### The Project Gutenberg eBook of The Botanical Magazine, Vol. 05, by William Curtis

This ebook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this ebook or online at <u>www.gutenberg.org</u>. If you are not located in the United States, you'll have to check the laws of the country where you are located before using this eBook.

Title: The Botanical Magazine, Vol. 05

Author: William Curtis

Release date: August 26, 2006 [EBook #19123]

Language: English

Original publication: LONDON: Printed by Couchman and Fry, Throgmorton-Street. For W. CURTIS, No 3, St. George's-Crescent, Black-Friars-Road; And Sold by the principal Booksellers in Great-Britain and Ireland. M DCC XCI.

Credits: Produced by University of Georgia Libraries, Jason Isbell, Janet Blenkinship and the Online Distributed Proofreaders Europe at http://dp.rastko.net

\*\*\* START OF THE PROJECT GUTENBERG EBOOK THE BOTANICAL MAGAZINE, VOL. 05 \*\*\*

Transcriber's Note: Older spellings of place names have been left as in the original.

### THE

### **BOTANICAL MAGAZINE;**

### OR,

### FLOWER-GARDEN DISPLAYED:

#### **IN WHICH**

The most Ornamental FOREIGN PLANTS, cultivated in the Open Ground, the Green-House, and the Stove, are accurately represented in their natural Colours.

### TO WHICH ARE ADDED,

Their Names, Class, Order, Generic and Specific Characters, according to the celebrated Linnæus; their Places of Growth, and Times of Flowering:

#### **TOGETHER WITH**

### THE MOST APPROVED METHODS OF CULTURE.

### A WORK

Intended for the Use of such Ladies, Gentlemen, and Gardeners, as wish to become scientifically acquainted with the Plants they cultivate.

### By WILLIAM CURTIS,

Author of the FLORA LONDINENSIS.

### VOL. V.

-;-;"the garden yields A soft amusement, an humane delight. To raise th' insipid nature of the ground, Or tame its savage genius to the grace Of careless sweet rusticity, that seems The amiable result of happy chance, Is to create, and give a god-like joy, Which ev'ry year improves."

Armstrong.

#### LONDON:

Printed by COUCHMAN and FRY, Throgmorton-Street. For W. CURTIS, No 3, *St. George's-Crescent*, Black-Friars-Road; And Sold by the principal Booksellers in Great-Britain and Ireland.

M DCC XCI.

[145]—MONARDA FISTULOSA. [146]—Hypericum Calycinum. [147]—DAIS COTINIFOLIA. [148]—PELARGONIUM BETULINUM. [149]—ZINNIA MULTIFLORA. [150]—TAGETES PATULA. [151]—LOTUS TETRAGONOLOBUS. [152]—EPIDENDRUM COCHLEATUM. [153]—BULBOCODIUM VERNUM. [154]—SAPONARIA OCYMOIDES. [155]—OXALIS VERSICOLOR. [156]—COREOPSIS VERTICILLATA. [157]—HYACINTHUS BOTRYOIDES. [158]—HIBISCUS ROSA SINENSIS. [159]—ALYSSUM SAXATILE. [160]—PULMONARIA VIRGINICA. [161]—Amygdalus Nana. [162]—SANGUINARIA CANADENSIS. [163]—Phlox Divaricata. [164]—RANUNCULUS GRAMINEUS. [165]—PELARGONIUM CORDIFOLIUM. [166]—CHEIRANTHUS MARITIMUS. [167]—Sophora Tetraptera. [168]—Iris Pavonia. [169]—IXORA COCCINEA. [170]—DRABA AIZOIDES. [171]—IXIA CHINENSIS. [172]—LAMIUM ORVALA. [173]—AITONIA CAPENSIS. [174]—BUDDLEA GLOBOSA. [175]—KALMIA LATIFOLIA. [176]—CYTISUS LABURNUM. [177]—KALMIA GLAUCA. [178]—Hypericum Coris. [179]—FUMARIA GLAUCA. [180]—Azalea Nudiflora. INDEX.—Latin Names. INDEX.—English Names.

### [145]

Monarda Fistulosa, var. Crimson Monarda Class and Order.

#### DIANDRA MONOGYNIA.

#### Generic Character.

Corolla inæqualis: labio superiore lineari filamenta involvente. Semina 4.

#### Specific Character and Synonyms.

MONARDA fistulosa capitulis terminalibus, caule obtusangulo. Linn. Syst. Vegetab. p. 68. ed. 14. Murr. Hort. Kew. v. 1. p. 36.

ORIGANUM fistulosum Canadense. Corn. Canad. 13. t. 14.



Nº145.

The *Monarda fistulosa*, a hardy herbaceous plant, growing spontaneously in Canada, and other parts of North-America, has long been cultivated in the English gardens, to which it recommends itself as much by the fragrance of its foliage, as the beauty of its flowers; of this species the plant here figured is an uncommonly beautiful variety, its blossoms far surpassing those of the original in size, as well as brilliancy of colour, the floral leaves also are highly coloured; we have represented a single blossom of the common *Monarda fistulosa*, that the difference of the two may be rendered obvious.

This variety has been very lately introduced from Holland, by Messrs. GRIMWOOD and Co. Kensington; it flowers from June to September, and is propagated by parting its roots in spring or autumn.

### [146]

Hypericum Calycinum. Large-Flower'd St. John's-Wort.

Class and Order.

POLYADELPHIA POLYANDRIA.

Generic Character.

Calyx 5-partitus. Petala 5. Filamenta multa, in 5 phalanges basi connata. Capsula.

Specific Character and Synonyms.

HYPERICUM calycinum floribus pentagynis solitariis terminalibus, caule tetragono fruticoso, foliis oblongo-ovatis coriaceis. Linn. Syst. Vegetab. p. 700. Mant. 106. Hort. Kew. v. 3. 103.

ASCYRUM magno flore. Bauh. Pin. 280. Prodr. 130.

ANDROSÆMUM Constantinopolitanum flore maximo. Wheler's Journey into Greece, p. 205. cum fig.



#### Nº146.

This species of St. John's-Wort, particularly distinguished by the largeness of its flowers, has very generally been considered as the *Ascyron* of LINNÆUS, owing to his giving to that plant the synonyms which properly belong to the present one: in his *Mantissa*, this species is called *calycinum*, which name is adopted in the 14th edition of the *Systema Vegetabilium*, and also in the *Hortus Kewensis*, where the proper synonyms are applied to it, and from which we learn, that it is a native of the country near Constantinople, and was introduced into this country by Sir GEORGE WHELER, Bart. in 1676.

It is a hardy perennial, increasing much by its roots, which are of the creeping kind, and by parting of which in the autumn it is most readily propagated; like the periwinkle, it is a plant well adapted to cover a bank, or bare, spots under trees, where other plants will not thrive.

It flowers from July to September.

# [147]

DAIS COTINIFOLIA. COTINUS-LEAV'D DAIS.

Class and Order.

Decandria Monogynia.

Generic Character.

Involucrum 4-phyllum. Cor. 4 s. 5-fida. Bacca 1-sperma.

Specific Character and Synonyms.

DAIS cotinifolia floribus quinquefidis decandris. Linn. Syst. Vegetab. ed. 14. Murr. p. 403. Spec. Pl. p. 556.

DAIS laurifolia. Jacq. ic. collect. 1. p. 46.



Nº147.

The *Dais cotinifolia* is an ornamental Green-house Shrub, of the deciduous kind, and though it appears from the *Hortus Kewensis* to have been introduced by Mr. JAMES GORDON, of Mile-End, in 1776, is yet a great rarity with us, and only to be found in some of the first collections.

Its scarcity, and consequent very high price, is attributed to the Nursery-men's not having yet discovered the means of propagating it freely.

Messrs. GRIMWOOD and Co. of Kensington, have some very fine plants of it, which flower every year in the months of June and July, but as yet have produced no perfect seeds, which they may be expected to do when grown older; such having been known to ripen them in Holland.

It is a native of the Cape, and appears to have been long possessed by the Dutch, as its Generic Character taken from D. V. ROYEN, is printed in the Genera Plantarum of LINNÆUS in 1764.

There are only two known species, and they vary in the number of their Stamina, and divisions of the Corolla.

# [148]

Pelargonium Betulinum. Birch-leav'd Crane's-Bill.

Class and Order.

Monadelphia Heptandria.

Generic Character.

Cal. 5-partitus: lacinia suprema definente in tubulum capillarem nectariferum, secus pedunculum decurrentem. Cor. 5-petala, irregularis. Filamenta 10, inæqualia: quorum 3 (raro 5) castrata. Fructus 5-coccus, rostratus: rostra spiralia, introrsum barbata. L'Herit. Geran.

Specific Character and Synonyms.

- PELARGONIUM *betulinum* umbellis paucifloris, foliis ovatis inæqualiter serratis lævigatis. *L'Herit. n. 84.*
- GERANIUM *betulinum* calycibus monophyllis, foliis ovatis inæqualiter serratis planis, caule fruticoso. *Linn. Sp. Pl. p. 946. Burm. Ger. 38.*

GERANIUM fruticosum, betulæ folio, africanum. Raii Suppl. 513.



Nº148.

Though long since described, we have been in possession of this species of Crane's-Bill but a few years; it is one of the many new ones introduced by Mr. MASSON from the Cape, and at the same time one of the most desirable, as its blossoms which are ornamental, are freely produced during most of the summer, and the plant itself is readily propagated by cuttings.

The flowers vary considerably, both in size, and colour; its foliage is different from that of most others, and, as its name imports, like that of the Birch-Tree.

It requires the same treatment as most other Green-House Plants.

### [149]

ZINNIA MULTIFLORA. MANY-FLOWERED ZINNIA.

Class and Order.

Syngenesia Polygamia Superflua.

Generic Character.

*Recept.* paleaceum. *Pappus* aristis 2 erectis. *Cal.* ovato-cylindricus, imbricatus. *Flosculi* radii 5-10, persistentes, integri.

### Specific Character and Synonyms.

ZINNIA multiflora floribus pedunculatis. Linn. Syst. Veg. ed. 14. Murr. p. 777.



Nº149.

The *Zinnia, multiflora*, a native of Louisania, is a plant of more modern introduction, but requires the same treatment, and flowers at the same time, as the *Tagetes patula*, with which, though far

inferior in brilliancy of colour, it contributes to decorate the borders of the flower-garden from June to September.

There is a variety of it with yellow flowers, nearly as common in our gardens as the present plant.

LINNÆUS gave to this genus the name of ZINNIA, in honour of JOH. GOTTFR. ZINN, the pupil of HALLER, and his successor at the University of Gottingen.

The plant we have figured, answers to the name and to the specific description of LINNÆUS'S *multiflora*; having never seen his *pauciflora*, we cannot say whether there be any just cause for suspecting them to be varieties of each other.

### [150]

TAGETES PATULA. SPREADING TAGETES, OR FRENCH MARIGOLD.

Class and Order.

Syngenesia Polygamia Superflua.

Generic Character.

Receptaculum nudum. Pappus aristis 5 erectis. Cal. 1-phyllus, 5-dentatus, tubulosus. Flosculi radii 4-8, persistentes.

Specific Character and Synonyms.

TAGETES patula caule subdiviso patulo. Linn. Syst. Veg. ed. 14. Murr. 228.

TANACETUM Africanum Flos Africanus minor. Bauh. Pin. 132.

FLOS Africanus. *Dod. Pempt. 255.* The small single French Marigold. *Park. Par. p. 304.* 



Nº150.

For richness and variety of tints few flowers can vie with this species of Tagetes, which forms one of the chief ornaments of our gardens at the close of summer.

Some authors make it a native of Africa, others of America.

Two principal varieties are usually kept in the gardens, the common small sort with a strong disagreeable smell, and a larger one here figured, usually called sweet-scented, the former is of more humble growth, its branches more spreading, its blossoms smaller than those of the latter, the flowers of which have usually a greater portion of the yellow tint, and the smell of the other so modified as to be far less disagreeable; sweet-scented we fear it can scarcely be called: from the seed of both sorts some flowers will be produced extremely double, and others single.

MILLER recommends the seed to be frequently changed, to prevent them from degenerating.

It is one of our tender annuals which require to be raised on a gentle hot-bed, if we are desirous of having them early; if that be not an object, they may be sown under a common hand-glass on a warm border the beginning of May, and, when large enough, planted out in the flower-beds, where they are to remain.

DODONÆUS observes, that the leaves, if held up to the light, appear as if perforated; and he adduces some instances, which prove the plant to be of a poisonous nature.

### [151]

Lotus Tetragonolobus. Winged Lotus.

Class and Order.

DIADELPHIA DECANDRIA.

Generic Character.

Legumen cylindricum strictum. Alæ sursum longitudinaliter conniventes. Cal. tubulosus.

Specific Character and Synonyms.

- LOTUS *tetragonolobus* leguminibus solitariis membranaceo-quadrangulis, bractæis ovatis. *Linn. Syst. Vegetab, p. 691. Ait. Hort. Kew. p. 91.*
- LOTUS ruber siliqua angulosa. Bauh. Pin. 332.
- LOTUS pulcherrima tetragonolobus. Comm. Hort. 91. t. 26.
- PISUM quadratum, the crimson-blossom'd or square-codded Pease. *Park. Parad. p. 338.*



N<sup>o</sup>151.

A common annual in our gardens, where it has been long cultivated; is a native of Sicily, and flowers in the open borders in July and August; requires the same management as other hardy annuals.

 $M_{\mbox{\scriptsize ILLER}}$  observes, that it was formerly cultivated as an esculent plant, the green pods being dressed and eaten as peas.

### [152]

EPIDENDRUM COCHLEATUM, TWO-LEAV'D EPIDENDRUM.

Class and Order.

Gynandria Diandria.

Generic Character.

Nectarium turbinatum, obliquum, reflexum.

Specific Character and Synonyms.

EPIDENDRUM *cochleatum* foliis oblongis geminis glabris striatis bulbo innatis, scapo multifloro, nectario cordato. *Linn. Syst. Vegetab, ed. 14. Murr. p.* 819. Ait. Hort. Kew. V. 3. p. 303.

HELLEBORINE cochleato flore. Plum. Sp. 9. u. 185. fig. 2.



#### Nº152.

Plants which draw their support from other living ones, of which there are numerous instances, are by Botanists termed parasitical, and of this kind are most of the present family; deriving their generic name, which is of Greek extraction, from growing on trees, into the bark of which they fix their roots; some of them are also found to grow on dead wood, as the present plant, which is described by Sir HANS SLOANE, in his history of Jamaica, *V. 1. p. 250. t. 121. f. 2.* as not only growing plentifully on trees, but also on the palisadoes of St. Jago de la Vega.

Instances of these plants flowering in England are very rare; Commodore GARDNER, in the year 1789, presented to the Apothecaries company some roots of this plant, taken up in the woods of Jamaica with great care, and which being successfully treated by Mr. FAIRBAIRN in their garden at Chelsea, one of them threw up a flowering stem last February, from whence our drawing was made.

Mr. FAIRBAIRN planted the roots in pots of earth, composed of rotten wood and decayed leaves, plunging them into the tan-bed of a pit of considerable size.

In its fructification, the Epidendrum obviously agrees with the Orchis tribe, but differs essentially in the œconomy of its roots; in the Orchis the roots spring from the crown of the bulb, which is formed in the earth; in the Epidendrum the bulb, or the part which appears to be analogous to a bulb, though of a green colour, is produced above ground, while the roots or fibres proceed from below it.

### [153]

#### BULBOCODIUM VERNUM. VERNAL BULBOCODIUM.

Class and Order.

Hexandria Monogynia.

#### Generic Character.

*Corolla* infundibuliformis, hexapetala: unguibus angustis staminiferis. *Capsula* supera.

Specific Character and Synonyms.

BULBOCODIUM vernum foliis lanceolatis. Linn. Syst. Veg. ed. 14. Murr. p. 320. Ait. Hort. Kew. v. 1. p. 421. Retz. Obs. Bot. Fasc. 2. t. 1.

COLCHICUM vernum hispanicum. Bauh. Pin. 69. Medowe Saffron of the spring. Park. Parad. p. 158-159. f. 7.



#### Nº153.

The excellent and learned CLUSIUS, in the second appendix to his history of rare plants, gives a very good figure of this plant, both in flower and seed, accompanied with its history; our PARKINSON also represents it in his *Parad. terr.* and gives such a minute description of it, as convinces us he must have cultivated it at the time he wrote: Mr. MILLER appears not to have been well acquainted with it, or he would not have described its root to be like that of the Snowdrop; had he said Colchicum, he would not have misled: RETZIUS also in his Bot. Obs. gives a figure of it with the flower dissected.

The *Bulbocodium*, of which there is only one species, is a mountainous plant, a native of Spain, and flowers in the open ground at the same time as the Crocus, for a purple variety of which it might easily be mistaken at first sight; but it differs from the Crocus in having six stamina, and from the Colchicum, to which it is very nearly allied, in having one style instead of three.

It is at present a rare plant in our gardens, which we attribute to its bulbs not admitting of much increase, as well as to its being liable to be killed by frost, and hence requiring more care than it may be thought entitled to from its appearance.

It varies in the colour of its flowers.

# [154]

SAPONARIA OCYMOIDES, BASIL SOAP-WORT.

Class and Order.

Decandria Digynia.

Generic Character.

Cal. 1-phyllus, nudus. Petala 5 unguiculata. Caps. oblonga 1-locularis.

Specific Character and Synonyms.

SAPONARIA Ocymoides calycibus cylindricis villosis, caulibus dichotomis procumbentibus. Linn. Syst. Veg. ed. 14. Murr. Jacq. Fl. Austr. v. 5. app. t. 23. Ait. Hort. Kew. v. 2. p. 87.

LYCHNIS vel Ocymoides repens montanum. Bauh. Pin. 206.



#### Nº154.

The *Saponaria Ocymoides* has been figured in the appendix to the fifth volume of the *Flora Austriaca* in its wild state, as in similar works every plant is expected to be; our figure represents a branch of it only, taken (as all ours in this work professedly are) from a garden specimen which grew on a wall of a particular construction in our garden at Brompton, and of which it was the principal ornament through the months of May, June, and July, during most of which time it was covered with a profusion of bloom<sup>[1]</sup>.

Though it produces blossoms in abundance, it affords but little seed, but may be increased by slips or cuttings.

It is a hardy perennial, a native of France, Italy, Switzerland, and Carinthia, loves a pure air and a dry situation<sup>[2]</sup>, grows best among rocks, stones, or out of a wall, and certainly is one of the best plants imaginable for ornamenting of rock-work.

I received seeds of it, and many other rare plants, from my very kind friend Mr. DAVAL, of Orbe, in Switzerland.

# [155]

OXALIS VERSICOLOR. STRIPED-FLOWER'D WOOD-SORREL.

Class and Order.

Decandria Pentagynia.

Generic Character.

Cal. 5-phyllus. Petala unguibus connexa. Caps. angulis dehiscens, 5-gona.

#### Specific Character and Synonyms.

- OXALIS *versicolor* caule erecto hirto, pedunculis unifloris, foliis ternatis: foliolis linearibus callosis. *Linn. Syst. Veg. ed. 14. Murr. p. 114. p. 434. Ait. Hort. Kew. v. 2. p. 114.*
- OXYS Africana foliis tenuissimis, flore amplo versicolore. *Pluk. Amalth. 169. t.* 434. f. 5.

OXYS Africana foliis tenuissimis in summitate caulis. Raii Suppl. 598.



#### Nº155.

The *Oxalis-versicolor* is considered as one of the most beautiful of the many species cultivated in gardens; and, though well known to, and described by several of the older Botanists, has graced our collections but a few years, being introduced to the Royal Garden at Kew, from the Cape (where, as well as in Ethiopia, it grows spontaneously) by Mr. MASSON, in the Year 1774.

Many of this genus flower early in the spring, the season in which this species also puts forth its blossoms, but by dexterous management it may be made to flower during most of the year; and this is effected by placing the pea-like tubera or knobs which the root sends forth, and by which the plant is propagated, in pots filled with loam and bog-earth at stated distant periods.

Like most of the Cape plants, it is well adapted to the greenhouse, and succeeds best when placed on a front shelf of the house, where it can have plenty of light and air; some keep it in the stove, but there the plant is drawn up, and the flowers lose a part of their brilliancy: in no situation do they ever expand but when the sun shines on them; this is the less to be regretted, as they are most beautiful when closed.

# [156]

COREOPSIS VERTICILLATA. WHORLED COREOPSIS.

Class and Order.

Syngenesia Polygamia Frustranea.

Generic Character.

*Receptaculum* paleaceum. *Pappus* bicornis. *Calyx* erectus, polyphyllus, basi radiis patentibus cinctus.

#### Specific Character and Synonyms.

COREOPSIS verticillata foliis decomposito-linearibus. Linn. Syst. Veg. ed. 14. Murr. p. 782.

COREOPSIS foliis verticillatis linearibus multifidis. Gronov. Fl. Virgin. p. 131.

DELPHINII vel mei foliis planta ad nodos positis caule singulari. Clayt. n. 308.



Nº156.

The *Coreopsis verticillata* is a hardy, perennial, herbaceous plant, a native of North-America; producing its blossoms, which are uncommonly shewy, from July to October, and is readily propagated by parting its roots in Autumn.

It grows to a great height, and is therefore rather adapted to the shrubbery than the flower-garden.

 $\ensuremath{\mathsf{C}}\xspace{\mathsf{LAYTON}}$  remarks, that the petals, though of a yellow colour, are used by the inhabitants to dye cloth red.

# [157]

Hyacinthus Botryoides. Grape Hyacinth.

Class and Order.

Hexandria Monogynia.

Generic Character.

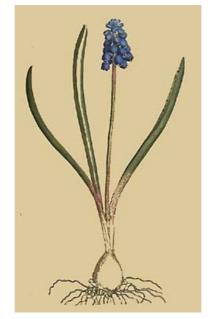
Cor. campanulata: Pori 3 melliferi germinis.

Specific Character and Synonyms.

HYACINTHUS *botryoides* corollis globosis uniformibus, foliis canaliculatocylindricis strictis. *Linn. Syst. Veget. ed. 14. Murr. p. 336. Aiton Hort. Kew. v. 1. p. 459.* 

HYACINTHUS racemosus cæruleus major. Bauh. Pin. 42.

HYACINTHUS Botroides cæruleus amœnus. The skie-coloured grape-flower. Park. Par. p. 114. p. 113. f. 5.



Nº157.

The *Hyacinthus botryoides*, a native of Italy, and cultivated in the time of GERARD and PARKINSON, is now become scarce with us, being only to be accidentally met with in long-established gardens; we first saw it in the garden of our very worthy and much valued friend, Mr. JOHN CHORLEY, of Tottenham, to whose lady my collection stands indebted for several rare and valuable plants.

This species increases sufficiently fast by offsets, but in the open border does not very readily produce flowering stems: as both it and the *racemosus* are apt to become troublesome in a garden from their great increase, we would recommend their bulbs to be placed in moderately sized pots filled with light earth, and plunged in the borders where they are designed to flower; in the autumn they should be regularly taken out, the offsets thrown away, and about half a dozen of the largest bulbs left, all of which will most probably flower at the usual time, the end of March or beginning of April.

PARKINSON, who most admirably describes this and the *racemosus*, enumerates three varieties, viz. the *white*, the *blush-coloured*, and the *branched*; the first is frequently imported with other bulbs from Holland, the second and third we have not seen; the latter, if we may judge from PARKINSON's *fig.* in his *Parad.* is a most curious plant, and was obtained, as CLUSIUS reports, from seeds of the white variety; whether it now exists is deserving of inquiry.

The *botryoides* differs from the *racemosus*, in having its leaves upright, its bunch of flowers smaller, the flowers themselves larger, rounder, of a paler and brighter blue.

### [158]

HIBISCUS ROSA SINENSIS. CHINA-ROSE HIBISCUS.

Class and Order.

Monadelphia Polyandria.

Generic Character.

Calyx duplex, exterior polyphyllus. Capsula 5-locularis, polysperma.

Specific Character and Synonyms.

HIBISCUS Rosa Sinensis foliis ovatis acuminatis serratis, caule arboreo. Linn. Syst. Vegetab. ed. 14. Murr. p. 629. Ait. Hort. Kew. p. 629.

ALCEA javanica arborescens, flore pleno rubicundo. Breyn. cent. 121. t. 56.

HIBISCUS javanica. Mill. Dict. ed. 6. 4to. by whom cultivated in 1731.



#### Nº158.

RUMPHIUS in his *Herbarium Amboinense* gives an excellent account of this beautiful native of the East-Indies, accompanied by a representation of it with double flowers, in which state it is more particularly cultivated in all the gardens in India, as well as China; he informs us that it grows to the full size of our hazel, and that it varies with white flowers.

The inhabitants of India, he observes, are extremely partial to whatever is red, they consider it as a colour which tends to exhilarate; and hence they not only cultivate this plant universally in their gardens, but use its flowers on all occasions of festivity, and even in their sepulchral rites: he mentions also an œconomical purpose to which the flowers are applied, little consistent with their elegance and beauty, that of blacking shoes, whence their name of *Rosæ calceolariæ*; the shoes, after the colour is imparted to them, are rubbed with the hand, to give them a gloss, and which thereby receives a blueish tinge, to discharge which they have recourse to lemon juice.

With us it is kept in the stove, where it thrives and flowers readily during most of the summer; the single blossoms last but a short time, yet their superiority arising from the curious and beautiful structure of the interior parts of the flower, compensates for the shortness of their duration.

It is usually increased by cuttings.

# [159]

ALYSSUM SAXATILE. YELLOW ALYSSUM.

Class and Order.

Tetradynamia Siliculosa.

Generic Character.

Filamenta quædam introrsum denticulo notata. Silicula emarginata.

Specific Character and Synonyms.

ALYSSUM saxatile caulibus frutescentibus paniculatis, foliis lanceolatis mollissimis repandis. Linn. Syst. Veg, ed. 14. Murr. p. 590. Ait. Hort. Kew. p. 381.

ALYSSUM Creticum Saxatile, foliis undulatis incanis. Tourn. cor. 15.

THLASPI luteum leucoji folio. Bocc. muf. 79. t. 93.



Nº159.

As this plant has very generally obtained in gardens and nurseries the name of yellow Alyssum, we have retained it; for though it is not the only one of the genus which produces yellow flowers, it may still be called yellow by way of eminence, such is the extreme brilliancy and profusion of its blossoms.

It is a native of Crete, and was first cultivated in this country by Mr. MILLER, in  $1731^{[3]}$ , at Chelsea garden.

It begins to flower about the latter end of April, and continues to blossom through great part of May; and it is not uncommon for it to flower again in autumn.

If it has a pure air and a dry situation, it will grow in almost any soil.

The usual mode of propagating it is by slips, or cuttings. As it is a small, shewy, hardy plant, and not disposed to over-run others, it is very suitable to embellish rock-work.

# [160]

Pulmonaria Virginica. Virginia Lungwort.

Class and Order.

Pentandria Monogynia.

Generic Character.

*Corolla* infundibuliformis fauce pervia. *Calyx* prismatico-pentagonus.

Specific Character and Synonyms.

PULMONARIA Virginica calycibus abbreviatis, foliis lanceolatis obtusiusculis. Linn. Syst. Veg. ed. 14. Murr. p. 187.

PULMONARIA non maculosa, floribus tubulosis longis pulcherrimis cæruleis, in panicula pendula congestis, foliis teneribus glabris latis obtusis, ad margines æqualibus, pediculis dilute purpureis infidentibus, radice crassa instar symphyti. Mountain Cowslip. *Clayt. Gron. Fl. Virg. p. 25.* 



#### Nº160.

MILLER informs us in his Dictionary, that the *Pulmonaria Virginica* grows naturally upon mountains in most parts of North-America, that the seeds were sent many years since by Mr. BANISTER, from Virginia; and some of the plants were raised in the garden of the Bishop of London, at Fulham, where for several years it was growing.

Though a native of Virginia, it ranks with the hardy herbaceous plants of our gardens, and flowers in the open border about the middle of April; the blossoms before their expansion are of a reddish purple colour, when fully blown they become of a light bright blue, the foliage is glaucous, or blueish green; it is said to vary with white and flesh-coloured flowers.

In favourable seasons, the Flower-Garden owes much of its gaiety to this elegant plant, and at a time when ornament is most desirable.

It requires a pure air, and a situation moderately sheltered, as the cold easterly winds which too readily prevail in April, when it is in flower, are apt to deface it.

It is usually propagated by parting its roots in autumn, and is a free grower.

# [161]

Amygdalus Nana. Dwarf Almond.

Class and Order.

Icosandria Monogynia.

Generic Character.

Cal. 5-fidus, inferus. Petala 5. Drupa nuce poris perforata.

Specific Character and Synonyms.

AMYGDALUS nana foliis basi attenuatis. Linn. Syst. Veg. ed. 14. Murr. p. 162. Pallas. Ross. 1. p. 12. t. 6.

AMYGDALUS indica nana. Pluk. alm. 28. t. 11. f. 3.

ARMENIACA persicæ foliis, fructu exsucco. Amm. Ruth. 273. t. 30.



Nº161.

The Dwarf Almond, a native of Russia and Tartary, is justly considered as one of our most ornamental shrubs; it rarely rises above the height of three feet, and hence becomes very suitable for the shrubbery of small extent. It flowers about the middle of April, somewhat later than the common Almond.

MILLER observes, that the roots are apt to put out suckers, by which the plant may be increased in plenty; and if those are not annually taken away, they will starve the old plant.

Cultivated in 1683, by Mr. James Sutherland. Ait. Hort. Kew.

# [162]

SANGUINARIA CANADENSIS. CANADA PUCCOON, OR BLOODWORT.

Class and Order.

Polyandria Monogynia.

Generic Character.

Cor. 8-petala. Cal. 2-phyllus. Siliqua ovata, 1-locularis.

Specific Character and Synonyms.

SANGUINARIA Canadensis. Linn. Syst. Veg. ed. 14. Murr. p. 489.
CHELIDONIUM majus Canadense acaulon. Corn. Canad. 212.
RANUNCULUS Virginiensis albus. Park. Theat. 226.
SANGUINARIA flore simplici. Dill. Elth. t. 252.



Though the Sanguinaria cannot be considered as a handsome shewy plant, yet we scarcely know its equal in point of delicacy and singularity; there is something in it to admire, from the time that its leaves emerge from the ground, and embosom the infant blossom, to their full expansion, and the ripening of its seed vessels.

The woods of Canada, as well as of other parts of North-America, produce this plant in abundance with us it flowers in the beginning of April: its blossoms are fugacious, and fully expand only in fine warm weather. It is a hardy perennial, and is usually propagated by parting its roots in autumn; a situation moderately shady, and a soil having a mixture of bog-earth or rotten leaves in it suits it best.

Its knobby roots, when broken asunder, pour forth a juice of a bright red or orange colour, whence its name of Sanguinaria: with this liquid the Indians are said to paint themselves.

DILLENIUS, has figured it in his admirable work, the Hortus Elthamensis, where three varieties of it are represented, viz. a large one, a small one, and one in which the petals are multiplied, but which can scarcely be called double.

It appears from MORISON<sup>[4]</sup>, that the Sanguinaria was cultivated in this country in 1680, the date of his work.

### [163]

Phlox Divaricata. Early-Flowering Lychnidea.

Class and Order.

Pentandria Monogynia.

Generic Character.

Corolla hypocrateriformis. Filamenta inæqualia. Stigma 3-fidum. Cal. prismaticus. Caps. 3-locularis, i-sperma.

Specific Character and Synonyms.

PHLOX divaricata foliis lato-lanceolatis: superioribus alternis, caule bifido, pedunculis geminis. Linn. Syst. Vegetab, p. 199. Ait. Hort. Kew. p. 206.

LYCHNIDEA virginiana, alsines aquaticæ foliis, floribus in ramulis divaricatis. *Pluk. Mant. 121?* 



Nº163.

Most of the plants of this genus are natives of North-America, and remarkable for their beauty; they were first introduced under the name of *Lychnidea*, which, though a Latin term, is now familiarized to the English ear.

Mr. Afton has given to this species the name of early-flowering, it coming much sooner into blossom than any of the others, beginning to flower in May with the yellow Alyssum; its blossoms, however, are not of so long duration, nor so ornamental as some others of the same family.

It seldom exceeds a foot in height, and, on this account, may be regarded as a suitable rock-plant.

It rarely ripens its seeds with us, but is readily increased either by cuttings or layers; succeeds best in a pure air and a situation moderately dry.

Like most other American plants, it is of modern introduction, was cultivated by Mr. MILLER, in 1758, and figured in his Icones.

### [164]

RANUNCULUS GRAMINEUS. GRASS-LEAVED CROWFOOT.

Class and Order.

POLYANDRIA POLYGNIA.

Generic Character.

Calyx 5-phyllus. Petala 5 intra ungues poro mellifero. Semina nuda.

Specific Character and Synonyms.

RANUNCULUS gramineus foliis lanceolato linearibus indivisis, caule erecto lævissimo paucifloro. Linn. Syst. Vegetab. ed. 14. Murr. p. 515. Ait. Hort. Kew. p. 265.

RANUNCULUS gramineo folio bulbosus. Bauh. Pin. 181?

RANUNCULUS montanus folio gramineo. Bauh. Pin. 180.

RANUNCULUS gramineus. Grasse leafed Crowfoot. Park. Parad. p. 218. 221. f. i.





This species of Ranunculus, an inhabitant of the dry pastures South of France and Italy, and a hardy herbaceous plant of ready growth, recommends itself by the earliness of its flowering and the delicate glaucous colour of its foliage. PARKINSON figures it with double flowers, though he describes it with semi-double ones only; we have not observed either of these varieties in the gardens about London, they have most probably fallen victims to the rage for novelty, at the shrine of which many a fair and goodly flower is yearly sacrificed.

It flowers towards the end of April, and is propagated by parting its roots in autumn.

The synonyms of this and other species of Ranunculus described in Gerard's *Fl. Gallopr.* are very inaccurately quoted in Professor Murray's edition of the *Syst. Vegetab.* 

# [165]

Pelargonium Cordifolium. Heart-Leaved Geranium. Class and Order.

 ${
m M}$ onadelphia Heptandria.

#### Generic Character.

*Cal.* 5-partitus: lacinia suprema, definente in tubulum capilarem, nectariferum, secus pedunculum decurrentem. *Cor.* 5-petala, irregularis. *Filam.* 10 inæqualia: quorum 3. (raro 5) castrata. *Fructus* 5-coccus, rostratus: rostra spiralia introrsum barbata.

#### Specific Character and Synonyms.

PELARGONIUM cordatum umbellis multifloris, foliis cordatis acutis dentatis, petalis inferis linearibus acutis. Ait. Hort. Kew. p. 427.

GERANIUM cordifolium. Cavan. Diss. p. 240. t. 117. f. 3.



Nº165.

Our readers are here presented with the figure of another Geranium of modern introduction, not enumerated by  $L_{INN \not= US}$  or  $M_{ILLER}$ , and which in point of beauty, duration of flowering, and facility of culture, is equal to most.

It was introduced to the Royal Garden, at Kew, from the Cape, by Mr. MASSON, in 1774.

There are several varieties of it, but the one here figured is the most beautiful.

It strikes readily from cuttings, by which it is usually propagated.

Requires the same treatment as the more common Geraniums, and flowers, from March to July.

### [166]

Cheiranthus Maritimus. Mediterranean Stock.

Class and Order.

Tetradynamia Siliquosa.

Generic Character.

Germen utrinque denticulo glandulato. Cal. clausus: foliolis duobus basi gibbis. Semina plana.

Specific Character and Synonyms.

CHEIRANTHUS *maritimus* foliis ellipticis obtusis nudis scabriusculis, caule diffuso scabro. *Linn. Syst. Vegetab. p. 597. Mantiss. p. 568. Ait. Hort. Kew. v. 2. p. 395.* 

LEUCOJUM minus flore violaceo. Barr. Ic. 1127.



Nº166.

LINNÆUS has described this plant minutely in his *Mantissa Plant*, so that no doubt remains of its being his *maritimus*.

With us, it has been customary for Gardeners and Nurserymen to distinguish this species by the name of Virginia Stock, a name highly improper, as it is found to be a native of the Mediterranean coast.

The blossoms which this plant first puts forth are of a lively red, in a few days they become of a blueish purple colour; to this variety of hues the plant owes its chief beauty.

Being of humble growth, and producing a profusion of bloom, which is of long duration, it is frequently used as an edging to borders, and sometimes sown in little patches with other annuals; in whatever way used, it contributes greatly to enliven the borders of the flower-garden.

It is one of those annuals whose seeds should be sown in the autumn, as it thereby comes much forwarder into bloom, and its blossoms are more lively than those arising from seeds sown in the spring; by varying the time of sowing, it may be had to flower in spring, summer, and autumn.

Small pots of it in bloom have a pretty appearance, and may be used to decorate the windows of those who reside in cities or great towns, where the pleasures of the garden are not to be enjoyed.

# [167]

Sophora Tetraptera, Winged-Podded Sophora.

Class and Order.

Decandria Monogynia.

Generic Character.

*Calyx* 5-dentatus, superne gibbus. *Cor.* papilionacea: alis-longitudine vexilli. *Legumen.* 

Specific Character and Synonyms.

SOPHORA *tetraptera* foliis pinnatis foliolis numerosis (17–19) lanceolatooblongis villosiusculis: leguminibus membranaceo-quadrangulis, caule arboreo. *Ait. Hort. Kew. p. 43.* 

SOPHORA tetraptera. Job. Miller ic. tab. 1.



Nº167.

The magnificent and highly curious species of Sophora here represented, is one of the many plants discovered by Sir Joseph Banks at New-Zealand, where it forms a tree of a considerable size.

A finer sight can scarcely be imagined than a tree of this sort, extending to a great breadth on a wall with a western aspect, in the Apothecaries Garden at Chelsea, where it was planted by Mr. FORSYTH about the year 1774, and which at this moment (April 28, 1791) is thickly covered with large pendulous branches of yellow, I had almost said golden flowers; for they have a peculiar richness, which it is impossible to represent in colouring; in the winter care is taken to cover it carefully with mats, least it should suffer from any extraordinarily severe weather.

It usually produces a few seed vessels of an uncommon form, having four wings, whence its name of *tetraptera*; from some of the seeds which have ripened in this country plants have been raised, and by these the plant is found to be propagated with the most success; it may also be increased by cuttings and layers.

# [168]

IRIS PAVONIA. PEACOCK IRIS.

Class and Order.

Triandria Monogynia.

Generic Character.

*Cor.* 6-petala inæqualis, *Petalis* alternis geniculato-patentibus, *Stigmata* petaliformia; cucullato-bilabiata.

#### Specific Character and Synonyms.

IRIS *pavonia* imberbis folio lineari glabro, scapo subunifloro. *Linn. Syst. Vegetab. p. 92.* 



### Nº168.

We have our doubts whether the plant here figured be the *pavonia* of the *Systema Vegetabilium*, as it does not accord so well with the description there given, as we could wish; as such however it has been regarded by some here, and it must be allowed to answer extremely well to the name.

It is a small delicate Iris, about a foot and a half high, with very narrow leaves, bearing on the top of the stalk one or at most two flowers, three of the petals are large and white, with a brilliant blue spot at the base of each, edged on the outer side with deep purple; the delicacy of the flower, and the eye-like spot at the base of three of the petals, render at one of the most striking plants of the genus.

The figure here given was drawn from a plant which flowered with Messrs. GRIMWOOD and Co. last June, who received it from Holland, and treat it in the same way as their Cape bulbs, of which country it is said to be a native.

It is not mentioned either in Mr. MILLER'S Gardener's Dictionary, or the Hortus Kewensis.

# [169]

IXORA COCCINEA. SCARLET IXORA.

Class and Order.

Tetrandria Monogynia.

Generic Character.

*Cor.* 1-petala, infundibuliformis, longa, supera, *Stamina* supra faucem. *Bacca* 4-sperma.

#### Specific Character and Synonyms.

- IXORA coccinea foliis ovalibus semiamplexicaulibus, floribus fasciculatis. Linn. Syst. Vegetab. ed. 14. Murr. Ait. Hort. Kew. p. 148.
- JASMINUM indicum, lauri folio, inodorum umbellatum, floribus coccineis. *Pluk.* alm. 196. t. 59. s. 2.
- CERASUS zeylanica humilis sylvestris, floribus holosericeis intense rubris umbellatim congestis, fructibus nigris. *Mus. Zeyl. p. 15.*

FLAMMA SYLVARUM Rumph. Amb. 4. p. 105. t. 46.



#### Nº169.

It will appear strange, we presume, to most of our readers, when they are informed, that the *Ixora coccinea*, a plant at present in few hands, and which a short time since was sold in some of our nurseries for five guineas, should have been known in this country a hundred years ago; and yet Mr. AITON, who has so laudably exerted himself, in ascertaining the precise period, when most of the exotics cultivated in the royal garden at Kew first made their appearance in Great-Britain, informs us on very respectable authority, that this plant was introduced by Mr. BENTICK in 1690.

There is every reason to suppose, that this splendid exotic did not long survive its introduction; on inquiry, we learn that it was reintroduced about fifteen years ago, by the late Dr. JOHN FOTHERGILL, a name, to medicine and botany ever dear, in whose rich and magnificent collection at Upton was first known to flower; about the same time, the late Mr. THOBURN, NURSERYMAN AT Brompton, raised a few Ixoras from foreign seeds, and from these (an accident having happened to the plant which was Dr. FOTHERGILL'S) are said to have arisen the plants at present in this country.

Both RHEEDE and RUMPHIUS describe and figure this plant in their respective works, the *Hortus Malabaricus* and *Herbarium Amboinense*; it is mentioned also by several other authors: from their various accounts we discover, that in different parts of India, where it grows wild, it forms a slender shrub, or tree, about six feet high, rising generally with a single stem; that its clusters of flowers, seen from afar are so brilliant as to resemble a burning coal, especially in a dark wood, whence its name of *Flamma Sylvarum*; that it grows in the woods, and flowers in September and October, producing a black fruit, the size of small cherries, on which the peacocks are supposed to feed, and from whence they have obtained the name of *Cerasa Pavonina*. The Chinese call it *Santanhoa*; with them it produces flowers and fruit the year through, and they hold the blossoms in such veneration, as to use them in the sacrifices they make to their idol Ixora, whence LINNÆUS has taken the name applied by him to this genus. The root is said to possess some acrimony, and to be made use of by the natives in curing the toothach.

It is customary in this country, to treat the *Ixora* as a stove plant; perhaps it may be less tender than we are aware of; it flowers in July and August, but has not been known to produce fruit; is increased from cuttings, without much difficulty.

Our drawing was taken from a small but very healthy plant in the stove of Mr. Whitley (late Thoburn and Whitley, Brompton).

 $L_{INN \not\in US}$  describes, and some authors figure this plant with stipulæ, which our plant had not, not being arrived at an age, perhaps, to produce them.

### [170]

DRABA AIZOIDES. SENGREEN DRABA, OR

 $W {\rm HITLOW}\text{-}G {\rm RASS}.$ 

Class and Order.

Tetradynamia Siliculosa.

Generic Character.

*Silicula* integra, ovali-oblonga: valvis planiusculis, dissepimento parallelis. *Stylus* nullus.

#### Specific Character and Synonyms.

DRABA *aizoides* scapo nudo simplici, foliis ensiformibus carinatis ciliatis. *Linn. Syst. Vegetab. ed. Murr. p. 372. Ait. Hort. Kew. v. 2. p. 372.* 

SEDUM alpinum hirsutum luteum. Bauh. Pin. 284.

LEUCOJUM luteum aizoides montanum. Col. Ecphr. 2. p. 62.



Nº170.

The plant here figured, a native of the German Alps, is one of those whose beauty cannot be shewn in a small detached piece of it; to be admired, it must be seen in a tuft of some considerable size, which it is much disposed to form when growing among rock-work, for which, like many other small Alpine plants, it is well suited; thus elevated above the surface of the ground, the various beauties of this humble race are more distinctly seen, and their curious structure more readily inspected.

This species is the more to be esteemed, as it flowers very early in the spring, in March, and the beginning of April, and continues in blossom about six weeks.

LINNÆUS originally confounded it with a similar plant, the *Draba alpina*, a mistake since rectified in his *Mantissa Plant. p. 91*.

### [171]

IXIA CHINENSIS. CHINESE IXIA.

Class and Order.

Triandria Monogynia.

Generic Character.

Cor. 6-partita, campanulata, regularis. Stigmata 3.

Specific Character and Synonyms.

IXIA *chinensis* foliis ensiformibus; floribus remotis, panicula dichotoma, floribus pedunculatis. *Linn. Sp. Pl. v. i. p. 52. Ait. Hort. Kew. v. i. p. 62.* 

MORÆA chinensis caule compresso, foliis ensiformibus, panicula dichotoma, floribus pedunculatis. Murr. Syst. Vegetab. p. 93.



Nº171.

In that elaborate and inestimable work, the *Hortus Malabaricus*, we have a good figure of the plant here exhibited, accompanied by a minute description; the author informs us that it grows spontaneously in India, attaining the height even of five or six feet, and affecting a sandy soil; the natives consider it as an antidote to poisons in general, and regard the bruised root as peculiarly efficacious in curing the bite of the serpent, called Cobra de Copella.

We raised plants of it last year from seeds imparted to us by J. IBBETTSON, Esq. of the Admiralty; this year, during the months of August and September, many of them have flowered, and capsules are forming which have every appearance of producing perfect seeds; the root of this plant is yellow, and tuberous like that of the Iris, the leaves also greatly resemble those of that tribe, it grows to the height of about three feet, and produces a considerable number of flowers in succession each of which is of short duration.

The root and radical leaves as represented on the plate are much smaller than in plants which have been long established.

Our plants stood in pots in the open ground through the winter of 1790-1 without injury, but it must be remembered, that the weather during that period was uncommonly mild; it will be safest therefore to consider it as a tender herbaceous plant.

It differs so much in its fructification from many others of the genus, that Prof. MURRAY has considered it as a *Moræa*, with which, in our humble opinion, it has scarcely any affinity.

# [172]

LAMIUM ORVALA. BALM-LEAVED ARCHANGEL, OR DEAD-NETTLE.

#### Class and Order.

Didynamia Gymnospermia.

#### Generic Character.

*Corollæ* labium superius integrum, fornicatum; lab. infer. 2-lobum; faux utrinque margine dentata.

Specific Character and Synonyms.

LAMIUM *Orvala* foliis cordatis inæqualiter arguteque serratis, corollis fauce inflata, caulibus coloratis. *Linn. Syst. Vegetab. ed. 14. Murr. p. 534.* 

LAMIUM maximum sylvaticum alterum. Bauh. Pin. 231.

GALEOPSIS maxima pannonica. *Clus. hist. 2. p. 35.* Hungary Dead-Nettle, or the Dragon Flower. *Park. Parad. p. 385.* 



#### Nº172.

Few of the plants of this genus have been thought to possess sufficient beauty for the flowergarden, the present one excepted, the magnificence of whose blossoms justly entitles it to rank with the more curious, if not the most beautiful of the vegetable tribes.

Though not common in our gardens, it has long been introduced, having been cultivated and accurately described, though badly figured, by PARKINSON in his *Parad. terr.* 

It grows spontaneously in the woods of Italy and Hungary, and flowers with us about the latter end of April, at which time, if cold winds prevail, it is apt to be injured, unless placed in a sheltered part of the garden.

It may be propagated either by seeds, or by parting its roots in autumn, is a hardy plant and grows readily.

### [173]

Aitonia Capensis. Cape Aitonia.

Class and Order.

Monadelphia Octandria.

Generic Character.

Monogyna. *Cal.* 4-partitus. *Cor.* 4-petala. *Bacca* sicca, 4-angularis, 1-locularis, polysperma.

### Specific Character and Synonyms.

AITONIA Capensis. Linn. Suppl. Pl. p. 303. Linn. Syst. Vegetab. ed. 14. Murr. p. 612.

COTYLEDON foliis linearibus, flore quadrifido, fructu subrotundo. *Burm. Afric. 53. t. 21. s. 2.* 



#### Nº173.

This genus, of which there is only one known species, has been named by the younger LINNÆUS, in honour of Mr. WILLIAM AITON, author of the *Hortus Kewensis*, and Botanic Gardener to his Majesty. The great length of time<sup>[5]</sup>, Mr. AITON has been engaged in the cultivation of plants, the immense numbers which have been the constant objects of his care through every period of their growth, joined to his superior discernment, give him a decided superiority in the *prima facie* knowledge of living plants over most Botanists the present day; his abilities in the other line of his profession, are displayed in the eulogies of all who have seen the royal collection at Kew, which he has the honour to superintend.

The Aitonia is a native of the Cape, and was introduced by Mr. MASSON, in the year 1774.

It is a greenhouse shrub of slow growth, seldom exceeding three feet in height; producing, when of sufficient age, flowers and fruit through most of the year; the fruit is a large dry angular berry, of a fine red colour.

Our drawing was made from a very fine plant, formerly Dr. Fothergill's, now in the collection of Messrs. Grimwood and Co. Kensington.

It is only to be raised from seeds, which are sparingly produced in this country.

# [174]

BUDDLEA GLOBOSA. ROUND-HEADED BUDDLEA.

Class and Order.

Tetrandria Monogynia.

Generic Character.

*Cal.* 4-fidus. *Cor.* 4-fida. *Stamina* ex incifuris. *Caps.* 2-fulca, 2-locularis, polysperma.

Specific Character and Synonyms.

BUDDLEA *globosa* foliis lanceolatis, capitulis solitariis. *Ait. Hort. Kew. p. 150. V. 1.* 

BUDLEJA globosa. Hope in Act. Harlem, V. 20. part. 2. p. 417. t. 11.

PALQUIN Feuil. it. 3. p. 51. t. 38.



Nº174.

Mr. ADAM BUDDLE, in honour of whom the present genus has been originally named by Dr. HOUSTON, was an ingenious English Botanist, cotemporary with, and the friend of PETIVER; his name is often mentioned in the *Synopsis* of Mr. RAY and his *Hortus Siccus*, or dried collection of British plants, preserved in the British Museum, still resorted to in doubtful cases.

The present species not enumerated either by LINNÆUS or MILLER, is a native of Chili, and according to the *Hort. Kew.* was introduced by Messrs. KENNEDY and LEE, in 1774.

It has been customary, in consideration of its native place of growth, to treat it here as a greenhouse plant, for which situation it soon becomes unfit from its magnitude; some have ventured to plant it in the open borders in warm sheltered situations, where it has been found to succeed very well, producing its beautiful yellow blossoms in abundance; care must be taken, however, to guard it carefully from severe frosts, which are apt to destroy it.

It flowers in May and June, and is usually propagated by cuttings or layers.

# [175]

Kalmia Latifolia. Broad-Leav'd Kalmia.

Class and Order.

Decandria Monogynia.

Generic Character.

Calyx 5-partitus. Cor. hypocrateriformis: limbo subtus quinquecorni. Caps. 5-locularis.

Specific Character and Synonyms.

KALMIA *latifolia* foliis ovato-ellipticis ternis sparsisque, corymbis terminalibus. *Linn. Syst. Vegetab. p. 64. ed. 14. Murr. Ait. Hort. Kew. V. 2. p. 64.* 

ANDROMEDA foliis ovatis obtusis, corollis corymbosis infundibuliformis, genitalibus declinatis. *Fl. Virg. 160.* 

CHAMÆDAPHNE foliis tini, floribus bullatis. Catesb. Car. 11. t. 98.

CISTUS chamærhododendros Mariana laurifolia, floribus expansis, summo ramulo in umbellam plurimis. *Pluk. mant. 49. t. 379. s. 6.* The common Laurel, vulgarly called Ivy.



#### Nº175.

Professor KALM (in honour of whom LINNÆUS, as before has been observed, named this genus of plants) in his travels into North-America, published in English by Mr. FORSTER, relates that he found this species in various provinces of that extensive continent, as Pensylvania, New-Jersey, and New-York, growing most commonly on the sides of hills, sometimes in woods; that it flourished most on the northern sides of the hills, especially where they were intersected by rivulets; he observes, that when all the other trees had lost their ornaments, this enlivened the woods by the verdure of its foliage, and that about the month of May, it was covered with a profusion of blossoms of unrivalled beauty.

### [176]

Cytisus Laburnum. Common Laburnum.

Class and Order.

DIADELPHIA DECANDRIA.

Generic Character.

Cal. 2-labiatus: <sup>2</sup>/<sub>3</sub>. Legumen basi attenuatum.

Specific Character and Synonyms.

CYTISUS Laburnum racemis simplicibus pendulis, foliolis ovato-oblongis. Linn. Syst. Veg. p. 666. ed. 14. Murr. Ait. Hort. Kew. V. 3. p. 49.

LABURNUM arbor trifolia anagyridi similis. Bauh. hist. 2. p. 361.

LABURNUM. Beane Trefoile. Park. Parad. p. 438.



Of the Laburnum, our nurseries afford two principal varieties, the broad and narrow-leav'd; the latter (which is the one here figured) Mr. MILLER was induced to make a species of under the name of *alpinum*; it certainly differs very materially from the broad-leav'd one, yet is most probably only a seminal variety; the Laburnum figured in its wild state by Professor JACQUIN, in his *Flora Austriaca*, has much broader leaves than ours, no mention is made by him of its being subject to vary.

Both MILLER and HANBURY recommend the Laburnum to be cultivated not only as an ornamental but as a timber tree, the wood having a very close grain, a good colour, and bearing a high polish;<sup>[6]</sup> they urge in its favour, that it is very hardy, a quick grower, and one that will thrive in almost any soil; the latter says, it will become a timber tree of more than a yard in girt: whatever success may attend its cultivation for the more useful purposes, as a hardy, deciduous, ornamental tree, it has long been the pride of our shrubberies and plantations.

It blossoms in May, and is usually very productive of seeds, by which it may be propagated most readily.

Hares and rabbits being fond of its bark, do great damage to plantations of Laburnum, especially in severe weather; I remember somewhere to have read, that these animals will not touch a tree if soot has been placed about it; perhaps, a circle drawn round the base of the tree with the new coal tar, which has a powerful smell of long duration, might keep off these noxious animals.

The Professor does not mention the precise height which he had observed these trees to attain in North-America, but it is evident that they acquire a considerable thickness, as the wood of the root as well as the body of the tree is manufactured into various utensils by the natives, and by the Indians into spoons in particular, whence it has obtained the name of the *Spoon Tree*.

The leaves have been found to prove poisonous to kine, horses, and sheep, but the deer are observed to brouse on them with impunity.

PETER COLLINSON, Esq. who was highly instrumental in enriching this country with the native plants of North-America, is said to have introduced this elegant species about the year 1734.

With us it succeeds best when planted with a northern aspect, well sheltered, in a soil composed of loam and bog earth, in a situation moderately moist, where the air is perfectly pure.

Being with difficulty propagated by suckers or layers, it is most commonly raised from American seeds.

### [177]

Kalmia Glauca. Glaucous Kalmia.

Specific Character and Synonyms.

KALMIA *glauca* foliis oppositis oblongis lævigatis, subtus glaucis, margine revolutis, corymbis terminalibus, ramulis ancipitibus. *Ait. Hort. Kew. V. 2. p. 64. tab. 8.* 



Nº177.

This species (much inferior in size to the latifolia, as it rarely exceeds two feet in height) is a

native of Newfoundland, where it was discovered by Sir JOSEPH BANKS, Bart. and by him introduced to this country in the year 1767.

It is of course not described by Mr. MILLER, nor is it mentioned the in the 14th edition of LINNÆUS'S *Syst. Vegetab.* by Professor MURRAY; in the *Hort. Kew.* of Mr. AITON, it is both described and figured.

It flowers in April and May, is propagated in the same manner and requires the same treatment as the *latifolia*.

### [178]

Hypericum Coris. Heath-Leav'd. St. John's-Wort.

Class and Order.

POLYADELPHIA POLYANDRIA.

Generic Character.

Cal. 5-phyllus. Petala 5. Nect. 0. Capsula.

Specific Character and Synonyms.

HYPERICUM *Coris* floribus trigynis, calycibus serrato-glandulosis, foliis subverticillatis. *Linn. Syst. Veget. ed. 14. Murr. p. 702.* 

CORIS lutea. Bauh. pin. 280.

CORIS legitima, Ericæ similis. Hon. Belli, ep. 1. ad Cluj. Clus. op. V. 1. p. 299.

CORIS. Matthioli 939.



Nº178.

There is an elegance and neatness in most of this tribe, and none possess those qualities in a greater degree than the present species, which is a charming little evergreen, admirably adapted for the greenhouse, as it forms a pretty bulb, and flowers during most of the summer.

It grows spontaneously in the South of Europe, and many parts of the Levant; HONORIUS BELLUS, in his epistle CLUSIUS (*vid. Clus. op.*) describes it as growing on the hilly parts of the island of Crete.

Mr. LEE, of Hammersmith, received it about four years since from the Crimea.

It is propagated by cuttings.

# [179]

Fumaria Glauca. Glaucous Fumitory. *Class and Order.* Diadelphia Hexandria. Generic Character.

Cal. diphyllus. Cor. ringens. Filamenta 2, membranacea, singula Antheris 3.

Specific Character and Synonyms.

FUMARIA sempervirens siliquis linearibus paniculatis, caule erecto. Linn. Sp. Pl. V. 2. p. 984. Syst. Vegetab. ed. 14. Murr. p. 837. Ait. Hort. Kew. V. 3. p. 2. Bastard Fumitory. Mill. Dict. ed. 6. 4to.

FUMARIA siliquosa sempervirens. Corn. Canad. 57. t. 57.



Nº179.

The term *sempervirens* applied to this plant by LINNÆUS, originated in the description given of it by CORNUTUS; (*vid. Syn.*) the impropriety of calling an annual plant (for such it undoubtedly is with us, and must be in Canada, its native place of growth) an *evergreen*, has appeared to us too glaring to be continued; we have thought the promotion of the science required a change in the name, and have therefore altered it to that of *glauca*, as coinciding with the English name of *glaucous*, given it by Mr. AITON in his *Hortus Kewensis*; for to the delicate, pleasing, glaucous hue of its foliage, it owes its beauty, as much as to the lively colours of its blossoms.

It is a hardy annual, coming up spontaneously in the open border where it has once flowered and seeded, and sometimes reaching the height of two feet.

It flowers from June to September.

Mr. Alton informs us of its having been cultivated by Mr. JAMES SUTHERLAND in the year 1683. Strange! that it should yet be a rarity in our gardens.

### [180]

Azalea Nudiflora *var.* Coccinea. Scarlet Azalea.

Class and Order.

Pentandria Monogynia.

Generic Character.

Cor. campanulata. Stamina receptaculo inferta. Caps. 1-locularis.

Specific Character and Synonyms.

AZALEA nudiflora foliis ovatis, corollis pilosis, staminibus longissimis. Linn. Syst. Vegetab. ed. 14. Murr. p. 198. Ait. Hort. Kew. V. 1. p. 202.

CISTUS virginiana, periclymeni flore ampliori minus odorato. Pluck. Mant. 49.



#### N<sup>o</sup>180.

Whether the variety of the Azalea nudiflora here figured, was originally introduced to this country by Mrs. NORMAN of Bromley in Kent, or Mr. BEWICK of Clapham in Surrey (both celebrated for their collections of American plants) we cannot with certainty assert; true it is, the Azalea coccinea was little known here till the sale of Mr. BEWICK's plant in 1722; a considerable number of these shrubs formed the choicest part of that collection, and sold at high prices, one of them produced twenty guineas: prior to this period, Mr. BEWICK had presented one of the same sort of shrubs to Mr. THOBURN, the fruits of whose skill and assiduous care in the cultivation of American plants are apparent in his late nursery at Brompton, now Mr. WHITLEY's, and from the produce of which plant our figure was taken.

The original species, found abundantly in the more southern parts of North-America, was introduced, according to Mr. Alton's account, by Peter Collinson, Esq. about the year 1724.

The brilliancy of colour and a happy combination of form, unite in rendering the variety here figured, one of the most beautiful plants in nature: yet it wants the fragrance of some of the varieties of the *viscosa*.

It flowers in June and continues in blossom about three weeks, requires a sheltered but not too shady a situation, more dry than moist, and a soil composed of loam and bog earth, or rotten leaves.

The usual mode of propagating it is by layers; care must be taken not to remove the offspring too soon from the mother plant.

### **INDEX.**

In which the Latin Names of the Plants contained in the *Third Volume* are alphabetically arranged.

#### Pl.

173 Aitonia capensis. <u>159</u>Alyssum saxatile. <u>161</u> Amygdalus nana. 180 Azalea nudiflora var. coccinea. 174 Buddlea globosa. 153 Bulbocodium vernum. 166 Cheiranthus maritimus. <u>156</u>Coreopsis verticillata. 176 Cytisus Laburnum. <u>147</u> Dais continifolia. 170 Draba aizoides. 152 Epidendrum cochleatum. 179 Fumaria glauca. 158 Hibiscus Rosa Sinensis. 157 Hyacinthus botryoides. <u>146</u>Hypericum calycinum. 178 Hypericum Coris. <u>168</u>Iris pavonia.

<u>171</u> Ixia chinensis. <u>169</u> Ixora coccinea. 175 Kalmia latifolia. 177 Kalmia glauca. 172 Lamium Orvala. 151 Lotus tetragonolobus. 145 Monarda fistulosa *var.* 155 Oxalis versicolor. <u>165</u> Pelargonium cordifolium. <u>148</u>Pelargonium betulinum. 163 Phlox divaricata. <u>160</u>Pumonaria virginica. 164 Ranunculus gramineus. <u>162</u> Sanguinaria canadensis. 154 Saponaria Ocymoides. <u>167</u>Sophora tetraptera. 150 Tagetes patula. 149 Zinnia multiflora.

### **INDEX.**

In which the English Names of the Plants contained in the *Third Volume* are alphabetically arranged.

Pl. <u>173</u>Aitonia cape. <u>161</u>Almond dwarf. 159 Alyssum yellow. 172 Archangel balm-leav'd. 180 Azalea scarlet. 174 Buddlea round-headed. 153 Bulbocodium vernal. 148 Crane's-bill birch-leav'd. <u>165</u>Crane's-bill heart-leav'd. <u>164</u> Crowsfoot grass-leav'd. <u>156</u>Coreopsis whorled. 147 Dais continus-leav'd. 170 Draba fengreen. 152 Epidendrum two-leav'd. <u>179</u>Fumitory glaucous. 158 Hisicus china-rose. <u>157</u> Hyacinth grape. <u>168</u>Iris peacock. 171 Ixia Chinese. 169 Ixora scarlet. 175 Kalmia broad-leav'd. 177 Kalmia glaucous. <u>176</u>Laburnum common. 151 Lotus winged. 160 Lungwort Virginian. 163 Lychnidea early-flowering. 150 Marigold French. 145 Monarda crimson. 162 Puccoon Canada. 146 St. John's-wort large-flower'd. 178 St. John's-wort heath-leav'd. 154 Soap-wort basil. <u>167</u>Sophora winged-podded. 166 Stock Mediterranean. 155 Wood-sorrel striped-flower'd. 149 Zinnia many-flower'd.

### FOOTNOTES

\_\_\_\_\_

- [1] Pulcherrimos et latissimos in rupibus cespites efficit. *Haller.*
- [2] Delectatur solo duro, arenoso, umbroso sylvarum. *Jacquin*.
- [3] Ait. Hort. Kew.
- [4] Provenit sponte in America occidentali five in Virginia seu Canada, unde semen ad nos delata, quibus propagata ejus fobeles abundanter satis in hortulo suburbano Gul. Walker non longe a palatio Divi Jacobi, sito in vico ejusdem nominis Jacobeo dicto.
- [5] Mr. A. was a pupil of the celebrated Mr. MILLER.
- [6] MATTHIOLUS long since noticed the excellence of this wood, and speaks of it as being particularly used for making the best kind of bows; are our modern Toxopholites acquainted with this circumstance?

### \*\*\* END OF THE PROJECT GUTENBERG EBOOK THE BOTANICAL MAGAZINE, VOL. 05 \*\*\*

Updated editions will replace the previous one-the old editions will be renamed.

Creating the works from print editions not protected by U.S. copyright law means that no one owns a United States copyright in these works, so the Foundation (and you!) can copy and distribute it in the United States without permission and without paying copyright royalties. Special rules, set forth in the General Terms of Use part of this license, apply to copying and distributing Project Gutenberg<sup>™</sup> electronic works to protect the PROJECT GUTENBERG<sup>™</sup> concept and trademark. Project Gutenberg is a registered trademark, and may not be used if you charge for an eBook, except by following the terms of the trademark license, including paying royalties for use of the Project Gutenberg trademark. If you do not charge anything for copies of this eBook, complying with the trademark license is very easy. You may use this eBook for nearly any purpose such as creation of derivative works, reports, performances and research. Project Gutenberg eBooks may be modified and printed and given away—you may do practically ANYTHING in the United States with eBooks not protected by U.S. copyright law. Redistribution is subject to the trademark license, especially commercial redistribution.

### START: FULL LICENSE THE FULL PROJECT GUTENBERG LICENSE PLEASE READ THIS BEFORE YOU DISTRIBUTE OR USE THIS WORK

To protect the Project Gutenberg<sup>™</sup> mission of promoting the free distribution of electronic works, by using or distributing this work (or any other work associated in any way with the phrase "Project Gutenberg"), you agree to comply with all the terms of the Full Project Gutenberg<sup>™</sup> License available with this file or online at www.gutenberg.org/license.

# Section 1. General Terms of Use and Redistributing Project Gutenberg<sup>™</sup> electronic works

1.A. By reading or using any part of this Project Gutenberg<sup>™</sup> electronic work, you indicate that you have read, understand, agree to and accept all the terms of this license and intellectual property (trademark/copyright) agreement. If you do not agree to abide by all the terms of this agreement, you must cease using and return or destroy all copies of Project Gutenberg<sup>™</sup> electronic works in your possession. If you paid a fee for obtaining a copy of or access to a Project Gutenberg<sup>™</sup> electronic work and you do not agree to be bound by the terms of this agreement, you may obtain a refund from the person or entity to whom you paid the fee as set forth in paragraph 1.E.8.

1.B. "Project Gutenberg" is a registered trademark. It may only be used on or associated in any way with an electronic work by people who agree to be bound by the terms of this agreement. There are a few things that you can do with most Project Gutenberg<sup>™</sup> electronic works even without complying with the full terms of this agreement. See paragraph 1.C below. There are a lot of things you can do with Project Gutenberg<sup>™</sup> electronic works if you follow the terms of this agreement and help preserve free future access to Project Gutenberg<sup>™</sup> electronic works. See paragraph 1.E below.

1.C. The Project Gutenberg Literary Archive Foundation ("the Foundation" or PGLAF), owns a compilation copyright in the collection of Project Gutenberg<sup>™</sup> electronic works. Nearly all the individual works in the collection are in the public domain in the United States. If an individual work is unprotected by copyright law in the United States and you are located in the United States, we do not claim a right to prevent you from copying, distributing, performing, displaying or creating derivative works based on the work as long as all references to Project Gutenberg are removed. Of course, we hope that you will support the Project Gutenberg<sup>™</sup> mission of promoting free access to electronic works by freely sharing Project Gutenberg<sup>™</sup> name associated with the terms of this agreement for keeping the Project Gutenberg<sup>™</sup> name associated with the work. You can easily comply with the terms of this agreement by keeping this work in the same format with its attached full Project Gutenberg<sup>™</sup> License when you share it without charge with others. 1.D. The copyright laws of the place where you are located also govern what you can do with this work. Copyright laws in most countries are in a constant state of change. If you are outside the United States, check the laws of your country in addition to the terms of this agreement before downloading, copying, displaying, performing, distributing or creating derivative works based on this work or any other Project Gutenberg<sup>™</sup> work. The Foundation makes no representations concerning the copyright status of any work in any country other than the United States.

1.E. Unless you have removed all references to Project Gutenberg:

1.E.1. The following sentence, with active links to, or other immediate access to, the full Project Gutenberg<sup>™</sup> License must appear prominently whenever any copy of a Project Gutenberg<sup>™</sup> work (any work on which the phrase "Project Gutenberg" appears, or with which the phrase "Project Gutenberg" is associated) is accessed, displayed, performed, viewed, copied or distributed:

This eBook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at <u>www.gutenberg.org</u>. If you are not located in the United States, you will have to check the laws of the country where you are located before using this eBook.

1.E.2. If an individual Project Gutenberg<sup>TM</sup> electronic work is derived from texts not protected by U.S. copyright law (does not contain a notice indicating that it is posted with permission of the copyright holder), the work can be copied and distributed to anyone in the United States without paying any fees or charges. If you are redistributing or providing access to a work with the phrase "Project Gutenberg" associated with or appearing on the work, you must comply either with the requirements of paragraphs 1.E.1 through 1.E.7 or obtain permission for the use of the work and the Project Gutenberg<sup>TM</sup> trademark as set forth in paragraphs 1.E.8 or 1.E.9.

1.E.3. If an individual Project Gutenberg<sup>TM</sup> electronic work is posted with the permission of the copyright holder, your use and distribution must comply with both paragraphs 1.E.1 through 1.E.7 and any additional terms imposed by the copyright holder. Additional terms will be linked to the Project Gutenberg<sup>TM</sup> License for all works posted with the permission of the copyright holder found at the beginning of this work.

1.E.4. Do not unlink or detach or remove the full Project Gutenberg<sup>TM</sup> License terms from this work, or any files containing a part of this work or any other work associated with Project Gutenberg<sup>TM</sup>.

1.E.5. Do not copy, display, perform, distribute or redistribute this electronic work, or any part of this electronic work, without prominently displaying the sentence set forth in paragraph 1.E.1 with active links or immediate access to the full terms of the Project Gutenberg<sup>m</sup> License.

1.E.6. You may convert to and distribute this work in any binary, compressed, marked up, nonproprietary or proprietary form, including any word processing or hypertext form. However, if you provide access to or distribute copies of a Project Gutenberg<sup>™</sup> work in a format other than "Plain Vanilla ASCII" or other format used in the official version posted on the official Project Gutenberg<sup>™</sup> website (www.gutenberg.org), you must, at no additional cost, fee or expense to the user, provide a copy, a means of exporting a copy, or a means of obtaining a copy upon request, of the work in its original "Plain Vanilla ASCII" or other form. Any alternate format must include the full Project Gutenberg<sup>™</sup> License as specified in paragraph 1.E.1.

1.E.7. Do not charge a fee for access to, viewing, displaying, performing, copying or distributing any Project Gutenberg<sup>™</sup> works unless you comply with paragraph 1.E.8 or 1.E.9.

1.E.8. You may charge a reasonable fee for copies of or providing access to or distributing Project Gutenberg<sup>TM</sup> electronic works provided that:

- You pay a royalty fee of 20% of the gross profits you derive from the use of Project Gutenberg<sup>™</sup> works calculated using the method you already use to calculate your applicable taxes. The fee is owed to the owner of the Project Gutenberg<sup>™</sup> trademark, but he has agreed to donate royalties under this paragraph to the Project Gutenberg Literary Archive Foundation. Royalty payments must be paid within 60 days following each date on which you prepare (or are legally required to prepare) your periodic tax returns. Royalty payments should be clearly marked as such and sent to the Project Gutenberg Literary Archive Foundation at the address specified in Section 4, "Information about donations to the Project Gutenberg Literary Archive Foundation."
- You provide a full refund of any money paid by a user who notifies you in writing (or by email) within 30 days of receipt that s/he does not agree to the terms of the full Project Gutenberg<sup>™</sup> License. You must require such a user to return or destroy all copies of the

works possessed in a physical medium and discontinue all use of and all access to other copies of Project Gutenberg<sup>m</sup> works.

- You provide, in accordance with paragraph 1.F.3, a full refund of any money paid for a work or a replacement copy, if a defect in the electronic work is discovered and reported to you within 90 days of receipt of the work.
- You comply with all other terms of this agreement for free distribution of Project Gutenberg  $^{\rm \tiny M}$  works.

1.E.9. If you wish to charge a fee or distribute a Project Gutenberg<sup>TM</sup> electronic work or group of works on different terms than are set forth in this agreement, you must obtain permission in writing from the Project Gutenberg Literary Archive Foundation, the manager of the Project Gutenberg<sup>TM</sup> trademark. Contact the Foundation as set forth in Section 3 below.

1.F.

1.F.1. Project Gutenberg volunteers and employees expend considerable effort to identify, do copyright research on, transcribe and proofread works not protected by U.S. copyright law in creating the Project Gutenberg<sup>™</sup> collection. Despite these efforts, Project Gutenberg<sup>™</sup> electronic works, and the medium on which they may be stored, may contain "Defects," such as, but not limited to, incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

1.F.2. LIMITED WARRANTY, DISCLAIMER OF DAMAGES - Except for the "Right of Replacement or Refund" described in paragraph 1.F.3, the Project Gutenberg Literary Archive Foundation, the owner of the Project Gutenberg<sup>™</sup> trademark, and any other party distributing a Project Gutenberg<sup>™</sup> electronic work under this agreement, disclaim all liability to you for damages, costs and expenses, including legal fees. YOU AGREE THAT YOU HAVE NO REMEDIES FOR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY OR BREACH OF CONTRACT EXCEPT THOSE PROVIDED IN PARAGRAPH 1.F.3. YOU AGREE THAT THE FOUNDATION, THE TRADEMARK OWNER, AND ANY DISTRIBUTOR UNDER THIS AGREEMENT WILL NOT BE LIABLE TO YOU FOR ACTUAL, DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.

1.F.3. LIMITED RIGHT OF REPLACEMENT OR REFUND - If you discover a defect in this electronic work within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending a written explanation to the person you received the work from. If you received the work on a physical medium, you must return the medium with your written explanation. The person or entity that provided you with the defective work may elect to provide a replacement copy in lieu of a refund. If you received the work electronically, the person or entity providing it to you may choose to give you a second opportunity to receive the work electronically in lieu of a refund. If the second copy is also defective, you may demand a refund in writing without further opportunities to fix the problem.

1.F.4. Except for the limited right of replacement or refund set forth in paragraph 1.F.3, this work is provided to you 'AS-IS', WITH NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

1.F.5. Some states do not allow disclaimers of certain implied warranties or the exclusion or limitation of certain types of damages. If any disclaimer or limitation set forth in this agreement violates the law of the state applicable to this agreement, the agreement shall be interpreted to make the maximum disclaimer or limitation permitted by the applicable state law. The invalidity or unenforceability of any provision of this agreement shall not void the remaining provisions.

1.F.6. INDEMNITY - You agree to indemnify and hold the Foundation, the trademark owner, any agent or employee of the Foundation, anyone providing copies of Project Gutenberg<sup>TM</sup> electronic works in accordance with this agreement, and any volunteers associated with the production, promotion and distribution of Project Gutenberg<sup>TM</sup> electronic works, harmless from all liability, costs and expenses, including legal fees, that arise directly or indirectly from any of the following which you do or cause to occur: (a) distribution of this or any Project Gutenberg<sup>TM</sup> work, (b) alteration, modification, or additions or deletions to any Project Gutenberg<sup>TM</sup> work, and (c) any Defect you cause.

### Section 2. Information about the Mission of Project Gutenberg™

Project Gutenberg<sup>™</sup> is synonymous with the free distribution of electronic works in formats readable by the widest variety of computers including obsolete, old, middle-aged and new computers. It exists because of the efforts of hundreds of volunteers and donations from people in all walks of life.

Volunteers and financial support to provide volunteers with the assistance they need are critical to reaching Project Gutenberg<sup>™</sup>'s goals and ensuring that the Project Gutenberg<sup>™</sup> collection will remain freely available for generations to come. In 2001, the Project Gutenberg Literary Archive Foundation was created to provide a secure and permanent future for Project Gutenberg<sup>™</sup> and future generations. To learn more about the Project Gutenberg Literary Archive Foundation and how your efforts and donations can help, see Sections 3 and 4 and the Foundation information page at www.gutenberg.

# Section 3. Information about the Project Gutenberg Literary Archive Foundation

The Project Gutenberg Literary Archive Foundation is a non-profit 501(c)(3) educational corporation organized under the laws of the state of Mississippi and granted tax exempt status by the Internal Revenue Service. The Foundation's EIN or federal tax identification number is 64-6221541. Contributions to the Project Gutenberg Literary Archive Foundation are tax deductible to the full extent permitted by U.S. federal laws and your state's laws.

The Foundation's business office is located at 809 North 1500 West, Salt Lake City, UT 84116, (801) 596-1887. Email contact links and up to date contact information can be found at the Foundation's website and official page at www.gutenberg.org/contact

### Section 4. Information about Donations to the Project Gutenberg Literary Archive Foundation

Project Gutenberg<sup>™</sup> depends upon and cannot survive without widespread public support and donations to carry out its mission of increasing the number of public domain and licensed works that can be freely distributed in machine-readable form accessible by the widest array of equipment including outdated equipment. Many small donations (\$1 to \$5,000) are particularly important to maintaining tax exempt status with the IRS.

The Foundation is committed to complying with the laws regulating charities and charitable donations in all 50 states of the United States. Compliance requirements are not uniform and it takes a considerable effort, much paperwork and many fees to meet and keep up with these requirements. We do not solicit donations in locations where we have not received written confirmation of compliance. To SEND DONATIONS or determine the status of compliance for any particular state visit www.gutenberg.org/donate.

While we cannot and do not solicit contributions from states where we have not met the solicitation requirements, we know of no prohibition against accepting unsolicited donations from donors in such states who approach us with offers to donate.

International donations are gratefully accepted, but we cannot make any statements concerning tax treatment of donations received from outside the United States. U.S. laws alone swamp our small staff.

Please check the Project Gutenberg web pages for current donation methods and addresses. Donations are accepted in a number of other ways including checks, online payments and credit card donations. To donate, please visit: www.gutenberg.org/donate

# Section 5. General Information About Project Gutenberg<sup>™</sup> electronic works

Professor Michael S. Hart was the originator of the Project Gutenberg<sup>™</sup> concept of a library of electronic works that could be freely shared with anyone. For forty years, he produced and distributed Project Gutenberg<sup>™</sup> eBooks with only a loose network of volunteer support.

Project Gutenberg<sup> $\mathbb{M}$ </sup> eBooks are often created from several printed editions, all of which are confirmed as not protected by copyright in the U.S. unless a copyright notice is included. Thus, we do not necessarily keep eBooks in compliance with any particular paper edition.

Most people start at our website which has the main PG search facility: <u>www.gutenberg.org</u>.

This website includes information about Project Gutenberg<sup>™</sup>, including how to make donations to the Project Gutenberg Literary Archive Foundation, how to help produce our new eBooks, and how to subscribe to our email newsletter to hear about new eBooks.