he has made them part of the basis of his metaphysical system of plants.

We therefore trust that enough has been said to shew that we are not singular in our opinion of the value which is to be ascribed to peculiarities of venation. It may be said we wish to carry the idea further than any of the authorities now cited; which we are far from denying. On the contrary, we think that the nomenclature of veins which we have attempted to establish will give facilities which have long been wanted for distinctly characterising leaves, and that nothing but the want of such facilities has been the cause of the subject having hitherto met with little attention. A reference to the works of Decandolle and Link will shew how imperfect are their definitions of the veins of leaves, for want of proper terms, and how difficult, under such circumstances, it has been to apply them to practice. It is very doubtful, however, whether the distinguishing by name any other forms of venation than those three principal kinds which apply to the chief divisions of vegetation is worthy of adoption. Modifications of these are, we think, more conveniently explained by positive description than by any particular term.
J. L.


# ※SCULUS neglecta. 

Dingy-flowered Horsc-Chestnut.

IIEPTANDRIA MONOGYNIA.

Nat. ord. Hippocastanee.
ASCULUS. Suprà, vol. 4. fol. 310.


#### Abstract

E. neglecta; foliis lanceolatis serrulatis basi attenuatis planis subplicatis subtùs glabris ad axillas venarum pilosis, calyce campanulato obtusè 5 -dentato pedunculi longitudine, staminibus corolla sublongioribus, petalis superioribus venosis, ovario tomentoso. E. flave affinis; differt tamen, Petiolo glabro subterete vix depresso;

Foliolis magis glabris, ad axillas venarum pilosis, venis suprà rufo-puberulis; Calyce subrotundo campanulato, .pilis nigris, glandulosis vestito, pedicelli longitudine, subregulariter obtusè 5-dentato: Petalis E. Alava similibus, superioribus latioribus, cuneato-qbovatis, subundulatis, pulcherrimè rubro venosis; lateralibus rubentibus; Staminibus pilosiusculis petalorum lateralium longitudine; Ovario oblongo tomentoso.


This new species was purchased by the Horticultural Society from M. Catros, of Bourdeaux, under the name of Æ. Ohiotensis, a very different kind. It is most nearly related to $\mathbb{Æ}$. flava, a common plant, from which it differs in several important respects.

It flowers a week or ten days earlier than that species; the Petiole is smooth, roundish, and scarcely flattened; the Leaflets are more glabrous, with rufous down on the veins on the upper side, and with hairs at the axils of the veins beneath; the Calyw is roundish, campanulate, clothed with black, glandular hairs, is the length of the pedicels, and is pretty regularly and bluntly 5 -toothed; the Petals are like those in $\mathbb{E}$. flava, but the upper ones are broader, cuneate-obovate, somewhat wavy, and beautifully veined with red ; the lateral petals are also pinkish ; the Stamens
are somewhat hairy, the length of the lateral petals, through which they often protrude, and become deflected.

A handsome hardy small tree, fit for adorning the shrubbery. It may be propagated by budding upon the common Horse-chestnut.
J. L.


## 1010

# ANDROMEDA dealbata. 

Blue-leaved Andromeda.

DECANDRIA MONOGYNIA.
Nat. ord. Ericee.
ANDROMEDA. Suprè, vol. 10.fol. 807.
A. dealbata; foliis reticulatis serratis ovali-lanceolatis acutis utrinque ramisque glaucis: supcrioribus angustioribus, ramis floriferis foliosis, floribus axillaribus aggregatis, corollis campanulatis alte 5 -partitis. Andromeda speciosa glauca. Watson Dendr. 126.

Frutex sempervirens, undique pulvere casio irroratus. Folia serrata ovali-lanceolata, acuta, superioribus angustioribus sœpè integris. Flores è ligno annotino folioso axillares, fasciculati, albi, cernui. Pedicelli glabri. Calyx brevis, obtusè 5-partitus. Corolla campanulata, altd 5-partita, laciniis basi angustioribus, apice acutis.

A native of North America, whence plants were introduced to this country by the late Mr. Lyons. A hardy shrub, which thrives well in the American border under the management usually applied to other delicate plants from the same country. Our drawing was made at Mr. Lee's Nursery, in June last.

This species seems to be intermediate between $A$. pulverulenta and A. mariana. It differs from the former in the acuteness of its leaves, and in the distinctness of their serratures, the leaves of A. pulverulenta being crenated rather than serrated; but it is especially characterised by the deepness of the divisions of the corolla, which extend almost to its base. The upper leaves are, moreover, always narrower, and frequently entire. From A. mariana its differences are too obvious to need explanation.

An evergreen shrub, covered all over with a blue bloom. Leaves serrated, oval-lanceolate, acute, the upper being
narrower, and often entire. The Flowers proceed from the old wood in axillary fascicles, and are white and cernuous. Pedicels smooth. Calyx short, bluntly 5-parted. Corolla campanulate, deeply 5 -parted, with the segments narrower at the base, and acute at the apex.
J. L.


## 1011

## PITCAIRNIA bromeliæfolia.

## Pine-Apple-leaved Pitcairnia.

hexandila monogynia.

Nat.ord. Bromeliacele.
PITCAIRNIA, L'Herit.-Calyx inferus duplex uterque tripartitus; interior corollaceus; laciniis basi squamâ instructis. Capsula trigona, trilocularis; loculis polyspermis. Semina nuda.——Caulis herbaceus, erectus, simplex. Folia angusta, spinosa. Flores spicati, bracteati. Kunth. synops. 1. 297.
P. bromeliafolia; foliis ciliato-spinosis, pedunculis germinibusque glaberrimis. Ait. Kew. 1.401. Willd. sp. pl. 2. 10.
P. bromeliæfolia, L'Herit. sert. angl. 7. t. 11. Swartz. ind. occ. 1. 580. Bot. mag. 824.
Hepetis angustifolia. Swartz. prodr. 56.

A handsome stove plant, in its native country growing in shady places among rocks and precipices in the island of Jamaica. Our drawing was made in the Garden of Henry Bellenden Ker, Esq., in the summer of 1825.

Not having had an opportunity of examining specimens, we are unable to give a description of the plant.
J. L.


# SARCOCOCCA pruniformis. 

Nepal Bastard-Plum.

mongecia tetrandria.
Nat. ord. Euphorbiacee propè Drypetem.
SARCOCOCCA.-Flores monoici. ث. Cal. 4-sepalus æqualis. Stamina 3-4 exserta, circà rudimentum pistilli inserta. 우. Cal. polysepalus imbricatus. Ovarium biloculare loculis dispermis (monospermis ex Hookero). Stigmata duo sessilia simplicia. Drupa stigmatibus persistentibus coronata abortu unilocularis monosperma, putamine membranaceo; semen pendulum. venis primices (Nepalenses) sempervirentcs. Folia atterna, integra, exstipulata, tenuibus patentiles costaformibus cum margine parallelis, superioribus foeminei inferiores ternati.

Sarcococea pruniformis.
Tricera? nepalensis. Wallich in literis.
c, latifolia; foliis ovato-lanceolatis.
Pachysandria? coriacea. Hooker exot. flora, 148. $\beta$, angustifolia; foliis lineari-lanceolatis.
? Buxus saligna. Don. prodr. fl. nep. 63.
Drupa exsucca? Pruni avium magnitudine, stigmatibus duobus rigidis recurvis coronata, putamine membranaceo, abortu unilocularis, monosperma, semine altero abortivo. Semen ab apice loculi pendulum, totam cavitatem replens, nitidum, brunneum, immaculatum, testấ fragili, raphe solubili in chalazâ depressa infera desinente. Nucleus obovatus albumine piceo carnoso, embryone axili, radiculâ cylindricd obconicâ hilo proximd, cotyledonibus magnis planis orbiculatis.

We have received specimens of this plant from various quarters under the name of Prunus Puddum and Cocculus laurifolius, neither of which would have been applied to it if seen in blossom. Professor Hooker, to whom the flowers only were known, has referred it to Pachysandra, with some hesitation; and Dr. Wallich has more recently transmitted specimens to Europe under the name of Tricera? nepalensis. Having fortunately had an opportunity of examining in the Herbarium of the Horticultural Society
a small branch in fruit, which had been communicated by the Honourable Court of Directors of the East India Company, we have been enabled to ascertain the justness of Professor Hooker's expectations, that it would shew the plant to be referable to no genus at present published.

The fruit is a drupe, the size of a small plumb, containing one pendulous seed and the rudiments of an ovulum, and an obliterated cell, with two other pendulous ovula. The stigmas are represented by Professor Hooker to be two; we have found them so in all the cultivated specimens we have analysed, and the same structure obtains in our wild specimens of both the varieties above defined ; this character, which is not of common occurrence in Euphorbiaceæ, may, therefore, be considered constant, and, together with the drupaceous fruit, places the genus near Drypetes of Vahl, from which it differs in the structure of the male and female flowers. The former are so like those of the common Box, that, in the absence of fruit, there would be little apparent reason to suspect a difference from Buxus, of which genus the narrow-leaved variety of this plant has, in a considerable degree, the habit. We are hence disposed to think that Mr. Don's Buxus saligna may, at least, be referable to this genus, if it be not the very same as our second variety.

Tricera, to which Dr. Wallich has doubtfully referred it, is considered by M. Adrien de Jussieu to be the same genus as Buxus; and, whether so or not, differs from this genus in the structure both of its fruit and female flowers.

Our drawing was made in July 1825, at the Nursery of Mr. Colvill, to whom the plant had been presented by Mrs. Fairlie. It is a hardy stove or greenhouse plant, and more remarkable as a botanical curiosity than as an object of beauty.
J. L.


# CYCLAMEN Clusii. 

Ecluse's Sowbread.

## PENTANDRIA MIONOGYNIA.

Nat. ord. Primulacef.
CYCLAMEN L. - Calyx campanulatus semiquinquefidus persistens, laciniis ovatis. Corolla tubus subglobosus, calyce duplo major, brevis nutans; limbus 5 -partitus laciniis sursùm reflexis lanceolatis, fauce prominulâ. Filamenta brevissima in tubo corollæ, antheris conniventibus. Stylus staminibus longior, stigmate acuto. Capsula (bacca Juss.) globosa, apice 5 -fariàm dehiscens tecta putamine capsulari. Semina plurima subovata angulata. Römer et Schultes, 3. xiv.
C. Clusii; foliis orbiculato-cordatis subintegris subtùs discoloribus, corollæ laciniis lineari oblongis subdenticulatis: fauce patente, floribus æstivis synchronis odoratis.
Cyclamini odorati varietas. Clus. hist. p. 264.
Cyclaminus æstivus. Clus. hist. p. 265.
C. odoratum æstivo solstitio florens folio maculato. Casp. Bauh. Pin. p. 308.
C. æstivum. Parkins. Par. p. 195, fig. 2. p. 197.

Cyclaminum odoratum œstivum folio, maculato. . Mor. hist. v. 3. p. 552. sect. 13. tab. 7. fig. 17.
C. hederaefolia $\beta$. Raii hist. p. 1205.
C. europæum $\delta$. Lin. hort. Cliffort. p. 49.
? Cyclaminos italicus rotundifolius aut romanus. Passaei hortus floridus autumnalis, fig. 13.
? C. purpurascens foliis orbiculatis cordatis infernè purpurascentibus. Mill. dict.
Tuber subrotundo-depressum, hypogæum. Folia erecto-patentia, orbiculata, cordata, obtusa, sinu baseos aperto, suprà glabra maculata, subtùs purpurca, nunc integra, nunc subdentata. Pedunculi erecti, rubro brunnei, foliis longiores, leviter pubescentes. Flores synchroni, nutantes, odoratissimi, astivi. Calyx inferus, subrotatus, quinquedentatus, dentibus latè-ovatis, apiculatis, margine crosis, basi imbricantibus, venis utrinque 2-3, simplicibus, furcatis, coloratis, immersis. Corolla rubro-purpurea, tubo campanulato 6 angulari, calyce longiore ; limbo quinquepartito reflexo astivatione convolutiva, tubo triplo longiore; laciniis lineari-oblongis, contortis, acutis, obscurè denticulatis. Stamina 5, basi tubi inserta, eoque inclusa, laciniis corolla. opposita. Antheræ sessiles, ovata, 2-loculares, introrse, apiculate, poro
duplici apicis dehiscentes; connectivo carnoso. Ovarium superum ovatum teres uniloculare, placentâ liberá centrali, ovulis plurimis placenta spongiosa àmmersis. Stylus subulatus, basi coloratus, paululum ultrà tubam exsertus. Stigma acutiusculum.

This charming addition to the genus Cyclamen was sent to the Horticultural Society from Florence, by the Rev. David Lysons, in 1824. It forms the third sweet-scented species in our gardens, and the second of the hardy ones, and is one of the most desirable plants that has been introduced for many years. If we are right in our synonym from Parkinson, it is, however, by no means a stranger to this country; but, like many other plants which were known to that indefatigable collector, it has been long lost.

A hardy tuberous-rooted plant, flowering and leafing at the same time. The blossoms begin to open at Midsummer, and continue in perfection till September, enduring till the common autumnal species appears. The corolla is of a clear light purple, and emits so delicious an odour, that no plant can be better calculated for ornamenting a lady's boudoir.

For the foregoing synonyms, and for all our information concerning this plant, we are indebted to Mr. William Smith, at present an Under-Gardener in the establishment of the Horticultural Society at Chiswick, who is now occupied upon a full investigation of the genus Cyclamen, which will one day be laid before the public.
J. L.

# SARCANTHUS succisus. 

Bitten-leaved Sarcanthus.

GYNANDRIA MONANDRIA.

Nat. ord. Orchidee. Tribus Vandex Lindl.<br>SARCANTHUS. Suprà, fol. 981.

S. succisus: foliis oblongis apice præmorsis dentatis, spicâ simplice horizontali foliis longiore: rachi compressâ, sepalis obtusis, calcare apice didymo inflato, stigmate fornicato.
S. succisus. Lindley coll. bot. sub fol. 39. B. sine charactere.

Caulis compressus, erectus, foliosus, fexuosus, purpureo-maculatus, internodiis nunc planis, nunc sulcatis, radices pallidas tortuosas promentibus. Folia disticha, vaginantia, cum vagina articulata, oblonga, subundulata, apice emarginata, succisa et erosa, avenia, purpureo paululum ad costam et margines superiorum maculata. Spica oppositifolia, foliis longior, horizontalis, v. dependens, pedunculatus, pedunculo purpureo terete, distanter vaginato, rachi compressa, clavatd. Flores magnitudine S. teretifoliæ, extus lividè purpurei, intù̀s pallidè lutei, paulò purpureo maculati. Sepala 2 exteriora lateralia patentia, subrotunda, subunguiculata, supremo erecto fornicato. Sepala interiora superiori appressa et conformia paululum minora. Labellum cucullatum, calcaratum, dependens, cum columna non articulatum, pallide luteum, trilobum, lobis lateralibus columna longitudine truncatis anticè vittd unicâ sanguincâ, intermedio ovato acuto carnoso convexo, caput aviculi simulante. Calcar ad faucem fornicibus duabus semiclausum, apice didymum ventricosum. Columna parva, erecta, cum basi labelli connata, posticè sursùm arcuata, marginibus inflexis anticè carnosis luteis approximatis fornicem super stigma formantibus, ad latera bicallosa; posticè multò evectior. Clinandrium excavatum, arcuatum, modo currûs antiquce. Anthera anticè elongata, subquadrata, unilocularis, membranacea. Pollinia duo, oblonga, dura, cereacea, intùs altè sulcata apicibus caudicula adharentibus filiformi cartilaginee diaphance pallidè lutece in glandulam parvam denulatam desinenti.

Native of China, whence it was brought for the Horticultural Society, in 1824, by Mr. John Damper Parks. Flowers in the stove in June and July. It thrives in a mixture of rotten wood and decayed vegetable mould, and
may be increased by cuttings, which will root in the tanbed, like the suckers of a Pine plant.

This species is distinguished from Sarcanthus rostratus, fol. 981 , by its leaves, which appear as if their end was bitten off, and by the spur of the labellum, which has a double inflated apex.

Stem compressed, erect, leafy, spotted with purple and protruding tortuous pale roots. Leaves oblong, somewhat wavy, emarginate at the end, which is bitten off, and eroded. Spike opposite to a leaf, horizontal, or hanging down, with a round purple stalk. Flowers the size of S . teretifolius and rostratus, dull purple externally, pale yellow inside, with a few purple spots. Lip pale yellow, 3 -lobed, the lateral lobes as long as the columna, truncate, with a single crimson stripe in front; spur half closed up with two scales. Stigma overshadowed by a projecting arch.
J. L.


## 1015

## AULAX umbellata; mas.

Umbelled Aulax; the male.

TETRANDRIA MONOGYNTA.

## Nat. ord. Proteacer.

AULAX.-Bergius. R. Br. Flores dioici, organis imperfectis. Masc. Flores racemosi; calyx tetraphyllus foliolis medio staminiferis. Fem. Stigma obliquum clavatum, hispidum, emarginatum. Nux esserta, ventricosa, barbata, squamis capituli subulatis. - Frutices glaberrimi. Folia integerrima. Flores terminales, unibractcati. Masculi in racemis aggregatis nudis. Feminei in capitulo solitario, cincto foliolis intùs auctis appendiculo aceroso-multifido, capitulo quasi abortivo racemis exterioribus maris analogo, (interdum forifero fide Cel. Salisburii.) Brown in Limn. trans. 10. 49.
A. umbellata; foliis planis spatulato-linearibus. Brown l.c.

Masc. Protea aulacea. Thunb. aliorumque.
Rami versùs fastigium prasertim ramulosi, teretes, leviter angulati, glabri. Folia linearia, spatulata, subfalcata, glabra, superioribus longioribus. 'Racemi terminales, virgis novellis inferioribus exsuperati, erecti, ovati, spicaformes. Flores pallinc̀ flavi, leviter odorati, glabri, pedicellati. Bracteæ subulatc, canaliculata, pedicellis longiores. Perianthium glabrum, tetraphyllum, basi coherens, foliolis linearibus suberectis, patentibusve, deciduis. Stamina merlio foliolorum inserta. Anthére lineares, glabre, completce. Glandulæ hypogynce nulla. Ovarium minimum, subrotundum, pubescens. Stylus rigidus. Stigma fusiforme.

For this we are obliged to J. H. Slater, Esq., of Newick Park, by whom it was raised from seeds received a few years ago from the Cape of Good Hope. The plant is now between two and three feet high, forming an upright shrub, with two erect stems, about the thickness of a quill.

Our drawing was made from specimens kindly furnished by Mr. Slater, in July last. The flowers exhale a slight honey-like odour.

The female of this species is figured under the name of Protea umbellata in the Botanist's Repository, tab. 248.

Branches putting forth towards their ends several small round little branchlets, which are slightly angular. Leaves linear-spatulate, somewhat falcate, smooth, the upper ones longest. Racemes terminal, overtopped by the young shoots, erect, ovate, spicate. Flowers pale yellow, slightly scented, smooth, stalked. Bractes subulate, channelled, longer than the pedicels. Perianth smooth, 4 -leaved, cohering at base; leaflets linear, somewhat crect, or spreading, deciduous. Stamens inserted into the middle of the folioles; anthers linear, smooth, complete. Glands beneath the ovarium none. Ovarium very small, roundish, pubescent. Style rigid. Stigma fusiform.
J. L.


# GETHYLLIS afra. 

## Many-leaved Cape Crocus

## HEXANDRIA MONOGYNIA.

## Nat. ord. Amarylimef.

GETHYLLIS L.-Spatha membranacea univalvis. Cor. supera, hypocrateriformis, tubo stricto peduncüloideo, partim subterraneo, supernè cavo, limbo hexapetalo partito, laciniis ovato-lanceolatis, subæqualibus, stellatopatentibus. Fil. subulata, à senis simplicibus duodenisve per paria vel octodenis per tria junctis ad usque numerosa in fasciculos senos polyandros segregata vel etiam numerosissima simpliciter aggregata, tubi collum circumposita, laciniis perbreviora. Anth. sagittato-lineares, erectæ, plerumque supernè spiraliter flexæ. Stylus infernè cum tubo consolidatus indè liberus, filiformis, erectus. Stigma simplex, aut trigono-capitatum. Bacca 3-locularis, clavato-cylindracea, succulenta, subdiaphana, deorsum cassa, à germine subsessili altius subterraneo per succrescentem scapum extraterranea evadens. Sem. numerosa, nidulantia, subcompresso-sphæroidea. Ker in bot. mag. 1088.
G. afra; foliis linearibus glabris subduodenis, primùm spiralibus mox rectis, perianthii laciniis oblongis imbricatis binervibus, staminibus duodenis (denis).
G. afra. Linn. sp. pl. 633.
G. spiralis. Hort. Kew. cd. 1. 1. 437 : fide Kerii loco citato.

Bulbus testaceus, ovatus, squamosus, succo subluteo, viscido, odore fatido: squamis carnosis, exterioribus abbreviatis; radicibus carnosis, simplicibus, fasciculatis. Folia numerosa, è lata basi linearia, carnosiuscula, subobtusa, viridia, basi pallida, olivaceo-maculata, suberecta, flore pauld longiora. Flos solitarius, fragrans, spatha brevi, subterranea, monophylla, carnosa, vaginante. Perianthium hypocrateriforme, tubo longo, filiformi, semisubterraneo, basi albo, apice purpureo ; limbus patens, serie duplici sexpartitus, laciniis basi imbricatis, ovalibus, acutis; interioribus angustioribus, subundulatis; omnibus albis lineâ mediâ extùs purpured ; tubus solidus, stylum arctè amplectans. Stamina 10 (an 12?), patentia, limbo breviora, basi connata, fuuce inserta; filamenta brevia, subulata; anthere longiores, antice 2-loculares, dimidia superiore tantùm dehiscente undulatâ. Pollen ellipticum, copiosum, medio sulcatum. Ovarium inferum, carnosum, triloculare, polyspernum, fasciculis vasorum duobus septo cuique et cuique axi loculorum oppositis. Ovula plurima, subascendentia, placenta axili inordinatim affixa: canali conspicuo hinc ouuli latus percurrente, indè in pedicello desinente, ore foraminis hilo proximi aperto.

Turnham Green, by whom it was communicated in flower, in June last. A native of the Cape of Good Hope, and capable of cultivation in sandy loam, in a good frame.

The berries of this genus are said to be eatable, having an agreeable odour, and being generally of a yellowish colour, with a transparent pericarpium through which the seeds are seen.

Gethyllis is the only plant of the order Amaryllideæ at present known, in which the number of stamens exceeds six; it may be said to represent Vellozia, in Southern Africa. But if no truly dodecandrous Amaryllideæ have hitherto been discovered, we are not unacquainted with certain plants in which a tendency to such a structure exists in a high degree. Such is the genus Phycella, in the original species of which six sterile stamens alternate with the six fertile ones; a most remarkable circumstance, the importance of which Mr. Herbert, in some recent observations upon a plant he refers to Phycella, seems to have entirely overlooked or misunderstood. Such also is Mr. Miers's Chilian genus Placea; a plant with the flowers of a small Brunsvigia, but with six coloured sterile ligulate stamens alternating with the fertile ones, to which they are equal, or nearly so, in length and size.

The flowers are very sweet-scented; the only one we saw of this plant was decandrous; but. we presume that twelve stamens constitute its normal structure.

Bulb testaceous, ovate, scaly, with a yellowish, viscid, fetid juice; scales fleshy, the outer shortest; roots simple, fleshy, fascicled. Leaves numerous; linear from a broad base, somewhat fleshy, blunt, green, pale at base, spotted with olive green, nearly erect, somewhat longer than the flower. Flower solitary, fragrant, with a short, subterraneous, one-leaved, fleshy, sheathing spatha. Perianthium hypocrateriform, with a long, filiform, semisubterraneous tube, which is white at the base, and purple at the upper end ; limb spreading, 6-parted in a double row; segments imbricating at the base, oval, acute, the inner narrower, and somewhat wavy; all white, with a purple streak at the back. Stamens 10 (naturally 12 ?), spreading, shorter than the limb.


# ARUM venosum. 

# Purple-flowered Arum. 

MONEECA POLYANDRIA.
Nat. ord. Aroidere.
ARUM L. Suprà, vol. 6. fol. 450.
A. venosum; foliis pedatis integerrimis, spadice spatha lanceolata breviore. Willd. sp. pl. 4. 479. Hort. Kew. ed. 2. 5. 307.
A. acaule, foliis pedatis, foliolis subovalibus integerrimis, lamina lanceolata spadice longiore. Ait. Kew. 3. 315.
A. foliis pedatis integerrimis, spatha lanceolata spadicem superante. Spreng. syst. 3. 769.
Herba ácaulis. Folia pedata, plana, radicalia, erecta, longè petiolata, foliolis ovalibus, acutis, basi attenuatis, venis primariis ramosis rectiusculis, arcuatis majoribus in lineam confuentibus margine parallelam. Scapus radicalis, erectus, squamis lineatis, olivaceis maculatis, laxis, intùs allis, vaginatus. Spatha maxima, basi cucullata, lamina lanceolata, acuminita, subspirali, reflexa, extùs viridis, intüs purpurco-brumeo maculata. Spadix erectus, teres, clavatus, purpureo-brunneus, spathâ brevior.

Stated in the Hortus Kewensis to have been introduced to this country by Mr. William Malcolm, in 1774, but from whence, was, even at the publication of the last edition of that work, unknown. Its geographical station is now, however, ascertained by the individual here represented, which was imported from Brazil, by Mr. Lee, of the Hammersmith Nursery, where our drawing was made, in March last.

A tender stove plant, of much beauty when in flower; propagated by offsets, which are sparingly produced.

Stem none. Leaves pcdate, flat, proceeding from the root, erect, on long stalks; leaflets oval, acute, narrowed at the base; the venæ primariæ being branched and
straightish, the arcuatre being more manifest, and running together into a line parallel with the margin. Scape radical, erect, clothed with linear, olive-green spotted, lax scales, which are white inside. Spatha very large, cucullate at base, with a lanceolate, acuminate, somewhat spiral, reflexed lamina, green outside, spotted with purple-brown within. Spadix erect, round, clavate, purple-brown, shorter than the spatha.
J. L.


# Paviaz var eSCULUS humilis. 

Dwarf Red Horse-Chestnut.

HEPTANDRIA MONOGYNIA.

Nat.ord. Hippocastanee.
ESSCULUS. Suprà vol. 10. fol. 10.


#### Abstract

I. humilis; caule decumbente, foliolis lanceolatis petiolulatis inæqualiter serratis subtùs pubescentibus, calycibus cylindraceo-infundibularibus corollisque convolutis pubescentibus, staminibus inclusis calyce paulò langioribus, fructibus inermibus. E. humilis. Lodd. catalogue.

Suffrutex decumbens, 2-3 pedalis, ramis ascendentibus, teretibus, cinereofuscis, glabris. Foliola quinata, petiolulata, lato-lanceolata, grossè incqualiter serrata, membranacea, suprà glabra atroviridia, subtùs pracipuè ad venas leviter pubescentia. Paniculæ simplices, erecte, terminales, leviter velutinc. Calyces cylindraceo-infundibulares, colorati, leviter pubescentes, incqualiter quinque-dentati, dentibus oblongis apiculatis. Corolla atrosanguinea, calyce duplò longior, petalis parallelis, angustis, venosis, pubescentibus. Stamina inclusa, calyce paulò longiora. Fructus dimidiatus, obovatus, brunneus, leviter velutinus, mucronatus.


A beautiful undescribed shrub, which we find mentioned nowhere, even by name, except in the rich catalogue of the Messrs. Loddiges, of Hackney. In stature it resembles E. discolor, from which it is easily distinguished by its very different flowers and leaves. We presume it to be a native of North America; but are not informed of the circumstances attending its introduction to this country.

A hardy plant, flowering in May, and propagated by layers or suckers. It and Esculus discolor are indispensable to every good collection of ornamental hardy shrubs.

Our drawing was made last spring, in the garden of the Horticultural Society, from a plant which had been presented to the institution by Messrs. Loddiges.

Leuflets quinate, on short petiolules, broadly lanceolate, coarsely and unequally serrated, membranous, smooth and dark green above, slightly downy beneath, especially at the veins. Panicles simple, erect, terminal, slightly velvety. Calywes cylindrical, slightly funnel-shaped, coloured, a little downy, unequally 5 -toothed, with oblong, apiculate teeth. Corolla dark blood-red, twice as long as calyx, with parallel, narrow, downy, veiny petals. Stamens included, a little longer than calyx. Iruit half-perfect, obovate, brown, slightly velvety, mucronate.
J. L.


# SALVIA austriaca. 

Austrian Sage.

DIANDRIA MONOGYNIA.

## Nat. ord. Labiate.

SALVIA. Suprà, vol. 4. fol. 347.
§. Foliis basi cordatis. Bracteis calyce minoribus aut marcidis.
S. austriaca; foliis ovatis cordatisque eroso-sinuatis; radicalibus petiolatis, caule subaphyllo, staminibus corolla duplò longioribus. Hort. Kew. cd. 1. 1. 42.
S. austriaca. Jacq. fl. austr. 2. t. 112. Willd. sp, pl. 1. 138. Schrad. f. germ. 1. 64. Röm. et Sch. 1. 247.
Herba 2-3-pedalis, perennis, ramosa, fotens. Folia radicalia humifusa, magna, cordato-oblonga, sinuata, lobis grossè dentatis, suprì plana glabra ad venas pubescentia; subtùs bullata ad venas villosa, petiolo purpurascente, suprà plano subcanaliculato, pubescente; caulina opposita, oblonga, sinuata, dentata, utrinque glabriuscula, petiolo canaliculato, piloso, basi connato. Caulis quadrangularis, erectus, ramosus, obtusangulus, villis mollibus, patentibus, glandulisque vestitus: Bracteæ sessiles, ovata, acuta, integra, villosa. Verticilli sexflori. Calyces ternati, pedicellati, villosissimi, bilabiati, striati, labio superiore tridentato, inferiore bifido. Corolla pallide flava, calyce dupld longior, galeâ compressa, villis purpureis rectis sparsis ornata, labii laciniis lateralibus patentibus, oblonyis, falcatis, basi pallidè violaceis, intermedio subrotundo," cucullato, corrugato. 'Stamina longissima, divaricata, propè basin calcarata, calcare hine marginato. : Anthera- linearis unilocularis. Stylus filiformis, staminum longitudine, ascendens, apice violaceus. Stigma bifidum, inæqualc. Ovaria glabra, disco carnoso inserta. Akenia glabra, parcè mucilaginea.

No genus is more strictly natural than Salvia, as confined to the Asiatic and European species, nor can any be more positively defined; even when including those from Equinoctial America and Southern Africa; and yet the variation in the shape of the corolla, in the modifications of stamina, in the structure of stigma, and in the form of akenia, and of the discus in which these latter are seated, is such as in ordinary cases would divide the plants now
assembled under Salvia into several different groups. What then is the mysterious power which holds these jarring forms in such peaceable communion that none even of the most analytical of modern observers have yet attempted to dissever them? and whence does it arise, that Salvia stands alone amidst all the tribes of its kindred Labiatæ, independent of the power of division to which the rest are obedient? This can only be understood from an examination of its stamina, in which the mystery will be found to reside. In Salvia these organs are in such an extraordinary state of positive metamorphosis, that a parallel can scarcely be found to it throughout all the multitude of variations to which the parts of fructification are subject. We say of positive metamorphosis, as distinguished from those hypothetical forms, the discus, for example, the nature of which is capable of explanation from analogical reasoning only, rather than by actual demonstration. In Salvia, the apparent filament is not a filament; the apparently perfect anthera is only half perfect; the superfluous spur or appendage at the base of the apparent filament is neither a spur nor an appendage, nor superfluous, but an integral part of the stamen, and present in all regular stamina; the apparently unusual articulation of the filament, where the supposed appendage is found, is so far from being unusual, that it almost universally exists in regularly formed stamina. All this may seem very paradoxical and improbable; but it is neither paradoxical nor uncertain, as will presently be more plainly seen. Take a flower of the present species, or of any other Salvia, and examine the stamina; it will be seen that they are exserted from the anterior part of the orifice of the corolla, and occupy the place of the front stamens in didynamous Labiatæ. It will also be seen that there is a small subulate process proceeding from the corolla, upon which a filament-like body is unequally balanced, as upon a swivel, the one half having a subulate form and upward direction, and bearing an anthera; the other having a downward direction, a dilated, irregular form, and bearing nothing except a discoloured stain on one edge, which is thinner than the other, and which adheres to the same part of the stamen which is next it: by that adhesion counterbalancing the greater weight and length of the upward anther-bearing part. The explanation of this
singular apparatus is this. The sinall subulate process is the real filament; the filament-like body is the connectivum, or fleshy substance which connects the two lobes of all anthers, and which generally is parallel with the lobes, and less than they are themselves; but which in Salvia is so greatly extended as entirely to separate the two lobes to a great distance; which ascends in one direction, and descends in another: on its upper extremity, which is freely exposed to air and light, bearing one perfect half of an anthera: on its lower, which is hidden within the tube of the corolla, exhibiting the rudiment of the other lobe in the form of an attenuated, discoloured margin. The articulation already spoken of can now be understood, and will be immediately seen to be the same as that by which the anther swings from the filament in common cases.

We have said thus much upon the subject, firstly, because, although there is nothing actually new in these remarks, the real structure of the stamens of Salvia is but little known; secondly, because they exhibit an amusing instance of the endless freaks of nature in the variation of her creations; and, thirdly, because they offer a striking proof of the importance in all sciences, and most especially in Botany, of looking a little deeper than the surface of things, --a practice the necessity of which cannot be too strongly impressed upon all students of natural history, but which is too seldom inculcated by its professors. If any further proof of this position were required, there is scarcely a plant which grows in which some one or other could not be found.

A hardy, herbaceous plant, native of Austria, Hungary, and Moldavia. Flowers during nearly the whole summer. Stated in the Hortus Kewensis to have been introduced in 1776. Our drawing was made in the garden of the Horticultural Society, in June last.

The bracteæ of this species are stated in Römer and Schultes's work to be six in number to each whorl; but this we presume must be some mistake. We always find them opposite in pairs.

A perennial, naked-stemmed plant, growing to the height of two or three feet, and emitting a strong, un-
pleasant odour. Radical leaves spreading on the ground, large, cordate-oblong, sinuated, with coarsely-toothed lobes, flat and smooth above, with pubescence on the veins, beneath puckered, and villous at the veins; petiole purplish, flat and somewhat channelled above, downy all over; cauline leaves opposite, oblong, sinuated, toothed, smoothish on each side, with a channelled, hairy petiole. Stem quadrangular, erect, branched, blunt-angled, covered with soft, spreading, glandular hairs. Bractece opposite, sessile; ovate, acute, entire, villous. Whorls 6 -flowered. Calywes ternate, stalked, very villous, 2-lipped, striated, the upper lip 3-toothed, the lower bifid. Corolla pale yellow, twice as long as calyx; galea compressed, with a few scattered purple hairs; lateral segments of the lip spreading, oblong, falcate, pale violet at the base; the intermediate roundish, hooded, shrivelled. Stamens very long, divaricating, spurred near the base; the spur with a margin on one side. Anther linear, one-celled. Style filiform, length of stamens, ascending, violet at the end. Stigma bifid, unequal. Ovaria smooth, inserted in a fleshy discus. Akenia smooth, with little mucilage.
.T. L.


# CALATHEA longibracteata. 

Long-bracted Calathea.

MONANDRIA MONOGYNIA.

## Nat. ord. Cannee.

CALATHEA. Supra, vol. 11. fol. 932.
C. longibracteata; caule simplici, foliis oblongis acuminatis lucidis conco: loribus subtus pubescentibus, capitulo subrotundo bracteis acuminatis floribus longioribus squarroso.
Planta tripedalis, erecta. Caulis simplex, teres. Folia suberecta, longè petiolata, basi vaginantia, petiolo terete, lamina ovato-oblonga, suprà lucida, subtùs tenuissimè pubescente; venis primariis patentibus, costalibus tenuioribus parallelis, in margine diffuentibus, venulis propriis parallelis, contiguis, simplicissimis, communibus nullis. Capitulum terminale, breviter pedunculatum, è vaginâ folii superioris, quâ brevior, erumpens. Bractex à latâ basi acuminata, squarrosa, pallidè virides, foribus duplò longiores: Sepala lanceolata, acuminata, canaliculata, viridia, corollá paulò breviora. Corolla violacea, infundibularis, limbo exteriore tripartito regulari: laciniis ovatis acutis; labello antico, obovato, emarginato, limbo exteriore longiore. Stamina petaloidea, quorum duo sterilia, alterum fertile ad latus labelli, anticè alatum, posticè depauperatum, anthera parva uniloculari; sterilium alterum ad latus labelli, apice cucullatum, stigma retinens, hinc cornutum: posticum laminá planá lanceolatd, disco excavato ad stigma ex cucullo prosiliens recipiendum. Stylus arcuatus; stigma concavum, prominens, infrà-apicilare.

This further addition to the genus Calathea was sent from Rio Janeiro, by Mr. David Douglas, to the Horticultural Society, in 1824. It is a neat stove plant, flowering abundantly during most of the summer months, and easily propagated by division of the roots. Our drawing was made in the Chiswick Garden, in June last.

In a future Number we shall endeavour to explain the generic differences which exist between the South American Calatheas and the Asiatic Phryniums.

Plant three feet high, ercct. Stem simple, round. Leaves nearly erect, on long stalks, sheathing at the base; petiole round ; lamina ovate-oblong, shining above, slightly downy beneath ; vence primarice spreading; costales thinner, parallel, vanishing at the margin; vemula propria parallel, contiguous, quite simple; communes none. Head terminal, on a short stalk, bursting forth from the vagina of the upper leaf, than which it is shorter. Bractea acuminate from a broad base, squarrose, pale green, twice as long as the flowers. Sepals lanceolate, acuminate, channelled, green, a little shorter than the corolla. Corolla violet, funnel-shaped, , with a three-parted regular outer limb, having ovate-acute segments; labellum anterior, obovate, emarginate, longer than the outer limb. Stamens petaloid, of which two are sterile, and one fertile; the latter placed at the side of the labellum, winged in front, diminished at back with a small one-celled anthera; of the sterile stamens, one stands at the side of the labellum, and has a hooded end, horned on one side, and keeping back the stigma; the other is opposite the labellum, flat, lanceolate, with a hollowed disk, in which the stigma is received when it springs out of its hood. Style arcuate ; stigma concave, prominent, placed below the end.
J. L.


# CARAGANA pygméa. 

Dwarf Caragana.

diadelphia decandria.

Nat. ord. Leguminos玉. Tribus Loteæ Decandolle.
CARAGANA Lam. - Calyx breviter tubulosus 5-dentatus. Corolla obtusa recta alis vexilloque longitudine subæqualis. Stamina diadelpha (9-1). Stylus glaber. Stigma terminale truncatum. Legumen sessile, juniùs compressum, demùm subcylindricum, polyspermum, stylo mucronatum. Semina subglobosa.-Arbores fruticesve Sibiricæ aut Orientales. Folia abruptè pinnata, foliolis mucronatis petiolo apice setoso aut spinescente. Pediculi axillares uniflori sapius fasciculati. Flores flavi aut in solấ C. jubatâ albi subrubentes. Stipulæ sapius spinescentes. Decand. prodr. 2. 268.
C. pygmaa; foliolis bijugis ad apicem petioli brevissimi approximatis linearibus glabris, stipulis petiolisque spinescentibus, pedicellis solitariis calycis ferè longitudine, calyce basi subæquali. Decand.l. c.
Aspalathus frutescens minor angustifolius cortice aureo. Amm. stirp. ruth. p. 204. t. 35.

Robinia pygmæa. Linn.sp. pl. 1044. Pall. f. ross. 1. t. 45. aliorumque. Trunci cortice lutescente nitido vestiti; lignum saturatissimè spadiceum, durissimum, ferè corncum, alburno tenui flavo. Virgæ seniores teretes epidermide pulchre aurata nitidissima vestite in spontaneis; quod vix in hortensi apparet. Ramuli grisei gemmis creberrimis bispinosis. Spinulæ exiles, aciculares, patentes à stipulis orte, in senioribus ramis deciduc. Foliola quaterna vel sena in spontaneo frutice fasciculatim conferta, onnino sessilia, lineari-acuminata, hispidula. Pedunculi è ramulorum plerisque gemmis inter folia enati solitarii, foliolorum longitudine articulo infracti. Calyx subpilosus campanulatus, margine quinquedentatus dentibus 2 superioribus approximatis. Corolla dupla calycis, fluvissima: vexillo ovato compresso dorso fulvescente; alis lato-lanceolatis vexillum aquantibus; carina tantillum breviore. Legumina tereti-compressiuscula, rigida, mucronata. Semina partim ovata, partim oblonga, lutescentia, punctis nigris magis minusve crebris pulverata. Pallas.

This handsome shrub grows spontaneously, in hilly places, in the southern provinces of the Russian dominions, especially about the river Tschargurban, and on the moun-
tain called Sinaja Sopka, near Colyva; also in great abundance in all the provinces south of Lake Baical. In gardens it rarely exceeds the height of three or four feet; but Pallas found it among the rugged precipices of the range of mountains bordering upon the river Abaca, with stems as thick as one's wrist, and as high as a man.

The shoots, when old, are long and flexible, of a bright yellow colour, and are made into fly-flaps by the inhabitants of the countries where it grows wild. The wood is represented by Pallas as of a dull brown colour, streaked with a deep red: it is said to be very hard, and well adapted for veneering articles of furniture.

A handsome hardy shrub, flowering profusely in May and June; propagated freely by grafting upon Caragana arborescens, or Robinia Caragana, as it is more commonly called.

The shoots are much tougher than those of any of our cultivated Osiers, and more fit for tying.

Our drawing was made in the garden of the Horticultural Society, in June last.
J. L.


# HEDYCHIUM maximum. 

Large White Hedychium.

MONANDRIA MONOGYNIA.

Nat. ord. Scitiminete.
IIED YCHIUM. Supri, vol. 2, fol. 157.
H. maximum ; foliis lato-lanceolatis acuminatis subtùs pilosis, capitulo subsessili oblongo imbricato, bracteis marginatis apice lanatis, labello maximo obcordato petalis longiore.
H. maximum. "Roscoe's Scitaminec."

Folia pedalia, lanceolata, acuminata, basi vaginantia, disticha, immarginata, subtùs pilosa, caule vaginisque glaberrimis; ligula magna, sphacelata, oblonga, retusa, apice erosa. Spica ovato-oblonga, arctè imbricata, basi pilosiuscula. Bracteæ communes magne, solitaria, ovatte, marginate, apice brunnee lanate; duabus inferioribus sterilibus; propriarum exterior monophylla, membranacea, hinc fissa, apice pubescens, emarginata, duc interiores parve ad basin exterioris. Calyx membranaceus, hinc fissus, tridentatus. Labellum magnum, carnosum, explanatum, rotundum, obcordatum. Petala oblonga, unguiculata, labello breviora. Stamen petalis pauld brevius. Anthera linearis, basi libera. Stigma infundibulare, pilosum. Glandulæ 2, ad basin styli. Ovarium polyspermum.

This fine species is a native of India, whence it has been lately introduced into our gardens. We do not find it noticed in any work to which we have access; but we belicve it has been named in Mr. Roscoe's work on Scitamineæ, a publication which we have not had an opportunity of consulting.

Our drawing was made some time ago, from a plant in Mr. Colvill's Nursery. A stove-plant requiring the same treatment as the nearly allied H . coronarium.

Leaves a foot long, lanceolate, acuminate, sheathing at the base, distichous, not bordered, hairy beneath; the stem and sheaths quite smooth; the ligula large, withered, oblong, retuse, croded at end. Spike ovate-oblong, closely
imbricated, somewhat hairy at buse. Common bractece large, solitary, ovate, bordered, brown and woolly at end; the two lower barren; of the partial bractece the extcrior is one-leaved, membranous, slit on one side, downy at the apex, emarginate; the two inner small, at the base of the outer one. Calyx membranous, slit on one side, 3 -toothed. Labeltum large, fleshy, expanded, rounded, obcordate. Pctals oblong, unguiculate, shorter than labellum. S'tamen a little shorter than petals. Anther linear, distinct at base. Stigma funnel-shaped, hairy. Glands 2, at the base of the style. Ovary many-seeded.
J. L.


# prandiceps, frott. <br> PROTEA villifora. 

Long-haired Protea.

TETRANDRIA MONOGYNIA.
Nat. ord. Proteacete.
PROTEA. Suprà, vol. 1.fol. 20.
P. villifera; foliis obovato-oblongis basi attenuatis capitulo oblongo brevioribus ramisque villosis, involucri foliolis exterioribus glabris: interioribus lineari-oblongis apice albo-barbatis.
Rami pilis longis laxis vestiti. Folia obovato-oblonga, basi attenuata, obtusa, marginata, glauca, pilis longis distantibus villosa. Capitulum oblongum, foliis longius, foliolis involucri exterioribus ovatis glabris, interioribus lineari-oblongis, roseis, apice albo-barbatis.

Of this plant we know nothing except from the accompanying figure, which has been lying in our portfolio several years. Its affinity to P. speciosa is obvious; but as we do not find any notice taken by authors of the long hairs which are remarkable in the species before us, and as the smoothness of the former plant is evidently contrasted by Mr. Brown with the hairiness of some others, we conclude that we are right in considering this as distinct, and previously unnoticed.

Undoubtedly a native of the neighbourhood of the Cape of Good Hope, to which country the genus is confined, with one remarkable exception.

Branches covered with long, weak hairs. Leaves ob-ovate-oblong, tapering to the base, obtuse, bordered, glaucous, covered with long, weak hairs. Head oblong, longer than the leaves; the outer leaflets of the involucrum ovate, smooth, the inner linear-oblong, rose-coloured, bearded with white at the end.
J. L.

VOL. XII.



# PYRETHRUM roseum. 

Pink Parethrum.

SYNGENESLA SUPERTLUA.
Nat. ord. Composirn.
PYRETHRUM. Supria, vol. 4. fol. 272.
P. roscum; foliis pinnatis glabris: pimnis bipinnatifidis pinnatifidisque, lacimulis acutis divergentibus; caulibus erectis unifloris, calycibus glabris: squamis margine sphacelatis. Bieb. taur. cauc. 2, 324.-Spreng. syst. 3. 587.
Chrysanthemum coccincum. Willd. sp. pl. 3. 2144. sec. Bieb.
Chrysanthemum roseum. Adam in Weber et Mohr. catal. 1. p. 70. sec. Bicb.
Caules è radice perenni nonnulli, pedales, seu sesquipedales, striati, simplices, crecti. Folia composita, petiolata, facie Carui: pinnis circumscriptione latiusculis, foliorum inferiorum profundè bipinnatifidis: lacinulis brevibus, acutis, divorgentibus. Flos terminalis, solitarius, magnitudine Chrysanthemi loucanthemi: pedunculo nudo, sulcato, sub flore parum incrassato et subvilloso. Calyx glabriusculus: squamis margine apiceque scariosis, nigris, subciliatis. Radius eleganter roseus, nec coccineus; discus luteus. Pappus margo angustus sublobatus. Bieb. 1. c.

A handsome, hardy perennial, of which our drawing was made in the garden of the Horticultural Society, where it had been raised from seeds received from Mr. Otto. A native of the Alpine regions of the Iberian and Eastern range of the Caucasus, flowering during the whole of the summer. In our gardens it is in perfection in May and June:

We are glad of an opportunity of figuring this species, for the sake of contrasting it with the nearly allied $P$. carneum, which has already been published in the Botanical Magazine, under the name of Chrysanthemum coccineum. From the latter it is distinguished by its larger flowers,
more robust habit, and much more finely cut leaves, which Marschall von Bieberstein happily compares to those of Caraway.

Stems several, from a perennial root, a foot, or a foot and a half high, striated, simple, erect. Leaves compound, stalked ; the pinnæ having a broadish outline, those of the lower leaves deeply bipinnatifid; segments short, acute, diverging. Flower terminal, solitary, the size of Chrysanthemum leucanthemum ; peduncle naked, furrowed, immediately beneath the flower a little thickened and villous. Calyw nearly smooth, with scales scarious at the margin and apex, black, somewhat ciliated. Ray of a beautiful rose-colour, not scarlet; disk yellow. Pappus a narrow somewhat lobed margin.
J. L.


## 1025

# PYRETHRUM diversifolium. 

Hairy New Holland Pyrethrum.

SYŃGENESIA SUPERFLUA.
Nat. ord. Composite.
PYRETHRUM. Suprà, vol. 4. fol.272.


#### Abstract

P. diversifolium; caule subramoso pilis articulatis hirsuto, foliis pinnatifidis incisis petiolo dilatato, superioribus subintegris, acheniis margine brevi papposo. Hoo?er exot. flora, tab. 215. Caules erecti, subsimplices, striati, pilosi, unifori. Folia pilosa, pinnatifida, in petiolo vaginante decurrentia, laciniis incisis, sapius bilobis; superiora subintegra. Involucrum serie subsinplici imbricatum, foliolis linearibus obtusis margine pallidis. Radii integri, albi, post anthesin revoluti. Pappus brevis, multipartitus.


Having neglected to retain any notes or specimens of this plant, we are constrained to leave it in the same uncertain state in which we find it. That it is no Pyrethrum is evident; but to what it can be more properly referred, we willingly leave to be determined by Mr. Brown, from whom alone any useful information respecting the New Holland Compositre is to be expected. In habit it seems to us to border closely upon Calotis.

A half-hardy plant, native of New Holland, and flowering from May to August. By Dr. Hooker it is stated to be annual; we believe, however, that it will prove a perennial.

Our drawing was made from a plant growing in a cold frame, in the garden of the Horticultural Society, where it had been raised from seeds presented by Mr. C. Frazer, in 1825.

The stems are erect, nearly simple, striated, hairy, one-flowered. Leaves pilose, pinnatifid, decurrent upon the dilated petiole, which is sheathing at its base; the segments cut, most usually two-lobed; the upper leaves entire. Involucrum imbricated in a nearly simple series, with linear obtuse leaflets, palest at the edge. Rays entire, white, rolling back after flowering. Pappus short, many-parted.
J. L.


## 1026

# CANTHIUM dubium. 

Spurious Chinese Canthium.

## TETRANDRIA MONOGYNIA.

Nat. ord Rubiaces.
CANTHIUM.- Calyx 5-fidus. Corolla tubulosa brevis 5 -fida pateas. Stamina non exserta. Stigma capitatum. Bacca ovata coronata, aut subrotunda non coronata, 2-locularis 2-sperma, seminibus hinc planis l -sulcis, inde convexis. Juss. in mem. mus. 6. 380.
C. dubium; foliis oblongo-lanceolatis coriaceis, stipulis ovatis acuminatis, floribus axillaribus subsessilibus calyculatis tetrandris, stigmate bifido.
Frutex humilis, ramosus, ramis subtetragonis, glabris, junioribus viridibus, adultis cinnamomeis. Folia petiolata, lanceolata, v. oblongo-lanceolata, acuta, coriacea. Stipulæ ovata acuminatce. Flores axillares, congesti, calyculo sericeo inserti, parvi, pallidè virides. Calyx subcampanulatus, 4-dentatus, pubescens. Corolla 4 -fida, intùs pilosa, laciniis ovatis patentibus carnosis. Stamina 4, subsessilia, exserta, fauce inserta; antheræ subsagittata. Oyarium biloculare, loculis dispermis, ovulis collateralibus ascendentibus. Stylus filiformis tubi longitudine. Stigma bifidum.

If we have some doubt of the propriety of referring the last plant to Pyrethrum, we have, if possible, yet greater hesitation in placing the present subject in the genus Canthium, with which it agrees indeed in habit, but from which it seems essentially distinguished by its bifid stigma. But, in the absence of all knowledge of its fruit, we are unable to assign it a more satisfactory situation.

It is a native of China, whence it was sent to the Horticultural Society, in 1824, by Mr. J. D. Parks. It flowered in the stove, in March last, and possesses no other claim to notice than its extreme rarity.

In the stove it forms a low bush, with squarish, smooth branches, of which the youngest are green, and the old ones cinnamon-coloured. Leaves stalked, lanceolate, or
oblong-lanceolate, acute, coriaceous. Stipules ovate-acuminate. Flowers axillary, clustered, inserted in a little silky cup, small, pale-green. Calyw somewhat campanulate, 4 -toothed, pubescent. Corolla 4 -fid, hairy inside, with ovate, spreading, fleshy segments. Stamens 4, subsessile, exserted, inserted in the orifice; anthers subsagittate. Ovary 2 -celled; cells 2 -seeded; ovules collateral, ascending. Style filiform, the length of tube. Stigma bifid.
J. L.


# JUSTICIA flavicoma. 

# Hairy Yellow-headed Justicia. 

DIANDRIA MONOGYNIA.
Nat. ord. Acanthicer.
JUSTICIA. Suprà, vol. 4.fol. 309.
J. flavicoma; (antheræ loculis parallelis) ; paniculâ terminali congestâ, calycis laciniis subulatis glandulosis corollâ brevioribus, corollæ laciniâ superiore emarginatâ, inferiore tripartitâ revolutâ, foliis oblongo-lanceolatis acuminatis undulatis breviter petiolatis albinerviis.
Caulis articuli breves, medio tumidi. Folia oblongo-lanceolata, acuminatissima, undulata, minutè pubescentia, breviter petiolata, costa venisque primariis suboppositis pallidis. Panicula terminalis, congesta, omnind lutea, undique, corolla excepta, pilis brevibus, flexuosis, capitatis, crassiusculis pulcherrimè vestita. Bracteæ laciniæque calycis subulatce, corollâ breviores. Corolla glaberrima, infundibularis, breviter bilabiata, labio superiore emarginato, inferiore 3-partito, revoluto: laciniis subaqualibus. Stamina duo, faucis longitudine, loculis antherarum parallelis. Stylus glaber, filiformis. Stigma subclavatum, acutum, bilobum.

For this very beautiful plant we are much indebted to Thomas Carey Palmer, Esquire, in whose valuable collection, at Bromley, it flowered in May last. The seeds had been received from Brazil.

A stove plant, requiring, we presume, no particular mode of treatment, and, probably, to be readily increased by cuttings.

This is so very similar to the J. calytricha, figured by Dr. Hooker, in his Exotic Flora, tab. 212, that for some time we were disposed to believe it the very same. But, upon comparing more carefully our specimens with Dr. Hooker's figure, we have been obliged to conclude that they are really distinct. The plant represented in the Exotic Flora has extremely long stalks to the leaves, which
are destitute of the white veins and midrib which characterise our plant: the leaves are also much less acuminated; and the corolla is represented as of the same length as the segments of the calyx, and with an entire upper lip. All these are differences which it is difficult to account for upon any supposition of the specimens of the two plants having been in different states; but what strikes us as the most remarkable peculiarity of the subject of these remarks, is the abundance of curious little capitate deformed hairs with which every part of the inflorescence, except the corolla, is covered; of these, there appear to have been no traces in Dr. Hooker's plant, and they are far too numerous and permanent to have been overlooked.

Joints of the stem short, tumid in the middle. Leaves oblong-lanceolate, very much acuminate, wavy, minutely downy, on short stalks, their midrib and venæ primariæ being very pale. Panicle terminal, crowded, all yellow, covered in every part, except the corolla, with short, capitate, distorted, thickish hairs. Bractea and calycine segments subulate, shorter than the corolla. Corolla quite smooth, funnel-shaped, shortly 2 -lipped; the upper lip emarginate; the lower 3-parted, revolute, with nearly equal segments. Stamens 2, the length of the orifice, with the cells of the anthers parallel. Style smooth, filiform. Stigma subclavate, acute, 2 -lobed.
J. L.


## 1028

# HETEROTAXIS crassifolia. 

Thick-leaved Heterotaxis.

GYNANDRIA MONANDRIA.
Nat. ord. Oncrisdee. Tribus II. Arethuscæ. Líndl. coll. bot. append. Orehid. Scelet. p. 10.

HETEROTAXIS. $\rightarrow$ Pollinia 2, (v. 4 ? binatim connata) linearia, pulverea; caudiculâ glandulâque nullis. Anthera terminalis opercularis decidua unilocularis, septis duobus incompletis. Stigma oblongum excavatum; rostello obsoleto. Cohemna semiteres apice alata. Labellum ovatum liberum integrum carnosum disco callosum. Sepala subæqualia conniventia carnosa; 2 inferioribus labello suppositis.-Herba terrestris acaulis (Americæ æquinoctialis), foliis carnosis aveniis, scapo radicali vaginato.

Heterotaxis crassifolia.
Herba acaulis, terrestris, an epiphyta? foliis radicalibus, erectis, carnosis, oblongo-lanceolatis, obliquè tortis, planis, aveniis, apice obliquè uncinatoapiculatis, basi vaginantibus. Flos:luteus, solitarius, :radicalis," bractea unicâ. ollongâ vaginatus, subsessilis ad basin foliorum, vix suprà humun elevatus. Sepala carnosa, conniventia, oblonga, concava, súbequalia; exteriora apice viridia, apiculata; interiora breviora, tenuiora. Labellum anticum, liberum, integrum, ovatum, acutum, sepalis subconforme, disco medio calloso, sepalis anticis exterioribus suppositum. Columna semiteres, clavata, truncata, upice utrinque alata; stigma excavatum, oblongum, quadratum; clinandrium parvum, rostello obsoleto. Anthera terminalis, opercularis, decidua, carnosa, verruculosa, hemispherica, unilocularis: septis duobus incompletis. Pollinia duo, v. quatuor, ut potiùs opinor, binatim coherentia, linearia, hinc crassiora, è granulis plurimis minutis, angulatis, filo axili elastico cohrerentibus.

This very remarkable undescribed plant was introduced from Jamaica by the late Mr. Lee, of the Hammersmith Nursery, in 1823. Our drawing was made in the month of June of the following year. Not having however had, at that time, an opportunity of examining the pollenmasses, we were obliged to defer the publication of the plant till the present time, when we are enabled to complete its history by means of a fresh specimen with which
we have recently been obligingly supplied by Mr. John Lee, in whose possession the original plant still remains.

The immediate affinity of this genus is undoubtedly with Arethusa and its allies, with which it agrees essentially in the structure of its columna and pollen-masses; but from which it differs remarkably in habit, which is quite unlike that of any species previously known as belonging to Arethuseæ. It may be considered a connecting link between Arethusea and Epidendrea.

A stemless, terrestrial, or perhaps epiphytous plant, with radical, erect, fleshy leaves, which are oblong-lanceolate, obliquely twisted, flat, veinless, with an oblique hooked end, sheathing at the base. Flower yellow, solitary, radical, sheathed with one oblong bractea, nearly sessile at the base of the leaves, scarcely elevated above the soil. Sepals fleshy, conniving, oblong, concave, nearly equal ; the outer green, with a little point at the end ; the inner shorter and thinner. Labellum placed in front, separate, entire, ovate, acute, of nearly the same form as the sepals, with the disk callous in the middle, supported by the anterior outer sepals. Columna half-round, clavate, truncate, winged on each side at the end; stigma hollowed out, oblong, nearly square; clinandrium small, with an obsolete rostellum. Anther terminal, opercular, deciduous, fleshy, covered over with little warts, hemispherical, onecelled; with two incomplete dissepiments. Pollen-masses two, or rather perhaps four, cohering in pairs, linear, thicker at one end than the other, formed of many minute angular granules, adhering to an elastic thread passing through their axis.
J. L.

# BARNARDIA scilloides. 

Chinese Barnardia.

HEXANDRIA MONOGYNIA.

Nat. ord. Asphodelee.
BARNARDIA. - Perianthium hexapetalo-partitum, patens, æquale, persistens. Stamina 6, filamentis basi dilatatis. Ovarium triloculare, 3 -spermum: ovulis solitariis erectis. Stylus subulatus, continuus. Stigma simplex. Fructus...............Herba Chinensis. Bulbus tunicatus. Folia linearia, canaliculata. Flores carnei, racemosi. Hujus certè congeneres Ornithogalum japonicum Thunbergii, et Ornithogalum chinense Loureiri, si non omnind conspecifica.

Barnardia scilloides.
Bulbus ovatus, tunicatus, ovi columbini magnitudine. Folia debilia, duriuscula, linearia, canaliculata, cuspidata, extùs subangulata, scapi longitudine vel longiora. Scapus erectus, 6-angularis, glaber, 1 $1 \frac{1}{2}-2$-pedalis. Racemus simplex, conicus. Pedicelli filiformes, subhorizontales, basi bracteolâ minimâ suffulti. Perianthium 6-phyllum, erecto-patens, carneum, laciniis oblongis, concavis, basi angustatis, dorso viridibus: exterioribus latioribus. Stamina 6, aqualia, patentia, basi sepalorum inserta, basi latâ fimbriatd carneâ. Antheræ antica, oblonga. Ovarium ovatum, substipitatum, obtusè triquetrum, inflatum, 3-loculare, loculis monospermis; ovulo solitario, erecto, in fundo cujusvis loculi, vix tertiam partem cavitatis replente. Stylus rectus, continuus, subulatus. 'Stigma simplex.

This very interesting plant was sent from China to the Horticultural Society, by Mr. J. D. Parks, in 1824, by whom it had been collected in the neighbourhood of Macao. Having suffered injury during its voyage, it did not produce its flowers till September of the present year, when it blossomed in a stove.

We entertain no doubt of the generic identity of the Ornithogalum chinense of Loureiro, and the O.japonicum of Thunberg, with this plant, if they be not all the very same species, as seems probable.

In the natural assemblage of plants to which this belongs, the characters by which the genera are distin-
guished are rarely so decided or important as those by which that now proposed is defined. For example, Allium is scarcely distinguishable from Ornithogalum and Scilla, except by its smell and inflorescence ; and these two last actually differ in little more than colour. But in the subject of these remarks, which agrees with the latter in inflorescence, the peculiarity by which it is characterised is both remarkable and positive, depending upon an important degree of reduction in its means of increase by seed. While the genera to which it is most nearly akin have capsules containing many seeds, either perfect or rudimentary, in each cell, and attached horizontally to the axis of fructification, the ovarium of the present genus has but one ovulum in each cell, and that not placed at right angles with the axis, but parallel with it. Barnardia therefore bears the same relation to the neighbouring tribes of Asphodeleæ as Griffinia does to those of Amaryllider.

The genus is named after Edward Barnard, Esquire, F.L.S. and H.S., Vice Secretary of the Horticultural Society, \&c. \&c., a gentleman who, independently of his botanical acquirements, has long been one of the most energetic promoters of the interests of Natural History in this country, and to whom we feel particularly gratified in having the present opportunity of testifying our individual regard, by naming in his honour one of the many valuable acquisitions to our gardens which have resulted from an. expedition of which he was a principal adviser.

Bulb ovate, tunicated, the size of a pigeon's egg. Leaves weak, hardish, linear, channelled, cuspidate, externally rather angular, the length of the scape, or longer. Scape erect, 6 -angled, smooth, one and a half to two feet high. Raceme simple, conical. Pedicels filiform, somewhat horizontal, having at the base a very small bractea. Perianth 6 -leaved, erect-spreading, flesh-coloured, with oblong concave segments, narrowed at the base, green at the back; the outer ones broadest. Stamens 6, equal, spreading, inserted into the base of the sepals, with a broad, fringed, fiesh-coloured base. Anthers anterior, oblong. Ovary ovate, somewhat stalked, bluntly 3 -cornered, inflated, 3 -celled, with one-seeded cells; ovule solitary, erect in the base of each cell, of the cavity of which it does not fill one-third. Style straight, continuous, subulate. Stigma simple. J. L.


MIMULUS luteus; var. vivularis.

# Crimsoned Mimulus; the Lowland variety. 

DIDYNAMIA ANGIOSPERMIA.
Nat. ord. Scrophularinete.
MIMULUS. Supra, vol. 11. fol. 874.

Mimulus luteus; caule decumbente glabro, foliis dentatis suprà pubescentibus: superioribus sessilibus ovatis; inferioribus petiolatis, pedunculis filiformibus foliis longioribus, corolla calyce multotics majore: laciniis transversis; palato barbato.
Gratiola foliis subrotundis nervosis, floribus luteis. Feuill. per. 745. t. 34. M. lutcus, Linn. sp.pl. 884. Willd. sp. pl. 3.361. Spreng. syst. 2. 799. nee Bot: Mag. aliorumque.
a. rivularis; caulescens, multiflorus.
$\beta$. alpinus; sub-acaulis, uniflorus, folis minoribus.
Caulis decumbens, teres, fistulosus, glaberrimus, coloratus. Folia inferiorra petiolata, superiora sessilia, ovato-rhomboidea, in petiolo decurrentia, grossè et irregulariter dentata, purpurascentia: inferiora undique, superiora ad margines; suprà pilis brcvibus glandúlosis vestita, subtùs nuda. Flores magni, lutei, solitarii, pedunculis filiformibus foliis multè̀ longioribus. Calyx pallidè viridis, angulis coloratis; lacinid superiore majore ovatâ complicatû. Corolla calyce multò longior, laciniis superioribus latis, reflexis, retusis, lateralibus rotundatis, patentibus, undulatis, anticâ reniformi maculd maximâ discoided cruentâ; palato densè pilis glandulosis cristato, tuboque intùs sanguinco guttato: hoc pilis lineato à sinubus ad basin. Laciniæ stigmatis villosa.
M. Decandolle long ago pointed out the crror committed: by English Botanists in referring to this species the now common yellow-flowered Mimulus of North America, which he distinguished by the name of $M$. guttatus; but he at the same time attributed too much importance to the absence of hairs from the palate of Feuillé's plant, which arose only from inaccuracy on the part of his draughtsman. The Mimulus luteus of Linnæus was established solely upon the figure given by Feuillé of his Gratiola foliis subrotiundis nervosis, floribus luteis, which was seen by Feuillée

[^2]growing by the side of a river near Conception ; and obviously differs from the plant of the Botanical Magazine in the length of its peduncles, in the leaves, and whole habit. It is also remarkable for having almost universally a broad discoidal crimson blotch on the labellum, which gives the flower a striking appearance; but this circumstance is not constant, and was not observed by the original describer of the species.

The Alpine variety above distinguished, we owe to the kindness of Dr. Gillies, by whom specimens have been sent to us from the neighbourhood of Mendoza.

The plants from which the annexed drawing was made were raised in the garden of the Horticultural. Society, from seeds collected by Mr. James M‘Rac, upon the banks of rivulets in Chile. Feuillee says it is used by the Chilians as a pot-herb, being boiled by them in soups.

To cultivate this plant in perfection, it should be grown under a frame, in pots filled with coarse gravel, and placed in a pan of water. It then assumes all its natural beauty of colouring. If in a hot-louse, it grows taller, but is paler in all its parts.

Stems red, round, decumbent, quite smooth. Leaves opposite, lower stalked, upper sessile, ovate-rhomboid, decurrent in the petiole, coarsely and irregularly toothed, stained with red, the lower all over, the upper at the edges and veins. Flowers large, deep yellow, solitary, seated on filiform peduncles, which are much longer than the leaves. Calys with the upper lip longest, and ovate, complicate, pale green, with dark red veins. Corolla much longer than calyx, with the upper segments broad, retuse, reflexed, ateral rounded, spreading, wavy; midrib somewhat reniform, with a projecting palate, which is closely crested with yellow, glandular hairs, and spotted with little blood-red dots. A broad, transverse, blood-red blotch is placed on the face of the labellum. Tube closely dotted with crimson, with lines of yellow hairs running down it in the direction of the sinuses. Lobes of stigma almost square, very hairy. J. L.




## 1031

# DATURA ceratocaula. 

# Horn-stemmed Stramonium. 

PENTANDRIA MONOGYNIA.

## Nat. ord. Solanete.

DATURA L.-Calyx magnus, tubulosus, ventricosus, 5 -angularis, apice 5 -fidus, caducus, basi orbiculatẩ peltatâ persistente. Corolla maxima, infundibuliformis, tubo longo, limbo 5 -angulari, 5 -plicato, 5 -acuminato. Stigma 2-sulcum. Capsula echinata, aut glabra, ovata, 2-locularis, loculis dissepimento prominente bi- aut multipartitis; semina reniformia.--Herbæ virosce, aut rarius arbuscula fruticesve interdum scandentes; folia quarundam geminata; flores ut et ramuli extra-axillares solitarii. Juss. gen. 125.
D. ceratocaula; pericarpiis obovatis pendulis, foliis ovato-lanceolatis undulatis subtus incano-tomentosis, caulibus dichotomis cornuformibus. Ortega decad. p. 11. Willd. cnum. h. ber. 1. 22\%. Pers. syn. 1. 216. Jacq. schönbr. 3. 48.t.339. Cavan. descript. p. 103.
D. macrocaulis. Roth. neue beytrüge, p. 159.

Caulis annua, erecta, ramosa, ramis teretibus, fistulosis, corniformibus, purpureo suffusis. Folia ovato-oblonga, sinuata, glabra, luteo-viridia, subtùs casia, petiolo pauld longiora. Flores magni, solitarii, axillarcs, sordidè albi, extùs purpurascentes. Calyx glaber, pallidè viridis, tubulosus, apice fissus, tubi longitudine. Corolla decemangularis, angulis alternis mucronatis. Stamina corolla breviora. Fructus glaber, cernuus.

A rather showy annual, not very frequently seen in collections. The flowers are, as may be judged from the accompanying figure, of unusual size, and would, if joined to a more ornamental foliage, render this plant one of the most remarkable among those of the open border. Unfortunately there is an air of weediness in its general appearance, which gives it fewer claims to the regard of the amateur than might be expected.

A native of Cuba, whence it was introduced into the Royal Garden of Madrid, from which establishment it has been communicated to the rest of Europe. Our drawing was made at the Nursery of Mr. Joseph Knight, in July last.

Stem annual, erect, branched ; branches rounded, fistular, horn-shaped, stained with purple. Leaves ovate-oblong; sinuated, smooth, yellowish-green, cæsious beneath, a little longer than the petiole. Flowers large, solitary, axillary, dirty-white, cxternally purplish. Calyw smooth, pale green, tubular, slit at end, the length of the tube. Corolla with ten angles, the alternate angles being mucronate. Stamens shorter than corolla. Fruit smooth, cernuous.
J. L.
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## 1032

## GESNERIA pendulina.

## Drooping-flowered Gesneria.

DIDYNAMIA ANGIOSPERMIA.
Nat.ord. Gesneriex.
GESNERIA. Supra, vol. 4. fol. 329.
G. pendulina; fruticosa, foliis oppositis ovalibus oblongisve crenatis rugosis utrinque cauleque pilosis, pedunculis filiformibus subsolitariis, corollis cernuis clavatis concoloribus, laciniis calycis ovat:s.
Caulis fruticosus, erectus, teres, pilosus. Folia opposita, petiolata, ovalia vel oblonga, basi sqpè inaqualia, crenata, rugosa, utrinque pilosa, subtùs pallidiora. Flores terminales et axillares, subsolitarii, pedunculis filiformibus pilosis folieis brevioribus. Calyx semiquinquepartitus, pubescens, laciniis ovatis, subequalibus. Corolla coccinea, clavata, basi gibbosa, extìs pubescens, concolor, uncialis, limbo erecto: lobis rotundatis. Stamina tubi longitudine.

Many of the described species of Gesneria appear to approach each other so closely, that it is difficult to distinguish them. This borders so nearly upon G. ulmifolia and hirsuta, that it may be thought doubtful whether it can be considered distinct from the former species. We do not, however, hesitate to separate it; firstly, on account of the figure of the corolla, which is contracted at the orifice in G. ulmifolia; secondly, on account of the outline of the calycine segments, which are acuminate in the same species; and, thirdly, by reason of their geographical difference of station.

A native of Brazil, requiring the heat of the stove, in which it grows and propagates freely, flowering in June. Our drawing was made at the garden of the Horticultural Society, from a plant received from Richard Harrison, Esq. of Aighburgh, to whom it had been sent from Rio, by Mr. William Harrison.

Stem shrubby, erect, round, hairy. Leaves opposite,
stalked, oval or oblong, often unequal at the base, crenate, rugose, hairy on each side, paler beneath. Flowers terminal and axillary, somewhat solitary, upon filiform pedicels, which are hairy, and shorter than the leaves. Calyw half 5 -parted, downy, with ovate, nearly equal segments. Corolla scarlet, club-shaped, gibbous at base, pubescent externally, whole-coloured, about an inch long, with an erect limb, the lobes of which are rounded. Stamens the length of the tube.
J. L.


# EUGENIA amplexicaulis. 

# Stem-clasping Eugenia. 

## ICOSANDRIA MONOGYNIA.

## Nat. ord. Myrticer.

EUGENIA L.-Calyx campanulatus, carnosus, 4-5-fidus. Petala tot quot lac. cal. Stamina patentia, exserta, serie simplici in fauce calycis inserta. Ovarium (semisuperum?) 2-3-loculare, ovulis axi affixis. Stylus rectus. Stigma simplex. Fructus carnosus, 1-locularis, sæpius monospermus. Semina carnosa, transversa, cotyledonibus magnis hemisphericis, radicula cen-trali.-Arbores (India orientalis). Folia sepius coriacea, nunc menbranacea, resinoso-punctata, venis arcuatis margine parallelis. Flores magni, nunc solitarii axillares, nunc racemosi, vel paniculati.
E. amplexicaulis ; floribus axillaribus terminalibusque solitariis, foliis membranaceis oblongo-lanceolatis obtusis glabris undulatis cordatis.
E. amplexicaulis. Hort. bengaleasis, p. 37.

Rami teretes, versùs apices compressi, glabri. Folia subsessilia, membranacca, oblongo-lanceolata, obtusa, undulata, basi subcordata quodammodì amplexicaulia, venis arcuatis primariisque altè impressis. Flores in axillis foliorum superiorum, pedunculati, bracteolâ 1 v. 2 in pedunculo. Calyx campanulatus, carnosus, 4-fidus, laciniis rotundatis marginatis. Petala 4, alba, calyce pauld breviora. Stamina indefinita, petalis longiora, patentia, serie simplici fauce tubi calycis inserta. Ovarium parvum, semisupcrum, biloculare, loculis monospermis, ovulis axi omnind affixis basi tantùm libcris. Stylus rigidus, persistens, erectus. Stigma simplex. Fructus carnosus, pulcherrime purpureus, subaquosus, pomi parvi magnitudine, cavus., Semina......

Sent to the Horticultural Society, from Sumatra, by the late Sir Thomas Stamford Raffles. In the stove it is a small tree, flowering in June and July, and easily propagated by cuttings. The fruit is sometimes produced ; it is of the size of a small apple, of a beautiful crimson colour, somewhat turbinate in figure, of a spongy, watery texture, and with a slight taste of roses.

This is, in our view of the subject, a true Eugenia, of which we conceive that Eugenia malaccensis, and its allies, of which this is one, is the representative. It is true,
indeed, that it does not possess the same rigidity of stamens as that species, or even $E$. Jambos, but, nevertheless, the insertion of the stamens, in a simple series, upon the top of the fleshy, distinct tube of the calyx, which is a better character, marks its station beyond a doubt. We say nothing of the fruit, the seeds not having been fertilized in the specimens we examined.

We are scarcely acquainted, at present, with the result of M. Decandolle's labours upon Myrtaceæ, but we believe he constitutes a particular genus of E. Jambos. Should this be the case, we apprehend that the subject of the present plate will form part of that genus, and that in fact the Jambosa of Decandolle will be synonymous with Eugenia, as we understand that genus.
J. L.

# ALLIUM longifolium. 

Long-leaved Purple Onion.<br>hexandria monogynia.

Nat. ord. Asphodelee.<br>ALLIUM. Supra, vol. 9. fol. 758.

A. longifolium; foliis linearibus canaliculatis scapo longioribus, scapo semiancipite striato basi folioso, umbella suboctoflora congesta, staminibus edentulis.
Schænoprasum longifolium. Kunth. in H. B. nov. gen. et sp. 1. 277. Allium longifolium. Spreng. syst. 2.

Folia 2-pedalia, linearia, striata, glauca, canaliculata, basi purpurea, dilatata, tactu scabriuscula. Caulis erectus, basi foliosus, foliis longior, solidus, glaucus, subangulatus, semianceps. Umbella parva, erecta, coarctata, multiflora. Spatha erecta, mozophylla, ovata, membranacea. Flores atropurpurei. Perianthium patens; laciniis lineari-lanceolatis, aqualibus, basi non imbricatis, medio sulcatis, alternatim reflexis. Stamina patentia; filamentis purpureis subulatis, simplicibus, basi incrassatis et circa ovarium connatis. Ovarium subrotundum, obtusè trigonum; 3-loculare; ovulis cuique loculo geminis collateralibus brectis. Stylus subulatus. Stigma simplex.

Roots of this rare species of Allium were found uninjured in the midst of a mass of decayed vegetable matter, which had been sent from the Mexican Real del Monte mines, in the form of paper and dried specimens, by Mr. John Brown, but which, owing to an accident, had been almost entirely decomposed by damp. When the package was examined in the Horticultural Society's garden, it was discovered that this Allium, a species of Pedilea, and one or two other plants, had found their decaying brethren convenient subjects for securing their own resurrection, and had shot forth living roots among the half-rotten and dissevered members of the Berberries, Mallows, and Cacalias, by which they were surrounded.

Found by Humboldt and Bonpland in Mexico, near Queretaro, Aroyozarco, and San Juan del Rio, at high
elevations, flowering in August. The cultivated plant has broader leaves, and produces its flowers in October.

Leaves glaucous, striated, channelled, dilated, and purplish at the base, about two feet long, rather rough to the touch. Stem erect, longer than the leaves, glaucous, solid, slightly angular, 2-edged, one of the edges being acute, the other rounded. Umbel small, erect, contracted, many-flowered. Spatha one-leaved, ovate, membranous. Flowers deep purplish-brown. Perianthium spreading, with linear-lanceolate equal segments, not imbricating at the base, furrowed in the middle, alternately reflexed. Stamens spreading; filaments purple, subulate, simple, thickened and united at the base, round the ovarium. Ovarium roundish, bluntly 3 -sided. Style subulate. Stigma simple. J. L.


# CLERODENDRUM pubescens. 

Downy-leaved Clerodendrum.

## DIDYNAMIA ANGIOSPERMIA.

Nat. ord. Verbenacef.
CLERODENDRUM. Suprà, vol. 5.fol. 406.


#### Abstract

C. (Volkamera) pubescens; calyce campanulato 5-dentato immutato; foliis oblongo-lanceolatis acuminatis ramisque pubescentibus, pedunculis axillaribus trifidis, tubo corollæ abbreviato, staminibus corollæ longitudine.


This species of Clerodendrum was brought from St. Vincent's, by Mr. James M•Rae, in 1824, and flowered in the stove in the Comtesse de Vandes's garden, at Bayswater, in August 1825, where our drawing was made.

It is a tender stove-plant, not of much beauty: whether it is actually a native of St. Vincent's, or of the opposite coast of South America, we do not know.

This is distinguishable from all the published Volkamera tribe of Clerodendrums by its downy leaves; it otherwise borders very closely upon C. ligustrinum, but our Mauritius specimens of that species have stamens as long as the corolla, and their leaves are ovate-lanceolate, not oblong-lanceolate.

We are also in possession of another downy-leaved species of this tribe, for specimens of which we are indebted to Robert Barclay, Esq., in whose hot-house, at Bury-Hill, it flowered in 1825. It is a native of Madagascar, and by far the most beautiful plant of the genus with which we are acquainted. The leaves are small, and grow either in pairs or in threes. The flowers are produced in the utmost profusion, and are of a very delicate lilac. To record its existence in our gardens we shall give it a name and specific
character, trusting that our liberal friend will at some future time enable us to present the public with its representation; the specimens with which we were originally supplied by him for that purpose not having been drawn, owing to an unfortunate mistake. -We would call the plant of which we are speaking-
C. (Volkamera) foribundum; fuliis obovatis longè petiolatis oppositis ternisque inæqualibus sub-pubescentibus, corymbis terminalibus multifloris ramisque incanis, tubo corollæ elongato, calyc̣ibus mucronatis.
J. L.


## 1036

## SIDA malveflora.

## Mallow-flowered Sida.

## MONADELPHIA POLYANDRIA.

## Nat: ord. Malvacee.

SIDA.-Calyx nudus, 5 -fidus, sæpè angulatus. Stylus apice multifidus. Carpella capsularia 5-30 circa axin verticillata, plus minusve inter se coalita, 1-locularia, mono- aut oligosperma, apice mutica vel aristata. Dec. prodr. 1. 459 .

Sect. I. Malvinda, Medik. Carpella 5-12, monosperma, non vesicaria. Dec. S. malvaflora; foliis radicalibus subrotundis 9-lobatis basi truncatis: lobis apice tridentatis, caulinis 5 -partitis: laciniis lincaribus subdentatis, racemo terminali, carpellis muticis. S. malvæflora. Decand. prodr. 1. 474.

Herba perennis? caspitosa. Folia radicalia subrotunda, basi truncata, 7-9-lobata, laciniis apice rotundatis 3-pluridentatis, longè petiolata, utrinque pilosa; caulina 3-5-partita, lariniis linearibus obtusis subdentatis. Caulis 2-3-pedalis, erectus, pilosus, ramosus. Flores pallidè rosei, v. ferè albi, racemosi. Calyx 5-lobus, basi nudus, tomentosus. Corolla patens, laciniis venosis emarginatis. Columna staminum pilosa. Ovarium ovatum, monostylum, stylo apice multifido. Carpella 7, calyce inclusa, circa axin verticillata, reticulata, glabra, apice pilosiuscula, monosperma.

A native of New Albion, where it was found growing in the vicinity of the Multomah river, one of the southern branches of the Columbia, by Mr. David Douglas. By this indefatigable collector it was sent to the Horticultural Society, in whose garden, at Chiswick, it flowered in October and November last.

We do not doubt that this is the same species as that described by Decandolle, from the drawings of the Mexican Flora, and which he was unable to refer to any certain station in the genus. We trust that the above description will set this matter right.

A handsome, hardy, herbaceous plant, apparently perennial. Radical leaves roundish, truncate at base, 7-9-lobed,
the segments rounded at end, 3 or more toothed, on long stalks, pilose on each side; the cauline leaves $3-5$-parted, with linear, blunt, somewhat toothed segments. Stem 2-3-feet high, erect, hairy, branched. Flowers pale pink, or almost white, in racemes. Calyw 5 -lobed, naked at base, downy. Corolla spreading, with veiny emarginate segments. Column of stamens pilose. Ovary ovate, onestyled, with the style multifid at the point. Carpella 7, included in the calyx, whorled about the axis, reticulated, smooth, rather hairy at end, one-seeded.
J. L.
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## 1037

# HELLENIA cærulea. 

# Blue-fruited Hellenia. 

## MONANDRIA MONOGYNIA.

Nat. ord. Scitaminete.
HELLENIA W. Perianthii limbus interior unilabiatus, basi utrinque denticulo auctus. Filamentum lineare, ultrà antheram marginalem productum, lobulo brevissimo rotundato integro v. bilobo. Capsula crustacea. Semina arillata.-Inflorescentia paniculata v. laxe racemosa, caulem terminans. Foliorum vagina fissa, ligulata. Brown prodr. 1. 307.,
H. caruled; labello emarginato, foliis integerrimis capsulâque colnratâ glabris, stylo hirsuto. Brown l. c. 308.
Caulis erectus, simplex, glaber, rubro coloratus. Folia vaginantia, vaginí fissít apice ligulatâ, ovato-lanceolata, acuminata, glabra, concolora, basi intervallo brevi terete à vaginá sejuncta, hinc quasi petiolata. Panicula terminalis, congesta, multifora. Bracteæ ovato-lanceolata, floribus breviores. Flores pedicellati. Ovarium spharicum. Tubus perianthii allus, limbo exteriore 3 -fido, mox sphacelato, interiore unilabiato basi utrinque denticulato, oblongo, rubro, emarginato, disco discolore fusco. Stylus glabriusculus.

Our drawing of this very rare plant was made in the garden of the Horticultural Society, in July 1826, where it had been raised from seeds sent from New Holland, by Mr. Charles Frazer. We had never seen it in flower before, and believe the blossoms to be almost unknown on this side the equator. It is a robust stove plant, very easily cultivated in a stove, and propagated freely by division of the roots.

It appears to us doubtful whether there be not more species than one in New Holland referable to the genus Hellenia. This plant has a style nearly smooth: Mr. Brown defines that which he examined, as having a hairy style. Our specimens in fruit, from "thick bushes on the banks of the Hastings," are at least three times larger

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in all their parts than the species now described, have leaves with a much shorter space between the ligula and lamina, and a far more compound inflorescence.

Mr. Brown observes, that the genus Hellenia is most nearly related to Alpinia, from which it differs in having the filament not longer than the anthera, and in the texture of the capsule. Amomum differs in its spiked inflorescence, which terminates a radical scape, and in the 3 -lobed process of the filament; for the appendices of the base of this plant, which have been described by Roscoe, Smith, and Sims, seem to be only rudiments of the lateral segments of the inner limb; they also occur in Alpinia and Hellenia, and possibly in every genus of the order in which the inner limb is in like manner one-lipped, as in Elettari of Rheede, which is the Amomum repens of Sonnerat. This plant appears, from Sonnerat's own specimens in the Banksian Herbarium, to be distinguished from Alpinia only by its inflorescence, for which cause, however, it was formerly separated, and not without reason, by Adanson. Curcuma differs in its inflorescence, in the lateral segments of the inner limb being broader, taken, perhaps, by Mr. Roscoe for appendages of the filament, and also in its calcarate anthers. Zingiber is distinguished by its inflorescence, and by the subulate process of the filament. Costus may be distinguished by its inflorescence, by its petaloid filament, broadly lengthened beyond the intramarginal anther, and especially by the structure of its vagina, which forms above the insertion of the leaf a sort of ocrea; by which note it may be known at first sight, even out of flower, from all other Scitamineæ.

Stem erect, simple, smooth, coloüred with red. Leaves sheathing, with a split vagina, and a ligulate end, ovatelanceolate, acuminate, smooth, whole-coloured, separated at the base from the vagina by a short round space, and hence seeming, as it were, stalked. Panicle terminal, contracted, many-flowered. Bractece ovate-lanceolate, shorter than the flowers. Flowers stalked. Ovarium round. Tube of the flower white, with the outer limb 3-fid, becoming withered; the inner one-lipped, with a little tooth on each side at the base, oblong, red, emarginate, with a discoloured brown discus. Sityle nearly smooth.



# AMARYLLIS aulica; var. platypetala 

## Organ Mountain Amaryllis.


hexandria monogynia .
Nat. ord. Amaryllidef.
AMAR YLLIS. Suprà, vol. 3. fol. 226.
Div. Bi-multiflore: tubus coronatus: folia bifaria.

1. aulica; biflora, ringens, foliis nitidis, tubi coronâ firmâ coloratû obsoletè denticulatâ, laciniầ imấ limbi infernè involuta, staminibus inclusis. Ker suprà, vol. 6. fol. 444.
«. stenopetala. Suprà, fol. 444.
B. platypetala.

Lacinic perianthii latiores, magis æquales, obtusiores.

For this fine plant we are indebted to Richard Harrison, Esq., from whom we received it in June 1826. It was sent to England by Mr. William Harrison, from Rio, and flowered in Mr. Richard Harrison's stove, at Aigburgh.

That it is a variety of Amaryllis aulica, we think there can be no doubt; but it is well distinguished by its broader petals, and by its more robust habit. That the species varies very much in its native place, we have reason to know, from having seen flowers of several intermediate states produced by bulbs imported direct from Brazil. A variety from Mrs. Arnold Harrison is at this moment on our table, which is intermediate, in the shape of petals, between the sort now published and the original form of the species; and in which the fleshy ring of the orifice of the tube is so much diminished in breadth as to have become nearly obliterated.

While we determine to consider this a variety of A. aulica, we ought to state that, upon the same principles which have led us to this decision, all those forms of Amaryllis which border upon A. rutila, such as $\Lambda$. fulgida,
crocata, and others, should undoubtedly be reduced to a single species, of which $A$. equestris must be taken as the type. The whole of these varieties are, in our judgment, mere sports, of nature ; in all essential points analogous to the variations of a bed of tulips.

A native of the Organ Mountains of Brazil, at about sixty miles from the coast.
J. L.


## 1039

# LAVATERA triloba. 

Purple Rock Lavatera.


monadelphia rolyandria.
Nat. ord. Malyacee.
LAVATERA L.-Calyx cinctus involucello 3-6-fido, foliolis nempè ad medium coalitis. Carpella capsularia monosperma, in orbem circà axin variè dilatatum disposita. Decand. prodr. 1. 438.

Sect. III. Axolopha.
Receptaculum apice truncatum, in cristas tot quot carpella membranaceas laterales verticales expansum. Dec. l.c.
L. triloba; caule fruticoso folisque tomentosis subcordatis subtrilobis rotundis crenatis, pedicellis aggregatis, calycibus acuminatis. Decand.l.c.
Althæa frutex I. Clus. hist. lib. iv, cap. xiii. c. ic.
Althæa fruticans hispanica, aceris monspessulani incanis foliis, grandiflora saponem spirans. Pluk. phyt.t.8.f. 3.
L. triloba. Linn. Willd. sp. pl. 3.794. Jacq. hort. vind.t.74. Cav.diss. 2. p. 87. t. 31. f. 1.
L. calycina. Poir. suppl. 3. 310.

A hardy, half-shrubby, herbaceous plant, delighting in exposed dry situations. It is well adapted for ornamenting rough masses of artificial rock-work.

A native of Spain, where it is found in the maritime provinces, growing in some abundance upon cliffs and precipices. Flowers from June to September.
J. L.


# GENOTHERA cheiranthifolia. 

Stock-leaved EEnothera.

OCTANDRIA MONOGYNIA.
Nat, ord. Onagrarix.
CENOTHERA. Supra, vol. 2. fol. 147.

Fructibus cylindricis v. prismaticis aqualibus.
E. cheiranthifolia; caule ramosissimo ascendente hirsuto, foliis sessilibus
spatulatis obtusis subintegerrimis villosis, floribus sessilibus, capsulis
curvatis angulatis acutis hirsutis. "Horn." Spreng. syst. 2. 228.
Annua. Caulis decumbens, teres, ruber, pilosus, ramosus. Folia glauca, pubescentia, multiformia, inferiora spatulata, longè petiolata, distantia, superiora approximata, subsessilia v. petiolata, nunc oblonga, nunc ovata subcordata, omnia obtusa. Flores solitarii, axillarcs, foliis pauldे longiores, late lutei, mox fulvi. Ovarium subulatum, subarcuatum, villosum. Sepala villosa. .Stigma capitatum.

One of the best additions that have been lately made to our stock of hardy annuals. It is distinguished by its trailing habit, bright red stems, very glaucous leaves, like those of a ten-week's stock, and bright lively yellow flowers. Perfectly hardy, and requiring no other care than the commonest hardy annual.

A native of Chile, whence it seems to have been imported into the Danish National Garden, at Copenhagen, and thence into the establishments of other European States. Our drawing was made from plants in the garden of the Horticultural Society, where it had been raised from seeds presented by Mr. Otto, of the Botanic Garden of Berlin. Flowers, in uninterrupted succession, from July till the winter's frost.

Sten annual, decumbent, round, red, hairy, branched: Leaves glaucous, pubescent, of several shapes; the lower
spatulate, on long stalks, distant, the upper close together, somewhat sessile, or stalked, sometimes oblong, sometimes ovate, and rather cordate, all obtuse. Flowers solitary, axillary, a little longer than the leaves, bright yellow, becoming tawny. Ovarium subulate, a little bowed, villous. Sepals villous. Stigma capitate.
J. L.


## 1041

# MIRBELIA dilatata. 

Wedge-leaved Mirbelia.

## DECANDRIA MONOGYNIA.

Nat. ord. Leguminosie. Tribus I. Sophoreæ. Decand. prodr. 2.94.
MIRBELIA. Smith. Calyx 5 -fidus, bilabiatus. Legumen dispermum, longitudinaliter biloculare, suturâ utrâque, superiore presertim, introflexâ. ——Suffrutices australasici, fructu ad Astragalum, staminibus et habitu ad Sophoreas accedentes. Folia ternatim verticillata. Flores purpurei. Decand. prodr. 2. 114.
M. dilatata; foliis cuneiformibus : apice dilatato trifido. Brown in hort. Kew. 3. 21. Decand.l.c.
Suffrutex ramosus; ramis pilosis, triquetris, subalatis. Folia ternatim verticillata, sessilia, leviter pubescentia, cuneiformia, apice dilatata, 3-5-fida, laciniis aristatis, utrinque precipuè subtùs reticulata. Flores letè purpurei, terminales, capitulis laxis subsexfloris. Calyces pubescentes, pedicellati, pedicellis apice incrassatis, utrinque bracteolatis, bilabiati, labio superiore lato, bifido, subtruncato, inferiore 3-fido, laciniis ovatis, subacutis, aqualibus. Ovarium glabrum. Legumen oblongum, glabrum, calyce longius.

This beautiful species of Mirbelia is a native of the south-west coast of New Holland, where it was collected, during Captain Flinders's expedition,'by Mr. Brown. From the Hortus Kewensis, it appears to have been sent to Kew, in 1803, by Mr. Peter Good. The plant from which the accompanying figure was made, was raised from seed collected on the same coast by Mr. William Baxter, and sent to Mr. Mackay, of the Clapton Nursery, in 1823. To the liberality of Mr. Mackay we are indebted for specimens.

This is a hardy greenhouse plant of eminent beauty. It is particularly valuable in a collection on account of the intense bluish purple of the flowers, which are produced in great profusion, and form a most agreeable contrast to the prevailing yellow or orange of the greater part of the plants
from the same country. Flowers in July; and propagated by cuttings.

An under-shrub, with pilose, 3-cornered, somewhat winged branches. Leaves disposed in whorls of 3, sessile, slightly downy, cuneiform, dilated at end, 3-5-fid, the segments being awned, netted on both sides, particularly on the lower. Flowers bright purple, terminal, in little loose heads of about 6. Calywes downy, stalked, the stalks thickened at the apex, with a little bractea on each side; 2-lipped, the upper lip broad, bifid, subtruncate, the lower trifid, with ovate, somewhat acute, equal segments. Ovarium smooth. Pod oblong, smooth, longer than calyx. J. L.


# HERRERIA parviflora. 

## Small-flowered Herreria.

## HEXANDRIA MONOGYNIA.

## Nat. ord. Asphodelex.

HERRERIA Fl. Per.-Perianthium inferùm hexaphyllum, foliolis basi imbricantibus, subæqualibus, recurvis. Stamina sex, basi foliolorum inserta, erecta; antherce ovatæ versatiles. Ovarium 3 -quetrum, 3 -loculare, polyspermum ; ovulis horizontalibus placentæ axili affixis. Stylus 3 -gonus cum ovario continuus. Stigma sessile, trilobum, papillosum. Capsula (ex Fl. Peruv.) membranacea, 3-alata, 3-locularis, polysperma, valvulis medio septiferis. Semina atra, alata, membranacea. - Suffrutices flexuosi, foliis fasciculatis, vestigiis induratis aculeiformibus, racemis multifloris, floribus herbaceis odoratis.
H. parviflora; foliis lanceolatis, perianthii laciniis ovatis obtusis.

Caulis suffruticosus, sarmentosus, volubilis, teres, durus, glaber, atrom viridis. Folia fasciculata, lanceolata, ad basin attenuata, canaliculata, lineata, glabra, letè viridia. Racemi ex axillis foliorum, multiflori, penduli. Flores binati, à pedicello decidui, luteo-virides, mel dulce spirantes. Perianthium hexaphyllum; foliolis ovatis, obtusis, reflexis, subaqualibus, basi imbricatis. Stamina sex, basi foliorum inserta. Filamenta subiulata. Antheræ ovatce, antice, versatiles. Ovarium ovatum, trigonum, triloculare, polyspermum, ovulis placenta axili affixis. Stylus cum ovario continuus, triqueter, glaber. Stigma trilobum, papillosum, lobis decurrentibus.

Another rare Brazilian plant, for which we are indebted to Mr. Richard Harrison, by whose brother, William Harrison, Esq., it was sent to Liverpool, from Rio Janeiro. Our specimens were supplied from the hot-house at Aighburgh, in October 1826. The plant is a desirable hothouse twiner, growing freely in any good soil. The flowers appear in profusion, and emit an agreeable odour of honey.

Till now, the genus Herreria consisted of but one species, which was found by the authors of the Flora Peruviana in woods in Chile, near Conception, and elscwhere. Whether this is actually a native of Brazil, or of some part of the
opposite coast of America, may perhaps be doubted: it probably possesses the same medical properties as the original species, which is used as Sarsaparilla, and may therefore have been imported into Brazil.

We believe that all authors have concurred in referring this genus to Asphodelere, without, however, having had an opportunity of examining the seeds. We have not dissented from the measure, although we certainly think the question far from being settled. It possesses not the crustaceous seed-coat by which true Asphodeleæ are distinguished; and in habit it is widely different from that order, if we except Luzuriaga. It would be more properly referable to Smilaceæ, if its fruit were berried, instead of membranous, and with that order it agrees in habit, as well as in sensible qualities. It is also very closely allied to Dioscorineæ, from which its superior ovarium chiefly separates it. Upon the whole, it may be considered as a form equally related to all these orders, and not strictly referable to any one.

Stem suffruticose, running, twining, round, hard, smooth, dark green. Leaves fascicled, lanceolate, tapering to the base, which is channelled, lined, smooth, bright green. Racemes proceeding from the axillæ of the leaves, manyflowered, pendulous. Flowers in pairs, falling off from their pedicel, yellow-green, having the fragrance of new honey. Perianthium 6-leaved, with ovate, obtuse, reflexed, nearly equal segments, which imbricate at the base. Stamens 6 , inserted into the base of the leaflets. Filaments subulate. Anthers ovate, anterior, versatile. Ovary ovate, 3-cornered, 3 -celled, many-seeded, with ovules attached to a placenta in the axis. Style continuous with the ovarium, 3 -cornered, smooth. Stiena 3-lobed, papillose, with decurrent lobes. J. L.


## 1043

# SPIRANTHES grandiflora. 

# Large-flowered Spiranthes. 

GYNANDRIA MTONANDRIA.

Nat. ord. Orchinefr. Tribus Neothen Lindl. SPIRANTHES. Supru, vol. 10. fol. 823.

S. grandiflora; foliis obovato-lanceolatis obtusis glabris maculatis, scapo piloso, bracteis ovato-lanceolatis ovarii longitudine, perianthii laciniis inferioribus longissime cum ovario connatis, labello cuneato-cucullato viridi-venoso apice deltoideo basi sagittato.
Folia radicalia sublucida, hic illic colore pallidiore nebulosa, obovatolanccolata, obtusa, patentia. Scapus erectus, 2-pedalis, basi glaber vaginatu's, sursùm cum floribus pilosus. Bracter ovato-lanccolata, rigida, pilosa, basi glabra, viridi venose, ovarii longitudine. Ovarium unciam ferè longium villosum. Perianthium connivens, laciniis carnosis, parallelis; superiore basi corrugata, oblonga, apice recurva, intìs nitida; lateralibus interioribus pauld brevioribus, obtusis, appressis, lucidis, atro-viridibus; lateralibus inferioribus basi in ovario per totam longitudinem decurrentibus, margine antico discretis, lamina oblonga, obtusa, labello longiore. Labellum cucullatum, cuneatum, pedicellatum, basi sagittatum, marginibus columnce arctissimè agglutinatis, apice deltoidco, viridi-venoso. Columna brevis posticè ad marginem dentatus, anticd pubescens. Stigma verticale, reniforme, semiclausum, rostratum, cmarginatum. Anthera pedunculata, rostrata, bilocularis. Pollinia duo, biloba, caudiculata, glandula emarginate adherentia.

This new species was found near Rio Janeiro, by Mr. David Douglas, by whom roots were sent to the Horticultural Society, in 1824. It grows freely in rotten mould in the stove, and flowers in October. It is the largest and most remarkable of the genus, except Spiranthes elata, from which it is obviously distinguished.

The cohesion of the labellum with the sides of the columna, which is very firm in all the species, is in this so powerful, that it may casily be mistaken for actual union of the parts.

Leaves radical, somewhat shining, clouded here and
there with a paler colour, obovate-lanceolate, obtuse, spreading. Scape erect, two feet high, at the base smooth and sheathing, upwards hairy, as well as the flowers. Bractece ovate-lanceolate, rigid, hairy, smooth at base, with green veins the length of the ovarium. Ovarium about an inch long, villous. Perianthium conniving, with fleshy parallel segments; the upper shrivelled at the base, oblong, recurved at the apex, shining inside; the inner lateral ones a little shorter, obtuse, appressed, shining, dark green; the lower lateral ones at the base running down the ovarium nearly the whole of its length, with their front edge separate, with an obtuse, blunt lamina, longer than the labellum. Labellum cucullate, cuneate, pedicellate, sagittate at base, with the edges firmly adhering to the sides of the columna, at the end deltoid, with green veins. Columa short, toothed at the back edge, pubescent in front. Stigma vertical, like a slit half-closed, rostrate, emarginate. Anther stalked, rostrate, 2 -celled. Pollen-masses two, 2-lobed, with a caudicula adhering to an emarginate gland.
J. L.

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[^0]:    vol. XII.

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[^2]:    vol. Xix.

