CURTIS'S

BOTANICAL MAGAZINE;

OR

Flower Garden Displayed:

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

To which are added,

THEIR NAMES, CLASS, ORDER, GENERIC AND SPECIFIC CHARACTERS,

ACCORDING TO THE SYSTEM OF LINNÆUS;

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

CONDUCTED

By SAMUEL CURTIS, F. L. S.

THE DESCRIPTIONS

By SIR WILLIAM JACKSON HOOKER, K. H.

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

VOL. XIII.

OF THE NEW SERIES;

Or Vol. LXVI. of the whole Work.

" Observe the rising Lily's snowy grace;
Observe the various vegetable race:
They neither toil nor spin, but careless grow,
Yet see how warm they blush, how bright they glow:
What regal vestments can with them compare,
What king so shining, or what queen so fair?"

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TO

JOHN PARKINSON, ESQ., F. R. & L. S.,

H. B. M. CONSUL-GENERAL IN MEXICO,

&c. &c. &c.,

TO WHOM,

THE MORE RECENT PAGES OF THIS WORK ARE INDEBTED FOR

SOME OF THEIR BRIGHTEST ORNAMENTS,

AND,

TO WHOSE UNWEARIED EXERTIONS IN THE CAUSE OF BOTANY,

DURING HIS RESIDENCE IN MEXICO,

THE COLLECTIONS OF ORCHIDEÆ AND CACTEÆ,

IN THE GARDENS

OF HIS GRACE THE LATE DUKE OF BEDFORD AT WOBURN, AND OF

MR. HARRIS AT KINGSBURY,

OWE THEIR MOST POWERFUL ATTRACTIONS,

AND

OUR HERBARIA MANY NOVEL AND INTERESTING SPECIMENS,

THE PRESENT VOLUME IS DEDICATED,

BY HIS OBEDIENT AND VERY

HUMBLE SERVANT,

W. J. HOOKER.

Glasgow, April 1, 1840.

W. Fitch del.

Pub. by S. Curtis Glazenwood Essex. Mar. 1. 1839.

Swan. Sc.

CATTLÉYA INTERMÉDIA; *var.* angustifolia. NARROW-LEAVED INTERMEDIATE CATTLEYA.

****

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala membranacea vel carnosa, patentia, æqualia. *Petala* sepius majora. *Labellum* cucullatum, columnam involvens, trilobum vel indivisum. *Columna* clavata, elongata, semiteres, marginata, cum labello articulata. *Anthera* carnosa, 4-locularis, septorum marginibus membranaceis. *Pollinia* 4, caudiculis totidem replicatis.—Herbæ *epiphytæ (Americanæ) pseudo-bulbosæ.* Folia *solitaria v. bina coriacea.* Flores *terminales, speciosissimi, sæpe e spatha magna erumpentes. Lindl.*

Specific Character and Synonyms.

CATTLEYA *intermedia;* foliis oblongis emarginatis cauli æqualibus, sepalis petalisque lineari-oblongis subæqualibus subundulatis obtusiusculis, labello trilobo lamellis pluribus in medio carnosis cristato, laciniis lateralibus ovatis planiusculis intermedio crispo rotundato denticulato. *Lindl.*

(α.) flore toto intense roseo.

CATTLEYA intermedia. *Grah. in Bot. Mag. t.* 2851.

(β.) floribus subalbis rubescentibus, disco labelli sanguineo.

(γ.) foliis angustioribus, floribus pallide roseis, labelli lobo medio usque ad marginem sanguineo. (*Tab. nostr.* 3711.)

CATTLEYA Perinnii ? *Lindl. Bot. Reg. t.* 2.

A native of Brazil, and sent to the Glasgow Botanic Garden, under the name of CATTLEYA *crispa:* but that plant, as

as represented by Dr. LINDLEY, is so very different, that we cannot consider the two to be the same. From C. *intermedia*, figured at t. 2851, the present will be found to differ in no essential particular, and we are disposed to consider it a variety of that species, sufficiently distinguished, however, both from α and β, to render it worthy of cultivation in every collection of Epiphytes, and equally meriting a place in this work.

I am indeed by no means clear about the limits of the species of CATTLEYA; I mean particularly the large purple kinds resembling the original C. *labiata*. To me the Genus appears, like so many other of the *epiphytal Orchideæ*, subject to great variation in the size and form of the flower, and the relative length and breadth of the leaves.

Fig 1. Column and Germen. 2. Anther-case. 3. Pollen-masses:—*magnified.*

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W Fitch Del.t

Pub by S.Curtis Glazenwood Essex. Mar 1.1839.

Swan Sc

ONCÍDIUM RANÍFERUM; *var.* major. FROG-FLOWERED ONCIDIUM; larger *var.*

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* sæpius undulata : lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum, ecalcaratum cum columna continuum, varie lobatum, basi tuberculatum v. cristatum. *Columna* libera, semiteres, apice utrinque alata. *Anthera* semibilocularis, rostello nunc abbreviato, nunc elongato rostrato. *Pollinia* 2, postice sulcata, *caudicula* plana, *glandula* oblonga.—Herbæ *epiphytæ nunc pseudo-bulbosæ*. Folia *coriacea*. Scapi *paniculati vaginati, rarius simplices*. Flores *speciosi, lutei, sæpius maculati, raro albi. Lindl.*

Specific Character and Synonyms.

ONCIDIUM *raniferum ;* pseudo-bulbis ovatis sulcatis diphyllis, foliis lato-linearibus acutis scapo paniculato brevioribus, sepalis petalisque oblongis acutis patulis, labelli laciniis lateralibus triangularibus intermedia cuneata emarginata, crista depressa media constricta, dimidia posteriore quadrata basi utrinque callosa medio tuberculata anteriore triangulari apice emarginata utrinque foveata, alis columnæ integris. *Lindl.*

ONCIDIUM raniferum. *Lindl. Bot. Reg. fol.* 1920. *et N. S. t.* 48.

(β.) *major ;* labelli lobo medio subintegro. *(Tab. nostr. 3712.)*

This sprightly little Orchidaceous plant inhabits Brazil, and seems to have been first imported by Mr. KNIGHT of the King's Road Nursery. It has since been found in the Organ

Organ Mountains, as observed by Professor LINDLEY, (in No. 637 of his Brazilian Collection,) and plants were sent over to his subscribers, both in a living and dried state. The dried specimens above referred to, belong to our variety here represented, having much longer leaves than the plant figured in the Botanical Register, a scape a foot and a half high, large and more numerous flowers, with a lip scarcely at all emarginate at the apex. The smaller state has also been sent living to this country by Mr. GARDNER, but even there the lip is almost entire at the apex.

DESCR. *Pseudo-bulbs* clustered, oblong, but tapering upwards, compressed, deeply furrowed, bearing two *leaves* at the summit, from five to six or eight inches long, linear-strap-shaped, scarcely coriaceous. *Scape* from the base of the *peduncle*, from six inches (as in one state of the plant) to a foot or even a foot and a half high, as in the specimens from which this figure is taken, slender, graceful, somewhat pendent, branched in a paniculated manner. *Flowers* small, but lively yellow. *Sepals* and *petals* soon reflexed, oblong, nearly equal : the latter with deep orange spots. *Lip* three-lobed : lateral lobes linear-oblong, patent, intermediate one broadly obovato-cuneate, nearly entire at the apex :—the base of the lip tuberculated in a very remarkable manner, and orange-coloured.

Fig. 1. Flower. 2. Anther-case. 3. Pollen-masses :—*magnified.*

W. Fitch. Del.

Pub by S. Curtis. Glazenwood Essex Mar. 1. 1839

Swan. Sc

MARÍCA GRÁCILIS. SLENDER-STEMMED MARICA.

****

Class and Order.

TRIANDRIA MONOGYNIA.

(Nat. Ord.—IRIDEÆ.)

Generic Character.

Involucrum 2-valve; *Spathæ* 1-valves, 1-floræ, inclusæ. *Corolla* hexapetaloideo-sexpartita, laciniæ intimæ minores. *Filamenta* discreta, styli angulis opposita, antheris breviora, disco glanduloso corollæ insistentia. *Stigmata* 3, rectissima, turbinato-divergentia (sæpius in compagem alato-triquetram et 3-canaliculatam cujus angulis antheræ affiguntur altius breviusve coalita) summatim hiantia vel breviter fissa et subbilabiata, stylo longiora. *Capsula* columnariter elongata, tereto-trigona, polysperma, apice latius denudata. *Gawl.*

Specific Character and Synonym.

MARICA *gracilis;* spatha communi foliacea ultra-pedali, pedunculis gracilibus, spathæ valvis elongatis, flore modico. *W. Herb.*

MARICA gracilis. *W. Herb. MSS.*

This beautiful plant was received at the Glasgow Botanic Garden from the noble collection at Woburn, where it has been some time cultivated. Mr. FORBES imported the species from Brazil, and grows it in the greenhouse.

The drawing was submitted to the inspection of the Hon. and Rev. WILLIAM HERBERT, who considers it new, and truly distinct from the well-known MARICA *Northiana* figured at t. 654 of this work. It is much slenderer in every part; the partial spatha particularly long, narrow, and acuminated, the flower smaller, and the outer sepals narrower. Mr. HERBERT

Herbert further observes, that the drawing exhibits three erect lobes to each division of the stigma; whereas, Mr. Ker represents and describes M. *Northiana* as having only two erect lobes to each.

Fig. 1. Flower deprived of the Sepals. 2. Section of the Germen:—*magnified.*

The following remarks belong to Phalocallis *plumbea*, t. 3710.—Dr. Lindley perceived, in the flowers of this plant, "*three sterile awl-shaped stamens of the length of the filaments.*" There was not the slightest attempt to produce any such processes in the specimens which flowered at Spofforth; and, as the filaments are thick and cohere, except at their points, it is difficult to understand how such processes could be inserted between them. There is a purple streak on the side of each filament, which deceives the eye with the appearance of a dark shadow and longitudinal division of the filament, and it requires the use of a magnifier in a strong light to satisfy the beholder that it is an optical delusion. Either Dr. Lindley was thus deceived, or the processes which he describes must have been an accidental exuberance. The word *Cipuræ* in the article Phalocallis *plumbea*, is an error of the press for *Cipura*. The purple lateral streaks, and ring round the base of the filaments, should have been coloured in the dissection No. 1.—*W. H.*

We beg to correct an error at fol. 3690, where it is said that the pretty Merendera *Caucasica* was introduced to this country by the Glasgow Botanic Garden. It was, we believe, first cultivated in this country, and continues to be so very successfully by Mr. Goldie, at his Nursery in Ayrshire. By him it was received from St. Petersburgh.

Pubby S.Curtis Glazenwood Essex. Mar 1 . . 39

TROPÆOLUM TUBERÓSUM. LARGE-ROOTED INDIAN-CRESS.

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Class and Order.

OCTANDRIA MONOGYNIA.

(Nat. Ord.—TROPEOLEÆ.)

Generic Character.

Cal. 5-partitus, lobo sup. calcarato. *Pet.* 5 inæqualia, 3 inferiora minora aut evanida. *Stam.* 8 ab ipsa basi libera. *Carpella* 3 monosperma suberosa, reniformia, indehiscentia hinc sulcata rotundata.

Specific Character and Synonyms.

TROPÆOLUM *tuberosum;* foliis peltatis 5-lobis basi transversim truncatis glabris lobis rotundato-cuneatis truncatis, petalis calycem vix excedentibus integerrimis.

TROPÆOLUM tuberosum. *Ruiz et Pav. Fl. Per. v. 3. p. 77. t. 314. f. 6. Humb. et Kunth, Nov. Gen. Am. v. 5. p. 251. De Cand. Prodr. v. 1. p. 684. Spreng. Syst. Veget. v. 2. p. 226.*

This interesting species of *Indian Cress*, of which the large tuberous roots are abundantly eaten by the Peruvians (according to RUIZ and PAVON), and, indeed, form a daily article of food, was first known to me by specimens transmitted from Peru, by Mr. MATHEWS. They are No. 402 of his Peruvian Collection. In 1836, my friend, JOHN M'LEAN, Esq., sent the esculent tubers to Mr. MURRAY of the Glasgow Botanic Garden, by whom the species has been largely distributed. It proves quite hardy, but our summers are scarcely long enough, without a little previous forcing, to perfect the flowers before the frosts come on; so that its blossoms have been produced only in few collections. The

The specimen here figured was sent from the Belfast Botanic Garden in 1838, by Mr. Ferguson, late the head gardener at the Glasgow Botanic Garden, but now, fortunately for the Belfast Institution, the very excellent Curator of its beautiful garden.

Descr. *Root* an almost obconical, or somewhat pear-shaped *tuber*. *Stem* long, twining, branched, terete, succulent, glabrous, as is all the rest of the plant. *Leaves* on very long, cirrhiform *petioles*, without stipules, dark-green above, pale and glaucous beneath, peltate, rotundato-cordate, five-lobed, transversely truncate at the base, the lobes broad, roundish-cuneate truncate, and frequently furnished with a mucro or minute point at the apex. *Calyx* orange-red, deeply five-lobed, almost five-partite, the lobes oval, the upper one prolonged into an attenuated straight spur, geniculated at the point. *Petals* five, a little longer than the calyx, obovate, two of them a little shorter and less unguiculated, all of a full orange-colour, with black veins. *Stamens* eight, unequal; *filaments* red: *anthers* roundish: *pollen* yellow. *Germen*, in our specimen, of four rounded lobes. *Style* thick, white, yellow above. *Stigma* irregularly jagged.

Fig. 1. Flower. 2. Pistil:—*magnified.*

W. Fitch Del.

Pub by S. Curtis Glazenwood Essex Mar 1 1839

Swan

TORÉNIA CORDIFÓLIA. HEART-LEAVED TORENIA.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—SCROPHULARINEÆ.)

Generic Character.

Calyx tubulosus plicatus, apice oblique 5-dentatus vel bilabiatus, labiis 2—3-dentatis. *Corolla* ringens, labio superiore bifido, inferiore trifido, laciniis subplanis. *Stamina* fertilia 4, didynama, 2 superiora brevia filamentis integris, 2 inferiora ad basin labii inferioris inserta filamentis elongatis arcuatis, basi appendice dentiformi vel filiformi auctis. *Antheræ* per paria cohærentes vel approximatæ, biloculares, loculis divergentibus divaricatisve apice confluentibus. *Stylus* simplex, stigmate complanato bilamellato vel simplici (?). *Capsula* oblonga, calyce brevior, bivalvis, valvulis integris margine planis, dissepimento parallelo placentifero demum libero.—Herbæ *ramosæ, glabræ vel villosæ, basi diffusæ.* Folia *opposita, sæpius dentata.* Flores *axillares, oppositi vel fasciculati, interdum racemosi. Benth.*

Specific Character and Synonyms.

TORENIA *cordifolia;* foliis ovatis, pedunculis axillaribus subfasciculatis, corollis calyce ovato basi rotundato subduplo longioribus. *Benth.*

TORENIA cordifolia. *Roxb. Corom. Pl. v. 2. p. 32. f.* 161. *Ibid. Fl. Ind. v. 3. p. 95. Pers. Synops. v. 2. p.* 167. *Benth. Scrophul. p.* 39.

COROSINAM. *Rheede, Hort. Malab. v.* 9. *t.* 68.

This little annual, which, we learn from Dr. ROXBURGH, is a rare native of the moist pastures about Samulcottah in the

the Northern Circars, flowering in the cold season, blossomed in the stove of the Royal Botanic Garden, Edinburgh, in October, 1838. The seeds were sent by my friend Mr. Falconar, from Saharampoor.

Descr. *Root* annual. *Stem* (four to eight inches high) erect, square, acutely angled or slightly winged, green, with spreading ciliæ on the angles; *branches* opposite, decussating, spreading widely, resembling the stem. *Leaves* petiolate, cordato-ovate, simply inciso-serrate, bright green and distantly hairy above, paler and glabrous below, where the mid-rib, and oblique little divided veins, are prominent, but channelled above. *Petioles* channelled above, ciliated, shorter than the leaves. *Peduncle* at first about as long as the petiole, afterwards elongated, exceeding the leaves, four-sided and ciliated, resembling the branches. *Flowers* subumbellate at the extremity of the branches, arising from the axils of leaves which are crowded, in effect resembling an involucre. *Calyx* bilabiate, the upper lip three-toothed, the lower more deeply bifid, green, ovate, with fine ciliated wings, the upper wing only not being produced in form of an acute angle along the peduncle, teeth acute. *Corolla* pale lilac, one-third longer than the calyx; *tube* clavate, slightly curved downwards, glabrous; *limb* bilabiate, spreading, the upper lip crenate, slightly emarginate, the lower tripartite, the lobes rounded. *Stamens* four, didynamous, shorter than the upper lip; *filaments* arched laterally; *anther-lobes* divaricated. *Pistil* as long as the longer stamens; *stigma* bilabiate, lobes spreading, hairy upon their inner surfacè; *style* compressed, enlarging upwards; *Germen* green, ovato-conical, furrowed on each side, placed on a small thin light coloured disk which is broadest on the upper side; *ovules* very numerous, fixed to large central placentæ. *Capsule* bivalvular, bilocular, shorter than the persisting calyx with which it is covered. *Graham.*

Fig. 1. Pistil:—*magnified.*

W.Fitch Del.

Pub. by S. Curtis. Glazenwood Essex. May 1. 1839.

Dracópis amplexicaúlis. Stem-clasping-leaved Dracopis.

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Class and Order.

Syngenesia Frustranea.

(Nat. Ord.—Compositæ.)

Generic Character.

Achenium pappo calloso coroniformi coronatum, sectione transversa orbiculari areola laterali. *Corolla* disco subcylindraceo, dentibus reflexis. *Antheræ* inclusæ. *Stylus* disci ramis appendiculo lineari terminatis.—Herba *perennis;* foliis *cordato-lanceolatis, alternis amplexicaulibus, lævibus, integris;* capitulis *terminalibus, solitariis, radio luteo,* disco *obscuro,* rachide *conica (bracteata). Less.*

Specific Name and Synonyms.

Dracopis *amplexicaulis.*
Dracopis amplexicaulis. *Cass. Dict. Sc. Nat. v.* 35. *p.* 273. *Less. Compos. p.* 226. *De Cand. Prodr. v.* 5. *p.* 558. *Drum. Coll. N. Orl. n.* 188. *Ej. Texas III. n.* 213.
Rudbeckia amplexicaulis. *Vahl.*
R. amplexifolia. *Jacq. Ic. Rar. v.* 3. *p.* 592. *Pursh, Fl. Am. v.* 2. *p.* 573.
(β.) minor; foliis fere omnino integerrimis. *Tab. nostr.* 3716. *(excl. f.* A.)
Rudbeckia perfoliata. *Cav. Ic. v.* 3. *p.* 27. *t.* 252.

In its perfectly glabrous and amplexicaul leaves, with their cartilaginous margin, this plant differs strikingly from the other species of Rudbeckia with which it was united by most Botanists. Cassini first separated it, but rather as a sub-genus, and Lessing has established it as a Genus, founding the character chiefly on the different form of

of the fruit, as seen in a transverse section of the tubular florets, and of the styles.

Dracopis *amplexicaulis*, the only individual of the Genus, has been long known as a native of Louisiana, but we believe that few specimens have come to Europe till those of Mr. Drummond, from N. Orleans, were distributed. That collection, however, possessed the state of the plant with strongly serrated leaves, and such as is figured by Jacquin in the work above quoted, and similar to what we have represented at the letter A.; but in Texas, about San Felipe de Austin, Mr. Drummond gathered the entire-leaved variety, precisely according with the Rudbeckia *perfoliata* of Cavanilles: and having sent seeds, as well as specimens, to this country, we have the opportunity of giving a figure of it. It is a hardy annual (?) and blossoms in July and August.

Descr. *Stem* branched, varying much in height, glabrous, striated. *Leaves* alternate, oblong, amplexicaul, and cordate, almost auriculate at the base, in α. deeply and coarsely serrated, in β. almost wholly entire, the margin cartilaginous and rough with elevated points. *Peduncles* terminal, single-flowered, slightly thickened upwards, and furrowed. *Involucre* double; outer of a few rather small lanceolato-acuminate leaves, inner ones short, blunt. *Ray* of few, from five to seven, broadly oval, obscurely three-toothed, deep yellow *corollas*: *tube* scarcely any, at its top is often an awn-like appendage. *Germen* small, abortive. *Florets of the disk* tubular, somewhat infundibuliform, pale below, dark, almost black; purple above, with a reflexed five-toothed limb. *Anthers* a little protruded, black. *Segments* of the *stigma* subulate, hairy. *Achenium* oblong-obtuse, tapering at the base. *Pappus* none, except a slightly elevated border. *Receptacle* oblong. *Scales* obovate, acute, reddish-purple, keeled, greenish and slightly hairy above.

Fig. 1. Floret of the Ray. 2. Ditto of the Disk. 3. Scale. 4. Achenium. 5. Portion of a Leaf:—*magnified.*

2.

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W. Fitch del.

Pub by S. Curtis Glazenwood Essex. Apr.l 1. 1839.

EPIPHYLLUM RUSSELLIANUM. THE DUKE OF BEDFORD'S EPIPHYLLUM.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala calyciformia, ovario nudo adnata, exteriora brevia, media longiora reflexa, intima petaliformia in tubum concreta, orificio obliquo (vel æquali). *Stamina* filiformia (circa 100) medio breviora receptaculo, exteriora longiora tubo affixa, limbo multo longiora. *Stylus* filiformis, stigmatibus paucis, vix expansis. *Bacca* et *germinatio* ignotæ.—Frutices *carnosi articulati, articulis alatis subtruncatis, subinermibus, apice tomentoso interdum spinuloso, ramosis et floriferis.* Flores *speciosi hiemales, forma singulari.* Receptaculum *pyriforme in sepala* 8 *vera brevia imbricata virentirubella abiens; sequuntur sepala* 5 *vivide colorata, petaliformia, reflexa, tubi basi affixa.* Orificium tubi *obliquum, (vel æquale) ex* 9 *petalis compositum, quorum* 4 *suprema suberecta,* 5 *inferiora maxime reflexa. Pfeiff.*

Specific Character and Synonym.

EPIPHYLLUM *Russellianum;* suberectum, articulis obovatis truncatis utrinque obtusissime 1-dentatis dentibus fasciculatim pilosis, corollæ petalis æqualiter patentibus, ovario 4- (5) alato, staminibus seriei interioris basi monadelphis.

CEREUS Russellianus. *Gardner MSS.*

This beautiful species of EPIPHYLLUM is common on the stems of trees, and occasionally upon rocks on the Organ Mountains of Brazil. Its nearest affinity is to EPIPHYLLUM *truncatum,* that favorite ornament of our stoves, the habit and

and general appearance of the two plants being quite similar; but besides the minor differences mentioned below, the present is abundantly distinct as a species, having a straight and regular (not oblique irregular) flower, and a four-winged (not wingless) ovary; thus affording a good example of closely allied species, representing each other in different regions or elevations. The E. *truncatum* I have never observed growing at a greater height on the mountain than about four thousand five hundred feet; while above that line, and to an elevation of nearly six thousand feet, nothing but E. *Russellianum* is to be found.

The brilliant flowers are produced in the month of May, and had not my visits to the Organ Mountains been fortunately made at that season, I certainly should have passed by this species as E. *truncatum*. *G. Gardner*.

(We can readily participate in the pleasure Mr. GARDNER must have experienced in discovering this beautiful Epiphyllous plant and dedicating it to his distinguished patron, the Duke of Bedford, a nobleman, who, in the short time of Mr. GARDNER's absence (scarcely three years) has amassed such a collection of Cactoid Plants at Woburn Abbey, as must be seen to be appreciated, and with which none in the kingdom, that I know of, can be compared, except it be that of —— HARRIS, Esq., of Kingsbury, near Hendon. In the stoves at Woburn, the great columnar kinds of CEREUS, thirty feet high, (and, especially the noble specimens of C. *senilis* two of which have attained to twelve feet, and are clothed with long, pendent white hairs) contrast admirably with the strangely broad and depressed forms of the MELOCACTUS and ECHINOCACTUS group, beset, too, as these are, with spines of every shape and size and colour:—again, the latter kinds present a most curious difference of aspect from the flattened and jointed stems of the OPUNTIÆ and EPIPHYLLA; while the magnitude and fragrance of the blossoms of some, and the brilliancy of colour in others, are surpassed by few vegetable productions. The arrangement and high health and vigour of the plants at Woburn reflect the utmost credit on the able gardener, Mr. FORBES.*

Of

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* While writing the above, information has just been received from Mr. PARKINSON, Her Majesty's Consul General in Mexico, of the despatch of another valuable addition to His Grace's princely collection; including among other things, specimens of CEREUS *senilis*, still larger than those above

Of the EPIPHYLLUM here represented, we have received an excellent drawing, made by Mr. GARDNER's kind friend, Mr. MIERS, in Brazil, and that gentleman did not fail to observe all the characters which specifically distinguish this handsome plant from its congeners; especially the inner circle of monadelphous stamens figured at No. 1 of our plate. Its discovery is thus alluded to in a letter from Mr. GARDNER.

"Through dense masses of large bamboos, with stems often more than half a foot thick, and sixty or seventy feet high, we had to cut our way up the Organ Mountains, till we came, after a toilsome day's journey, to a small water-fall, where we encamped for the night. On the trunks of the larger trees, growing near this spot, I saw abundance of EPIPHYLLUM *truncatum* beautifully in flower, and higher up on the mountain, the next morning, I found a lovely new species, belonging to the same group as E. *truncatum*, and much resembling it in many points; equally large, but with a more graceful mode of growth, and brighter-coloured blossoms. The stamens too are uniformly pink, and not white, as in E. *truncatum*.

"I am sure you will be delighted with it, and I do trust, if ever I am spared to return to England, that I shall see it there as universally cultivated, as the species to which it is so nearly allied. It gives me great pleasure to dedicate this discovery to my liberal patron, His Grace the Duke of Bedford; and I hope you will agree with me in thinking that its beauty renders it worthy to bear such an illustrious name. In my list you will find it marked CEREUS *Russellianus*."

The description which follows is from Mr. GARDNER's pen, who drew it up from living specimens on the spot. *W. J. H.*)

DESCR. *Plant* an EPIPHYTE, from one to three feet high, usually growing on the mossy stems of trees. *Root* of several large, divaricating *branches*, which gradually become much

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above mentioned, and two allied kinds, doubtless new species, one being described as downy and the other spinous. The collection also contains a most remarkable MAMMILLARIA, of such extraordinary dimensions, as to weigh 2 cwt.; and which it required the united strength of eight Indians to convey to the waggon, on which it was brought from a distance of one hundred miles to Mexico. The flower is yellow, and after being placed on the waggon, it showed several opening buds. The fruit of this gigantic species is well flavoured, but slices of the green plant itself are made into a sweetmeat, which has much of the taste of preserved citron.

much divided, and run in all directions round the trunk of the tree to which the plant has attached itself. *Stem*, of the largest individual which I have met with, four inches and a half in circumference, round, jointed ; joints about an inch in length, a little thicker at their extremities than in the middle, covered by a grayish-brown epidermis. *Branches* also composed of oblong, leaflike joints, from an inch to an inch and a half in length, those at the lower part being thicker and of a more woody texture than the upper ones. *Joints* with two serratures on either side, from each of which arises a small fascicle of hairs. The upper margin is rounded at the corners, and truncated; in the young branches furnished with small fascicles of hairs. *Flower* regular, arising from the truncated extremities of the branches, two inches and a half long, of a delicate deep pink colour. *Sepals* numerous, imbricated; the lower ones small, ovate, the upper lanceolate, their united bases forming a pink-coloured tube, the upper half spreading. *Stamens* numerous, a little longer than the calycine tube, arising in two distinct series from the top of the ovarium—those of the external row attached for nearly half of their length to the tube of the calyx,—the internal row united at their bases by a short membrane, which forms a tube round the style. *Filaments* filiform, of the same colour as the flower. *Anthers* oblong, two-celled, of a deep pink colour before bursting, at maturity yellowish, as is also the *pollen*. *Ovarium* inferior, obovate, short, four-winged, smooth, of a pale green colour : *style* filiform, straight, of the same hue as the flower, a little longer than the stamens : *stigma* clavate, consisting of seven short, connivent segments (five cohering by a glutinous juice into a kind of cup. *Miers*). *Ripe fruit* I have not seen ; in the green state it is one-celled, many-seeded ; the *seeds* attached to parietal placentæ. *G. Gardner.*

Fig. 1. Pistil and inner circle of Stamens. 2. Section of the Germen :—*magnified.*

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Pl. 3718. Drawn by J. Curtis. Published 1 Nov. 1841. Lovell Reeve, London.

RUELLIA CILIATIFLORA. FRINGE-FLOWERED RUELLIA.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—ACANTHACEÆ.)

Generic Character.

Calyx 5-partitus, æqualis. *Corolla* infundibuliformis, limbo 5-fido subæquali patente. *Antheræ* 2-loculares. *Capsula* polysperma, dissepimento adnato.

Specific Name and Character.

RUELLIA *ciliatiflora;* herbacea, foliis petiolatis ovatis inæqualiter serratis pubescenti-hirsutis, panicula terminali aphylla, calycis inæqualis pubescenti-glandulosi laciniis subulatis, corollæ tubo angulato curvato limbo obliquo undulato lobis subrotundis dentato-ciliatis.

The seeds of this very handsome RUELLIA were sent to the Glasgow Botanic Garden by Mr. TWEEDIE from Buenos Ayres; but whether it is a species of that neighbourhood, or brought by that Collector from some country in the interior, as I rather suspect, is not stated. It bloomed with us in the stove, and is certainly a very desirable plant for cultivation. It flowers in September.

DESCR. Our plant scarcely exceeded a foot and a half in height: the *stem* herbaceous, pubescenti-scabrous. *Leaves* opposite, ovate, petiolate, the margin unequally serrated, more or less hairy, especially the lower ones, which are also much the largest. *Panicle* terminal, leafless; the *branches* short, simple or divided, bearing at the extremity, in a sort of small head, from two to four or six *flowers*, large and handsome, purplish-blue, only one in each capitulum expanding

expanding at a time. *Pedicels* bracteated at the base. *Calyx* long and narrow, pubescenti-glandulose, the segments long, subulate, unequal, one a good deal more elongated than the rest. *Corolla* an inch across; the *tube* about the same length, much longer than the calyx, curved, enlarged upwards and angular: the *limb* spreading, oblique, cut into five deep, roundish and retuse, broad, closely-placed, waved, and veiny lobes, the margin beautifully dentato-ciliate. *Stamens* within the tube, four, didynamous. *Anthers* large, oblong, yellowish-white. *Germen* ovato-oblong, glandular, seated on a yellowish, fleshy disk; *Style* white: *Stigma* subulate, oblique.

Fig. 1. Calyx, including the Pistil. 2. Stamens. 3. Pistil:—*magnified.*

W Fitch Del.

Pub by S. Curtis Glazenwood Essex Apr. 1 1839.

Swan

Callichróa platýglóssa. Golden Callichroa.

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Class and Order.

Syngenesia Superflua.

(Nat. Ord.—Compositæ.)

Generic Character.

Involucrum multiflorum heterogamum, radiatum: *Squamæ* (20 circiter) erectæ, biseriatæ; seriei exterioris achænia flosculorum fæmineorum obtegentes. *Flosculi disci* hermaphroditi, 5-dentati. *Flosculi radii* ligulati, fertiles, uni- vel sub biseriati. *Achænia* fusiformia, subcompressa, apice truncata: flosculorum hermaphroditorum pubescentia pappo coronata; fæmineorum glabra, calva. *Setæ pappi* numerosæ, uniseriatæ, serrulato-scabræ, persistentes. *Receptaculum* planum, pubescens, margine squamosum (e squamis seriei interioris involucri. *Hook.*). *Fisch. et Mey.*

Specific Name and Synonyms.

Callichroa * *platyglossa.*
Callichroa platyglossa. *Fisch. et Mey. Ind. Sem. Hort. Petersb.* 1835. *p.* 31.

Drawn in September, 1836, from plants which flowered in the open border of the Glasgow Botanic Garden. The seeds were received from Dr. Fischer, who founded the Genus (a native of Ross, in New California) in the work above quoted. Its affinities, according to that author, are with Helenium, Bleraphopappus, Picradenia, Lasthenia, and, in some respects, with Doronicum: but it is sufficiently distinct from all.

Descr.

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* καλλος, *beautiful*, and χροα, *colour*, in allusion to its bright yellow flowers.

Descr. Annual. *Stems* weak, branched, and, as well as the foliage, slightly hairy. *Leaves* alternate, linear, the lowermost ones dentato-pinnatifid, the upper ones gradually becoming entire. *Flowers* terminal, solitary, large. *Involucre* hairy, with the scales in two series; outer ones larger, lanceolate, the extremities reflexed, as many as there are radical florets, each of which has its *germen* surrounded by the base of one of these scales; inner scales smaller, about twice as many as there are outer. *Receptacle* naked. *Florets of the ray* ten to twelve, ligulate, the limb cuneate, three-lobed, yellow. *Germen* oblongo-fusiform, compressed, glabrous, destitute of pappus. *Florets of the disk* tubular, five-toothed, yellow. *Anthers* exserted, black, branches of the *stigma* linear-recurved, hairy. *Germen* oblongo-fusiform, silky, crowned with a pappus, in a single series of paleaceous, hispid hairs.

Fig. 1. Floret of the Ray, with the scale of the Involucre. 2. Germen of ditto. 3. Floret of the Disk. 4. Hair of the Pappus:—*magnified.*

Begonia parvifolia. Small-leaved Begonia; or Elephant's Ear.

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Class and Order.

Monœcia Polyandria.

(Nat. Ord.—Begoniaceæ.)

Generic Character.

Masc. *Cal.* o. *Cor.* polypetala, petalis plerumque 4, inæqualibus. Fæm. *Cal.* o. *Cor.* petalis 4—9, plerumque inæqualibus. *Styli* 3, bifidi. *Caps.* triquetra, alata, trilocularis, polysperma.

Specific Character and Synonyms.

Begonia *parvifolia;* suffruticosa glabra, foliis inæqualiter cordatis lobatis lobis acutis undulatis sparse serratis subglaucescentibus, fructibus trialatis.

Begonia parvifolia. *Schott. Sprengel, Syst. Veget. c. p. v.* 4. *p.* 408. *Graham in Ed. Journ. of Sc. Dec.,* 1837.

We received at the Botanic Garden, Edinburgh, this species, with many other scarce plants, from the noble and always liberal establishment at Berlin, in 1836. It flowered profusely in the collection of Dr. Neill at Canonmills, and at the Botanic Garden in May, and throughout the summer. The great and long-continued succession of flowers which it produces, and its neat foliage, render it a desirable species for cultivation.

Descr. Whole *plant* glabrous. *Stem* suffruticose: *branches* red, transparent. *Petioles* (one to two inches long) spreading, at length divaricated, channelled above. *Leaves* shorter than the petioles, ovate, unequally cordate at the base, delicate green above, pale and crystalline below, with prominent reddish veins, lobed; *lobes* subacute, distantly serrated,

rated, with a minute bristle in the base of each fissure. *Corymbs* axillary, on peduncles which are longer than the petioles, forked, bearing a male flower in the cleft, and one male and one female upon each division. *Bracteæ* subrotund, greenish-white. *Flowers* white ; *male flowers* of two subequal entire and kidney-shaped *petals*, very rarely with a small one between these ; *stamens* numerous, attached only at the base, *filaments* slender, *connective* obovato-elliptical, *anthers* small, lateral : *female flowers* of five obovate, unequal *petals ; styles* short and stout, expanded at the apex, and contorted ; *stigmas* marginal upon the extremity ; *germen* with three unequal, irregular, large, crenate wings. *Graham.*

Fig. 1. Female Flower :—*magnified.*

W.Fitch Del.

Pub by S.Curtis Glazenwood Essex April 1 1830.

PIMELEA HENDERSONI. MR. HENDERSON'S PIMELEA.

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—THYMELEÆ.)

Generic Character.

Perianthium liberum, tubulosum, coloratum ; *limbo* 4-fido raro 5-fido, æstivatione imbricata. *Corolla* o, sed in quibusdam squamulæ fauci insertæ. *Stamina* definita, fauci tubove inserta, sæpius 8, nunc 4, rariusve 2, dum laciniis perianthii numero æqualia aut pauciora iisdem opposita. *Antheræ* biloculares, loculis medio longitudinaliter dehiscentibus. *Ovarium* simplex, monospermum, ovulo pendulo. *Stylus* 1. *Stigma* indivisum. *Pericarpium* nucamentaceum, v. drupaceum. *Albumen* nullum v. tenue, carnosum. *Embryo* rectus, inversus. *Cotyledones* plano-convexæ. *Radicula* brevis, supera. *Plumula* inconspicua.—Caulis *fruticosus (rarissime herbaceus) cortice tenaci.* Folia *exstipulata, alterna v. opposita, integerrima.* Flores *capitati, spicati, terminales v. axillares, nunc solitarii. Br.*

Specific Name and Character.

PIMELEA *Hendersoni ;* involucro tetraphyllo, foliolis ovatis utrinque-glabris ciliatis capitulum congestum æquantibus, perianthii tubo dimidio inferiore hispido, superiore sericeo, foliis oppositis lanceolato-linearibus.

The species, which seems to be quite distinct from any one hitherto described, must be placed between P. *decussata* and P. *rosea*. It is a native of King George's Sound, and was raised by Messrs. EAGLE and HENDERSON from seed sent to them by Capt. CHEYNE in May, 1837, and when about eighteen

eighteen inches high, and covered with flowers, was exhibited in the Experimental Garden of the Edinburgh Horticultural Society, in July, 1838. It will be found one of the most ornamental species of the Genus.

Descr. *Shrub* erect; *bark* brown; *branches* erecto-patent, green towards their apex. *Leaves* linear-lanceolate, or linear-spathulate, glabrous on both sides, recurved, mucronulate, middle rib strong, with obscure diverging veins. *Head of flowers* terminal, hemispherical, many-flowered, dense. *Involucre* four-leaved; *leaflets* broadly ovate, glabrous on both sides, ciliated, as long as the *flowers*, which are rose-coloured and handsome. *Perianth* with long, spreading hairs upon the lower half of the tube, silky in the upper segments of the limb, ovate. *Stamens* and *pistils* as in the other species of this Genus:—as the plant is a very rare one and not my own property, I only felt myself at liberty to dissect two flowers. In one of these, from the outer edge of a capitulum, I found the *germen* bilobular, and the *style* terminal between the lobes. It is probable, however, that this is an accidental deviation from the normal structure, and that it will not be found common. *Graham.*

Fig. 1. Flower:—*magnified.*

W. Fitch Del.

Pub by S. Curtis Glazenwood Essex. Apr.° 1. 1839.

BRASSAVOLA CUSPIDATA. SPEAR-LIPPED BRASSAVOLA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala et *petala* subæqualia, libera, acuminata. *Labellum* cucullatum, integrum, columnam involvens. *Columna* marginata, clavata, stigmate infundibulari, clinandrio postice tridentato. *Pollinia* 8, subæqualia, quibusdam aliis parvis interjectis. *Anthera* 4-locularis, septis marginatis, loculis semibipartitis.—Herbæ *caulescentes, epiphytæ, apice folium unicum v. alterum, semicylindraceum, carnosum, supra sulcatum, apice subulatum, gerentes.* Flores *terminales, magni, speciosi. Lindl.*

Specific Name and Character.

BRASSAVOLA *cuspidata ;* caule unifloro, labello trilobo, lobis lateralibus rotundatis parce fimbriato-dentatis intermedio longissimo cuspidato-subuliformi integerrimo, sepalis petalisque longe acuminatis.

From the collection of JOHN Moss, Esq., of Otterspool, Liverpool, which, partly owing to that gentleman's extensive South American correspondents and connexions, and partly to the skill of his gardener, Mr. JAMES, bids fair to rival some of the many Collections of Orchideous plants of which the country may well be proud. The plant was sent from Trinidad with about fifty others of the same family by —— ROBERTS, Esq., Otterspool. Five species of BRASSAVOLA have been described by Professor LINDLEY. The present is a sixth, evidently most nearly allied to B. *cucullata, Br.* (EPIDENDRUM *cucullatum,* Bot. Mag. t. 543). That

That species, however, has the middle lobe of the lip much broader at the base and deeply fimbriated for the greater part of its length, having the apex alone entire. In our plant the lobe in question is subulate and almost quite entire.

Descr. *Root ?* *Stem* slender, rounded, jointed. *Leaf* terete, subulate, flattened above, and there furnished with a deep groove for its whole length, a span long. From the base of this leaf, and at the bottom of the groove arises a short *peduncle*, (enclosed in a membranous *sheath* or *bractea*) about half an inch long, rounded, bearing a single *flower*. *Germen* terete, thickened at the base : or rather this thickened base is alone the germen, all above is the tube of the perianth, which is slender, pedunculiform, and less green than the germen. *Sepals* lanceolate, very much acuminate, soon reflexed, cream-coloured, tinged with red. *Petals* similar in shape and size to the sepals, but a little narrower and white. *Lip* white, three-lobed, the base involute, the lateral lobes spreading, rounded, and dentato-fimbriate, the middle lobe very long and narrow, forming a long, straight, cuspidate point. *Column* nearly as long as the lateral lobes of the lip, and surrounded by its base, white, rounded at the back, presenting in front two longitudinal, marginal wings, dilated upwards, and ending in two teeth, one on each side the anther, to which they are appressed : a third tooth arises from the back of the column, and is appressed to the back of the anther. *Anther-case* hemispherical, white. *Pollen-masses* with four larger and four smaller lobes.

Fig. 1. Column and Lip. 2. Column. 3. Anther-case. 4. Pollen-masses :—*magnified.*

Sir R.K Porter del.ᵗ

Pub by S. Curtis Clarendon Road Essex May 1.1834.

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GALACTODENDRON UTILE. PALO DE VACA; or Cow Tree of the Caracas.

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Class and Order.

? (The Flowers unknown.)

(Nat. Ord.—URTICEÆ.)

Generic Character.

Fructus facie drupæ *juglandis*, globosus, subcarnosus, viridis, fetus nuce monosperma. *Arbor* lactescens, præsertim truncus; *lac* copiosum, album, glutinosum, haud acre, potabile, odorem balsameum redolens, contactu aeris coagulans; *ramuli* teretes, glabri; juniores angulati, tenuissime canescenti-puberuli. *Gemmæ* terminales, subulatæ, convolutæ, sericeo-pubescentes. *Folia* alterna, petiolata, oblonga, utrinque rotundata, apice brevissime acuminata, integerrima, reticulato-venosa, venis primariis transversis, paulo approximatis nervoque medio subtus prominentibus, subcoriacea, glaberrima, exsiccata, supra viridia, subtus aureo-fusca (?), 2—10-pollicaria, 3—4 pollices lata. *Petioli* crassi, canaliculati, glabri, 8—9 lineas longi. *Stipulæ* petiolares nullæ. *Kunth.*

Specific Name and Synonyms.

GALACTODENDRON * *utile.*
GALACTODENDRON utile. *H. B. K. Gen. et Sp. Pl. Œq. v. 7. p.* 16. *Kunth, Syn. 4. p.* 198.
GALACTODENDRON *Humb. Relation Hist. 2. p.* 106, *&c.*
PALO DE VACA. *Humb. in Ann. du Mus. v. 2. p.* 180. *Boussing. et Rivero, in Ann. de Chimie, v.* 23. *p.* 219. *Murray, Descr. Acc. of the Palo de Vaca, with a figure.*

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* γαλα, γαλακτος, *milk*, and δενδρον, a *tree*;—*milk-bearing tree.*

I have here the pleasure of giving figures of the *Cow Tree;* the general representation (Tab. 3723) being copied from a very clever sketch taken on the spot and sent to me by Sir Robert Ker Porter, H. B. M. Consul Genral at La Guayra; that of the foliage done from a living plant, in the Glasgow Botanic Garden; and of the fruit, procured for me, (together with several bottles of the milk and living plants, which latter, unfortunately, perished in the voyage,) by my obliging friend, Matthew Pearce, Esq., of this city. Our live plant, however, is but a small one, and as yet shows no sign of flowering: the seeds were dried and injured; yet, we think that a representation, taken from these portions, though very imperfect, of a vegetable production, than which few have excited a more general interest in the Botanical world, cannot but be acceptable to our Subscribers; and should we be hereafter so fortunate as to procure flowering and fruiting specimens, we shall not fail to render our account of this tree more complete than it is now in our power to do.

M. de Humboldt was the first to bring the *Cow Tree* of Caracas into notice. "We returned," he says in his valuable 'Relation Historique,' v. 2. p. 106, "from Porto Cabello to the valley of Aragua, stopping at the plantation of Barbula, through which the new road to Valencia is to pass. For many weeks, we had heard a great deal of a tree whose juice is a nourishing milk. The tree itself is called the *Cow Tree,* and we were assured that the negroes on the farm, who are in the habit of drinking large quantities of this vegetable milk, consider it as highly nutritive; an assertion which startled us the more, as almost all lactescent vegetable fluids are acrid, bitter, and more or less poisonous. Experience, however, proved to us during our residence at Barbula, that the virtues of the *Cow Tree,* or *Palo de Vaca* have not been exaggerated. This fine tree bears the general aspect of the *Star-Apple Tree* (Chrysophyllum *Cainito*); its oblong, pointed, coriaceous, and alternate leaves are about ten inches long, and marked with lateral nerves, that are parallel, and project beneath. The flower we had no opportunity of seeing; the fruit is somewhat fleshy, and contains one or two kernels. Incisions, made in the trunk of the tree, are followed by a profuse flow of gluey and thickish milk, destitute of acridity, and exhaling a very agreeable balsamic odour. It was offered to us in calabashes, and though we drank large quantities of it, both at night before going to bed and again early in the morning,

morning, we experienced no uncomfortable effects. The viscidity of this milk alone renders it rather unpleasant to those who are unaccustomed to it. The negroes and free people who work in the plantations, use it, by soaking bread in it made from *Maize, Manioc, Aropa,* and *Cassava ;* and the superintendent of the farm assured us, that the slaves become visibly fatter during the season when the *Palo de Vaca* yields most milk. When exposed to the air, this fluid displays on its surface, probably by the absorption of the atmospheric oxygen, membranes of a highly animal nature, yellowish and thready, like those of cheese ; which, when separated from the more watery liquid, are nearly as elastic as those of caoutchouc, but in process of time exhibit the same tendency to putrefaction as gelatine. The people give the name of cheese to the curd which thus separates when brought into contact with the air, and say that a space of five or six days suffices to turn it sour, as I found to be the case in some small quantities that I brought to New Valencia. The milk itself, kept in a corked bottle, had deposited a small portion of coagulum, and far from becoming fætid, continued to exhale a balsamic scent. When mingled with cold water, the fresh fluid coagulated with difficulty ; but contact with nitric acid produced the separation of the viscous membranes.

" This wonderful tree appears peculiar to the Cordillera of the shore, especially from Barbula to the Lake of Maracaybo. Some individual *Cow Trees* are also said to exist near the village of San Mateo, and (according to M. Bredemeyer, whose expeditions have added so greatly to the treasures contained in the noble hothouses of Schönbrunn and Vienna,) likewise in the valley of Caucagua, three days' journey to the East of Caracas. To this naturalist, as to us, the vegetable milk of the *Palo de Vaca* appeared to be highly agreeable in flavour, and to possess an aromatic smell. At Caucaguea, the natives call the tree which yields this nutritive fluid, *Milk Tree (Arbol de leche) ;* and pretend to discriminate, by the thickness and hue of their foliage, those trunks which contain most sap, as a cowherd would know, by outward signs, the best milch cow in his herd.

" I own that amid the great number of curious phenomena which offered themselves to my notice during my travels, there was hardly one which struck my imagination so strongly as the sight of the *Cow Tree.* Every thing which relates to milk—all which regards the *Cerealia,* inspires

spires us with an interest, which relates not solely to the physical knowledge of things, but seems to be allied to another order of ideas and feelings. We can hardly suppose that the human race could exist, extensively, without some farinaceous substances, any more than the protracted weakness of the human nurseling can be supported without the nutritive fluid of its mother's breast; and to this conviction is attributable the religious kind of reverence with which the amylaceous matter of the *Cerealia* has been regarded by people, both in ancient and modern times, as also the feelings with which we gazed upon the stately tree that I have now described. Neither the noble shadowy forests, nor the majestic current of rivers, nor the mountains hoary with sempiternal snows,—none of these wonders of tropical regions, so rivetted my gaze as did this tree, growing on the sides of rocks, its thick roots scarcely penetrating the stony soil and unmoistened during many months of the year by a drop of dew or rain. But dry and dead as the branches appear, if you pierce the trunk, a sweet and nutritive milk flows forth, which is in greatest profusion at day-break. At this time, the blacks and other natives of the neighbourhood hasten from all quarters, furnished with large jugs to catch the milk, which thickens and turns yellow on the surface. Some drink it on the spot, others carry it home to their children; and you might fancy you saw the family of a cow-herd gathering around him and receiving from him the produce of his "kine."

Incited by this interesting narrative, by the chemical analysis published by Messrs. Rivero and Boussingault, and by the fact that M. de Humboldt's own specimens were very incomplete, I have spared no pains to collect materials for a more correct history; but hitherto not with that success I had anticipated. My original specimens were dried ones from Mr. Lockhart, who had imported the plant from the Spanish Main to Trinidad, and my first consignment of Tree milk was from his Excellency Sir Ralph Woodforde, Governor of that beautiful island. Some of the latter was submitted to our distinguished Professor of Chemistry, Dr. Thomson, who discovered in it a new substance he calls *galactine,* which he has arranged among the solid oils in his recent elaborate work on Vegetable Chemistry. "The milk" he says, "is white and opaque and of the consistence of cream. It had a sour smell, and reddened vegetable blues; its specific gravity was 1-01242. It contained a small quantity of acetic acid, to which it owed its

its acidity. It contains a peculiar substance which Boussingault and Mariano de Rivero considered as fibrous; but I found its characters very similar to those of *cork*. When the milk of the *Cow Tree* is evaporated to dryness by a gentle heat, and the dry residue digested in alcohol, a substance is dissolved which constitutes by far the most abundant ingredient in the milk. When the alcoholic solution cools, it becomes white and opaque, and deposits abundance of snow-white flakes. These if collected on a filter and dried, constitute *galactine*. The ultimate analysis of this is given at p. 1045 of the same work, to which I must refer for a more copious account of the chemical properties of the milk of the *Cow Tree*, as well as to Mr. Murray's pamphlet above quoted.

Sir Robert Ker Porter's drawing was accompanied by well dried specimens of the foliage, and by the following interesting particulars in a letter, dated Caracas, June 8, 1837. "I had the pleasure of acknowledging the receipt of your letter of August (1836) on the 16th of the following November; but from great occupation in my official business, I had not a single day to spare that might enable me to satisfy yourself, and two or three other lovers of botany, relative to the *Milk Tree*. I have, however, made an excursion into the mountains, some fifty miles distant from this city, (about three leagues from the coast,) not far from the town of Coriacco, and after extreme pedestrian labour up the steep forest-covered face of the mountain, reached the spot where the *Palo de Vaca* grows. I assure you that the sight of this extraordinary tree fully repaid me for the fatigue and severe wetting I experienced. The close of last month was the period of my visit; but, unfortunately, it did not prove that either of its flowering or fruit; however, I have sent you a bottle of the milk; some specimens of the leaves (as well preserved as circumstances would permit); a piece of the bark, and a sketch copied from that which I took at the time. I should think the elevation above the level of the sea where this tree grows, cannot be less than four thousand feet, and the temperature at eight o'clock under its spreading branches was 70° Fahr. The forest was so densely thick and untravelled, that the people who accompanied us were obliged, at almost every step, to cut a way for us through it with their sword-like knives, while the excessive steepness and slippery state of the mountain rendered our advance both tedious and dangerous. However, after a couple of toiling days, we reached

reached the group of sought-for trees, surrounded in all directions by others no less wonderful to look upon than themselves. The natives lost no time in making a deep incision into the bark of one, down to the very wood, from which burst forth the Milk, white and limpid as that of the cow, sweet to the palate and accompanied by an aromatic smell, but leaving a strong clammyness on the lips, and, upon the tongue, a slight bitter. In a quarter of an hour, we filled two bottles with the produce of a couple of trees; for as our visit happened to be made during the wane of the moon instead of its increase the lacteal fluid did not flow so freely as it is said to do when drawn during the latter-named stage."

"The trunk of the *Palo de Vaca* from which the drawing was made, measured somewhat more than twenty feet in circumference at about five feet from the root. This colossal stem ran up to a height of sixty feet, perfectly uninterrupted by either leaf or branch; when its vast arms and minor branches, most luxuriantly clothed with foliage, spread on every side, fully twenty-five or thirty feet from the trunk, and rising to an additional elevation of forty feet, so that this stupendous tree was quite a hundred feet high in all. I saw *others still larger;* but the state of the weather drove us from our position. The leaves, when in a fresh state, are of a deep dark and polished green, nearly resembling those of the Laurel tribe, from ten to sixteen inches long, and two or three inches wide. The specimens sent, will enable you to form a botanical description of the foliage, as the portion of bark will do of that part of the tree; the wood, forming the body of the trunk, is white, very close-grained and hard, resembling the box-wood of Europe. The soil which these trees inhabit is dark and rich, and must be damp or very wet all the year round."

"I have been promised by one of the Indians who accompanied me, that he would keep a look out for the fruit of the tree and send me some, when I shall have the satisfaction of forwarding a few specimens to you. But, with regard to the flower, or the flowering season of the tree, I have made enquiries over and over again, from persons who reside in the vicinity of other trees of the kind, in different parts of Venezuela; but they tell me that *no one ever saw or heard of the Cow Tree flowering*."

The imaginary statement of the tree *not flowering* may be accounted for by the nature of the blossoms, being in all likelihood small and inconspicuous, as in so many of the URTICEÆ, to which Nat. Order it is probably correctly referred; though whether it be a true BROSIMUM as Mr. DON is inclined to suppose, or a new Genus, as HUMBOLDT has suggested, must yet remain a doubt. The *leaves* are large and handsome, and of a rich and somewhat velvety green hue. The *fruit* had the outer coat so much broken, that I will not venture to describe what is as faithfully represented as the nature of the specimens would allow. The bark of the larger branches is singularly yellow, as shown in our figure.

TAB. 3723. A landscape, in which the Cow Tree forms a remarkable feature, from a drawing by Sir ROBERT KER PORTER.

TAB. 3724. Fig. 1. Portion of a large Branch, and f. 2, portion of a lesser Branch with foliage from the living plant in the Glasgow Botanic Garden, *nat. size.*—3. Fruit. 4. The same laid open. fig. 5. Seeds laid open, *nat. size;* received from MATTHEW PEARCE, Esq.

Published by S. Curtis, Glasshouse Street, May 1, 1827.

GESNERIA ELONGATA; *var.* GESNERA elongated *var.*

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Class and Order.

DIDYNAMIA GYMNOSPERMIA.

(Nat. Ord.—GESNERIACEÆ.)

Generic Character.

Calyx 5-partitus, plerumque germini adnatus. *Corolla* tubuloso-campanulata, limbo bilabiato; labio superiore bi-inferiore trifido. *Stigma* bilobum. *Capsula* bilocularis, 2-valvis, placentis parietalibus.

Specific Character and Synonyms.

GESNERIA *elongata;* foliis ovato-oblongis acutis serrulatis supra strigosis subtus lanato-tomentosis, pedunculis elongatis 4-floris, corollæ tubulosæ fauce constricta.

GESNERIA elongata. *Humb. Gen. et Sp. v. 2. p. 318. t. 192. Spreng. Syst. Veget. 2. p. 838.*

GESNERIA elongata, *var.* fruticosa, pubescens; ramosa; foliis oppositis, lanceolato-ovatis, acuminatis, longe petiolatis basi inæqualibus, subæqualiter serratis supra pubescentibus, subtus molliter tomentosis; umbellis axillaribus, 4-floris folio brevioribus; corollis villosis tubulosis fauce parum constrictis. *(Tab. nostr. 3725.)*

We received this plant at the Botanic Garden, Edinburgh, in September, 1836, from the Messrs. YOUNG, Nurserymen, Epsom, under the name of G. *oblongata,* perhaps by an error in the transcriber. It flowers most freely, exhibits a long succession of blossoms, and is therefore very desirable in cultivation. It differs from G. *elongata* of HUMBOLDT in its much shorter peduncles, in the more obtuse base of the leaves, in its less angular branches, in the colouring of the veins and lower surface of the leaves generally,

rally, and in the subulate segments of the calyx. In these respects, it more nearly agrees with GESNERIA *mollis*, but from this it differs again, and agrees with G. *elongata*, by its four-flowered umbel and much shorter pedicels, and the bracteæ opposite at their origin,—the length of the peduncle being intermediate between its state in these two species. There are very many forms of GESNERIA from the tropical parts of America, but I cannot think they ought all to be considered as species. This opinion is strengthened by the figures and descriptions of HUMBOLDT, and the inspection of our present plant, which leads me to suspect that it may connect together as varieties G. *mollis* and G. *elongata*.

DESCR. Whole plant villous. *Stem* (five feet high) shrubby, much branched; branches ascending. *Leaves* (three to six inches long, one and a quarter to two and a quarter broad) opposite and decussating, petiolate, lanceolate, acuminate, neatly and subequally serrated, somewhat harshly pubescent and bright green above, white with soft tomentum below. *Umbels* four-flowered, villous, shorter than the leaves; peduncle shorter than the petiole; pedicels about two-thirds of the length of the peduncles; bracteæ two, opposite, lanceolate, at the subdivision of the umbel. *Flowers* unilateral. *Calyx* with small, spreading, ovato-subulate segments. *Corolla* (one inch long, half an inch across) tubular, clavato-ventricose, dilated and somewhat fleshy at its base. *Stem* contracted, and after being dilated, again slightly contracted at its mouth; villous on the outside, glabrous within; *limb* spreading, lobes subequal, rounded, crenate. *Stamens* inserted into the base of the corolla, and rising to the throat; *filaments* pubescent; *anthers* divaricated at the base, where the connective is dilated, cucullate and fleshy, fifth stamen rudimental. *Pistil* pubescent; *stigma* minute, truncated; *style* bent at its base, compressed; *germen* more than half imbedded in the adhering calyx, and surrounded at its free apex with five glands. *Ovules* numerous, and minute. *Graham.*

Fig. 1. Flower: *magnified.*

2.

1.

Pub by S. Curtis Glazenwood Essex May 1 1839.

Swan Sc.

CIRRHÆA FUSCO-LUTEA. YELLOW-BROWN CIRRHÆA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium patens. *Sepala* libera, æqualia. *Petala* multo angustiora, linearia, flexuosa. *Labellum* longe unguiculatum, columna continuum, tripartitum; laciniis angustis intermedia minore. *Columna* erecta, clavata, teres; stigmate subquadrato, horizontali! rostello cirrhato. *Anthera* dorsalis! membranacea, sub-unilocularis. *Pollinia* 2, parallela, oblonga, compressa, elastice prosilientia; caudicula brevi cornea; glandula incurva.—Herbæ *epiphytæ, pseudo-bulbosæ.* Folia *plicata.* Racemi *penduli, multiflori, radicales.* Flores *maculati.* *Lindl.*

Specific Character and Synonyms.

CIRRHÆA* *fusco-lutea;* foliis lato-lanceolatis, petalis lineari-lanceolatis, labelli lobo medio ovato concavo, lateralibus lineari-oblongis reflexis hirsutis.

CIRRHÆA fusco-lutea. *Lindl.—Herb. Hook. in Gen. et Spec. Orchid. p.* 144.

From the collection in the Glasgow Botanic Garden, where it was received from Messrs. LODDIGES. It flowers in June, and is a native of Brazil.

DESCR.—*Pseudo-bulbs* ovate, deeply furrowed, partially sheathed with membranous scales, and having a terminal,

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* "The flowers are remarkable for what is called the rostellum being prolonged in the form of a small tendril or cirrhus." *Lindl.*

terminal, solitary, broadly lanceolate *leaf*, about eight to ten inches long, striated, and slightly plaited. *Peduncle* springing from the base of a bulb, pendent, red, bracteated; *flowers* racemose, pendulous. *Sepals* lanceolate, pale dingy brownish-yellow, reflexed. *Petals* linear-lanceolate, yellow, spotless. *Labellum* greenish-yellow, on a long stalk or unguis, three-lobed, the lateral lobes very long, lineari-oblong, obtuse, directed downwards; middle lobes ovate, short, very concave, blotched with purple. *Column* nearly as long as the lip, clavate, rounded on the back, flat in front. *Stigma* yellow at the apex. *Anther-case* on the back of the column above the stigma, ovato-lanceolate, yellow. *Pollen-masses* two, linear, with a long, pedicellated *gland*.

Fig. 1. Column and Lip. Fig. 2. Pollen-mass :—*magnified.*

W Fitch Del.

Pub by J Curtis Glazenwood Essex May 1 1839

Cooperia pedunculata. Pedunculated Cooperia.

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Class and Order.

Hexandria Monogynia.

(Nat. Ord.—Amaryllideæ.)

Generic Character.

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

Specific Character and Synonyms.

Cooperia *pedunculata;* bulbo depresso, foliis glaucis subsesquipedalibus $\frac{1}{4}$ unc. latis, scapo superne attenuato unifloro, spatha apice bifida, pedunculo unciali, perianthio $2\frac{1}{8}$ unciali, limbo antheras unciam superante; tubo circiter unciali, antheris $\frac{1}{4}$ uncialibus subsessilibus petalinis sepalina vix quartâ parte superantibus, stylo $\frac{5}{8}$ unc., stigmate suberecto incluso. *W. H.*

Zephyranthes Drummondi. *Don, App. Sweet Br. Fl. Gard. Ser. II. v. 2. t.* 328.

Sceptranthus Drummondi. *Graham, Edin. New Phil. Journ.* 40. 413. *A. D.* 1838.

"Having had an opportunity of minutely inspecting Dr. Graham's specimen of this plant, I can pledge myself for the accuracy of the particulars given in the Specific Character, and I am quite satisfied that it belongs to one Genus with Cooperia *Drummondi* figured in the Bot. Reg. t. 1835; and

and I think it will be found that like that plant it remains expanded at night and begins to close early the first morning. The peduncle, and the less length of tube, which induced Dr. Graham to refer it to a new Genus, are both variable features even in Zephyranthes, which is the most nearly allied to it, Z. *verecunda* having sessile flowers, and *tubispatha* and *Atamasco* pedunculated ones. The non-expansion, which was the only other feature of difference noted by Dr. Graham, was, I suspect, owing to its not having been watched in the night time. The angular pollen observed by him is precisely that of Cooperia. I have also had the benefit of examining Mr. M'Nab's drawing, in which the tube is absolutely erect, and the limb almost white, agreeing with the specimen, which the figure in "Sweet's Flower Garden" does not. Mr. Don did not see the specimen, and formed his opinion of the plant from the figure, which has no dissection, and certainly not a very correct outline. Mr. M'Nab's drawing has precisely the same attitude of the tube as Cooperia *Drummondi*, both the tube and peduncle being quite erect. Cooperia *Drummondi* is a most variable flower. Three bulbs sent by Drummond and supposed to be different, flowered at Spofforth; one with the stigma between the anthers, one inclosed in the tube, one exceeding the anthers; but one of these bulbs, having sent up four successive scapes in about five months, exhibited all those diversities, and much variability of colour also; so that C. *chlorosolen* can only be looked upon as a variety, and almost a variation of C. *Drummondi*. It is not improbable that this plant may have a like variable habit. C. *Drummondi* expands late in the afternoon, continues stellate all night, and begins to close for ever early the next morning, though it remains some time, and even days, in a half expanded state. The dissection I have made from Dr. Graham's specimen is precisely double the natural size in all its parts." *W. H.*

The plant is a native of Texas, and was sent from thence in 1835 to this country. It has since flowered in several collections: firstly, at Dr. Neill's; also at Messrs. Dickson's, from whose specimens the accompanying figure was made in March, 1836, at the Glasgow Botanic Garden, and at Mr. Herbert's of Spofforth, who has kindly communicated some further information, in September, 1836. "It is," he says, "like the other Cooperiæ, a decidedly nocturnal flower; that is, its expansion takes place about an hour or half an hour before sunset. My flower did not expand perfectly

perfectly, but its first attempt was just before sunset ; and in that posture it remained till the same hour the second day, when it opened, and on the third day still wider, but not fully, and on the next morning it began to shrivel and to grow red on the outside of the sepals, as C. *Drummondi* does. It has the same primrose-like fragrance as that species. Its petaline filaments are a little prolonged. I have been puzzled about the capricious non-expansion of the COOPERIAS ; but I think I now understand them. Encreased temperature does not aid it, but prevents it, and probably would of any nocturnal flower : the thing necessary for its expansion seems, on the contrary, to be the decrease of the mean temperature. The requisite is, therefore, a given mean temperature, and the decrease which occurs in the evening. In the stove, or greenhouse, unless the sun shines all day, there is not that decrease of the temperature at sunset which causes it to open, and therefore its expansion is sluggish and imperfect : and it so happened that the weather was very cloudy and cold, and when the lights were shut, the house in which this bulb stood was warmer than it had been in the day. The second day was warmer, and the third still more so, though all cloudy, therefore there was a greater difference in the evening, which caused those three efforts of the flower. If I had placed the plant in the open air the day before its expected expansion, I am confident that it would have opened flat. *C. Drummondi,* set out of doors before expansion, opened flat at night, and continued so three days. In the stove in cold weather it never opened at all, because there was no decrease of temperature."

Fig. 1, 2. Section of the Flower showing the situation of the Stamens and the length of the Style from Dr. GRAHAM'S SCEPTRANTHUS *Drummondi,* from a sketch by the Hon. and Rev. W. HERBERT :—*magnified to twice the natural size.*

2.
3.

Caladium petiolatum. Long-stalked Caladium.

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Class and Order.

Monœcia Monandria.

(Nat. Ord.—Aroideæ.)

Generic Character.

Spatha monophylla, cucullata, basi convoluta. *Spadix* ad *apicem* staminifer, mucrone quandoque nudo; *medio* glandulosus; *basi* ovariis tectus. *Antheræ* peltatæ, sub pelta ad ambitum multiloculares. *Glandulæ* (stamina sterilia) obtusæ. *Stigma* umbilicatum. *Bacca* monosperma? *Br.*

Specific Name and Character.

Caladium *petiolatum;* folio ternatim composito longissime petiolato, foliolis pinnatifidis laciniis ovatis acutis integris v. divisis, scapo petioloque infra muricatis, spatha oblonga acuminata spadicem longe superante, germinibus ovatis subattenuatis reflexis tuberculatis.

Tubers of this singular plant were dug up in the Island of Fernando Po, by Mr. Boultbee, Jun., and sent to his father, Joseph Boultbee, Esq., Springfield, Knowle, Birmingham, in whose stove they blossomed in 1832, and who kindly transmitted me a drawing and a tuber, which latter has flowered readily in the Glasgow Botanic Garden. The tubers, being in a dormant state, were believed to be those of a kind of *Potato,* said to grow in that island; but the mistake was soon after discovered, when, on being given as food to some of the live stock on board ship, these supposed Potatoes occasioned their death. With us the flowering season of this plant is June.

Descr.

Descr. *Tuber* of an oval-oblong shape, horizontal, partly rising above the ground, marked with rings, apparently showing its annual progress, and with scars, whence the old leaves and flower-stalks have fallen. *Petiole* erect, three feet high, rounded, green blotched with purple, especially below, where it is sparingly muricated: above, it divides into three branches or large *leaflets*, spreading like an umbrella, each of these is stalked and deeply pinnatifid, the segments very acute, entire or divided. From the base of the petiole arises the *scape*, a foot in height, in form and spinules resembling the petiole; clothed at the base with large sheathing scales: *spatha* half the length of the scape, oblong, much acuminated, concave, below convolute, of a dark purple colour, very intense and black purple within. *Spadix* not half so long as the spatha, thick and obtuse; its upper-half covered with large, polygonous, peltate, fleshy, whitish or cream-coloured *anthers:* the lower, except at the very lowest part, with numerous recurved, dark-purple *pistils:* these are ovate, smooth at the base, attenuated above and there clothed with short spines or tubercles. *Stigma* blunt.

Fig. 1. Anther. 2. Pistil. 3. The same with the Germen cut through vertically:—*magnified.*

Pub by S. Curtis Glaxen ..od Foss. June 1. 18..

SCHOMBURGKIA MARGINATA ; *var.* petalis sepalisque immarginatis. MARGINED SCHOMBURGKIA ; *var.*

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala et *Petala* conformia, patentia, omnius libera, basi æqualia. *Labellum* difforme membranaceum, trilobum, cucullatum, basi cum margine columnæ connatum, supra basin tumidum (intrusum); venis lamellatis. *Columna* marginata. *Pollinia* 8.—Rhizoma *repens, nudum, annulatum, pseudo-bulbigerum.* Folia *coriacea.* Scapi *terminales vaginati.* Bracteæ *spathaceæ.* Flores *speciosi, racemosi, congesti. Lindl.*

Specific Character and Synonyms.

SCHOMBURGKIA* *marginata;* petalis sepalisque undulatis obtusis, labelli lobo medio subrotundo acuto.
SCHOMBURGKIA marginata. *Lindl. Sert. Orchid. Tab. X. (in text) and Tab. XIII.*
(β). sepalis petalisque marginibus concoloribus. *(Tab. nostr. 3729.)*

This fine and very rare Orchideous plant, a native of Surinam, was obligingly communicated from the collection of THOMAS BROCKLEHURST, Esq., of the Fence, Manchester, in the month of December, 1838. That gentleman justly observed, that it was nearly allied to the SCHOMBURGKIA

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* So named by Professor LINDLEY, and in honor of Dr. SCHOMBURGK, a distinguished Naturalist and Geographer, who has been for many years engaged in exploring the interior of British Guiana.

crispa

crispa of Dr. LINDLEY above quoted, the chief difference consisting in the reddish colour and more acute lobe of the lip in the flowers of our plant. Shortly after, in Part III. of Dr. LINDLEY's "Sertum Orchidaceum," appeared, from a drawing made in Surinam, a second species of the Genus S. *marginata*, having flowers, which in their hue and middle lobe of the lip nearly resemble the present: but the margin of the petals and sepals is of a yellow colour, and the lip is less waved. To this, however, I find in Prof. LINDLEY's Miscellaneous notices (Bot. Reg., Feb. 1839,) that Mr. BROCKLEHURST's plant is unquestionably referred; an opinion in which I readily acquiesced: but seeing how liable the colour of the inflorescence is to vary, it may admit of doubt how far the only two species yet described are really distinct.

DESCR. The specimen from which our figure was taken has twenty *pseudo-bulbs*, similar to those here represented, oblong, furrowed, stipitate and sheathed with pale brown *scales*, each bearing, at the summit, two or three large oblong lanceolate, coriaceous *leaves*. From the base of the upper leaf arises the *flower-stalk*, a foot, or a foot and a half high, rounded, bracteated, bearing a broad *raceme*, or, rather, *corymb* of *flowers*, each blossom subtended by a reflexed, linear-lanceolate, membranaceous *bractea*. *Sepals* oblong, spreading, remarkably crisped or undulated, of a dull brick-red colour. *Lip* nearly white, tinged with pink, and yellow at the base, oblong-ovate, waved, but less so than the petals, three-lobed, the disk elevated and marked with about five raised, waved *lamellæ*, the side-lobes short, obtuse, the terminal one cordate, rather acute. *Column* semi-cylindrical, parallel with the lip. *Anther* hemispherical, yellow.

Fig. 1. Column. 2. Lip:—*magnified.*

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2.

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W. Fitch Del.t

Pub by S Curtis Glazenwood Essex. June 1.1839

HOLOGÝMNE GLABRÁTA. GLABROUS HOLOGYMNE.

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Class and Order.

SYNGENESIA SUPERFLUA.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Capitulum multiflorum radiatum, ligulis fœmineis exsertis. *Involucrum* gamophyllum campanulatum 8—15-dentatum. *Receptaculum* conicum papillosum. *Flores* disci hermaphroditi, corollæ limbo campanulato. *Antheræ* inclusæ. *Achenia* conformia lineari-oblonga compressa glabra lævia calva. *Bartling.*

Specific Character and Synonyms.

HOLOGYMNE* *glabrata;* glaberrima, foliis integerrimis vel subdentatis, involucris turbinatis.

HOLOGYMNE glabrata. *Bartl. Ind. Sem. Hort. Götting.* 1837. *in Linnea,* 1838. *p.* 81.

LASTHENIA glabrata. *Lindl. Bot. Reg. t.* 1780. *De Cand. Prodr. v.* 5. *p.* 665.

LASTHENIA Californica ? *Lind. Bot. Reg. t.* 1823.

BARTLING has certainly done right in separating this Californian LASTHENIA from the original Chilian L. *obtusifolia,* CASS., and this view Dr. ARNOTT and myself have adopted, in the Eighth Part of the Botany of BEECHEY's Voyage now in the press. Of the Californian LASTHENIÆ, two species detected by Mr. DOUGLAS are taken up both by Dr. LINDLEY and Professor DE CANDOLLE; but there is

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* From ολος, *whole,* or *entirely,* and γυμνος, *naked:* I presume in allusion to the entirely naked akenia.

is in the Prodromus of the latter some confusion about them which we cannot unravel. L. *glabrata* was first described by Professor Lindley, and he correctly defines and figures it as " glaberrima :" but De Candolle's plant of that name is slightly downy, and seems to be the *Californica* of Lindl. Bot. Reg. p. 1823. Yet De Candolle is quoted as authority for that plant, which in the Prodromus he calls " Lasth. *glaberrima,*" and distinguishes by the presence of a pappus of five chaffy scales. Both the species of Lindley, however, are destitute of pappus, and are, perhaps, not specifically distinct. H. *glabrata* has been distributed by the Horticultural Society to various gardens, in which it forms a lively hardy annual, flowering during the summer months.

Descr. *Root* annual, fibrous. *Stems* somewhat decumbent, flexuose, a foot long, branched, rounded, fistulose, glossy, glabrous, as is every part of the plant. *Leaves* opposite, lanceolate, acuminated, carinated, quite entire in our specimens, dilated and connate at the base. *Flowers* rather large, golden-yellow, solitary on terminal *peduncles*. *Involucre* broadly campanulate, cut into twelve to fifteen spreading, acute *teeth*, each tooth corresponding with a floret of the ray. *Florets* of two kinds: those of the *circumference* ligulate ; *ligule* oblong-oval, spreading, two- or three-toothed at the apex ; *tube* narrow, cylindrical, elongated, glandular. *Germen* oblong, broader upwards, compressed : *pappus* none. *Style* scarcely so long as the tube of the corolla : *Stigma* of two linear branches. *Central florets : Corolla* tubular, campanulate above, five-toothed, the teeth fimbriated at the back ; the base contracted, glandular : *Anthers* yellow : *Germen* oblong, compressed, a little broader upwards : *Pappus* none. *Style* a little longer than the anthers : branches of the *stigma* clavate, hairy on the back at the extremity. *Receptacle* conical, covered with numerous little, elongated papillæ, upon each of which a floret is situated.

Fig. 1. Floret of the Ray. 2. Stigma of ditto. 3. Floret of the Disk. 4. Section of the Involucre, showing the Receptacle :—*magnified.*

V. Fitch del. Curtis Glasenwood Essex June 1 18

Begónia sinuáta. Sinuated Begonia; or Elephant's Ear.

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Class and Order.

Monœcia Polyandria.

(Nat. Ord.—Begoniaceæ.)

Generic Character.

Masc. *Cal.* o. *Cor.* polypetala, petalis plerumque 4, inæqualibus.—Fæm. *Cal.* o. *Cor.* petalis 4—9, plerumque inæqualibus. *Styli* 3, bifidi. *Caps.* triquetra, alata, trilocularis, polysperma.

Specific Character and Synonyms.

Begonia *sinuata;* caulescens, ramosissima, ubique glaberrima, foliis inæqualibus cordatis lobatis acutis obtuse dentatis nitidis subtus pallidis venis coloratis, floribus masculis dipetalis, staminibus subliberis, fœmineis 5-petalis inæqualibus, capsulæ alis subæqualibus acutis, pedunculis bifidis, ramis bifloris. *Graham.*
(β.) sinuata. *Graham in Ed. Journ. of Sc.* 1837.

The number of species in cultivation of this beautiful Genus has been greatly increased of late years, and a large proportion through the often-mentioned Garden at Berlin, from whence this was sent to the Botanic Garden, Edinburgh, and to Dr. Neill in 1836, under the name here adopted. In both these establishments it flowered in the end of May and in June. The country from which it was originally obtained was not stated to us.

Descr. Whole *plant* glabrous and shining. *Stem* thick, short, much branched; *branches* erect, tumid at the joints. *Stipules* attenuated at the apex, dilated at the base, and sometimes half-sagittate, marcescent. *Petioles* (2—3 inches long)

long) suberect, channelled above. *Leaves* shorter than the petioles, unequally cordate, lobed, shortly and bluntly toothed, slightly waved, bright green above, paler below, where the veins are deep red, especially on the older leaves. *Cymes* axillary; *peduncle* about as long as the petiole, slightly compressed, dichotomous, with a male flower in the fork, and one male and one female flower on each division. *Male flowers* dipetalous, white, petals equal and subrotund, stamens united only at the base of the filaments. *Female flowers* with five unequal petals. *Germen* with three subequal, acute wings, slightly rose-coloured at the edges near the base when young. *Graham.*

Fig. 1. Young Fruit:—*magnified.*

W. Fitch del.t

Pub. by S. Curtis, Glazenwood Essex June 1 1833

Geránium cristátum. Crested-seeded Crane's-Bill.

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Class and Order.

Monadelphia Decandria.

(Nat. Ord.—Geraniaceæ.)

Generic Character.

Sepala 5 æqualia. *Petala* 5 æqualia. *Stamina* 10 fertilia alterna majora. *Glandulæ nectarifera* ad basin staminum majorum. *Carpellorum aristæ* intus glabræ, demum elastice a basi ad axeos apicem circinnatim revolutæ.—Herbæ *rarissime suffrutescentes, foliis palmato-lobatis, pedunculis* 1—2-*floris*. *D C.*

Specific Character and Synonyms.

Geranium *cristatum;* caule flaccido hispido, foliis reniformibus 7-lobis, lobis cuneiformibus trifidis laciniis tridentatis, pedunculis elongatis calycibusque hispidis, petalis emarginatis, fructibus rugoso-cristatis. *Meyer Pl. Caucas. p.* 208.

Geranium cristatum. *Stev. Mem. Soc. Hist. Nat. Mosc. v.* 4. *p.* 50. *t.* 5. *De Cand. Prodr. v.* 1. *p.* 643. *Spreng. Syst. Veg. v.* 3. *p.* 73.

Geranium Albanum. *Bieb. Fl. Taurico-Caucas. v.* 2. *p.* 137.

A very pretty and showy species of Geranium, received at the Glasgow Botanic Garden from St. Petersburgh. It is a native of Wakari and Jucharibusch in Iberian Albania, where it was first detected by Steven; and it has since been found by Dr. Charles Ant. Meyer, in the province of Talusch, inhabiting not only the borders of the Caspian Sea, but growing in the mountain-districts, at an elevation equal

equal to 3,600 feet above the level of the sea. It flowers in the open border in July : but I regret that I have not been able to give a figure of the fruit, which affords one of the most striking characters of the species, and from whence the specific name is derived.

Descr. *Stems* weak, prostrate, herbaceous, rounded, clothed with spreading hairs, not much branched. *Leaves* on long, slender, hairy, wavy *petioles*, especially the radical ones, reniform, or more usually approaching to orbicular, deeply seven-lobed, strongly veined, the lobes cuneate, trifid, the segments two or three-toothed. *Peduncles* long, slender, two-flowered, hairy, bracteated at the forking of the peduncle. *Flowers* rather large, handsome, of a bright red purple colour, marked with redder veins. *Calyx-veins* oval, spreading, clothed with spreading hairs, mucronate. *Petals* broadly obovate, emarginate, hairy near the base. *Stamens* ten, as in the Genus ; five inner ones longer, more erect, and having the anthers dehiscent sooner than the outer ones, purple-red ; *pollen* almost blue. *Style* and *stigmas* shorter than the inner stamens.

Fig. 1. Flower, from which the Petals are removed. 2. Petal :—*magnified.*

Pub by S.Curtis Glazenwood Essex June 1.1833

ONCIDIUM PAPILIO; *var.* limbatum. BUTTERFLY ONCIDIUM; broad-bordered *var.*

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium explanatum. *Sepala* sæpius undulata ; lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum, ecalcaratum, cum columna continuum, varie lobatum, basi tuberculatum v. cristatum. *Columna* libera, semiteres, apice utrinque alata. *Anthera* semibilocularis, rostello nunc abbreviato, nunc elongato rostrato. *Pollinia* 2, postice sulcata; *caudicula* plana; *glandula* oblonga.—Herbæ *epiphytæ, nunc pseudo-bulbosæ.* Folia *coriacea.* Scapi *paniculati vaginati, rarius simplices.* Flores *speciosi, lutei, sæpius maculati, raro albi. Lindl.*

Specific Character and Synonyms.

ONCIDIUM *Papilio;* pseudo-bulbis subrotundis compressis rugosis monophyllis, foliis oblongis coriaceis obtusis maculatis, scapo perennante debili ancipiti articulato apice paucifloro, sepalo supremo petalisque linearibus longissimis basi angustatis, sepalis lateralibus oblongis revolutis undulatis labello longioribus, labelli lacinia intermedia emarginata subrotunda crispa basi valde angustata lateralibus rotundatis, cristæ glandulis formam ranæ cubantis referentibus, columnæ alis serratis.
Lindl. in Gen. et Sp. Orchid. p. 203.
ONCIDIUM Papilio. *Lindl. Bot. Reg. t.* 910. *Hook. Bot. Mag. t.* 2795.
(β.) labelli lobo medio flavo late ferrugineo-marginatis.
(Tab. nostr. 3733.)

No figure has yet given any adequate idea of this singular and beautiful ONCIDIUM : whose blossoms have, at first sight, more

more the appearance of some strange lepidopterous insect than any flower we know. Some specimens, are, however, much more brightly coloured than others, and we have here selected one of the best defined of those that have so frequently appeared in the stove of the Glasgow Botanic Garden, where bulbs are often imported from Trinidad. This variety is distinguished by the clear yellow or ground colour of the blossom, the distinctness of the rich ferruginous blotches, and the broad uninterrupted margin of the same reddish-brown hue which adorns the middle lobe of the lip. We refer our readers to Tab. 2795 of this Work for a full specific description of this plant.

Fig. 1. Column and lower portion of the Lip:—*magnified.*

W.Fitch del.e Pub by S.Curtis Glazenwood Essex June 1 1839 Swan

LEPTÓTES BÍCOLOR ; *var.* glaucophylla. TWO-COLOURED LEPTOTES ; glaucous-leaved *var.*

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala et *Petala* linearia, subæqualia, patentia. *Labellum* posticum, trilobum, cum columna parallelum, laciniis lateralibus nanis circa columnam convolutis, intermedia oblonga marginibus reflexis. *Columna* brevis, crassa, semiteres. *Anthera* (hemisphærica, bifida.) *Pollinia* 6, incumbentia, quorum 2 superiora pyriformia obliqua compressa, 4 inferiora inæqualia tenuiora, anterioribus duplo minoribus.—Caules *breves, teretes, squamis vaginati.* Folia *teretia. Lindl.*

Specific Name and Synonym.

LEPTOTES * *bicolor.*
LEPTOTES bicolor. *Lindl. Bot. Reg. t.* 1625.
(β.) foliis glaucescentibus. *(Tab. nostr. 3334.)*

This pretty plant was sent by Mr. GARDNER from the Organ Mountains to the Woburn Gardens, where it blossomed in February, 1839. Its very glaucous foliage and white lip at first induced me to consider it distinct from the LEPTOTES *bicolor* of Professor LINDLEY :—but it is perhaps more correct to describe it as a variety of that species. The anther-case is bifid, resembling the hoof of some ruminating animal ; and the pollen is exceedingly curious in structure.

DESCR. *Rhizoma* short, rounded, bearing several short *stems,* or cylindrical *pseudo-bulbs,* each terminated by a nearly

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* From λεπτος, *slender,* in allusion to the slender foliage.

nearly cylindrical, fleshy, acuminated, recurved *leaf*, with a groove on the upper side, of a glaucous green colour. From the base of this leaf arises a short bracteated *peduncle*, with a solitary *flower*, and a very long, glabrous, cylindrical, pedunculiform *germen*. *Sepals* and *petals* pure white, linear-oblong, spreading, rather acute, about an inch and a half long. *Lip* spreading, acute, white, three-lobed, the two lateral lobes ovate, greenish, the middle one very long, the sides a little reflexed, the *disk* with a purple blotch near the base. *Column* short, thick, deeply furrowed in front. *Anther-case* hemispherical, deeply two-lobed in front, two-celled, dark purple, the lobes membranous, brownish. *Pollen-mass* of six flat yellow lobes, two forming the base, the four superior in two pairs.

Fig. 1. Lip. 2. Column. 3. 4. Anther-cases. 5. 6. Pollen-mass :— *magnified.*

Pub by S. Curtis Glazenwood Ecuc. July 1, 1859.

EDWÁRDSIA MACNABIÁNA. MR. MACNAB'S EDWARDSIA.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—LEGUMINOSÆ.)

Generic Character.

Calyx obliquus 5-dentatus, latere superiore fisso. *Petala* 5 distincta conniventia in corollam papilionaceam, carina longa. *Stamina* 10 filamentis (ex Salisb.) deciduis toro decangulari cyathiformi insertis. *Legumen* moniliforme 1-loculare bivalve tetrapterum polyspermum.—Frutices *aut* Arbusculæ. Folia *impari-pinnata multijuga exstipulata tarde decidua.* Flores *aurei axillares, breviter spicato-racemosi.*

Specific Character and Synonym.

EDWARDSIA *Macnabiana;* foliolis 20-jugis elliptico-obovatis supra glabris subtus villosiusculis, vexillo rotundato amplo alis breviori basi subcordato, carina petalis hiantibus ala longioribus marginibus inferioribus reflexis. *Graham.*

EDWARDSIA Macnabiana. *Graham MSS.*

This strikingly handsome shrub has been for many years in cultivation at the Botanic Garden, Edinburgh, having now a stem which measures eleven inches in circumference; but when, or whence, it was introduced we do not know, though we have never observed it in any other collection.

Some doubt may be entertained whether the present plant is not a seedling variety of E. *grandiflora;* but it is instantly distinguishable from the ordinary form of that species, by its nearly equal petals, by the wide separation of the petals of the keel, and by its flowering when in full leaf

leaf. Every year till the present, (1838,) it had thriven well and blossomed profusely upon a South wall, and it had also lived, though it did not thrive, or blossom, as a standard. In the last and memorable winter, memorable for the ruin it effected among shrubs more than half hardy, this beautiful plant suffered much less than E. *grandiflora* or E. *microphylla,* individuals of which, about the like size and age as E. *Macnabiana,* and occupying parts of the same wall with it, were killed to the ground, while the present species was only a good deal cut, and it did not flower this year. Mr. Macnab feels more confident than I do of its being a species, and to him, therefore, I have dedicated it.

Descr. A large *Shrub,* or small *Tree,* with brown, warted *bark :* the young *branches* covered with appressed, silky, rufous pubescence. *Leaves* with about twenty pairs of elliptico-obovate *leaflets ;* glabrous above, as well as the channelled common *petiole,* slightly hairy below, hairs appressed, rufous. *Flowers* produced upon the plant at the same time as the foliage, in lateral *racemes,* pedicelled. *Calyx* cylindrical, abruptly truncated at both extremities, toothed, shortly but densely pubescent. *Corolla* bright yellow ; *vexillum* about three times as long as the calyx, rounded, subcordate at the base, somewhat shorter than the other petals ; *alæ* curved, elliptical, cordate at the base ; *claw* linear, bulging outwards ; *Keel* longer than the wings, dipetalous : *Petals* elliptical, semicordate on the upper side, spreading and revolute at the lower margin, so as, in the space left between them, to expose the stamens to their base ; *claws* longer than those of the alæ and straight. *Stamens* as long as the keel ; *filaments* subulate, glabrous, spreading at their apices. *Anthers* small. *Pistil* as long as the stamens ; *Germen* covered with silky, appressed, rufous hairs, and marked externally by the numerous *ovules ; Style* subulate, nearly straight, almost glabrous ; *Stigma* minute. *Legume* moniliform, four-winged, wings approaching in pairs above and below. *Seeds* roundish, of a yellowish-brown colour. *Graham.*

Fig. 1. Flower of E. *Macnabiana, natural size.*

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Pub by S. Curtis Glazenwood Essex July 11839

Blétia Parkinsoni. Mr. Parkinson's Bletia.

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

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

Specific Name and Character.

Bletia *Parkinsoni;* scapo simplici longissimo, sepalis petalisque lanceolato-linearibus erectis, labello oblongo trilobo lobis lateralibus brevibus incurvis intermedio ovali crispato, disco lineis elevatis 5 undulatis.

This very distinct species of Bletia was sent by Mr. Parkinson, H. M. Consul-General at Mexico, from that country, to the rich collection at Woburn Abbey, where it flowered in the month of January, 1839. It has the narrowest flowers of any species with which we are yet acquainted, much more so than those of Bletia *reflexa*, Lindl., Bot. Reg. t. 1760, which is perhaps its nearest affinity, though the two plants are abundantly distinct. These flowers are in our species of a lively rose-colour, the lip and column beautifully variegated with yellow and purple.

Descr. *Bulb* terrestrial, subglobose, but gibbous. *Scape* two feet and more long, slender, jointed, with brownish, sheathing

sheathing *bracteas* at the joints. *Raceme* seven to ten-flowered. *Flowers* rather more than an inch long, spreading. *Sepals, petals,* and *lip* erect or closed, the two former equal, linear-lanceolate, rather acute than acuminate, deep rose colour. *Lip* rather longer than the sepals, and almost enclosed by them, oblong, yellow, three-lobed, the two side lobes short, obtuse, incurved, purplish, the middle one oval, reflexed, crisped, blotched at the margin with deep purple; the whole disk marked with five elevated, waved lines. *Column* enclosed by the lip, grooved in front. *Anther-case* purple. *Pollen-masses* eight, yellow.

Fig. 1. Column and Lip. 2. The same, the Lip bent back. 3. Anther-case. 4. Pollen-masses :—*magnified.*

2.
1.

GRINDÉLIA INULOÍDES. FLEA-BANE-LIKE GRINDELIA.

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Class and Order.

SYNGENESIA SUPERFLUA.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Capitulum multiflorum tetragonum, *fl. radii* 1-seriatis ligulatis (in unica spec. nullis), *disci* tubulosis 5-dentatis hermaphroditis. *Receptaculum* foveolatum. *Involucrum* basi hemisphæricum, squamis pluriserialibus imbricatis. *Antheræ* basi nudæ nec caudatæ. *Achænia* obovata aut subangulata, glabra. *Pappus* pauci-aristatus deciduus, aristis crassis rigidis.—Suffrutices *aut* Herbæ *Americanæ ad apices et præsertim ad involucra glutiniferæ.* Folia *alterna serrata aut integra, radicalia sæpius spathulata, caulina sessilia aut semiamplexicaulia.* Capitula *ad apices solitaria.* Flores *flavi.* *D C.*

Specific Character and Synonyms.

GRINDELIA *inuloides;* caule basi suffruticoso, foliis glabris radicalibus spathulatis, caulinis subovatis serratis basi latioribus subamplexantibus, pedunculis pubescentibus, involucris glabris. *Dun.*

GRINDELIA inuloides. *Willd. Mag. Nat. zu Berl.* 1807. *p.* 261. *Enum. p.* 894. *Dun. in Mem. du Mus. v.* 5. *p.* 50. *t.* 15. *Spreng. Syst. Veget. v.* 3. *p.* 575.

DONIA inuloides. *Hook. Fl. Bor. Am. v.* 2. *p.* 25.

(β.) foliis pubescentibus.

GRINDELIA inuloides. *Bot. Reg. t.* 243.

I have reason to think that the individuals of the Genus GRINDELIA are liable to very considerable variation, so that I have sometimes found it difficult to draw the line of distinction

tinction between G. *inuloides, glutinosa*, and *ciliata*. The present may, I believe, be safely referred to the former of these species. It is a much taller and ranker growing plant than G. *squamosa*, and has less rigid and less spinous teeth, and is a much shyer flowering plant : but the flowers are considerably larger and handsomer. In regard to the Genus, Mr. Brown has expressed his opinion that Grindelia and Donia ought to be united. Lessing has kept them separate, and even placed them in a distinct subsection of his Astereæ ; the one chiefly distinguished by the caudate anthers, including Donia *glutinosa*, (to which he adds as a congener D. *Canariensis*,—Buphthalmum, Brouss.,) while Grindelia is referred to a division whose anthers are destitute of awns. But as this proves to be the case also, according to Mr. Arnott, with D. *glutinosa*, so the D. *Canariensis* ought alone to remain in Donia.

This plant was detected in Texas by Mr. Drummond, and from seeds sent by him our specimens were raised, which flowered in the open border of the Glasgow Botanic Garden in September, 1835.

Descr. *Stems* two feet and more high, much branched and slightly downy, especially above. *Leaves* alternate, the lower ones somewhat spathulate, the rest oblong, semi-amplexicaul, the uppermost ones broader at the base and linear, inclining to ovate, all of them of a somewhat membranaceous texture, glabrous, sharply toothed at the margin. *Flowers* large, terminal, solitary, yellow. *Involucre* hemispherical, viscid, of numerous, subulate, squarrose scales. *Receptacle* convex, naked. *Ligulate florets* entire at the apex ; those of the *disk*, with included *anthers* : *germens* of both obovate, compresso-triquetrous, with one or two long, flexible, very caducous bristles.

Fig. 1. Floret of the Ray. 2. Floret of the Disk.

1.

Pub by S. Curtis Clarenwood Essex July 1 1839.

Gesnéria stricta. Upright Gesneria.

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Class and Order.

Didynamia Angiospermia.

(Nat. Ord.—Gesnerieæ.)

Generic Character.

Calyx 5-partitus (plerumque germini adnatus). *Corolla* tubuloso-campanulata, limbo bilabiato; labio superiore bi-inferiore trifido. *Capsula* bilocularis, bivalvis, placentis parietalibus.

Specific Character and Synonyms.

Gesneria *stricta;* elata pubescenti-tomentosa, foliis ternatim verticillatis (inferioribus oppositis) elliptico-ovatis obtusis crenatis sessilibus, panicula terminali laxa, pedicellis bracteisque ovatis ternatim verticillatis, corollæ elongatæ curvatæ compressæ hirsutæ labio superiore bifido inferiore trifido duplo longiore, laciniis undulatis, glandulis hypogynis 5, stylo basi geniculato.

Gesneria stricta. *Hook. et Arn. Contr. to S. Am. Bot. in Hook. Bot. Journ. p.* 280.

Our flowering plant of this handsome Gesneria is nearly five feet high; the flowering portion extending to a foot and more. Roots were sent of it, as well as dried specimens, by Mr. Tweedie from Rio Grande in South Brazil, and the blossoms were produced in the stove of the Glasgow Botanic Garden, in July, 1835. In habit, it resembles G. *Sceptrum* of Martius; but the flowers are very different in shape; the corolla having a remarkable curvature on the upper side, and following its direction, the style is singularly geniculated at its base: the upper lip too is much longer: the style and anthers exserted.

Descr. *Stems* simple at the base and weak, branched above,

above, and there very rounded, hairy, the hairs pointing upwards. *Leaves* below in opposite, remote, pairs; above, in whorls of three, all of them oblong-ovate, or nearly elliptical upon so short a stalk, that they can scarcely be called petiolated, obtuse, hairy on both sides, and beneath very pale-coloured, but not woolly, two to three inches long:—these gradually become smaller, and pass into small, ovate sessile *bracteas*, equally whorled, and three in a whorl. In the axis of each *bractea* is a *pedicel*, two or more inches long, curved, hairy, bearing a single, large, handsome, red *flower*. *Calyx* almost globose, hairy, gibbous above, divided nearly half way down into five triangular, sharp lobes. *Corolla* two inches long, with a remarkable double, inflated gibbosity at the base above, the *tube* curved, flattened at the sides, hairy, the *limb* unequally two-lipped: *upper lip* straight, bifid, twice as long as the lower, which has three short, slightly patent lobes, all of them a little waved. *Stamens* curved. *Anthers*, as well as the style, protruded. *Hypogynous glands* five, yellow; two upper ones the largest, and united for nearly their whole length. *Germen* ovate, hairy. *Style* reddish, green below, suddenly curved upwards at the base.

Fig. 1. Pistil and Hypogynous Glands:—*magnified.*

2.
1.

TRICHOPILIA TORTILIS. TWISTED-PETALED TRICHOPILIA.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Sepala et *Petala* æqualia, patentia, angusta. *Labellum* magnum, petaloideum, convolutum, cum columna parallelum, trilobum, lobo intermedio subbilobo planiusculo, intus nudum. *Columna* teres, clavata. *Clinandrium* cucullatum, 3-lobum, villoso-fimbriatum. *Anthera* 1-locularis, compressa, antice convexa. *Pollinia* 2, postice sulcata, caudiculæ tenui cuneatæ adhærentia ; glandula minima.—Pseudo-bulbi *carnosi, vaginis maculatis supertecti, monophylli, coriacei.* Flores *solitarii, axillares. Lindl.*

Specific Name and Synonym.

TRICHOPILIA* *tortilis.*
TRICHOPILIA tortilis. *Lindl. Bot. Reg. t.* 1863.

A Mexican Genus, lately established by Professor LINDLEY, on a specimen which flowered in the stove of GEORGE BARKER, Esq., of Springfield, near Birmingham. The individual plants here represented were sent to the Woburn Collection, by Mr. PARKINSON, where they produced their blossoms in January, 1839. These blossoms differed in no respect from those figured in the Botanical Register, except in

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* From θριξ, τριχος, *a hair*, and πιλιον, *a cap :* the anther of this Genus is concealed below a cap, surmounted with three tufts of hair. *Lindl.*

in having the colours less bright, and the interior of the lip spotted to the very base.

DESCR. *Pseudo-bulbs* oblong, somewhat curved, compressed, scarcely striated, clothed with membranous sheaths, which are covered with small brown spots. *Leaves* oblong, acute, somewhat coriaceous, smooth, solitary at the apex of the younger bulbs. *Peduncles*, from the base of the bulbs, solitary, single-flowered, shorter than the leaves. *Flowers* drooping, large, handsome. *Sepals* spreading, horizontal, narrow-lanceolate, spirally twisted, yellow-green, blotched with dingy purple; two and a half to three inches long. *Lip* equalling the sepals in length, yellowish-white, within spotted with rose-colour, and blotched with yellow, the lower half convolute about the column, the rest spreading, three-lobed; *lobes* broad, obtuse, the middle lobe the largest, and itself two-lobed. *Column* nearly cylindrical, green, broader upwards, and bearing a beautiful white, fimbriated *crest* at the back of the anther. *Pollen-masses* two, pyriform, on a long *caudicle*, which has an ovate gland at its base.

Fig. 1. Column. 2. Pollen-masses:—*magnified.*

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1.

N. Fitch Delt.

Pub by S. Curtis Glaxenwood Essex July 1 1836

CEROPÉGIA VINCÆFÓLIA. PERIWINKLE-LEAVED CEROPEGIA.

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Class and Order.

PENTANDRIA DIGYNIA.

(Nat. Ord.—ASCLEPIADEÆ.)

Generic Character.

Corona staminea exterior abbreviata, 5-loba; interior 5-phylla, foliolis ligularibus indivisis. *Massæ pollinis* basi affixæ, marginibus simplicibus. *Stigma* muticum. *Folliculi* cylindracei læves. *Semina* comosa. *Br.*

Specific Name and Character.

CEROPEGIA *vincæfolia;* volubilis pubescens, foliis late ovatis acuminatis brevi-petiolatis, pedunculis patenti-hirsutis 4—6-floris, corollæ tubo brevi inflato-globoso superne dilatato, limbi segmentis oblongis erecto-conniventibus intus hirsutis, lobis coronæ stamineæ exterioris brevibus emarginatis, interioris linearibus erectis apice recurvis subemarginatis.

Received from Bombay at the Glasgow Botanic Garden, by favor of J. NIMMO, Esq. It is an extremely handsome plant, with large and copious flowers, which are produced in the stove in the month of September. I do not find any described species that corresponds with it.

DESCR. *Stem* very long, the thickness of a crow-quill, twining, slightly downy, branched. *Leaves* opposite, ovate, generally broadly so, acuminate, slightly downy above and below, ciliated at the margin: *petioles* rather short and thick. *Peduncles* an inch or more long, clothed with patent hairs, bearing a *cyme* of from four to six *flowers*. *Calyx-segments* and *bracteas* subulate. *Corolla* greenish-white, variously sheathed and spotted with brown, the upper part

part of the segments of the limb deep brownish-purple: the *tube* inflated and globose below, dilated above: the *limb* of five erecto-connivent, oblong segments, internally hairy, the margins reflexed. *Column* varied with tawny and deep chocolate-brown, outer series or ray of five short, erecto-patent, emarginate, fleshy lobes, tipped with long hairs: inner of five erect, linear, compressed segments, the apex recurved and obscurely emarginate.

Fig. 1. Column:—*magnified.*

Bauhinia forficata. Forcipated Bauhinia.

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Class and Order.

Decandria Monogynia.

(Nat. Ord.—Leguminosæ.)

Generic Character.

Sepala 5 irregulariter concreta in calycem 5-fidum aut lateraliter fissum membranaceum. *Petala* 5 patula oblonga subinæqualia, superiore à cæteris sæpè distante. *Stamina* 10, nunc 9 sterilia monadelpha, decimo libero antherifero, nunc imâ basi submonadelpha omnia aut 5 aut 3 fertilia. *Ovarium* pedicellatum longum. *Legumen* 1-loculare 2-valve polyspermum. *Semina* compressa ovalia, endopleura tumida. *Embryo* rectus, radicula ovata, cotyledonibus planis.—Frutices. Folia *biloba, nempe constantia foliolis 2 apici petioli sitis 2—5 nerviis, nunc omnino liberis, nunc omnino concretis sæpius plus minus margine interiori nerviformi connatis, in sinu aristatis.* Flores *racemosi. D C.*

Specific Character and Synonyms.

Bauhinia * *forficata;* ramis flexuosis aculeatis, foliis glabris basi cordatis, foliolis ad tertiam partem coalitis acuminatis porrectis 3—5-nerviis, petalis patentibus (albis) lanceolatis costatis, staminibus 10 ascendentibus longitudine petalorum.

Bauhinia forficata. *Link, Enum. Plant. Hort. Berol.* 1. *p.* 404. *Link et Otto, Hort. Berol. t.* 36. *p.* 79. *De Cand. Prodr.* 2. *p.* 514.

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* So named after the two brothers, John and Gaspar Bauhin, distinguished Botanists of the sixteenth century, whose united labours are commemorated in the twin leaves of this remarkable Genus.

A fine plant of this species of BAUHINIA, with its long, pendent branches, has long been cultivated in the stove of the Glasgow Botanic Garden, but it has only lately, in July, 1837, for the first time, produced its large, showy, white flowers. It is a native of Brazil, and it appears to have been introduced into Europe by the Prince de NEUWIED, who sent seeds to the Royal Garden of Berlin.

DESCR. *Stems* long and straggling; the *branches* pendent. *Spines* in pairs at the base of the petioles, scarcely two lines long, subulate. *Leaves* on rather long, slender *footstalks*, more or less cordate at the base, broadly ovate, consisting of two semiovate *leaflets* united for about one-third of their length at the base, three to five-nerved, acuminated, the points standing forward, and quite entire. *Peduncles* very short, axillary, one to three-flowered. *Calyx* of five long, linear-lanceolate, pale green, more or less combined, deciduous *sepals*. *Corolla* of five white, spreading, lanceolate *petals*, about three inches long, obtuse, costate, and with a few obscure oblique veins, somewhat unguiculate. *Stamens* about equal in length with the corolla, ascending, the lower ones the longest. *Filaments* white, combined at the base. *Anthers* linear, yellow. *Style* rather shorter than the stamens; *stigma* thickened.

W Fitch del.

Pub by S. Curtis Glaxenwood Essex Aug.1. 1839.

Cattleya citrina. Yellow-flowered Cattleya.

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Sepala membranacea vel carnosa, patentia, æqualia. *Petala* sæpius majora. *Labellum* cucullatum, columnam involvens, trilobum vel indivisum. *Columna* clavata, elongata, semiteres, marginata, cum labello articulata. *Anthera* carnosa, 4-locularis, septorum marginibus membranaceis. *Pollinia* 4, caudiculis totidem replicatis.—Herbæ *epiphytæ (Americanæ) pseudo-bulbosæ.* Folia *solitaria vel bina coriacea.* Flores *terminales speciosissimi, sæpe e spatha magna erumpentes. Lindl.*

Specific Character and Synonyms.

Cattleya *citrina*; bulbis ovatis diphyllis, foliis ligulato-lanceolatis acutis enerviis glaucis, pedunculo unifloro, perianthio carnoso erecto, sepalis oblongo-ellipticis, petalis elliptico-obovatis, labello perianthium paulo columna plusquam duplo superante trilobo linea media lata elevata, lobo medio ovato acuto undulato.

Cattleya citrina. *Lindl. Gen. et. Sp. Orchid. p.* 117.

Sobralia citrina. *Llave, Nov. Veg. Descr.* 2. 21.

" Corticoatzoate coxochiti ! *Hernand. Mex.* 1. *p.* 240."

Plants of this very fine and singular Cattleya were sent by Robert Smith, Esq., of Oaxaca, Mexico, in 1838, to the noble collection at Woburn Abbey, where they blossomed in April, 1839. The bulbs and foliage are remarkable for their very glaucous, or sea-green hue ; and the fine flower, when seen in such a manner that the labellum is not brought into

into view, has, at first sight, so very much the appearance, not only in regard to form, but to size and colour, of the wild *tulip* of our country, (TULIPA *sylvestris*,) that we were for a moment deceived by it. These flowers are scentless. The plant is of easy growth, and is undoubtedly a most valuable addition to our ornamental stove plants. It does not appear to have been hitherto known to European Botanists either in a living or dried state: but in Mexico its beauty seems to have attracted the attention of the natives, and it has, according to HERNANDEZ, received a vernacular name, which it would be difficult for us to pronounce.

DESCR. *Pseudo-bulbs* small, clustered, scarcely so big as a pigeon's egg, clothed with a pale scariose membrane, bearing two *leaves* at the summit, five to six inches long, between strap-shaped and lanceolate, acute, somewhat coriaceous, very glaucous. *Peduncle* short, bracteated, from between the two leaves, single-flowered. *Germen* long, pedunculiform, thickened upwards, curved downwards. *Flower* large, handsome, except the lip of a uniform full yellow tint. *Petals* and *sepals* erect, or very slightly expanded, thick and fleshy, oblong-elliptical, the former somewhat broader, especially upwards. *Lip* a little longer than the rest of the flower, large, three-lobed, the side-lobes involute, and indistinctly waved; the intermediate one spreading, ovate, acute, waved, orange-coloured, the rest of the lip yellow: a broad slightly-elevated line runs through the centre of the lip, of the same deep color as the middle lobe. *Column* not half the length of the lip, concave in front, somewhat winged upwards, at the apex three-toothed. *Anther* sunk in a cavity above the stigma, four-celled. *Pollen-masses* four, stipitate.

Fig. 1. Lip. 2. Column. 3. Pollen-masses:—more or less *magnified.*

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W. Fitch del.

Pub by S. Curtis Glaxenwood Essex Aug.t 1 1839.

Clethra tomentosa. Downy Clethra.

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Class and Order.

Decandria Monogynia.

(Nat. Ord.—Ericineæ.)

Generic Character.

Calyx 5-fidus. *Petala* 5. *Stigmata* 3. *Capsula* 3-locularis, placentis liberis in quovis loculo. *Spreng.*

Specific Character and Synonyms.

Clethra *tomentosa;* foliis cuneato-obovatis acutis superne serratis subtus albo-tomentosis, racemis simplicibus bracteatis pubescenti-tomentosis.

Clethra tomentosa. *Lam. Encycl.* 2. *p.* 46. *Pursh, Fl. Am. v.* 1. *p.* 301. *Elliott, Carol. v.* 1. *p.* 502. *Spreng. Syst. Veget. v.* 2. *p.* 315.

Clethra alnifolia, *var.* tomentosa. *Mich. Am. v.* 1. *p.* 260.

Whether or not this be a species really distinct from the Clethra *alnifolia* may admit of a doubt: but it is quite certain that it is the C. *tomentosa* of American authors, which they seem universally to consider a genuine species. Yet to me they appear only to differ in the almost entire absence of down on the C. *alnifolia,* whilst the kind before us has the leaves, young branches, under-side of the leaves, peduncles, pedicels, and calyx clothed with hoary down. C. *alnifolia* inhabits the middle and northern States of America, while our plant is confined to the southern, and was sent to the gardens of this country by the late Mr. Drummond, from New Orleans. It forms with us a small handsome shrub, bearing copious racemes of fragrant, white flowers in the latter end of the summer.

Descr. A low *shrub,* with straggling *branches,* slightly tinged with red, and clothed with short, white, fasciculated tomentum,

tomentum, especially on the younger shoots. *Leaves* upon very short *footstalks*, two to three inches long, obovato-cuneate, acute, serrated towards the extremity, glabrous, dark green and even shining above, beneath hoary with down. *Racemes* axillary and terminal, long, handsome, nearly erect. *Pedicels* simple, about as long as the linear, acute, downy *bracteas*. *Calyx* pale yellow-green, cup-shaped, five-cleft; segments erect, acute. *Petals* five, obovate, unguiculate, concave, white, erecto-patent. *Filaments* ten, white, erect, much longer than the corolla. *Anthers* forked upwards, opening by two pores, tapering at the lower extremity into a sharp spur. *Germen* globose, green, hairy. *Style* shorter than the stamens. *Stigma* three-cleft. *Graham.*

Fig. 1. Flower. 2. Stamen. 3. Pistil:—*magnified.*

3744

Pub by [illegible]rris Glazenwood [illegible]ssex Aug. 1 1839

Swan Sc.

GESNERA MARCHII. MR. MARCH'S GESNERA.

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Class and Order.

DIDYNAMIA GYMNOSPERMIA.

(Nat. Ord.—GESNERIEÆ.)

Generic Character.

Calyx 5-partitus (plerumque germini adnatus). *Corolla* tubuloso-campanulata, limbo bilabiato; labio superiore bi-inferiore trifido. *Stigma* bilobum. *Capsula* bilocularis, 2-valvis, placentis parietalibus.

Specific Name and Character.

GESNERA *Marchii;* molliter pubescenti-tomentosa, foliis ternis petiolatis ovatis crenatis, verticillis numerosis terminalibus subaphyllis, pedicellis flore longioribus, corollæ subcylindraceæ vix curvatæ basi superne insigniter gibbosæ limbo subæquali quinquelobo, stylo staminibusque corollam subæquantibus, glandulis hypogynis 5, 2 superioribus in unicam magnam unitis.

GESNERA Marchii. *Wailes, MSS.*

This handsome and very distinct GESNERA is named, as my valued friend, Mr. WAILES of Newcastle, informs me in his letter, " in remembrance of an old school-fellow, GEORGE MARCH, Esq., to whom I am indebted for the plant, which was collected on his estate in the Organ Mountains of Brazil, and whose kindness * to the various Botanical Collectors in that distant country, entitles him to the

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* It will be seen in Mr. GARDNER'S interesting " Account of a journey to, and a residence of six months in the Organ Mountains, with remarks on their vegetation," that it was at that gentleman's (Mr. MARCH'S) faciendæ there, that Mr. GARDNER took up his residence, and from whence he made his excursions that proved so productive of new and rare plants

the compliment." This GESNERA was at the same time accompanied by a great number of EPIPHYTES, and above thirty bulbs of AMARYLLIDEÆ, which Mr. WAILES cultivates with many other rarities in his well-kept garden near Newcastle; the flowering season is October.

DESCR. "The root is a large roundish, depressed, uneven *tuber*, measuring more than three feet in circumference, and about an inch and a half thick. The *stems* are herbaceous, numerous, erect, about two feet and a half high: the branches short, not bearing flowers: they and the leaves are ternate." The latter (except the upper ones, which suddenly pass into bracteas) are petiolate; all of them ovate, rather obtuse, crenate, thickly downy, velvety above and dark green, pale beneath. *Pedicels* about an inch and three-quarters long, slender, simple, villous. *Calyx* short, cut into five ovate, hairy segments. *Corolla* downy, rich scarlet, shorter than the pedicels, forming a nearly straight cylindrical *tube*, the *limb* a little spreading, of five, very obtuse, nearly equal lobes, the base dilated, very gibbous above. *Style* and *Stamens* about equal in length to the corolla. *Germen* with five yellow, hypogynous glands, the three lower small, the two upper combined into one large gland.

Fig. 1. Pistil with hypogynous Glands:—*magnified*.

W Fitch del.

Pub by S. Curtis Glazenwood Essex Aug.st 1.1830.

Epimedium Musschianum. White-flowered Barren-wort.

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Class and Order.

Hexandria Monogynia.

(Nat. Ord.—Berberideæ.)

Generic Character.

Sepala 4 extus basi bibracteolata. *Petala* 4 intus appendice discolore aucta. *Capsula* siliculæformis multisperma. *Semina* oblique transversim sita, unilateralia.—Herbæ *perennes, foliis radicalibus petiolatis multisectis, foliolis serrato-aristatis.* *D C.*

Specific Character and Synonyms.

Epimedium *Musschianum;* foliis ternatis, floribus squalide albidis, petalis calycem superantibus, stylo filiformi subcentrali, stigmate sublobato.

Epimedium Musschianum; *Morren et Decaisne, Ann. Sc. Nat. 2 Ser. Tom. 2. p. 353.*

We received this plant at the Botanic Garden, Edinburgh, from Mr. Young, of Epsom, in 1838. It flowered for the first time in the green-house, in March, 1839; but will. without doubt, bear cultivation in the open border. It is one of the many acquisitions from the Flora of Japan, which European botanists owe to M. Von Siebold.

Descr. *Petioles* suberect, trifid, swollen at the point of subdivision, as well as the branches round; barren ones (in the specimen described) glabrous and naked at the base, their subdivisions monophyllous, half as long as the petiole; leaflets cordate, glabrous, seven-nerved, bright green above, subglaucous below; *flower-bearing ones* twice as long as the others, sheathed at the base by several equitant, inflated, glabrous, coloured, three-nerved *stipules,* loosely clothed with

with spreading tomentum, most abundant at its subdivision, and at the origin of the panicle; branches unequal, the central the longest, but less than half as long as the petiole, three-foliolate; leaflets very hairy on the lower side, at least when young. *Peduncle* (two and a half inches long) arising from the petiole (about an inch) below its subdivision, rather less hairy than the petiole or its branches, suberect, bearing the pedicels, which are subglabrous, secund, and often bipartite near its apex. *Bracteæ* small, subulate, adpressed, solitary below the origin of the pedicels and their subdivisions, and six imbricated, adpressed upon the sides of the calyx, sprinkled with red spots, deciduous. *Flowers* white, drooping, the upper expanding before the lower. *Calyx* spreading or subreflexed, sepals rhomboideo-lanceolate, marked obscurely on the back by several parallel colourless ribs. *Petals* erect, blunt, involute in the edge, together forming a short cylinder in the centre of the flower, each having a short, spreading, subulate, compressed apex reaching to about the middle of the sepal. *Stamens* yellow, erect, half as long as the petals; *filaments* very short; *anthers* elongated, subulate, two-lobed, opening by lateral valves rolling up from the base; connective pointed. *Pistil* scarcely longer than the stamens; *germen* oblong; *style* lateral, about as long as the germen, green; *stigma* cupped, fringed. *Graham.*

HETEROTROPA ASAROIDES. ASARABACCA-LIKE HETEROTROPA.

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Class and Order.

DODECANDRIA MONOGYNIA.

(Nat. Ord.—ARISTOLOCHIEÆ.)

Generic Character.

Perianthium ventricosum coloratum trilobatum, fauce plicata introflexa, introrsum reticulato-venosum, venis verticalibus prominentibus. *Stamina* 12: 6 exteriora stigmatibus opposita, filamentis triangularibus adnatis; antheræ basi fixæ subintrorsæ: 6 alterna sessilia; antheræ evidenter extrorsæ. *Styli* 6 concreti, stellatim expansi singulis obcordatis, parte inferiore stigmatifera. *Stigmata* ovato-attenuata papillosa. *Ovarium* 6-loculare, liberum.—Herba *perennis habitus* Asari. Folia *bina, profunde cordata obtusa albo-maculata (illorum* Cyclaminis *referentia).* Flores 1—2 *breviter pedicellati, basi folio abortivo bracteati, perianthii sinubus fauce albis.—Morr.*

Specific Name and Synonyms.

HETEROTROPA * *asaroides.*
HETEROTROPA asaroides. *Morr. et Decaisn. Fl. Jap. in Ann. Sc. Nat. 2nd Ser. v. 2. p.* 315. *t.* 10.
ASARUM Virginicum. *Thunb. Fl. Jap. p.* 190.

This very remarkable and rare plant was brought to Europe by M. VON SIEBOLD, from Japan, and the Edinburgh Botanic Garden is indebted for the specimen here figured, to Mr. YOUNG, of the Epsom Nursery. It blossoms in the greenhouse towards the end of February, and its curious flowers continue for many days in great perfection. No one

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* So called by Messrs. MORREN and DECAISNE, from ἕτερος, *alter* and τρέπω, *verto*, ob stamina diverse sita.

one can question its close affinity with Asarum. It is separated from that Genus by the authors just mentioned, chiefly on account of the arrangement of its stamens, and structure of the anthers, and also because of the nearly superior position of the ovary.

Descr. *Stem* very short. *Leaves* two, petiolate; *petiole* (three and a half inches long) coloured, glabrous, deeply channelled above, round below; *lamina* deeply cordate, blunt, slightly waved and reflected at the edges, from the blunt auricles to the apex longer than the petiole, dull-green, and irregularly blotched with lighter-coloured spots on the upper surface, where also it is slightly pubescent, especially towards the edges, glabrous, shining, and having purple veins and blotches below. *Bractea* solitary, large, embracing the base of the flower on its upper side, cucullate, adpressed, ovate, keeled on its outside toward the apex, coloured and ciliated, but otherwise sub-glabrous and shining. *Flower* perfumed somewhat like a ripe apple, sessile, as large as a walnut, cartilaginous; *tube* spheroid, glabrous on the outside, of a dull-purple colour, blotched with gray; *limb* of darker purple, three-partite, reflected, segments large, rounded, undulate, above transversely wrinkled, hairy, becoming glabrous towards the throat, where the wrinkles are drawn up into thin edges of brighter purple, waved, and the outer ones crested with white; throat half closed by a transverse plate of the same structure, having a triangular opening in the middle; inner surface ribbed, with honeycomb reticulations between the ribs. *Stamens* twelve; *filaments* coloured, very short, reduced almost to a lanceolate connective, projecting beyond the anther, which consists of two distinct cells, placed on the outside and bursting along their outer face; *pollen* white, *granules* minute, sphærical. *Stigma* sessile, petaloid, deep purple, six-lobed; *lobes* obovate, spreading, covering the anthers, nearly flat above, keeled below, and above each of these prominent angles is placed an erect, ovate, acuminate, stigmatic surface, with a cucullate space between. *Germen* half-inferior, six-locular, the cells being placed immediately under the stigmatic surfaces, the dissepiment of course under the cucullate spaces. *Ovules* about ten, in two rows in each loculament, projecting horizontally from central placentæ. Graham.

Fig. 1. Vertical section of a Flower:—*nat. size*. 2. Portion of the inside of the Tube of the Perianth. 3. Pistil cut through vertically, showing also the insertion of the Stamens. 4. Two of the Stamens:—*magnified*.

Pub by S Curtis Glazenwood Essex Sept 1 1834.

Swan.sc

CORYANTHES MACULATA; *var.* Parkeri. SPOTTED-LIPPED CORYANTHES; Mr. Parker's *var.*

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium patentissimum. *Sepala* dilatata, flexuosa, conduplicata: lateralibus maximis, basi distinctis. *Petala* multo minora erecta. *Labellum* unguiculatum, maximum, galeatum, cum basi columnæ continuum, nullo modo articulatum, tridentatum, in medio unguis appendice poculiformi circumdatum. *Columna* teres, basi bicornis, elongata, apice recurva, bialata. *Stigma* rima transversa. *Anthera* bilocularis. *Pollinia* 2, compressa, postice sulcata, caudicula lineari arcuata, glandula lunata apicibus approximato-recurvis.—Herbæ *epiphytæ, pseudo-bulbosæ.* Folia *striata.* Racemi *penduli.* Flores *maximi. Lindl.*

Specific Character and Synonyms.

CORYANTHES *maculata;* bulbo elongato, foliis lato-lanceolatis, racemis multifloris nutantibus, labello intus purpureo-maculato.

CORYANTHES maculata. *Hook. Bot. Mag. t.* 3102. *Lindl. Gen. et Sp. Orchid. p.* 159, *et in Bot. Reg. t.* 1793.

(β.) appendice purpureo-fusco. *(Tab. nostr.* 3756.)

My excellent friend, C. S. PARKER, Esq., kindly sent me the beautiful specimen here figured, which he imported from Demerara, hoping that it might prove a species distinct from that figured at t. 3102 of this work. The marking of the flower is indeed very different: but not more so than Dr. LINDLEY's figure of the same species; nor than we find to exist in many other genera of ORCHIDEÆ. The

The cup-shaped appendage to the labellum is here much larger than we have ever seen it before: its colour is a dingy brown-purple, which tint extends a good deal over the lip itself, which has, moreover, smaller and more indistinct spots than is common to the species.

Fig. 1. Column, Lip, and Appendage, *nat. size.* 2. Column. 3. Upper, and 4, underside of an Anther-case. 5. Pollen-masses: *magnified.*

Mr. HERBERT has requested us to add the following remarks to his account of CYPHONEMA *Loddigesianum.* (See No. 3710, p. 3. of text.)

Scapus autumnalis. *Folium* vernum, unicum, utrinque attenuatum, subpedale, ultra $\frac{1}{4}$ unc. latum, viride, basi et margine ortu rubrum, subinde virescentius. Patria Africa meridionalis.—The rise of the leaf of this plant has shown its identity with another bulb, received from the Cape of Good Hope by Messrs. LODDIGES. The supposition that they were mistaken, is, therefore, clearly confirmed. There are many bulbs of this plant in their nursery; but no instance of their producing more than one leaf. *W. H.*

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W Fitch del.

Pub by S. Curtis Glazenwood Essex Sep.r 1 1839.

Oxalis Barrelieri. Barrelier's Shrubby Wood-Sorrel.

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Class and Order.

Decandria Pentagynia.

(Nat. Ord.—Oxalideæ.)

Generic Character.

Calyx 5-sepalus, sepalis liberis aut basi coalitis. *Petala* 5. *Stamina* 10, filamentis basi breviter monadelphis 5 ext. alternis brevioribus. *Styli* 5 apice penicilliformes aut capitati. *Capsula* pentagona, oblonga aut cylindracea.—Herbæ *perennes, caulescentes, stipitatæ, aut acaules, foliis variis sed nunquam abrupte pinnatis.* *D C.*

Specific Character and Synonyms.

Oxalis *Barrelieri;* suffruticosa erecta ramosa, foliis trifoliolatis glabris, foliolis rhombeo-ovatis lateralibus brevi-intermedio longè-petiolatis acutis, pedunculis axillaribus solitariis longitudine foliorum apice bifidis plurifloris, calycibus glanduloso-pilosis, stylis stamina superantibus.

Oxalis Barrelieri. *Jacq. Ox. n. 4. t. 3. De Cand. Prodr. v. 1. p. 690. Barrel. Ic. t. 1169.*

Those who have been only in the habit of seeing the annual and herbaceous species of *Wood-Sorrel* of our own country with their uniformly obcordate leaflets, can form but a very imperfect idea of the striking variety presented by the numerous species of this Genus inhabiting the Southern hemisphere; some with no leaves, but with leaf-like petioles, as in O. *bupleurifolia;* some with simple leaves, or unifoliate; some with their leaves peltate, and three to fifteen-foliolate; some with cuneate leaflets cut at the extremity in a crescent-shaped manner; some with chrystalline

chrystalline points on their foliage like those of MESEMBRYANTHEMUM *chrystallinum*; and, lastly, some with shrubby stems, of which, the species here represented is one example. This came to the Glasgow Botanic Garden from Messrs. BOOTH of Hamburgh, as a native of Brazil, under the name we have here adopted, although it differs in some slight points from the original plant so called by JACQUIN; chiefly, however, in the relative length of the stamens and styles, and in the colour of the flower, here yellow, there, according to JACQUIN, "albo-incarnatus." It is, however, unquestionably, the O. *polymorpha* of ZUCCARINI, of which I possess an authentic specimen from the Berlin Herbarium, and judging from various samples I have received from Brazil, the plant varies much in the size and breadth of its foliage. It requires the heat of the stove, and flowers with us in March and April.

DESCR. *Stem* eight or ten inches to a foot high, woody below, and there as thick as a writing-pen, clothed with brown, glabrous *bark*: the young shoots herbaceous, and slightly downy. *Leaves* spreading; *leaflets* three, drooping, rhombeo-ovate, glabrous, the lateral ones smaller and on short petioles, the terminal one on a long petiole:—*petioles* and *peduncles* slightly downy. *Peduncles* solitary, axillary from the upper leaves, about as long as the leaves, erect, bifid at the extremity, each branch bearing several *flowers*; there is a solitary one between them, which opens first; then one on each branch expands, so that I find on every peduncle either one flower or two only open at a time: *pedicels* short. *Calyx* of five erect, ovato-lanceolate, erect, glanduloso-pilose, green *sepals*, without any glands. *Petals* five, obcordato-cuneate, united by their claws, yellow, with two orange spots at the base of each lamina. *Stamens* ten, monadelphous, five long and five short. *Style* longer than the stamens: *Stigmas* capitate.

Fig. 1. Calyx with Stamens and Pistil. 2. The same, with the Calyx removed:—*magnified.*

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W. Fitch Del.

Pub by. Curtis Clarenwood Essex Sep.r 1 1839

Sumn. Imp.

TOURRETTIA LAPPACEA. BUR-FRUITED TOURRETTIA.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—BIGNONIACEÆ.)

Generic Character.

Calyx bilabiatus. *Corolla* unilabiata. *Labium* superius concameratum. *Stam.* 4, quorum 2 breviora. *Capsula* turgida, 4-locularis. *Semina* pauca, imbricata, marginata.

Specific Name and Character.

TOURRETTIA *lappacea*.
TOURRETTIA lappacea. *Willd. Sp. Pl. v. 3. p. 263.*
DOMBEYA lappacea. *L'Hérit. Stirp. p. 33. t. 17.*

This singular plant, a native of Peru, was there found by the celebrated Botanist and Traveller, DOMBEY, and constituting, as it did, a new Genus, he named it in honour of a Botanist of Lyons, M. de la TOURRETTE, author of a "Chloris Lyonaise," and a *Voyage au Mont Pilatus*, and to whom J. J. ROUSSEAU addressed several of his botanical letters. The present is the only known species of the Genus, and is remarkable for the very curious structure of its flowers, and for the bright vermillion-red of the calyx before the full expansion of the blossom, and which then becomes green. The corolla resembles that of a PEDICULARIS deprived of its lower lip. The germen is clothed with deflexed, red tubercles, and is succeeded by a pretty large membranous, inflated capsule, clothed with long but softish prickles, strongly hooked at the extremity. The plant was long ago introduced to the Paris Garden by DOMBEY, but appears to have been soon lost to Europe, till in 1837, JOHN M'LEAN, Esq., of Lima, sent it from that neighbourhood

neighbourhood to the Glasgow Botanic Garden, where, in the greenhouse, it flowers in the autumnal months, and continues blossoming till the gloomy days of winter hasten the destruction of the plant.

Descr. The *plant* is annual, climbing and supporting itself by *cirrhi*, succulent and brittle, four to five feet high. *Stem* square. *Branches* opposite, axillary. *Leaves* opposite, horizontal, petiolate, ternately compounded. *Leaflets* petiolate, reflexed, ovate, acute, serrated, slightly hairy. *Cirrhi* occupying the place of a portion of the leaf, much branched. *Spikes of Flowers* terminal, but frequently having a branch rising from each side, erect, few-flowered, glanduloso-pilose. *Calyx* tubular, two-lipped: *upper-lip* lanceolate, lower one much larger, oblong, obscurely three-toothed, each of them has a projecting arch or tooth, which, in the young state, quite encloses the flower-bud:—the colour is at first bright red, gradually becoming green. *Corolla* longer than the calyx, tubular, one-lipped: or the lower lip is only represented by a small tooth: the upper arched, compressed, dark purple, streaked, the tube green. *Stamens* four, inserted near the upper part of the tube, and concealed within the upper lip. *Germen* oblong, green, clothed with reflexed, red tubercles, and inserted into a membranous, four-lobed cup. *Style* shorter than the corolla. *Stigma* trifid. *Fruit* a capsule, nearly two inches long, ovato-lanceolate, membranous, bluntly four-angled, inflated, clothed with long, spreading, hooked spines of unequal lengths. The dissepiment is four-winged, so as to constitute four cells (except at the summit), and the endocarp separates from the sarcocarp at the angles, thus leaving spaces which resemble four other cells:—the four internal ones only bear a few broad, winged *seeds* at the inner angle.

Fig. 1. Flower and Bractea. 2. Corolla. 3. Corolla laid open. 4. Pistil. 5. Capsule, all more or less *magnified*.

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N. Fitch del.t

Pub by S. Curtis Glazenwood Essex Sept. 1 1839.

PLATYSTEMON LEIOCARPUM. SMOOTH-FRUITED PLATYSTEMON.

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Class and Order.

POLYANDRIA POLYGYNIA.

(Nat. Ord.—PAPAVERACEÆ.)

Generic Character.

Sepala 3, ovata, caduca, pilosa. *Petala* 6. *Stamina* numerosa. *Filamenta* dilatata, membranacea, obcordata. *Antheræ* lineares, biloculares, lateraliter dehiscentes. *Ovaria* plurima (10 et ultra) linearia, stigmate sessili lineari terminata. *Capsulæ* totidem distinctæ, torulosæ, articulatæ, transversim multiloculares, extus piloso-hispidæ. *Semina* in quoque loculo solitaria pendula. *Benth.*

Specific Character and Synonyms.

PLATYSTEMON *leiocarpum;* ovariis fructibusque glaberrimis.
PLATYSTEMON leiocarpum. *Fisch. et Meyer, Ind. Sem. Hort. Petrop. p. 22.*

Seeds of this PLATYSTEMON were received by Dr. FISCHER of the Imperial Petersburgh Garden, from the Russian Colony of Ross in New California: and finding the ovaries and seed-vessels to be constantly glabrous, he distinguished it as a species from P. *Californicum,* figured at t. 3579, of our work. The same author observes, as another point of distinction, that the flowers are ochroleucous; whereas they are represented as yellow in the Botanical Register figure of P. *Californicum.* As cultivated in our garden, however, the colour of the inflorescence is alike in both species, and the hue is probably liable to vary, for in our living plants of P. *Californicum* we find the flowers quite as pale as in the individual now represented. Our plants of P. *leiocarpum* are from the Glasgow Botanic Garden, where they were raised in 1836 from seeds sent by Dr. FISCHER. It flowered in August and September.

Fig. 1. Stamen. 2. Pistil:—*magnified.*

W Fitch. del.

Pub by S Curtis Hazenwood Essex Sept 1 1837

EPIMEDIUM VIOLACEUM. PURPLE BARREN-WORT.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—BERBERIDEÆ.)

Generic Character.

Sepala 4 extus basi bibracteolata. *Petala* 4, intus appendice discolor aucta. *Capsula* siliculæformis multisperma. *Semina* oblique transversim sita, unilateralia.—Herbæ *perennes, foliis radicalibus petiolatis multisectis, foliolis serrato-aristatis.* *D C.*

Specific Character and Synonyms.

EPIMEDIUM *violaceum;* foliis subtriternatis, floribus violaceis, pedicellis subindivisis, petalorum calcaribus sepalum vix superantibus, stylo subclavato laterali.
EPIMEDIUM violaceum. *Morren et Decaisne, in Ann. Scienc. Nat. 2de Ser. Tom. 2. Botanique, p.* 354.

This, certainly the handsomest species of the Genus, was imported into Europe from Japan by M. VON SIEBOLD, and blossomed very freely in the open border under a hand-glass in Mr. CUNNINGHAM'S Nursery, Comely Bank, Edinburgh, in the beginning of April, 1839, and continued long in flower.

DESCR. *Barren petioles* filiform, wiry, at length glabrous, trifid, smaller at the joint, subdivisions nearly as long as the petiole, swollen at their apices, spreading wide, each supporting one, less frequently three, cordate, subacuminate *leaves,* at length glabrous on both sides, spinuloso-ciliate. *Fertile petioles* reddish-brown, nearly twice as long as the others, clothed with spreading hairs both above and below the

the origin of the peduncle, twice trifid, and each primary branch much longer than the space below to the origin of the peduncle, each ultimate division supporting three cordate, acuminate leaflets, of which the lateral ones are oblique, the central equal, glabrous above, hairy below, three to five-nerved, reticulate. *Peduncles* of unequal length, solitary, arising (about an inch and a half) below the primary division of the petiole, and sometimes as long as the leaf, generally shorter, round, glabrous. *Flowers* violet-coloured, large and handsome, subtended by several unequal, deciduous bracteas, racemose on the upper half of the peduncle, cernuous; the lower pedicels occasionally subdivided, the others simple. *Sepals* four, ovato-lanceolate, acute, spreading wide, undulate. *Petals* imbricated, rounded, erect, cucullate, inflected in the edge, each with a subulate ascending spur rather longer than the petal. *Stamens* erect, shorter than the limb of the petals; *filaments* short, colourless; *anthers* oblong, yellow, opening by valves rolling upwards rather on the outside, so as to leave a flattened surface next the pistil; *pollen-granules* yellow, small, oblong. *Pistil* rather longer than the stamens, but shorter than the limb of the petals; *Germen* green, oblong; *Style* shorter than the germen, slightly thickened upwards, cupped at the apex, and bearing the stigmatic surface on the edge of the cup. *Ovules* about ten, attached to a lateral *placenta*. *Graham.*

W Fitch del.

Pub by S Curtis Clarenwood Essex. Sept 1.1839

ONCIDIUM? CONCOLOR. ONE-COLOURED ONCIDIUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—GYNANDRIA.)

Generic Character.

Perianthium explanatum. *Sepala* sæpius undulata; lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum, ecalcaratum, cum columna continuum, varie lobatum, basi tuberculatum vel cristatum. *Columna* libera, semiteres, apice utrinque alata. *Anthera* semibilocularis, rostello nunc abbreviato, nunc elongato rostrato. *Pollinia* 2, posticé sulcata; *caudicula*, plana; *glandula* oblonga.—Herbæ *epiphytæ, nunc pseudo-bulbosæ.* Folia *coriacea.* Scapi *paniculati vaginati, rarius simplices.* Flores *speciosi, lutei sæpius maculati, raro albi. Lindl.*

Specific Name and Character.

ONCIDIUM *concolor;* bulbo ovato, foliis binis ligulato-lanceolatis, scapo radicali racemoso, sepalis lateralibus fere ad medium unitis, labello trilobo basi bilamellato lobo medio bifido.

An extremely beautiful plant, an inhabitant of the Organ Mountains of Brazil, where it was found by Mr. GARDNER in 1837, and whence it was sent by him to the Woburn collection. Of the Genus itself to which it should be referred I feel rather doubtful. In some respects, it agrees with MILTONIA of LINDLEY (see Bot. Reg. sub t. 1992), but that should have an entire lip. "The Genera BRASSIA, MILTONIA, CYRTOCHILUM, ODONTOGLOSSUM, and ONCIDIUM are closely related," Dr. LINDLEY observes, "and no doubt form the nucleus of a group of VANDEÆ, the limits of which remain to be ascertained."

DESCR.

Descr. *Bulb* small, oval-oblong, compressed, slightly furrowed, with large brown, sheathing *scales*. *Leaves* two, from the summit of the bulb, between ligulate and lanceolate, with a costa, but not distinctly nerved. *Scape* a foot or more high, arising from the base of the bulb, slender, bearing a *raceme* of large, handsome, bright lemon-coloured *flowers*. *Upper sepal* and the two *petals* obovate, the two lateral sepals combined for half their length underneath the labellum and smaller than the upper sepal. *Lip* twice the length of the *perianth*, narrow at the base, thin, broad, and three-lobed, the middle lobe bifid: at the base of the lip are two longitudinal lamellæ. *Column* more than half the length of the petals, with two projecting wings above, tipped with orange. *Anther* hemispherical, acuminate. *Pollen-masses* with a long *caudicula* and a small gland at the base.

Fig. 1. Flower, from which the Lip (fig. 2.) is removed. 3. Anther-case. 4. Pollen-masses:—*magnified*.

Pub by S Curtis Glazenwood Essex. Oct. 1.1830

NELÚMBIUM LÚTEUM. YELLOW NELUMBIUM.

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Class and Order.

POLYANDRIA POLYGYNIA.

(Nat. Ord.—NYMPHÆACEÆ.—NELUMBIACEÆ. *Lindl., Torr. et Gr.*)

Generic Character.

Carpella plurima, distincta, 1—2 sperma, monostyla, toro elevato obconico superne profunde foveolato immersa. *Semina* in quoque carpello solitaria exarillata exalbuminosa. *De Cand.*

Specific Character and Synonyms.

NELUMBIUM * *luteum;* corolla polypetala, antheris ultra loculos in appendicem linearem productis. *D C.*
NELUMBIUM luteum. *Willd. Spec. Pl. p.* 1259. *De Cand. Syst. Veget. v.* 1. *p.* 114. *Torr. et Gray, Fl. N. Am.* 1. *p.* 56.
CYAMUS luteus. *Nutt. Gen.* 2. *p.* 5.
CYAMUS flavicomus. *Salisb. Ann. of Bot. v.* 2. *p.* 45. *Pursh, Am. v.* 2. *p.* 398.
NYMPHÆA Nelumbo. *Walt. Carol. p.* 155. *Linn. Sp. Pl. p.* 750 *(var.* β.*).*

This noble flower, larger, says NUTTALL, than that produced by any other plant in North America, except that of MAGNOLIA *macrophylla,* was sent to me last month, (July, 1839,) by the kindness of EDWARD SYLVESTER, Esq., of Chorley, Lancashire. That gentleman received the seeds some years ago from Mr. ANDERSON of the Apothecaries Garden at Chelsea, and, by the skilful management of his gardener,

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* From *Nelumbo,* the name of the Indian species in Ceylon.

gardener, the plant produced its blossoms, as far as I know, for the first time, in a state of cultivation. Nor am I aware, that a figure exists in any Botanical work. From the representation which we are thus privileged to give, it will be at once seen how very closely this species is allied, both in its flower and fruit, to the classical Nelumbium *speciosum* of the East Indies: the chief, if not the only differences, being in the colour of the blossom and the appendage to the anthers. The present is, however, exclusively an inhabitant of the still waters of North America, where it is called *Water Chinquepin*, and it chiefly abounds in the southern and western States: extending, however, as far north as Philadelphia, Kentucky (Dr. Short), Connecticut, and Lake Ontario. There seems reason to think, therefore, that this splendid aquatic might come to perfection in favorable situations in our own climate. The N. *pentapetalum* (Walt.), and the N. *reniforme* of American authors, are probably mere forms of the present species.

Mr. Sylvester has obligingly communicated to me the following particulars respecting the blossoming of the *Yellow Nelumbium* in his collection:—"Its flowering, I believe to have been the consequence of an accidental circumstance, which I shall mention. I had hitherto treated it like the *Red*, or eastern species, from an impression that it was confined to the most southern and warmest portion of North America; the pots of both being plunged in a cistern of water, kept at a heat of about 85 degrees, and as the plants grew very vigorously and appeared to be in health, I did not try any other situation. They had never shown any disposition to bloom until the present season, when, in consequence of the gardener having left a smaller opening than usual in the flue which passes under the cistern, and which is entirely closed in the winter, the water remained at about 70 or 75 degrees, and the house was altogether cooler than in previous summers. Under these circumstances, while the Red species threw up a number of flower-buds, none of which came to maturity, two out of the three plants of the *Yellow-blossomed* sort flowered and are ripening seeds. The house and the water have since been warmer, and N. *speciosum* is now, though later in the season, coming into bloom. I have no doubt that, like many of the aquatic plants of North America, Hydropeltis, the Nymphæas, &c., which grow (and occasionally bloom during a very fine summer) in a shallow pot in this garden, the Nelumbium will be found sufficiently hardy to bear our winters,

winters, if the roots be plunged in water, deep enough to protect them from the frost, and raised near to the surface during summer. But I am not very sanguine in hoping that it will be brought to flower in the open air, or in water, warmed only by the sun, as those plants which are above the water, such as PONTEDERIA *cordata*, HIBISCUS *palustris*, &c., appear to require a greater degree of heat for this purpose than our summers afford. My experience, however, is confined to this county (Lancashire), where the climate is inferior to that of our eastern and southern counties."

DESCR. The *root*, according to NUTTALL, "consists of *tubers*, resembling those of the Sweet Potato, connected by running fibres, and which are, when boiled, as farinaceous and agreeable as the Potato, and are employed for food by the Osage and other western Indians." The *petioles* (four feet long,) and *peduncles* are frequently slightly muricated, but as often smooth. *Leaves* large, a foot and a half, to two feet broad, peltate; a very small one only is here represented. *Flower*, in its general structure, precisely the same as that of N. *speciosum*: the anthers, however, are tipped with a yellow, falcate appendage. *Fruit* (here taken from specimens gathered by Mr. DRUMMOND in Louisiana,) consisting of a large, obconical receptacle, or torus, with numerous cells at the flattened top, in which the *achenia*, resembling small acorns, lie quite loose, and rattle when the entire fruit is shaken.

Fig. 1. Stamen, *magnified*. 2. Fruit, *nat. size*.

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ANGELONIA GARDNERI. MR. GARDNER'S ANGELONIA.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—SCROPHULARINÆ.)

Generic Character.

Cal. 5-fidus v. 5-partitus. *Cor.* tubo brevi, fauce fornicata, limbi subbilabiati plani labio superiore obtusissimo bilobo, inferioris trilobi lobo medio basi saccato longiore rotundato. *Antheræ* loculi divergentes. *Capsula* globosa, bivalvis, valvulis integris medio septiferis. *Semina* membrana laxa inclusa.—Herbæ *Austro-Americanæ, erectæ v. procumbentes.* Folia *opposita v. superiora alterna.* Pedunculi *uniflori, solitarii, axillares v. racemosi. Benth.*

Specific Name and Character.

ANGELONIA * *Gardneri;* suffruticosa pubescenti-glandulosa, foliis lanceolatis acuminatis serratis floralibus basi latioribus bracteiformibus pedicellos superantibus.

This beautiful species of ANGELONIA is No. 1086 of the Brazilian Collection of the indefatigable Mr. GARDNER, by whom it was found in rather dry, open places in the province of Pernambuco. Seeds were sent to the Glasgow Botanic Garden in 1838, and the plants raised from them flowered in the stove in May, 1839.

DESCR. *Stem* erect, suffruticose, about three feet high, the branches, foliage, and peduncles clothed with copious, glandular

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* So called by HUMBOLDT. from *Angelon,* the native name of one of the species.

glandular, and viscid pubescence. *Leaves* opposite, lanceolate, sessile, acuminate, regularly serrated, nerved: those of the flowers much smaller and broadest at the base; they might rather be considered bracteas. *Flowers* handsome, in long, terminal, leafy or bracteated *racemes*. *Pedicels* solitary in each bractea, and shorter than it. *Calyx* of five deep segments, the two lower ones deeper and larger than the rest, glanduloso-pilose. *Corolla* (as in the Genus) purple, white in the centre, dotted with red. *Stamens* included: *Anthers* with the cells divaricated. *Pistil* pyramidal, hairy: *Germen* globose, green, tapering into a white style. *Stigma* an acute point.

Fig. 1. 2. Flowers. 3. Calyx. 4. Stamens. 5. Pistil:—*magnified.*

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LEPISMIUM MYOSURUS. MOUSE-TAIL LEPISMIUM.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala ovario subnudo pyriformi adnata, in tubum brevissimum concreta: *ext.* 4—5 subimbricata; *int.* 5—7 petaliformia, lanceolata, acuta, recurvo-patula, alba v. rosea. *Stamina* filiformia, pluriserialia, externa longiora, petalorum basi adnata; antheris minutis reniformibus. *Stylus* crassiusculus, columnaris, staminibus intimis longior. *Stigma* 4—5-radiatum. *Bacca* subglobosa, lævis, calyce marcescente coronata. *Semina* in pulpa nidulantia. *Cotyledones* latæ, acuminatæ, foliaceæ. *Pfeiff.*

Specific Character and Synonyms.

LEPISMIUM* *Myosurus;* diffuso-suberectum subarticulatum, articulis elongatis gracilibus 3—4-gonis, marginibus acutis crenulatis purpureis, crenulis subremotis albopilosis, squamula foliacea suffultis. *Pfeiff.*

LEPISMIUM Myosurus. *Pfeiff. Enum. Cact.* 1. 139.

CEREUS tenuispinus. *Haw. in Phil. Mag.* 1827.

CEREUS Myosurus. *Salm-Dyck in De Cand. Prodr. v. 3. p.* 469.

CACTUS tenuis. *Schott.*

A native of Brazil, according to Dr. PFEIFFER. It flowered in July of the present year, in the collection of T. BROCKLE-

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* Λεπις, *a scale:* so named, I presume, from the little scale at the crenatures.

T. Brocklehurst, Esq., of the Fence, near Macclesfield; and was communicated by the intelligent gardener there, Mr. J. Appleby, with the following remark:—"The plant had been for some time in a greenhouse, and was thence removed to the Orchideous house. In conveying it thither, a portion of about half the length broke off, and as we had no room for more than one plant, the branch herewith sent was laid unintentionally upon some other large pots with plants in them, and in that situation it has, to our astonishment, thrown out abundance of flowers, while the parent stock still remains barren." It is indeed well known, with regard to the Cereus group, that bending or slightly injuring a branch favours the blossoming.

Descr. *Stems* weak, several feet in length, much branched, throwing out copious roots, jointed, the joints elongated, varying in length from three or four inches to a foot, and in width from half to three quarters of an inch, sharply three, rarely four-angular, the angles compressed, often edged with brown or purple, and remotely crenate: a scale at the crenatures, and a long slender tuft of white hairs. *Flowers* rather small, from within the scale at each crenature; yellow, tinged with red (rose-coloured, according to Pfeiffer). *Stamens* erect. *Style* as long as the stamens. *Stigma* of three spreading, woolly rays.

Fig. 1. Flower:—*magnified.*

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ARISTOLOCHIA CILIATA. FRINGE-FLOWERED ARISTOLOCHIA.

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Class and Order.

GYNANDRIA HEXANDRIA.

(Nat. Ord.—ARISTOLOCHIEÆ.)

Generic Character.

Calyx corollinus, superus, basi ventricosus, limbo vario. *Antheræ* biloculares, stigmatis lateribus insculptæ. *Capsula* infera, 6-locularis, polysperma. *Spr.*

Specific Name and Character.

ARISTOLOCHIA *ciliata;* caule erecto flexuoso subsimplici, foliis sublonge petiolatis, reniformi-cordatis obtusissimis subtus glaucis, pedunculo axillari solitario uniflo-ro, perianthii tubo curvato basi inflato, limbo unilaterali subrotundo obtuso picto pilis longis succulentis apice glandulosis ciliato.

A native of Buenos Ayres, according to Mr. TWEEDIE, to whom I am indebted for dried specimens, and who also sent seeds, which, under the judicious care of Mr. MOORE, have, at the Glasnevin Botanic Garden, produced the flowering specimens here represented. The very singular structure and colour of their flowers, with the long marginal fringe, render this species particularly worthy of cultivation in the greenhouse, or in a favourable situation, it may be found able to bear the open air of our climate.

DESCR. *Stem* weak, yet not climbing, slender, zigzag, glaucous, apparently simple. *Leaves* on slender petioles, an inch and an inch and a half long, cordato-reniform, very obtuse, with a deep sinus at the base, glaucous beneath. *Peduncles* shorter than the petioles, single-flowered. *Tube* of the *perianth* green, much curved like a hunting horn, swollen

swollen at the base, above expanding into a one-sided large (about an inch in diameter) cordato-rotundate limb, externally greenish-brown, internally deep purple-brown, with yellow reticulations, the margin beset with long succulent hairs, each tipped with a gland. *Germen* clavate (young fruit pyriform). *Style* thick, fleshy, crowned with a *stigma* of six erect lobes. , *Anthers* linear, corresponding with the lobes of the stigma.

Fig. 1. Portion of the Pistil with Stigma and Anthers :—*magnified.*

Pub by S Curtis Glazenwood Essex 1 ct. 1832

ERYSIMUM PEROFSKIANUM. DEEP ORANGE-FLOWERED TREACLE-MUSTARD.

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Class and Order.

TETRADYNAMIA SILIQUOSA.

(Nat. Ord.—CRUCIFERÆ.)

Generic Character.

Siliqua tetragona. *Semina* immarginata. *Cotyledones* incumbentes. *Stigma* capitatum, nunc emarginatum lobis patentibus. *Cal.* erectus. *Br.*

Specific Character and Synonym.

ERYSIMUM *Perofskianum;* annuum vel bienne setis bipartitis scabrum, caule simplici, foliis lanceolatis remote denticulatis, pedicellis calyce duplo brevioribus, petalorum ungue calycem vix superante, siliquis setis bipartitis scabris stylo teretiusculo pedicelloque quintuplo longioribus.

ERYSIMUM Perofskianum. *Fischer et Mey. Ind. quartus Semin. Hort. Petropolit. Ann.* 1837.

Seeds of this very pretty plant, which belongs to DE CANDOLLE'S second Section, "CUSPIDARIA," were received at the Royal Botanic Garden*, Edinburgh, in May, 1838, from

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* It is much to be regretted, that more of the history of this ornamental plant is not known to us. Since Dr. GRAHAM'S communication arrived, I have received fine specimens of the same plant through the kindness of Lady MARY CATHCART, of Cathcart, who received the seeds direct from Caboul, but accompanied by the information, that the plant was a native of Persia. This lady remarks, that the plants grow slowly and languidly in pots; but the moment they are transferred to the open border, free from all restraint, they become as vigorous as the common Wall-flower, and put up many flower-heads in succession. ED.

from Dr. Fischer, as a native of Caboul, and the plants raised that season, flowered in a cold frame in May, 1839, and will probably ripen seed.

Descr. *Stem* ascending, weak, angled, simple. *Leaves* of nearly uniform green on both sides, scattered, lanceolate, remotely denticulate, attenuated at the base, recurved at the apex, with bipartite adpressed hairs; *middle rib* prominent behind, two to four lateral, obscure nerves. *Spike* racemose, terminal, many-flowered; *pedicels* spreading. *Calyx* pale greenish-yellow, erect, deciduous; *sepals* unequally bulging, and distant at the base, keeled at the apex, especially the two which are longer and narrower. *Corolla* of uniform orange colour; *laminæ* of the *petals* suborbicular, spreading at right angles, at first slightly concave, afterwards reflected, shorter than the slender, wedge-shaped claws, which are scarcely longer than the sepals. *Stamens* distinctly tetradynamous, the shorter equal to the claws of the petals. *Hypogynous-glands* dark green, indented by the claws of the petals, secreting much honey. *Pistil* longer than the stamens; *germen* spreading, four-sided, slightly pubescent, having many ovules in one row; *style* less than half the length of the germen; *stigma* capitate, cleft across the vertex. *Siliqua* compressed, four-sided, rough with bipartite adpressed hairs, crowned with the persistent *style*, which is nearly as long as the pedicel, and from four to six times shorter than the siliqua. *Graham.*

Fig. 1. Petal. 2. Stamens and Pistil. 3. Pistil:—*magnified.*

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BURRIELIA GRACILIS. SLENDER BURRIELIA.

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Class and Order.

SYNGENESIA SUPERFLUA.

(Nat. Ord.—COMPOSITÆ–SENECIONIDEÆ.)

Generic Character.

Capitulum multiflorum heterogamum, *fl. radii* ligulatis fœmineis obovatis, *disci* plurimis tubulosis 5-fidis hermaphroditis aut interdum abortu sterilibus. *Involucri* patenti-campanulati *squamæ* ovales acuminatæ disco paulo longiores uni-aut biseriales subalternæ æquales. *Recept.* epaleaceum. *Cor. disci* lobis extus tenue barbellatis. *Styli* disci rami cono brevi terminati. *Achænia* gracilia linearisubtetragona, *radii* fere obcompressa pappo longe bi- seu triaristato, *disci* pappo 3—4-phyllo, paleis lanceolato-aristatis corollam longitudine subæquantibus. *De Cand.*

Specific Name and Character.

BURRIELIA* *gracilis;* ligulis et involucris (8)-10—12. *D C.*

BURRIELIA gracilis. *De Cand. Prodr. v. 5. p. 664. Hook. et Arn. Bot. of Beech. Voy. p. 354.*

A Genus, of which the present and two other species were discovered in California by Mr. DOUGLAS, nearly allied to LASTHENIA, but readily distinguished by the different structure of the involucre: and, indeed, the present species is often cultivated in our gardens under the name of LASTHENIA *Californica*. It is a hardy annual, flowering in the

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* So named by DE CANDOLLE, in honour of JOHN MARK BURRIEL, who published, in 1758, the journey of VENEGAS into California, a country of which all the species of this Genus are natives.

the summer months, and recommending itself by its copious lively yellow blossoms.

Descr. *Root* fibrous, annual. *Stem* weak, more or less procumbent, very much branched, with the branches opposite, slender, hairy, from the axil of almost every leaf. *Leaves* opposite, connate, linear-lanceolate, tapering, entire, hairy, especially above, and ciliated. *Flowers* solitary, upon rather long slender, terminal peduncles. *Involucre* of several, lanceolate, downy, equal leaves, in a double series. *Florets* all yellow: those of the circumference ligulate, the limb oval, two to three toothed; the tube narrow, elongated, glandular, greenish. *Germen* oblong, a little broader upwards, compressed, glandular. *Pappus* sometimes wanting, sometimes present; in the latter case, consisting of three, four, or more, usually five, subulate, chaffy, rough scales, which persist till the fruit is ripe. *Style* a little longer than the tube: branches of the stigma linear, glabrous. *Florets* of the *disk* tubular: *corolla* bell-shaped at the mouth, which is five-cleft. *Germen* and *pappus* as in the radial florets. *Style* exserted: *branches* of the *stigma* recurved, clavate, hairy on the back at the apex. *Receptacle* conical, papillose.

Fig. 1 Floret of the Ray. 2. Ditto of the Disk. 3. Scale of the Pappus. 4. Floret destitute of Pappus. 5. Section of the Involucre, to show the Receptacle: *magnified.*

Rhododéndron campanulatum. Bell-flowered Rhododendron.

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Class and Order.

Decandria Monogynia.

(Nat. Ord.—Ericeæ.)

Generic Character.

Cal. 5-partitus. *Cor.* infundibuliformis, 5-lobus, antheris apice biporosis. *Caps.* 5-locularis, 5-valvis, ab apice dehiscens, valvarum marginibus inflexis, dissepimenta formantibus. *Receptaculum* centrale. *Semina* membrana involuta.

Specific Character and Synonyms.

Rhododendron *campanulatum;* decandrum, foliis perennantibus elliptico-oblongis mucronatis subtus ferrugineis basi subcordatis, corolla campanulata lobis planis emarginatis, ovariis 6-locularibus glabris. *Don.*

Rhododendron campanulatum. *Don, in Wern. Trans. v.* 3. *p.* 410. *Sw. Br. Fl. Gard. t.* 241. *Wall. Cat. n.* 756. *Lodd. Bot. Cab. t.* 1944.

This superb plant has, we believe, very rarely produced its blossoms in this country. Mr. Francis Dickson, of the Upton and Newton Nursery Grounds near Chester, most obligingly communicated the noble specimen here represented in the month of April, 1839. The plant from which it was cut, that gentleman remarks, " has stood out of doors for the last seven years, and during the unusually severe winter of 1838 remained uninjured. In consequence of removing to a new Nursery Ground, the plant was lifted in November 1838 and placed in a large tub in the greenhouse, where it produced its truly splendid blossoms the following

following spring. The plant is four feet and a half high, and from nine to ten feet in the circumference of its branches." It is a native of Cossaingthan, and was introduced to our gardens by Dr. Wallich.

Descr. *Stem* arborescent: but of smaller size at all times than the R. *arboreum*. *Leaves* elliptical, coriaceous, cordate at the base, the margins reflexed; the upper side dark green, below ferruginous, in the old individuals:—for the young foliage is described as being purplish beneath, then milk-white, afterwards rust-coloured. *Flowers* large, handsome, delicate rose-coloured, the corolla dotted with darker rose-colour, or purple, within the upper side of the tube. *Filaments* decurved, their apices curved up, white: *Anthers* brownish-orange, opening by two pores at the apex of the cells. *Style* longer than the stamens. *Stigma* capitate.

Pub by S. Curtis, Glasenwood, Essex Nov.r 1 1836

HAKEA DACTYLOIDES. FINGER-LEAVED HAKEA.

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Class and Order.

TETRANDRIA MONOGYNIA.

(Nat. Ord.—PROTEACEÆ.)

Generic Character.

Perianthium 4-phyllum, irregulare, foliolis secundis, apicibus cavis staminiferis. *Antheræ* immersæ. *Glandula* hypogyna unica dimidiata. *Ovarium* pedicellatum, dispermum. *Stigma* subobliquum, e basi dilatata mucronatum. *Folliculus* unilocularis ligneus, pseudo-bivalvis, loculo excentrico. *Semina* ala apicis nucleo longiore. *Br.*

Specific Character and Synonyms.

HAKEA *dactyloides;* foliis integerrimis triplinervibus venosis obovato-oblongis lineari-lanceolatisve aversis, ramulis angulatis, pedicellis pilosis; perianthiis glabris, capsulis ecalcaratis, cortice verrucoso. *Br.*

HAKEA *dactyloides,* β, foliis lanceolatis, marginatis, basi longe attenuatis, recentibus obscure siccis conspicue venosis; cortice vix verrucoso, quoad cætera ut in α.

HAKEA dactyloides, β. *Br. in Trans. Linn. Soc.* 10. 187. *Ibid. Prodr. Fl. Nov. Holl.* 386. *Roem. et Schult.* 3. 424.

This plant was raised at the Botanic Garden, Edinburgh, from seeds sent by the late Mr. FRASER from New Holland, in 1827, and flowers most profusely in the greenhouse in April. It is an exceedingly ornamental species in cultivation. This form is so extremely unlike the other variety of H. *dactyloides,* that I should have considered it specifically distinct, but for the authority of Mr. BROWN as quoted.

DESCR.

Descr. *Shrub* erect (with us about six feet high, and still making long and vigorous shoots), *branches* ascending, brown, streaked but scarcely warted, towards the extremities green, and while in flower shortly pubescent in continuous lines. *Leaves* (three inches and a half long, seven lines broad) spathulato-lanceolate, much attenuated at the base, tumid at the point of their insertion, where three fasciculi of vessels enter, two going along the margins forming somewhat cartilaginous borders, and meeting the third, the central rib at the apex, where they together form a short, stout, sphacelated mucro ;—central rib giving off on each side, at unequal distances from the base, a lateral rib ; all the nerves and the cartilaginous edges having reticulated branches, which with the nerves themselves are immersed, and little conspicuous in the recent, but prominent and very apparent in the dried plant. *Fasciculi* axillary, shortly stalked, with many ovate, flesh-coloured, imbricated, deciduous bracteas. *Flowers* very numerous, giving the whole of the preceding year's shoots the appearance of a leafy, interrupted spike. *Pedicels* lax, hairy. *Perianth* glabrous, shorter than the pedicel, like it, and every part of the flower, except the anthers, white, perfumed slightly. *Hypogynous gland* minute. *Anthers* yellow, sessile in the apices of the perianth ; *pollen granules* triangular. *Pistil* longer than the perianth ; *stigma* conical ; *style* filiform ; *germen* glabrous. *Graham.*

Fig. 1. Floret: *magnified.*

3761.

Pub by S.Curtis Glaxenwood Essex Nov.1.1839.

Brassávola Perrinii. Perrin's Brassavola.

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Sepala et *petala* subæqualia, libera, acuminata. *Labellum* cucullatum, integrum, columnam involvens. *Columna* marginata, clavata, stigmate infundibulari, clinandrio postice tridentato. *Pollinia* 8, subæqualia, quibusdam aliis parvis interjectis. *Anthera* 4-locularis, septis marginatis loculis simibipartitis.—Herbæ *caulescentes, epiphytæ, apice folium unicum v. alterum, semicylindraceum, carnosum, supra sulcatum, apice subulatum, gerentes.* Flores *terminales, magni, speciosi. Lindl.*

Specific Character and Synonyms.

Brassavola *Perrinii;* flore solitario, labello cordato-acuminato integerrimo, petalis sepalisque linearibus obtusis glabris, dentibus lateralibus clinandrii integris postico serrato, caule ramoso, folio tereti-compresso subulato linea canaliculato.

Brassavola Perrinii. *Lindl. Bot. Reg. t.* 1561.

A native of Brazil, whence plants were sent to the Glasgow Botanic Garden. Besides a difference in the flower, this species may be further known from B. *nodosa* and B. *cordata,* by its much slenderer leaves, branching stem, and blossoms appearing solitary.

Descr. *Stem* much branched, and clothed with sheathing membranaceous *scales,* throwing out thick, whitish, cylindrical *roots,* and each ultimate branch terminated by

a

a fleshy, tereti-compressed, subulate, pungent *leaf*, with a groove, or channel, on one side. From the base of this leaf, and within the uppermost stalk, arises a solitary *peduncle*, much shorter than the leaf, and bearing a single large *flower*. At the top of the peduncle, at the base of the very long, reddish-yellow pedunculiform *germen*, is a pair of small, subulate *bracteas*. *Sepals* and *petals* uniform, spreading, narrow, linear-lanceolate, of a pale yellow-green colour. *Lip* large, pure white, cordate, acuminate, entire at the margin. *Column* semicylindrical, broader, and winged on each side upward, the apex fimbriated above the anther, which is sunk into a cavity below the apex.

Fig. 1. Front view, and fig. 2, side view of the Column.

Pub by . . Glazenwood, Essex November 1 1839

Swan Sc

Eutóca Menziesii. Mr. Menzies' Eutoca.

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Class and Order.

Pentandria Monogynia.

(Nat. Ord.—Hydrophylleæ.)

Generic Character.

Calyx 5-partitus sinubus edentulis. *Capsula* polysperma. —Herbæ *annuæ, pubescentes, eglandulosæ.* Folia *alterna sæpius pinnatifida, nunc indivisa.* Racemi *terminales et quandoque e summis alis, secundi, ebracteati, novelli spiraliter revoluti. Br.*

Specific Character and Synonyms.

Eutoca *Menziesii;* erecta foliis linearibus lanceolatisve integerrimis quandoque trifidis pinnatifidisve, placentis 20-multi-ovulatis. *Benth.*

Eutoca Menziesii. *Br. in App. to Frankl. Voy. ed. 2. p.* 51. *Benth. in Linn. Trans. v.* 17. *p.* 278. *Hook. Fl. Bor. Am. v.* 2. *p.* 79. *Hook. et Arn. Bot. of Beech. Voy. p.* 373.

Eutoca multiflora. *Dougl. in Bot. Reg. t.* 1180.

A native of California, where it was first detected by the excellent and venerable Naturalist whose name it bears, and also of the interior of the Columbia, growing in sandy situations. The seeds were sent to the Horticultural Society by Mr. Douglas in 1826, and the plant is now met with as a frequent annual in our gardens, blossoming during the summer months. The leaves are very variable, sometimes almost all entire, sometimes in part trifid, and sometimes pinnatifid, even deeply so, as represented in the figure of the Botanical Register. Its copious flowers, of a delicate purple

purple colour, render it a desirable plant for our flower borders.

Descr. An erect, herbaceous, much branching *plant*, more or less downy in every part of the *stem* and *branches*. *Leaves* hairy, lanceolate or linear-lanceolate, sessile, entire or trifid, or sometimes, more especially below, pinnatifid. *Flowers* about the size of those of Polemonium *cæruleum*, arranged in dense, terminal, secund, circinnate racemes or spikes. *Calyx* in five, deep, linear, hairy segments. *Corolla* rotato-campanulate, veined, purple, waved at the margin. *Stamens* springing from the base of the corolla, *Style* bifid.

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LEPÍSMIUM COMMÚNE. COMMON LEPISMIUM.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala ovario subnudo pyriformi adnata, in tubum brevissimum concreta, exteriora 4—5 subimbricata, interiora 5—7 petaliformia, lanceolata, acuta, recurvato-patula, alba vel rosea. *Stamina* filiformia pluriserialia, externa longiora, petalorum basi adnata, antheris minutis reniformibus. *Stylus* crassiusculus columnaris, staminibus intimis longior. *Stigma* 4—5-radiatum. *Bacca* subglobosa, lævis, calyce marcescente coronata. *Semina* in pulpa nidulantia. *Cotyledones* latæ, acuminatæ, foliaceæ.

Specific Character and Synonyms.

LEPISMIUM *commune;* articulatum erectum subradicans læte viride 3—angulare, costis valde compressis repando-crenatis ad crenas squama ovata acuta pilisque numerosis albis instructis. *D C.*

LEPISMIUM commune. *Pfeiff.* " *in Otto, Gz.* 1835. *n.* 40." *Enum. Cact. p.* 138.

CEREUS squamulosus. *Salm, in D C. Prodr. v.* 3. *p.* 469.

CEREUS elegans. *Hort.*

The Glasgow Botanic Garden owes the possession of this plant to Mr. HITCHIN, a well-known and highly-successful cultivator of succulent plants, who probably received it from the Prince de SALM DYK. It is said to be a native of Brazil. Its flowering season is October. As a Genus, I fear the characters are very slight. The flowers seem to me to be altogether those of RHIPSALIS, and the habit very similar to R. *alatus,* PFEIFF. (CACTUS *alatus,* Bot. Mag. t. 2820,)

2820), only that the latter plant is compressed or two-angled; as is indeed the LEPISMIUM *paradoxum*, PFEIFF.

DESCR. The *stem*, in our plant, is about two feet long, articulated, branched, the joints elongated, very unequal, below small, scarcely three-fourths of an inch in the greatest diameter, whereas the upper and younger shoots measure two inches across: all of them are elongated, but various in length, tri-angular, full green, the angles much compressed and deeply sinuato-serrate: at the apex of the serrature, or tooth, is a membranous point, or scale; and within it a cavity filled with a tuft of erect, protruded bristles. In the lower and older parts of the stem, the serratures and scale are less distinct, the hairs or bristles are fewer, more protruded and black. In the cavities, thus situated, of the younger and large articulations, the *flowers* appear: these are small and partly immersed. *Germen* minute, inferior, naked. *Sepals* small, petaloid, uniting into a very short tube, gradually passing into the large, oblong-lanceolate, slightly reflexed *petals*, of a greenish-white colour slightly tinged with purple. *Stamens* numerous, unequal, shorter than the petals. *Style* as long as the petals. *Stigma* four-partite.

Fig. 1. Flower, *magnified*. 2. An Areola, whence a Flower has been removed, *magnified*.

Glarenwood Essex Nov.r 1.1830

ŒNOTHERA BIFRONS. HEART-LEAVED EVENING-PRIMROSE.

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Class and Order.

OCTANDRIA MONOGYNIA.

(Nat. Ord.—ONAGRARIÆ.)

Generic Character.

Calyx 4-fidus tubulosus. *Petala* 4, calyci inserta. *Capsula* 4-locularis, 4-valvis, infera. *Semina* comosa.

Specific Character and Synonym.

ŒNOTHERA *bifrons ;* erectiuscula ramosa parce pilosa, foliis semiamplexantibus subdentatis inferioribus ovatis acuminatis superioribus (seu bracteis) exacte cordatis, floribus inter majores (flavis), tubo calycino longissimo, petalis plicatilibus, capsula (immatura) cylindracea sulcata pilosa.

ŒNOTHERA bifrons. *Don in Sw. Fl. Gard. v. 4. p.* 386.

Another and very distinct species of *Evening Primrose,* discovered by the late Mr. DRUMMOND in Texas, and introduced to our gardens, is that here figured. It may be at once known by its semiamplexicaul leaves, of which the upper, gradually passing into bracteas, are remarkably broad and exactly cordate. It is quite hardy, and a very free flowerer, each panicle, and, indeed, branch of a panicle, bearing a great number of buds, which open in succession. With us, in the Glasgow Botanic Garden, it has flowered in August and September, and bids fair to continue blossoming till the frosts destroy the plant.

DESCR. Annual ? *Stems* nearly erect, rounded, slightly hairy, green, often tinged with purple. *Leaves* alternate, nearly glabrous, semiamplexicaul, the lower ones ovate, acuminate,

acuminate, the upper smaller, (and usually bearing flowers in the axils, seem gradually to become bracteas) decidedly cordate; all of them more or less toothed. *Flowers* sessile, solitary from each of the upper leaves or bracteas. *Germen* short, cylindrical, slightly furrowed, hairy. *Tube* of the *calyx* an inch and a half or more long, slender, yellow-green, enlarged upwards: its *limb* reflexed, separating into four segments, or combined. *Corolla* large, yellow, handsome: *petals* roundish, much puckered. *Style* longer than the stamens. *Stigma* of four rays.

Fig. 1. Part of the Calyx laid open. 2. Pistil:—*magnified.*

Published by S. Curtis, Glazewood, Essex, Dec.1 1839.

EPIDÉNDRUM CEPIFÓRME. ONION-ROOTED EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

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

Specific Name and Character.

EPIDENDRUM (ENCYCLIA) *cepiforme;* pseudo-bulbo globoso lævi diphyllo, foliis lineari-lingulatis crassiusculis, panicula maxima amplissima effusa, petalis sepalisque uniformibus patentibus spathulatis acutis, labello libero trilobo, lobis lateralibus oblongis incurvis columnam involventibus, medio cordato acutiusculo.

This is another of the new Orchideous plants for which the Woburn Collection is indebted to JOHN PARKINSON, Esq. H. B. M. Consul at Mexico, who sent it from that country in May, 1838. Its large, globose, smooth pseudo-bulbs and its ample panicles, four of which, each about three

three feet high, arose from one tuft of the plant in the same pot, will readily distinguish this plant from every other with which we are acquainted. Its nearest affinity perhaps is with E. *oncidioides* (Lindl. Bot. Reg. t. 1623).

Descr. *Pseudo-bulbs* remarkable for their almost exactly globose form, as large as a good-sized peach, smooth on the surface, the younger ones partially clothed with a membranaceous sheath. *Leaves* two, from the apex of the pseudo-bulb, eight to ten inches long, and an inch wide, linear-ligulate, rather obtuse, somewhat coriaceous, one-nerved. *Panicle* from the top of the pseudo-bulb between the two leaves, including the peduncle three feet and more high, with copious, spreading branches, and numerous *flowers*. *Sepals* and *petals* uniform, spreading horizontally, spathulate, acute, all of the same uniform tawny-orange colour. *Lip* broadly-oblong, channelled, three-lobed, the two side-lobes elliptical, embracing the column, the middle one cordate, acute, a little waved at the margin. *Colour* pale yellowish-green, beautifully streaked with red veins; and at the base within is a large, oblong, white, fleshy *disk*, grooved in the centre. *Column* shorter than the lip, greenish, bordered with red. *Anther* terminal, hemispherical, yellow.

Fig. 1. Column and Lip; the latter bent back from its natural position. 2. Lip:—*magnified.*

LASIÁNDRA PETIOLÁTA. PETIOLATED LASIANDRA.

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Class and Order.

DECANDRIA MONOGYNIA.

(Nat. Ord.—MELASTOMACEÆ.)

Generic Character.

Calyx limbo quinquefido, tandem deciduo. *Petala* quinque, patentia. *Stamina* decem, subæqualia, connecticulo basi introrsum varie biauriculato, antheris uniporosis (filamentis sæpe villosis). *Ovarium* setis coronatum. *Capsula* calyce velata, ab eo sublibera, quinquelocularis, superne quinquerimosa. *Semina* numerosa, hilo basilari, reniformi-oblonga, punctulata.—Frutices *vel* arbores *plus minus setosi vel strigillosi, ligno molli fragili.* Caules *et* rami *cathedri.* Folia *integerrima,* 3—5*-nervia, opposita aut verticillata.* Paniculæ *terminales, floribus speciosis violaceis, roseis rubris aut puniceis, singulis pari bracteatum concavarum mox deciduarum ante anthesin inclusis. Martius.*

Specific Name and Character.

LASIANDRA* *petiolata ;* ramis compressis pilosis pilis patulis, foliis oppositis oblongo-lanceolatis basi subcordatis, floribus ad apices ramorum in pseudo-paniculis amplis dispositis, calycibus setoso-pilosis. *Graham.*

We received, in 1836, at the Botanic Garden, Edinburgh, from the Botanic Garden, Berlin, a plant of this species under

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* So named by DE CANDOLLE from λασιος, *hairy,* and ανηρ, ανδρος, applied here to the *stamens :* in allusion to the tuft of hairs on the filaments of some species.

under the name here adopted. It has been freely propagated by cuttings, and flowered abundantly in June and July, 1839, in stove heat. We have no account of the country from whence it was introduced into Europe.

(To me this species does not appear to differ from LASIANDRA *Maximiliana*, MART. Nov. Gen. Brasil. p. 94. t. 240 and 241, a native of the provinces of Saint Paulo and Saint Sebastian, Brazil. *W. J. H.*)

DESCR. *Shrub* (five feet high) erect, bluntly tetragonous. *Branches* compressed, long, weak, pendulous, when young densely covered with spreading nearly white hairs, which soon become fulvous. *Leaves* (two and a half to three inches long, an inch and a half to two inches broad,) opposite, ovato-oblong, blunt, or subcordate at the base, petiolate, entire, divaricated, densely pubescent on both sides, on the upper and on the back of the nerves and partly on the secondary veins, the pubescence is long and suberect, on the lower side between the nerves closely covered with short tomentum. *Peduncles* axillary, once or often divided, they and each of their subdivisions spreading at right angles, collected at the extremities of the branches into large panicles. *Bracteas* caducous, solitary at the subdivisions of the peduncles, and in pairs, opposite, at the base of the calyx. *Flowers* (an inch and a half across) lilac, numerous, handsome. *Calyx* covered with harsh, unequal hairs, which on the oblong *tube* are deflected and ascending at the apex, on the back of the limb nearly straight; *limb* deeply five-cleft, segments lanceolate, unequal, oblique, ciliated, glabrous on the inner surface, half as long as the tube. *Petals* five, obovato-cuneate, emarginate, ciliated, glabrous on both surfaces. *Stamens* ten, inserted into the throat of the calyx; *filaments* declined, having a few glandular hairs, sprinkled chiefly in a line along their outer side; *anthers* armed, ascending, *cells* approximated along the upper side, compressed laterally, undulate, opening by a single pore at the apex; *connective* biauriculate at the base. *Pistil* as long as the stamens, and declined in the opposite direction from them; *stigma* small, entire, blunt, greenish; *style* purple, slightly tapering towards the stigma, having a few glandular hairs towards its base, articulated with the germen; *germen* green, oblong, with ten prominent angles, free or partially adhering to the calyx-tube at the angles, crowned by a tuft of erect hairs, five-locular; *placentæ* central, covered with many ovules. *Graham.*

Fig. 1. Single Stamen. 2. Calyx including the Pistil:—*magnified.*

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Pub by S. Curtis Glasenwood Essex Dec 1. 1839

Cœlogýne ocellàta. Eyeletted Cœlogyne.

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Sepala conniventia, vel patentia, libera, æqualia, petaloidea. *Petala* nunc sepalis conformia, nunc linearia. *Labellum* cucullatum, sæpius trilobum, lineis disci elevatis vel cristatis, nunc integerrimum ecristatum (in *Paniscâ*). *Columna* erecta, libera, margine alata, apice dilatata, nunc cucullata, stigmate bilabiato. *Anthera* bilocularis, septo medio non partibili; infra apicem columnæ inserta. *Pollinia* 4, libera, incumbentia, nunc basi materia granulosâ coherentia.—Herbæ *supra arbores et saxa vigentes, foliorum basibus in pseudo-bulbos dilatatis, rhizomate nunc crasso squamoso, nunc obsoleto.* Folia *coriacea sæpius venis distinctis æqualibus, nunc quibusdam crassioribus costata vel plicata.* Racemi *terminales vel radicales, e squamis (bracteis sterilibus) corneis erumpentes.* Flores *speciosi sæpe odorati. Lindl.*

Specific Character and Synonyms.

Cœlogyne * *ocellata;* pseudo-bulbis ovatis cæspitosis subangulatis squamis nitidis vestitis, foliis lanceolatis acuminatis petiolo angustatis, racemis strictis æqualibus, bracteis deciduis, sepalis petalisque oblongo-lanceolatis, labelli lobo intermedio ovato ad basin utrinque lamella abbreviata interrupta, disco lineis tribus lamellatis, columna obsolete triloba. *Lindl.*

Cœlogyne

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* Derived, I presume, from κοιλος, *hollow*, and γυνη, in allusion to the cavity of the cucullate column.

Cœlogyne ocellata. *Lindl. in Wall. Cat. n.* 1953. *Gen. et Sp. Orchid. p.* 40.
Cœlogyne punctulata. *Lindl. Collect. p.* 33.

From the Collection of John Allcard, Esq. of Stratford Green, where Epiphytes, and more especially exotic Ferns, are cultivated with a degree of success that I have rarely witnessed elsewhere. The present beautiful species of Cœlogyne, we are informed by Dr. Wallich, is a native of Silhet and of the Sermore mountains of the East Indies, and was first introduced into this country by Mr. Loddiges. The pure white of the petals and sepals and the clear orange spots of the labellum render the flowers extremely handsome and ornamental.

Descr. *Pseudo-bulbs* ovate, acuminated, wrinkled; at first green, afterwards purple; while young, partly sheathed by large brown scales. *Leaves* two, a span long, ligulate, one-nerved, somewhat coriaceous. *Peduncle* from between the leaves, clothed with long sheathing scales. *Raceme* erect, or drooping towards the upper end, shorter than the leaves, with four to six large *flowers*. *Sepals* spreading, oblong, obtuse, pure white. *Petals* similar to them but narrower, also spreading. *Lip* applied to the column, oblong, three-lobed, lateral lobes obtuse, erect and incurved, the middle lobe ovato-cordate, obtuse, the colour is white tinged with yellow, and veined with orange: within each lateral lobe is a large ocellated orange spot, and there are three smaller ones at the base of the terminal lobe. The disk of the lip has three longitudinal, waved lamellæ. *Column* long, slender, white, the margin and disk in front yellow. *Anther-case* green, surrounded by the obscurely three-lobed margin of the top of the column. *Pollen-masses* yellow.

Fig. 1. Side view, and f. 2. Front view of the Lip. 3. 4. Front and Side view of the Column. 5. Inside view of an Anther-case. 6. Pollen-masses: —*magnified.*

Pub by S. Curtis Stanemwood Essex Dec.r 1 1839

Céreus Martiánus. Von Martius' Cereus.

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Class and Order.

Icosandria Monogynia.

(Nat. Ord.—Cacteæ.)

Generic Character.

Sepala numerosissima imbricata, basi ovario adnata, in tubum elongatum concreta, exteriora breviora calycinalia, media longiora colorata, intima petaliformia. *Stamina* numerosissima cum tubo concreta. *Stylus* filiformis, apice multifidus. *Bacca* areolata, sepalorum reliquiis squamata aut tuberculosa. *Cotyledones* acuminatæ.—Frutices *carnosi, subglobosi vel elongati, stricti, articulati vel repentes, axi ligneo interne medullifero donati, angulis verticalibus, spinarum fasciculos gerentibus vel inermibus, irregulariter sulcati.* Anguli *seu alæ nunc plurimæ, nunc paucissimæ, rarius duæ tantum, et tunc rami compresso-alati inermes.* Flores *ampli e spinarum fasciculis lateralibus trunci aut ramorum vetustiorum, aut crenis angulorum orti.* Fructus *oviformes, plerumque anno sequente maturescentes, edules. Pfeiffer.*

Specific Character and Synonyms.

Cereus *Martianus;* suberectus ramosus 8-angularis sinubus latiusculis, costis vix prominentibus, areolis approximatis in cristæ tuberculis positis, aculeis exterioribus 6—8 setiformibus albidis (nascentibus rubris) radiantibus, centralibus 2—3 fuscis vix majoribus.

Cereus Martianus. *" Zucc."—Pfeiff. Enum. Cact. p.* 110.

The specimen of the Cereus here represented was obligingly sent from the noble Collection at Woburn, in April, 1839,

1839, bearing both flowers and young fruit. In Pfeiffer's "Enumeratio Cactearum," it is placed next to the well-known Cereus *flagelliformis* (that frequent ornament of cottage windows), but may readily be known by its different mode of growth, its deeply furrowed stem, and much slenderer hair-like aculei. It is a native of Mexico, and flowers readily and copiously in the spring months.

Descr. *Stem* nearly erect, but weak, branched, terete, obtuse, about three-fourths of an inch in diameter, about eight-angled, the angles obtuse : studded with areolæ about half an inch asunder, each containing a small white tuft, whence arise six to eight hair-like aculei. *Flowers* large, handsome, of a deep-red rose-colour. *Calyx* of several narrow-lanceolate, acuminated scales, gradually enlarging, and passing into numerous spreading petals. *Germen* subglobose, and, as well as the elongated *tube* of the flower, beset with tufts of hair-like aculei. *Young fruit* globose, green, larger than a hasel-nut, and partially clothed with the persistent tufts of hairs.

Pub. by S. Curtis Glazeni

ARISTOLÓCHIA CAUDÁTA. LIVID-FLOWERED BIRTH-WORT.

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Class and Order.

GYNANDRIA HEXANDRIA.

(Nat. Ord.—ARISTOLOCHIEÆ.)

Generic Character.

Corolla 1-petala, ligulata, basi ventricosa. *Capsula* 6-locularis, polysperma, infera.

Specific Character and Synonym.

ARISTOLOCHIA *caudata;* caule volubili, foliis inferioribus reniformibus triangularibus v. læviter trilobis, superioribus tripartitis laciniis apice angustatis, calycibus cylindraceis infractis basi ventricosis sexcalcaratis, labio cordato cuspidato lamina tubo multo breviore cuspide filiformi torto calyce multoties longiore. *Lindl.*

ARISTOLOCHIA caudata. *Booth, in Bot. Reg. t.* 1453.

From the hot-house at Woburn Abbey, where this plant flowered in high perfection in May, 1839. It is a native of Brazil, and was first raised in the garden of Sir CHARLES LEMON, at Carclew, Cornwall, by Mr. BOOTH, from seeds received from Lieut. WRIGHT, of H. M. Packet-ship, Hope. The extraordinary length of the tail and the smaller upper lip in relation to the tube of the corolla, will distinguish this from the A. *trilobata,* L., figured in the Botanical Register, t. 1399.

DESCR. *Perennial,* climbing. *Leaves* cordate, throughout the greater part of the plant, deeply three-lobed, almost three-partite, the lobes oval-oblong, obtuse: *petioles* an inch and a half to two inches long, rounded. *Stipules* large, somewhat cordate, acute, wavy. *Petioles* from the axils of the

the *leaf-stalk,* solitary, much curved upwards. *Tube* of the *perianth* pitcher-shaped, and curved like a syphon, the lower half much inflated, the upper narrow below, gradually widening upwards, of a dingy brownish-green colour, coarsely nerved and reticulated, the *mouth* with its underside truncated, and waved, scarcely forming a lip, the upper portion expands into a large, rich, blackish-brown coloured, broadly cordate *lip,* of which the apex is suddenly attenuated into a slender variously twisted *tail,* in our specimens a foot and a half long.

Liparis Walkériæ. Mrs. Colonel Walker's Liparis.

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Sepala patentia libera; lateralia basi æqualia sæpius breviora. *Petala* sepalis angustiora, raro æqualia, linearia vel filiformia. *Labellum* ascendens vel erectum, basi cum columna paululum accretum, supra basin sæpius bituberculatum integrum nunc mucronibus aliquot sed lobis nullis. *Columna* elongata, semiteres, incurva, apice marginata. *Anthera* bilocularis. *Pollinia* 4, collateralia.—Herbæ *terrestres vel epiphytæ, foliis basi in pseudo-bulbum concretis, nunc membranaceis plicatis, nunc subcoriaceis venis minus distinctis.* Scapus *teres vel angulatus, vel anceps.* Flores *parvi, herbacei, racemosi, raro lutei vel albi. Lindl.*

Specific Name and Character.

Liparis *Walkeriæ;* foliis 2—3 subrotundo-ovatis acutis, petiolatis plicatis basi obliquis cucullatis, spica erecta multiflora brevioribus, pedunculo angulato, labello subrotundo reflexo crenulato, sepalis patentibus oblongis, marginibus revolutis, germine petalisque filiformibus æqualibus. *Graham.*

We received this plant at the Royal Botanic Garden Edinburgh, in June 1834, sent by Mrs. Colonel Walker, from Ceylon. It has since flowered twice in the stove, and although it must certainly yield in beauty to many of the donations received from the same liberal and zealous cultivator of botany, yet it is not without interest. It ought to stand in the arrangement of the species between L. *purpurascens*

rascens and L. *atropurpurea,* and is distinguished from the former by its spike, and from the latter by its acutely angled, almost winged stem.

Descr. Terrestrial. *Pseudo-bulbs* conical, sheathed by about three scales, (the bases of abortive leaves) dark purple. *Leaves* two to three, with striated *petioles,* which are sheathing at the base, subrotundo-ovate, cucullate, acute, oblique at the base, plicate, about eleven-nerved, lurid-green above, paler below. *Stalk* terminal, acutely angled. *Spike* many-flowered, cylindrical, longer than the leaves. *Rachis* green, with many waved acute angles or wings. *Bracteas* ovato-deltoid, acute. *Germen* purple, longer than the bracteas. *Sepals* dark purple, oblong, oblique, revolute in the edges, spreading at right angles to the germen to which they are equal, at first nearly equidistant, afterwards, when beginning to decay, the two lower ones project downwards parallel and in contact below the lip, the third upwards behind the column. *Petals* equal to the sepals, slender, filiform, spreading laterally and afterwards reflexed. *Lip* subrotund, bituberculate on the upper side near the base, reflexed, dark purple in the middle, yellow and crenulate at the edges. *Column* erect, slightly curved forwards, about half as long as the sepals, purple below, colourless above where there is a conical tooth projecting along each side of the stigma. *Anther-case* hinged at the apex, with two rounded *cells,* containing the sessile, yellow, hard *pollen-masses. Graham.*

Fig. 1. Front view of a Flower. 2. Lip. 3. Column:—*magnified.*

Pub by S.Curtis Glazenwood. F

Swan.Sc

HIPPEASTRUM SOLANDRIFLORUM. SOLANDRA FLOWERED HIPPEASTRUM.

Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—AMARYLLIDEÆ.)

Generic Character.

Perianthium declinatum, tubo infra abbreviato, membrana fasciali non annulari, limbo quater dispare. *Scapus* spathaceus cavus. *Capsula* trivalvis. *Semina* testa nigra. *Herb.*

Specific Character and Synonyms.

HIPPEASTRUM *solandriflorum;* 2—4-florum, perianthio infundibulari subregulari, tubo gracillimo intus nudo limbo multo longiore, stigmate obtuse trilobo. *Lindl.* HIPPEASTRUM solandriflorum. *Herb. Amaryll. p.* 136. AMARYLLIS solandræflora. *Lindl. Collect. t.* 11. *Spreng. Syst. Veget. v.* 2. *p.* 51.

(β.) *striatum;* flore 2—10-unciali, extus obscure rubro-lineata, tubo 3—4½ uncia longo. *Bot. Mag. t.* 2573. *Herb. l. c.*

(γ.) *rubritubum;* flore viridescenti-albo, tubo purpureo-rubro. *Herb. l. c.*

(δ.) *conspicuum;* flore 10½ uncias longo, extus obscure rubro-striato, tubo purpureo-rubro. *Herb. l. c.*—β. vittata. *Bot. Reg. t.* 876.

Among the many interesting plants sent by Mr. SCHOMBURGK to our gardens from British Guiana, were bulbs of the present truly noble plant, which were gathered in his late adventurous voyage up the Berbice, and received by his Grace the Duke of BEDFORD. They flowered in the stove at Woburn, in May, 1839, and proved to be the very

very same form of Hippeastrum *solandriflorum* which is figured by Dr. Lindley in his "Collectanea Botanica." Mr. Herbert, indeed, considers that the leaves are narrower and the stigmas shorter and smaller, but on comparing the two figures very little difference will be found.

Descr. *Bulb* broadly ovate, brown. *Leaves* rather narrow, ligulate, keeled below, blunt at the apex, about a foot long. *Scape* two feet high, terete, somewhat angled above, in our specimen two-flowered. *Spatha* of two acuminated leaves, soon withering. *Pedicels* short, curved. *Flowers* drooping, very large. *Perianth* eight to ten inches long. *Tube* very long, slender, pale green; the *limb* somewhat spreading: the segments oblong, rather acute, dingy sulphur, or cream-coloured, greenish at the middle of the back. *Stamens* rather unequal, shorter than the style. *Filaments* arising from the top of the tube, monadelphous at the base, white. *Anthers* oblong, yellow. *Germen* oval, triangular. *Style* shorter than the stamens. *Stigma* small, of three obtuse lobes.

Fig. 1. Tube of the Perianth laid open to show the insertion of the Stamens: *nat. size.*

GARDÓQUIA MULTIFLÓRA. MANY-FLOWERED GARDOQUIA.

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Class and Order.

DIDYNAMIA GYMNOSPERMIA.

(Nat. Ord.—LABIATÆ.)

Generic Character.

Calyx tubulosus, 13-nervius, subincurvus, ore æquali vel obliquo dentibus brevibus rectis subæqualibus vel subbilabiatis. *Corollæ tubus* longe exsertus rectus vel incurvus, intus nudus; *limbus* bilabiatus, labium superius erectum subplanum emarginatum, inferius subpatens lobis planis medio latiore. *Stamina* 4, subdidynama, inferioribus longioribus, laxe adscendentia, apice subdistantia, superiora subinde sterilia. *Filamenta* edentula. *Antheræ* biloculares, loculis distinctis parallelis vel subdivergentibus. *Styli* lobi subæquales. *Achenia* sicca, lævia.—Suffrutices fruticesve *ramosissimi foliosi, sæpe procumbentes.* Flores *pulchri, sæpius coccinei. Benth.*

Specific Character and Synonyms.

GARDOQUIA* *multiflora;* fruticosa, subglabra, foliis, petiolatis ovatis obtusiusculis subcrenatis basi rotundatis viridibus subtus pallidis, floralibus conformibus, verticillastris laxis subsecundis, cymis pedunculatis vix dichotomis, calycis glabriusculi dentibus acutis, fauce intus nuda corollis calyce triplo longioribus. *Benth.*

GARDOQUIA multiflora. *Ruiz et Pav. Fl. Peruv. et Chil. ined.* 4. *t.* 495. *f. a. Benth. Lab. p.* 398.

RIZOA ovatifolia. *Cav. Ic. vol.* 6. *p.* 56. *t.* 578 *(male).*

This

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* Named by RUIZ and PAVON in compliment to D. DIEGO GARDOQUI, Minister of Finance to CHARLES IV., king of Spain.

This very ornamental plant was received at the garden of the Caledonian Horticultural Society, from Chili. It produced in the greenhouse a succession of flowers during nearly the whole summer and autumn of 1839. It very much resembles GARDOQUIA *grandiflora*, but may be distinguished from this especially by its foliage being perfectly glabrous even when young, by its patent not erect branches, and by its shorter style.

DESCR. *Shrub* erect, much branched, four-sided, branches spreading, bark cracked. *Leaves* petiolate, ovate, reflected in the edges, glabrous on both sides, of lively green above, dotted and rather paler below, where also the middle rib and oblique veins are prominent. *Peduncles* (three lines long) axillary, solitary, collected towards the extremities of the branches, three-flowered, glabrous; *pedicels* rather longer than the peduncle, the lateral ones having a small adpressed bractea on their outer side at the base, and two opposite ones below their middle, the central one without any bractea. *Flowers* handsome, pendulous. *Calyx* (one-fourth of an inch long) slightly curved, green, sprinkled with glands, and very obscure pubescence, teeth erect, nearly equal, the uppermost rather the smallest. *Corolla* five times as long as the calyx, red purple; *tube* clavato-funnel-shaped, slightly compressed laterally, slightly pubescent on the outside, hairy within, especially on the lower side and toward the limb; *limb* two lipped; *upper lip* slightly reflected, of two rounded teeth; *lower lip* of three more recurved, linear segments. *Stamens* exserted, straight, distant, the two longer projecting forwards from the centre of the flower, the two shorter parallel to and above them; *filaments* colourless, adherent to about the middle of the tube, above which they are free, and at the point of separation the corolla projects in little external, corresponding eminences; *anthers* dark lilac, of two, much divaricated lobes, opening along the vertex; *pollen* white. *Pistil* equal to the longest stamens, pale lilac towards the top; *stigma* bifid, segments nearly equal, subulate, curved outwards; *germen-lobes* erect; placed upon a fleshy disk, which is longer than the lobes. *Graham.*

Fig. 1. Flower laid open: *magnified.*

Passiflóra Mooreána. Mr. Moore's Passion-flower.

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Class and Order.

Monadelphia Pentandria.

(Nat. Ord.—Passifloreæ.)

Generic Character.

Calycis tubus brevissimus, faux coronâ filamentosâ multiplici ornata. *Bacca* sæpius pulposa, rarius submembranacea. *D. C.*

Specific Name and Character.

Passiflora *Mooreana;* glaberrima scandens cirrhifera, foliis brevissime petiolatis (petiolo grosse biglanduloso) cuneatis palmato-trifidis obscure serratis sinubus glandulosis subtus stipulisque magnis ovato-acuminatis cordatis utrinque glaucis, pedunculis unifloris bracteis magnis ovatis serratis involucratis longitudine floris, corona filamentosa triplici exteriore petala æquante.

This handsome *Passion-flower,* along with many other rarities sent by Mr. Tweedie of Buenos Ayres from various and often very remote parts of the interior, has been most successfully cultivated by Mr. Dugald Moore at the Royal Dublin Society's Botanic Garden of Glasnevin. To him I wish to dedicate this new species of Passiflora, which Mr. Moore observes will probably bear the open air as well as Passiflora *cærulea,* which its flowers a good deal resemble; but which has the advantage of being very fragrant. The nearest affinity, however, of this plant is with P. *Tucumanensis* (Bot. Mag. t. 3636), but the nearly sessile, very differently-shaped leaves and glands, and smaller flowers, besides other characters, abundantly distinguish it. The

seeds

seeds were received in 1837, and the plants flowered in July, 1839.

Descr. *Stems* long, climbing, cirrhiferous, glaucous. *Leaves* almost entirely sessile, three to five inches long, cuneate, deeply palmato-trifid, obscurely serrated, oblong, dark-green above, very glaucous; there are a few sessile peziziform glands in the sinuses, and a large one of the same character on each side the very short petiole. *Stipules* large, ovate, serrated, glaucous on both sides, unequally cordate at the base. *Peduncles* one-flowered, half as long as the leaves, bearing a little below the flower a large, three-leaved involucre, the leaves ovate, cordate at the base, and a good deal resembling the stipules. *Calyx-tube* very short: the *limb* of five oblong segments. *Petals* white. *Filamentous crown* with the outer ray nearly as long as the petals, blue; variegated below with white and darker blue; intermediate one very short, and deep blue, inner-one red-purple, erect. *Staminal* tube yellow, spotted with orange.

W. Fitch Del.

Pub by S. Curtis Glazenwood Essex. Jan.y 1. 40.

NEMÓPHILA ATOMÁRIA. SPOTTED-FLOWERED NEMOPHILA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—HYDROPHYLLEÆ.)

Generic Character.

Calyx inferus, persistens, 10-fidus; laciniis alternis reflexis. *Corolla* campanulata, 5-loba; lobis emarginatis. *Nectarium* foveolæ 10 ad marginem faucis. *Stamina* brevia: *Antheræ* lunatæ. *Capsula* unilocularis. *Semina* unum supra alterum receptaculis duobus parietalibus inserta.

Specific Character and Synonyms.

NEMOPHILA *atomaria;* foliis oppositis pinnatifidis basi in petiolum angustatis, lobis subrotundatis indivisis, calycis sinubus minimis reflexis, pedunculis axillaribus corollisque hirtis, ovariis multi-ovulatis. *Lindl.*

NEMOPHILA atomaria. *Fisch. Cat. Sem. Hort. Petrop.* 1835. *Lindl. Bot. Reg. t.* 1940.

A native of California, whence it was introduced by the Horticultural Society of London to our gardens, by the indefatigable Mr. DAVID DOUGLAS. It is a hardy annual and flowers through the autumnal as well as summer months, braving unharmed some of our early frosts. Dr. ARNOTT and myself, from an investigation of dried specimens alone, had been led to express an opinion that this was not really distinct from the N. *insignis*, or rather, as it ought to be called, N. *Menziesii* (Hook. et Arn. in Bot. of Beechey's Voyage, p. 152 and 372). An examination of recent specimens has satisfied us of our mistake. Independent of the curious spotting of the flower, (dark chocolate

late on a white ground,) the corolla is smaller, more rotate, and densely hairy at the bottom within. The leaves too are less deeply pinnatifid, and the lobes more entire.

Descr. A straggling, much branched, *annual plant*, with succulent, brittle *stems*. *Leaves* petiolate, pinnatifid, the lobes ovate, nearly entire, slightly hairy, smaller upwards. *Peduncles* solitary, single-flowered, hairy. *Calyx* hairy, the sinuses prolonged into deflexed spurs. *Corolla* rotate, white, very hairy at the base within, the lobes marked with dark brown, oblong spots, indistinct on the underside. *Anthers* sagittate, dark purple-brown, on *filaments* which are much shorter than the corolla. *Germen* ovate, hairy, with a five lobed, hypogynous, fleshy ring at the base. *Style* deeply bifid. *Stigmas* obtuse.

Fig. 1. Calyx, including the Pistil. 2. Portion of the Corolla. 3. Pistil: *magnified.*

Pub by Sharpe, Wivenhoe, Essex

EPÁCRIS OBTUSIFÓLIA. BLUNT-LEAVED EPACRIS.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—EPACRIDEÆ.)

Generic Character.

Calyx coloratus multibracteatus, bracteis textura calycis. *Corolla* tubulosa, limbo imberbi. *Stamina* epipetala; *antheris* supra medium peltatis. *Squamulæ* 5 hypogynæ. *Capsula* placentis columnæ centrali adnatis.—Fruticuli *ramosi, sæpius glabri.* Folia *sparsa petiolata vel basi simplici.* Flores *axillares in spicam foliatam sæpius digesti, albi vel purpurascentes. Br.*

Specific Character and Synonyms.

EPACRIS *obtusifolia;* floribus nutantibus, foliis lanceolatis erectis subimbricatis apice calloso obtusiusculo, calycibus obtusis longitudine tubi, staminibus inclusis. *Br.*

EPACRIS obtusifolia. *Sm. Exot. Bot. p.* 77. *t.* 40. *Br. Prodr. Fl. Nov. Holl. p.* 551.

This pretty EPACRIS is a native of Port Jackson, New South Wales, and was introduced to this country through the Royal Gardens of Kew, whence our plants were received at the Glasgow Botanic Garden. It flowers in October, and occasionally ripens its seeds with us.

DESCR. *Plant* shrubby, from two to three feet high, branched, slightly downy in the younger branches. *Leaves* alternate; generally erect and more or less appressed, on short reddish petioles, elliptic-lanceolate, glabrous, rigid, very obtuse, and callous at the tip, grooved or concave,

and

and smooth above, convex and longitudinally striated beneath. *Flowers* longer than the leaves, axillary, solitary, drooping, pointing to one side, on short bracteated stalks; *bracteas* small, ovate, imbricated, larger upwards, and, as it were, gradually passing into the five leaves of the calyx. These last are slightly downy, ovato-lanceolate, erect. *Corolla* white or cream-colour, the segments of the limb spreading, rather acute. *Stamens* included. *Capsule* small, membranaceous, pale brown, included within the persistent calyx, bursting open between the dissepiments into five valves, containing many chaffy seeds, and crowned with the lengthened red *style* and rather large capitate *stigma*.

Fig. 1. Flower. 2. The same, with the Corolla laid open, showing the Stamens and Pistil:—*magnified.*

Pub by S. Curtis Clazenwell Essex. St. N. 1840.

Státice arbórea. Gigantic Canary Thrift.

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Class and Order.

Pentandria Pentagynia.

(Nat. Ord.—Plumbagineæ.)

Generic Character.

Flores spicato-paniculati. *Calyx* 1-phyllus, plicatus, subscariosus. *Petala* 5, subconnata. *Stamina* basi petalorum inserta. *Utriculus* 1-spermus, calyce inclusus.

Specific Character and Synonyms.

Statice *arborea;* caule arborescente, foliis ovatis obtusis mucronatis basi angustatis, panicula composita terminali, ramis paniculæ alato-ancipitibus. *R. et S.*

Statice arborea. *Willd. Enum.* 1. *p.* 337. *Roem. et Sch. v.* 6. *p.* 797. *Lindl. Bot. Reg. N. Ser. t.* 6.

This very handsome and showy plant flowered in the noble Conservatory of His Grace the Duke of Bedford, at Woburn, in May 1839, where the accompanying figure was made. It is exclusively an inhabitant, according to P. B. Webb, Esq., of a few rocks of Burgado on the coast of Teneriffe, and has been, by that gentleman, introduced to our gardens. Professor Lindley informs us, that there was "a specimen of this species exhibited at the London Horticultural Society, from the Nursery of Messrs. Luccombe, Pince, and Co., six feet high, and covered with large clusters of flowers; for which a gold medal, an unusual mark of distinction, was awarded." It is too tender to bear constant exposure to the open air in this country.

Descr. *Stem* truly woody, four to six feet high, and two to three inches in diameter, bearing above a crown of large oblong-

oblong-ovate, petiolated, quite entire, very glaucous *leaves*; while the rest is marked with the scars arising from the fallen foliage of preceding years. *Peduncles* arising from the axils of the leaves, tall, angled, branching upwards into large, copiously-flowered *panicles*, with spreading or recurved, primary *branches*; the secondary ones secund, and, as well as the ultimate ones, on pedicels, broadly winged on both sides. *Calyx* large, spreading, purple. *Petals* nearly white, and forming a remarkable contrast with the coloured calyx.

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W. Fitch del.

Pub. by S. Curtis, Ota. Terrace, Essex. Feb.y 1.1840

Swan Sc.

CATASETUM RUSSELLIANUM. THE DUKE OF BEDFORD'S CATASETUM.

Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

Perianthium sæpius globosum, nunc explanatum. *Sepala* et *petala* subæqualia. *Labellum* crassum, carnosum, nudum, ventricosum v. explanatum, fimbriatum, sub apice saccatum obsolete trilobum. *Columna* erecta, aptera, libera, apice utrinque cirrhosa. *Anthera* subbilocularis, antice truncata. *Pollinia* 2, postice biloba v. sulcata, caudicula maxima nuda demum elastice contractili, glandula cartilaginea subquadrata.—Herbæ *terrestres* v. *epiphytæ, caulibus brevibus fusiformibus vestigiis foliorum vestitis.* Folia *basi vaginantia, plicata.* Scapi *radicales.* Flores *speciosi, racemosi, virides, nunc purpureo-maculati. Lindl.*

Specific Name and Character.

CATASETUM *Russellianum;* pseudo-bulbo elliptico magno, foliis lato-lanceolatis, racemo amplo, labello submembranaceo antice inflato ore contracto margine anteriore producto undulato fimbriato disco membrana cristato, columna nuda (ecirrhosa.)

This, together with the subject of the following plate, were the last Orchideous plants that were communicated to me from Woburn Abbey during the life of its late noble possessor. They were sent from the gardens on the same day that His Grace was attacked with his alarming illness, and ere they could reach me, the news had arrived of his lamented death. In him Science and the Arts have lost a steady

steady friend, and a munificent patron: and Botany and Horticulture in particular have seldom had a more devoted admirer. The Tribes of Plants, which, as is well known, have been especially cultivated and fostered by His Grace, are the *Grasses*, the *Willows*, the *Heaths*, the *Pines*, the *Orchideæ*, and, above all, the *Cacteæ;* in nearly the whole of these families the Woburn Collection has stood unrivalled. May his name long be perpetuated among the votaries of that Science which he so much delighted to honour in the present new and remarkable species of Catasetum: a species indeed so distinct, that it can hardly be assimilated with any other yet known to us. It was sent by Mr. Skinner from Guatemala in 1838.

Descr. *Pseudo-bulb* large, elliptical, greyish-green, transversely marked with rings, the traces of fallen leaves. *Leaves*, in our specimen, arising from the young and smaller bulb, about six, the lower ones small and almost abortive; the larger ones about a foot long, broadly lanceolate, acute, many-nerved, tapering at the base, membranaceous. *Raceme* ample, of numerous large, crowded, pale greenish-white flowers. *Sepals* and *petals* nearly uniform, but slightly spreading, concave, striated, ovate, acute. *Lip* large, very much inflated and below projecting forward (like the lip of our Cypripedium *Calceolus*), of a thin, membranaceous texture, almost transparent, striated with darker green:—the orifice is contracted, the margin much projecting forward and spreading, thin, almost white, waved and fimbriated: on the disk is a somewhat three-lobed, conspicuous, membranous crest, the lobes acute and a little toothed; the middle one the longest. *Column* shorter than the perianth, broader and winged upwards, the apex, or *clinandrium*, acute (not acuminated), beneath which, in a hollow, the anther-case is situated: this is roundish, with a long, narrow acumen. *Pollen-masses* two, ovate, cleft, waxy, deep yellow, attached to a very broad elastic stalk, which itself is situated upon a large, viscid gland.

Fig. 1. Lip and Column. 2. Upper portion of the Column: front view. 3. Anther-case. 4. 5. Superior and inferior view of the Pollen-masses, with their Stalk and Gland: all more or less *magnified*.

W. Fitch Del.

Pub. by S. Curtis, Glazenwood [illegible]

EPIDENDRUM PARKINSONIANUM. MR. PARKINSON'S EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

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

Specific Name and Character.

EPIDENDRUM *Parkinsonianum;* caule ramoso parce folioso, foliis inferioribus lineari-lanceolatis obtusiusculis crassissimis superiore coriaceo longissime attenuato basi carinato dein arctissime complicato, floribus 2—3 ex axillo superiore bractea longe acuminata suffultis, petalisque conformibus lanceolatis acuminatis, labelli trilobi lobis lateralibus amplis semicordatis suberosis intermedio lineari-acuminato.

One of the many beautiful Orchideous plants (and these are even far exceeded by the CACTEÆ) for the possession of which His Grace the late Duke of BEDFORD was indebted to JOHN PARKINSON, Esq., F. L. S, a gentleman who spared no pains,

pains, while holding the office of H. B. M. Consul General at Mexico, to enrich our gardens and herbaria with the choicest vegetable productions of that interesting region. This, the finest of the very fine Genus EPIDENDRUM, we wish to bear his name, in testimony of his botanical exertions, and we know that, could the late noble possessor of the gardens at Woburn express his mind, it would at once respond to our wishes and sanction its adoption.

DESCR. *Stem* elongated, rounded, branched, partially sheathed with a greyish, delicate membrane. *Leaves* three on our specimen : of which the lowest is a span or more long, in shape linear or oblong-lanceolate, remarkably thick, (one-fourth of an inch in thickness,) between fleshy and coriaceous, rather obtuse at the apex, on the upper side having a depressed, central line, and a fainter one of the kind on the underside. The middle leaf is a little longer than this, somewhat acuminated, the acumen carinated and grooved : the upper leaf is almost a foot and a half long, the base (for about four inches) deeply carinated, the rest with the sides closely complicated and tapering into a long and very narrow point. The base of this leaf gives rise to a large, membranous, sheathing bractea, and within this is a short stalk bearing two to three large and very handsome but scentless *flowers*, nearly four inches across. *Sepals* and *petals* similar, linear-lanceolate, much acuminated, spreading, dingy or brownish-green. *Lip* combined with the column, deeply three-lobed, orange, the lateral lobes half-cordate, slightly erose, the middle one longer than they, linear or lanceolate and acuminate. At the base of the lip are two conspicuous, parallel glands. The *column* is short, dilated upwards : the *anther-case* hemispherical, four-celled. *Pollen-masses* four, flattened, each doubled upon its own short stalk.

Fig. 1.. Column, from which the free portion of the lip is removed, just above the two glands. 2. Anther-case. 3. Pollen-masses :—*magnified.*

GELASÍNE AZÚREA. AZURE GELASINE.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—IRIDACEÆ.)

Generic Character.

Perianthium limbo regulari subæquali semipatente basi annulato; *filamenta* monadelpha partibilia; *antheræ* in cylindro sessiles erectæ latera versùs dehiscentes; *stylus* filiformis stigmate trilobo; *capsula* obovata trivalvis superne suturis semidehiscens; *semina* angularia superne truncata infra attenuata; *pollen* minutum oblongo-ovale; *folia* plicata. *W. H.*

Specific Name and Character.

GELASINE *azurea; foliis* sesqui- bi-pedalibus (vel ultra) unciam (vel infra) latis viridibus acutis, *bracteis* quatuor caulem bipedalem axillarem arctè amplexis 2—4-uncialibus (e quibus una foliiformiter acuminata) *spathâ* sesquiunciali pluriflorâ pedunculis bracteatis breviore, *perianthio* ultra $\frac{3}{4}$-unc. annulo ad basin albo laciniis saturatè azureis maculâ inferne albâ nigro circumpunctatâ, *antheris* superne sensim minoribus, *stigmate* breviter trilobo, *bulbo* elongatè ovato tunicâ membranaceâ brunneâ. *W. H.*

A bulb of this plant flowered in the spring of 1838 in the greenhouse at Spofforth, and ripened its seed, having been sent there by J. W. BOOTT Esq. from Boston in North America, where it had been received from the Banda Oriental. Specimens occur amongst TWEEDIE's plants, in the Herbarium of Sir W. J. HOOKER, gathered in the Banda Oriental and stony places near Rio Grande. The seedlings grow rapidly, and will probably flower at a year and a half old, and promise to be hardy with the protection of few leaves, and to retain their foliage in part at least through the winter. In the greenhouse the leaves continue growing throughout the winter, and, the stalk proceeding as in PHALOCALLIS and CYPELLA from the axil of the outer leaf, the vegetation of the plant does not terminate necessarily with the inflorescence. The capsule is obovate, gaping at the upper part of the sutures; the seeds angular, flat at the top, attenuated at the base. Blue or violet appears to be the prevailing colour of the Genus, which is closely allied

to

to NEMOSTYLIS of NUTTALL, Flora of Arkansas, in Amer. Phil. Trans., read 1834, p. 157. "Cor. hexapetala patens, tubo nullo, laciniis subæqualibus, stamina libera, stigmata 6 filiformia, capsula oblonga truncata, radix bulbosa, folia ensiformia plicata; caulis uni- aut pauci-florus, flores geminati, spatha bivalvis." Under the above character he unites IXIA *acuta* of BARTON, under the name of N. *geminiflora*, which has roundish seeds, with IXIA *cælestina* of BARTRAM which he states to have angular seeds. The name *acuta* must be preferred to *geminiflora*, for the plant is occasionally triflorous, and *cælestina*, which he calls one-flowered, varies with a two-flowered stalk, as in BARTRAM'S drawing at Mr. LAMBERT'S. NUTTALL states in the character that the filaments are free, but BARTON asserts, that those of *acuta*, which I consider the type of the Genus, are united at the base. NEMOSTYLIS is named from the stigmas being deeply bifid, with filiform lobes. If that feature did not furnish a sound generic distinction, the name NEMOSTYLIS, which is limited to it, would, of necessity, be superseded. Perfect and fresh specimens must be examined, to ascertain whether *cælestina* differing from *acuta* in seed is a genuine species of NEMOSTYLIS.

The following species of GELASINE are described from specimens in Sir W. J. HOOKER'S rich Herbarium.

2. G. *Purruchucana*. Var. 1. *princeps;* spec. *Mathews* (n. 784) Apr. ex Purruchucâ Peruviæ. Caule ultrapedali, bracteis foliiformibus subdodrantalibus plicatis acutis subsemiunciam latis, ramulis 1—2 simplicibus axillaribus erectis, pedunculis bracteatis spatham biuncialem circiter 7-floram (vel infra) superantibus, floribus modicis successivis violaceis, seminibus ut in G. *azureâ*.

V. 2. *simplex;* spec. *Mathews* ex eodem loco. Caule graciliore, spathâ terminali, bracteis filiformibus angustioribus $\frac{3}{16}$—$\frac{5}{16}$ unc. latis sterilibus, floribus violaceis minoribus.

3. G. *grandiflora;* spec. *Jameson* (n. 57) ex collibus Peruviæ prope Perucho, 7,500 ped. alt. m. Maio. Foliis circiter binis $\frac{1}{8}$ unc. latis acutis ultra sesquipedalibus utrinque valde attenuatis, bracteis 2 amplexicaulibus (quarum inferior acumine biunciali libero munita est) caule simplici multoties brevioribus, spathâ subbiunciali pedunculis bracteatis breviore, perianthio conspicuo laciniis circ. $1\frac{1}{4}$ unc. latis uncialibus lætè violaceis. Semina non visa.

4. G. *punctata;* spec. *Andrieux* Pl. Mex. (n. 79.) inter Tehuantepec et mare Pacificum in ditione Oaxacanâ m. Aug. lectum. Foliis circiter 15-uncialibus vix $\frac{3}{16}$ unc. latis, bracteis 1—2-superioribus spathæformibus imâ foliiformi sterili caulem gracilem amplexis, ramulis 1—2 simplicibus erectis axillaribus, spathis circ. $1\frac{1}{4}$-uncialibus acutis valvâ alterâ breviore pedunculos superantibus, perianthio subsemunciali et secundum *Andrieux* MSS. violaceo-punctato. Capsula obovata.

GELASINE. *(Deriv. gelasinus, a smiling dimple.) Species dubiæ.*

5.? G. *nuda;* spec. *Tweedie* ex planitiè aridâ prope Maldonado, et prope Monte Video orientem versùs, autumnale foliis nondum exortis, bulbo parvulo ovato sub terrâ pedis alt. repôsto. Caule dodrantali tenui, bracteâ inferiore amplexicauli acumine filiformi, superioribus spathæformibus, ramulis paucifloris compositis, perianthio cæruleo circiter $\frac{1}{16}$ unc. longo laciniis subæqualibus, (filamentis in sicco liberis) antheris basi affixis, stylo filiformi stigmate breviter trilobo, capsulâ obovatâ, seminibus angularibus infra valde attenuatis.

6.?

6.? G. *Texana ;* spec. *Drummond* ex *Galveston Bay*, Texas, Coll. 3 (n. 415) *Nem. acutæ* affinis. Foliis sesquipedalibus circ. $\frac{3}{16}$ unc. vel infra latis, bracteis (inferiore foliiformi ramulum nudum aliquando bracteatum amplexâ, superiore breviore) caulem (ramulis nudis æquifurcatum) superantibus, spathis circiter sesquiuncialibus acutis bifloris pedunculos subæquantibus, perianthio cæruleo æquali unciali, antheris stigma tenuiter et suberectè (ni fallor in sicco) trilobum superantibus. Filamenta in sicco libera.

NEMOSTYLIS; *Nuttall.* (Quoad in sicco vidi.) *Perianthium* limbo regulari subæquali patente basi cohærens; *filamenta* libera vel basi connata; *stylus* tenuis stigmate trilobo lobis tenuiter bifidis; *antheræ* basi affixæ suberectæ; *capsula* oblonga operculo modico dehiscens; *semina* subangularia rugosa basi attenuata; *folia* plicata.—*Filamenta cylindraceè connata incertum esse generis inter Iridaceas indicium monet Ixia monadelpha, certè Ixia et vix aliter inter species dignoscenda.*

1. N. *acuta. Ixia acuta ;* Barton. N. *geminiflora ;* Nuttall. Perianthio conformi acuto. *Nomen a νέμω distribuo et στύλος stylus.*

Species dubiæ.

2.? N. *purpurea :* V. 1. *major,* spec. *Drummond,* Texas Coll. 2. (n. 260). Caule bipedali vel ultra, bracteis binis foliiformibus ramulos suberectos (inferiorem subpedalem medio bracteatum, superiorem subsexuncialem nudum) tertiâ biunciali acuminatâ furcam subsexuncialem æqualem amplexis, spathâ biflorâ sesquiunciali acuminatâ (valvâ externâ breviore) pedunculos superante, perianthio (in sicco purpureo) sepalis latioribus obtusis, capsulâ ultra $\frac{3}{4}$ unc. longâ $\frac{1}{4}$ latâ, seminibus subfuscis rugosis raphe ad basim attenuatâ.

V. 2. *minor ;* spec. *Drummond* Texas Coll. 3. 413; inter Brazoziam et S. Philippum lectum. Caule simplici vel furcato, bracteis foliiformibus angustioribus sterilibus.

3.? N. *cælestina,* var. *tenuis. Hartweg* Zacatecas Mexic. (n. 229). Foliis tenuibus caulem subæquantibus vel superantibus, bracteâ in caule medio foliiformi spatham subuncialem (valvâ externâ breviore) superante, perianthio cæruleo $\frac{10}{16}$—$\frac{11}{16}$ longo sepalis latioribus obtusioribus.—*Cælestinæ Carolinianæ* (Ixia, *Bartram*) *caulis* 1- *(rarò* 2-*) florus est perianthio obtuso.*

ALOPHIA; *Herbert. Perianthium* dispar ut in *Cypellâ ; stylus* triqueter superne sensim incrassatus; *stigma* trilobum lobis bifidis subulatis recurvis; *filamenta* brevia erecta *(ipse non vidi); antheræ* (stigmatis lobis oppositæ ?) basi affixæ loculis latera versùs dehiscentibus connectivo mediâ parte angustiore summâ latiore; *folia* plicata. *Nomen ab α non et λοφος crista.*

1. A. *Drummondiana. Cypella Drummondi,* Graham, Ed. N. Ph. Journ., 1836, spec. Drummond, Rio Brazos (n. 68) et (v. *minor* forsan) San Felipe, 3. 414. Caule tereti simplici bifloro, foliis angustis, pedunculo apice curvato, perianthio laminis violaceis unguibus luteis purpureo- et brunneo-punctatis, sepalis dimidio petala superantibus obcordatis medio pubescentibus, petalis naviculatis medio compressis, capsulâ oblongâ breviter operculatâ.

TRIFURCIA; *Herbert. Perianthium* valde dispar; filamenta cylindraceè connata; *stylus* tenuis; *stigma* divaricatè trilobum lobis tenuiter subulatis superne divaricatè bifidis; *antheræ* obtusè subulatæ in cylindro sessiles divaricatè stigmatis lobis agglutinatæ et fissuræ oppositæ; *folia* plicata. *Nomen a stylo trifurcato.*

1. T.

1. T. *cærulea.* Foliis angustis circiter 5-uncialibus viridibus, scapo 3—4 unciali, spathâ pedunculos æquante, germine erecto, sepalis acuminatè obovatis laminâ ¾ unc. latâ violaceâ maculâ inferne saturatiore triangulari ungue albo violaceo-punctato, petalis parvulis acutis violaceis maculâ inferne oblongâ acutâ saturatiore, genitalibus lutescentibus, capsulâ oblongâ operculo dehiscente. Species Texana a *Drummond* lecta floruit Spofforthiæ. Genus *Herbertiæ* affine.

Beatonia. *Herbert.* *Perianthium* valde dispar ferè ut in *Tigridiâ*; *filamenta* cylindraceè connata; *antheræ* obtusè subulatæ subincurvatè divaricatæ stigmatis lobis alternantes; *stylus* tenuis; *stigma* trilobum lobis bifidis subulatis incurvatis; (*caulis* quoad vidi, extrafoliaceus) *folia* plicata.

B. *purpurea.* Caulem simplicem 5-uncialem bracteâ liberâ ad basim amplexâ, bracteâ semifoliaceâ in caule superne sitâ, spathâ 2½-unciali (valvâ externâ breviore) pedunculos vix æquante, germine recto, perianthio laminis roseo-purpureis unguibus crateriformibus albis roseo-purpureo-punctatis, sepalis oblongo-obovatis maculâ ad laminæ basim saturatâ medio albâ punctatâ, petalis laminâ acutâ minore deflexâ apice resurgente.—Floruit apud dom. T. Harris ex ditione Mexicanâ allata, curante hortulano perito D. Beaton. Vivam inspexi.

Amaryllidaceæ.

Cyrtanthus Smithianus. *Cyrtanthus Smithiæ.* Watt, MSS. Bulbo ovato modico foliis angustis erectis viridibus acutis glabris spiralibus circiter dodrantalibus, scapo bifloro, spathâ bivalvi pedunculos inæquales æquante, germine ovali, perianthio circiter 4-unciali albo sexstriato striis latis lætè roseis, tubo incurvato inferne tenui superne subventricoso, stigmate trifido tubum superante, filamentis petalinis tubum superantibus parti superiori sepalinis brevioribus medio regionis subventricosæ adnatis. A dominâ Smith in Caffrariâ lectus. Bulbi a dominis Watt et Harvey missi nondum in Europâ floruerunt. Flos ex tabulâ pictâ descriptus ad *Gastronema* vergit ideoque accuratiùs investigandus est.

Habranthus *Cearensis.* Spec. *Gardner* (n. 1858) in sylvis siccis apertis Cearæ Braziliensis m. Nov. lectum. Scapo unifloro tenui 4—5-unc. spathâ apice bilobâ, pedunculo unciali vel ultra breviore, germine parvulo, perianthio sesquiunciali (in sicco pallidè rubescente). Folia hysteranthia ignota; filamenta tria longiora stigma vix superantia.

Hy'line. *Herbert.* *Perianthium* verticale laciniis angustis extubatum basi integrum; *filamenta* cum stylo tenuia; *germen* oblongum rectum; *ovula* in capsulâ immaturâ oblonga (ut videtur, superne foliaceo-alata?) *folia* non vaginantia, plana. Genus *Crino* affine. *N. ab* "υλη *sylva.*

1. H. *Gardneriana.* Folia subpedalia viridia glabra utrinque attenuata, scapus 14-uncialis, spatha bivalvis bracteata circiter triflora pedunculos circiter unciales superans, germen ⅝-unc. limbus albus laciniis angustis 6-uncialibus stigma minutum obtusum superantibus.—Spec. in sylvis siccis Cearæ Braziliensis a *Geo. Gardner* lectum. Bulbus ovatus modicus vomitorius et catharticus nondum in Europâ floruit. W. H.

The attention of Collectors should be called to a fine *Tigridia*-like plant, perhaps a *Rigidella*, found by Andrieux near the ice-house on the summit of the mountain San Felipe, in Oaxaca. W. H.

Fig. 1. Inner, and f. 2, outer Sepal. 3. Pistil and Stamens. 4. Pollen. 5. Style. 6. Capsule, and f. 7, Seeds, *nat. size* :—the rest more or less *magnified.*

Pubby S. Curtis Glazewood Essex Feb 1 1840.

COBÆA MACROSTÉMA. LONG-STAMENED COBÆA.

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Class and Order.

PENTANDRIA MONOGYNIA.

(Nat. Ord.—POLEMONIACEÆ.—COBÆACEÆ. *Don.*)

Generic Character.

Cal. 5-partitus amplus. *Cor.* subcampanulata, limbo 5-lobo. *Stigma* 3-fidum. *Caps.* 3-valvis dissepimento triquetro, angulis valvæ adversis. *Semina* biseriata.

Specific Character and Synonyms.

COBÆA * *macrostema;* foliolis obovatis basi ciliatis calycis segmentis lanceolatis ciliatis, corolla subhypocrateriformi segmentis acutis nervosis, staminibus styloque longissime exsertis.

COBÆA macrostema. *Pavon MSS. (fide Don.)*
COBÆA lutea. *Don, in Ed. Phil. Journ.* 1824. *p.* 112.
COBÆA acuminata. *De Cand.*

Among some seeds which Mr. SKINNER had been so kind as to send me from Guatemala in the spring of the present year (1839), were those of the most interesting plant here figured. The seedlings grew during the summer and autumn with considerable vigour: but it was not till November of the same year that they produced blossoms, which, no less than the leaves, proclaimed the plant to be a COBÆA, not, indeed altogether new to our Herbaria (though *there* I believe of very rare occurrence: but new to our greenhouses and conservatories, where, and probably in the open air, it promises to be as valuable a climber as the well-

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* See Bot. Mag. t. 851, for an explanation of the name.

well-known C. *scandens*. Mr. Don gives it as a native of Guayaquil*, through which country, we believe, Mr. Skinner had recently passed previously to his despatching our box of treasures from Guatemala; so that probably that gentleman, ever on the alert to collect plants that may be useful to us, there gathered these seeds. The flowers bear a considerable resemblance to those of Periphragmos.

Descr. *Stems* climbing, several feet long, and much branched, angular, glabrous. *Leaves* alternate, each consisting of three pairs of obovate, shortly petiolated nearly opposite *leaflets*, the base somewhat unequally two-lobed, so that the shape is almost panduriform, the lower margin fringed with long, delicate hairs, the rest with extremely short and minute hairs scarcely visible to the naked eye: elsewhere the leaflets are glabrous; the apex of the young leaflets comes to a sharp, recurved point, that of the older ones is obtuse; the lowest pair is so close to the base of the petiole, as to resemble stipules; the petiole itself terminates in a much branched, slender, very spiral *tendril*. From the axil of a leaf arises a *flower-branch* bearing two nearly opposite leaves, and from between these a long, decurved peduncle supporting a single flower. *Calyx* in five, deep, spreading, broadly-lanceolate segments, the margins recurved and ciliated with long, slender hairs. *Corolla* nearly two inches long, yellow-green. The *tube* rather long and straight, the *limb* of five spreading, acute, nerved lobes. *Stamens* with their filaments arising from the very base of the corolla, at their origin very hairy, more than twice as long as the corolla, moderately inclined to one side, and curved upwards, yellow-green below, upwards reddish: *Anthers* linear-oblong, versatile. *Style* as long as the stamens: *Stigmas* three, long, slender, twisted.

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* Since the above was printed, Professor Don has been so kind as to inform me that this has been lately described by De Candolle under the name of C. *acuminata*; and that he has reason to think that the plant described by him (Mr. Don) came from Mexico, rather than from Guayaquil.

W Fitch Del!

Pub. by S. Curtis Glazenwood Essex Feb. 1840.

BOUVÁRDIA SPLÉNDENS. SPLENDID BOUVARDIA.

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Class and Order.

TETRANDRIA MONOGYNIA.

(Nat. Ord.—RUBIACEÆ.)

Generic Character.

Cal. tubus globosus, *limbus* 4-partitus, lobis lineari-subulatis, dentibus interdum interjectis. *Cor.* infundibuliformis tubulosa elongata extus velutino-papillosa, fauce nuda, limbo 4-partito patente brevi. *Staminum filamenta* tubo inferne adnata a medio circiter libera, *antheræ* lineares inclusæ. *Stigma* bilamellatum, exsertum. *Ovarii* pars superior nuda. *Capsula* membranacea globoso-compressa bilocularis loculicido-dehiscens, valvis semiseptiferis. *Placentæ* orbiculares. *Semina* in quoque loculo plurima compressa, deorsim (ex icon. *Salisb.*) seu sursum (ex icon. *Cavan.*) imbricata, ala membranacea cincta.—Frutices *Mexicani.* Folia *opposita aut verticillata.* Stipulæ *angustæ acutæ petiolis utriusque adnatæ.* Pedunculi *terminales triflori aut trichotomi corymbosi. D C.*

Specific Name and Character.

BOUVARDIA* *splendens;* foliis ternis raro oppositis lanceolatis acuminatis utrinque scabris, stipulis laciniato-subulatis; ramis trigonis subglabris, stylo exserto; corollæ tubo intus barbato.

There is no doubt great similarity between this and the *triphylla* of Botanical Magazine, but its freer growth, the much

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* So named by Mr. SALISBURY in honor of CHARLES BOUVARD, M. D. formerly Superintendent of the Botanic Garden at Paris.

much greater splendour of its vermillion colour, the narrower, more lanceolate, more acuminate, more scabrous leaves, the greater length of its stipules, and its exserted style, seem to justify the separation of it from any variety of that species. It was obtained from the Chiswick Gardens by Mr. James M'Nab, in September, 1838, and flowered very freely in the greenhouse of the garden of the Caledonian Horticultural Society in July and August. Mr. J. M'Nab does not know whence it was introduced. He has made many attempts, always unsuccessful, to propagate it by cuttings of the branches, but has found it very easily increased by slips from the roots not half an inch long, and covered so as to leave the upper extremities only exposed and level with the surface. He has distributed many plants obtained in this way under the name which I have adopted. There is scarcely any thing in cultivation more brilliant than a large specimen covered with clusters of its most splendid flowers. The seeds are formed and will probably ripen.

Descr. *Shrub* with long, slender, diffuse branches, gray and cracked when matured, when young trigonous, subglabrous, coloured on the upper side, green on the lower. *Stipules* subulate, occasionally cut, elongated, adpressed. *Leaves* ternate, rarely opposite, lanceolate, acuminate, strongly veined, scabrous on both sides, bright green above, pale below. *Corymb* terminal, with three lateral branches and a leading stalk, which is once or oftener divided in a similar way. *Calyx* green, slightly scabrous; *tube* adherent; *limb* four-parted, segments subulate, diverging towards the apex, and having minute, intervening teeth at the base. *Corolla* of uniform very bright vermillion colour, acquiring a faint lake tint, slightly scabrous; *tube* of equal diameter above and below, bluntly four-angled, nearly five times longer than the calyx, bearded near its base within; *limb* four-parted, segments ovate, spreading, subacute. *Stamens* four, included; *anthers* sessile, attached by their middle to the corolla, at about three-fourths of its height, *pollen* yellow. *Stigma* bifid, fleshy, glandular, segments oblong, slightly divaricated at the apex. *Style* central, filiform, glabrous, exserted at the apex. *Germen* inferior, bilocular, shortly elliptical, or obovate, compressed; *placentæ* large, central; *ovules* numerous, imbricated, winged all round, resembling concave scales. *Graham.*

Fig. 1., Corolla laid open. 2. Calyx and Pistil. 3. Branchlet of Fruit (*nat. size*). 4. Capsule, *magnified.*

Brassávola cordáta. Heart-lipped Brassavola.

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Sepala et *petala* subæqualia, libera, acuminata. *Labellum* cucullatum, integrum, columnam involvens. *Columna* marginata, clavata, stigmate infundibulari, clinandrio postice tridentato. *Pollinia* 8, subæqualia, quibusdam aliis parvis interjectis. *Anthera* 4-locularis, septis marginatis, loculis semibipartitis.—Herbæ *caulescentes, epiphytæ, apice folium v. alterum, semicylindraceum, carnosum, supra sulcatum, apice subulatum, gerentes.* Flores *terminales, magni, speciosi. Lindl.*

Specific Character and Synonym.

Brassavola *cordata ;* labello cordato-acuminato longitudine unguis, petalis sepalisque linearibus acuminatis glabris, dentibus omnibus clinandrii integerrimis, caulibus basi nodosis.

Brassavola cordata. *Lindl. Bot. Reg. t.* 1914.

A species, introduced from Brazil by Messrs. Loddiges according to Professor Lindley: but our plants were received by Mr. Murray from Mr. Thomas Cowan, Overseer on the White River Estate, Jamaica :—so that the species would seem to have a widely extended range. It is very closely allied to B. *nodosa,* (Bot. Mag. t. 3229,) a species from which Dr. Lindley distinguishes it by the flowers being only half the size, with a cordate labellum, and a very different clinandrium ; but these are probably variable

variable characters. The B. *nodosa*, figured in the Botanical Register, t. 1465, is a specimen with unusually large flowers.

Descr. This plant has a sort of creeping and branching *caudex*, from which arise several short, rounded, striated and jointed *stems*, clothed with membranous *sheaths* singularly swollen at the base, each bearing at the apex a long, thick, semiterete, fleshy, subulate, pungent *leaf*, six inches to a foot in length, with a deep groove on the anterior side. From the base of this groove, and from the top of the stem, appears a short *peduncle*, bearing three or four moderately large, drooping *flowers*. *Sepals* and *petals* uniform, linear-acuminate, spreading, pale green. *Lip* cordate, acuminate, waved, white, suddenly contracted into a greenish claw, equal in length with the lamina, and which completely enfolds and conceals the short column. *Column* semiterete, greenish-white, having at the apex three large, entire *teeth*, two of them lateral and one dorsal, extending much beyond the anther, which is thus concealed. *Anther-case* hemispherical, eight-celled, containing two pairs of yellow *pollen-masses*.

Fig. 1. Lip. 2. Side view of the Column. 3. Front view of ditto. 4. Anther-case. 5. Pollen-masses :—*magnified.*

PHLOGACANTHUS CURVIFLORUS. CURVED-FLOWERED PHLOGACANTHUS.

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Class and Order.

DIANDRIA MONOGYNIA.

(Nat. Ord.—ACANTHACEÆ.)

Generic Character.

Cal. 5-partitus, æqualis. *Cor.* oblique bilabiata, labio superiore latiore et longiore bifido, inferiore trifido; tubo trigono. *Stam.* 2. *Antheræ* bilocellatæ, locellis parallelis contiguis demum hastato-divergentibus muticis. *Staminum* duorum sterilium rudimenta exilia in quibusdam observantur. *Stigma* simplex, acutum. *Capsula* compressa, bilocularis, loculis superius tetraspermis. *Retinacula* seminibus subjecta.—Inflorescentia: racemus *terminalis v. lateralis, simplex v. triplex, spiciformis, floribus verticillato-quaternis, bractea bracteolisque binis conformibus angustatis elongatis.* Corolla *speciosa, lutea aut fulva.* Folia *supra minute papulosa. Nees.*

Specific Character and Synonyms.

PHLOGACANTHUS * *curviflorus;* caule erecto quadrangulari striguloso-tomentoso, foliis amplis ellipticis utrinque acutis repando-dentatis glabris, corolla elongata. *Nees in Wall. Pl. Asiat. Rar. v. 3. p. 99.*

JUSTICIA curviflora. *Wall. Pl. Asiat. Rar. v. 2. p. 9. t. 112. Wall. Cat. n. 2429. a. b.*

DR. WALLICH communicated living plants of this fine plant, which NEES VON ESENBECK justly characterizes as "Speciosi

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* So named by Professor NEES VON ESENBECK, from φλοξ, a *flame*, and ακανθος, *Acanthus*, the type of this family; on account of the long spike of yellow or flame-coloured flowers.

"Speciosi generis planta speciosissima," to the noble Collection at Woburn, where they flowered in November, 1839, when Mr. Forbes kindly communicated to me the specimen here represented. It inhabits the mountains bordering on Sylhet, and was thence introduced by Mr. De Silva to the Calcutta Botanic Garden, where it flowers at nearly the same season as in the stove in our country.

Descr. The *plant* forms a Shrub of from four to six feet high, branched, the branches obsoletely quadrangular, downy. *Leaves* opposite, large, eight to ten inches and even a foot or more in length, petiolated, elliptical, acute at both extremities, entire, or sometimes obsoletely crenated, glabrous, with the midrib (which is reddish as well as the young branches) prominent beneath. *Floral leaves*, or *bracteas*, resembling these but infinitely smaller, scarcely an inch long, soon deciduous. *Raceme* erect, terminal, compound, almost a compact *thyrsus*, six to eight inches long. *Pedicels* short. *Calyx* hairy, ovate, cut into five equal, linear-lanceolate, erect segments. *Corolla* reddish-yellow, villous or downy; the *tube* very long, curved, the *limb* two-lipped: upper lip ascending, bifid; lower patent, with three lanceolate lobes. *Stamens* two, perfect, and the rudiments of two others. *Filaments* glabrous, a little exserted. *Anthers* linear-oblong. *Germen* ovato-oblong. *Style* included.

Fig. 1. Portion of the Corolla, with the Stamens. 2. Calyx and Pistil. 3. Ovary:—*magnified.*

W Fitch Del.t

Pub. by S. Curtis Glazenwood House Mar.1 1840

Swan Sc

Lobelia heterophylla. Various-leaved Lobelia.

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Class and Order.

Pentandria Monogynia.

(Nat. Ord.—Lobeliaceæ.)

Generic Character.

Cor. tubo hinc fisso (raro integro); limbo 5-partito. *Antheræ* connatæ. *Stigma* bilobum (nunc indivisum). *Capsula* bilocularis (raro trilocularis), apice supero bivalvi. *Br.*

Specific Character and Synonyms.

Lobelia *heterophylla;* glabriuscula, caule angulato simplici, racemo secundo, foliis crassiusculis, inferioribus dentato-pinnatifidis, superioribus-lanceolatis integerrimis, corollæ labii inferioris lacinia media obcordata, lateralibus dimidiatis.

Lobelia heterophylla. *Labill. Nov. Holl. v.* 1. *p.* 52. *t.* 74. *Br. Prodr. Fl. Nov. Holl. p.* 564. *Lindl. Bot. Reg. t.* 2014.

A species of great beauty, from the very brilliant colour of the flowers. The Glasgow Botanic Garden owes the possession of the plant to Mr. Lowe of the Clapton Nursery. The blossoms, we allow, are not so large as those represented in the Botanical Register; but they are equally large with those of the specimens sent to us from Edinburgh, and with those figured by Labillardiere from native specimens. The species inhabits the southern extremity of New Holland and of Van Diemen's Land. With us, in the greenhouse, it flowers in the autumnal months.

Descr. Herbaceous and nearly glabrous; below more or less downy, erect, branched, one to two feet high. *Leaves* very

very variable in different parts of the stem: the lower ones more or less pinnatifid, with few, linear-oblong segments, some of them again divided or incised, which, however, is by no means the case in all our specimens: the upper ones gradually more entire, and at length altogether linear-lanceolate. The *flowers* form lax, terminal racemes: the pedicels are slender. The *calyx-tube* is cylindrical, tapering at the base: the *teeth* as long as the tube of the corolla, subulate, straight. *Corolla* brilliant, purplish-blue: the *upper lip* of two small, reflexed, subulate, hairy teeth; *lower* of three large lobes, of which the middle lobe is much the largest, obcordate: the lateral ones spreading, dimidiato-obovate. *Anthers* included, all of them bearded.

Fig. 1. Flower:—*magnified.*

LILIUM SPECIOSUM; albiflorum. CRIMSON JAPAN LILY; white-flowered *var.*

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—LILIACEÆ.)

Generic Character.

Perianthium campanulatum, 6-sepalum, regulare, sulcis nectariferis in sepalis. *Capsula* 6-sulca, valvis reticulo fibroso connexis. *Semina* compressa.

Specific Character and Synonyms.

LILIUM *speciosum;* caule erecto ramoso glabro, foliis sparsis ovato-oblongis nervosis petiolatis, ramis unifloris, flore cernuo reflexo, corollis revolutis intus papilloso-barbatis. " *Morren Notice sur un Lis du Japon, p. 2.*"

(α.) *Kæmpferi;* flore pulcherrime roseo.

LILIUM speciosum. *Thunb. in Linn. Trans. v. 2. p. 332.* " *Siebold Fl. Jap. cum Ic.*" *Lindl. Bot. Reg. t. 2000.*

Kasbiako vulgo Konokko Juri. *Kæmpf. Amæn.* 871. *Banks, Ic. Kæmpf. t. 47.*

(β.) *Tametomo;* flore albo, papillis roseis. (TAB. nostr. 3785.)

Not having had the opportunity of seeing the Flora Japonica of Dr. SIEBOLD, I gladly take advantage of an extract from that work relating to this plant, given by Professor LINDLEY under LILIUM *Thunbergianum,* in Bot. Reg. 1839, t. 38. " Among more than twenty kinds of Lily brought by me," says Dr. SIEBOLD, " from Japan to Europe, and deposited in the Botanic Garden of Ghent, are two varieties of L. *speciosum.* To that with flowers rose-coloured, blotched with purple, I give the name of L. *speciosum Kæmpferi,*

Kæmpferi, because it was the indefatigable Botanist Kæmpfer who first made it known to Europeans. For the second, with pure white flowers, I preserve the Japanese name *Tametomo,* which it bears in its own country, in consequence of its having been first brought by that hero from the Loo Choo islands, as the Japanese assert. The beauty and fragrance of the flowers of these two kinds rank them amongst the most magnificent of their Genus."—"The variety *Tametomo,* although it has pleased some Botanists to make a peculiar species of it, under the name of L. *eximium,* differs, nevertheless, only in its flowers being quite white, and the leaves rather more distinctly stalked. According to some of the Japanese Botanists, it is found wild, not only in the Loo Choo islands, but in the North of Japan; but it has, perhaps, been confounded with L. *Japonicum,* which is often wild in those countries."

Our variety is undoubtedly the *Tametomo* of the Japanese. I was much struck with its beauty and fragrance in the dining room of W. Wells, Esq., of Redleaf, Kent, where it was standing at the window. At my request, Mr. Wells most obligingly allowed the flowering portion to be taken and sent to Glasgow to be figured. It is considered a half-hardy bulb, and when more plentiful, it may be found advisable to try it in the open air. It is treated by Mr. Wells's gardener in the same manner as the larger Cape bulbs.

GONOLOBUS HISPIDUS. HISPID GONOLOBUS.

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Class and Order.

PENTANDRIA DIGYNIA.

(Nat. Ord.—ASCLEPIADEÆ.)

Generic Character.

Cor. subrotata, 5-partita. *Corona* staminea scutelliformis lobata. *Antheræ* transversim dehiscentes, membrana terminatæ. *Massæ pollinis* extremitati exteriori respectu loculi affixæ, stigmate tectæ. *Stigma* planiusculo-depressum. *Folliculi* ventricosi, subcostati. *Semina* comosa. *Br.*

Specific Character and Synonym.

GONOLOBUS * *hispidus;* foliis cordato-ovatis acutis nervis caule petiolis pedunculisque hispidissimo-hirsutis, floribus umbellatis, corollis coriaceis, intus basi tuberculosis.

GONOLOBUS hispidus. *Hook. et Arn. Contrib. towards S. Am. Bot. in Hook. Bot. Journ. t.* 295.

This singular asclepiadeous plant, no less remarkable for its dark, lurid-purple-coloured flowers, of a peculiarly thick and coriaceous texture, than for its powerful fragrance, resembling more that of freshly ground roasted peas, but highly concentrated, than any thing else to which we can compare it, is a native of dry situations among withered grass at Entre Rios, South Brazil, and was sent by Mr. TWEEDIE to the Glasnevin Botanic Garden in 1837. In July, 1839, Mr. MOORE communicated the fine flowering specimen from which the accompanying figure is taken, and observes upon it,

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* From γωνια, an *angle*, and λοβος a *pod;* from the ribs or angles of the elongated fruit.

it, " It is a half-herbaceous plant, and I should think will stand the winter of this climate (Dublin) if placed at the bottom of a sheltered wall, and if so, it will be a particularly desirable plant, its very dark, glossy flowers contrasting singularly with the gayer colours of others that may be placed near it. The main stem is now four feet high, and covered with these blossoms."

Descr. *Stem* suberect, scarcely climbing, yet weak, terete, clothed, as are the petioles and peduncles and the nerves and margins of the leaves, with long, rather soft, patent, and somewhat tawny hairs. *Leaves* on petioles about an inch long, cordato-ovate, membranaceous, acute. *Peduncles* axillary, hardly so long as the petioles, bearing an umbel of five to ten *flowers*, bracteated at the base. *Pedicels* scarcely an inch long, thick. *Calyx* with five acute lobes. *Corolla* rotate, very concave, singularly thick and leathery, dark, glossy brown-purple, at the base within beset with small raised points: *lobes* broadly ovate, acute, quite glabrous. *Nectary* of five, erect, dark purple, fleshy, bifid scales, from the base of the corolla. Within this are the five stamens, united into a very short, thick stipes. Between the anthers are two small, diverging lobes or segments. *Retinaculum* brown. *Pollen-masses* yellow. *Pistils* two. *Germens* broadly ovate, rough.

Fig. 1. Portion of the Corolla. 2. Nectary and Stamens. 3. Stamens. 4. Pollen-masses. 5. Pistil :—*magnified.*

W Fitch Del.

Pub by S. Curtis

GESNERIA COCHLEARIS. SPOON-LEAVED GESNERIA.

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Class and Order.

DIDYNAMIA ANGIOSPERMIA.

(Nat. Ord.—GESNERIACEÆ.)

Generic Character.

Cal. 5-partitus, (plerumque germini adnatus). *Cor.* tubuloso-campanulata, limbo bilabiato; labio superiore bi- inferiore-trifido. *Stigma* bilobum. *Capsula* bilocularis, 2-valvis, placentis parietalibus.

Specific Name and Character.

GESNERIA *cochlearis;* herbacea, foliis oppositis sublonge petiolatis cordato-ovatis concavis venoso-rugosis tomentosis acutis crenatis, racemis simplicibus terminalibus, pedicellis elongatis oppositis subverticillatisque, corollæ tubo subtus inflato, limbo 5-lobo obliquo æquali, glandulis hypogynis 2 oppositis inæqualibus.

An inhabitant of the Organ Mountains, whence the roots were sent by Mr. GARDNER in 1837, and these flowered in the stove of the Glasgow Botanic Garden in June, 1839. Its large, thick, concave leaves on rather long petioles, the simple terminal raceme, and moderately large flowers with a nearly equal, spreading limb, will readily distinguish the present from any other species of this numerous Genus with which I am acquainted.

DESCR. *Root* large and tuberous. *Stem* a foot or a foot and a half high, simple, stout, herbaceous, rounded, woolly. *Leaves* large, opposite, petiolate, broadly cordato-ovate, reticulated and wrinkled with the copious nerves, woolly on both sides, the margin crenated: *petioles* stout, two to three inches long. *Raceme* terminal, leafless, bracteated; *bracteas*

teas small, lanceolate. *Pedicels* elongated, slender, opposite or whorled, single-flowered. *Flowers* nearly two inches long. *Calyx* 5-partite. *Corolla* red ; *tube* swollen at the base, and upwards moderately inflated ; the *limb* slightly oblique, of five spreading, nearly equal, obtuse lobes. *Stamens* included. *Germen* broadly ovate, clothed with long, silky hairs. *Hypogynous glands* two, opposite : one large, deeply emarginate, the other small and linear. *Style* included.

Fig. 1. Pistil, with its Hypogynous Glands :—*magnified*.

W.Fitch Del.

Pub by S.Curtis. Glazenwood Essex Mar 1 1840.

BARNARDIA SCILLOIDES. CHINESE BARNARDIA.

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Class and Order.

HEXANDRIA MONOGYNIA.

(Nat. Ord.—ASPHODELEÆ.)

Generic Character.

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*. *Lindl.*

Specific Name and Synonym.

BARNARDIA * *scilloides*. *Lindl. Bot. Reg. t.* 1029.

A peculiar habit in this plant and the colour of the flowers, in conjunction with the solitary, erect seed in each cell of the fruit, fully authorise the constituting a new Genus by Professor LINDLEY. It is a native of China, and seems to have been first imported by Mr. J. D. PARKS from the neighbourhood of Macao. Our plants in the Glasgow Botanic Garden were received from Holland by favour of Mr. M'COY.

DESCR. *Bulb* small, ovate, tunicated. *Leaves* long, linear, channelled, flaccid, tapering at both extremities. *Scape* erect, a foot high, rounded, terminating in a dense *raceme*,

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* So named by Professor LINDLEY in compliment to EDWARD BARNARD, Esq., F. L. S. and H. S. and Vice Secretary of the Horticultural Society of London.

raceme, the lower flowers only being rather lax. *Pedicels* short, with a very minute, membranaceous bractea at the base. *Perianth* rose-colour, tipped with green, of six spreading, obovate, concave pieces. *Stamens* nearly erect, subulate, much dilated at the base, arising from the base of each segment of the perianth. *Anthers* broadly oblong; yellowish. *Ovary* subglobose, tapering gradually into the style, which is about equal in length with the stamens, tipped with rose-colour. *Stigma* a mere point.

Fig. 1. Flower: *magnified*.

Pub. by S. Curtis Glazenwood Essex Apr.ˡ 1 1840.

CEREUS MULTIPLEX. PROLIFEROUS CEREUS.

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Class and Order.

ICOSANDRIA MONOGYNIA.

(Nat. Ord.—CACTEÆ.)

Generic Character.

Sepala numerosissima imbricata, basi ovario adnata, in tubum elongatum concreta, exteriora breviora calycinalia, media longiora colorata, intima petaliformia. *Stamina* numerosissima cum tubo concreta. *Stylus* filiformis, apice multifidus. *Bacca* areolata, sepalorum reliquiis squamata aut tuberculosa. *Cotyledones* acuminatæ.—Frutices *carnosi, subglobosi vel elongati, stricti, articulati vel repentes, axi ligneo interne medullifero donati, angulis verticalibus, spinarum fasciculos gerentibus vel inermibus, regulariter sulcati.* Anguli *seu alæ nunc plurimæ, nunc paucissimæ, rarius duæ tantum, et tunc rami compresso-aluti inermes.* Flores *ampli e spinarum fasciculis lateralibus trunci aut ramorum vetustiorum, aut crenis angulorum orti.* Fructus *oviformes, plerumque anno sequente maturascentes, edules. Pfeiff.*

Specific Character and Synonyms.

CEREUS *multiplex;* obclavatus viridis e lateribus copiose prolifer basi lignea attenuatus, vertice umbilicato, sinubus latis, costis 13 verticalibus acutis, areolis ovalibus tomentosis flavo-griseis, aculeis rigidis aicularibus, centralibus 4, basi et apice nigricantibus, infimo longissimo, exterioribus 9—10 brevioribus flavescentibus, irregulariter radiantibus, summis et infimis brevissimis. *Pfeiff.*

CEREUS multiplex. *" Hort. Berol."—Pfeiff. Enum. Cact. p.* 70.

ECHINOCACTUS multiplex. *" Hort."*

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A native, according to PFEIFFER, of South Brazil. Our drawing was kindly made by Mrs. STANNARD from a flowering plant in the rich collection of Messrs. MACKIE of Norwich. The great size of the flower in proportion to that of the plant, and the delicacy and richness of colour of the petals, render this a most desirable plant for cultivation in every collection of succulents. Not having had the opportunity of seeing the specimen itself, our description is necessarily taken from the drawing, which certainly represents the spines somewhat different from what they are described to be by PFEIFFER.

DESCR. *Plant* somewhat globose, but gradually tapering into the woody, irregularly wrinkled base, so that its shape is broadly pyriform (PFEIFFER calls it obclavate). The height is about six inches, and the diameter, in the broadest part, about five. Our specimen does not exhibit the proliferous appearance, whence the name has been derived. The surface is deeply marked with about thirteen deep furrows, and of course as many ridges which are prominent, acute, somewhat sinuated at the keel, and there beset with thickly downy, oval areolæ, about two lines long, and placed about an inch asunder. *Spines* ten to twelve, the central one longer and stronger than the rest, especially in the upper areolæ, where they are represented of an uniform, deep, tawny colour, while those on the sides are more regular in size and variegated with dark brown and white. *Flower* six or eight inches long and almost as much across when fully expanded. *Tube* long, clavate, thickly clothed at the base with short tufts of dense, white hairs, while the rest of the tube is beset with longer and dark-coloured ones. *Petals* numerous; outer ones narrow-lanceolate, gradually becoming shorter and broader, so that the innermost ones are almost ovate and acuminate, all of a most delicate rose-colour, deeper towards the apex. *Stamens* numerous, inserted at the mouth of the tube. *Filaments* white. *Anthers* rounded, yellow. *Style* as long as the tube, white. *Stigma* of six or seven linear rays.

W Fitch Del.

Pub by S. Curtis. Glazenwood Essex Apr.1 1840

OSBECKIA CANESCENS. HOARY-LEAVED OSBECKIA.

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Class and Order.

OCTANDRIA MONOGYNIA.

(Nat. Ord.—MELASTOMACEÆ.)

Generic Character.

Calycis tubus ovatus, sæpius setis stellatis aut pube stellatâ vestitus; lobi 4—5 persistentes aut decidui; appendices inter lobos extus ortæ, forma et magnitudine variæ. *Petala* 4—5. *Stamina* 8—10, filamentis glabris, antheris subæqualibus brevi-rostratis connectivo basi breve biauriculato. *Ovarium* apice setosum. *Capsula* 4—5 locularis. *Semina* cochleata.—Herbæ *aut sæpius* suffrutices *Americanæ, Africanæ, aut Asiaticæ.* Folia *integerrima* 3—5 *nervia.* Flores *terminales.* *D C.*

Specific Name and Character.

OSBECKIA *canescens;* caule fruticoso, erecto; foliis cordato-ovatis, obtusis, utrinque tuberculatis, subtus incanis; paniculis terminalibus axillaribusque; bracteis ovatis, caducis; floribus erectis; calycibus ovatis, 5-fidis, tuberculato-incanis; petalis obovatis, glabris; staminibus 10 fertilibus, connectivis inæqualibus. *Graham.*

This is an extremely handsome plant, and flowers very freely in moderate heat in July and August. We received it at the Botanic Garden, Edinburgh, from Berlin, under the name adopted; but I have not seen any account of it published; nor was its native country communicated to me.

DESCR. *Stem* (seven feet high) weak, requiring support, four-sided, rough, hoary: *branches* erect. *Leaves* (three inches long, an inch and three quarters broad) shortly petiolate,

petiolate, opposite, decussating, subcordato-ovate, blunt, five to seven-nerved, spreading, deflected when old, tubercular on both sides, bright green above, hoary below. *Peduncles* axillary and terminal, often divided, many-flowered; *flowers* in panicles at the extremity of the branches. *Bracteæ* solitary at the origin of the pedicels, concave, ovate, caducous, articulated at the base. *Calyx* on the outside like the pedicels and the greater part of the plant, hoary, within glabrous; *tube* ovate; *limb* five-partite, segments ovato-deltoid, spreading, with alternate, external, filamentous, erect appendages. *Flowers* (an inch and a half across) very numerous, very handsome; *petals* obovate, scarcely emarginate, cuneate towards the base, glabrous, reddish-lilac above, paler below, inserted into the throat of the calyx. *Stamens* ten, all fertile, declined; *filaments* glabrous, about half as long as the petals, inserted into the throat of the calyx; *anthers* purple, compressed laterally, undulate along the face, nearly straight, opening by a pore at the apex; *connective* bright red, in five, (in which the anthers are erect,) having a sessile, emarginate, yellow auricle at the base; in the other five, twice as long as the anthers and ascending, the auricle being elongated, subemarginate, and yellow. *Pistil* about as long as the longest stamens; *stigma* blunt, small, greenish; *style* glabrous, declined in the opposite direction from the stamens, very slightly tapering upwards, articulated at its base; *Germen* hoary, naked and blunt at the apex, included within the calyx-tube, of five blunt lobes, adhering to the calyx at the angles only, five-locular, dissepiments alternating with the lobes; *placentæ* central; *ovules* numerous. *Graham.*

Fig. 1. Calyx. 2. Stamens. 3. Pistil:—*magnified.*

Pub by Curtis's Botanical Mag. Essex April 1854

EPIDENDRUM DENSIFLORUM. CLUSTER-FLOWERED EPIDENDRUM.

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ.)

Generic Character.

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

Specific Name and Character.

EPIDENDRUM *densiflorum;* caule elongato tereti folioso, foliis ellipticis coriaceis acutis, pedunculo terminali ramoso, floribus densissime spicatis, petalis anguste spathulatis, labello orbiculari trilobo, lobo medio brevissimo bilobo laciniis ovatis acutis patentissimis.

A very fine new EPIDENDRUM, native of Mexico, whence it was sent by Mr. PARKINSON to the Woburn collection, where it blossomed in great perfection in September, 1839. Its elongated, rounded stems, its very long, branched peduncle, densely spiked flowers, narrow petals, and peculiar shape of the labellum, will readily distinguish this from every species of the Genus hitherto described.

Descr. *Stem* a foot and more high, sending out fleshy, vermicular roots from near the base, about as thick as one's finger, terete, bearing several alternate, coriaceous, oblongo-elliptical, rather acute *leaves*, from four to nearly six inches long. This stem bears at its apex a long, branched peduncle, distinctly furrowed, the branches (except the terminal one) deflexed, all of them clothed with dense, spiked *flowers* of a greenish-brown colour; the *lip* and *column* alone being almost white. *Perianth* spreading. *Sepals* oblongo-obovate, rather obtuse. *Petals* rather shorter than the sepals, very narrow, spathulate. *Lip* with its lower part united to the clavato-cylindrical *column*, the upper part projecting beyond the column, large, orbicular, three-lobed, the middle lobe very short, and again two-lobed, the lobes or segments ovate, acute, spreading: at the base are two oval *tubercles* immediately beneath the apex of the column.

Fig. 1. Portion of a Flower. 2. Pollen-masses:—*magnified.*

W. Fitch del.t Pubd by S. Curtis Hammond Essex Apr.1 1840 Swan Sc.

STEVIA BREVIARISTATA. SHORT-AWNED STEVIA.

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Class and Order.

SYNGENESIA ÆQUALIS.

(Nat. Ord.—COMPOSITÆ.)

Generic Character.

Capitulum 5-florum. *Involucrum* cylindricum squamis 5—6 acutis acuminatisve subæqualibus. *Receptaculum* nudum. *Achænium* striato-nervosum angulatumve elongatum. *Pappus* paleis 1-serialibus nunc in iisdem aut sæpius in diversis individuis omnibus scariosis planis parvis, nunc aliis scariosis, aliis (pler. alternis) in aristas 1—5 rigidis margine scabras abeuntibus, nunc omnibus (pler. 5—20) in aristas mutatis. *D C.*

Specific Character and Synonyms.

STEVIA * *breviaristata ;* glabriuscula, foliis ovatis seu ovato-lanceolatis trinerviis grosse obtuse serratis in petiolum attenuatis, corymbis dense capitatis, involucro pubescenti-viscoso, pappi aristis tribus quarum duabus subulatis corollæ tubo 4-plo brevioribus tertia minutissima.

STEVIA breviaristata. *Hook. et Arn. Contrib. towards a Flora of S. Am. in Hook. Comp. to Bot. Mag. v.* 1. *p.* 238.

This very pretty STEVIA is an inhabitant of Tucuman in South America, where it was found among other rarities by Mr. TWEEDIE, and whence specimens and seeds were sent in 1836.

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* So named by CAVANILLES in memory of PIERRE JACQUES ESTEVE, a Spanish Physician of the sixteenth century, who wrote a "*Dictionary of the Plants of the Kingdom of Valentia.*"

1836. Flowering plants appeared in the stove of the Glasgow Botanic Garden in July, 1837. The description of the pappus is by no means so accurate as it ought to be in the work above quoted. The awns are three, it is true, and short ;—but one is always very much smaller than the other two.

Descr. *Plant* two to three feet high, branched. *Branches* downy ; flowering ones opposite. *Leaves* opposite, nearly glabrous, ovate acuminate, three-nerved, coarsely serrated, attenuated, but not petiolated at the base, pale beneath, upper ones lanceolate. *Capitula* collected into very dense pedunculated heads. *Involucre* cylindrical, of about five to six narrow-lanceolate *leaflets*, in a single series, clothed with glutinous down, five or six-flowered ; *flowers* much exserted. *Corolla* beautiful rose colour : *tube* long, clavate, slender, downy ; *limb* of five deep, spreading, oblong segments. *Anthers* almost wholly included within the tube, yellow. *Branches* of the *style* very long, wholly exserted, filiform, but slightly attenuated at both extremities and downy. *Achenia* (black when ripe) long, narrow, four-sided, with the angles margined and scabrous, as long as the involucre. *Pappus* of three rather strong, rigid awns, of which two are subulate, about one-fourth the length of the achenium ; the third very small, short, broad and acute, all of them smooth.

Fig. 1. Capitulum. 2. Flower. 3. Scarcely mature Achenium :—*magnified.*

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Pub by S Curtis Glazenwood Essex Apr.1 1840.

MILTONIA CANDIDA; *var.* flavescens. WHITE-LIPPED MILTON; yellow *var.*

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Class and Order.

GYNANDRIA MONANDRIA.

(Nat. Ord.—ORCHIDEÆ:)

Generic Character.

Perianthium explanatum; *sepala* lateralia, patula, libera, petalis conformibus. *Labellum* sessile, integrum, explanatum v. cucullatum, apice rotundatum, venis baseos pluries tuberculato-lamellatis. *Columna* nana semiteres aurita. *Pollinia* 2, caudiculæ adnata.—Herbæ *epiphytæ, pseudo-bulbosæ*. Flores *speciosissimi*. *Lindl.*

Specific Character and Synonyms.

MILTONIA * *candida;* pseudo-bulbis ovatis apice angustatis diphyllis, foliis angustis racemo brevioribus, bracteis ovatis membranaceis concavis squamæformibus, sepalis petalisque oblongis æqualibus, labello subrotundo crispo circa columnam convoluto basi 5-lamellato, columna pubescente basi biauri, clinandrio crispo membranaceo-marginato utrinque in alam decurrente. *Lindl.*

MILTONIA candida. *Lindl. in Bot. Reg. Misc. n.* 29. *Sertum Orchidaceum, p.* 21.

(β.) columna labelloque flavescentibus. *(Tab. nostr.* 3793.)

For the specimen of this charming plant, I am indebted to Mr. MOORE of the Glasnevin Botanic Garden. It is a native

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* So named by Dr. LINDLEY in honor of the Right Hon. Lord FITZWILLIAM, a distinguished cultivator of Orchideous plants.

native of Brazil, whence the pseudo-bulbs were originally imported by the Earl of Arran, who has been indefatigable in introducing rare plants to the gardens of this country: and to whom we had dedicated the species just before its appearance in Dr. Lindley's splendid work on Orchidaceæ above quoted. There can be no doubt, I think, of the two plants being the same, though the colour of the lip from which the specific appellation is derived is at variance with its name:—here being yellowish with a tinge of purple. The column, on the other hand, in our plant, is white, or pale yellowish-white, in Lindley's plant purple. Both states are very beautiful, and highly worthy of a place in every tropical collection of Orchideæ. It flowered in October, 1839.

Descr. *Pseudo-bulbs* oblong, broader at the base, even on the surface, partially sheathed below by two *leaves*, and bearing two leaves at the apex. These leaves are linear-oblong or ligulate, nerveless, shorter than the *scape*, which arises from the axil of the leaves at the base of the bulb, and is a foot and a half to two feet high, bearing a *raceme* of large, handsome *flowers*, each subtended by an ovato-lanceolate, appressed, squamiform *bractea*. *Sepals* and *petals* nearly uniform, spreading horizontally, oblong, rather acute, waved, bright yellow, with large, ferruginous blotches. *Lip* standing forward, broadly-obovate, subrotundate, obscurely lobed, waved and crisped, the base convolute about the column, bearing five small lamellæ, the rest spreading; the colour yellowish, with a faint blotch of purple. *Column* short. Margin of the *stigma* reddish; this is surrounded by the membranous *apex* of the *column* (or *clinandrium*) which is crisped, with two teeth or little ears at the base, and denticulate at the extremity. *Anther-case* hemispherical, yellow. *Pollen-masses* two, with a *caudiculus*, and an oblong, brown gland.

Fig. 1. Lip. 2. Front view, and f. 3, side view of the Column. 4. Anther-case. 5, 5. Pollen-masses, anterior and posterior view:—*magnified*.

W. Fitch Delt. Pub. by S. Curtis Glazenwood Essex Apr.1 1840 Swan Sc.

Brassia Lanceana; *var.* viridiflora. Mr. Lance's Brassia; green-flowered *var.*

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Class and Order.

Gynandria Monandria.

(Nat. Ord.—Orchideæ.)

Generic Character.

Perianthium explanatum. *Sepala* et *petala* angusta, libera, æqualia; his nunc minoribus. *Labellum* planum, indivisum, ecalcaratum, columna continuum, basi bi-cristatum. *Columna* libera, aptera, nana. *Anthera* 1-locularis. *Pollinia* 2, postice sulcata, *caudiculâ* brevi, *glandulâ* crassa. —Epiphytæ *pseudo-bulbosæ.* Folia *pergamenea.* Scapi *radicales vaginati.* Flores *speciosi, spicati. Lindl.*

Specific Character and Synonyms.

Brassia *Lanceana;* sepalis ovato-lanceolatis acuminatis, labello oblongo-acuminato undulato sepalis lateralibus duplo breviore. *Lindl.*

Brassia Lanceana. *Lindl. Bot. Reg. t.* 1754. *Hook. Bot. Mag. t.* 3577.

(β.) floribus viridibus, petalis sepalisque longioribus angustioribusque. *(Tab. nostr. 3794.)*

Communicated by C. S. Parker, Esq., from his collection at Annesley, near Liverpool. That gentleman imported the plant from Demerara, and it blossomed in his stove in September, 1839. In the opinion of many Botanists this would, probably, be taken up as a new species; but experience has shown me that there is no set of plants so liable to vary in cultivation, and probably also in their native climate, as the tropical Orchideæ. I would rather be disposed to consider this as a connecting link to unite

unite B. *Lanceana* with B. *caudata*: but I am by no means prepared to say that such is the fact. It is, like the original B. *Lanceana* and B. *caudata*, deliciously fragrant.

Descr. *Pseudo-bulbs* oblong, compressed, obscurely furrowed, with generally a large, leafy scale at the base on each side, and bearing two oblong-lanceolate *leaves* at the extremity, striated above, but beneath the striæ are obsolete. *Scape*, from the axil of a leaf at the base of this pseudo-bulb, a foot or more high (including the raceme), green, tinged with deep purple. *Flowers* six to eight on the scape, large, fragrant; the ground colour yellowish-green. *Upper sepal* the longest, lateral ones and *petals* equal, all linear-lanceolate, much acuminated, marked with large brown blotches. *Lip*, in regard to shape, as in B. *Lanceana*, but the acuminated apex is more reflexed, and it is dotted with small brown spots.

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