The Botanic Garden;

Consisting of

Highly finished Representations

OF HARDY

ORNAMENTAL FLOWERING

PLANTS,

CULTIVATED IN GREAT BRITAIN,

WITH

Their Classification, History, Culture,

AND

OTHER INTERESTING INFORMATION.

BY

B. MAUND, F.L.S.

Vol.

LONDON

SIMPKIN AND MARSHALL, STATIONERS HALL COURT;

AND

SHERWOOD AND Co. PATERNOSTER ROW.

Smith pinx.t per Watts flor. sculp.t

Penner scripsit

THE

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CONSISTING OF

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WITH

THEIR NAMES, CLASSES, ORDERS, HISTORY, QUALITIES, CULTURE, AND PHYSIOLOGICAL OBSERVATIONS.

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B. MAUND, F.L.S.

VOL. VIII.

"Not a tree,
A plant, a leaf, a blossom, but contains
A folio volume. We may read and read
And read again, and still find something new,
Something to please, and something to instruct."

HURDIS.

London:

SIMPKIN AND MARSHALL, STATIONERS' HALL COURT:
SHERWOOD AND CO., PATERNOSTER ROW.

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ALSTRŒME'RIA AU'REA.

GOLDEN-FLOWERED ALSTRŒMERIA.

Class. HEXANDRIA. *Order.* MONOGYNIA.

Natural Order. AMARYLLIDACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Chile.	3 feet.	June, July.	Perennial.	in 1831.

No. 673.

The genus Alstrœmeria was named by Linneus after his Spanish friend, Claudius Alstrœmer.

For the introduction of this showy plant, Great Britain is indebted to Mr. Anderson, the indefatigable collector, who accompanied Captain King on his South American voyage of discovery.

All the species of Alstrœmeria produce very attractive flowers, but they are not all alike hardy. We have several in cultivation, and shall figure such of them as from experience we find desirable for culture as hardy or half-hardy plants.

A curious instance of the ever-varying operations of nature is exhibited by the leaves of Alstrœmeria. Mr. Brown was the first who discovered it. Their upper surface possesses the peculiar structure, and performs the functions, of the under surface of those of other plants. The leaves twist round to present their under surface to the usual position of the upper, and become what is termed resupinate.

The present species increases rapidly, and should be planted at the foot of a south wall, in very sandy compost. In severe frosts a little straw should be thrown over the roots.

Bot. Mag. 3350.

LUPI'NUS MACROPHYL'LUS.

LARGE-LEAVED LUPINE.

Class. DIADELPHIA. *Order.* DECANDRIA.

Natural Order. LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
America.	4 feet.	June, July.	Perennial.	in 1835.

No. 674.

Lupinus, see No. 310. Macrophyllus is derived from the Greek MAKROS, long or large; and PHULLON, a leaf.

This must be considered the finest, indeed we may be allowed the epithet, most splendid, species of Lupine at present in our gardens. Its dense racemes of flowers, from a foot to two feet long, make the plant remarkably striking. Its flowers do not possess the variety of tint which is common to Lupinus tomentosus, but they are, notwithstanding, very variable, occurring in some cases, of a brownish purple, in others of a deep bright purple, and of every intermediate tint.

This species very much resembles Lupinus polyphyllus, No. 291, but is of more robust habit, has larger leaves, with darker coloured flowers; and the whorls of flowers are more crowded than in polyphyllus.

Lupinus macrophyllus may be divided at the root, but when increase is required it is far better to raise seedlings. This should be done in spring, and when the plants are two or three inches high, they should be planted where they are intended to remain.

Sweet's Fl. Gar. s. 2, 356.

VIO'LA PALMA'TA.

Var. Variegata.

VARIEGATED PALMATE VIOLET.

Class.	*Order.*
PENTANDRIA.	MONOGYNIA.

Natural Order.
VIOLACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America.	$\frac{1}{2}$ foot.	May, June.	Perennial.	in 1752.

No. 675.

For the origin of the word Violet, see No. 663.

As the fabulists of olden times mingled poetical ideas with the origin of the Violet, so the poets of our own day take it, like the Rose and the Lily, as one of their favourite themes. Our present plant does not, however, claim praise at their hand for its odour, since it has none of the fragrance of the wild tenant of the banks; but the gay variety of its variegated flowers, and their long continuance, recommend it to every one; or at least to all who possess a soul that can be touched by the beauties of creative wisdom; those beauties which are spread out on the face of nature to excite our admiration, and afford enjoyment through the avenues of a grateful heart. Who is there that cannot join Milton in his warmest praise!

"These are thy glorious work, Parent of good;
Almighty! thine this universal frame,
Thus wondrous fair! thyself how wondrous then!
Unspeakable! who sittest above these heavens,
To us invisible, or dimly seen
In these thy lowliest works: yet these declare
Thy goodness beyond thought and power divine."

The cultivation of the variegated palmate Violet requires but little comment, for if due attention be given to shading it after transplanting, it may be divided at any time of the year, but when the cultivator has the choice of season, spring and autumn are of course to be preferred. A cool situation and light soil suit it admirably.

We may here, not inappropriately, add a few observations on the Viola odorata. The plant known as the Neapolitan Violet, is a mere variety of the Viola odorata, or common sweet-scented Violet, and is superior to every other for forcing. It is double, but paler coloured than the common one. It is valuable, inasmuch as its flowers may be obtained in the winter season, by the following mode of culture. In May take young plants from the runners; or cuttings may be struck under a hand-glass a month earlier. Plant them on a nursery bed of light rich soil, six inches apart. At the end of July a bed should be prepared to correspond with the size of a spare cucumber or other frame which must be used for protecting the violets during winter. It should be composed, to the depth of a foot, of fresh loam, decayed leaves, peat, old hot-bed manure, and sand; or of such of these as are convenient, so as to form a rich light compost. Adjust the frame to the bed; transplant the Violets, with balls of soil about their roots, six inches apart within the frame. If it be preferred the frame may be dispensed with till the end of September, when it should be fixed over the plants, and the lights used when cold nights ensue. Give air during fine weather, and protect securely against frost.

Don's Syst. Bot. v. 1, 321.

STA'CHYS COR'SICA.

CORSICAN STACHYS.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
LABIATÆ.

Native of	Height	Flowers in	Duration.	Introduced
Corsica.	$\frac{1}{2}$ foot.	July & Aug.	Perennial.	in 1823.

No. 676.

The generic name, Stachys, is derived from the Greek word STACHUS, a spike; because, as Sir. J. E. Smith says, the flowers, though whorled, are more crowded into a spiked form than most others of the same natural order.

Botanical writers enumerate upwards of a hundred species of Stachys, five of which are British. Some of these seem to have been held formerly in esteem for their properties of cleansing and healing wounds. One species—the Stachys coccinea, a native of South America, is a greenhouse plant of considerable beauty, but it has of late given place to the more splendid plants from the same country belonging to the genus Salvia.

The Stachys Corsica grows compactly together, forming a neat tuft of foliage, mingled with flowers during two months of the middle of summer, and is deserving of culture either in the borders, on rock-work, or in pots; in either of which situations it will grow freely, provided the soil be light and dry. When planted in a favourable situation it will ripen seeds, from which it may be increased as well as by division of its roots.

Don's Syst. Bot. 4, 829.

Helianthemum rhodanthum. 2/3

Nonea flavescens. 2/3

Echinacea heterophylla 2/3

Phyteuma Halleri. 2/3

HELIAN'THEMUM RHODAN'THUM.

RED-FLOWERED SUN-ROSE.

Class.	*Order.*
POLYANDRIA.	DIGYNIA.

Natural Order.
CISTACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Spain.	6 inches.	May, July.	Perennial.	in 1800.

No. 677.

From the Greek words HELIOS, ANTHOS, sun-flower, has been formed the present word, Helianthemum. Although it is not so powerfully influenced by the sun as continually to turn in obedience to the apparent daily course of that luminary, which has been asserted of some plants, its flowers are more dependent on direct exposure to its rays, than are those of many similar shrubs. They not only open more freely in bright sunshine, but sometimes in wet and cloudy weather, the flower buds of some of the Helianthemums will decay without expanding at all.

This is a completely hardy little plant, and remarkably ornamental on sloping banks, exposed to a southerly aspect, or on rock-work. They will always be found to luxuriate in a light soil, resting on a dry subsoil, if the situation have a favourable exposure to the sun. The cultivator may take a lesson from nature, by remarking the situation in which our English species, the Helianthemum vulgare, flourishes and displays its bright yellow flowers. It will be found to be a dry southerly or eastwardly bank of sandy or loamy soil. It is

a highly attractive family, and the section of it now called Helianthemum, but formerly belonging to the genus Cistus, is so easily managed, and requires so small a space, that we recommend an extensive selection from its species and varieties to the especial notice of our readers. In the whole there are upwards of a hundred species, and of these about one half may be readily obtained, some single and others double, displaying numerous tints of yellow, white, and crimson, and almost every variation that can be produced by compounding these colours. It is true the flowers of Helianthemum are evanescent, and remind us of the words of the poet:

> "Frail plant! whose early buds display
> Their beauties to the opening day,
> And fade with its declining ray,
> To bloom no more."

But the human mind is wont to seek relief from Hope, which in this instance consolingly tells us

> "Fresh buds the morning will bestow,
> The cheering sun again will glow,
> And gentle zephyrs round them blow,
> Each changing day."

We cannot withhold a few lines of Mrs. Hemans,' which appropriately present themselves as a moral:

> "Yet is not life, in its real flight,
> Mark'd thus—e'en thus—on earth,
> By the closing of one hope's delight,
> And another's gentle birth?
>
> O let us live, so that flower by flower,
> Shutting in turn, may leave
> A lingerer still for the sunset hour,
> A charm for the shaded eve."

Don's Syst. Bot. 1, 313.

NO'NEA FLAVES'CENS.

YELLOWISH-FLOWERED NONEA.

Class. PENTANDRIA. *Order.* MONOGYNIA.

Natural Order. BORAGINACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
Caucasus.	1 foot.	May.	Biennial.	in 1834.

No. 678.

The generic name, Nonea, was established by Mœnch, in honour of J. P. Nonne, a German botanist, and author of a local Flora. The genus has been principally made up of species from Anchusa and Lycopsis. From Anchusa it differs in the bearded throat and funnel shape of its corolla. From Lycopsis it may be distinguished by the straight tube of its corolla—that of Lycopsis being incurved.

Nonea flavescens, as well as being a native of the Caucasian mountains, has been found in the island of Sara. The natural order to which it belongs—Boraginaceæ, contains several well-known dye plants, particularly the Anchusa tinctoria or Alkanet of the shops.

This native of the north of Europe, has proved to be a completely hardy biennial plant, and was raised in the Birmingham Horticultural Society's Garden, from Russian seeds, received there in 1834. If permitted to scatter its ripened seeds, during the summer and autumn, young plants will spring up and continue flowering in succession through the whole of the following summer.

Don's Syst. Bot. 4, 337.

ECHINA'CEA HETEROPHYL'LA.

VARIABLE-LEAVED ECHINACEA.

Class.	*Order.*
SYNGENESIA.	FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	$1\frac{1}{2}$ feet.	October.	Perennial.	in 1829.

No. 679.

Echinacea is a word deduced from the Greek ECHINOS, a hedge-hog, in allusion to the bristly chaff of the receptacle.

This is a bold handsome plant as a border ornament, nearly related to Rudbeckia; indeed, by Linneus, it would have been considered as one of that genus. It was introduced from Mexico to the Royal Botanic Garden of Madrid, many years ago, but perished there, and seems to have been lost sight of by botanists, till seeds of it were imported by Mr. Lambert, and the late Mr. Barclay of Bury Hill, from which plants were raised and distributed to various individuals in the neighbourhood of London.

The Echinacea heterophylla has a tuberous root, which would be destroyed if exposed to the effects of frost, therefore it will be necessary to take it up, in autumn, and pot it, and give it protection in a well-secured cold frame, or in a house, till the following May, when it should be again turned into the open ground. It should be planted at the foot of a southern wall, in a sandy soil. It does not admit of frequent division, but this is unimportant, since it may be raised from seeds.

Sweet's Fl. Gard. s. 2, 22.

PHYTEU'MA HALLE'RI.

HALLER'S RAMPION.

Class. PENTANDRIA. *Order.* MONOGYNIA.

Natural Order. CAMPANULACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Switzerland.	$2\frac{1}{2}$ feet.	June.	Perennial.	in 1822.

No. 680.

Phyteuma is a word of Greek origin, from PHUTEUO to sow, which probably had reference to the free produce and dispersion of the seeds of the original Phyteuma.

This pretty species of Phyteuma, like orbiculare, published under No. 158, exhibits the peculiarity which attaches to almost every plant of the genus. Its corolla is composed of five segments, and on examination it will be observed that the segments become detached from each other at their base, whilst their tops still adhere together. They ultimately part from each other, except in one or two species. But for the shape of the corolla of Phyteuma all its species much resemble Campanula.

This is a rare and very hardy plant which may be cultivated in the open ground, or in pots with other alpines. Its root is more inclined to a tuberous formation than others of the genus, and usually has but a single bud at its crown, consequently cannot be much increased by division. It may, however, be propagated from seeds which are frequently ripened. These should be sown in spring, and forwarded in a hotbed.

Don's Syst. Bot. 3, 748.

Menziesia coerulea.

Cytisus racemosus.

Anotis cililosa.

Crucianella stylosa.

MENZIE'SIA CŒRU'LEA.

BLUE MENZIESIA.

Class OCTANDRIA. *Order.* MONOGYNIA.

Natural Order. ERICACEÆ.

Native of	Height.	Flowers in	Duration.	Inhabits
Scotland.	6 inches.	June, July.	Perennial.	Mountains.

No. 681.

The name, Menziesia, was adopted in honour of Mr. Menzies, see No. 89. This plant was called an Adromeda by Linneus, Erica by Willdenow, Menziesia by Swartz, and Phyllodoce by Salisbury. It has been arranged under the last mentioned genus, by George Don, in his General System of Gardening and Botany, but we have preferred retaining it in Menziesia, in which the other species of Phyllodoce may, without much violence to Botanical distinction be retained.

Menziesia cœrulea has generally been accounted a native only of the highland mountains of Scotland, but has lately been discovered in North America, even in as high a latitude as the north-west coast of Labrador. Its general appearance is so analagous to that of a heath, that, in cultivation, it should form one amongst this genus of plants.

When planted out in the garden it should have a shady situation, with fine sandy peat soil; and if kept in pots, it requires a good supply of drainers. It is most conveniently increased by pegging down the young branches as they advance, and covering them with suitable soil.

171 Don's Syst. Bot. 3, 833

CY'TISUS RACEMO'SUS.

RACEME-FLOWERED CYTISUS.

Class.	*Order.*
MONADELPHIA.	DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
S. Europe.	3 feet.	April, June.	Perennial.	in 1835.

No. 682.

Cytisus, a name adopted from the isle of Cynthus, one of the Cyclades, see No. 149.

This elegant free-flowering shrub must be esteemed an acquisition to any garden or shrubbery; but having been sent into collections as completely hardy, we must caution our readers from relying too implicitly on this character.

In a sheltered situation, where the soil is light, and above all, having a dry subsoil, it will generally bear the rigour of our variable climate; but in damp exposed ground, it will be destroyed, unless temporary protection be afforded it in frosty weather. It is an abundant flowerer, and continues in gaiety two months at the least, its blaze of yellow reminding us of that most poetical verse in the first book of Maccabees,* where the author describes the army of King Antiochus.

> "The sun shone upon the shields of gold and brass, the mountains glistered therewith, and shined like lamps of fire."

This shrub may be grown in pots of sandy loam and peat; and propagated from cuttings, which will strike in sand, under glass.

* c. 6, v. 39. Gard. Mag. 13, 361.

ANO'TIS CILIOLO'SA.

CILIATED-LEAVED ANOTIS.

Class.	*Order.*
TETRANDRIA.	MONOGYNIA.

Natural Order.
RUBIACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
N. America.	6 inches.	June, Sept.	Perennial.	in 1832.

No. 683.

The generic name, Anotis, has been formed from the Greek, to indicate the absence of ears, or accessory teeth, from the calyx.

The genus Houstonia, as originally constituted, has long been known to cultivators of the flower garden, and the plant now under consideration will be recognized as one of its near allies. Houstonia cœrulea of this work, No. 493, now ranks in the genus Anotis.

Anotis ciliolosa is one amongst the most desirable of low plants, on account of the perpetual presence of its flowers, during the principal months of the summer. It may be strictly considered an alpine plant, and will require the treatment adapted to this interesting portion of garden occupants. It should be planted in sandy peat, have a good supply of potsherds at the bottom of each pot, and in winter be protected in the cold frame. If turned into the borders in May, it will flower freely till autumn, when it must be taken up with soil about its roots, and potted, preparatory to its proper winter treatment. When the plants are strong, it may be divided at any season of the year.

Don's Syst. Bot. 3, 535.

CRUCIANEL'LA STYLO'SA.

LONG-STYLED CROSSWORT.

Class. TETRANDRIA. *Order.* MONOGYNIA.

Natural Order. GALLACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
Persia.	$1\frac{1}{2}$ foot.	July.	Perennial.	in 1836.

No. 684.

The name of this genus has been formed as a diminutive of crux, a cross; in allusion to the foliage of some of the species which have four leaves in a whorl; hence it is also called Crosswort.

The advantages offered by this pretty newly-introduced plant are fourfold. It may be grown in tufts, in the borders, amongst other herbaceous plants, where, being tied up, it will form a delicately tinted little bush; or, it may be grown in pots, and if kept in poor soil, with little pot room, will flower when much shorter in the stem than in the borders. For rock-work it is particularly suitable, for here it will recline upon the rugged fragments, blending its soft tints with the fleshy hue of the fellspar, or rise in stronger relief from the dark flint and trap rock. It will here flourish as where first discovered on the Persian mountains, overlooking the fruitful province of Ghilan, or on the more northerly far-extended range of Caucasus. Last of all, it is admirably calculated for filling up entire beds in geometric gardens; or where irregular parterres blend their wavy lines unconformably with each other—styles of decora-

tion, which should not be driven from their proper places because a closer adherence to nature points out the absurdity of their universal adoption. Gardening, as is truly said by a writer in the Edinburgh Encyclopædia "is an imitative art, like painting or poetry, and is governed by the same laws. The ancient style is an inventive and mixed art, like architecture, and governed by the same principles. The beauties which architecture and geometric gardening aimed at, were those of art and utility, in which art was every where avowed. The modern style of gardening, and the arts of poetry and painting, imitate nature; and, in doing so, the art employed is studiously concealed. Those arts, therefore, can never be compared, whose means are so different; and to say that landscape gardening is an improvement on geometric gardening, is a similar misapplication of language, as to say that a lawn is an improvement of a cornfield, because it is substituted in its place. It is absurd, therefore, to despise the ancient style, because it has not the same beauties as the modern, to which it never aspired. It has beauties of a different kind, equally perfect in their manner as those of the modern style, and equally desirable under certain circumstances. The question, therefore, is not, whether we shall admit occasional specimens of obsolete gardening, for the sake of antiquity, but whether we shall admit specimens of a different style from that in general use, but equally perfect in its kind."

The Crucianella stylosa flowers during several months of the year. May be increased by division.

Don's Syst. Bot. 3, 641.

Astragalus vesicarius. ⅔

Anemone narcissiflora. ⅔

Genesta Anxantica ⅔

Wulfenia Carinthiaca ⅔

ASTRAG'ALUS VESICA'RIUS.

BLADDERED MILK VETCH.

Class.	*Order.*
DIADELPHIA.	DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Europe.	½ foot.	May, June.	Perennial.	in 1737.

No. 685.

Astragalus is a name which was used by the Greeks for a plant, but what meaning it was intended to bear, when so employed, is now unknown. The Latin vesica, vesicarius, aliudes to the bladdery calyx of this species.

It is a fact known to most cultivators of flowers, that the description of soil in which plants are grown, has not only a greater or less influence on their growth, but also, that it has a certain influence on the colour of their blossoms, varying according to the constituent principles of which it consists. We do not apply this observation to such plants as are ever-variable, as it were,—that sport into half the shades of the rainbow wherever they may happen to be grown, but to those which have fixed limits to their powers of change—that vary the intensity only of their tints. In strong red loamy earth we have observed the colour of annual flowers, in particular, much more strong and brilliant than that of the same species grown in black old garden mould, which had long been under cultivation. Roses also, appear to be somewhat under the government of the same laws of nature; and the

Hydrangea hortensis most prominently so. An instance of change of colour, which may be presumed to be dependent on change of soil, is shown by the very plant before us, the Astragalus vesicarius. Sir W. J. Hooker says, in the Botanical Magazine, "Although, as cultivated in the Glasgow Botanic Garden, from seeds communicated by Mr. Otto of Berlin, the flowers are always of a rich purple colour, becoming darker and almost blue in age, yet they appear, in a wild state, to be sometimes cream-coloured or white."

It seems to us, that in these days of assiduous attention to floriculture, the influence of soils has been somewhat overlooked, for it is but reasonable to suppose that if the flower of an individual plant be varied by the quality of the soil in which it is grown, a more decisive variation may be obtained by continuing the same influence on successive generations of such plant. Again, this variation will be referable to the influence of certain ingredients naturally combined with the earth, and these being discovered, may be increased or diminished artificially, as the cultivator may find best suited to his purpose of heightening or subduing certain colours on which he is desirous to operate; thus ultimately, by perseverance, agreeably to the fixed laws of nature, in lieu of submission to chance, we may attain to results not only satisfactory to the philosopher, but full of delight to the practical man, and the less thinking observer.

The Astragalus vesicarius should be planted in a light loamy soil in a dry situation, and is best increased from seeds.

Don's Syst. Bot. 2, 259.

ANEMO'NE NARCISSIFLO'RA.

NARCISSUS-FLOWERED ANEMONE.

Class.	*Order.*
POLYANDRIA.	POLYGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Siberia.	1 foot.	May.	Perennial.	in 1773.

No. 686.

The word Anemone has an allusion to wind. See No. 145.

It is recorded of this species of Anemone, that it was introduced into England by the Earl of Bute. It has a wide geographical range, being common on the high mountains of the South of Europe, as well as in some parts of Siberia. It is very rarely met with even in the best collections, although a completely hardy plant; and if not possessing gaiety of colour, it has novelty of character, especially in the genus to which it belongs.

The Anemone narcissiflora is usually kept in pots amongst the Alpines, but it cannot be much increased by division, therefore it becomes the more requisite to plant it in the open ground, where it will flower in great perfection, and produce seeds. To assist this process it is thought necessary to fertilize the flowers: the position of its parts of fructification would not indicate the necessity of this, but it may, perhaps, be required from the imperfect opening of the anthers. It should have a rather damp situation, and grows strongest when planted in peat and loam.

Don's Syst. Bot. 1, 21

GENIS'TA ANXAN'TICA.

ANXANTIC GENISTA.

Class MONADELPHIA. *Order.* DECANDRIA.

Natural Order. LEGUMINOSÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Italy.	4 feet.	June, July.	A Shrub.	in 1818.

No. 687.

Genista, see No. 594. Anxantica a valley in the kingdom of Naples.

Our British Genista tinctoria, either as a dye or a medicine, or from its gaiety as a wild plant, dotting the green pastures over in brilliant little bushes of yellow, is generally known. The plant now before us is nearly allied to it, but is of more delicate and slender appearance, and diffuse in habit. It is a pretty evergreen shrub ; which at midsummer, with its bright green foliage and abundance of flowers, produces much gaiety of effect.

When we comtemplate these plants in the garden or the fields, we are ready to say with an admired author, " Can it be believed that nature bestowed beauty on a flower but with a view to please ? Is not then the refusal to be pleased with these beauties, like the malignant and unthankful guest, who refuses to taste the most delicious dainties prepared for his entertainment ?"

This slender little shrub should have a good depth of light soil. It is perfectly hardy, and produces abundance of seeds. From these it may be raised with greater facility than from cuttings.

Don's Syst. Bot. 2, 152

WULFE'NIA CARINTHIA'CA.

CARINTHIAN WULFENIA.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
SCROPHULARIACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
Carinthia.	1½ foot.	July, Aug.	Annual.	in 1817.

No. 688.

The genus Wulfenia was named in honour of Francis Xavier Wulfen, author of Plantæ Rariores Carinthiacæ.

This plant is a native of the Carinthian Alps, but even where indigenous, it is said to be scarce. It is by no means commonly met with in gardens, but is exceedingly desirable where a situation in a dry sheltered border can be afforded it. Its mode of flowering is such, that although, as in our drawing, it is at first seen with its naked scape supporting an almost globular head of flowers, this gradually extends itself into an elongated spike; and in some instances, where it has been drawn up under glass, it would scarcely at first sight be recognized as the same plant, from its altered mode of inflorescence.

It thrives when planted in peat and loam, and blossoms most freely when permitted to increase and form strong roots; but under such circumstances it is more likely to perish during winter; especially if its situation be a damp one. It may be increased by division of its roots, which should be effected in April.

Don's Syst. Bot. 4, 580.

Collinsia bicolor. ⅔

Calliprora lutea. ⅔

Cobæa scandens. ⅓

Nolana atriplicifolia. ⅔

COLLIN'SIA BI'COLOR.

TWO-COLOURED COLLINSIA.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
California.	1 foot.	June, Aug.	Annual.	in 1833.

No. 689.

The name of this genus was adopted after Zaccheus Collins, an American botanist.

At No. 391 of the Botanic Garden, we published Collinsia grandiflora, a plant which obtained its name, large-flowered, by a comparison of its flowers with such species as had then been introduced. It is now, however, rendered inapplicable, by the discovery of the present plant, which excels it in the size of the flowers, in general showiness, and also in height. Names founded on comparison will always be subject to the same inconvenience till that time when all the plants on the face of the earth shall have been collected and arranged—a period, by the bye, of which it is impossible for the human mind to catch the least conception.

Collinsia bicolor, from the abundance of flowers which it produces, is a most desirable low annual, growing in any common soil, and bearing our severest winters whilst the plants are small. Autumn sown plants will flower in May and June; and an early and late sowing, in spring, will produce flowers in succession till October; or till autumnal frosts destroy them.

173. Don's Syst. Bot. 4, 555.

CALLIPRO'RA LU'TEA.

YELLOW PRETTY-FACE.

Class HEXANDRIA. *Order.* MONOGYNIA.

Natural Order. ASPHODELACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.California	1 foot.	July.	Perennial.	in 1831?

No. 690.

The derivation of the word Calliprora is founded on the Greek KALLIPROROS, signifying pretty-face; a name not inappropriately given to the flowers of this American novelty.

Any addition, like the present, to the hardy bulbs which are already in cultivation in our gardens, will be received with pleasure by every one who duly appreciates the gaiety of the open parterre; which, after all, excites an interest not attendant on any other department of floral occupation. We believe that the possessor of the most magnificent erections that ever inclosed the riches of the Indies, or displayed from day to day, and year to year, the splendour of the tropics, never felt more exquisite delight than is experienced by thousands in the culture of the little hardy flower border. Here it is, that after a season of privation which whets and fits the soul for enjoyment, the genial—the spirit-stirring spring exerts its fullest influence, reanimates the glowing beauty of a host of the sweetest favourites, at the same time that it stimulates and attunes the mind to receive pleasure from every object of resuscitated

nature. Well may the delighted poet exclaim

"The voice of Spring,—the voice of Spring,
I hear it from afar!—
He comes with sunlight on his wing,
And ray of morning star:
His impulse thrills through rill and flood,
It throbs along the main,—
'Tis stirring in the waking wood,
And trembling o'er the plain.

He comes, he comes! Behold, behold!
That glory in the east,
Of burning beams of glowing gold,
And light by light increased!
The heavy clouds have rolled away
That darkened sky and earth,
And blue and splendid breaks the day,
With universal mirth.

The violet is sweetening now
The air of hill and dell;
The snow-drops, that from Winter's brow
As he retreated fell,
Have turned to flowers, and gem the bowers
Where late the wild storm whirled,
And warmer rays, with length'ning days,
Give verdure to the world." WEBBE.

Our pretty-faced flower, as its sponsor has called it, was discovered by Douglas, in Northern California, and by him sent to the London Horticultural Society's Garden; where it proved to be, as stated by Dr. Lindley, a hardy, very handsome bulbous plant; growing freely in a shaded peat border, and flowering in July. It produces offsets pretty freely, which should be taken off in autumn.

Bot. Reg. 1590.

CO'BÆA SCAN'DENS.

CLIMBING COBÆA.

Class. PENTANDRIA. *Order.* MONOGYNIA.

Natural Order. COBÆACEA.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	40 feet.	Aug. Oct.	Perennial.	in 1792.

No. 691.

Father Cobo, a learned jesuit, who was many years a resident of America, is commemorated in the name of the present genus.

Although the Cobæa scandens is properly a greenhouse plant, it is so particularly applicable to the purposes of embellishing walls and trellis-work in the open air, during summer, that it ought to be better known, and more generally cultivated, by such as confine their garden enjoyments to hardy plants alone. It is never seen to so great advantage as when turned out in May, into rich light soil, against a south wall. Here it will run most luxuriantly, and may be twisted and turned about, up and down in all directions, to fit either the caprice of the trainer, or the irregularities of the wall or treillage which forms its support. It will grow from thirty to forty feet in a season, flower abundantly, and bear a mild winter. Seedling plants should be preferred, which may be raised in spring, and kept in a greenhouse or well protected frame, during winter, for putting out in May. Seeds are seldom perfected in the open air, but may be obtained of any seedsman.

Don's Syst. Bot. 4, 236.

NOLA'NA ATRIPLICIFO'LIA.

SPINACH-LEAVED NOLANA.

Class. PENTANDRIA. *Order.* MONOGYNIA.

Natural Order. SOLANACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
Peru.	4 inches.	August.	Annual.	in 1834.

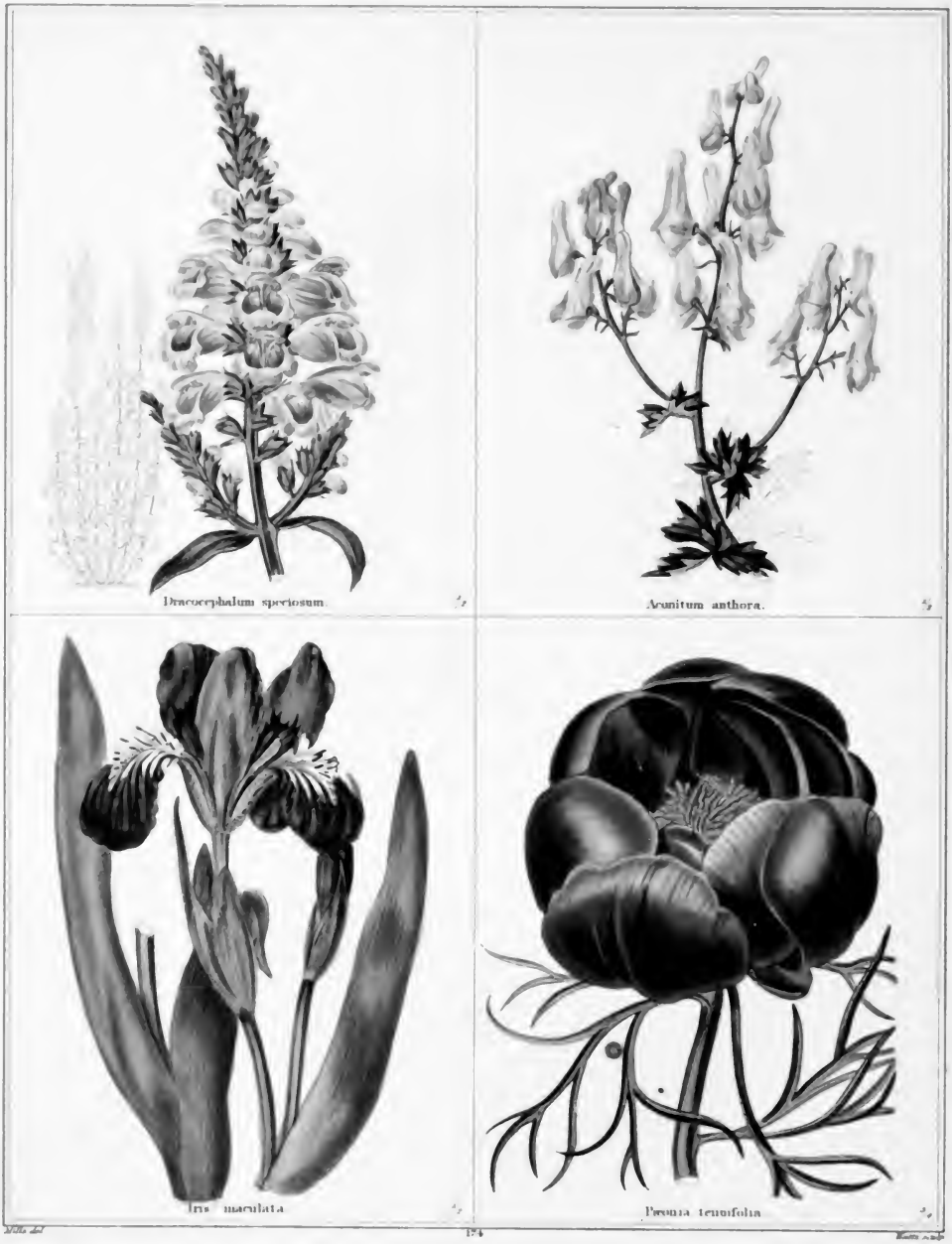
No. 692.

Nolana is a word deduced from the Latin nola, a little bell, an appellation which is sufficiently well supported by the shape of the flowers of this genus. Atriplicifolia, the specific name, is compounded from Atriplix, a genus of plants, and folium, a leaf, from the resemblance of their foliage.

An old plant of this genus—the Nolana prostrata, is an annual with which florists of the last century were well acquainted. This was succeeded, in 1822, by a brighter flowered species—the Nolana paradoxa, (see No. 207.) Both may now be considered as superseded by the present very showy species, whose flowers are larger than either of the preceding, and resemble those of the Convolvulus tricolor.

Seeds of the Nolana atriplicifolia may either be sown in pots and forwarded in a hotbed, or they may be sown at once, in the borders, in the latter part of April. The soil should be rendered light and rich by the admixture of leaf-mould, sandy peat, or some friable compost; and if a flower-pot be turned over the seeds, when sown, it will forward their vegetation.

Don's Syst. Bot. 4, 479.


Dracocephalum speciosum.
Aconitum anthora.
Iris maculata.
Paeonia tenuifolia.

DRACOCEPH'ALUM SPECIO'SUM.

TALL DRAGON'S HEAD.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Origin
America.	4 feet.	Aug. Sept.	Perennial.	uncertain.

No. 693.

For an account of the derivation of the word Dracocephalum, see No. 57.

This species has been made the type of a new genus—Physostegia; a word deduced from the Greek PHUSA, a bladder; and STEGO, to cover; in allusion to its inflated calyx. It is the Physostegia of Mr Bentham. Having previously published a variety of this plant we retain the original name, by which it is well known, and under which it would have been arranged by Linneus.

Whether this plant has originated from seeds in this country, or is the spontaneous production of America, and has been imported, we are unable to discover. Its differences from the old plant consist chiefly in its superior height, the size of its flowers, and the nearly entire margin of its leaves. It is a remarkably handsome border plant, growing very erect; and, unless in an exposed situation, requires no support against wind and showers.

In a light fresh loam, with a little manure or sandy peat, it flourishes exceedingly. An annual removal, at the end of February, encourages its luxuriance.

ACONI'TUM ANTHO'RA.

ANTHORA-LIKE MONK'S-HOOD.

Class. POLYANDRIA. *Order.* TRIGYNIA.

Natural Order. RANUNCULACEÆ.

Native of	Height	Flowers in	Duration.	Cultivated
Pyrenees.	3 feet.	July.	Perennial.	in 1596.

No. 694.

The derivation of the word Aconitum has been ascribed by various writers to different sources. Many agree in adducing it from Acona, a town of Bithynia, where some of its species are plentiful. It is stated by Don, in his General System of Gardening, that "this species was formerly made use of in medicine, as an antidote to the poisonous species; whence by some writers it is called Anthora, or Antithora, the poisonous ones having been named Thora. The taste of the root is sweet, with a mixture of bitterness and acrimony. The smell is pleasant. It operates on the bowels vehemently when fresh, but loses its qualities when dried; it is disused in the present practice, and is certainly poisonous, but perhaps in a less degree than those of the other sections. Haller regards it as one of the most dangerous."

The greater part of the Aconites are handsome, upright, and rather tall plants; but they possess deleterious qualities of more or less virulence. They are readily produced from seeds, and very distinct varieties thus arise. Their culture is of the simplest kind.

Don's Syst. Bot. 1, 55.

IRIS MACULA'TA.

SPOTTED IRIS.

Class. TRIANDRIA. *Order.* MONOGYNIA.

Natural Order. IRIDEÆ.

Native of America.	Height. 18 inches.	Flowers in June.	Duration. Perennial.	Introduced in 1830?

No. 695.

For the meaning of the word Iris, see Nos. 278, 303. The name Fleur-de-lis, which is sometimes applied to the plants of this genus, has been noticed under No. 274.

This favourite genus of plants is admired, as well for the curious structure of its flowers, as for its beauty and variety. Were it not that many of its species are so completely hardy and increase so rapidly, whereby some one or other of them is frequently under the eye of the admirer of Flora's beauties, they would doubtless rank with the very choicest of the garden's ornaments. The formation of the flower of the Iris, although it partakes of the ternary arrangement, in common with numerous other endogenous plants, still is worthy of more than a passing notice. Dr. Lindley, in a familiar description of it in his Ladies' Botany, says "The three sepals are broad and spreading, and often ornamented with a beautiful feathered crest; the three petals stand erect, and curve over the centre of the flower; while the stigmas are broad richly coloured parts, resembling petals, and curve away from the centre. At first sight you would

suppose the Iris was destitute of stamens, but if you will lift up the stigmas you will find the runaways snugly hidden beneath their broad lobes, and lying close to a humid lip, through which the influence of the pollen is conveyed to the ovules."

Here, in design and execution, we see the most perfect operation of infinite Power. Man may comprehend somewhat of the beauty developed in the machinery employed in these secondary causes, but its working is not disclosed to him.

> "Let no presuming impious railer tax
> Creative Wisdom, as if aught was formed
> In vain, or not for admirable ends.
> Shall little haughty ignorance pronounce
> His works unwise, of which the smallest part
> Exceeds the narrow vision of her mind?"
>
> TIME'S TELESCOPE.

> "How sweet to muse upon his skill displayed
> (Infinite skill!) in all that he has made;
> To trace in Nature's most minute design
> The signature and stamp of Power Divine;
> Contrivance exquisite, expressed with ease,
> Where unassisted sight no beauty sees."
>
> COWPER.

It should be remembered that the Irises are divided by nature into two distinct classes—tuberous and bulbous. The Iris maculata belongs to the former of these. In culture they vary considerably as to the treatment they require, some of them being almost aquatics, as our English species, the pseud-acorus, whilst others delight in dry sandy exposed situations. The present species grows freely in rich loamy earth, or sandy peat.

PÆO'NIA TENUIFO'LIA.

FINE-LEAVED PÆONY.

Class. POLYANDRIA. *Order.* DIGYNIA.

Natural Order. RANUNCULACEÆ.

Native of	Height.	Flowers in	Duration	Introduced
Siberia.	18 inches.	June.	Perennial.	in 1765.

No. 696.

The name of this genus was adopted by the Greeks after one of their fabulous personages; see No. 241.

The plant under consideration is a native of several parts of the north of Asia, but more particularly of the southern provinces of Russia, and the Crimea. Excepting a single species, found by Douglas in California, the whole genus belongs to Asia and the south of Europe. Pæony tenuifolia has a handsome flower—exceedingly rich in colour, and its foliage rather remarkable in comparison with that of other species. It is not so generally cultivated as it deserves, for independently of its flower, its finely cut foliage, forms a border ornament of no mean pretensions.

A double-flowering variety of the fine-leaved Pæony was introduced to this country some years ago, from the Imperial Botanic Garden of St. Petersburg, but it is not frequently met with, even in the best Nurseries.

In a rather strong loam this plant grows remarkably well, but it will not always perfect its flowers in very light pulverized earth.

Don's Syst. Bot. 1, 66.

Hypericum elegans.

Nemesia chamædrifolia.

Pentstemon argutum.

Galanthus plicatus.

HYPER'ICUM E'LEGANS.

ELEGANT ST. JOHN'S WORT.

Class.	*Order.*
SYNGENESIA.	ÆQUALIS.

Natural Order.
HYPERICACEÆ.

Native of	Height.	Flowers in	Duration	Introduced
Siberia.	$1\frac{1}{2}$ feet.	June, July.	Perennial.	in 1822.

No. 697.

The derivation of Hypericum is given under 630.

We are not aware that this exceedingly elegant Hypericum has ever been figured in any English work, although as a hardy ornamental plant, for the open garden, it is most desirable. Like most others of the genus Hypericum, its leaves have little pellucid dots, which contain an essential oil. Turner, noticing this fact, says "If ye set y^{e} leafe betwene yow and the sonne, ther shall appere an infinite nombre of holes in the leaues." The most common British species, Hypericum perforatum, referred to by the old author just mentioned, has long been famed for its virtues. Culpepper says, "it is as gallant a wound-herb as any is, either given inwardly, or outwardly applied to the wound." We have the evidence of a clergyman's lady that it is worthy of all praise. She simply infuses the flowers in olive oil, and this, her remedy for fresh wounds, is applied for by all her parishioners, as superior to every other application.

Hypericum elegans will grow in any common garden mould, and admits of division of the roots for increase. Or, cuttings may be struck.

NEME'SIA CHAMÆ'DRIFOLIA.

GERMANDER-LEAVED NEMESIA.

Class.	*Order.*
DIDYNAMIA.	ANGIOSPERMIA.

Natural Order.
SCROPHULARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Cape G. Hope	2 feet.	April, Sept.	Perennial.	in 1787.

No. 698.

Nemesia is a name which was used by Dioscorides, the celebrated Greek physician and botanist, who lived nearly eighteen hundred years ago. He followed in the steps of Theophrastus, whilst Pliny copied from both; and from whom, through Galen and others, has been derived much of the knowledge of medicinal plants which is still found in English Herbals. The genus Nemesia was established by Ventenat. In the Hortus Kewensis it is arranged with the Antirrhinums; whilst Sprengel has it amongst his Linarias.

Although the flowers of this plant are not large, they become attractive in the borders from their exposed habit of growth. They tip the summit of the branches, or nearly so, and stand out in relief without rivalry from the foliage, which sometimes, in spite of all our persuasions, short of destruction, will persist in taking the foremost place, and hiding much of the flowers' beauty which we desire to see. Its habit claims for it a place near to the front of the border, since it will not interfere with the view of neighbouring plants. It requires no particular culture, but a plant should be kept in the cold

frame lest severe frosts should destroy such as are fully exposed.

Its medicinal qualities have not, we believe, been examined; it belongs, however, to a natural order containing plants which are generally acrid and bitter, and some which are powerful, as Digitalis and Gratiola. We observed that much of the herbalists' knowledge of the medicinal properties of plants was transmitted from the ancients; it must not, however, be forgotten that to the present age, chiefly belongs the discovery of the exceedingly active properties which exist in the vegetable world. The analysis of vegetables and the concentration of their active properties has been most successfully pursued by our continental neighbours, the French and Germans. The first of these concentrated alkaline vegetable products, which obtained attention, was Morphia—the active ingredient of Opium. Quinina and Cinchonia are obtained from different varieties of Peruvian bark. The sulphate of Quinina is manufactured most extensively in Paris on account of the low price at which it can be produced, by reason of the cheapness of alchol, which is used in its preparation. It is said that 120,000 ounces are produced there annually. This alone shews the importance of vegetables in the Matera Medica. From Veratrium album or white hellebore, and our common meadow Saffron, Veratria is produced. Digitalina, from Digitalis; Violina from the Viola odorata. These preparations, and many others, produce the most powerful effects on the human frame, even in doses less than a single grain.

Don's Syst. Bot. 4, 533.

PENTSTE'MON ARGU'TUM.

SHARP-EDGED PENTSTEMON.

Class. DIDYNAMIA. *Order.* ANGIOSPERMIA.

Natural Order. SCROPHULARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America	$2\frac{1}{2}$ feet.	July, Sept.	Perennial.	in 1835?

No. 699.

We have mentioned the existence of a fifth stamen as the circumstance on which this genus has been established, and its name adopted. It may be interesting to many of our readers, to know that a fifth stamen may be naturally expected to occur in this flower, for so beautifully fixed are the laws of nature, that the different organs of plants bear some fixed relation to each other. Thus, our Pentstemon has five lobes to its calyx, the same to its corolla, and although it has but four perfect stamens, the abortive fifth indicates clearly their normal number. An analogy exists too between flowers, and leaves; and although it would be incorrect to state that flowers are metamorphosed leaves, still it can be shown that every appendage of a plant is originally composed of the same elements, and arranged upon a common plan, varying only from local predisposing causes, which change one organ into another —leaves into flowers, and flowers into leaves.

This newly introduced Pentstemon is showy, and is more bushy in growth than most others, requiring support. Its leaves large and irregularly serrate. Cuttings strike root readily.

GALAN'THUS PLICA'TUS.

PLAITED SNOWDROP.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDACEÆ.

Native of	Height	Flowers in	Duration.	Cultivated
Crimea.	$\frac{1}{3}$ foot.	Jan. April.	Perennial.	in 1597.

No. 700.

By the Greeks the present genus was called Lucoium, and the name continued to be used by our early herbalists till the time of Linneus.

Galanthus, its modern appellation, was deduced from GALA, milk; and ANTHOS, a flower; the literal translation, therefore, is Milk-flower, an allusion to its milky whiteness. This name, however, it would appear, was not acceptable to later English herbalists; they required a more poetical term, and found it in the doubly applicable name—Snowdrop.

Although this species of Galanthus was introduced to this country from Constantinople many years ago, and figured by Gerard and Parkinson, it is probable that it was entirely lost, perhaps from being confounded, by common observers, with the English species, the Galanthus nivalis. The Galanthus plicatus was re-introduced about the year 1818, and attracted considerable attention. The fact on which its specific name is founded, marks one prominent distinction which exists between it and nivalis. We allude to the folding of the leaf along its margin. It is also larger, both in foliage and flower.

Loudon's Ency. Pl. 248.

Penstemon gentianoides ⅔

Loasa nitida. ⅔

Hibiscus Africanus. ⅔

Centaurea depressa. ⅔

PENTSTE'MON GENTIANOI'DES.

GENTIAN-LIKE PENTSTEMON.

Class.	*Order.*
DIDYNAMIA.	ANGIOSPERMIA.

Natural Order.
SCROPHULARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	2 feet.	June, Sept.	Perennial.	in 1836.

No. 701.

Pentstemon has been lately noticed under No. 699. See, also, No. 316.

We have had pleasure in observing the hardiness of Pentstemon gentianoides; since we find it, as well as hardy, one of the most beautiful of the genus, and so free a flowerer that its panicles of blossoms literally bear down its stems. Its glabrous lanceolate leaves have a neater effect than many other species, and on the whole it is one of the most desirable plants of late introduction.

Our plants of the Pentstemon gentianoides bore full exposure in the borders during the winter of 1838-9, a season by no means favourable, although not of long-continued severity. It would be advisable, notwithstanding this, to strike young plants in July, which may be easily effected by planting cuttings or slips of the young shoots under a hand-glass, placed in a shady part of the garden. As soon as these strike root they may be planted in the borders; but to provide against destruction from excessive frost, a plant or two should be potted in a light compost, and kept in readiness to receive winter protection, if it be required.

LOAS'A NIT'IDA.

SHINING LOASA..

Class.
SYNGENESIA,

Order
ÆQUALIS.

Natural Order.
LOASACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Chile.	2 feet.	June, Sept.	Annual.	in 1822.

No. 702.

Loasa is a name adopted after a Spanish botanist.

Notwithstanding the inconvenience attending most of the plants of this genus, from their stinging qualities; the singularity of their flowers, and their gay appearance, when trained to a trellis or other support, has been a passport for them into most gardens, particularly those of botanical and curious cultivators. The introduction of Caiophora lateritia, sometimes called Loasa lateritia, a plant of very free growth, has probably increased the attention of botanists to this curious family.

The virulence of Loasa acanthifolia has been noticed under No. 252; the present species may be said to be true to the character of its family, in its stinging propensities, still it is less pungent than that species; but it should be tied up with the use of a glove, to prevent the chance of inconvenience.

Although this plant may not be one which the florist would seek annually to place in his garden, yet he would desire to be acquainted with such, and to witness their growth occasionally. Its curious flowers will amply repay the trouble of culture, which is merely that of a common annual.

It may be anxiously enquired why these plants should be so furnished with obnoxious poison, and instruments to employ it; we know the immediate effects, but understand little or nothing of the secondary causes. Such stinging plants, however, as are known in this country are literally harmless in comparison with some that exist in tropical climates. The poison of a species of Nettle, the Urtica crenulata, in the Botanic Garden at Calcutta, is described by Leschenault, in the Memoires du Museum d'Histoire Naturelle, published in Paris, as most virulent. A slight touch of the plant on the hand, produced at first but little uneasiness; in an hour it became intolerable, notwithstanding neither swelling, postule, nor inflammation took place; the pain extended up the arm, and threatened locked-jaw, continuing its violence for twenty-four hours, and on the second day was renewed by the hand being put into water. Nine days elapsed before it wholly ceased. Another Nettle, found in Timor, an island of the East Indian Sea, is mentioned as producing effects which continue a whole year, and even sometimes prove fatal.

As far as the mechanism of the prickle or sting of these plants is concerned, it is clearly understood; the specific action of their poison, however, has been a subject rather of conjecture than certainty. The difficulties attending such an enquiry will be obvious when it is considered that some substances which act as a virulent poison on one species of animal, are nutritious to another; also, that others to the stomach are inoffensive, whilst through a wound they are fatal.

Don's Syst. Bot. 3, 62.

HIBIS'CUS AFRICA'NUS.

AFRICAN HIBISCUS.

Class.
MONADELPHIA.

Order.
POLYANDRIA.

Natural Order.
MALVACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Africa.	1½ feet.	June, Oct.	Annual.	in 1826.

No. 703.

The name Hibiscus is of very uncertain origin.

This is a particularly pleasing flower, in which the mellow pale tint, and the deep rich marone, are nicely contrasted; the latter giving a brilliant effect to its gilded pistil. There is an old inhabitant of the flower garden, very nearly allied to the present plant, known as the Hibiscus trionum, or Bladder Ketmia, which, as Gerard says, hath "very sweet and beautiful flowers;" but they are not so large, nor do they continue so long as those of Africanus. Our favourite old author remarks of his plant, that "When it hath receiued the beames of the Sun for two or three houres, whereon it should seeme to reioice to look, and for whose departure, being then vpon the point of declension, it seemes to grieue, and so shuts vp the floures that were open, and neuer opens them againe." The Hibiscus Africanus, on the contrary, is not merely the flower of a day; it, however, requires the full sun to open it entirely. It demands only the care of a common annual, and will flourish in any garden soil; but a warm situation will best encourage the complete expansion of its blossoms.

Don's Syst. Bot. 1, 483.

CENTAURE'A DEPRES'SA.

DEPRESSED CENTAURY.

Class SYNGENESIA. *Order.* FRUSTRANEA.

Natural Order. COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Iberia.	1 foot.	June, Sept.	Annual.	in 1818.

No. 704.

The Centaurea, at least the name, has close connexion with ancient fable, on which it has been founded. See No. 95, and 462.

This gay annual bears considerable resemblance to the Centaurea cyanus of our gardens, but, as is observed by Sir W. J. Hooker, it is of much humbler growth and far brighter coloured flowers; indeed, says he, "we doubt if any species of this extensive genus presents more lively blossoms than the one now before us." It is equally well calculated for filling whole beds, or for mingling with other herbaceous plants in the borders or mounds, where it produces a very gay effect.

For bedding out, as gardeners term it, seeds should be sown in March, or early in April, on a gentle hotbed, or on an open border at the foot of a wall having a southern aspect, where the young plants may be weeded, watered, and thinned, as occasion requires. In May they will have become strong, and should be planted out, in showery weather, seven or eight inches apart, for flowering. In the borders seeds may be sown where they are intended to remain.

Bot. Mag. 3662.

Fritillaria racemosa. ½

Narcissus pumila ½

Primula marginale ½

Cyclamen Europæum ½

FRITILLA'RIA RACEM'OSA.

RACEMOSE FRITILLARY.

Class.	*Order.*
HEXANDRIA.	MONOGYNIA.

Natural Order.
TULIPACEÆ.

Native of Europe?	Height $1\frac{1}{2}$ feet.	Flowers in May.	Duration. Perennial.	Introduced in 1838.

No. 705.

The generic name, Fritillaria, is said to be deduced from the Latin fritillis, indicating a chequered appearance, which occurs in some species of this genus.

This plant has been lately introduced to England from the Dutch florists, and sold at a guinea each bulb, a price which very few of our friends will think it merits. We were obligingly supplied with it by Mr. Carter, Seedsman, of Holborn, as well as by Mr. Shuttleworth, of the Pantheon Conservatory, Oxford Street; and we must distinctly state that we have no other authority for the adoption of the specific name, Racemosa, than that the bulbs had been received from Holland under this appellation. It will of course be readily seen that the plant has no connexion with any species which has been occasionally but erroneously so called.

We are not confident that it is completely hardy, the continental gardeners, however, advised that if planted in the borders this should be done in September; but if in the greenhouse, January or February should be preferred. Our plant flowered in a cool greenhouse, in April.

NARCIS'SUS MI'NOR.

SMALL NARCISSUS.

Class.
HEXANDRIA.

Order
MONOGYNIA.

Natural Order.
AMARYLLIDACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Spain.	6 inches.	April.	Perennial.	in 1596.

No. 706.

The derivation of the term Narcissus has been given under No. 225.

There seems to be scarcely a doubt but that the plant which was originally called Narcissus by the Greeks, was our Narcissus poeticus; and that it was adopted from some real or supposed narcotic quality. The greater portion of our old botanical names were intended by the ancient herbalists, who invented them, to point out some medicinal property; but we would warn our readers against supposing that the names which plants now bear are usually intended to indicate their qualities. It should be remembered that Linneus regarded it as a law of nomenclature, and the same has been held as conventional ever since, that well-formed names, used by the ancient classical writers, should be preferred to newly-invented ones. Now the very loose and indefinite manner in which the ancients described their plants, being, as they were, devoid of systematic classification, and the dark ages having obliterated traditional botany, it has been impossible for modern botanists to discover to what plants certain names referred; there-

fore the old names, have been applied to those plants which seemed the most nearly to resemble the original Grecian species.

Considering that the Narcissus minor is as hardy as the common Daffodil, and increases as rapidly, it may have been reasonably expected to be met with almost as frequently, but this is not the fact. It is far from common, although so pleasing a spring flower. Like Snowdrops, Aconites, and some others of this class, it may be said to occupy no space, for it presents itself in nature's gay carpet, performs its allotted part, and then quickly leaves its place to be taken by a successor. It does but spring up—leaves and flowers in partnership, to reflect and brighten the animating gleams of an April sun, and manufacture odour for the garden's atmosphere; then the flower quits the gay stage, leaving the foliage behind for a short season to collect ethereal stimulants—the natural debt owed by vernal breezes for the perfumes dispensed from its floral laboratory. This done, and the creative gasses materialized and deposited in the bulbs, the leaves then follow their more showy associates, and the Narcissus is forgotten till spring again puts into activity the accumulated stores of the preceding year.

Thus, we see the never-ending circles in which Divine Wisdom and Goodness are perpetually operating for the uses and enjoyment of mankind. Unaided by us the seasons revolve, and the flowers spring forth. Well may the Psalmist burst into exclamation, "O let your songs be of HIM, and praise HIM; let your talking be of his wondrous works."

Hort. Kew. 2, v. 2, 215.

PRIM'ULA MARGINA'TA.

SILVER-EDGED PRIMROSE.

Class.	*Order.*
PENTANDRIA.	MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Switzerland	3 inches.	Mar. April.	Perennial.	in 1777.

No. 707.

The meaning of the word Primula has been lately noticed. The silver-margined leaves, alluded to in the specific name, will readily distinguish this species.

The plant of which we now give a figure is not very common, although it has been so long introduced to this country, where it was received from the European Alps. Very many of the interesting plants—natives of the same lofty locality as our Primula marginata, it is exceedingly difficult to keep in a healthy state. In winter they have snow as a protection against excessive frost, and in summer, clouds, or at least a cool atmosphere, which never exhausts their juices like the summer heat of even more northerly climates. Our Primula is, however, perfectly hardy, but should have a shady situation in summer.

If the Primula marginata be planted in the border, the soil should be light, and it will be still the more suitable with a mixture of peat. If kept in pots, a mixture of sand, loam, and peat, should be used. The plants should be re-potted in spring or autumn.

Hort. Kew. 2, v. 1, 309.

CY'CLAMEN EUROPÆ'UM.

EUROPEAN CYCLAMEN.

Class
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Switzerland	3 inches.	August.	Perennial.	in 1832.

No. 708.

Cyclamen, from the Greek KUKLOS, or circle, see No. 229.

The plant which we now figure was supplied to us by our very liberal friend, the Rev. H. T. Ellacombe, of Bitton Rectory, who, in his letter, says "I imported it from Holland in 1832, ever since which it has stood out, unprotected, in the pot in which it is now growing, plunged in the border.' The plant has long been known, or rather heard of, amongst botanists, for Miller, in his Gardener's Dictionary, slightly notices it as Cyclamen radice anemones. Its prominent distinction from all other species exists in its root, which, instead of being a round tuber, resembles that of an Anemone, as shown in our plate. We have sought in vain for other distinction between it and Europæum, and this we hold to be insufficient to warrant their separation as distinct species. Cyclamens are abundantly propagated from seed, hence more variation will naturally occur amongst them than between species propagated by mere extansion.

The tubers of this species may be divided in the spring for increase.

Hort. Kew. 2, v. 1, 311.

Polemonium humile. 1/3

Iris xiphioides 1/2

Erysimum Perofskianum 1/3

Gentiana verna.

POLEMO'NIUM HU'MILE.

HUMBLE POLEMONIUM.

Class
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
POLEMONIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America.	12 inches.	June, Oct.	Perennial.	in 1826.

No. 709.

The word Polemonium is deduced from the Greek POLEMOS, signifying war. The plant which bore this name, amongst the Grecians, was held in high estimation for its medicinal virtues, but what the species was cannot now be determined. Pliny merely notices its having a thick root and clusters of berries hanging from its slender branches.

The reason assigned for the adoption of the name Polemonium is somewhat singular. The same historian notices this, and relates that it arose from the dispute and contention which occurred between two princes, each of them having claimed the honour of discovering this herb of a thousand virtues, as called by the Cappadocians. Greek Valerian and Jacob's Ladder are common names for Polemonium.

The seeds of this pretty species and Jacob's Ladder, were presented to the London Horticultural Society, by Dr. Richardson, having been collected by his party in the arctic expedition to which he was attached. It is a showy low plant, said to flower the most abundantly when grown in a poor soil. It is probable that Polemonium Richardsonii is but a variety of this species.

IRIS XIPHIOI'DES.

XIPHIUM-LIKE IRIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
Spain.	1½ feet.	June.	Perennial.	in 1571.

No. 710.

The name of this genus has been lately explained. Xiphioides is intended to indicate its close resemblance to the Iris xiphium rather than the Xiphium itself.

This variety, which was sent to us three or four years ago, by some kind but unknown friend, has continued to increase freely, and flower very gaily. It is usually known as the Bronze Iris. This species is the one which is so extensively propagated from seeds by the Dutch nurserymen, by which means they raise numerous beautiful varieties, and export these under very august titles to the London seedsmen. They are frequently put up into collections of fifty distinct sorts in each, and are sold at from twenty-five to fifty shillings the collection, according to the beauty or rarity of the varieties of which they consist.

Masters, an extensive cultivator, extols this Iris as eminently qualified to repay attentive culture from seed. In his directions he says, "In August the seeds become ripe, and are plentifully produced on all seedling plants, although like many other plants, but sparingly, and very frequently not at all,

on such as have been long increased by offsets, or parting the roots; they may be sown in slight drills, about six inches asunder, as soon as ripe; and in the March following, they will make an appearance very similar to rows of young onions. With no other care than frequent weeding, they may remain in the seed-bed for three years, for they are much more hardy than most kinds of seedling bulbs, and, therefore, will not even require protection from the frosts. In August or September of the third year, it will be necessary to transplant them into beds, at one foot's distance, row from row, and the bulbs six inches apart; and in two years from their removal, most of the strongest will show blossom, and nearly all in the year following, or the sixth from the seed. If during the time the roots are at rest, the top surface is carefully removed, and fresh light loam is substituted, a year will be saved, for this treatment will greatly promote the growth of the bulbs, and with these, as well as many other seedling plants, it is not a stated time that must pass before they blossom, but only such a portion as will allow the bulb to attain a size sufficient to contain vigour to produce and perfect a flower-stem, the rudiment of which is formed in the preceding summer. When they blossom, a selection can be made, and the varieties perpetuated by the increase of their offsets. The most proper time for removing the bulbs is in August and September, those kept out of ground till Christmas rarely blossom on the succeeding summer." Notwithstanding the time occupied in maturing seedling Irises, we strongly recommend their propagation as exceedingly interesting.

Hort. Kew. 2, v. 1, 121.

ERY'SIMUM PEROFFSKIA'NUM.

PEROFFSKI'S ERYSIMUM.

Class.	*Order.*
TETRADYNAMIA.	SILIQUOSA.

Natural Order.
CRUCIFERÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Asia.	2 feet.	July, Oct.	Annual.	in 1838.

No. 711.

This name has been deduced from the Greek ERUO, to draw, expressive of its quality of producing blisters. Some species of the genus are acrid and stimulant, and amongst them possibly may be comprised the original plant of the ancients. The specific name, it is likely, was adopted in honour of a Russian botanist.

The seeds of this species of Erysimum, were sent us, from St. Petersburgh, in December, 1838, with a note subscribed B. P. G. stating that the writer had seen it in flower in two of the imperial gardens, and that according to Fischer and Meyer the seeds had been introduced from Cabul, a Country of Asia, west of the Indus. Should this meet the eye of our obliging correspondent, we offer him through this medium, having no other, assurances of our gratitude.

The Erysimum Peroffskianum is admirably adapted for producing a gay effect in large masses, and it is rendered doubly desirous from the little care which it demands. Seeds sown in the open borders in April, have produced plants, yielding a brilliant display of orange flowers in September.

GENTIA'NA VER'NA.

Variety: alba.

WHITE SPRING GENTIAN.

Class.
PENTANDRIA.

Order.
DIGYNIA.

Natural Order.
GENTIANACEÆ.

Native of	Height.	Flowers in	Duration.	Inhabits
England.	3 inches.	April, May.	Perennial.	Mountains.

No. 712.

The Illyrian monarch, after whom this genus was named, figured prominently in the Roman wars, nearly two centuries before the birth of Christ. He seems to have been more remarkable for his tyranny than his talents or bravery. See No. 387.

We have previously given a figure of the blue variety of Gentiana verna which is usually met with, but the one which is now before us is so completely novel and little known, that it ought not to pass unnoticed. We are indebted for it to the Messrs. Pope, of Handsworth, who never neglect to secure similar rarities. It is probable that the colouring matter of the Gentiana verna, is that dyeing principle which is contained in indigo. According to the theory of modern chemists this principle in its pure state is white, but that it becomes blue by imbibing oxygen. Hence we infer that the corolla of the white Gentiana verna possesses the power of excluding the oxygen of the atmosphere.

Peat soil, or peat and loam, with a shady situation, is most desirable for this plant.

Hort. Kew. 2, v. 2, 112.

Atragene Austriaca

Salvia patula

Mesembryanthemum pomeridianum.

Gladiolus Communis.

ATRAGE'NE AUSTRIA'CA.

AUSTRIAN ATRAGENE.

Class.	*Order.*
POLYANDRIA.	POLYGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Austria.	8 feet.	June, July.	Shrub.	in 1792.

No. 713.

Atragene is a name which is said to have been given by Theophrastus to the Clematis vitalba, or Traveller's Joy—a plant which seems to have a wide geographical range, being a native of all the milder parts of Europe, of the islands of the Archipelago, and even of the more northern districts of Africa. In some of the calcarious districts of our own country it may be seen enveloping the way side hedges with a singular mantle of down.

Our present plant has been called Clematis alpina and Atragene alpina, this specific name having, not inappropriately, been given it from its frequent occurrence in many of the alpine countries of Europe. It has been found at various altitudes, from 2400 feet to 6000 feet above the level of the sea; and is a strong growing hardy plant, suitable for training on a wall, trellis, or pole. It is one of the earliest flowering climbers; and may be increased by layers, or by seeds, which are sometimes perfected; but no one has, we believe, succeeded in propagating it from cuttings. In the shrubbery this climber may oftentimes be trained on a growing tree with good effect.

179. Don's Syst. Bot. 1, 10.

SAL'VIA PAT'ULA.

SPREADING SAGE.

Class	*Order.*
DIANDRIA.	MONOGYNIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Portugal.	3 feet.	May to July.	Biennial.	in 1805.

No. 714.

The word Salvia, and the virtues of the plant, have been noticed under No. 420.

This is a remarkably handsome hardy plant, raised from Russian seeds; and is supposed to be the Salvia argentea of old authors. It is still the more desirable from its ready growth in any soil, and the ease with which it admits of increase either by division or seeds.

The genus Salvia stands as a prominent exemplification of the industry of modern botanists, and as one amongst thousands of instances of the inexhaustible riches of Nature. In British herbariums we find but two species of Salvia as natives of our own country; added to these there are, perhaps, twenty exotic species in cultivation, which may be considered as forming a genus of moderate extent; but how are we surprised on referring to the works of modern botanists, to find that not less than two hundred and eighty distinct species have been collected, examined, named, and arranged; every individual possessing a well-defined character by which it can hereafter be readily recognised, but still all so closely allied as not to admit of separation

into other genera without violation of the laws of nature and science. This boundless liberality, even though it be from an Almighty hand—holding omnipotent power, is to finite minds somewhat incomprehensible. The contemplation of these riches of Nature—spread every where on the face of the globe, with unlimited profusion cannot but inspire a feeling of awe; and not less of humble gratitude, when observed to produce so extensively those objects adapted to the gratification and support of mankind. We may be grateful, too, for that power which enables us to investigate these riches, and to trace their connexion through the minutely graduated scale of creation—a pleasurable employment, regarding which the morose utilitarian may ask "Where are the useful results?" We may reply in the words of John Barton, in his Geography of Plants, "I must acknowledge that if the word useful is employed in its vulgar acceptation, as applied to the supply of our physical wants, I cannot tell; but if the term utility is intended to comprise those higher advantages which are connected with moral and intellectual influence of the employment itself—its tendency to elevate, refine, and humanize the character—to exercise, without harassing the faculties—to divert the attention from mercenary and sensual objects to purer and nobler contemplations—to bring the mind within the tranquil precincts of the Temple, whence it may readily, and often, without violence, be called into the Sanctuary—if by this standard the value of our pursuits is to be measured, there are few of them, perhaps, that deserve to occupy a higher place than the study of nature."

MESEMBRYAN'THEMUM POMERIDIA'NUM.

AFTERNOON FIG MARIGOLD.

Class. ICOSANDRIA. *Order.* PENTAGYNIA.

Natural Order. FICOIDEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
C. G. Hope.	1 foot.	July & Aug.	Annual.	in 1774.

No. 715.

Mesembryanthemum, although a word of objectionable length, is of easy pronunciation, and is perfectly harmonious. It is composed of two Greek words MESEMBRIA and ANTHEMON, signifying mid-day flower. It is, indeed, to the sun in its zenith that this flower pays particular court; it then spreads forth its brilliant petals—bright and glossy as burnished gold; a prettier object is rarely cultivated. The specific name, pomeridianum, is somewhat opposed to its generic name, meaning post-meridian, or afternoon. It is intended to indicate the protracted expansion of its flowers.

We purchased seeds of this annual plant under the name of Mesembryanthemum glabrum, but found the produce to be neither the species glabrum, nor a variety of the present species which is sometimes distinguished by such name. The plants were raised in a hotbed, potted singly, and in June part of them turned into the borders, where they grew and flowered; but the brightness of their flowers suffered much from rain, therefore to be seen in perfection they should be retained in the hotbed, or have other protection.

Don's Syst. Bot. 3, 150.

GLADI'OLUS COMMU'NIS.

COMMON CORN FLAG.

Class. TRIANDRIA. *Order.* MONOGYNIA.

Natural Order. IRIDACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
S. Europe.	2 feet.	June, July.	Perennial.	in 1596.

No. 716.

The name Gladiolus, from the Latin gladius, a sword, has been adopted in allusion to the leaves of this genus.

Although this species is common, many zealous cultivators of gay plants do not possess it, and it is desirable that its claim to a place in every flower-garden should be known. It is so completely hardy that when once planted it scarcely ever receives further care—a mode of treatment which we desire to correct. To produce its flowers in perfection the tubers should be taken up in August or September, the offsets removed, and the full-sized roots, then planted in a compost of well-reduced old hotbed manure, sand, and a little fresh loam, for flowering. This should be repeated every year, and its increased beauty will amply repay the trouble. To increase it from seeds, they only require to be sown as soon as ripe.

Much novelty has not been heretofore produced, amongst its seedlings, but if its flowers were fertilized with byzantinus, roseus, or any of the tender species, the communis would probably impart a hardiness which would be very desirable.

Hort. Kew. 2, v. 1, 102.

Cosmus diversifolius 1/2

Corydalis flavula.

Camassia esculenta. 1/3

Cotyledon sempervivum 1/2

COS'MUS DIVERSIFO'LIUS.

VARIOUS-LEAVED COSMUS.

Class. SYNGENESIA. *Order.* FRUSTRANEA.

Natural Order. COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.America.	3 feet.	June, Oct.	Perennial.	in 1835.

No. 717.

The word Cosmus is derived from the Greek KOSMOS, signifying order; but the appellation has been also used to imply beauty or ornament—the result of order.

Cosmus diversifolius has tuberous roots, in which particular, as well as in its general habit, it bears considerable resemblance to the Dahlia. That mode of treatment too, which is adapted to the Dahlia, is also applicable to the Cosmus. There is much reason to expect that the flowers of this plant, will, under cultivation, become double; and should they do so, they may become prominent ornaments in our gardens. Mexico, the native country of the Cosmus diversifolius, the Dahlia, Tigridia, Lobelia fulgens and splendens, Zinnia, and many Fuchias, continues to pour forth its brilliant plants, and will still continue so to do. That part of this rich country, known as the Vale of Mexico, has long been celebrated for its splendid vegetation. Its fruitful mountains, which occupy a base of a hundred and twenty miles in circumference, afford almost every variety of climate. Although perpetual snow be the mantle of their formidable

heights, their vendant prominences, cultivated table-land, and wooded acclivities, present a scene of vegetable riches, nowhere excelled. Besides its diversified mountain scenery it combines as Clavigero says, "Delicious vales, fertile plains, picturesque lakes and rivers, romantic cities and villages, a union of the trees and vegetables of Europe and America."

The early inhabitants of this country, were not insensible to the importance of its vegetable riches, for they worshiped the sun, and offered sacrifices of flowers. Their female children they frequently named after them; whilst their floating gardens seem to have ranked among the wonders of the new world. The novelty, however, of these may have produced some exaggeration in travellers' tales; for although extolled as evidence of refinement and luxury, they appear to have been the offspring of necessity. Vanquished tribes being driven to small islands in the lakes, resorted to the expedient of floating gardens, to extend their means of producing the necessaries of existence.

If the uncivilized Mexican of ages past could thus be attracted by flowers, and offer them as propitiatory sacrifices to his deity, surely we, who possess the light of truth, and know whence they derive their beauty—what hand has made these gems of earth, can never look upon them with thoughtless apathy. Who is there that will not say with Paley, "If one train of thinking be more desirable than another, it is that which regards the phenomena of nature with a constant reference to a supreme intelligent author."

CORYD'ALIS FLA'VULA.

YELLOWISH CORYDALIS.

Class. DIADELPHIA. *Order.* HEXANDRIA.

Natural Order. FUMARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Russia.	½ foot.	April, May.	Biennial.	in 1838.

No. 718.

KORUDALOS, the Greek name of a lark, was adopted by the Greeks as the name of a species of Fumaria, on account of the spur of the flower resembling that of the bird.

Under No. 262, we have noticed the transfer of many of the species of the old genus Fumaria, to that of Corydalis. The increase of species in the latter genus renders it advisable that the name Corydalis should now be used, as adopted by De Candolle. The distinction between the two genera consists in Fumaria having a one-seeded indehiscent capsule, whilst Corydalis has a many-seeded two-valved silique.

This species, on its first appearance, was supposed to be perennial, but has proved only biennial. Russian seeds of it were received at the Birmingham Garden, from Professor Ledebour, of the Dorpat Garden, and sown in the open ground, in 1838; in the following spring the plants flowered, but failed to ripen seeds. Although less desirable, than if it were perennial, it may be useful for ornamenting shady portions of the garden and relieving their poverty in the early months of the year.

Don's Syst. Bot. 3, 111.

CAMAS'SIA ESCULEN'TA.

ESCULENT CAMASSIA.

Class. HEXANDRIA. *Order.* MONOGYNIA.

Natural Order. ASPHODELACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Columbia.	1½ feet.	July.	Perennial.	in 1827.

No. 719.

This plant is called Quamash, by the north-west American Indians, and was published by Rafinesque, in his Medical Flora, as Quamassia esculenta. The plant having subsequently been introduced to the London Horticultural Society, Dr. Lindley altered the spelling to Camassia.

It is a vegetable of the first importance to the Inhabitants of some parts of North America; for, according to Pursh, its bulbs are collected by the native Indians, and laid up as a portion of their winter store. They prepare them for eating by baking them between hot stones, which gives them an agreeable taste, and the appearance of baked pears. The Scilla esculenta was formerly supposed to be the Quamash of the North American Indians, but Douglas determined it to be the present plant, which he found in profusion on the banks of the Columbia.

It is a strikingly handsome plant; its flowers possess so remarkably rich a colour, heightened by a sparkling cuticle, that it will, doubtless, become a favourite. It is perfectly hardy, may be planted in any light garden soil, and increased by offsets.

COTYLE'DON SEMPERVI'VUM.

SEMPERVIVUM-LIKE COTYLEDON.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CRASSULACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
Caucasus	½ foot.	July.	Perennial.	in 1836.

No. 720.

The generic name, Cotyledon, is derived from the Greek KOTULE, a cavity, in allusion to the cup-like leaves of some of the species contained in this genus. We have adopted the generic distinction of Bieberstein. De Candolle has divided the genus Cotyledon, and our present subject is the Umbilicus sempervivum of his arrangement.

It is a remarkably pretty plant, deserving of a place in every collection of alpines; whether in flower or out of flower, it will arrest the eye, for its crowded rosulate leaves never lose their healthy neat appearance.

Our drawing was taken from a specimen in the Birmingham Horticultural Society's Garden, and we are informed by Mr. Cameron, that planted in sandy loam, and placed in a cold frame during winter, it succeeds admirably, and in autumn admits of increase by division of its offsets.

We are not aware of the plant having hitherto been fully exposed during winter; it has been too rare to admit of the experiment; it may, however, be doubted, whether it could sustain the frosts, combined with the moisture of our climate.

Don's Syst. Bot. 1, 144

Leycesteria formosa. 1/2

Lupinus Hartwegii. 1/2

Scilla bifolia rubra. 1/3

Parnassia asarifolia. 1/2

LEYCESTE'RIA FORMO'SA.

HANDSOME LEYCESTERIA.

Class. PENTANDRIA. *Order.* MONOGYNIA.

Natural Order. CAPRIFOLIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Nepal.	6 feet.	Aug. & Sept.	Perennial.	in 1824.

No. 721.

The generic name Leycesteria was adopted by Dr. Wallich, in honour of William Leycester, Esq. a supporter of horticulture, and one of the judges under the Bengal Presidency. Where the plant is indigenous it is called by the Indians Nulkuroo.

It is mentioned by Dr. Wallich as growing wild on the highest mountains of Nepal, and in situations north of that country, at an elevation of from six to eight thousand feet above the plains, where it attains the height of ten or twelve feet, with a stem of somewhat more than an inch in diameter.

It was introduced into this country by Dr. Royle, who obtained its seeds from India, and young plants were raised from them in the London Horticultural Society's Garden. It proves to be, even in our climate, completely hardy, and evergreen.

From its evergreen habit and ornamental flowers, this new accession to our shrubberies is likely to become a general favourite. It is impatient of drought; therefore a shaded and somewhat cool situation should be chosen for it. It may be raised from seeds, cuttings, or layers, and will grow in any common soil.

Don's Syst. Bot. 3, 451.

LUPI'NUS HARTWE'GII.

MR. HARTWEG'S LUPINE.

Class. DIADELPHIA. *Order.* DECANDRIA.

Natural Order. LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	3 feet.	June to Oct.	Annual.	in 1838?

No. 722.

The derivation of the word Lupinus has been lately noticed. This species was found in corn fields, in Mexico, by Mr. Hartweg, who sent seeds of it to the London Horticultural Society. As a mark of respect to Mr. Hartweg, the species was named after him.

This plant has been considered to be annual only; but Mr. Cameron, Curator of the Birmingham Horticultural Society's Garden, from whom we received the specimen, from which our drawing was made, says that with him it had proved biennial. This gives the plant additional interest, inasmuch as it proves that the plant possesses hardihood of character not anticipated as belonging to it; and also that it may be brought into flower at an early period of the season by autumn-raised plants.

If raised in the spring, it is desirable that it be assisted by the hot-bed, till the plants are an inch or two high, and then transplanted singly into small pots, and protected for a few weeks, previously to being turned into the borders. This plan may be advantageously practised with almost all annual plants, whether tender or hardy.

SCIL'LA BIFO'LIA.

Variety, rubra.

TWO-LEAVED SCILLA.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
ASPHODELACEÆ.

Native of	Height	Flowers in	Duration.	Cultivated
S. Europe	6 inches.	April & May.	Perennial.	in 1800.

No. 723.

Scilla, from the Greek name of the plant, as noticed under No. 176.

This is so distinct and pretty a variety of Scilla bifolia, that it should be introduced into every respectable collection. At present it is rarely met with, and its increase not being rapid, there is no probability of its becoming very common. This variety is believed to have originated in the milder parts of Europe, which seem to be the chief habitat of this unpretending but pretty genus. Gerard notices the blue, and the white variety, but the pink was unknown to him. In his day, they ranked amongst the Hyacinths, and were duly valued for their beauty. He says "Of these bulbed roots, whose fair and beautiful flowers are received for their grace and ornament in gardens and garlands, the first are the Hyacinths, whereof there is found at this day, divers sorts differing very notably in many points."

This species should be planted in a rich sandy soil, near the edge of the border, and may be divided in winter or spring. It is also well-suited to pot culture, amongst alpine plants.

Hort. Kew. 2, v. 2, 264.

PARNAS'SIA ASARIFO'LIA.

ASARUM-LEAVED PARNASSIA.

Class. PENTANDRIA. *Order.* TETRAGYNIA.

Natural Order. DROSERACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.America	6 inches.	July, Aug.	Perennial.	in 1812.

No. 724.

This genus received its name from Mount Parnassus. See No.550.

We have previously published two species of this remarkably attractive genus, and now have the pleasure of introducing a third—a larger than either of the preceding. These are plants which engage the affections without the more specious attraction of colours; which may be accounted for by the singularity of their parts of fructification. It is, says Dr. Lindley, in his Lady's Botany, "One of the most curious of all wild plants, the companion of Sun-dew in her marshy haunts, and quite her rival in beauty and singularity of structure. The remarkable glands of Drosera, are confined to her irritable leaves, and disappear in her flowers. In Parnassia, on the contrary, the leaves and stems are hairless, but there is a most extraordinary glandular apparatus in the flowers. The leaves of this plant are heart-shaped, and cluster round the base of the stem. The latter rises to the height of a few inches, bearing below its middle a solitary stalkless leaf, similar in form to those of the base, and on its point a single nodding white flower, whose

petals are so beautifully marked by diverging sunken veins of a greenish colour, that a fanciful person might liken them to rivulets of chrysoprase flowing over a bed of snow. The glandular apparatus I have spoken of, consists of five fleshy scales, alternating with the stamens, and divided at their edge into numerous rays, each tipped with one beautiful pellucid greenish gland; so that the whole interior of the flower, when inspected from above, seems to bristle with a guard of fairy lances, tipped with sparkling jewels. I know of no natural object more exquisitely beautiful than this little flower, which you may cultivate for a few months by keeping its roots in wet bog moss, and covering it with a bell-glass, well exposed to the light."

Dr. Lindley here alludes to the Parnassia pulustris; we have no doubt, however, but either of the species may be grown awhile in the same way. Indeed, there would be few more appropriate plants for keeping in Mr. Ward's glass cases, as described in the Auctarium, section 72, and also in the Botanist, under the article Pernettia mucronata, No. 112.

The Parnassia asarifolia is a scarce species, but when properly cultivated, is an abundant flowerer. It requires to be planted in a shady part of a peat bed, where it will increase pretty freely. Or it may be kept in pots; in which case it should be grown in sandy peat, and have a good supply of drainers beneath it; and as before noticed, be kept in the shade. The proper time for dividing it is just as it begins to grow in spring, a period very appropriate for the division of the majority of plants.

Don's Syst. Bot. 1, 348.

Dahlia Barkeri 1/2

Potentilla hæmatochrous. 2/3

Hypericum floribundum.

Phyteuma pulchellum.

DAH'LIA BARKE'RIÆ.

MISS BARKER'S DAHLIA.

Class.	*Order.*
SYNGENESIA.	SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height	Flowers in	Duration.	Introduced
Mexico.	2 feet.	Sept. Oct.	Perennial.	in 1837.

No. 725.

For the derivation of the word Dahlia, see No. 115. The writing was engraved on our plate previously to our being informed regarding the gender of the specific name of this plant. We would not willingly omit doing honour to the name of a lady—particularly a patron of botany.

Our readers will be glad to meet a new and distinct species of Dahlia, one of low and slender habit of growth—qualities somewhat desirable, inasmuch as they stand opposed to those possessed by the better-known species. On this new plant cultivators will have to try their ability and good fortune in rendering it more beautiful; for although at present it displays but a single ray, and that not speciously tinted, there is hope, almost amounting to certainty, that its little florets may all be forced into exuberance and splendour, like those of Dahlia superflua (now called variabilis). Indeed, there is the more reason why we may expect this, because the great splendour of our Dahlias, hitherto cultivated, has arisen out of the mingling together of mere varieties, whilst it would seem that in many instances the prominent melioration of flowers is produced

by the intermixture of distinct species. Calciolariâ, Rosa, Fuchsia, Potentilla, and Mimulus, immediately present themselves as examples. Furthermore we have the testimony of him who stands at the head of the rank of vegetable physiologists* that "The most perfect and vigorous offspring will be obtained of plants as of animals, when the male and female parent are not closely related to each other." That a completely new progeny of plants may be readily raised between the Dahlia variabilis and Barkeriæ, there can be no doubt, but so imperfect is our knowledge of the laws of hybridization, that a just estimate cannot be made of the value of such offspring; remembering, however, what our universally-cultivated Dahlia was when first introduced to England, and looking at the beauty of its present innumerable varieties, the prospect of improvement is most encouraging.

The zealous cultivator should never lose sight of the fact, which stands as it were on the forehead of the very first communication made to the London Horticultural Society, by its late most excellent president, Mr. Knight; he says "Nature has given to man the means of acquiring those things, which constitute the comforts and luxuries of civilized life, though not the things themselves; it has placed the raw material within his reach; but has left the preparation and improvement of it to his own skill and industry. Every plant and animal adapted to his service, is made susceptible of endless changes, and, as far as relates to his use, of almost endless improvement." Culture, exactly the same as the common Dahlia.

* Knight: in Hort. Trans. v. 1, 166.

POTENTIL'LA HÆMATO'CHRUS.

BLOOD-COLOURED POTENTILLA.

Class. ICOSANDRIA. *Order.* POLYGYNIA.

Natural Order. ROSACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	2 feet.	August.	Perennial.	in 1838

No. 726.

The generic names of plants are usually derived from the Greek language, the specific from the Latin; here, however, the order is reversed. Potentilla being deduced from the Latin potentia, whilst Hæmatochrus is evidently from the Greek AIMA, blood; and OCHROS, pale.

This newly discovered species of Potentilla was introduced into Great Britain, in 1838, from the Berlin Botanic Garden. It is, probably, quite hardy, but we are not aware of its having been hitherto exposed to the proof. Kept in a cold frame, during winter, and planted out in the spring, it succeeds perfectly; and may be increased by division, or by seeds, which are produced in abundance. It requires only the common garden soil when planted out, but when potted, it will succeed best with the addition of a little peat and sand. This fact should not be lost sight of by the careful cultivator, that plants, when kept in pots, are placed under circumstances so different from those to which they are exposed in the open ground, that their soil should be adapted, as nearly as is possible, to meet their altered situation.

HYPER'ICUM FLORIBUN'DUM.

BUNDLE-FLOWERED ST. JOHN'S WORT.

Class. POLYADELPHIA. *Order.* POLYANDRIA.

Natural Order. HYPERICACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Madeira.	$2\frac{1}{2}$ feet.	September.	Shrub.	in 1779.

No. 727.

The origin of the name Hypericum is wrapped in uncertainty; as far, however, as supposition goes, it has been stated under No. 630.

This little shrub, although not of recent introduction to Great Britain, may be called comparatively scarce; it is one, which from its gaiety, when planted out, during summer, is a desirable addition to the borders where low shrubs and herbaceous plants are mixed together, a practice which is not allowable in most gardens. If put out with other shrubs, it should, from its height, be placed near to the front, and have a warm aspect. Under No. 697, we mentioned a prevailing circumstance, connected with the leaves of Hypericum—their having numerous little dots like perforations all over them; a peculiarity which is not discoverable in this species.

This low shrub—a native of Madeira, is not sufficiently hardy to bear full exposure in our climate. It should be kept in a pot, and be protected during winter, in the cold frame. It only requires to be defended from frost. It should be potted in a mixture of peat and loam; on a good stratum of potsherds as drainers.

Don's Syst. Bot. 1, 602.

PHYTEU'MA PULCHEL'LUM.

PRETTY PHYTEUMA.

Class. PENTANDRIA. *Order.* MONOGYNIA.

Natural Order. CAMPANULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Russia.	4 feet.	July.	Perennial.	in 1836.

No. 728.

The Greek word PHUTEUO, to sow, is believed to be the root of our present name Phyteuma. It probably was used by the Greeks to distinguish a plant which dispersed its seeds abundantly, and hence would be said to sow them. With this novelty we were obligingly supplied from the Birmingham Horticultural Garden, where it was raised in 1836, and again in 1838, as we are informed by Mr. Cameron; who also observes that it seems to be but of biennial duration. It is not very showy in a single branch, but when in a mass, and growing four feet high, its numerous spikes, abundantly flowered, assume an attractive character.

This genus departs considerably from the usual appearance of Campanulaceæ, its flowers being in no degree campanulate or bell-shaped; indeed the segments of the corolla being so deeply divided, it would at first sight be scarcely recognized as monapetalous. One species of Phyteuma is still more anomalous—the Phyteuma comosum, the segments of the corolla of which always cohere at the apex.

Phyteuma pulchellum is perfectly hardy, and may be grown on any common soil.

Rosa Indica

Menziesia polifolia

Dianthus Caucasicus.

Scilla campanulata

RO'SA IN'DICA.

JAUNE DESPREZ, OR YELLOW NOISETTE.

Class. MONANDRIA. *Order.* POLYGYNIA.

Natural Order. ROSACEÆ.

Origin.	Height.	Flowers in	Habit.	Raised
Hybrid.	15 feet.	August.	Shrub.	in 1832?

No. 729.

So much novelty and beauty has been combined in the numerous French Roses which have been originated within the last ten years, that Roses are taking the foremost place in the estimation of almost every cultivator of a garden. This, however, is but their reinstatement to their ancient privilege, for the Rose has met the adulation of the poet and the sage in all countries of the globe, and in all ages—it is the very type of beauty, taking unquestioned precedence in all matters of ornament and taste. Gerard could not express his own feelings on the Rose, without casting a glance back to the high estimation in which it was held by the Greeks, who were as enthusiastic in its admiration as the most Rose-loving moderns of the nineteenth century. Gerard says, "The plant of Roses, though it be a shrub full of prickles, yet it had been more fit and conuenient to haue placed it with the most glorious floures of the world, than to insert the same here among base and thornie shrubs: for the Rose doth deserue the chiefest and most principall place among all floures whatsoeuer, beeing not onely esteemed for his beautie, vertues, and his fragrant and

odoriferous smell; but also because it is the honour and ornament of our English Scepter, as by the coniunction appeareth in the vniting of those most royall houses of Lancaster and Yorke. Which pleasant floures deserue the chiefest place in Crownes and garlands, as Anacreon Thius a most antient Greeke Poet, affirmes." We will follow Gerard through his translation of the Poet.

> 'The Rose is the honour and beautie of floures,
> The Rose is the care and loue of the Spring,
> The Rose is the pleasure of th' heauenly powres:
> The Boy of faire Venus, Cytheras darling.
> Doth wrap in his head round with garlands of Rose,
> When to the dance of the Graces he goes.'

The novel variety of Rose, which we have now figured, has excited considerable attention, and is known by the French name JAUNE DESPREZ. It is equally remarkable for its beauty and its fragrance, and suitable for standards or training. Mr. Rivers in his Amateur's Guide, says "It was originated by M. Desprez about seven years since, and is still, and will be for some time to come a very popular rose. It is, most probably a hybrid between the Yellow Chinese and a Noisette rose of some kind; it sold for a high price in France, when first sent forth to the Rose world, as its name was very tempting, for a yellow fragrant Noisette Rose was thought to be worth any price. Its rosy copper-coloured flowers are very singular, and so powerfully fragrant, that one plant will perfume a large garden in the cool weather of autumn. A pillar of this rose, twelve or twenty feet high, would be a grand object on a well-kept lawn."

MENZIE'SIA POLIFO'LIA.

POLIUM-LEAVED MENZIESIA.

Class.	*Order.*
OCTANDRIA.	MONOGYNIA.

Natural Order.
ERICACEÆ.

Native of	Height.	Flowers in	Duration.	Native of
Ireland.	18 inches.	June to Sept.	Perennial.	Mountains.

No. 730.

The white variety of Menziesia polifolia, which was discovered in Ireland, a few years ago, we published as the 478th subject of the Botanic Garden. The present plant, although less scarce than the white variety, is deserving of attentive culture; and should not be wanting in a collection of these hardy little evergreen shrubs. It will not be esteemed the less valuable on account of its aptitude to ripen seeds, and in a genial soil, to produce, spontaneously, a stock of seedlings that may be transferred either to other parts of the garden or to suitable localities in the pleasure ground.

This species is by far the most abundant of the two British Menziesias; being found over a considerable extent of the mountainous part of Galway, in Ireland, which is its principle station.

It succeeds equally well in a moist or dry situation. Sandy peat; or, sandy peat mixed with loam, form suitable soil for it. Its increase from seeds we have noticed; it may, too, be rapidly increased by layers; or, cuttings may be struck in clean sand, under a bell-glass. We should mention that this is the Dabœcia polifolia of Mr. Don.

Don's Syst. Bot. 3, 833.

DIAN'THUS CAUCA'SICUS.

CAUCASIAN PINK.

Class.	*Order.*
DECANDRIA.	DIGYNIA.

Natural Order.
SILENACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
Caucasus.	1 foot.	June to Sept.	Perennial.	in 1803.

No. 731.

Dios, Anthos, Jove's Flower, was originally applied more immediately to the Dianthus caryophyllus, or Carnation, than to the smaller species, which now fall into the same genus. The common appellation, Pink, seems to have been taken from the Dutch, who applied it in allusion to the centre or eye of the flower, which in that language it signifies. The French, too, following the same idea, call the Pink Œillet, from œil, an eye.

The Caucasian Pink, (brought from the Caucasian mountains) is both a hardy and pretty species, well deserving to be planted in the mixed parterre; where, from its stature and unobtrusive habit, it should occupy a space near to the front.

It demands no peculiar management, but may be planted in the common soil, where it is tolerably light and dry. The roots may be divided in the spring for increase; or cuttings may be taken about Midsummer, and struck under a hand-glass. The plant ripens seeds pretty freely, and the most vigorous and durable plants will be produced by sowing these in spring, in the situations in which they are intended to remain.

Hort. Kew. 2, v. 3, 80.

ORNITHOG'ALUM EXSCA'PUM.

STEMLESS STAR OF BETHLEHEM.

Class. HEXANDRIA. *Order.* MONOGYNIA.

Natural Order. ASPHODELACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Italy.	3 inches.	May & June.	Bulb.	in 1820.

No. 732.

The name of this genus has been handed down from the Greeks, and a meaning is ascribed to it by the moderns, but apparently too ridiculous for us to suppose that it explains the intentions of the ancients. The word is said to have been deduced from ORNIS, a bird; and GALA, milk, from the colour of its flowers being like the milk found in eggs. The species is called scapeless, a term used, we presume, comparatively, just as Gentianella is called acaulis. Its English name is equally unexplicable, not one species having been introduced from, or known to be a native of, Judea.

Little attention appears to be paid to the rather numerous species of ornithogalum, some of which are very ornamental, although not displaying gaiety of colours, most of them being pure white. Many of them are however, Cape bulbs, and require the protection of the greenhouse, where extensive collections of bulbs are rarely met with, unless it be of the Amaryllideæ. In the south of England this plant bears full exposure, but more northerly, must be protected in a cold frame during winter. Should be potted in sandy peat and loam.

LIL'IUM EXIM'IUM.

SPLENDID LILY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
TULIPACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Japan.	1 foot.	July.	Perennial.	in 1834.

No. 733.

The word, Lilium, is founded on a term that was used by eastern nations to distinguish a splendid flower, supposed to be an Amaryllis. The Latin specific appellation, Eximium, indicates the strong impression made by this flower on the mind of Sieber, when he gave it this name. To be splendid, in such a genus, is a high distinction.

Under No. 532 we gave an account of Lilium longiflorum, which Eximium much resembles, and with which it has been confounded by some authors. Eximium, however, produces much the largest flower, the length of its perianth exceeding that of any species with which we are acquainted.

If this Lily be potted, it should be in loam, peat, and sand, but we have grown it successfully in the open ground, with a slight covering in frosty weather, a caution which, perhaps, was unnecessary. It may be increased by taking off the young bulbs in autumn; or by a separation of the scales of the large bulbs, and potting them separately, by which means an abundant increase may be obtained. A little bottom heat would considerably assist the growth of the young progeny.

EU'TOCA WRANGELIA'NA.

WRANGEL'S EUTOCA.

Class. PENTANDRIA. *Order.* MONOGYNIA.

Natural Order. HYDROPHYLLACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. California	1 foot.	August.	Annual.	in 1835.

No. 734.

Eutoca, deduced from EUTOKOS, fruitful. Wrangel is a celebrated name in Sweden; and Baron Wrangel, in honour of whom the plant was named by Fischer, of the Imperial Gardens of St. Petersburg, is employed by the Russian government, and has explored some of the most northern parts of western Russia.

This newly-discovered annual was first introduced to the Botanic Garden of St. Petersburg by seeds, collected in the Russian colony of Ross, in New California, on the north-west coast of North America. By M. de Fischer seeds were transmitted to this country. Thus stands forth one of the blessings of peace. Nation communicates with nation; the produce of all regions of the earth, with increasing knowledge and benevolence, spread from man to man, and progress is made towards the inhabitants of all regions becoming as the members of one family.

It is desirable that the young plants of Eutoca Wrangeliana be raised in a hot-bed, and transplanted into the borders, in May, where they will require no further care than other annuals.

Don's Syst. Bot. 4, 396.

OX'ALIS TETRAPHYL'LA.

FOUR-LEAVED WOOD SORREL.

Class.	*Order.*
DECANDRIA.	PENTAGYNIA.

Natural Order.
OXALIDACEÆ.

Native of	Height	Flowers in	Duration.	Introduced
Mexico.	3 inches.	June, July.	Perennial.	in 1823.

No. 735.

Oxalis, from the Greek OXYS, signifying sharp or sour, a quality for which this genus is particularly distinguished. This species is named tetraphylla, from its having four leaflets on each stalk.

It will have been observed by most of our readers that three leaflets are the prevailing number on each leaf-stalk in this extensive genus, as is the case with Oxalis crenata, (No. 433,) Oxalis acetocella, or common wood sorrel, and of almost two hundred other species; there are, however, a few with more or less—so bountiful is nature in her never-ending variety. It is not alone to the number of leaflets, in a compound leaf, that we would direct the attention of the philosopher or moralist, but also to the infinity of shapes exhibited both by leaflets and simple leaves. A comparison of the forms of a few of those produced by the most common plants cannot fail to awaken mixed feelings of surprise and admiration—even of wonder and reverence, when contemplated as objects far exceeding our comprehension. It is, however, the privilege of rational beings to discover their beauty —to be the recipients of pleasure from meditation

on the works of creation, whence must arise sentiments the most elevated, and gratitude without alloy, to the Omnicient Creator of them all, for the abundance of His undeserved mercies.

In this plant, as in many others, we see what Linneus calls the sleep of plants, that is, the falling together of the leaflets, intended, evidently for purposes on which we can only speculate. We know, however, that one great use of the leaves is for the exposure of the sap to the influence of the air, heat, and light; and that, as is observed by Sir H. Davy, "In the leaves much of the water of the sap is evaporated; it is combined with new principles, and fitted for its organizing functions, and probably passes in its prepared state from the extreme tubes of the alburnum into the ramifications of the cortical tubes, and then descends through the bark. On the upper surface of leaves, which is exposed to the sun, the epidermis is thick but transparent, and is composed of matter possessed of little organization. By these arrangements any evaporation, except from the appropriate tubes, is prevented. On the lower surface, the epidermis is a thin transparent membrane, full of cavities, and it is probably altogether by this surface that moisture, and the principles of the atmosphere necessary to vegetation, are absorbed." Hence, we may catch a glimpse of the economy of nature, and perceive that cogent reasons doubtless exist for the peculiar action of leaves which we have noticed.

The Oxalis tetraphylla is a neat plant, and its flowers lively. It is quite hardy, and increases freely at the root.

Don's Syst. Bot. 1, 760.

I'RIS TAU'RICA.

TAURIAN IRIS.

Class. TRIANDRIA. *Order.* MONOGYNIA.

Natural Order. IRIDACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Tauria.	6 inches.	April, May.	Perennial.	in 1826.

No. 736.

The derivation of the name will be remembered.

The Taurian Iris was raised by the Messrs. Loddiges of Hackney, from seeds, which they received from the garden of St. Petersburg. It is very distinct from all others, but has not the showy colours of many of the more common species. This, however, is not indispensable in every flower that we cultivate; variety gives a charm, and directs the mind, as an excellent man and poet says, from joy to joy—

> NATURE never did betray
> The heart that loved her; 'tis her privilege
> Through all the years of this our life, to lead
> From joy to joy; for she can so inform
> The mind that is within us, so impress
> With quietness and beauty, and so feed
> With lofty thoughts, that neither evil tongues,
> Rash judgments, nor the sneers of selfish men,
> Shall e'er prevail against us, or disturb
> Our cheerful faith, that all which we behold
> Is full of blessings. WORDSWORTH.

The Iris Taurica is as hardy as most of its congeners, and may be increased by division.

Loddiges' Bot. Cab. 1506.

DRACO'PIS AMPLEXICAU'LIS.

STEM-CLASPING-LEAVED DRACOPIS.

Class. SYNGENESIA. *Order.* FRUSTRANEA.

Natural Order. COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Louisiana.	3 feet.	July, Aug.	Annual.	in 1793.

No. 737.

Dracopis amplexicaulis has been described by several authors as Rudbeckia amplexicaulis, and Rudbeckia perfoliata. The new genus Dracopis, was established by Lessing, for the species here figured, on account of a trifling variation in its seeds from those of Rudbeckia.

Although the plant has long been known to, and cultivated by, English botanists, it was probably lost from our gardens, till reintroduced by Drummond, who sent both seeds and dried specimens of it in 1836, to various establishments in this country. These were collected in Texas, and are entire-leaved, whilst plants of the same species, collected in New Orleans have strongly serrated leaves.

It is a hardy annual, or it may, perhaps, prove of longer duration. It is true, that as an autumnal flower, it is but little needed in the open garden, on account of the numerous yellow-flowered plants, both annual and perennial, which afford us their golden tints, to embellish the garden at that season. If sown in March, it may be expected to flower in September. It is of neat growth if tied to a slight upright support.

PENTSTE'MON MACKAYA'NUS.

MACKAY'S PENTSTEMON.

Class. DIDYNAMIA. *Order.* ANGIOSPERMIA.

Natural Order. SCROPHULARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Ohio.	1 foot.	August.	Perennial.	in 1834.

No. 738.

The meaning of the name of this genus has been noticed under No. 316. Mackayanus has been adopted as a specific name, out of respect to Mr. Mackay, Curator of the Trinity College Botanic Garden, Dublin, a veteran in the science of Botany and Horticulture, and an industrious labourer in the interesting field of Irish indigenous botany.

Mr. Mackay received seeds of this Pentstemon from Drummond, who discovered it at Ohio, in 1834. One of the plants, raised from such seeds, was sent to Mr. Cameron, of the Birmingham Garden, who has fortunately preserved the species; —the whole of the plants in the Dublin Garden having perished in the winter of 1837-8. We cannot help dropping a remark or two by the way. If there be a cultivator who does not experience gratification in distributing the riches of his garden, (which we hope there is not, but of which experience forbids us to deny the too frequent occurrence,) let him here draw a hint from the fact mentioned, that had not a single plant been given away, whilst it was thus rare, and consequently valuable, the whole stock might have been lost.

The cultivation of flowers opens so wide a field of pleasure to the truly generous, that for the advantage of an indulgence in this passion alone, it is worthy of attention. When we speak of generosity, we do not mean an indiscriminate thoughtless facility of giving to those who cannot appreciate. The generosity of him who delights in possessing valuable plants, should never be taxed to make a display for such persons as cannot place a just estimate on that which has been given. The garden of the sordid, made gay from the pocket of the generous, should shine in showy refuse, all plants to its owner being of equal value,—none worth money. But, on the other hand, we would be distinctly understood, to lay blame at the garden gate of every one devoid of true and disinterested generosity, in the proper distribution of these combinations of nature's loveliest forms.

"With what a large and bounteous hand
Nature bestows on every land
Her fruits, her flowers, her countless stores,
A world of endless blessings pours.
So Generosity's free soul,
In giving thinks of no control;
But rains down showers as free as heaven,
Nor e'er remembers what is given,"

As the genus Pentstemon is attracting so much attention by its numerous handsome species, the one now figured should not be forgotten; it is a showy flowerer, and if further experience proves that it will not withstand severe winters, young plants may be raised from cuttings, and kept under cover till spring.

Fl. Cab. 117.

COS'MUS SCABIOSOI'DES.

SCABIOUS-LIKE COSMUS.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
ASTERACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	4 feet.	Aug., Oct.	Perennial.	in 1837.

No. 739.

The name of this genus is borrowed from the Greek. Kosmos signifies beautiful, which may be applied to any of its species.

Seeds of the Cosmus scabiosoides were imported from Mexico, by G. F. Dickson, Esq., F.H.S. and presented to the London Horticultural Society, where it first flowered in October, 1837. It is probable that this plant will, from culture, become double, and then, like the Dahlia, may excite additional interest in our gardens, not but that in its single state it is a most desirable plant. Our drawing was made in the Birmingham Horticultural Society's Garden.

This plant is so much like the Dahlia in its habit and requirements, that the mode of cultivation adapted to one will be suitable to the other; but by far the most interesting mode of increase, whilst the plant remains single, will be from seeds, whereby the propagator will have a chance, at least, of obtaining a semidouble flower. If this were once procured, the hopes of the florist would then expand into certainty, that from some future generation the disideratum—a double flower, would spring.

BISER'RULA PELE'CINUS.

HATCHET VETCH.

Class. DIADELPHIA. *Order.* DECANDRIA.

Natural Order. LEGUMINOSÆ.

Native of	Height	Flowers in	Duration.	Introduced
S. Europe.	18 inches.	July & Aug.	Annual.	in 1640.

No. 740.

The generic name, Biserrula, is compounded from the two Greek words, BIS, twice; and SERRULA, a little saw, in allusion to the toothing, or saw-like appearance, which occurs along each side of the very singular legume, or seed pod, of this plant. Pelecinus, being an old generic name for the plant, has been retained as its specific title in modern nomenclature, a practice frequently adhered to, which was formerly indicated by a capital initial letter being used in words so retained, to the exclusion of the capital from specific names in other instances. This practice, however, interfered so materially with the established use of the capital initial at the beginning of those words derived from proper names, that we never adopted the practice, and now it has fallen pretty generally into disuse.

Biserrula pelecinus is an annual of the easiest culture, requiring only to be sown in the borders where it is intended that it shall remain. Its flowers are small, but in addition to the curious formation of its seed pods, its foliage is ornamental, and well suited to form a back-ground for small plants in the borders.

Don's Syst. Bot. 2, 273.

Anemone alpina.

Rhodora Canadense.

Primula Mistassinica

Narcissus montanus.

ANEMO'NE ALPI'NA.

ALPINE ANEMONE.

Class.
POLYANDRIA.

Order.
POLYGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Austria.	6 inches.	July.	Perennial.	in 1658.

No. 741.

The application of the Greek word, ANEMOS, wind, to the present genus of plants is not very satisfactorily explained; it is, however, not unfrequently difficult to fix on any single circumstance which will equally apply to all the species of a genus. The wonderful diversity of exhaustless nature gives the botanist strong claims to indulgence, when his classification exhibits imperfections.

Anemone Alpina has a wide geographical range, being found in the middle and northern extremities of Europe, and on the Rocky Mountains of North America; and exhibits a greater diversity of form, within the limits of a single species, not only than any other Anemone, but than most other plants. The present handsome variety is known in the gardens as the Anemone Popeana, and was, we believe, originally introduced to Great Britain by those liberal-minded nurserymen, the Messrs. Pope of Handsworth, near Birmingham.

It grows in the open borders, requiring little or no care, and ripens seed freely, from which finer plants are usually raised than those which are propagated by division of its tubers.

RHODO'RA CANADEN'SE.

CANADIAN RHODORA.

Class. DECANDRIA. *Order.* MONOGYNIA.

Natural Order. RHODORACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America.	1 foot.	April, May.	Perennial.	in 1767.

No. 742.

Rhodora, like several other generic names, has arisen out of the Greek word RHODON, a rose.

Rhodora Canadense originally ranked in the genus Rhododendron, but differing as it does from that genus in its three-parted corolla, it was separated from it to form another, under the name here given. Lately, however, since Azalea has fallen into Rhododendron, Rhodora has, by some botanists, been ranked with them, and is called Rhododendron rhodora.

Rhodora resembles the Azalea in its deciduous habit, and general appearance; and it requires similar treatment. As it flowers early in the spring its blossoms are sometimes injured by frosts and winds; but it deserves protection, and bears forcing as well as the Azaleas.

The cultivation of these nearly-related plants is so much alike that we will here give Mr. G. Don's directions, from his System of Gardening. He says, "Of all the genera in existence, Rhododendron comprises the most handsome, elegant, and showy shrubs, well fitted for adorning shrubberies, or to be grown singly on lawns. All the species

grow best in peat soil, or very sandy loam, or vegetable mould: they are either increased by layers or by seeds. When raised in the latter way, the seeds must be sown early in the spring, in flat pans or pots filled with peat earth, and covered very slightly; the pots or pans should then be set in a close frame, or at the front of a hot-house, till the plants come up, watering them very slightly when dry; and as soon as the seedlings have grown high enough to be laid hold of, they should be planted out into other pans or pots, filled with the same kind of mould; after which they may stand in a close frame for a few days, until they have struck fresh roots, and afterwards hardened to the air by degrees. The smaller kinds of Rhododendron may be propagated freely by cuttings, taken off from young wood, and planted in sand, placing a bell-glass over them. There are now in the gardens a great many hybrid kinds of Rhododendron, and are still increasing in number; some of which outvie the species in splendour. The species, natives of Nipaul, China, and Japan, in mild winters, would probably succeed in the open air, but they will not survive a severe winter without protection; they are therefore best kept in pots, and placed among other greenhouse or frame plants. Rhododendron arboreum and Rhododendron album are among the most showy of the species, and are well adapted for conservatories, or to be placed in large tubs in the greenhouse. Young cuttings of the tender kinds, if torn off close to the stem, and planted in a pot of sand, will strike root readily; the pot should be plunged in heat under a hand-glass.

Don's Syst. Bot. 3, 848.

PRIM'ULA MISTASSIN'ICA.

LAKE MISTASSINS PRIMROSE.

Class.
PENTANDRIA.

Order
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
N. America.	3 inches.	April, May.	Perennial.	in 1818.

No. 743.

For the meaning of the generic name, see No. 1. This plant was discovered on the banks of the Lake Mistassins, and is indigenous to that part of North America, from Canada to the arctic circle.

Primula Mistassinica, which is nearly related to farinosa and Scotica, is not frequently met with in cultivation; indeed, it is comparatively a rare plant, but deserves a place in every collection of the species of this interesting family. We are indebted to the obliging attention of Messrs. Atkins and Jeyes of Northampton, for the plant which we here figure. We received it in flower, in April, it having had the protection of a cold frame.

It is most successfully cultivated in a pot with Auriculas, or Alpine plants; and should be potted in fresh yellow sandy loam, in preference to any compost or enriched soil.

The researches of botanists abroad, and the industry of cultivators at home, still add to the species and varieties of this pleasing genus. Some however, we presume, are lost, for Master Hesket's Double Primrose, which is described by Parkinson, in his Paradisus Terrestris, has not come under the

notice of any florist with whom we are acquainted. As a specimen of descriptions given two hundred years ago we will copy this.

Parkinson says, "Master Hesket's Double Primrose is very like vnto the small double Primrose, both in leafe, root, and heighth of growing, the stalke not rising much higher then it, but bearing flowers in a farre different manner; for this beareth not only single flowers vpon seuerall stalkes, but somtimes two or three single flowers vpon one stalk, and also at the same time a bigger stalke, and somewhat higher, hauing one greene huske at the toppe thereof, sometimes broken on the one side, and sometimes whole, in the middle whereof standeth sometimes diuers single flowers, thrust together, every flower to be seene in his proper forme, and sometimes there appeare with some whole flowers others that are but parts of flowers, as if the flowers were broken in pieces, and thrust into one huske, the leaues of the flowers (being of a white or pale Primrose colour, but a little deeper) seldome rising aboue the height of the very huske it selfe; and sometimes, as I haue obserued in this plant, it will haue vpon the same stalke, that beareth such flowers as I haue here described vnto you, a small flower or two, making the stalke seeme branched into many flowers, whereby you may perceiue, that it will vary into many formes, not abiding constant in any yeare, as all the other sorts doe."

The singular varieties of the Primula acaulis, or Common Primrose, have attracted the attention of many florists; and a collection of them is alike interesting to the physiologist and the cultivator.

NARCIS'SUS MONTA'NUS.

MOUNTAIN NARCISSUS.

Class. HEXANDRIA. *Order.* MONOGYNIA.

Natural Order. AMARYLLIDACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Portugal.	1 foot.	April, May.	Perennial.	in 1629.

No. 744.

The name Narcissus is explained at No. 225. This species is known to be a native of Portugal, but it is probable that it was first called montanus on account of its introduction from the Pyrenean mountains, where, according to Salisbury, it is indigenous.

The Narcissus montanus has been long known to botanists, but is not a common plant in cultivation, indeed it is rarely met with; and probably our variety of it is still more uncommon, if its peculiarity be not accidental. It will be seen by the accompanying figure, that in lieu of six divisions of the corolla, our flower has four only. This circumstance does not appear to have been noticed by any botanist, and whether, under all circumstances of cultivation, it be permanent or otherwise we are unable to determine; it has, however, during two years, been constant, from which it may be inferred that the plant is a seedling variety, possessing this anomalous character. Should any of our readers be acquainted with it, we shall be glad to receive information regarding its history, that we may communicate it to others.

Loudon's Ency. of Plants, p. 240.

NEMOPH'ILA ATOMA'RIA.

SPECKLED NEMOPHILA.

Class.
PENTANDRIA.

Order
MONOGYNIA.

Natural Order.
HYDROPHYLLACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
California.	6 inches.	June to Oct.	Annual.	in 1836.

No. 745.

For the derivation of the name Nemophila, see No. 635. The Latin specific name is translated in the word speckled.

This is one of the additions to our Californian annuals, obtained, as is stated by Sir W. J. Hooker, by the successful labours of the lamented Douglas, by whom seeds were transmitted to the London Horticultural Society, in 1826. Although a pretty flower it possesses but little of that gaiety which so eminently distinguishes many of the productions received from the same country, and is much less brilliant in appearance than its near ally, the Nemophila insignis (No. 635) which cheers the borders with its lively blue. It is, however, an early flowerer, requiring, with the assistance of a hotbed, but little more than two months' growth before it begins to produce its flowers. A succession of these will be produced through the summer, and its seed will be ripened freely if the season be favourable.

A number of seedlings have sprung spontaneously on the site of our old plant, showing that, like insignis, it is completely hardy.

SCYPHAN'THUS EL'EGANS.

ELEGANT CUP-FLOWER.

Class. SYNGENESIA. *Order.* ÆQUALIS.

Natural Order. LOASACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Chile.	2 feet.	Aug. Sept.	Annual.	in 1824.

No. 746.

The name of the genus now before us is deduced from the Greek words SKUPHOS, a cup, and ANTHOS, a flower. The application will be evident.

Scyphanthus elegans was, we believe, introduced to this country by the Horticultural Society, but it has not come into general cultivation. It is nearly allied to Loasa, and is sometimes met with in our gardens as Loasa volubilis; but this is a plant distinct from Scyphanthus elegans. The stinging property of several allied species would doubtless operate against the culture of this plant, just as the reasonable fear that attends the sight of the poisonous adder is unnecessarily excited by those inoffensive creatures, the common snake, and the blindworm, or slow-worm. The general dissemination of knowledge in the present day promises, however, to banish these prejudices from the minds of the rising generation.

Plants of the Scyphanthus elegans should be raised in a hotbed in the spring, and put into the open borders, against a south wall if convenient, in May. As it will continue flowering till late in autumn, the seeds should be collected as they ripen.

MAL'VA CREEA'NA.

CREE'S MALLOW.

Class.
MONADELPHIA.

Order.
POLYANDRIA.

Natural Order.
MALVACEÆ.

Origin.	Height.	Flowers in	Habit.	Raised
Hybrid.	2 feet.	July to Oct.	Shrub.	in 1835.

No. 747.

Malva, see No. 517. Creeana is a name adopted by the late George Penny, Nurseryman, of Milford, out of respect to his friend Mr. Cree, of the Addlestone Nursery, who is said to be a good practical botanist as well as cultivator.

This very ornamental shrubby Mallow was raised from seed by Mr. Penny, by whom it was named Creeana, but as a variety of Malva miniata. He would, undoubtedly, be a good authority, and must have believed that it sprung from seeds of miniata; of this, however, we have no direct information. Doctor Graham says, "In the arrangement of the species, it seems to me, that it should be placed near to Malva divaricata."

We were favoured with our specimen of this small shrub from the Birmingham Horticultural Society's garden, and Mr. Cameron has obligingly informed us that he finds it a most desirable ornament in autumn, but that it is rather too tender to bear full exposure during winter; therefore young plants should be struck from cuttings, and protected in the cold frame in severe weather. It should be planted in a light soil.

I'RIS RETICULA'TA.

NETTED IRIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Iberia.	5 inches.	Mar. April.	Perennial.	in 1821.

No. 748.

Iris, the rainbow, has been noticed under Nos. 274 and 519.

The pretty Iris which we now publish will form another desirable addition to the collections of many admirers of this very extensive genus. Like most others it may be increased by division; it may also be increased by seeds.

Notwithstanding the Iris is a special favourite with the generality of persons who cultivate it, the most zealous admirer will probably fall very far short in the exhibition of his respectful feelings towards it, when brought into comparison with the Sclavonians of former times. These people, who, it has been supposed, were the aboriginal inhabitants of Russia, and subsequently established themselves on the banks of the Danube, paid extreme deference to the Iris. It is related by Pliny, (Nat. Hist. book xxi.) that previous to taking up a root of it, they considered it necessary to render to the earth compensation; therefore, they made circular channels around the Iris, with a sword, and therein poured mead or honeyed water, in recompence for robbing it of so great a treasure;

and when it was taken forth it was instantly held up aloft towards heaven.

Of the numerous species of Iris which are found in our gardens, England claims but two as natives —the pseudo-acorus, or yellow water-flag, and the fœtidissima, or Gladwyn. The latter, Gerard calls Stinking Gladdon, and prescribes it as a remedy for numerous ills which our frail nature is heir to. The former of these—Iris pseudo-acorus, has powerful medicinal properties, mentioned by old authors as astringent, but stated by modern experimentalists to be directly the reverse. It is, however, astringent to the taste, and has been used in combination with iron, in dying black. It is very abundant in many parts both of England and Scotland in wet marshy places, and by the sides of pools. Hence it is pointed out by nature as a suitable embellishment for the sides of ponds, or other water that may occur in the garden or pleasure grounds. Henry Phillips, in his Flora Historica, says, "It is difficult to imagine an effect more agreeable to the eye than to see clumps of these yellow flowers reflected in the blue waters of our winding streams and ornamental lakes. The embellishment of such situations, in general, is too little understood, and less attended to. We would not wish to see the banks of our rivers bearing visible marks of art, but the naked expanse of artificial lakes is unnatural,—a proportion of aquatic plants is necessary to keep up a harmony of colouring, and to soften the abruptness of the change which the eye catches when waters are too suddenly contrasted with the land."

Calophanes oblongifolia.

Lemanthum Virginicum

Chosma setosum

Calandrinia grandiflora

CALOPH'ANES OBLONGIFO'LIA.

OBLONG-LEAVED CALOPHANES.

Class.	*Order.*
DIDYNAMIA.	ANGIOSPERMIA.

Natural Order.
ACANTHACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Carolina.	9 inches.	August.	Perennial.	in 1832.

No. 749.

The generic name, Calophanes, is compounded of the two Greek words, KALOS, beautiful; and PHAINO, to appear. The truth of its application to the plant will be evident to every one who has seen it in flower. It has been called Ruellia by the American botanists; but may be distinguished by the two-seeded cells of its ovarium.

This very pretty herbaceous plant was introduced from North America, by Mr. Dennis, nurseryman, of Chelsea. It produces numerous upright slender stems, from six to nine inches high, and consequently from its dwarf habit, is desirable as an ornament on artificial rock-work; in general, however, creepers and low tufted or spreading plants, should be preferred for such a situation, inasmuch as upright straight stems of plants harmonize but indifferently with the irregular masses of broken stones.

Calophanes oblongifolia may be increased abundantly by being divided at the root, either in Autumn or spring. Or, if required, it may be propagated from cuttings. It delights in a loamy soil, made less tenacious by the admixture of leaf mould.

LEIMAN'THIUM VIRGIN'ICUM.

VIRGINIAN LEIMANTHIUM.

Class. POLYGAMIA. *Order.* MONŒCIA.

Natural Order. MELANTHACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America	2 feet.	June, July.	Perennial.	in 1768.

No. 750.

Leimanthium is derived from the Greek LEIMON, meadow; and ANTHOS, a flower. The motive for the adoption of such name is explained by the name itself.

This plant was called Melanthium by Linneus, and all his immediate successors; Asphodelus by Plunket; and Helonius by Gauler and others. The progress of discovery has demanded that it should have one more remove, but which it would be unwise to suppose will afford it a permanent resting place. Motion and change seem to be inherent to every thing belonging to terrestrial matter and affairs. This may be admitted without entertaining the whole Leibnitzian philosophy. True it is that Botanists supply a prominent example of change, but generally, it is fair to presume, it arises from a just influence of a discriminating perception, and not, as Aristotle would say, of phantasms.

The Leimanthium Virginicum is not showy in colour, but when well grown, in a peat bed, it becomes a handsome plant, and will not unfrequently attract attention when those of gayer colour are unheeded. It may be divided, in spring, for increase.

ONOS'MA SETO'SUM.

BRISTLY ONOSMA.

Class.
PENTANDRIA.

Order
MONOGYNIA.

Natural Order.
BORAGINACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Russia.	1 foot.	July.	Perennial.	in 1838.

No. 751.

Onosma, the generic name now before us, like the former, is of Greek origin. There is little doubt of the word OSME, smell, furnishing part, if not the whole base, on which it has been founded. Some ingenious botanists say that it was combined with ONOS, an ass, and that the plant is grateful to this animal, an assertion which it may be difficult to authenticate.

Onosma comprises a genus of very pretty plants, and few, if any, superior to the species Setosum. Most persons who have attempted their culture, know that it is attended with difficulty, which has arisen chiefly from the native habitat of these plants not having been properly considered. Of about thirty species, which now compose the genus, nearly the whole may be traced, in their native country, to a rocky, a sandy, or a calcarious dry and arid habitation.

To insure success in the culture of plants it is indispensable that the soil, moisture, and temperature, of their native situations be closely imitated. This may generally be effected without much attendant difficulty. But another requisite—and that of

a nature suitable to the constitution of a plant under culture, it is sometimes not only difficult to obtain, but altogether impossible. We allude to atmosphere.

The density and weight of the atmosphere varies on the surface of the earth, in proportion to the altitude of the situation. Upon the animal frame its weight acts as a bandage, and most persons of observation know, that when its pressure is greatest, which is indicated by the increased height of the barometer, a constringing effect on the system is produced; and an increased circulation of the blood, and more active flow of the animal spirits is the consequence. Persons who have ascended exceedingly high mountains have experienced difficulty of breathing and other unpleasant sensations, showing clearly, that either from a difference in the quality of the air they breathed, or from the loss of a due atmospheric pressure on the system, health would quickly be impaired. Vegetables, like animals, may be said to breathe and perspire—operations which, as a matter of course, are greatly under the influence of the atmosphere in which they live, whence it may be concluded that the want of success in the culture of some alpine plants arises from atmospheric influence, which admits of no amelioration from the assiduity of the cultivator.

The Onosma setosum may be increased by cuttings; but plants raised from seed, in the place in which they are to remain, succeed best. The soil should be light, and if mixed with broken limestone it will the better imitate that of its native places. A sheltered and shady situation should be chosen.

Don's Syst. Bot. v. 4, p. 315

CALANDRI'NIA GRANDIFLO'RA.

LARGE-FLOWERED CALANDRINIA.

Class. DODECANDRIA. *Order.* MONOGYNIA.

Natural Order. PORTULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Chili.	1 foot.	June to July.	Perennial.	in 1826.

No. 752.

Calandrini, after whom the present genus was named, was a botanist of Italy.

Of nearly forty species of Calandrinia which are known to botanists, not more than a dozen, we believe, are in this country. They are chiefly natives of Chili, and all belong to the new world.

The plant under consideration is a greenhouse perennial, but may be grown in the open borders, as a half-hardy annual, under which mode of treatment it succeeds admirably, and becomes, both as respects its flowers and foliage, a conspicuous ornament in the parterre. Its succulent leaves are easily injured by frost; but it is probable that if seedling plants were kept in pots, and plunged in the open ground to flower, they might then be taken up and preserved in the window of a sitting room till the following year. Many species of the succulent tribe are good window plants, requiring very little care, and scarcely any water during winter, which we conceive would be suitable treatment for the Calandrinia, in attempting to keep it without the assistance of a greenhouse. The soil for it should be light and porous.

BER'BERIS ARISTA'TA.

AWNED BARBERRY.

Class.	*Order.*
HEXANDRIA.	MONOGYNIA.

Natural Order.
BERBERIDACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Nepal.	6 feet.	April, May.	Perennial.	in 1820.

No. 753.

The word Berberis is adopted from the Arabic language, in which it is used as the name of the well-known fruit of the Barberry. Aristata is formed from the Latin arista, a bristle or prickle, as a specific name for this species of Berberis, on account of the bristly terminations of the serratures or teeth of the leaves. On reference to our figure, it will be seen that this character is not present; and without examination of the whole shrub, such a specimen would be determined as belonging to a different species. Had De Candolle seen the entire plant, it may be presumed that he would not have adopted a name founded on a character which in the present instance proves so variable. The young flowering branches will be usually found with leaves as they are represented in our drawing; whilst the foliage of other parts of the shrub is more generally serrated, with spinulose teeth; and mucronate, that is, with the apex terminated by a prickly point.

In reference to this plant, it is stated in that excellent and most comprehensive work, "Arboretum et Fruticetum Britannicum" of Mr. Loudon, that

this robust shrub grows with extraordinary vigour, and is "capable of being formed into a very handsome small tree. It is a native of Nepal, and is found on mountains at from 5000 feet to 8000 feet of elevation, flowering there in May. The root and wood are of a dark yellow colour, and form the yellow wood of Persian authors; they are used as a dye, and, being bitter and a little astringent, they, as well as the bark, are employed in medicine. In Nepal, the fruit of this species is dried, like grapes for forming raisins, in the sun. After being once established, plants of this species grow with extraordinary rapidity till they attain the height of eight or ten feet, after which they continue throwing up suckers. It is a most desirable plant, and calculated to produce a splendid effect, both when in flower and when in fruit, upon an open lawn. As a rapid grower, it ought not to be planted near slow-growing shrubs or trees."

For the specimen of this desirable Barberry we are indebted to the obliging attention of Mr. Cameron, of the Birmingham Horticultural Society's Garden, who informs us that he has a Berberis, probably a variety of the present one, which was brought from Kamoon, and seems likely to be the one alluded to by Dr. Royle, as distinguished in its native country by the name Kushmul. It has stronger spines, leaves more prominently aristate; and is less hardy than the one now figured.

Berberis aristata is very ornamental in flower; and retains much of its foliage through the winter. It may be increased by layers, cuttings, or seed; and flourishes in any light garden soil.

PHILADEL'PHUS GORDONIA'NUS.

GORDON'S SYRINGA.

Class.
ICOSANDRIA.

Order.
MONOGYNIA.

Natural Order.
PHILADELPHACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
California.	10 feet.	July.	Perennial.	in 1830.

No. 754.

The Greek tree which bore the name PHILADELPHOS, as mentioned by Aristotle, is now unknown. The name was revived by Linneus for a genus of icosandrous shrubs, usually known as Syringas. The specific name is given in compliment to Mr. George Gordon, superintendent of the Hardy Plant department, in the London Horticultural Society's garden.

Douglas, when employed by the Horticultural Society to explore various parts of the new world, found this shrub growing on the banks of the Columbia River; and sent home seeds, from which Great Britain has derived its supply. It has been extensively increased and distributed, and may be met with in most respectable nurseries.

Independently of its value as a very showy shrub, the Philadelphus Gordonianus should be possessed on account of its flowering later in the season than any other species. Furthermore, it is exceedingly hardy, having sustained our severest frosts.

It may be increased from seeds, layers, or cuttings. The latter should be formed of half-ripened wood, in August, and planted in a shady border.

Bot. Reg. 32, 1839.

AQUILE'GIA BRAC'HYCERAS.

SHORT-SPURRED COLUMBINE.

Class. POLYANDRIA. *Order* PENTAGYNIA.

Natural Order. RANUNCULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. Europe.	9 inches.	May.	Perennial.	in 1838.

No. 755.

The name Aquilegia is founded on the Latin word aquila, an eagle; and Columbine, from columba, a dove. These terms have not been inaptly suggested from the shape of the blossoms. If a flower of Columbine be held up in an inverted position, it would not require an extravagant imagination to discover the representation of a cluster of little birds, stretching their necks and spreading their wings, like young ones in a nest, to be fed. The position of the flowers in our plate of Aquilegia Canadensis, No. 326, will exhibit this; each bird being formed of one petal and two sepals.

Aquilegia brachyceras is a newly-introduced species, named by Fischer and Meyer, in their seed catalogue of the Imperial Botanic Garden, at St. Petersburgh. It was raised from Russian seeds, in 1838, in the Birmingham Garden, and, probably, is not in any other British collection. It is of low growth, and has proved to be quite hardy; it will, therefore, be a desirable addition to our borders. It may be raised from seeds, or increased by division of its roots, and will flower in any common garden mould.

ŒNOTHE'RA RUBICUN'DA.

RUDDY ŒNOTHERA.

Class. OCTANDRIA. *Order.* MONOGYNIA.

Natural Order. ONAGRACEÆ.

Native of California?	Height. 2 feet.	Flowers in July, Aug.	Duration. Annual.	Introduced in 1834.

No. 756.

The meaning of Œnothera will be found noticed under No. 201.

Although we have not adopted the name Godetia, which has been given to part of the plants usually included in the genus Œnothera, it doubtless will ere long prevail. The division of Œnothera was first made by M. Spach, a German botanist, but unfavourably received by his English coadjutors. He has divided it into several genera; that, however, named Godetia, is the only one which has met with notice in England. It is founded on the chalaza (a circular disk, at the base of the nucleus, within the embryo seed) having a fringed margin. None of the flowers of this division of the Linnean genus are yellow.

Seeds of the present plant were collected and sent home by Douglas, from California. It is showy and handsome, and superior to Lindleyana, from the warmth of tint which its flowers possess; and not less inferior to any annual species.

Œnothera rubicunda requires but the usual care of hardy annuals. If sown in March a succession crop may be sown six weeks later.

Bot. Reg. 1856.

Pentstemon Murrayanus. ⅔

Lysimachia stricta. ⅔

Andromeda hypnoides.

Alstrœmeria ligtu. ⅔

PENTSTE'MON MURRAYA'NUS.

MURRAY'S SCARLET PENTSTEMON.

Class. DIDYNAMIA. *Order.* ANGIOSPERMIA.

Natural Order. SCROPHULARIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Texas.	3 feet.	Autumn.	Perennial.	in 1835.

No. 757.

The meaning of the word Pentstemon has already been explained. The specific name, Murrayanus, has been adopted "in honour of the skilful curator of the Glasgow Botanic Garden, who has been the means of rearing so many of Mr. Drummond's plants, and to whose industry, kindness, and friendship that naturalist was greatly indebted for much of the success that attended his exertions."

Pentstemon Murrayanus was discovered by Mr. Drummond at San Felipe, in Texas, and its seeds he transmitted to his patrons in England in the spring of 1835. It is one of the most splendid plants of its genus, but we regret that it is somewhat difficult of culture. It flowers in the open borders far more vigorously than in pots, therefore it should be turned out into a light rich soil, in May. Cuttings should be struck whenever they can be obtained, and be potted in peat, loam, and sand, for protection in a dry airy cold frame. Seedling plants will be found the most luxuriant; and the produce of seeds might be considerably assisted by attention to the artificial fertilization of the flowers.

LYSIMA'CHIA STRIC'TA.

STRAIGHT-BRANCHED LOOSE-STRIFE.

Class. PENTANDRIA. *Order.* MONOGYNIA.

Natural Order. PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.America	$1\frac{1}{2}$ foot.	July, Aug.	Perennial.	in 1781.

No. 758.

The derivation of the name, Lysimachia, has been noticed at length under No. 564. The specific name, Stricta, is expressive of the natural habit of the plant, being, as it is, straight and somewhat rigid. Another name—bulbifera, was subsequently, and therefore unnecessarily adopted, in allusion to the little bulbs which are produced in the axils of the leaves of this Lysimachia.

The distinction between these bulbs and common buds will be seen to be much less than may appear at first sight; under common circumstances the one emits its roots into the parent stem, whilst the other does so into moist earth.

Lysimachia stricta is usually met with, in its native country, in moist and somewhat boggy situations; hence it is found, when brought into cultivation, to grow the most luxuriantly in damp places; it may, however, be grown in almost any exposure, in a light sandy soil, but we have not found it increase freely unless in a rather cool part of the garden. It may be propagated by division of the roots; or by planting the little stem bulbs as soon as they are ripe in October.

Hort. Kew. 2, v. 1, 314.

ANDROM'EDA HYPNOI'DES.

MOSS-LIKE ANDROMEDA.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICACEÆ.

Native of	Height.	Flowers in	Habit	Introduced
Lapland.	4 inches.	June, July.	Shrub.	in 1798.

No. 759.

The word Andromeda has been noticed under No. 24. Hypnoides has been adopted as a specific name from the general resemblance of this diminutive shrub to a species of hypnum, or moss. This, like the plant figured under No. 658, belongs to Professor Don's genus Cassiope.

Many of the vegetable inhabitants of extremely northern or alpine localities become pecularly interesting, not alone from their rarity, but from their beauty, and also their humble growth — an adaptation, as it were, to their peculiar habitats.

Few men, if any, have explored the inhospitable regions of the north with the avidity and inextinguishable love of botany that inspired the immortal Linneus. He braved the inclement elements of the Alps of Lapland, and discovered, almost at the extreme limit of vegetation, the very plant under consideration, accompanied by a few lichens and other dwarf and mostly inconspicuous subjects. It is exceedingly interesting to trace such a traveller, and on reference to his journal we find that the very day after he discovered the Andromeda hypnoides (July 11, 1732) he writes, "We rose

early in the morning, and after walking a quarter of a mile, arrived at the lofty icy mountain. This is, indeed, of a very great elevation, and covered with perpetual snow, the surface of which was, for the most part, frozen quite hard. The delightful tracts of vegetation, which had hitherto been so agreeably interspersed among the alpine snows, were now no longer to be seen. No charming flowers were here scattered under our feet. The whole country was one snowy waste. We were often so violently driven along by the force of the wind that we were taken off our feet, and rolled a considerable way down the hill. This once happened to me in so dangerous a place, that, after rolling to the distance of a gun-shot, I arrived near the brink of a precipice, and thus my part in the drama had very nearly come to an end".

Plants like the present—indigenous to alpine districts only, live continually either under snow, or in a humid atmosphere, and are never exposed to a high temperature. In the culture of them an imitation of these conditions is necessary. This is best effected by keeping the plants under glass, in the shade, during the hot dry days of summer; and giving them frequent sprinklings of water, whereby a moist atmosphere is kept around them; but during the night they should be fully exposed. In winter, frame protection from frost is requisite. This species of Andromeda should be potted in the best peat mixed with one-third part of sand; and it may be conveniently increased by layers; or cuttings of the young wood may be struck under a bell-glass.

Don's Syst. Bot. 3, 839.

ALSTRŒME'RIA LIGTU.

STRIPED-FLOWERED ALSTRŒMERIA.

Class. HEXANDRIA. *Order.* MONOGYNIA.

Natural Order. AMARYLLIDACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Peru.	2 feet.	Feb. March.	Perennial.	in 1776.

No. 760.

Alstrœmeria, a name adopted after Alstrœmer, a Swede. The appellation Ligtu is its Chilian name, the meaning of which is not recorded.

We have already figured two species of Alstrœmeria, and hope to lay others before our readers, being convinced that they are not sufficiently known, or they would be universal favourites. Dr. Lindley truly says of them, "It is not intelligible why these very beautiful flowers should not be more generally cultivated, for surely there is no genus more likely to reward the care of a skilful gardener." They are mostly natives of South America, where some splendid species are known, which still remain for introduction to this country.

As well as the beauty of the Alstrœmeria, the little care which they require in cultivation is no small recommendation to them. Most of them might be grown with complete success in the open borders, planted at the foot of a south wall, in a light vegetable sandy compost; where they will only require protection against frost by a slight covering of furze, spruce-fir, matting, or other convenient material.

Loudon's Ency. Pl. 254.

Delphinium decorum. 1/2

Menziesia empetriformis.

Trollius Americanus. 1/2

Dianthus aggregatus. 1/2

DELPHI'NIUM DECO'RUM.

HANDSOME LARKSPUR.

Class.
POLYANDRIA.

Order.
TRIGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Russia.	18 inches.	May.	Perennial.	in 1838.

No. 761.

Delphinium, from the Greek DELPHINION, a dolphin, alludes to the bud of the flower, previous to its expansion.

This rare plant is one of the most distinct species of Larkspur that has of late been introduced to our gardens. It was, we presume, first cultivated in the Imperial Garden of St. Petersburg, and there named decorum by Fischer and Meyer. Russian seeds were subsequently transmitted to the Birmingham Horticultural Society in 1838, from which the original of our drawing was raised. Mr. Cameron, the curator of this establishment, observes, that it is a plant of neat growth, and flowered in 1839, but much stronger and finer in the present season, 1840, producing a succession of flowers for two months, and ripening seeds. It has proved perfectly hardy, but at present does not admit of division at the root.

Hitherto but little experience has been acquired in regard to this new species; it seems, however, to demand but common garden soil; and Mr. Cameron conceives that the best plants will be raised from seeds, sown where they are to remain.

MENZIE'SIA EMPETRIFOR'MIS.

EMPETRON-FORMED MENZIESIA.

Class. OCTANDRIA. *Order.* MONOGYNIA.

Natural Order. ERICACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America	6 inches.	June, July.	Perennial.	in 1810.

No. 762.

The name of Archibald Menzies, an English botanist, is recorded in this genus by his friend, Sir J. E. Smith. Mr. Menzies collected many rare and nondescript plants, particularly on the western coasts of New Holland and North America. Amongst them was that under consideration, and also Menziesia ferruginea. The observations under No. 681, respecting the transfer from genus to genus of Menziesia cœrulea apply, in a certain degree, to this plant also.

Although cultivated in this country as long ago as the year 1810, Menziesia empetriformis is a scarce plant. This arises from no want of hardihood, but probably from its requiring to be grown in good peat soil. It is quite a gem amongst dwarf shrubs of its own character, or in a collection of alpines, where it deserves a prominent place.

It may be slowly increased from layers, which will make sufficient root in two years to admit of their being separated from the parent plant. Or cuttings of the young wood might be struck in sand under a bell-glass.

Don's Syst. Bot. 3, 833.

TROL'LIUS ASIAT'ICUS.

ASIATIC GLOBE-FLOWER.

Class.
POLYANDRIA.

Order.
POLYGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Siberia.	3 feet.	May & June.	Perennial.	in 1759.

No. 763.

An old German word, trol, or trolen, is said to have been the origin of the name of this genus, and the signification has reference to the globular shape of the flower.

Our drawing was taken from a plant known as Trollius Asiaticus superbus, and from its very fine growth, and the size of its blossoms in comparison with others, it well deserves the appellation superb. As a hardy border plant it is most desirable; its golden globes, or rather hemispheres, strike the attention at a distance, like the terminating crescents of a Turkish mosque. The Trollius Europæus, published under No. 209, produces brilliancy in the back of a border, but the richness of colour in Asiaticus marks the superiority of this flower.

Its general cultivation is most simple. It will grow in almost any situation; but in a deep rich soil, on a cool or moist subsoil, it luxuriates most freely. Increase may be obtained by the division of its roots, in spring or autumn. In favourable seasons this Trollius will ripen seeds; from which young plants may be raised by sowing them in spring, on a bed of fine earth in a cool situation.

DIAN'THUS AGGREGA'TUS.

AGGREGATE PINK.

Class.	*Order.*
DECANDRIA.	DIGYNIA.

Natural Order.
SILENACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Unknown.	1 foot.	June & May.	Biennial.	in 1817.

No. 764.

Dianthus, see No. 65. The single variety of Dianthus aggregatus appeared in the fifth volume of Sweet's Flower Garden, but we are not aware of any figure of the double-flowering plant having hitherto been published. There are few, however, even in this attractive genus, which are more deserving of such attention.

Dianthus aggregatus, in its single state, has been known for several years in our nurseries, but its native country has never been referred to, which increases the probability that it is a garden variety of Dianthus barbatus. However this may be, some of the first botanists of the age have described it as a distinct species. Judging from the plant itself, and the freedom with which our Sweet-william sports into beautiful variety, we are much inclined to consider it a descendant of this species.

We esteem it no mark of disparagement if this plant be a variety of Dianthus barbatus, or Sweet-william, for very few of the old standard plants of our gardens are more deserving of attention. It has of late fallen into unmerited neglect, not as a consequence of its want of beauty, but from the

introduction of innumerable exotic novelties, all of which for awhile occupy attention, but many unduly so, and are subsequently soon forgotten. This very circumstance gave rise to our addition of the Floral Register to this work, that through its pages, and miniature engravings, every newly-introduced plant might be brought under the immediate notice of our readers, and their merits or demerits set forth, whilst those only of prominent beauty or interest would receive further illustration in the Botanic Garden.

At present the Dianthus aggregatus is met with of one deep rich colour only, but by attention to its culture from seed it would be likely to sport into varieties, as others of its family are prone to do, and thereby secure the attention of the florist, who searches for novelty. If prizes were generally offered by Floricultural Societies, for the best seedling Sweet-williams, there cannot be a doubt but the improved flowers would, in a few years, become a splendid addition to our borders. Whether it be that our northern friends, the Scotch, have a more just appreciation of beauty, or are less led away by strange novelties, as Gerarde says, the fact appears that they value the Sweet-william more than the English. The Horticultural Societies of Ayrshire, Stirling, and Montrose, and probably others, offer prizes for Sweet-williams, and we hope to see our English societies do the same, that another beautiful plant may be restored to our gardens.

Dianthus aggregatus will flourish in any good mould, and may be easily increased by cuttings of the young shoots, which spring near the roots.

Don's Syst. Bot. 1, 385.

Tritelia laxa. 1/2

Calendula asterias. 1/2

Cypripedium humile. 1/2

Pernettya phyllireæfolia.

TRITELEI'A LAX'A.

LAX-UMBELLED TRITELEIA.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
ASPHODELACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
California.	2 feet.	June & July.	Perennial.	in 1832.?

No. 765.

Triteleia is derived from the Greek TREIS three, and TELEIOS complete, in allusion to the perfectly ternary arrangement of the several parts of the flower.

This ornamental plant is so very different from any that we usually see in common cultivation, that we are glad to introduce it to notice. For the opportunity too, of doing so, we feel much obliged to those spirited nurserymen, the Messrs. Pope of Handsworth, whose search after valuable plants is unceasing.

Its bulbs were first obtained from California, by the London Horticultural Society, and in mention made of it in the Botanical Register, it is said "No plant can be more easy to cultivate, it will grow in common garden soil, but prefers such a mixture of peat, loam, and sand, as is found in a border for American plants; it appears to be perfectly hardy, and if allowed to remain undisturbed, it will propagate itself by offsets as well as by seeds. It seeds very freely, and will soon become common." It will be very gratifying to see so handsome a plant in general cultivation.

CALEN'DULA ASTE'RIAS.

STARRED MARYGOLD.

Class.
SYNGENESIA.

Order.
NECESSARIA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. Europe.	18 inches.	October.	Annual.	in 1838.

No. 766.

The perpetual flowering of the officinal Marygold seems to have given occasion for the name, Calendula, from calendæ, whence also our word calends, signifying the first day of every month. Asterias, the specific name, alludes, we presume, to the little florets of the disk, and not to the general star-like appearance of the entire flower; it may, however, be applied to either. Keats looked to the entire flower, and says,

> "Open afresh your round of starry folds,
> Ye ardent Marygolds!
> Dry up the moisture of your golden lids,
> For great Apollo bids
> That in these days your praises shall be sung
> On many harps which he has lately strung."

This plant, which is quite distinct from the officinal Marygold, was raised in the Birmingham Horticultural Society's Garden, in 1838. Its seeds were received there from St. Petersburgh, under Meyer and Fischer's name of Calendula asterias.

It is very hardy, and will flower and ripen seeds in any common garden soil. It continues in beauty from August to October.

CYPRIPE'DIUM HU'MILE.

HUMBLE LADIES' SLIPPER.

Class. GYNANDRIA. *Order.* DIANDRIA.

Natural Order. ORCHIDACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America	6 inches.	May, June.	Perennial.	in 1786.

No. 767.

The generic name, Cypripedium, was compounded to indicate the shoe-like shape of the flower. It is derived from the Greek words KUPRIS, one of the names of Venus, and PODION a slipper.

These beautiful and singular plants are chiefly natives of North America; England, however, claims one species as her own, the Cypripedium calceolus—a plant not devoid of beauty, but less splendid than are most of those obtained from the continent of America. America, the English botanist can scarcely look upon but with envy. Her extent from the north pole to the equator, and from the equator far south, gives her all required climates. Her mountains too, rising from burning sands at their base to regions of perpetual snow at their summits, furnish habitats for plants both of the torrid and frigid zone. A single continent, however, although it embraces every variety of climate—every degree of temperature afforded by the extremes of latitude, and the extremes of altitude, is not, we here see, ordained by the divine distributor of earth's riches to bear spontaneously all the works of his hand. He has sown the seeds upon a thousand

hills, and has given to every nation its animal and its vegetable as he saw good.

Plants, we know, from peculiar differences of organization which defy the discrimination of the acutest botanist, and are disclosed to us only by experience, are restricted to the habitation of certain temperatures Those of the tropics cannot exist in the inferior temperature of a northern climate, nor can vegetables of the polar regions live under the blaze of a tropical sun. There are, however, other atmospherical influences of which we know the effects alone. "Each of the great divisions of the earth" as Barton states in his Geography of Plants, "appears to have given birth to a set of plants distinct from those of other parts. Thus, a large proportion of the trees and plants growing wild in the western hemisphere are unlike those of the eastern hemisphere in the same latitude. The vegetable productions of the Cape of Good Hope are unlike those of the south of Europe, though the climate in these two situations is little dissimilar. The plants of the East Indian Islands form another distinct class; those of China and Japan another; those of New Holland again another; and, the little island of St. Helena, it is said, contains a set of plants peculiar to itself." Well may the Psalmist exclaim "O Lord how manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches."

Cypripedium humile is probably scarce, even in America, being rarely met with amongst imported plants. It should be kept in a pot of sandy peat, well drained, and have protection with alpine plants.

Hort. Kew. 2, v. 5, 221.

PERNET'TYA ANGUSTIFO'LIA.

NARROW-LEAVED PERNETTYA.

Class.	*Order.*
DECANDRIA.	MONOGYNIA.

Natural Order.
ERICACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Valdivia.	2 feet.	June.	Perennial.	in 1834.?

No. 768.

The name Pernettya, was adopted in compliment to Don Pernetty, the author of a voyage to the Falkland Islands.

This very ornamental dwarf shrub, was raised in the garden of the Birmingham Horticultural Society, from seeds presented by Robert Bevan, Esq. of Bury St. Edmunds, which had been collected by Bridges, at Valdivia in Chili. It is now to be found in most respectable nurseries, having, we believe, emanated wholly from the above source. Its dark red berries contrast prettily with its green foliage, and they continue to grow during winter, not attaining their full growth till the spring.

This plant has been hitherto known as the species phyllyreæfolia, but since our plate was printed Dr. Lindley has compared it with authentic specimens of phyllyreæfolia from Paris, and finds them different; we therefore adopt his name angustifolia.

Mr. Cameron mentions it as perfectly hardy in a peat border of southern aspect, but observes that layers and suckers should always be removed in autumn, which will prevent the injury it would otherwise receive in a subsequent dry season.