

A dictionary of the ornamental trees, shrubs, and plants, most commonly cultivated in the plantations, gardens, and stoves of Great Britain / [Charles Bryant].

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Bryant, Charles, -1799

Publication/Creation

Norwich : Printed & sold for the author by J. Bowen, [1790]

Persistent URL

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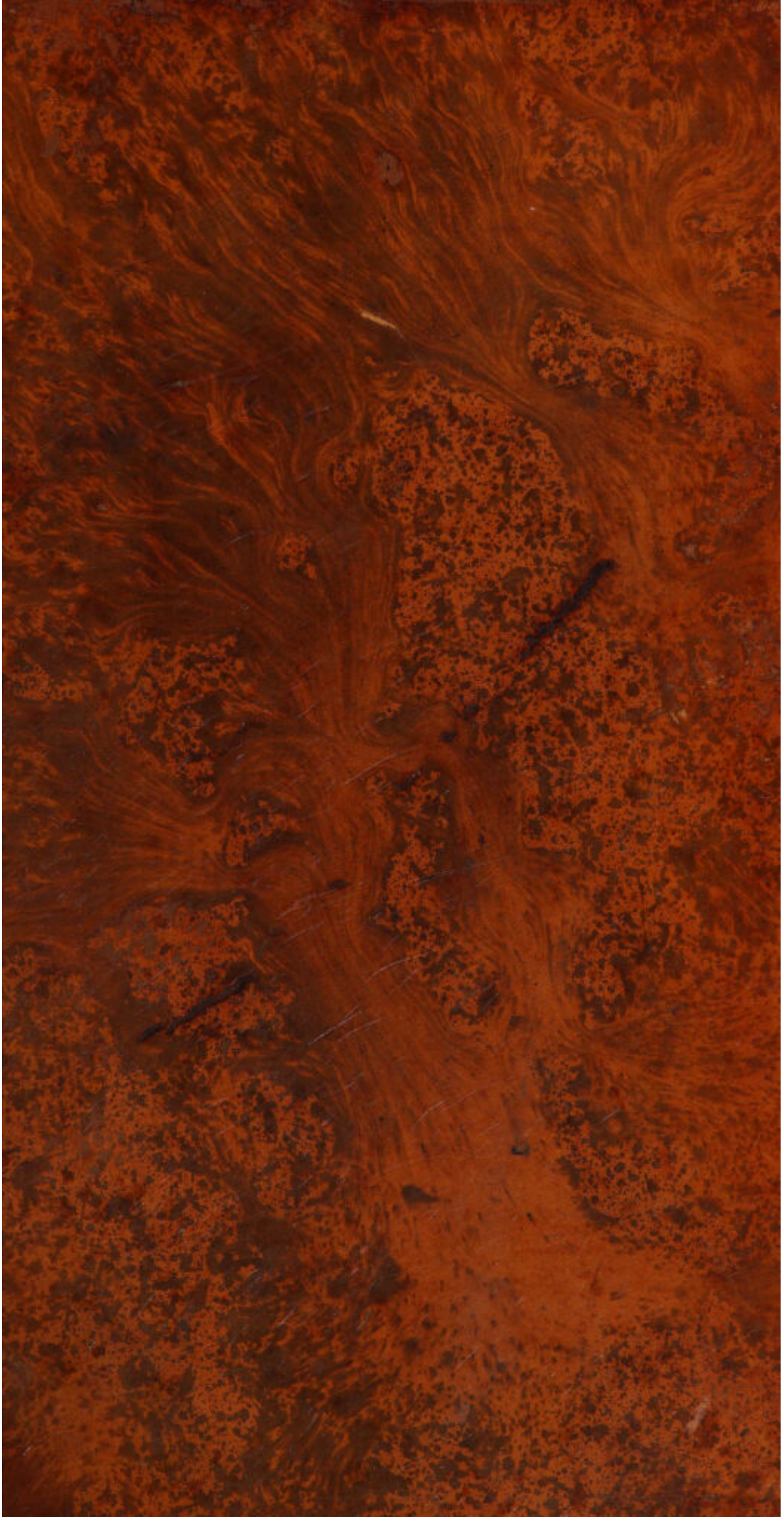
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D I C T I O N A R Y

OF THE ORNAMENTAL

TREES, SHRUBS, and PLANTS,

MOST COMMONLY CULTIVATED

In the PLANTATIONS, GARDENS, and
STOVES, of GREAT-BRITAIN;

Arranged according to their

LINNÆAN GENERIC NAMES,

AND CONTAINING

Full and accurate Descriptions of the different
GENERA and SPECIES,

WITH THE

GENERIC and SPECIFIC NAMES PROPERLY
ACCENTED.

AT THE END,

Is a copious INDEX of GARDENERS and VULGAR NAMES, refer-
ring to their TRUE TITLES in the DICTIONARY, and the Dic-
tionary to a prefixed COMPENDIUM of the SEXUAL SYSTEM,

RETAINING

All the Circumstances necessary to a competent Knowledge
of the SCIENCE of BOTANY,

And in which

EVERY GENUS CONTAINED IN THE DICTIONARY IS PLACED
UNDER ITS PROPER CLASS AND ORDER, WITH ITS CON-
TRACTED CHARACTER.

CHIEFLY INTENDED

For the Use of the LADIES, but proper for all who wish to amuse them-
selves with the Study of PLANTS, and to pronounce their Names with
Propriety.

By CHARLES BRYANT.

N O R W I C H:

PRINTED AND SOLD FOR THE AUTHOR BY J. BOWEN: SOLD
ALSO BY MESSRS. RIVINGTONS, ST. PAUL'S CHURCH-
YARD, LONDON; P. GEDGE, BURY; AND ALL
OTHER BOOKSELLERS IN TOWN
AND COUNTRY.



P R E F A C E.

IN a rich and flourishing country, like that of Great-Britain, there are numerous individuals whom fortune has rendered quite independent of any particular calling or occupation. To many of these, time proves often tedious, and diverse recreations and amusements are sought to make the vacant hours glide agreeably; for the faculties of the mind, like the members of the body, lose their strength and vigour, if not duly recruited with proper nourishment; and intervals of anxiety will intrude, to the great detriment of the animal spirits. Recreations, then, of some sort, are absolutely necessary for the better enjoyment of health and happiness, but our partiality ought to be directed to such as cannot only entertain the mind, but improve the heart and understanding. It may be observed, however, that those now most generally followed have but little tendency to these points; nor can they, from their nature and short duration, produce that uniform temper of mind necessary to true happiness. On the contrary, when too closely pursued, they seldom fail to impair both health and morals. He then who can suggest an amusement more permanent in its nature, more harmless and innocent in its effects, and at the same time supply the means of putting it in practice, certainly ought to claim the esteem of mankind, as much as he who has invented the most agreeable *Game*, or supplied the Stage with the most captivating *Drama*.

Taste of every kind is more commonly fixed by chance, or recommendation, than by nature. The general imitation of fashions abundantly proves this; and the same may be observed of the Arts and Sciences, numbers having been known to take to a particular branch, only by an accidental connection with, or a recommendation from persons, who study that branch. A true natural genius, indeed, will

soonest arrive at perfection in any pursuit; but the less expert, when once they get over the beginning difficulties, will not fail, by a steady and proper application, to make an improvement answerable to their wishes. And without such an application, our progress must be slow in any undertaking. Having dropped these few hints, I must now beg the Ladies attention to the Study of Botany; as in this study they will find constant amusement of the most harmless and salubrious kind, and they will draw from it a large addition of new and useful ideas.

There is always a peculiar satisfaction resulting from the contemplation of any part of Nature, and none of her works can afford more agreeable sensations, than those which compose the *Vegetable Kingdom*. The aspect of Plants is generally pleasing, and their properties are almost boundless. They not only furnish most of the necessaries and luxuries of life, but the eye, the nose, and the palate are not unfrequently gratified by the same individual. The same cannot be said of any of the other tribes of creation. Let one walk a garden or plantation, when the Trees, Shrubs, and Plants are in bloom, and vying with each other in displaying their beauties; can he avoid being filled with rapture? What artificial scene can be equally enchanting? All around portray the Deity! and the grandeur of their foliage, the elegant forms and inimitable tints of their flowers, with the fragrance of their perfumes, conspire to sooth the mind and melt the soul in ecstasy. Can you leave such charmers without reluctance? But can they yeild only sensual delights? Shall the majestic *Oak* and towering *Pine* extend their leafy branches, only to shade and screen you from the Sun? Shall the thorny *Rose* and pliant *Woodbine* exhale their grateful odours, only to regale the sense of smelling? Or, shall the gaudy *Tulip* and proud *Ranunculus* unfold their various dyes, only to please the eye, and be no farther regarded? The Florist and Epicure may thus be fully gratified, but not the philosopher. His penetrating eye will discover numerous pleasing and interesting circumstances, entirely unknown to either of the former. The different methods of the propagation of plants, their astonishing increase, their various manners of unfolding, the nice and exact conformity of their several parts, and the analogy of these to those of animals; their peculiar motion, their sleep, the limits of their tribes, their sex, the marks of the species, the very small gradations by which they arise, or recede from each other, and abundance of other particulars, will attract his notice, and fill him with the most exalted admiration of the great Creator.

As to the Florist, it must be confessed he has been in some measure useful, having abundantly pointed out how Nature may be varied by change of soil, nurture, and promiscuous mixtures. Some of his varieties too, when properly disposed, (not in formal beds and frames) are some of the best ornaments of a garden. But, nevertheless, I will not scruple to tell him that he has already proceeded too far, as shall be presently shown; that most of his distinctions are merely fanciful; that after all his pains he is still ignorant of the true characters of plants, and that the more he extends his practice, the more he mars the beautiful and regular order of Nature, by blotting out its individual distinctions.

The varieties (as they are called) which have been raised of the <i>Primula Auricula</i> are above	300
of the <i>Hyacinthus Orientalis</i> above	500
of the <i>Tulipa Gesneriana</i> above	600
of the <i>Ranunculus Asiaticus</i> above	1,100

In the whole above

2,500

Astonishing! the number is too large for their differences to be real, or any way permanent. But, supposing any *connoisseur* in flowers should be capable of distinguishing these two thousand five hundred varieties by their particular names, it is evident he would thus be acquainted with only four distinct species, out of about ten thousand already described in the *Systema Vegetabilium*; and, which it is probable, does not contain above one fourth part of the number scattered over the whole face of the Globe. A share so trifling, then, as that just mentioned, scarcely deserves notice, much less any pains to acquire. The practice, however, of the Florist is amusing, and it strongly indicates his natural attachment to the beauties of Vegetation. Perhaps his confined tract is more his misfortune than his fault. Were he furnished with a proper pilot, he might venture in the main ocean, and cull from every quarter. We may, however, justly remark, that with less pains and expence than is frequently bestowed on these kinds of flowers, a vast variety of species might be introduced into gardens, not inferior to the former in beauty, but far surpassing the generality of them in utility.

In regard to the Ladies, for whose amusement the present Work is chiefly designed, a fondness for plants seems to be blended in their very natures. How anxiously do they enquire after the name and properties of almost every plant that comes in their way! How diligently do they tend their *Myrtles*, *Balsams*, and *Geraniums*, that they may the longer enjoy the freshness of their green, and the beauty

of their flowers! Yet, where are the Ladies who have made any great progress in the scientific knowledge of plants? They certainly are as capable as the opposite Sex. But which are the books proper for teaching them? Not the works of *Linnaeus*; for, besides their being in a dead language, they are too concise and technical to be easily comprehended. Nor can the laboured *Dictionary* of *Miller* answer this end, it being too prolix and general. Several Floras, indeed, have appeared in English; but what great benefit can the Fair Sex derive from these? They describe the wild plants, and it cannot be expected that females should range hills, dales, groves, woods, bogs, and meadows, in search of specimens for examination. With so many obstacles then in the way, it is no wonder they have generally neglected the study of Botany. But let the Rudiments of the Science be drawn into a narrow compass; expunge as much as possible the hardest and most difficult terms, and fix on such materials as are the most engaging and easy to be procured, and at the same time proper for the illustration of all the principal parts of the Science, and then, I doubt not, but that the Ladies will be able to keep pace, as far as such guide may lead them, with the Gentlemen. A scheme of this sort is aimed at in the following sheets, which contain such plants in general as have an immediate power to please, and for the most part are those which complete the grandeur and elegance of pleasure gardens and plantations, and consequently can be come at and examined in the hours of recreation in these places; or, if not, they are such as may be found very near them.

To render the attainment of the Science the more easy, I have given two different methods of arrangement. Besides forming a *Compendium* of the sexual system, and placing therein a select number of genera, I have composed a *Dictionary* of those same genera, and have there described them all at length; the *Compendium* exhibiting only their contracted characters. This *Dictionary* is succeeded by a copious Index of Gardeners and Vulgar names, by which any plant in the Book, and the Class and Order it belongs to in the System, may be readily known; the Index referring to its true botanick name in the *Dictionary*; and the *Dictionary* to the page where it may be found in the *Compendium*. The advantage of this double arrangement must be obvious to every one; the *Dictionary* will be found the most convenient when only the name of a genus, and description of a species are sought; and the *Compendium* the most ready for teaching the Rules of the Science, and the examining such genera as are nearly related. The *Diction-*

ary too will greatly facilitate the acquiring the Rules; for, by frequently turning to the Compendium to find the Class and Order a plant belongs to, the memory will be as many times refreshed, as occasions occur of referring to the pages; the explanation of the class and order sought, being every time under the eye. Thus the learner will be almost insensibly drawn into a scientific method of practice, without previous study, the fatigue of which has prevented many from pursuing their inclination.

When the distinctions of the Classes and Orders have thus been tolerably well imprinted on the memory, there will be little difficulty in making out a plant by rule, the genera inserted in the Compendium being but few, compared to the number described by *Linnaeus*. Suppose a person should have made progress sufficient to tell on looking in a flower, that it belongs to the fourth class, and the first order of that class, the genera of this order not exceeding ten, they are soon read over either here or in the Dictionary, and the plant in question ascertained; provided care be taken to observe well the generic distinctions, otherwise mistakes will happen in spite of any method, or the most accurate descriptions; the genera being the last and only guides to the species. It will be necessary, then, for the young Botanist minutely to examine all the component parts of a flower, before he fixes on any genus.

In the descriptions I have studiously avoided the most difficult terms, and have only retained a few words, (which are explained hereafter) the absence of which could not have been dispensed with, but by rendering the language highly barbarous, and stripping the Science of its principal ornaments. It is the business of Science to teach expression with knowledge, and to effect this every one must have its peculiar terms.

In forming the Compendium I have entirely rejected the *Polygamia*, or twenty-third class, and have transferred the genera belonging to this, to the twenty-first and twenty-second, by adding an order to each of the latter. There is certainly as much propriety in arranging them thus, as in *Linnaeus's* forming the order *Monogamia* in the nineteenth class, which puts simple flowers in the same class with the compound, only from the circumstance of the summits in these flowers being five, and united.

Many plants in a state of Cultivation do not retain all the characteristic marks of their wild state. The flower in some is very subject to vary in the number and colour of its petals, as is well known to the Florist. On the other hand, cultivate some species as long as you please, and the colour and number will be always the same, though the plant may alter

in some other particulars, and then colour becomes a good specific mark. The calyx is the most immutable part of a flower, yet in gardens its number of leaves or segments will often differ, as may be seen in the *Hollyhock*. The number of stamina and styles will be increased in some; this happens to several species of *Sedum* and *Sempervivum*. The leaves of plants are excessively mutable, and from serrated will become jagged, as is the case in the common *Elder*. In several fruit trees the entire leaf will become serrated, and the serrated entire; the naked hairy, and the hairy naked; owing to the different soils or situations they stand in. By redundancy of nourishment the stems will alter; the round will become flat, which often happens in the *Crown Imperial*. The compressed will change to angled, as is seen in some species of *Narcissus*, when they produce double flowers; and the square will vary to six-angled, as has been found in *Epilobium Tetragonum*. Even the duration of plants will be affected by culture; some that are annuals when wild, frequently become biennial in a garden; and biennials often live through the third or fourth year, as the *Hollyhock*. Nay, some of these kind of plants may be constantly kept up by plantings, instances of which I have seen in *Viola Tricolor*, yet this is deemed only annual when wild. It is probable, however, that a plant never loses all its natural characters; for though the *Viola* is thus rendered in a manner perennial, and otherwise somewhat altered, still the stigma will perfectly retain its natural form, and the stigma is a main mark of the species; in this 'tis pitcher-shaped, but in the *Odorata*, and some others, it is hooked.

Those called *Hybrid*, or mule plants, will exhibit imperfect marks of both the plants they spring from; and, contrary to animal mules, will propagate their likeness by seed, as is well known by the *Calendula Hybridæ*, *Pluvialis*, and some others. I just mention this, as it has often been asserted that mule plants will not. But the sole aim of botany is to teach how to distinguish the different species by certain marks peculiar to each; and sometimes one single character is sufficient for this purpose, as is the case in *Cytisus Sessilifolius*, a plant very subject to vary in its leaves, and yet it may be always known from the other species of the genus, only by the simple circumstance of its flower having three bractæ at the base of its calyx. Plenitude in flowers causes the greatest embarrassment, for by the multiplication of the petals, the more essential parts of the flower, which are often specific marks, are mutilated, if not totally destroyed; but a close attention to all other circumstances will often overcome the difficulty. The species once settled, the flower being double instead of single,

white instead of blue, or the plant otherwise altered, is immaterial to the true Botanist; having ascertained the species, he has gained his end, and he is now enabled to communicate to others, whatever useful or curious observations he may afterwards make on the Plant.

When it be considered that soil, situation, and management have such various effects on plants, as has been observed, it must not be expected that the following descriptions of the Genera and Species will, in every instance, correspond with those of *Linnaeus*; his being mostly formed from plants in a state of nature; these from their general appearance under cultivation. From this, and other circumstances, I have been often under the necessity of totally disregarding *Linnaeus**; except as to method, and that I have frequently varied, especially in the Genera of the *Syngenesia*, which I have rendered much more simple. It is necessary to take notice, too, that in such Genera as contain many species, it seldom happens they all agree in every descriptive character of the Genus, even in their wild state. For instance, in *Campanula* the Corolla, Stigma, and Seed-vessel differ very much. *Linnaeus* has mostly noticed such variations at the bottom of his generic descriptions; but here, when they could be conveniently included, they make part of the general description. As my chief aim in the work has been to furnish proper, yet a variety of materials for teaching the System, I have described some plants that are not cultivated; but they are natives of England, very common, and consequently easy to be procured.

A certain and proper mode of pronouncing the generic and specific Names is surely worth attending to, for it is not uncommon to hear different persons pronounce these words so very different, as hardly to know whether they mean the same. To obviate this, I have all through the Book, marked the emphatical syllable of all these words of more than two syllables. It may be said, this has partly been done in the *Litchfield Translation* of Murray's *Systema Vegetabilium*. Very true; but the plan of this Work, exactly as expressed in the *Title Page*, was laid in the year 1782, long before the *Litchfield Translation* appeared, though the Author could not get time from common business to complete it till lately. As to the words just mentioned, the derivation of all employed here, has been carefully sought out, by the assistance of a Friend, a very eminent Latin and Greek scholar, and it may be presumed they are pretty correctly marked. Some objection, may be made to the uncouth sound of those compounded of *ides* and *flora*, such as *fico-ides*, *grandi-*

B

* For an example of this, see the Genus *Cerithe* in the Dictionary.

flora, &c; for the accent of these words falling on the penult, certainly renders their pronunciation much more unpleasant to an English ear, than it would be if the words were marked thus; *ficóides*, *grandif-lora*. But the *i* being long in *ides*, and the *o* in *flora*, we could not with propriety mark them otherwise.

It remains now only to inform the Reader, that such Plants as are deemed annual and biennial, are pointed out by these marks: ☉, or Sol, for annual; and ♃, or Mars, for biennial; the rest of course will be known to be perennial. As to their time of flowering, I have not marked it, but when useful for distinguishing the species. With the same view, those belonging to the Green-house and Stove are noticed. The country where they spontaneously grow is mentioned immediately after their English name.

TERMS EXPLAINED.

OF FLOWERS AND THEIR CONSTITUENT PARTS.

N. B. *When the Learner would study the following descriptions of flowers and their parts, he should have before him several perfect single flowers of different kinds, which will prove of more use to him than the best Copper Plates, as the real objects will always be found to exceed the best representations.*

Calyx, the leaves or cup surrounding the bottom of a Flower; as the green leaves of a *Rose-bud*.

Corolla, the leaves of a Flower. The *red* leaves of a *Rose* form the *Corolla*.

Petal, a leaf of the *Corolla*. The *red* leaves of the *Rose* are petals.

Limb. When the upper part of a petal is broader than the lower, the broad part is called the limb; as in the *Hope*.

Germen, the Seed bud. This is either within the Flower, or immediately under it, and contains the rudiments of the seed.

Style, a little pillar standing on the top of the *Germen*; as that in the center of a *Lily*.

Stigma, the top of the *Style*; as the triangular knob on the top of the *Style* of the *Lily*.

Stamina, the threads within a flower; as the long threads surrounding the *Style* of the *Lily*.

Summits, the little oblong bodies on the tops of the

Stamina of the *Lily* are the Summits, or *Antheræ* of *Linnaeus*, and contain the Pollen or male dust.

Nectarium; this is a part of a flower seemingly designed by nature for the secretion of the honey, and in different Flowers it differs greatly in figure. In *Narcissus* it resembles a cup; in *Aquilegia* a horn; in *Helleborus* it is scoop-shaped.

A *Male Flower*; this contains only Stamina, or in their absence, only Summits.

A *Female Flower*; this contains only Styles, or in their absence, only Stigmas.

A *Neuter Flower*; this contains neither Summits, nor Stigmas.

An *Hermaphrodite Flower*; this contains both Stamina and Styles.

A *Pedunculated Flower*; this is supported on a footstalk, which footstalk is a *peduncle*.

A *Sessile Flower*; this has no footstalk or peduncle, but stands close to some part of the Plant.

A *Compound Flower* *; this is made up of many sessile Florets, or small *Flowers* of one petal each, having no individual Calyces, but are all included in one common Calyx, and stand on one common, undivided Receptacle. Both the *Male* and *Hermaphrodite* Florets have always five Stamina, with their Summits united in a kind of cylinder, through which passes a thread shaped Style; and the Florets produce only one seed each; as in *Starwort*.

An *Aggregate Flower*; this has a spreading Receptacle, collecting many Florets into one head, and each Floret has its own proper Calyx, and its summits are detached; as in *Seabious*.

A *Butterfly Flower*; this is for the most part composed of four petals, so disposed as somewhat to resemble a Butterfly. The upper Petal is termed the

* The middle of a compound Flower is termed the Disk, and the part the Florets stand on the Receptacle.

Standard, the side ones the *Wings*, and the lower one the *Keel*; as in the Pea Bloom. *The Stamina and Style in these Flowers take the same curvature as the Keel.*

A *Lipped Flower*; this consists of one irregular Petal, which is whole downward, but divided near the top into two parts or lips, and is exemplified in the *White Nettle*.

An *Involúcrum*, is a kind of common Calyx, fixed at the base of most Umbels of Flowers; as in the *Geraniums*. Many simple Flowers too have an *Involucrum*; as the *Anemonies*.

A *Bráctea*, is a small leaf standing on the peduncle of a Flower, and differs in size, shape, and mostly in colour from the leaves of the Plant; as in the *Lime Tree*.

A *Spike*; this is formed by many sessile Flowers standing on all sides of a Common Peduncle; as in the *Lavender*.

A *Racémus*; this is formed by many pedunculated Flowers standing on all sides a Common Peduncle; as in the *Currant*.

A *Catkin*; this is a sort of Compound Calyx, consisting of many scales, ranged along a Common Peduncle, or Receptacle; as in the *Willow*.

A *Spadix*; this is a kind of Common Peduncle protruded from a Sheath; as in the *Arum*.

OF PLANTS.

A *Monœcious Plant* bears *Male* and *Female* flowers distinct on different parts of the same plant; as do the *Hasel*.

A *Diœcious* plant bears only *Males* on one plant, and *Females* on another of the same species; as do the *Sweet Willow*.

A *Polygamous Plant* produces *Males* and *Hermaphrodites*, or *Females* and *Hermaphrodites* on the same plant, or on distinct ones; as do the *Maple* and *Ash*,

OF LEAVES.

- A *Ciliated Leaf* has its margins furnished with long hairs in the same manner as an eye-lash; as in *Draba Alpina*.
- A *Dentated Leaf* has its margins cut into teeth, which stand at small distances from each other; as in the *Corn Bottle*.
- A *Serrated Leaf* has its margins cut into teeth, touching each other at their base, and their tips all pointing one way; as in the *Briar*.
- A *Crenated Leaf* has its margins cut into teeth, pointing to neither of the extremities; as in *London-Pride*.
- A *Sinuated Leaf* has its margins coarsely scalloped; as in *Verbascum Blattaria*.
- A *Winged Leaf* is composed of several small leaves, or lobes, ranged on a common footstalk; as in the *Rose*.
- A *Doubly-winged Leaf* has its common footstalk branched out on its sides into winged leaves; as in the *Sensitive Plant*.
- A *Decompounded Leaf* is more than doubly winged; as *Anemone Coronaria*.
- A *Hand-shaped Leaf* has a broadish middle, and its margin cut into spreading segments; as in *Palma Christi*.
- A *Fingered Leaf* is composed of several lobes fastened to the end of a common footstalk; as in the *Hemp*.
- A *Foot-shaped Leaf* has its footstalk divided at the end, and each division supports 2 or 3 lobes; as in *Bearsfoot*.
- A *Stipula* is a small leaf or scale, stationed on each side the footstalks of the leaves and peduncle of a flower; as in the *Pea*.
- An *Arista* is a sharp point issuing from a leaf, or some other part of the plant; as in the Glumes of the *Grasses*.

A
C O M P E N D I U M
O F T H E
S E X U A L S Y S T E M .

C O N T A I N I N G A L L T H E G E N E R A D E S C R I B E D I N
T H E F O L L O W I N G D I C T I O N A R Y , W I T H T H E I R
C O N T R A C T E D C H A R A C T E R S .

N. B. *Linnaeus progressively establishes his first ten Classes on the Number of the Stamina only, or rather on the Number of the Summits contained in the Flower; and the different Orders of most of the Classes on the Number of the Styles; or if the Styles be wanting on the Number of the Stigmas; he considering the Summits and Stigmas as the essential parts of a Flower. But the Genera are composed of all the parts of Fruetification taken together; and from the different shapes, and dispositions of these parts, the various Genera are formed. Each Genus comprises as many Plants as are found to agree with each other in the parts of fructification; they all, therefore, bear the same Surname, though they are distinguished the one from the other by Trivial or individual names; just in the same manner as the Children of the same family are known by their different Christian names. These Generic and Trivial names are of excellent use either in writing or discoursing on Botanical subjects; and, when well chosen, they almost amount to a description of the Plant. For instance: *Fragaria vesca* **

* The Strawberry.

(from *fragrans*, fragrant, and *vescus*, eatable) directly intimate, that some part of the Plant, the fruit in this, have a fragrant smell, and are eatable. But the full meaning of the Generic and Trivial names, is rarely to be expressed by two English words, and consequently they must remain in the Latin. By practice this will not prove inconvenient, but beneficial, as they will be found to impress the memory more strongly than English words would do. As Plants of the same, and even of different Genera, frequently bear a great affinity to each other, the young Botanist should never receive any Plant upon trust, but he must bring it to the test himself by the following Rules of the Science, otherwise he will be often led into error.

NAMES OF THE CLASSES.

- 1 Monándria
- 2 Diándria
- 3 Triándria
- 4 Tetrándria
- 5 Pentándria
- 6 Hexándria
- 7 Heptándria
- 8 Octándria
- 9 Enneándria
- 10 Decándria
- 11 Dodecándria
- 12 Icofándria
- 13 Polyándria
- 14 Didynámia
- 15 Tetrady námia
- 16 Monadélphia
- 17 Diadélphia
- 18 Polyadélphia
- 19 Syngenésia
- 20 Gynándria
- 21 Monoécia
- 22 Dioécia
- 23 Cryptogámia

THE CLASSES AND ORDERS EXPLAINED.

Class I.

M O N A N D R I A.

The Flowers of this Class are *Herma-
phrodite*, and contain only *one* Stamen.

ORDER I. *Termed* MONOGÝNIA.

*This comprehends such Flowers as have but ONE Style ; as in
Canna. Calyx of 3 coloured leaves. Corolla 6-
parted. Nectarium of 2 petal-like segments ;
the lower one revolute.*

ORDER II. *Termed* DIGÝNIA.

*This comprehends such Flowers as have TWO Styles ; as in
Blitum. Calyx 3-parted. Corolla none. Seed 1,
globular, enwrapped by the calyx.*

Class II.

D I A N D R I A.

The Flowers in this Class are *Herma-
phrodite*, and contain *two* Stamina.

ORDER I. *Termed* MONOGÝNIA.

*This comprehends such Flowers as have but ONE Style ; as in
Fasminum. Calyx 5-parted. Corolla 5-parted.
Summits within the tube of the corolla. Berry
2-celled. Seeds 2, covered with a loose coat.*

Nyctánthes. Calyx 8-parted. Corolla 8-parted.
Seed-vessel 2-seeded. Seeds large, roundish.

Ligústrum. Calyx 4-parted. Corolla 4-parted, be-
low the germen. Berry 4-seeded. Seeds an-
gular.

Phyllýrea. Calyx 4-toothed. Corolla 4-parted.
Berry 1-seeded. Seed large, globular.

Chionánthus. Calyx 4-parted. Corolla 4-parted;
segments long, and very narrow. Plum
roundish.

Syrínga. Calyx 4-toothed. Corolla 4-parted.
Seed-vessel compressed, 2-celled. Seeds ob-
long, compressed.

Verónica. Calyx 4-parted. Corolla 4-parted,
the lowest segment the narrowest. Seed-
vessel 2-celled.

Verbéna. Calyx 5-parted; one of the parts
stumped. Corolla funnel-shaped, curved,
5-parted, parts nearly equal. Stamina 2 or 4.
Seeds 2 or 4.

Monárda. Calyx 5-toothed. Corolla lipped, un-
equal; upper lip linear, and involve the
stamina. Seeds 4.

Sálvia. Calyx lipped. Corolla lipped, unequal.
Stamina forked below, the 2 inner prongs
united. Seeds 4.

Collinsónia. Corolla lipped, unequal; lower lip
cut into many fine parts. Only 1 perfect seed.

Valeriana. (See the next Class.)

Class III.

T R I A N D R I A.

The Flowers of this Class are *Herma-
phrodite*, and contain *three* Stamina.

ORDER I. *Termed MONOGÝNIA.*

This comprehends such Flowers as have but ONE Style; as in

Valeriana. Calyx none. Corolla 1 petal, having the base gibbous before. Germen below the corolla. Seed 1.

Cneórum. Calyx 3-toothed. Petals 3. Stigma trifid. Berry dry, 3-lobed, 3-seeded. Seeds round.

Crocus. Calyx none. Corolla 6-parted; parts equal. Stigmas 3, thickest, convolute, and ferrated at their tip.

I'xia. Corolla of 1 petal, having a straight, thread-shaped tube. Limb bell-shaped, 6-parted. Stigmas 3, simple.

Gladiolus. Calyx none. Corolla gaping, 6-parted. Stamina ascending. Germen below the corolla.

Antholyza. Corolla tubular, irregular, recurved. Germen below the corolla.

Iris. Corolla of 6 petals, alternately spreading. Stigma trifid, petal-like. Germen below the corolla.

Wachendórfia. Corolla of 6 unequal petals, below the germen. Seed-vessel 3-celled.

Cammelina. Petals 6. Nectariums 3, resemble stamina, and are inserted into the proper stamina. Germen within the corolla.

ORDER II. *Termed DIGÝNIA.*

This comprehends such Flowers as have two Styles; as in Phálaris. Calyx of 2 keeled valves of equal length, including a bivalved corolla.

Class IV.

T E T R A N D R I A.

The Flowers of this Class are *Herma-phrodite*, and contain four Stamina of equal length*.

ORDER. I. *Termed MONOGÝNIA.*

This comprehends such Flowers as have but ONE Style; as in † Globulária. Common Calyx imbricated. Corolla lipped; the upper lip bifid, the lower one, trifid. Receptacle chaffy.

Scabiósa. Common Calyx of many leaves. Partial calyx double, and above the corolla. Receptacle naked, or chaffy.

Cephalánthus. Common Calyx none. Partial calyx of 1 funnel-shaped leaf. Receptacle globular, naked. Seed 1, woolly.

Knáutia. Common Calyx oblong, simple. Corolla irregular. Receptacle naked. Seed hairy at the tip.

I'xora. Corolla of 1 oblong, funnel-shaped petal, above the germen. Stamina above the throat of the corolla. Berry 2-seeded.

Cornus. Calyx 4-toothed, deciduous. Petals 4, above the germen. Nut 2-celled. Seeds 2.

* The Flowers of Class XIV. have also four stamina, but two of them are shorter than the rest.

† The first four Genera have aggregate Flowers.

Ptélea. Calyx 4-parted. Petals 4. Germen within the corolla. Fruit roundish, membranous, 2-felled. Seed 1, in the center.

Elæagnus. Calyx (or Corolla) bell-shaped, above the germen. Fruit a plum. Nut oblong.

Alchemilla. Calyx 8-parted. Corolla none. Seed 1.

Euonymus. (See Class V.)

Hippophaë. (See Class XXII.)

Myrica. (See Class XXII.)

ORDER II. Termed DIGÝNIA.

This comprehends such Flowers as have two Styles; as in

Hamamélis. Involucrum 3-leaved. Proper Calyx 4-leaved. Petals 4. Nut 2-horned, 2-celled.

Hypécoum. Calyx 2-leaved. Corolla of 4 Petals, the outer 2 the broadest, and trifid. Pod long, incurved.

ORDER III. Termed TETRAGÝNIA.

This comprehends such Flowers as have FOUR Styles; as in

Ilex. Calyx 4-toothed. Corolla wheel-shaped. Style none. Berry 4-seeded.

Class V.

P E N T A N D R I A.

The Flowers of this Class are *Herma-phrodite*, and contain *five* detached *Stamina**.

ORDER I. Termed MONOGÝNIA.

This comprehends such Flowers as have but ONE Style.

* The Florets in Class XIX, contain five Stamina, but they are united.

† GERMEN *above the Corolla.*

Heliotrópium. Corolla falver-shaped, 5-parted. Summits in the tube of the corolla, and form an arch with their tips. Mouth naked.

Cynoglóssum. Calyx 5-parted. Corolla funnel-shaped. Throat shut. Seeds 4, fixed to the style by their inner angle, and are covered with loose, rough coats.

Pulmonária. Calyx 5-toothed, 5-cornered. Corolla funnel-shaped. Throat open. Seeds 4, roundish.

Cerínthe. Limb of the corolla tubular and bellying. Throat open. Seeds 2, 2-celled, within the calyx.

Nolána. Corolla bell-shaped. Germina 5, with 1 style between them. Seeds 5, 2-celled, lodged in the calyx.

Primula. Corolla funnel-shaped. Throat open. Stigma globular. Seed-vessel 1-celled.

Soldanélla. Corolla faucer-shaped, torn into about 30 segments. Seed-vessel 1-celled; tip many-toothed.

Cortúsa. Corolla wheel-shaped, with an elevated ring at its throat. Seed-vessel oval, 1-celled; tip 5-valved.

Cyclamen. Corolla wheel-shaped, reflexed, tube very short. Throat prominent. Stamina within the tube. Berry globular.

Dodécátheon. Corolla wheel-shaped, reflexed. Stamina on the neck of the tube. Seed-vessel oblong, 1-celled.

† When the Learner is about to examine any Flower in this and the following Clafs, he should first observe whether the Germin be within, or below the corolla, as this will the sooner lead him to the Genus his plant belongs to.

- Lyfimáchia.* Corolla wheel-shaped. Seed-vessel globular, pointed, 1-celled, 10-valved.
- Spigélia.* Corolla funnel shaped. Seed-vessel double, each part 2-celled. Seeds many.
- Azálea.* Corolla bell, or funnel-shaped. Stamina inserted into the receptacle. Seed-vessel 5-celled.
- Plumbágo.* Corolla funnel-shaped. Germen included in a 5-valved nectarium bearing the stamina. Stigma 5-parted. Seed 1, oblong.
- Phlox.* Corolla falver-shaped. Stamina unequal. Stigma 3-parted. Seed-vessel 3-cornered, 3-celled, 1 seed in each cell.
- Convólulus.* Corolla bell-shaped, plaited. Stigmas 2. Seed-vessel 2-celled. Seeds 2 in each cell.
- Ipomæa.* Corolla funnel-shaped. Stigma knob-like. Seed-vessel 3-celled.
- Polemónium.* Corolla wheel-shaped, 5-parted. Tube closed by 5 valves, bearing the stamina. Stigma 3-parted. Seed-vessel 3-celled.
- Mirábilis.* Corolla funnel-shaped, joined to the top of the nectarium. Nectarium globular, and includes the germen.
- Verbáscum.* Corolla wheel-shaped, somewhat unequal. Seed-vessel 1-celled, 2-valved.
- Datúra.* Calyx tubular, angulated, deciduous to near the base. Corolla funnel-shaped, plaited. Seed-vessel 4-valved.
- Hyofcýamus.* Corolla funnel-shaped, obtuse. Stamina inclining. Seed-vessel 2-celled, covered with a lid.
- Nicotiána.* Corolla funnel-shaped, plaited. Stamina inclining. Seed-vessel 2-celled, 2-valved.
- Átropa.* Corolla bell-shaped. Stamina distant, incurved. Berry globular, 2-celled.

- Phýsalis.* Corolla wheel-shaped. Stamina closing. Berry 2-celled, included in a large, inflated calyx.
- Solánium.* Corolla wheel-shaped. Summits close together, and each has two holes at its tip. Berry 2-celled.
- Cápsicum.* Corolla wheel-shaped. Berry dry.
- Chirónia.* Corolla wheel-shaped. Style declining. Stamina placed on the tube of the corolla. Summits twisted when old.
- Lýcium.* Corolla funnel-shaped. Stamina woolly at their base, and close the tube with their wool. Berry oblongish, 2-celled.
- Brunsfélsia.* Corolla funnel-shaped, very long. Berry 1-celled. Seeds many.
- Rhamnus.* Corolla none. Calyx 4 or 5-parted, with a scale at each division, guarding the stamina. Fruit a Berry.
- Ceanóthus.* Petals 5, arched so as to form a bag. Berry dry, 3-celled, one seed in each cell.
- Celástrus.* Petals 5, spreading. Seed-vessel 3-cornered, 3-celled. Seeds few, covered with a hood.
- Euónymus.* Petals 5, spreading. Seed-vessel 5-cornered, 5-celled, coloured. Seeds covered with a hood.
- Diófma.* Petals 5. Nectarium 5-parted crown, placed upon the germen. Seed-vessels 3 or 5, united. Seeds covered with a hood.
- Itea.* Petals five, long, inserted into the calyx. Seed-vessel 1-celled, crowned with the style.
- Celófia.* Calyx of two leaves. Petals 5. Germen surrounded by a five-pointed, plaited nectarium, bearing the stamina.
- Illécebrum.* Calyx of 5 cartilaginous leaves. Corolla

none. Stigma simple. Seed-vessel 5-valved.
Seed 1.

Vinca. Corolla falver-shaped. Seed-vessels 2 erect,
oblong bags. Seeds naked.

Nerium. Corolla funnel-shaped, tube crowned with
a 5-parted, lacerated nectarium. Seeds fea-
thered.

Pluméria. Corolla funnel-shaped. Seed-vessels 2
oblong, reflexed bags, having the seeds fixed
to their infides.

* * G E R M E N *below the Corolla.*

Campánula. Corolla bell-shaped, cut into 5 seg-
ments, and has the bottom closed by 5 scales
bearing the stamina. Stigma trifid.

Trachelium. Corolla funnel-shaped. Stigma glo-
bular. Seed-vessel 3-celled.

Lonicéra. Corolla of one irregular petal. Stigma
knob-like. Berry 2-celled. Seeds many.

Cofféa. Corolla falver-shaped. Stamina placed
above the tube. Berry 1 or 2-seeded. Seed
covered with a loose coat.

Phýlica. Corolla none. Calyx top-shaped, mouth
woolly, 5-parted, with a scale at each division,
guarding the Stamina. Seed-vessel 3-lobed.

Hédera. Corolla of 5 oblong petals. Berry 5-seed-
ed, girt round with the calyx.

Amaranthus. (See Class XXI.)

Salix. (See Class XXII.)

Viburnum. (See Order III.)

ORDER II. *Termed DIGÝNIA.*

This comprehends such Flowers as have two Styles; as in

Períploca. Corolla star-like. Nectarium a folded

rim placed round the center of the corolla, and having 5 threads longer than the stamina.

Cynánchum. Corolla cut into 5 long segments. Nectarium a cylindrical, 5-toothed tube, as long as the corolla.

Apócynum. Corolla bell-shaped. Nectariums 5 oval, prominent glands surrounding the germina.

Asclépias. Corolla cut into 5 reflexed segments. Nectariums 5, ear-shaped, and mostly put forth a small inflexed horn from their center.

Stapélia. Corolla wheel-shaped, deeply cut into 5 segments. Nectariums 2 stars, placed round a stump in the center.

Gomphréna. Calyx of 2 keeled, coloured leaves. Petals 5, rough, hairy. Nectarium cylindrical, 5-toothed. Style femibifid. Seed-vessel 1-seeded.

Gentiána. Corolla of 1 tubular petal. Seed-vessel 2-valved, 1-celled. Receptacles 2, fastened longitudinally to each valve.

Eryngium. Florets collected into a head, on a chaffy Receptacle.

Astrántia. Flowers in umbels. Leaves of the partial involucre equal, coloured, and longer than the rays. Florets at the edge abortive. Seeds rough.

Bubon. Flowers in umbels. Common involucre of 5 leaves. Fruit egg-shaped, streaked and hairy.

ORDER III. Termed TRIGÝNIA

This comprehends such Flowers as have THREE Styles; as in

Rhus. Calyx 5-parted. Petals 5. Germen above the calyx. Berry roundish, 1-seeded.

Vibúrnum. Calyx 5-parted. Corolla 5-parted.

Germen below the corolla. Berry roundish, 1-seeded.

Cassine. Calyx 5-parted. Petals 5. Germen above the calyx. Berry roundish 3-seeded.

Sambucus. Calyx 5-parted. Corolla 5-parted. Germen below the calyx. Berry roundish, 3-seeded

Staphylæa. Calyx 5-parted. Petals 5. Seed-vesfels inflated, united. Seeds 2, globular, and marked with a scar.

Támarix. Calyx 5-parted. Petals 5. Stamina 5 or 10. Seed-veffel 1-celled, 3-valved. Seeds downy.

ORDER V. *Termed* PENTAGÝNIA.

This comprehends such Flowers as have FIVE Styles; as in

Státice. Calyx of one funnel-shaped entire, plaited, parched leaf. Petals 5. Seed 1, within the calyx.

Linum. Calyx 5-parted. Petals 5. Seed-veffel 10-celled. Seeds folitary.

Cráßula. Calyx 5-parted. Corolla 5-parted. Nectariums 5 notched scales, 1 at the base of each germen. Seed-veffels 5, oblong 1 pointed.

Class VI.

HEXANDRIA.

The Flowers of this Class are *Hermaphrodite* and have *six* detached Stamina of equal length*.

ORDER I. *Termed* MONOGYNIA.

This comprehends such Flowers as have but ONE Style.

* GERMEN *above the Corolla.*

Lachenalia. Calyx of 3 coloured, petal-like leaves. Corolla of 3 petals, inserted into the calyx.

Tradescantia. Calyx of 3 leaves. Petals 3. Stamina hairy, inserted into the calyx.

Tulbagia. Calyx none. Corolla funnel-shaped, with a 6-parted limb. Nectarium 3 bifid leaves, crowning the tube, and as large as the limb.

Crinum. Calyx none. Corolla funnel-shaped, cut into 6 segments, and every other segment hooked. Stamina distant.

Bulbocodium. Calyx none. Corolla funnel-shaped; petals 6, with narrow heels, bearing the stamina.

Allium. Calyx none. Corolla spreading, 6-parted. Many flowers from a sheath, forming a confused umbel.

Lilium. Calyx none. Corolla bell-shaped; petals 6, having a linear gland running longitudinally along the inside their base.

Fritillaria. Calyx none. Corolla bell-shaped; pe-

* The fourth Class has also six Stamina, but two of them are shorter than the rest. See *Class VI.*

tals 6, each having a hollowed gland at its base. Stamina as long as the corolla.

Gloriosa. Calyx none. Corolla of 6 undulated, reflexed petals. Style oblique. Seed-vessel pellucid.

Erythronium. Calyx none. Corolla bell-shaped; petals 6. Two small tubercles at the base of every other petal.

Tulipa. Calyx none. Corolla bell-shaped; petals 6. Style none. Stigma 3-lobed.

Ornithogalum. Calyx none. petals 6, abiding, erect near their base, spreading above. Stamina dilated at their base.

Scilla. Calyx none. Petals 6, spreading, deciduous. Stamina thread-like.

Asphodelus. Calyx none. Corolla 6-parted. Nectarium 6 valves or scales, covering the germen.

Anthericum. Calyx none. Corolla of 6 spreading petals. Germen naked. Seed-vessel egg-shaped.

Convallaria. Calyx none. Corolla 6-parted. Berry spotted, 3-celled.

Polyanthes. Calyx none. Corolla funnel-shaped, incurved, 6-parted. Stamina inserted into the throat.

Hyacinthus. Calyx none. Corolla funnel-shaped. Three melliferous pores* on the tip of the germen.

Alétris. Calyx none. Corolla funnel-shaped, 6-parted. Stamina inserted into the base of the petals. Seed-vessel 3-celled.

Yucca. Calyx none. Corolla bell-shaped, spreading. Style none. Seed-vessel 3-celled.

* I have mentioned this in conformity to Linnæus, but I could never discover the pores, nor any material difference betwixt this genus, and that of *Scilla*.

A'loc. Calyx none. Corolla erect, with a spreading mouth. Stamina inserted into the receptacle.

Hemerocállis. Calyx none. Corolla bell-shaped, with a cylindrical tube. Stamina declining.

Prinos. Calyx 6-parted. Corolla of 1 wheel-shaped petal. Berry 6-seeded.

Bérberis. Calyx of 6 leaves. Petals 6, having 2 glands at their heels. Style none. Berry 2-seeded.

* * GERME N *below the Corolla.*

Hæmáanthus. Involucrum of 6 leaves, surrounding many flowers. Corolla 6-parted. Berry 3-seeded.

Galánthus. Calyx none. Petals 3, concave. Nectarium of 3 short, notched, petal-like leaves. Stigma simple.

Leucójum. Calyx none. Corolla bell-shaped, 6-parted, the segments thick at their tips. Stigma simple.

Narcíffus. Calyx none. Petals 6, equal. Nectarium of 1 funnel-shaped leaf, containing the Stamina.

Amarýllis. Calyx none. Corolla bell-shaped; petals 6. Stamina unequal. Stigma trifid.

Pancrátium. Calyx none. Petals 6. Nectarium 12-parted. Stamina on the brim of the nectarium.

Alstræméria. Calyx none. Petals 6, imperfectly forming 2 lips. The 2 lower petals tubular at their base. Stamina declining.

Canarína. Calyx of 6 leaves. Corolla bell-shaped, 6-parted. Stigmas 6. Seed-vessel 6-celled. Seeds many.

ORDER II. *Termed DIGÝNIA.*

This comprehends such Flowers as have two Styles; as in
Atrapháxis. Calyx of 2 leaves. Corolla of 2 jagged petals. Stigmas knob-like. Seed one.

Fálkia. Calyx 5-parted. Corolla bell-shaped, 5-parted. Stigmas knob-like. Seeds 4, in the calyx.

ORDER III. *Termed TRIGÝNIA.*

This comprehends such Flowers as have three Styles; as in
Trillium. Calyx of 3 leaves. Corolla of 3 petals. Berry of 3 cells.

Cólchicum. Corolla 6-parted; tube long, and inserted into the root. Seed-vessels 3, united, inflated.

Clafs VII.

H E P T A N D R I A.

The Flowers of this Clafs are *Herma-
phrodite*, and contain *seven* detached
 Stamina.

ORDER I. *Termed MONOGÝNIA.*

This comprehends such Flowers as have but one Style; as in
Æ'sculus. Calyx bellying, 5-toothed. Petals 5, unequal, inserted into the calyx. Seed-vessel 3-celled.

Polygonum. (*See the next Clafs.*)

Class VIII.

O C T A N D R I A.

The Flowers of this Class are *Herma-
phrodite*, and contain *eight* detached
Stamina.

ORDER I. *Termed MONOGYNIA.*

This comprehends such Flowers as have but ONE Style; as in

Tropæolum. Calyx of 1 coloured leaf, ending in a
spur. Petals 5, unequal. Berry dry, 3-lobed.

Œnothëra. Calyx 4-parted. Petals 4, flat. Seed-
vessel cylindrical, below the corolla. Seeds
naked.

Gaura. Calyx tubular, 4-parted. Petals 4, ascend-
ing. Fruit 1-seeded, 4-cornered, below the
calyx.

Epilóbium. Calyx 4-parted. Petals 4. Seed-vessel
oblong, below the corolla. Seeds downy.

Erica. Calyx of 4 leaves. Corolla 4-parted. Sta-
mina inserted into the receptacle. Summits
bifid. Seed-vessel 4-celled.

Daphne. Calyx none. Corolla 4-parted, includes
the stamina, and withers by degrees. Berry
1-seeded.

Populus. (*See Class XXII.*)

Æsculus. (*See Class VII.*)

Cotyledon. (*See Class X.*)

ORDER III. *Termed TRIGYNIA.*

This comprehends such Flowers as have THREE Styles; as in

Polygonum. Calyx none. Corolla 5-parted, serves
as a Calyx. Seed 1, angulated, in the Corolla.

Sapindus. Calyx of 4 leaves. Petals 4. Seed-veffels 3, fleshy, bellying, united.

Clafs IX.

E N N E A N D R I A.

The Flowers of this Clafs are *Herma-
phrodite*, and contain *nine* detached
Stamina.

ORDER I. *Termed MONOGÝNIA.*

This comprehends fuch Flowers as have but ONE Style; as in

Laurus. Calyx none. Corolla 6-parted. Neĉta-
rium 3 glands furrounding the germen, and each
terminated by two briffles. Plum 1-seeded.

Tinus. Calyx 5-parted. Corolla 5-parted. Neĉta-
rium pitcher-shaped, and includes the germen.

ORDER II. *Termed TRIGÝNIA.*

This comprehends fuch Flowers as have THREE Styles; as in

Rheum. Calyx none. Corolla abiding, 6-parted.
Seed 1, three cornered.

Clafs X.

D E C A N D R I A.

The Flowers of this Clafs are *Herma-
phrodite*, and contain *ten* detached
Stamina.

ORDER I. *Termed MONOGÝNIA.*

This comprehends fuch Flowers as have but ONE Style; as in

Sophóra. Calyx 5-toothed, the upper part gibbous.

- Corolla Butterfly-shaped, with the wings as long as the standard. Seed-vessel a pod.
- Anagyris.* Calyx bell-shaped, 5-toothed. Corolla Butterfly-shaped, with the wings and standard shorter than the heel. Seed-vessel a pod.
- Cercis.* Calyx 5-toothed, the lower part gibbous. Corolla butterfly-shaped, with the standard shorter and under the wings. Seed-vessel a pod.
- Cassia.* Calyx of 5 leaves. Petals 5. The 3 uppermost summits barren; the 3 lower ones terminated by a beak. Seed-vessel a pod.
- Diſtámnus.* Calyx of 5 leaves. Petals 5, spreading. Stamina studded with glands. Seed-vessels 5, united.
- Zygophyllum.* Calyx of 5 leaves. Petals 5. Nectarium 10 leaves, covering the germen. Seed-vessel 5-celled.
- Kálmia.* Calyx 5-parted. Corolla falver-shaped, with 5 prominent tubercles on the outside the limb. Seed-vessel 5-celled.
- Rhododéndron.* Calyx 5-parted. Corolla somewhat funnel-shaped. Stamina declining. Seed-vessel 5-celled.
- Andrómeda.* Calyx 5-parted. Corolla bell or egg-shaped, with a 5-parted mouth. Seed-vessel 5-celled.
- Epigæa.* Calyx double. The exteriors 3-leaved; the interior 5-parted. Corolla falver-shaped. Seed-vessel 5-celled.
- A'rbutus.* Calyx 5-parted. Corolla egg-shaped, 5-parted, pellucid downward. Berry 5-celled.
- Clethra.* Calyx 5-parted. Petals 5. Stigma trifid. Seed-vessel 3-celled, 3-valved.

ORDER II. *Termed DIGÝNIA.*

This comprehends such Flowers as have TWO Styles; as in

Royéna. Calyx pitcher-shaped. Corolla of 1 petal, with a revolute limb. Seed-vessel 1-celled, 4-valved.

Saxifraga. Calyx 5-parted. Corolla of 5 petals. Seed-vessels 2, ending in a beak, and 1-celled. Seeds many.

Gypsóphila. Calyx of 1 bell-shaped, angular leaf. Petals 5, oval, sessile. Seed-vessel globular, 1-celled.

Saponária. Calyx of 1 naked leaf. Petals 4, long-heeled. Seed-vessel oblong, 1-celled.

Diánthus. Calyx of 1 cylindrical leaf, having 4 scales at its base. Petals 5, long-heeled. Seed-vessel cylindrical, 1-celled.

ORDER III. *Termed TRIGÝNIA.*

This comprehends such Flowers as have THREE Styles; as in

Siléne. Calyx bellying. Petals 5, long-heeled, crowned with 2 teeth at the base of their limb. Seed-vessel 3-celled.

Banistéria. Calyx a 5-parted leaf, having porous glands at its base. Petals 5, roundish, with linear heels. Seed-vessels, 3 winged.

Tamarix. (See Class V.)

ORDER IV. *Termed PENTAGÝNIA.*

This comprehends such Flowers as have FIVE Styles; as in

Cotylédon. Calyx 5-parted. Corolla 5-parted. Nectariums 5 scales at the base of the germina. Seed-vessels 5.

Sedum. Calyx 5-parted. Petals 5. Nectariums 5 scales at the base of the germina. Seed-vessels 5.

Oxális. Calyx of 5 leaves. Petals 5, connected

by their heels. Seed-vessel 5-cornered, and opens at the corners.

Agrostemma. Calyx of 1 tough leaf. Petals 5, long-heeled. Limb obtuse, entire. Seed-vessel 1-celled.

Lychnis. Calyx of 1 oblong, smooth leaf. Corolla of 5 long-heeled petals, having somewhat bifid limbs. Seed-vessel 5-celled.

Cerastium. Calyx of 5 leaves. Petals 5, bifid. Seed-vessel 1-celled, and opens at the tip.

Geranium. (See Class XVI.)

Coriaria. (See Class XXII.)

Class XI.

D O D E C A N D R I A.

The Flowers of this Class are *Hermaprodite*, and contain from *twelve* to *nineteen* detached Stamina.*

ORDER I. Termed *MONOGYNIA*.

This comprehends such Flowers as have but ONE Style; as in

Styrax. Calyx 5-toothed, below the germen. Corolla funnel-shaped. Plum roundish, 2-seeded.

Lythrum. Calyx 12-parted. Petals 6, inserted into the calyx. Seed-vessel 2-celled. Seeds many.

Boccónia. Calyx 2 leaved. Corolla none. Style bifid. Fruit pulpy. Seed 1.

ORDER III. Termed *TRIGYNIA*.

This comprehends such Flowers as have THREE Styles; as in

Reseda. Calyx many-parted. Corolla many-parted. Seed-vessel 1-celled. Mouth gaping.

* This Class might be expunged, and the Genera placed in the Polyandria.

Euphórbia. Calyx of 1 bellying leaf. Petals 4 or 5, fitting on the calyx. Seed-vessel 3-lobed.

ORDER V. Termed *POLYGÝNIA.*

This comprehends such Flowers as have MANY Styles; viz. they have more than five; as in

Sempérvivum. Calyx 12-parted. Petals 12. Seed-vessels 12, each containing many feeds.

Clafs XII.

I C O S A N D R I A.

The Flowers of this Clafs are *Herma-phrodite*, and contain from *thirteen* to *twenty* detached *Stamina*, or more. But the chief Characters of the Clafs are these: the *Calyx* is concave and formed of *one* leaf; the *Corolla* is fastened by its heels or claws to the *inner* side of the *Calyx*, as are also the *Stamina*.

ORDER I. Termed *MONOGÝNIA.*

This comprehends such Flowers as have but ONE Style; as in

Caëtus. Calyx of 1 imbricated leaf, above the germen. Corolla of numerous petals. Berry 1-celled. Seeds many.

Philadélphus. Calyx 4 or 5-parted, above the germen. Petals 4 or 5. Seed vessel 4 or 5-celled. Seeds many.

Myrtus. Calyx 5-parted, above the germen. Petals 5. Berry 2 or 3-celled. Seeds solitary.

Púnica. Calyx 5-parted, above the germen. Petals 5. Apple many-celled. Seeds many.

Amýgdalus. Calyx 5-parted, below the germen. Petals 5. Stone of the plum porous.

Prúnus. Calyx 5-parted, below the germen. Petals 5. Seam of the nut prominent.

ORDER II. *Termed DIGÝNIA.*

This comprehends such Flowers as have TWO Styles ; as in Cratægus.* Calyx 5-parted. Petals 5. Germen below the corolla. Berry 2-seeded.

ORDER III. *Termed TRIGÝNIA.*

This comprehends such Flowers as have THREE Styles ; as in Sorbus. Calyx 5-parted. Petals 5. Germen below the corolla. Berry 3-seeded. Leaves of the trees winged.

Spiræa. (See the next Order.)

ORDER IV. *Termed PENTAGYNIA.*

This comprehends such Flowers as have FIVE Styles ; as in Méspilus. Calyx 5-parted. Petals 5. Germen below the corolla. Berry 5-seeded.

Mesembryánthemum. Calyx 5-parted. Petals numerous, linear, united. Seed-vessel fleshy, below the corolla, many-seeded.

Spiræa. Calyx 5-parted. Petals 5. Germen below the corolla. Seed-vessels 5, many-seeded.

* *The Genera Cratægus, Sorbus, and Méspilus ought to be included in one, there being no real, or constant difference between them. Some species both of the Cratægus and Sorbus will produce 3, 4, or 5 Styles, and consequently as many Seeds in their Berries. The winged leaves, indeed, will distinguish the Sorbus ; but in a System wholly formed on the parts of the Fruetification, leaves cannot be admitted as generic marks. See these three Genera in the Dictionary.*

ORDER V. *POLYGÝNIA.*

This comprehends such Flowers as have MANY Styles; as in

Rosa. Calyx pitcher-shaped, 5-parted, with a contracted neck. Fruit 1-celled. Seeds many, hairy, attached to the inside.

Rubus. Calyx 5-parted. Petals 5. Berry^s composed of many small, single seeded-knobs.

Potentilla. Calyx 10-parted. Petals 5. Seeds roundish, naked, affixed to a dryish receptacle.

Geum. Calyx 10-parted. Petals 5. Seeds numerous, terminated by a jointed arista.

Dryas. Calyx 5, or 8-parted. Petals 5, or 8. Seeds hairy, tailed.

Cómarum. Calyx coloured, 10-parted. Petals 5, smaller than the calyx. Receptacle oval, spongy, and abiding.

Calycánthus. Calyx none. Corolla like a calyx, pitcher-shaped, many parted, the segments straddling. Seeds many, tailed, within the corolla.

Class XIII.

P O L Y A N D R I A.

The Flowers of this Class are *Herma-phrodite*, and contain from *thirteen to twenty*, or more, detached Stamina, as in the former Class; but in this the *Calyx*, the *Corolla*, and *Stamina*, are fixed to a Receptacle at the base of the *Germen*.

XIII

ORDER I. *Termed MONOGÝNIA.*

This comprehends such Flowers as have but ONE Style; as in

Cápparis. Calyx of 4 leathery leaves. Petals 4.
Stamina long. Berry 1-celled, pedunculated.

Aētæa. Calyx of 4 leaves. Corolla of 4 petals.
Berry 1-celled. Seeds femiorbicular.

Chelidónium. Calyx of 2 leaves. Corolla of 4 petals.
Pod linear, 1-celled.

Papáver. Calyx of 2 leaves. Petals 4. Seed-
vessel 1-celled, with gaping pores under the
stigma.

Tilia. Calyx 5-parted. Petals 5. Berry dry,
globular, with 5 cells and 5 valves, opening at
their base.

Cistus. Calyx of 5 leaves, two of them smaller
than the rest. Petals 5. Seed-vessel dry,
hollow.

Córchorus. Calyx of 5 deciduous leaves. Petals 5.
Seed-vessel many-valved, many-celled.

ORDER II. *Termed DIGÝNIA.*

This comprehends such Flowers as have two Styles; as in

Pæonia. Calyx of 5 leaves. Petals 5. Style none,
Stigmas 2. Seed-vessel many-seeded.

ORDER III. *Termed TRIGÝNIA.*

This comprehends such Flowers as have THREE Styles; as in

Delphinium. Calyx none. Petals 5. Nectarium
bifid, horned behind. Pods 1 to 3.

Aconitum. Calyx none. Petals 5, the upper one
arched. Nectariums 2, pedunculated, recurved.
Pods 3 to 5.

ORDER V. *Termed PENTAGÝNIA.*

This comprehends such Flowers as have FIVE Styles; as in

Aquilégia. Calyx none. Petals 5. Nectariums 5, horned, between the petals. Seed-vessels 5, distinct.

Nigélla. Calyx none. Petals 5. Nectariums 5, trifid, within the corolla. Seed-vessels 5, united.

ORDER VII. *Termed POLYGÝNIA.*

This comprehends such Flowers as have MANY Styles; as in

Magnólia. Calyx of 3 leaves. Petals 9. Seed-vessels imbricated, 2-valved. Seeds pendulous.

Anemóne. Calyx mostly wanting. Petals 6 or 9, ranged in 2 or 3 orders. Seeds many.

Clématis. Calyx none. Petals seldom more than 4. Seeds roundish, and tailed.

Thalíctrum. Calyx none. Petals 4 or 5. Seeds egg-shaped, furrowed, without tails.

Adónis. Calyx of 5 leaves. Petals from 5 to 15, without nectariums. Seeds naked.

Ranúnculus. Calyx of 5 leaves. Petals 5, each having a nectariferous pore at its heel. Seeds naked.

Tróllius. Calyx none. Petals 14, in different rows. Seed-vessels many, egg-shaped, many-seeded.

Helléborus. Calyx none. Petals 5 or more. Nectariums many, scoop-shaped. Seed-vessel many-seeded.

Caltha. Calyx none. Petals 5. Nectariums none. Seed-vessels many-seeded.

Class XIV.

DIDYNAMIA.

The Flowers of this Class are *Hermaphrodite*, mostly lipped, and contain *four* Stamina, the inner two shorter than the others. They are inserted into the *tube* of the Corolla, and are generally lodged *under* the upper Lip.

ORDER I. Termed GYMNOSPÉRMIA.

The Flowers of this ORDER have 4 naked Seeds at the bottom of the Calyx; as in

Teúcrium. Corolla: upper lip none; lower lip 5-lobed; the 2 lower lobes at the base of the Stamina.

Saturéja. Corolla cut into 2 nearly equal lips, the lower one trifid. Stamina distant.

Hissópus. Corolla lipped: lower lip trifid; the middle segment broad and crenated. Stamina distant.

Népeta. Corolla lipped: lower lip one large, crenated lobe. Chaps reflexed. Stamina approaching.

Lavándula. Calyx oval, slightly dentated, propped by a bractea. Corolla bent backward. Stamina in the tube.

Mentha. Corolla 4-parted; the parts nearly equal; the broadest 1-notched. Stamina erect, distant.

Betónica. Calyx aristated. Corolla lipped; upper lip ascending, flattish. Tube cylindrical.

Stachys. Corolla lipped: upper lip arched; sides

of the lower lip reflexed: the middle segment notched.

Marrúbium. Calyx falver-shaped, rigid, 10-streaked. Corolla lipped: upper lip 2-parted; parts linear, straight.

Leonúrus. Corolla lipped; upper lip entire. Summits sprinkled with shining glands.

Phlomis. Calyx angular. Corolla lipped: upper lip compressed, hairy, and lodges on the lower lip.

Moluccélla. Calyx bell-shaped, wide, broader than the corolla, and spiny.

Origanum. Calyces collected into a 4-sided, scaley, cone-like spike. Corolla lipped.

Thymus. Calyx cut about half way into 2 lips: throat closed with downy hairs.

Melíssa. Calyx dry, angular, upper-lip ascending. Corolla lipped: upper-lip arched, 2-parted; middle lobe of the lower-lip heart-shaped.

Dracocéphalon. Corolla lipped: upper lip concave; throat inflated.

Melíttis. Calyx with a tube much wider than the corolla. Corolla lipped: upper lip flat; lower-lip crenated. Summits cross-shaped.

Scutellária. Calyx with an entire mouth, which after flowering is shut with a lid.

ORDER II. *Termed* ANGIOSPÉRMIA.

The Flowers of this ORDER are succeeded by a dry hollow Seed-vessel, which always splits in some certain manner; as in

Chelóne. Calyx 5-parted. Between the upper stamina is the rudiment of a fifth stamen. Seed-vessel 2-celled.

Antirrhinum. Corolla prominent at the base, where it becomes a nectarium. Seed-vessel 2-celled.

Digitális. Calyx 5-parted. Corolla bell-shaped, bellying, 5-parted. Seed-vessel oval, 2-celled.

Bignónia. Calyx cup-shaped, 5-parted. Chaps of the corolla bell-shaped, 5-parted, bellying beneath. Pod 2-celled. Seeds winged.

Halléria. Calyx 3-parted. Corolla 4-parted. Stamina longer than the corolla. Berry below, 2-celled.

Lántana. Calyx cut into 4 obsolete teeth. Stigma somewhat hooked. Plumb roundish. Nut 2-celled.

Browállia. Calyx 5-toothed. Corolla salver-shaped; mouth closed by the 2 largest summits. Seed-vessel 1-celled.

Barléria. Calyx 4-parted. Corolla funnel-shaped. Seed-vessel 2-valved; valves elastick. Seeds 2.

Vitex. Calyx 5-toothed. Corolla 6-parted. Berry 4-seeded.

Acánthus. Calyx of 2 bifid leaves. Corolla of 1 deflexed, 3-parted lip. Seed vessel 2-celled.

Meliánthus. Calyx of 5 leaves, the lower 1 gibbous. Petals 4; nectarium under the lowest. Seed-vessel 4-celled.

Clafs XV.

T E T R A D Y N A M I A.

The Flowers of this Clafs are *Herma-phrodite*, have *six* Stamina, *two* of which are shorter than the rest, stand opposite, and are *bowed* at their base.

The *Calyx* consists of *four* oblongish, concave, deciduous leaves, and the *Corolla* of *four* obtuse petals, forming a *cross*, and having narrow claws or heels.

ORDER I. *Termed SILICULÓSA.*

The Flowers of this ORDER are succeeded by ROUNDISH, compressed pods, having prominent tips; as in

Draba. Pod oval-oblong, entire; valves flattish, parallel with the partition. Style none.

Ibéris. Corolla irregular, the 2 outer petals the largest. Pod notched, many-seeded.

**Alyssum.* Some of the Stamina are marked with a tooth at their base. Pod notched.

Clypeola. Pod orbicular, flat, or a little compressed, notched, and deciduous.

Lunária. Calyx: the two outer leaves bag-like at their base. Pod entire, elliptical, flat, pedunculated; valves equal, parallel with the partition.

ORDER II. *Termed SILIQUÓSA.*

The Flowers of this ORDER are succeeded by LONG, slender Pods

Dentária. Stigma notched. Pod opens suddenly, and the valves directly roll back. Calyx shut.

* The Genus *Alyssum* and *Clypeola* are too nearly allied to be separated. The teeth in the Stamina of the *Alyssum* are not to be found on all the species; and the Pods are orbicular in some species of both Genera, and often entire. The *Clypeolas*, then, which are only three, ought to be blended with the *Alyssums*. The same may be justly observed of the *Cheiranthus* and *Hesperis*, for in the *Annual Hope* (*Cheiranthus Annuus*) the two short Stamina are not half so long as the rest, and the Stigma of the *Cheiranthus* is not always marked with denticles. The Seeds too of *Cheiranthus Maritimus* have no membrane. See these too Genera in the Dictionary.

Cardamine. Stigma entire. Pod opens suddenly, and the valves directly roll back. Calyx rather open.

Erysimum. Pod linear, and exactly four square. Calyx shut.

Cheiranthus. Calyx shut; the 2 lower leaves gibbous at their base. Germen marked on each side with a denticle. Seeds flat, bordered with a membrane.

Hesperis. Calyx shut. Petals turned obliquely. A small gland between the short stamina. Pod straight. Stigma forked at the base, conniving at the tip.

Class XVI.

M O N A D E L P H I A.

The Flowers of this Class are *Herma- phrodite*, and contain *many* Stamina, all united below into a cylindrical Column, through which passes the Style or Styles. The *Corolla* consists of five reversed heart-shaped Petals. The *Calyx* is permanent, and mostly *double*.

ORDER I. Termed PENTÁNDRIA.

This comprehends such Flowers as have FIVE Stamina; as in Hermánia. Petals 5, oblique, with hood-like, half tubular, nectariferous bases. Styles 5. Seed- vessel 5-celled

ORDER II. Termed DECÁNDRIA.

This comprehends such Flowers as have TEN Stamina; as in Geránium. Style 1. Stigmas 5, reflexed. Seeds 5, ob- long, and are terminated by a long, twisted beak.

ORDER III. Termed *POLYÁNDRIA*.

This comprehends such Flowers as have MANY Stamina; as in

Sida. Calyx simple, angular. Style many-parted. Seed-vessels many, 1 seed in each.

Althæa. Calyx double; the outer 9-parted. Seeds many, placed in a whorl, in distinct, loose coats.

A'licea. Calyx double; the outer 6-parted. Seeds many, placed in a whorl, in distinct, loose coats.

Malva. Calyx double; the outer 3-leaved. Seeds many, placed in a whorl, in distinct, loose coats.

Lavatéra. Calyx double; the outer 3-parted. Seeds many, placed in a whorl, in distinct, loose coats.

Uréna. Calyx double; the outer 5-parted. Seed-vessel 5-celled, prickly, 1 seed in each cell.

Hibiscus. Calyx double; the outer many leaved. Seed-vessel 5-celled, seed in each numerous.

Class XVII.

D I A D E L P H I A.

The Flowers of this Class are *Hermaphrodite*, and generally contain *ten* Stamina, *nine* of which are united into a kind of Tube, and the *tenth* is detached. The Corolla is *butterfly-shaped*. The seed-vessel is an oblong, compressed *Pod*, having a longitudinal *Seam* on each side.

ORDER I. *Termed* HEXÁNDRIA.

This comprehends such Flowers as have SIX *Stamina; as in*
Fumária. Calyx 2-leaved. Corolla gaping. Stamina
 2, membranous, and each supports 3 summits.

ORDER II. *Termed* OCTÁNDRIA.

This comprehends such Flowers as have EIGHT *Stamina;*
as in

Polygala. Calyx 5-leaved; 2 of them coloured,
 and serve as wings. Pod reverse heart-shaped,
 2-celled.

ORDER III. *Termed* ENNEÁNDRIA.

This comprehends such Flowers as have NINE *Stamina; as in*
Borbónia. Teeth of the calyx terminated by a spine.
 Stigma notched. Pod sharp pointed.

ORDER IV. *Termed* DECÁNDRIA.

This comprehends such Flowers as have TEN *Stamina; as in*

* *Spártium.* Calyx coloured; upper margin short.
 Germen hairy. Stigma longitudinally downy.

* *Genista.* Calyx lipped; upper lip bifid, lower
 one trifid. Standard oblong, reflexed back from
 the stamina and style.

* *Aspálathus.* Calyx 5-parted; upper segment the
 largest. Pod egg-shaped, beardless. Seeds
 about 2.

* *Crotalária.* *Stamina* united, but have a fissure at
 their back. Pod turgid, inflated, pedunculated.

* *Onónis.* Calyx 5-parted; segments linear. Stand-
 ard streaked. Pod turgid, sessile.

N. B. Those marked with the Asterism have their *Stamina* united.

- * *Anthyllis*. Calyx bellying, downy. Pod roundish, covered by the calyx.
- * *Lupinus*. Calyx cut into 2 lips. Five of the summits oblong, and 5 roundish. Pod leathery.
- Ulex*. Calyx 2-leaved. Pod scarce longer than the calyx.
- Clitoria*. Corolla looking upward; the standard large, spreading, and over-shadows the wings.
- Orobus*. Calyx with an obtuse base, a 5-parted brim, the two upper segments the shortest, and deeper divided. Style linear.
- Lathyrus*. Calyx 5-parted; the 2 upper segments the shortest. Style flat, broadest near the end, and hairy on the fore part.
- Cytisus*. Calyx lipped: upper lip bifid; lower one trifid. Pod obtuse, with a slender base.
- Robinia*. Calyx 4-parted; the upper part bifid. Stigma hairy to the tip. Pod gibbous, elongated.
- Colutea*. Calyx 5-parted. Pod broad, inflated, and opens at the upper base.
- Coronilla*. Calyx lipped: upper lip bifid, the teeth close together; lower lip trifid. Standard scarce longer than the wings. Pod contracted between the feeds.
- Hedysarum*. Keel of the corolla transversely obtuse. Pod articulated, 1 seed in each joint.
- Galéga*. Calyx with the teeth awl-shaped, nearly equal. Pod with oblique streaks between the feeds.
- Astrágulus*. Calyx with the teeth decreasing in size to the lowest. Pod gibbous, 2-celled.

Pforália. Calyx longitudinally sprinkled with cal-
lous dots. Pod 1-seeded.

Trifólium. Flowers mostly in heads. Pod scarce
longer than the calyx, not gaping, deciduous.

Lotus. Calyx tubular. Wings of the corolla
longitudinally conniving upward. Pod cy-
lindrical, straight.

Medicágo. Pod compressed, convolute, or rolled
together. Keel of the corolla bent down from
the standard.

Anagyris. (See Clafs X.)

Cercis. (Ditto.)

Sophora. (Ditto.)

Clafs XVIII.

P O L Y A D E L H I A.

The Flowers of this Clafs are *Herma-
phrodite*, and the Stamina are *united* at
their base into distinct parcels, or
bunches.

ORDER III. Termed ICOSÁNDRIA.

*This comprehends such Flowers as have TWENTY Sta-
mina, or more, united in several sets; as in*

Citrus. Calyx 5-parted. Petals 5, oblong.
Stamina about 20, close together in various
parcels. Berry 9-celled.

ORDER IV. Termed POLYÁNDRIA.

*This comprehends such Flowers as have MANY Stamina
in each bunch; as in*

Hypéricum. Calyx 5-parted. Petals 5. Stamina
many, in 5 bunches closely ranged.

Ascyrum. Calyx 4-leaved. Petals 4. Stamina many, digested into 4 parcels.

Class XIX.

S Y N G E N E S I A.

This Class comprehends the *Compound Flowers*, or such as are composed of many sessile Florets, all standing on one common, undivided *Receptacle*, and are male, female, hermaphrodite, or neuter. In such Florets as contain stamens the Summits are *united* into a kind of Cylinder, through which passes the Style. See the definition of a compound Flower.

ORDER I. *Termed* POLYGAMIA ÆQUALIS.

The Florets of the Flowers of this ORDER are ALL Hermaphrodite; as in

- * *Tragopogon.* Calyx simple. Receptacle naked. Down feathered.
- * *Hieracium.* Calyx egg-shaped, imbricated: scales linear. Receptacle naked. Down simple, sessile.
- * *Crepis.* Calyces 2; the scales of the small one deciduous. Receptacle naked. Down-feathered, on a footstalk.
- * *Catananche.* Calyx imbricated. Receptacle chaffy. Seed crowned with a small calyx of 5 bristles.

N. B. Those marked with the Asterisk have their Florets all flat.

- * *Scólymus*. Calyx imbricated : scales sharp pointed. Receptacle chaffy. Down none.
- Cárthamus*. Calyx egg-shaped, and imbricated with scales tipped with egg-shaped leaves.
- Cacália*. Calyx cylindrical, oblong, with a kind of small calyx at the base. Receptacle naked. Down like fine hair.
- Agerátum*. Calyx oblong, nearly equal. Florets 4-parted. Receptacle naked. Down supplied by 5 aristæ.
- Chrysócoma*. Calyx hemispherical, imbricated. Style scarce longer than the floret. Receptacle naked. Down simple.
- Santolína*. Calyx hemispherical, imbricated. Receptacle chaffy. Down none.
- Athanásia*. Calyx imbricated. Receptacle chaffy. Down very short, like chaff.

ORDER II. *Termed POLYGÁMIA SUPÉRFLUA.*

The Flowers of this ORDER have the Florets in the disk Hermaphrodite, and those at the edge Female; as in

- Tanacétum*. Calyx imbricated, hemispherical. Rays of the corolla, if any, obsolete, trifid. Receptacle naked. Down supplied by a margin.
- Gnaphálium*. Calyx imbricated; the marginal scales rounded, parched, coloured. Receptacle naked. Down feathered.
- Xeránthemum*. Calyx imbricated with coloured scales, forming the radius. Receptacle chaffy. Down bristly.
- Báccharis*. Calyx imbricated, cylindrical. Female florets mixed with the hermaphrodites. Receptacle naked. Down like fine hair.

- Tussilágo.* Calyx cylindrical: scales equal, as long as the disk, and thin at their edges. Receptacle naked. Down simple.
- Senécio.* Calyx cylindrical, with a small calyx at its base: scales blasted at their tip. Receptacle naked. Down simple.
- Aster.* Calyx imbricated: lower scales spreading. Rays more than 10. Receptacle naked. Down simple.
- Solidágo.* Calyx imbricated with incurved scales. Rays about 5. Receptacle naked. Down simple.
- Cinerária.* Calyx simple: leaves many, equal. Receptacle naked. Down simple.
- Helénium.* Calyx simple, many-parted. Rays deeply cut into 3 parts. Down supplied by 5 aristæ. Receptacle convex, naked in the disk; chaffy at the edge.
- Tágetes.* Calyx simple, 5-toothed. Rays 5, or more, abiding. Receptacle naked. Seeds crowned with 5 erect bristles.
- Zinnia.* Calyx oblong-egg-shaped, imbricated. Rays 5, or more, entire, abiding. Receptacle chaffy. Seeds crowned with 2 erect aristæ.
- Chrysanthemum.* Calyx hemispherical, imbricated; the marginal scales membranous. Receptacle naked. Down none.
- Anthemis.* Calyx hemispherical, nearly equal. Rays more than 5. Receptacle chaffy. Down none.
- Achilléa.* Calyx egg-shaped, imbricated. Rays about 5, trifid. Receptacle chaffy. Down none.
- Buphthalmum.* Stigmas of the florets in the disk entire. Seeds oblong; top margin obsolete.

Seeds of the rays sharp edged on both sides.
Receptacle chaffy.

ORDER III. *Termed* POLYGÁMIA FRUSTRÁNEA.

The Flowers of this ORDER have the Florets in the disk hermaphrodite, and those at the edge neuter; as in

Heliánthus. Calyx imbricated; scales long, acute and straddling. Receptacle flat, chaffy. Down supplied by 2 deciduous leaves.

Rudbéckia. Calyx composed of 2 orders of scales. Receptacle conical, chaffy. Down supplied by 4 obsolete teeth.

Coreópsis. Calyx erect, many-leaved, girt at the base with spreading rays. Receptacle chaffy. Down supplied by 2 horns.

Gortéria. Calyx imbricated; scales like spines. Rays strap-shaped. Receptacle naked. Down like wool.

Centáurea. Florets all tubular; those in the margin the longest, funnel-shaped, and irregular. Receptacle bristly. Down simple.

ORDER IV. *Termed* POLYGÁMIA NECESSÁRIA

The Flowers of this ORDER have the Florets in the disk Male, and those at the edge Female; as in*

Silphium. Calyx imbricated: scales broad, straddling. Receptacle chaffy. Down supplied by two teeth.

Caléndula. Calyx of many equal leaves. Receptacle naked. Down none. Seeds in the disk membranous.

* It must not here be concluded, that these Florets are pure Males, or that they contain only Stamina. On the contrary, they frequently have a Germen, Style, and Stigma; but by some means the Germen generally proves abortive. In determining the Genera, then, of this Order, the barrenness of the Germina in the disk must be attended to, they being mostly mere skins.

Arctotis. Calyx imbricated: scales parched at their tip. Receptacle hairy, or chaffy. Down supplied by a 5-leaved crown.

Othónna. Calyx of 1 almost cylindrical, many-parted leaf. Receptacle naked. Down scarce any.

Eriocéphalus. Calyx of 10 equal leaves. Rays 5. Receptacle somewhat hairy. Down none.

Osteospermum. Calyx many-leaved. Seeds globular, coloured, bony. Receptacle naked. Down none.

ORDER V. Termed *POLYGÁMIA SEGREGÁTA.*

The Flowers of this ORDER have the Florets separated by partial Calyces, each of which supports one or more Florets. The Florets are mostly Hermaphrodite; as in

E'chinops. One hermaphrodite, funnel-shaped floret to a partial calyx. Receptacle bristly. obsolete.

ORDER VI. Termed *MONOGÁMIA.*

The Flowers of this ORDER are quite Simple, but have five united Summits; as in

Lobélia. Calyx 5-parted. Corolla of 1 irregular petal. Seed-vessel 2 or 3-celled, below the corolla.

Viola. Calyx 5-leaved. Petals 5, irregular, horned behind. Seed-vessel 3-valved, 1-celled, above the corolla.

Impátiens. Calyx 2-leaved. Petals 5, irregular, partly placed in a hood-like nectarium. Seed-vessel 5-valved, above the Corolla.

Class XX.

G Y N A N D R I A.

The Flowers of this Class have the *Stamina* growing upon the *Style*, or upon a *Body*, or *Receptacle* supporting both *Stamina* and *Style*.

ORDER I. Termed *DIÁNDRIA*.

This comprehends such Flowers as have TWO *Stamina*; as in

Ophrys. Nectarium longer than the petals, somewhat keel-shaped beneath.

Cypripedium. Nectarium slipper-shaped, shorter than the petals.

ORDER II. Termed *TRIÁNDRIA*.

This comprehends such Flowers as have THREE *Stamina*; as in

Sisyrinchium. Style 1. Sheath 2-leaved. Petals 6, flat. Seed-vessel 3-celled, below the corolla.

ORDER IV. Termed *PENTÁNDRIA*.

This comprehends such Flowers as have FIVE *Stamina*; as in

Passiflora. Styles 3. Calyx 5-leaved. Petals 5. Nectarium a triple crown. Berry on a stalk.

ORDER V. Termed *HEXÁNDRIA*.

This comprehends such Flowers as have SIX *Stamina*; as in

Aristolóchia. Styles 6. Calyx none. Petal 1, tubular; the lower lip tongue-shaped, entire. Seed-vessel 6-celled, below the corolla.

Class XXI.
MONOECIA.

The Flowers of this Class are *not* Hermaphrodite, except in the *last* Order, but they are produced male and female distinct on the *same* Plant.

ORDER III. *Termed* TRIÁNDRIA.

The Male Flowers of this ORDER have THREE Stamina.

Zea. Male flowers in distinct spikes. Calyx a naked, 2-flowered glume. Corolla a naked, 2-valved glume.—Female calyx a 2-valved glume. Corolla a 2-valved glume. Style thread-like, pendulous. Seeds solitary, sunk in an oblong receptacle.

ORDER IV. *Termed* TETRÁNDRIA.

The Male Flowers of this ORDER have FOUR Stamina.

Bétula. Male calyx of 1 trifid leaf, bearing 3 florets. Corolla 4-parted.—Female calyx 2 or 3-parted, and bears 2 florets. Seed on both sides winged with a broad membrane.

ORDER V. *Termed* PENTÁNDRIA.

The Male Flowers of this ORDER have FIVE Stamina.

Amaránthus. Male Calyx 3 or 5 leaved. Corolla none. Stamina 3 or 5.—Female calyx 3 or 5-leaved. Corolla none. Styles 3. Seed-vessel 1-celled. Seed 1.

ORDER VIII. *Termed* POLYÁNDRIA.

The Male Flowers of this ORDER have MANY Stamina.

Quercus. Male calyx mostly 5-parted. Corolla

none. Stamina 5 or 10.—Female calyx of 1 entire, rugged leaf. Corolla none. Styles from 2 to 5. Seed 1, egg-shaped.

Fagus. Male calyx bell-shaped, 5-parted. Corolla none. Stamina about 12.—Female calyx 4-toothed. Corolla none. Styles 3. Seed-vessel rough, rather spiny, 4-valved. Seeds 2.

Plátanus. Male flowers in a globular catkin. Corolla scarce visible. Summits surrounding the stamina.—Female flowers in a globular catkin. Corolla of many petals. Styles many. Stigmas recurved. Seeds roundish, downy at their base, and crowned with the style.

ORDER IX. *Termed MONADÉLPHIA.*

The Male Flowers of this ORDER have ONE set of united Stamina; as in

Pinus. Male calyx 4-leaved. Corolla none. Stamina many. Summits naked.—Female flowers in a cone: the scales 2 flowered. Corolla none. Style 1. Nut enlarged by a membranous wing.

Thuja. Male flowers in a scaly catkin. Corolla none. Stamina 4.—Female flowers in a cone: the scales 2-flowered. Corolla none. Style 1. Nut girt with a notched wing.

Cupréssus. Male flowers in a scaly catkin. Corolla none. Summits 4, fertile.—Female flowers in a cone: the scales 1-flowered. Corolla none. Style a concave dot. Nut angled.

Croton. Male calyx cylindrical, 5-toothed. Petals 5. Stamina 10 or 15.—Female calyx many-leaved. Corolla none. Styles 3, bifid. Seed-vessel 3-celled. Seed 1.

Rícinus. Male calyx 5-parted. Corolla none. Stamina numerous, branching.——Female calyx 3-parted. Corolla none. Styles 3, bifid. Seed-veffel 3-celled. Seed 1.

ORDER X. *Termed SYNGENÉSIA.*

The Male Flowers of this ORDER have their Summits UNITED; as in

Momórdica. Male calyx 5-parted. Corolla 5-parted. Stamina 3.——Female calyx 5-parted. Corolla 5-parted. Style trifid. Fruit opens with an elastic force.

ORDER XI. *Termed POLYGÁMIA SUPÉRFLUA.*

The Flowers of this ORDER are Male and Hermaphrodite, or Female and Hermaphrodite, distinct on the same Plant; as in

Verátrum. Hermaphrodite calyx none. Petals 6. Stamina 6. Styles 3. Seed-veffels 3, many-seeded.——Male calyx none. Petals 6. Stamina 6. Style imperfect.

Mimósa. Hermaphrodite calyx 5-toothed. Corolla 5-parted. Stamina 5, or more. Style 1. Seed-veffel a pod.——Male calyx 5-toothed. Corolla 5-parted. Stamina 5, 10, or more.

Clusia. Male calyx 4, or 6-leaved: leaves opposite, imbricated. Petals 4, or 6. Stamina numerous.——Female calyx and corolla like the male. Nectarium of the summits united, and includes the germen. Seed-veffel 5-celled, 5-valved, and filled with pulp.

Acer. Hermaphrodite calyx 5-parted. Petals 5. Stamina 8. Style 1. Seed-veffels 2 or 3, one-seeded, terminated with a wing.——Male calyx 5-parted. Petals 5. Stamina 8, or more.

Class XXII.

DIOECIA.

The Flowers of this Class are *not* Hermaphrodite, except in the *last Order*, but they are produced Male and Female on *distinct* Plants,

ORDER II. Termed DIÁNDRIA.

The Male Flowers of this ORDER have TWO Stamina.

Salix. Male flowers in a scaly catkin. Corolla none, but there is a nectariferous gland in the center.—Female flowers in a scaly catkin. Corolla none. Style 2-parted. Seed-vessel 1-celled, 2-valved. Seeds downy.

ORDER IV. Termed TETRÁNDRIA.

The Male Flowers of this ORDER have FOUR Stamina.

Hippopháe. Male calyx 2-parted. Corolla none. Female calyx 2-parted. Corolla none. Style 1. Berry 1-seeded.

Mýrica. Male Flowers in a catkin: scales moon-shaped. Corolla none.—Female catkin like the male. Corolla none. Styles 2. Berry 1-seeded.

Anthospérmum *. Male calyx 4-parted. Corolla none.—Female calyx 4-parted. Corolla none. Styles 2. Seed-vessel below the calyx.

ORDER VI. Termed HEXÁNDRIA.

The Male Flowers of this ORDER have SIX Stamina; as in

Smilax. Male calyx 6-leaved. Corolla none.—Female calyx 6-leaved. Corolla none. Styles 3. Berry 3-celled. Seeds 2.

* The Plants of this Genus produce no hermaphrodite Flowers. *Lin. Suppl. p. 440.*

ORDER VIII. *Termed OCTÁNDRIA.*

The Male Flowers of this ORDER have EIGHT Stamina.

Pópulus. Male flowers in a catkin: scales lacerated. Corolla top-shaped, oblique, entire.—Female flowers in the same kind of catkin. Stigma 4-parted. Seed-vessel 2-celled. Seeds downy.

ORDER X. *DECÁNDRIA.*

The Male Flowers of this ORDER have TEN Stamina; as in

Coriária. Male calyx 5-leaved. Petals 5, like the calyx, and connected with it. Summits 2-parted.—Female calyx and corolla like the male. Styles 5. Seeds 5, covered by the succulent petals.

ORDER XII. *Termed POLYÁNDRIA.*

The Male Flowers of this ORDER have MANY Stamina.

Cliffórtia. Male calyx 3-leaved. Corolla none. Stamina about 30.—Female calyx 3-leaved, above the germen. Corolla none. Styles 2. Seed-vessel 2-celled. Seeds 2.

ORDER XIII. *MONADÉLPHIA.*

The Male Flowers of this ORDER have ONE set of united Stamina; as in

Juníperus. Male flowers in a scaly catkin. Corolla none. Stamina 3.—Female calyx 3-parted. Petals 3. Styles 3. Berry 3-seeded, and have 3 tubercles at the tip.

ORDER XIV. *Termed SYNGENÉSIA.*

The Male Flowers of this ORDER have their SUMMITS united; as in

Ruscus. Male calyx 6-leaved. Corolla none. Nectarium central, oval, perforated at the tip.—Female calyx, corolla, and nectarium like the male. Style 1. Berry 3-celled. Seeds 2.

ORDER XVI. *Termed* POLYGÁMIA SUPÉRFLUA

The Flowers of this ORDER are Female and Hermaphrodite on the same or on distinct plants: or they are Male and Hermaphrodite on the same, or on distinct plants. Also, Male, Hermaphrodite, and Female on distinct Plants.

Fráxinus. Hermaphrodite calyx 4-parted, or entirely wanting. Petals 4, or none. Stamina 2. Style 1, Seed 1, lance-shaped.

Gledítzia. Hermaphrodite calyx 4-parted. Petals 4. Stamina 6. Style 1. Seed-vessel a pod. —Male calyx 3-leaved. Petals 3. Stamina 6. —Female calyx 5-leaved. Petals 5. Style 1. Seed-vessel a pod.

Clafs XXIII.

C R Y P T O G A M I A.

The Flowers of this Clafs, both from their *minuteness* and their *situation*, are for the most part concealed. They are either contained within the *Fruit*, or they are scattered on the *surface* of some part of the Plant.

ORDER I. *Termed* FILÍCES OR FERNS.

The Flowers of this ORDER are mostly contained in dots, or lines on the back of the leaf.

Adiántum. Flowers in terminal dots, under the curled margins of the leaves.

Polypódium. Flowers in roundish dots, scattered over the back of the leaf.



A
D I C T I O N A R Y

OF THE ORNAMENTAL

Trees, Shrubs, Plants, &c.

ACANTHUS. *Bear's-Breech.* Compendium, Page 30.

CALYX of 1 long, lipped leaf, having a short, thick, hollow base, furnished on the inside with 2 short filmy opposite scales: *upper lip* the longest, the broadest, and dentated at the tip: *lower lip* bifid, dentated.—Corolla of 1 unequal petal, having a short tube, bearded within, and a broad, flat, obtuse, lower lip, cut into 3 lobes: upper lip wanting, but supplied by the upper lip of the calyx.—*Stamina* 4, crooked, 2 rather shorter than the rest, and all shorter than the lip of the corolla.—*Summits* oblong, parallel, woolly on the fore part.—*Germs* conical.—*Style* thread-like, longer than the stamina.—*Stigma* forked.—*Seed-vessel* conical, 2-celled.—*Seeds* fleshy, 1 in each cell.

1. *Spinosus.* Leaves large, and divided to their mid-rib into about fourteen almost linear segments, cut into large, irregular, spiny teeth. Stalk erect, about three feet high, and furnished near

half its length with purplish white flower, having three bractæ at their base, the two side ones of which are linear and acute: the lower one is broad, pointed, and cut into long, spiny teeth.—*Prickly Bear's-Breech.* Italy.

2. *Mollis.* This differs from the former in the leaves having broader, fewer, and more shallow segments, and in the teeth being few, very broad, and destitute of spines. Sometimes, however, they put forth a few soft prickles.—*Smooth Bear's-Breech.* Italy.

OBSERVATION. *The second sort abounds with a mucilaginous juice, and was occasionally used for the same purposes as the Marsh-mallow is now.*

ACER. *Maple-Tree.* Comp. p. 45

Plants Polygamous.

Male Calyx of 1 coloured abiding leaf, cut into 5 parts.—*Corolla* of 5, reverse, egg-shaped, spreading petals, scarce larger than the calyx.—*Stamina* 8, short, awl-shaped.—*Summits* cross-shaped.

Hermaphrodite Calyx, corolla and stamina like the male.—*Germen* compressed, sunk in a large, hollow receptacle.—*Style* at first scarce any, but lengthens in time.—*Stigmas* mostly 2, taper, and reflexed.—*Seed-vessels* mostly 2, compressed, joined at their base, and each is terminated by a large, membranous wing.—*Seeds* solitary, roundish.

1. *Campêstris.* A small, bushy tree, covered with a light brown, furrowed bark. Leaves rather small, on both sides smooth, cut about half way into three obtuse, notched lobes. Flowers greenish, and terminate the twigs in clusters.—*Common Maple.* England.
2. *Pseudo-Plátanus.* A tall upright tree, putting forth large leaves, a little hoary beneath, and

cut into five unequal, irregularly, ferrated lobes. Flowers dull yellow, in a long, pendulous racemus.—*Greater Maple; Sycamore.* England.

3. *Platanoides.* A large tree, producing broad, smooth, obtuse leaves, glossy beneath, of a fine green above, and they are divided into five short lobes, having three or four large, very acute, distant teeth. Flowers yellow, in roundish bunches.—*Plane-tree leaved Maple.* Norway.
4. *Rubrum.* A small, shrub-like tree, producing leaves of a glaucous hue beneath, cut into five lance-pointed, irregularly dentated lobes. Flowers red, and come out before the leaves in short umbels. The plant is diœcious.—*Red-flowered Maple.* Virginia. *Sir Charles Wager's Maple a variety, and have pale red flowers.*
5. *Negúndo.* A tall tree, putting forth very long shoots. Leaves winged, and composed of three or five rather egg-shaped pointed lobes, having their upper part coarsely ferrated. Flowers in a long racemus.—*Ash-leaved Maple.* Virginia.

OBSERVATION. *The last sort contains a sweet sap, which may be tapped from it in the Spring, and if boiled up will make a tolerable good sugar. The Acer Saccharinum, which is generally used by the Americans for this purpose, is seldom cultivated here.*

ACHILLEA. *Yarrow.* Comp. p. 39.

Flowers Compound, Radiated.

Common Calyx oblong egg-shaped, and imbricated with egg-shaped, conniving scales.

Florets in the disk hermaphrodite, under 20, funnel-shaped, and cut into five spreading teeth.—*Germs* small.—*Style* thread-like, as long as the stamina.—

Stigma 2, obtuse, reflexed.—*Seed* shaggy, void of down.

Female rays from 5 to 10, short, reverse-heart-shaped, spreading, trifid, and have the middle segment the smallest. *Style, Stigmas,* and *Seed* like the former.—*Receptacle* prominent, chaffy.—*Chaff* lance-shaped, as long as the florets.

* *Flowers White.*

1. *Millefolium.* Stalk erect, a foot or more high, furrowed, and branching. Leaves long, doubly winged, and composed of numerous narrow lobes, having their small lobes cut into three or five teeth. Flowers white, or bluish colour, and terminate the stalks in dense, roundish, even topped bunches.—*Yarrow; Nosebleed; Common Milfoil.* England.
2. *Ptar mica.* Stalks slender, rather feeble, two feet or more high, and branching. Leaves long, linear, lance-pointed, very accutely ferrated. Flowers snow white, single or double, in loose bunches at the top of the stalk and branches.—*Sneezewort; Goose-tongue.* England.
3. *Alpina.* Stalks two or three feet high, erect, branching. Leaves almost linear, lance-pointed, deeply and doubly ferrated; the small teeth very slender. Flowers dirty white, and terminate the stalks and branches in loose, even topped bunches.—*White Maudlin; Alpine Sneezewort.*
4. *Macrophýlla.* Stalk about three feet high, a little hairy. Leaves long, and cut into several ferrated lobes, the extreme lobe the largest, and runs into the next lobes at its base. Flowers white, and terminate the stalk and branches in loose bunches.—*Scabious leaved Sneezewort.* Italy.

5. *Clavénnae*. Stalks not a span high. Leaves hairy, broad, and are cut into flat, obtuse lobes. Flowers white, and terminate the stalks in dense, roundish bunches. — *Silvery-leaved Sneezewort*. Alps.

** *Flowers Yellow*.

6. *Tomentósa*. Whole plant woolly. Stalks more than a span high. Leaves narrow, linear, obtuse, and winged with numerous small lobes, cut at their tip into three teeth, the middle tooth the longest. Flowers bright yellow, in dense, almost even topped bunches at the tops of the stalks. — *Hoary Yarrow*. Tartary.

7. *Agerátum*. Stalks above half a yard high, erect, and branching. Leaves lance-pointed, broadest near their tip, and acutely serrated. Flowers dirty yellow, very small, in dense bunches at the tops of the stalks and branches. — *Sweet Maudlin*. Spain.

8. *Abrotanifólia*. Stalks near three feet high. Leaves cut into many long, narrow segments, having their small lobes linear, and distant. Flowers yellow, in large, roundish bunches at the tops of the stalks. — *Tall Wormwood-leaved Yarrow*. Asia.

9. *Pubéscens*. Stalks about half a yard high. Leaves winged with lanced-shaped, cut, serrated lobes, and are woolly beneath. Flowers pale yellow, in roundish bunches, at the tops of the stalks. — *Tansy-leaved Milfoil*. Asia.

10. *Ægyptica*. Stalks near a foot high. Leaves winged with obtuse, lance-shaped lobes, cut into very fine teeth. Flowers yellow, in dense, roundish bunches at the tops of the stalks. — *Crested-leaved Sneezewort*. Egypt. Green-house.

OBSERVATION. *A tincture of the first sort, drawn from the roots or leaves by Spirits of Wine, is astringent, and has been found very serviceable in defluxions of all kinds; in ruptures, and in any lax state of the fibres.*

ACONITUM. *Monkshood.* Comp. p. 26.

Calyx none.—Corolla composed of 5 unequal petals, differently disposed.—*Upper* one hood-like, and covers part of the rest; the 2 side ones roundish, conniving at their tips; the 2 lower ones are oblong, and drooping.—*Nectariums* 2, bent like an S, and lodge under the upper petal.—*Stamina* many, crooked, broadest at their base, and are surrounded by 6 short, coloured scales.—*Summits* small, erect.—*Germina* 3, 4, or 5, oblong, terminating in *Styles* as long as the stamina.—*Stigmas* reflexed.—*Seed-vessels* as many as styles: they are straight, taper, and have but 1 valve.—*Seeds* many, rough, and angular.

* *Flowers Blue.*

1. *Napellus.* Stalk erect, from three to five feet high, and branching. Lower leaves large, divided at their foot-stalk into about five principal wedge-shaped lobes, which are variously snipped into many narrow furrowed, acute segments. Flowers blue or violet, hairy on their outsides, and terminate the stalk and branches in a long, erect racemus.—*Common Monkshood.* France.
2. *Variogatum.* Stalks three feet or more high, smooth, crooked, and branching. Leaves divided at their foot-stalk into three or five principal wedge-shaped lobes, which are cut about half way into broadish lance-pointed segments. Flowers large, white, edged with light blue, on long peduncles, forming a large, spreading racemus, at the tops of the branches. Tip of

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the hood awl-shaped, almost horizontal.—
Variiegated Monkshood. Italy.

3. *Uncinátum.* Stalk two or three feet high. Leaves divided into three or five angular, dentated lobes. Flowers blue, and have the tip of their hood extended into a long, straight beak.—
Hooked Philadelphian Aconite.

* *Flowers Yellow.*

4. *Lycóctonum.* Stalks four or five feet high, furnished with numerous spreading branches. Leaves large, hairy, somewhat shield-shaped, cut into a multitude of segments. Flowers pale yellow, and terminate the branches in a conical racemus. Upper petal or hood almost cylindrical, and has its heel erected.—*Poisonous Yellow Aconite.* Austria.

5. *Aⁿthora.* Stalks three or four feet high. Leaves pale green, and cut into several linear, distinct segments, nearly of equal length. Flowers yellow, or whitish, and terminate the branches in a thin racemus. Styles mostly five.—*Whole-some Wolfbane.* Germany.

ACTŒA. *Bane Berry.* Comp. p. 26.

Calyx of 4 roundish, small, concave leaves, which soon drop off.—*Corolla* of 4 petals, larger than the calyx, and soon drop off.—*Stamina* from 20 to 40, hair-like.—*Summits* roundish, erect, double.—*Germs* egg-shaped.—*Style* none.—*Stigma* thickish, oblique, depressed.—*Berry* somewhat globular, smooth, 1-celled.—*Seeds* many, semiorbicular, placed over one another in a double row.

1. *Spicáta.* Stalk near two feet high, slender, jointed, and streaked. Leaves large, glossy, and composed of many lobes. Flower small, white, with somewhat diamond-shaped petals, and

they form an egg-shaped racemus. Berries black or white.—*Common Herb Christopher*.
England.

2. *Racemosa*. Stalks two or three feet high, smooth, and jointed. Leaves very large, spreading, and composed of many irregularly serrate lobes. Flowers white, and terminate the stalks in a very long racemus. Petals very minute. Fruit a dry hollow seed-vessel.—*American Herb Christopher*.

3. *Cimicifuga*. Stalk more than a foot high. Leaves winged. Flowers white, in racemous panicles.—*Paniculated Herb Christopher*. Siberia.

OBSERVATION. *The last species is said to be more powerful than any Plant yet known for destroying, or expelling of Bugs; whence its name Cimicifuga. As it is a hardy plant, it deserves to be generally cultivated, were it only for this purpose.*

ADIANTUM. Maiden-hair. Comp. p. 48.

Flowers exceedingly minute, and are collected in oval spots under the curled extremities of the lobes of the leaves.

1. *Capillus-veneris*. Leaves nearly a span long, and are twice compounded with alternate partial, winged leaves, having snipped, wedge-shaped lobes on footstalks. Midrib very slender, black, and shining.—*True Maiden-hair*. Wales.

2. *Pedatum*. Leaves foot-shaped, and composed of winged leaves, having their lobes obtuse, and cut or notched on their upper part.—*Canada Maiden-hair*.

OBSERVATION. *The Syrop de Capilliare, which is recommended in coughs, and decays of the lungs, ought to be made from the first species.*

ADONIS. *Pheasant's Eye.* Comp. p. 27.

Calyx composed of 5 deciduous, concave leaves.—*Corolla* from 5 to 15 oblongish, shining petals.—*Stamina* many, awl-shaped, very short.—*Summits* oblong, incurved.—*Germina* numerous, collected in a head on a roundish receptacle.—*Styles* none.—*Stigmas* acute, reflexed.—*Seed-vessel* none.—*Seeds* naked, numerous, angular, gibbous at their base, and reflexed at their tip.

1. *Vernalis.* Leaves cut into numerous, very narrow, linear segments. Flowers large, yellow, terminal, and composed of about twelve lance-shaped petals. *Calyx* hairy.—*Spring Adonis.* Bohemia.
2. *Apennina.* This resembles the former, but the flowers have fifteen petals, the calyx is flat and of a yellowish green, and the stalks are sprinkled with pellucid dots.—*Apennine Adonis.* Siberia.
3. *Autumnalis.* Stalk about half a yard high. Leaves composed of many narrow lobes. Flowers small, deep red, and have about eight petals each.—*Red Morocco; Red Maithes.* England. ☉

Æ'sculus. *Horse-Chestnut.* Comp. p. 17.

Calyx formed of 1 tubular leaf, cut into 5 parts—*Corolla* of 5 roundish, flat, somewhat plaited, party-coloured petals, having narrow heels, inserted into the calyx.—*Stamina* 7, awl-shaped, about as long as the corolla, declining.—*Summits* furrowed.—*Germen* globular, terminated by a taper *Style*.—*Stigma* pointed.—*Seed-vessel* roundish, tough.—*Seeds* 2, nearly globular.

1. *Hippo-cástanum.* A large tree producing fingered leaves, composed of five or seven long, wedge-

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shaped, pointed, serrated lobes. Flowers white, tinged with red; in erect, conical bunches at the ends of the branches. Stamina from seven to nine. Seed-vessel prickly.—*Common Horse-chestnut. Asia.*

2. *Pavia.* Rather shrubby. Leaves like the former, but smaller, and downy beneath. Flowers red or yellowish, and have two of their petals longer than the rest, forming a kind of lip. Stamina eight, hairy. Seed-vessel smooth.—*Scarlet Horse-chestnut. Carolina.*

¹
AGERATUM. *Bastard Hemp Agrimony.* Comp. p. 38.

Flowers Compound. Florets all Tubular.

Common calyx oblong, and composed of many lance-shaped, nearly equal scales.

Florets all hermaphrodite, funnel-shaped, cut into 4 or 5 spreading teeth.—*Germs* oblong.—*Style* thread-like, as long as the stamina.—*Stigmas* 2, slender, and erect.—*Seed* oblong, angular, crowned with 5 bristle-like teeth.—*Receptacle* small, naked, and convex.

1. *Altissimum.* Stalks erect, smooth, about five feet high, and branching. Leaves oval-heart-shaped, wrinkled, serrated, on footstalks. Flowers white, and come out alternate near the ends of the branches.—*Tallest Bastard Hemp Agrimony. Virginia.*
2. *Conyzoides.* Stalk erect, two or three feet high, and hairy. Leaves egg-shaped. Flowers white.—*Annual Bastard Hemp Agrimony. America.*

¹
AGROSTEMMA. *Cockle.* Comp. p. 22.

Calyx formed of 1 abiding tough, tubular leaf, cut into 5 long teeth.—*Corolla* of 5 petals, having obtuse, spreading limbs, and narrow heels, about the length of

the tube of the calyx.—*Stamina* 10, awl-shaped, and every other inserted into the heel of each petal.—*Summits* oblongish, incumbent.—*Germen* egg-shaped.—*Styles* 5, thread-like, erect, as long as the *stamina*.—*Stigmas* small.—*Seed-vessel* oblong egg-shaped, covered, 1-celled.—*Seeds* many, kidney-shaped and dotted.

1. *Coronária*. Whole plant covered with a hoary down. Stalk divided into many spreading branches. Leaves egg-shaped, lance-pointed, opposite, and joined at their base. Flowers deep red, flesh colour, or white, having their petals entire; and each petal is crowned at the top of its heel with two leafy teeth. Calyx shorter than the petals.—*Rose* *Campion*; *Flos-Jovis*. Italy. ♂
2. *Githago*. Whole plant hairy. Stalk erect, with forking branches. Leaves long, narrow, sessile, awl-pointed, and opposite. Flowers purple or flesh colour, have their petals notched, and are about the length of the calyx.—*Corn Cockle*. England. ☉ Sometimes the petals of this species are entire.

A'LCEA. *Hollyhock*. Comp. p. 33.

Calyx double, and composed of 2 abiding leaves: the *outer* one the smallest, and cut about half way into 6 spreading parts; the *inner* one large, and cut about half way into 5 parts.—*Corolla* of 5 large, spreading, reverse heart-shaped petals, united at their base.—*Stamina* numerous, loose above, but united below into a 5-cornered column, running into the base of the petals.—*Summits* small.—*Germen* orbicular.—*Style* thick, short.—*Stigmas* numerous, long, bristle-like.—*Seeds* kidney-shaped, and are wrapped in distinct, deciduous coats, forming an articulated, depressed whorl, round a short column-like receptacle.

1. *Rósea*. Stalk eight or ten feet high. Leaves large, roundish, sinuated and angled. Flowers purple, red, yellow, or white, and of various other colours.—*Common Hollyhock*. Asia. ♂
2. *Ficifólia*. Stalk about eight feet high. Leaves cut into six or seven oblong lobes, nearly resembling those of the Fig-leaf.—*Fig-leaved Hollyhock*. Asia. ♂

OBSERVATION. *The Chinese Hollyhock, producing beautiful, carnation-like flowers, is evidently a variety of the Rósea, as is proved by the seeds saved from the Chinese frequently producing the same flowers as the Rósea. It is probable too that the second sort is only a variety of the first.*

ALCHEMILLA. *Lady's Mantle*. Comp. p. 7.

Calyx of 1 abiding, tubular leaf, having a flat limb, cut into 8 parts, one alternately smaller than the other.—*Corolla* none.—*Stamina* 4, small, erect, placed on the mouth of the calyx.—*Summits* roundish.—*Germen* egg-shaped.—*Style* thread-like, as long as the stamina, and inserted at the base of the germen.—*Stigma* globular.—*Seed-vessel* none.—*Seed* solitary, elliptical, wrapped in the calyx.

1. *Vulgáris*. Stalks round, branching, spreading, and about a foot long. Leaves hairy, roundish, folded into eight or ten plaits, terminating in points, and they stand on long footstalks. Flowers yellowish, in clusters at the ends of the branches.—*Common Lady's Mantle*. England.
2. *Alpina*. Stalks six or eight inches high, round, smooth, and branching. Leaves fingered, and composed of oblong oval lobes, which are silvery beneath, and serrated at their tip. Flowers greenish.—*Cinquefoil Lady's Mantle*. England.

3. *Aphanoïdes*. Stalks erect, round, a little branching, and about a span high. Leaves hairless, cut into many segments. The radical leaves on footstalks, the others sessile. Flowers in a terminal racemus. Calyx cut into eight parts.
—*New Granada Lady's Mantle*. ☉
4. *Pentaphyllea*. Stalks about a foot high. Leaves smooth and composed of five multifid lobes.
—*Lapland Lady's Mantle*.

OBSERVATION. *The leaves of the first sort are used in Medecine. They are esteemed a mild astringent, and to be of great service for the stopping of inward bleedings.*

ALÉTRIS. *Aletris*. Comp. p. 15.

Calyx none.—*Corolla* of 1 funnel-shaped, 6-angled, abiding petal, having its limb cut into 6-lance-pointed segments.—*Stamina* 6, awl-shaped, as long as the corolla, and inserted into the base of the segments.—*Summits* oblong, erect.—*Germen* egg-shaped, within the corolla.—*Style* awl-shaped, as long as the stamina.—*Stigma* trifid.—*Seed-vessel* egg-shaped, 3-cornered, 3-celled.—*Seeds* many.

1. *Uvária*. Leaves very long, narrow, and triangular. Flower-stalk two or three feet high. Flowers orange colour, sessile, reflexed, and lodged one on another, forming a large, imbricated racemus at the top of the stalk.—*Flag-leaved Aletris; Iris Uvaria*. Cape of Good Hope. *Green-house*.
2. *Capénsis*. Leaves a foot long, broadish, lance-pointed, glossy, and waved on their margins. Flower-stalk erect, naked, smooth, spotted, and two feet or more high. Flowers numerous, pale red dotted with green, somewhat club-shaped, incurved, pendulous, and form a thick, imbr-

cated racemus at the top of the stalk.—*Cape Aletris*. Hot-house.

A'LLIUM. *Garlick*. Comp. p. 14.

Common Calyx a roundish, withering sheath.—*Corolla* of 6 oblong petals.—*Stamina* 6, awl-shaped, often as long as the corolla.—*Summits* oblong, erect.—*Germen* short, above the corolla, somewhat 3-cornered, having the angles marked with a line.—*Style* simple.—*Stigma* acute.—*Seed-vessel* very short, broad, 3-lobed, 3-celled, and 3-valved.—*Seeds* many, and roundish.

1. *Moly*. Whole plant of a bluish green. Leaves lance-shaped. Stalk erect, round, about half a yard high, and leafless. Flowers yellow, erect, and terminate the stalk in an even topped umbel.—*Yellow Moly*. Hungary.
2. *Flavum*. Stalks round, and bear a few cylindrical leaves. Flowers yellow, pendulous, in globular umbels at the tops of the stalks. Sheath forked. Petals egg-shaped. Stamina and style much longer than the petals.—*Montpelier Garlick*.
3. *Senescens*. Stalk leafless, compressed. Leaves linear, smooth, convex beneath. Flowers white, and terminate the stalk in a roundish umbel. Sheath very short. Petals distant, furrowed, and have their tips bent inward. Stamina awl-shaped, rather longer than the corolla.—*Narcissus-leaved Garlick*. Siberia.

A'LOE. *Aloe*. Comp. p. 16.

Calyx none.—*Corolla* of 1 oblong petal, having a gibbous tube, and a short limb cut into 6 spreading segments.—*Stamina* 6, awl-shaped, mostly longer than the corolla, and inserted into the receptacle.—*Summits* oblong, incumbent.—*Germen* egg-shaped, within the corolla.—*Style* as long as the stamina.—*Stigma* obtuse,

trifid.—*Seed-vessel* oblong, 3-furrowed, 3-celled, 3-valved.—*Seeds* many, angular.

1. *Perfoliata*. Stalk erect, all round embraced by, and supports a cluster of dentated leaves, forming a sheath with their base. Flowers cylindrical, nodding, and terminate the stalk in a roundish cluster.—*Perfoliate Aloe*; *Mitre-shaped Aloe*. Africa. *Green-house*. The varieties now produced from this species are very numerous; and amongst them are the

Succotrina. Stalk three or four feet high. Leaves very long, narrow, spiny, and collected in clusters. Flowers purple, in a racemus at the top of the stalk.—*Succotrine Aloe*. *Green-house*.

Vera. Stalk two or three feet high. Leaves flat, spiny, succulent, dentated, spotted with white, and crowded together, forming a sheath. Flowers yellow, in a thin racemus.—*Bardadoes Aloe*; *Hepatic Aloe*. *Hot-house*.

2. *Spicata*. Leaves of the stalk flat, dentated, and embrace the stalk. Flowers bell-shaped, horizontal, and come forth in a spike; otherwise the plant very much resembles the *Perfoliata*.—*Spiked Aloe*. Cape of Good Hope. *Green-house*.

3. *Variiegata*. Radical leaves erect, keeled, imbricated in three different rows, and are marbled with white and green. Flowers red, cylindrical, angled, and hang somewhat nodding in a thin racemus. Mouth of the corolla spreading, cut into equal segments.—*Partridge-breast Aloe*. *Æthiopia*. *Green-house*.

4. *Disticha*. Leaves tongue-shaped, spotted like soft soap, and are disposed in two spreading, opposite rows. Flowers red, curved, oval at their base, cylindrical on their upper part, and pendulous.—*Soap Aloe*. Africa. *Green-house*.

There is a variety with the leaves spreading every way.

5. *Plicátilis*. Stem short, thick, woody, and sends out a few very short branches, producing long, thick, spineless leaves, ranged in two opposite rows, and closely pressing one on another at their base, forming with their edges as many folds, but they spread open at their tips like the ribs of an expanded fan. Flowers red, cylindrical, in a racemus at the end of a compressed stalk, springing from the center of the leaves. Tube of the corolla double.—*Fan Aloe*. Hot-house.
6. *Linguaeformis*. Leaves tongue-shaped, warted, and are disposed in two opposite rows. Flowers cylindrical, erect, and terminate the stalk in a racemus. — *Tongue Aloe*. Cape of Good Hope. *Green-house*.
7. *Spirális*. Leaves erect, egg-shaped, pointed, and imbricated in three, five, or six different rows. Flowers sessile, egg-shaped, crenated at their mouth, and have their interior segments conniving. — *Upright Spiral Aloe*. Africa. *Green-house*.
8. *Retúsa*. Leaves short, thick, and flattened at their tops as if they had been sat upon. Flowers greenish, ash-colour, sessile, 3-sided, and cut into two lips; the under lip revolute, and the upper one reflexed.—*Cushion Aloe*. Africa. *Green-house*.
9. *Viscôsa*. Leaves erect, triangular, clammy, imbricated, and disposed in three rows, with their tips spreading. Flowers sessile, funnel-shaped, cut into two lips, and have five of their segments revolute, and the upper one erect.—*Viscuous Upright Aloe*. Æthiopia. *Green-house*.

10. *Púmila*. Radical leaves small, clustered, egg-shaped, awl-pointed, and powdered over with pearly tubercles. Flowers sessile, cut into two lips; the upper lip erect, the under one recurved.—
Pearl Aloe. *Æthiopia*. *Green-house*. The varieties are the
Larger Pearl.
Lesser Pearl.
Least Pearl.

11. *Uvária*. (See *Aletris*.)

OBSERVATION. *The first variety (Succotrina) of the Perfoliata, is generally said to produce the Succotrine Aloes; and the second variety (Vera) the Horse, or Hepatic sort. But there certainly must be some error committed by Writers, as to this matter; for surely Linnæus would never have called the Hepatic Aloe the true sort. The Succotrine Aloe, which is that used in Medecine, (it being mild and safe compared with the Hepatic,) is brought from an Island in Asia, called Socotora; whence the name Socotrine, or Succotrine Aloes. But the Hepatic, which is used by the Farriers, comes from Barbadoes, and on that account is distinguished in the shops by the name of Barbadoes Aloes. The Spicata, however, is now said to produce the best sort.*

ALSTRÆMERIA. *Alstræmeria*. Comp. p. 16.

Calyx none.—*Corolla* composed of 6 petals, so ranged as to form 2 imperfect lips. The 3 outer petals are wedge-shaped, hollowed, or widely notched at their tip, with an acute tooth in the middle of the hollow: the 3 inner ones are lance-shaped, and the 2 uppermost of these are tubular at their base.—*Stamina* 6, awl-shaped, unequal, declining.—*Summits* oblong.—*Germen* 6-cornered, below the corolla.—*Style* thread-like declining.—*Stigma* divided into 3 oblong, bifid parts.—*Seed-vessel* roundish, 6-cornered, pointed, 3-celled.—*Seeds* many, and globular.

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1. *Peregrina*. Stalk more than a foot high, and branching. Leaves almost linear, lance-pointed, fleshy, narrow, and twisted at their base. Flowers large, nearly bell-shaped, of a whitish colour, beautifully spotted and striped with different tinges of purple and yellow.—*Alstræmeria*. Peru. *Green-house*.
2. *Salsilla*. Stalk twining. Leaves lance-shaped, pointed, on naked footstalks. Involucrum composed of many awl-shaped, reflexed leaves. Flowers few, of a greenish purple.—*Climbing Alstræmeria*. Lima. *Hot-house*.

ALTHÆA. *Marsh-mallow*. Comp. p. 33.

Calyx double, abiding: the *outer* one deeply cut into nine very narrow, acute segments; the *inner* one divided about half way into 5 broad, acute pointed parts.—*Corolla* composed of 5 reverse heart-shaped petals, united at their base.—*Stamina* numerous, loose above, but united below into a column, running into the base of the petals.—*Summits* nearly kidney-shaped.—*Germs* round.—*Style* short, cylindrical.—*Stigmas* many, bristle-like.—*Seeds* kidney-shaped, and wrapped in distinct deciduous coats, forming a depressed whorl, round a short column-like receptacle.

1. *Officinâlis*. Stalk erect, woolly, four or five feet high. Leaves angular, lobed, irregularly serrated, and are like velvet to the touch. Flowers pale purple, in small bunches at the bosoms of the leaves.—*Common Marsh-mallow*. England.
2. *Hirsuta*. Branches trailing. Leaves trifid, smooth above, but furnished with rough hairs beneath. Flowers small, and stand solitary at the bosoms of the branches.—*Italian Marsh-mallow*.

A L Y

OBSERVATION. *A decoction of the roots and leaves of the first sort is esteemed balsamic and pectoral, and to be of great service in tickling coughs, pleuresies, heat of urine, and fluxes. The plant likewise is ordered, in fomentations to ease pain, and to ripen tumours and imposthumes.*

1
ALYSSUM. *Madwort.* Comp. p. 31.

Flowers Cross-shaped.

Calyx of 4 oblong-oval, conniving, deciduous leaves.—*Corolla* of 4 flat, very spreading petals, forming a cross, and having heels about as long as the calyx.—*Stamina* 6, near as long as the calyx, but 2 are rather shorter than the rest, and each of these is marked at its base with a minute tooth.—*Summits* almost erect.—*Germen* egg-shaped.—*Style* about as long as the stamina.—*Stigma* obtuse.—*Seed-vessel* nearly globular, often notched, terminated by the style, 3-celled.—*Seeds* few, orbicular, and fixed to a thread-like receptacle.

* *Flowers White.*

1. *Spinosum.* Somewhat shrubby, about two feet high, having its old flower branches naked, and like spines. Leaves few, lance-shaped, hoary. Flowers white, in small clusters at the ends of the branches.—*Prickly Madwort.* Spain.
2. *Halimifolium.* Stalks perennial, procumbent. Leaves narrow lance-shaped, acute, entire, thick, and whitish. Flowers small, white, in tufts at the ends of the branches.—*Sea Purslane-leaved Alysson.* Europe.
3. *Incánium.* Stalks erect, hoary, roughish, and branching. Leaves lance-shaped, entire, hoary, alternate. Flowers white, small, in roundish bunches at the ends of the branches. Petals bifid. Pods oblongish, entire. *Hoary Upright Madwort.* Europe.

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* * *Flowers yellow.*

4. *Sinuatum.* Stalks herbaceous, about a span high. Radical leaves broad and obtuse upward, narrow near their base, waved, and slightly dentated; upper leaves lance-shaped; all of them hoary. Flowers large, bright yellow, and terminate the branches in a racemus. Petals notched. Teeth of the short stamina scarce visible. Pod roundish, inflated. — *Large Flowered Madwort.* Spain. ♂
5. *Créticum.* Stalks erect, somewhat shrubby. Leaves lance-shaped, downy, entire. Flowers yellow. Pods inflated. — *Entire-leaved Cretan Madwort.*
6. *Saxatile.* Stalks somewhat shrubby, and divided into panicles near their top. Leaves long, lance-shaped, narrowing to their base, undulated, hoary, and soft to the touch. Flowers small, numerous, yellow, and terminate the stalks in clusters. Petals notched. — *Rock Madwort.* Crete.
7. *Montanum.* Stalks trailing, diffuse. Leaves nearly lance-shaped, dotted, and prickly. Flowers deep yellow, and terminate the branches in clusters. — *Echinated Alysson.* France.

AMARANTHUS. *Amaranth.* Comp. p. 43.

Plants Monœcious.

Male Calyx formed of 3 or 5 lance-shaped leaves. — *Corolla* none. — *Stamina* 3 or 5, about the length of the calyx. — *Summits* oblong, both ends notched. — *Female calyx* like the male. — *Corolla* none. — *Germen* egg-shaped. — *Styles* 3, awl-shaped. — *Stigmas* abiding. — *Seed-vessel* egg-shaped. — *Seed* roundish.

1. *Hypocondriacus.* Stalk erect, branching. Leaves nearly oval, of a purplish green colour, and

pointed at both ends. Flowers purple, in long, erect, compound spikes, at the ends of the stalks, and from the bosoms of the leaves. Stamina five.—*Prince's Feather; Virginian Amaranth.* ☉

2. *Caudatus.* Stalk angular, branching. Leaves egg-shaped, lance-pointed, and of a pale green. Flowers purple, in very long, pendulous, twice compounded spikes, almost reaching the ground. Stamina five.—*Love Lies a Bleeding; Tailed Amaranth.* Persia. ☉

3. *Tricolor.* Stalk two or three feet high. Leaves variegated with yellow, red, and purple. Flowers in roundish, sessile heads, at the bosoms of the leaves. Stamina three.—*Tricolor.* India. *Hot-house.* ☉

4. *Bicolor.* This has only two colours in the leaves, a dull purple, and a bright crimson.—*Bicolor.* India. *Hot-house.*

OBSERVATION. *What is called the Tree Amaranth is only a variety of the Caudatus, and differs nothing from it but in size.*

AMARYLLIS. *Lily Daffodil.* Comp. p. 16.

Calyx of 1 oblong, obtuse, compressed, withering sheath, snapped at the tip, and opening on the side.—*Corolla* bell-shaped, composed of 6 lance-shaped petals.—*Stamina* awl-shaped, and each has mostly a very short scale at its base.—*Summits* oblong, incumbent.—*Germen* round, furrowed, below the corolla.—*Style* thread-like, as long as, and ranged with the stamina.—*Stigma* trifid, slender.—*Seed-vessel* nearly oval, 3-celled, 3-valved.—*Seeds* many.

* *One Flower from a sheath.*

1. *Lutea.* Stalk angular, about three inches high, and terminated by one yellow flower, resembling a

Crocus, having its petals equal. Stamina straight.—*Autumnal Amaryllis, or Narcissus.* Italy.

2. *Atamásko.* One pale red flower from a sheath, having its petals equal, and its style drooping.—*Virginian Lily Daffodil.* Green-house.
3. *Capénsis.* One equal-petaled flower from a sheath, having the heels of its petals spotted with black, and its stamina and style straight. Sheaths very distant.—*Cape Lily Daffodil* Hot-house.
4. *Formosíssima.* One large, deep red, unequal-petaled flower from a sheath, having its upper petal erect, its two side ones nearly horizontal, its three lower ones drooping, clasping the stamina and style near their middle.—*Jacobæa Lily.* South America. *Hot-house.*

** *Several Flowers from a Sheath.*

5. *Sarniénsis.* Several bright red, sparkling flowers from a sheath, having their petals equal, spreading, and rolled back, and their stamina and style long and straight.—*Gurnsey Lily; Japanese Lily.* Spain. *Green-house.*
6. *Belladónna.* Several large, bell-shaped flowers from a sheath, having broad, lance-shaped, bright rose-colour petals, whitish near their base, and their stamina and style drooping.—*Belladonna Lily.* Barbadoes. *Green-house.*
7. *Reginæ.* Several large, bell-shaped, reddish copper colour flowers from a sheath, having equal, undulated petals, and their stamina and style declining.—*Mexican Lily; Queen Amaryllis.* Hot-house.
8. *Unduláta.* About twelve small, bright rose-colour flowers from a sheath, having narrow, spreading, linear, acute, very much undulated petals, and

their stamina and style drooping. Bractææ thread-like.—*Umbellated Amaryllis*. Cape of Good Hope. *Hot-house*.

9. *Orientalis*. Several crimson flowers from a sheath, having five of their petals incurved, and the sixth standing out.—*Brunswigian Lily*. *Green-house*.
10. *Ciliaris*. Several scarlet flowers from a sheath, consisting of one petal each, cut into six reflexed segments. Leaves narrow, flat, and are furnished with hairs on their margin.—*African Scarlet Lily*. *Hot-house*.

AMYGDALUS. *The Almond*. Comp. p. 24.

Calyx formed of 1 tubular, deciduous leaf, cut about half way into 5 spreading, obtuse parts.—*Corolla* of 5 oblongish petals, inserted into the calyx.—*Stamina* 20 or more, thread-like, erect, shorter than the corolla, and inserted into the calyx.—*Summits* small.—*Germs* oblongish, hairy.—*Style* about the length of the stamina.—*Stigma* knob-like.—*Fruit* roundish, tough, woolly, and has a longitudinal furrow.—*Nut* egg-shaped, compressed, acute, dotted, reticulated, and marked on both sides with a prominent seam.

Nana. Shrubby, about three feet high, putting forth many slender branches. Leaves long, narrow, lance-pointed, and serrated. Flowers deep flesh colour, sessile, single or double and generally stand by twos, forming very long spikes.—*Dwarf Almond*. *Asia*.

ANAGYRIS. *Stinking Bean Trefoil*. Comp. p. 20.

Flowers Butterfly-shaped.

Calyx of 1 bell-shaped leaf, cut into 5 teeth, the upper two deeply divided.

Standard of the corolla reverse-heart-shaped, straight, notched, about twice the length of the calyx.

Wings oblong-egg-shaped, flat, longer than the standard.

Keel straight, very long.—*Stamina* 10, parallel, distinct.—*Summits* simple.—*Germen* oblong.—*Style* simple.—*Stigma* hairy.—*Pod* large, oblong, roundish, obtuse, a little reflexed.—*Seeds* 6 or more, kidney-shaped.

Fætida. Shrubby, eight feet or more high. Lobes of the leaves egg-shaped. Flowers bright yellow, in a racemus from the wings of the leaves.

Stinking Bean Trefoil.

ANDRÓMEDA. *Andromeda.* Comp. p. 20.

Calyx formed of 1 small, abiding, coloured leaf, cut into 5 acute parts.—*Corolla* of 1 cylindrical, bell, or egg-shaped petal, cut into 5 reflexed segments.—*Stamina* 10, awl-shaped, shorter than the corolla.—*Summits* bifid, or horned, and a little nodding.—*Germen* roundish.—*Style* longer than the stamina, abiding.—*Stigma* obtuse.—*Seed-vessel* roundish, 5-cornered, 5-celled, and opens at the corners.—*Seeds* many, roundish, shining.

* *Corolla Egg-shaped.*

1. *Arborea.* A small tree, or shrub. Leaves oblong-egg-shaped, entire. Flowers greenish, short, egg-shaped, in long, leafless racemi from the sides of the branches.—*Tree Andromeda*; *Sorrel Tree.* Carolina.
2. *Polifolia.* Shrubby, and produces narrow-lance-shaped leaves, resembling those of *Rosemary.* Flowers reddish, egg-shaped, in small clusters among the leaves, at the ends of the branches.—*Marsh Cistus*; *Wild Rosemary.* England.

** *Corolla cylindrical.*

3. *Calyculáta.* Shrubby. Leaves nearly elliptical, entire, rigid, alternate, and dotted. Flowers somewhat cylindrical, white: they terminate the branches in a leafy racemus, and are all turned one way. Calyx double: the small one composed of two leaves.—*Double Cupped Andromeda.* Virginia.
4. *Paniculáta.* Shrubby. Leaves oblong, crenated, and alternate. Flowers almost cylindrical, greenish, in a leafless, paniculated racemus, and are all turned one way.—*Paniculated Andromeda.* Virginia.
5. *Mariána.* Shrubby. Leaves egg-shaped, entire, alternate. Flowers cylindrical, greenish, and are produced in small clusters.—*Maryland Andromeda.*

ANEMONE. *Wind Flower.* Comp. p. 27.

Calyx none.—*Corolla* composed of 6 or 9 oblongish petals, disposed in 2 or 3 different orders.—*Stamina* numerous, hair-like, about half as long as the corolla.—*Summits* erect, double, or furrowed on both sides.—*Germina* numerous.—*Styles* taper.—*Stigmas* obtuse.—*Receptacle* oblong, or globular, with hollow dots.—*Seeds* many, pointed, terminated by the style.

The Hepatica is said to have a calyx of three leaves, and the Palmata of six; but these are more properly involucrements, they being a little detached from the flower.

* *With Calyces.*

1. *Palmáta.* Radical leaves kidney-shaped, lobed, and crenated: that on the stalk, cut into many parts. Flowers yellow, and have coloured calyces cut into six hairy, entire parts.—*Broad-leaved Hepatica.* Portugal.
2. *Hepática.* Leaves cut into three entire lobes. Flowers blue, red, white, single or double.

Calyces of three leaves.—*Noble Liverwort*;
Common Hepatica. Europe.

** *Flower-stalk furnished with an Involucrum*.

3. *Patens*. Leaves fingered: the lobes cut into many pointed segments. Flower-stalk furnished with a hairy remote involucrum. Flowers large, yellowish white, spreading, one on a stalk.—*Siberian Pulsatilla*.
4. *Vernalis*. Leaves winged and somewhat resemble those of Parsley. Flower-stalk five or six inches high, furnished with a jagged involucrum. Flowers yellow, erect, one on a stalk. Seeds hairy.—*Early Swedish Pulsatilla*.
5. *Pulsatilla*. Leaves doubly winged with very narrow, acute lobes. Flower-stalk furnished with a hairy involucrum, deeply cut into many very narrow segments. Flowers blue, or white, single or double, have their petals straight, and hang nodding. Seeds hairy. — *Common Pasque Flower*. England,
6. *Pratensis*. Leaves doubly winged. Flower-stalk furnished with an involucrum. Flowers deep purple, pendulous, and have the tips of their petals reflexed. Seeds hairy. — *Meadow Pulsatilla*. Germany.
7. *Narcissifolia*. Radical leaves divided into five or seven acutely snipped segments. Flower-stalk furnished with a concave, roundish involucrum, cut into many narrow parts. Flowers whitish red, in an umbel from the center of the involucrum. Seeds oval, depressed, naked.—*Narcissus-flowering Anemone*. Austria.
8. *Coronaria*. Radical leaves composed of three decompounded smaller leaves, consisting of many finely cut lobes. Involucrum roundish, concave, and deeply cut into many narrow segments. Flowers large, red, blue, white, or purple,

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- single or double. Seeds tailed.—*Common Garden Anemone. Turkey.*
9. *Horténsis.* Leaves roundish, fingered: the lobes broad and snipped.—*Broad-leaved Garden Anemone. Italy.*
- *** *Flower-stalk Leafy.*
10. *Ranunculoïdes.* Radical leaves none. Stalk about five inches high, bearing near its top three almost sessile smooth leaves, composed of three or four narrow lobes, deeply snipped at their edges. Flowers yellow, mostly one to a stalk, on a hairy peduncle.—*Yellow Wood Anemone. England.*
11. *Alpina.* Stalk furnished with three decomposed leaves, joined at their base, and cut into many remote segments. Flowers white. Seeds tailed.—*Mountain Anemone. Italy.*
12. *Nemorósa.* Stalk six inches or more high, bearing three slightly hairy leaves, on reddish foot-stalks, forming a triangle, and each leaf is composed of three snipped lobes. Flowers white, tinged with red, single or double, and one terminates the stalk at some distance from the leaves.—*Wind-Flower; White Wood Anemone. England.*
13. *Dichótoma.* Plant taller than the *Nemorosa.* Stalk forked. Leaves opposite, embrace the stalk, and they are deeply cut into three snipped lobes. Flowers white, solitary, on long peduncles from the divisions of the stalk.—*Tall Canadian Anemone.*

ANTHEMIS. *Chamomile. Comp. p. 39.*

Flowers Compound, Radiated.

Common Calyx hemispherical, and composed of many linear scales.

Florets in the disk hermaphrodite, numerous, funnel-shaped, erect, cut into five teeth, and form a convex surface.—*Germen* oblong.—*Style* as long as the *stamina*.—*Stigmas* two, reflexed.—*Seed* oblong, void of down.

Female rays many, lance-shaped, sometimes cut into three teeth.—*Stigmas* two, revolute.—*Seed* like the former.—*Receptacle* conical, chaffy.

1. *Nobilis*. Stalks procumbent, much branched, rooting at their joints. Leaves cut into numerous, very narrow, linear, acute, slightly hairy segments. Flowers white, single or double, and of a grateful smell.—*Common Chamomile*. England.
2. *Maritima*. Stalks prostrate, smooth, and purplish. Leaves winged with naked, fleshy, dentated, punctured lobes. Flowers white, single or double, solitary, on peduncles thickening upward. Calyx somewhat downy.—*Sea Chamomile*. England.
3. *Pyréthrum*. Stalks decumbent, seldom branched. Leaves winged, and snipped into many fine segments. Flowers white within, purplish on the outside, and stand solitary.—*Pellitory of Spain*.
4. *Tinctoria*. Stalks erect, branching. Leaves doubly winged with linear, serrated lobes, downy beneath. Flowers white, red, or yellow, on longish peduncles, forming a roundish cluster.—*German Ox-eye*. England.

OBSERVATION. *The root of the third sort is sold in the shops for the purpose of curing the tooth-ache. It being of a warm pungent nature, it draws forth the rheum, and thus frequently gives ease. The country people assert that their young Geese, feeding on the leaves of the first sort, is the means of killing them. The use of the flowers is well known.*

ANTHERICUM. *Spiderwort*. Comp. p. 15.

Calyx none.—*Corolla* composed of 6 oblong, obtusifish, very spreading petals.—*Stamina* 6, awl-shaped, erect, hairy or naked.—*Summits* 4-furrowed, incumbent.—*Germen* obsoletely 3-cornered.—*Style* about as long as the stamina.—*Stigma* obtuse, 3-cornered.—*Seed-vessel* egg-shaped, smooth, 3-furrowed, 3-celled.—*Seeds* angular.

* *Stamina Beardless*.

1. *Revolutum*. Flower-stalk near two feet high, sending forth spreading branches. Leaves rough, compressed, somewhat three cornered. Flowers white, and have their petals revolute. Stamina beardless.—*Rough-leaved Asphodel*.
2. *Ramosum*. This differs from the former in the leaves and flowers being flat.—*Branching Spiderwort*. Europe.
3. *Liliago*. Flower-stalk quite simple, or branchless. Leaves flat. Flowers white, flat, and have their style declining. Stamina beardless.—*German Spiderwort*.
4. *Liliastrum*. Flower-stalk simple. Leaves flat. Flowers long, white, bell-shaped, and have their stamina declining, and beardless.—*St. Bruno's Lily; Savoy Spiderwort*. Helvetia.

** *Stamina Bearded*.

5. *Frutescens*. Shrubby, with a few woody branches near the root, each supporting a cluster of awl-shaped, pulpy leaves, somewhat flattened on their upper side, and resemble those of the Onion. From these spring the flower-stalks, about two feet high, terminating in a long racemus of yellow flowers. Stamina bearded.—*Cape Spiderwort*. Green-house

6. *Alooides*. Leaves broad, flattish, awl-pointed, pulpy, and spread on the ground. Flowers yellow, and terminate the stalk in a long, loose racemus. Stamina bearded.—*Aloe-leaved Spiderwort*. Cape of Good Hope. Green-house.
7. *Asphodeloides*. Leaves pulpy, awl-shaped, half round, rough on their margins, straight, and gathered in a cluster at the root. Flowers yellow, and terminate the stalk in a long racemus. Stamina bearded.—*Æthiopian Spiderwort*. Green-house.
8. *Græcum*. Root a bulb. Flower-stalk simple. Leaves flat, linear, and smooth. Flowers white, in a roundish cluster. Stamina a little woolly.—*Grecian Spiderwort*.

ANTHOLYZA. *Antholyza*. Comp. p. 5.

Calyx a sheath of 2 oblong, abiding leaves, clasping each other.—*Corolla* of 1 gaping petal, which is tubular below, but gradually widens to a large compressed throat, either terminating in 2 lips, or in a regular limb.—*Upper lip* long, slender, and furnished with 2 obtuse wings at the base; *lower lip* short, and trifid.—*Stamina* 3, long, slender, and lodged under the upper lip.—*Summits* oblong.—*Germen* below the corolla.—*Style* thread-like, almost as long as the stamina.—*Stigma* divided into 3 reflexed parts, having thickish tips.—*Seed-vessel* roundish, 3-cornered, 3-celled.—*Seeds* many and triangular.

1. *Ringens*. Leaves long, narrow, rough, and furrowed. Stalk round, hairy, near two feet high. Flowers scarlet, and have their throat compressed, and their lips spreading.—*Gaping Antholyza*. Green-house. *Æthiopia*.

2. *Cunônia*. Leaves long, narrow, and grass-like. Stalk two or three feet high. Flowers somewhat butterfly-shaped, scarlet, and stand in two opposite rows. Upper-lip almost straight, divided into three segments; the middle one spoon-shaped, and near twice as long as the side ones. Side ones ascending, and roundish at their tips. Lower lip very short, trifid, and yellowish.—*Persian Antholyza*. Greenhouse.
3. *Æthiópica*. Leaves broad, and resemble those of the *Colchicum*. Flowers crimson, incurved, have their upper lip large, and lance-shaped, and their lower one cut into five lobes, three of which are alternately shorter than the rest.—*Crimson Antholyza*. *Æthiopia*. *Hot-house*.
4. *Meriána*. Leaves sword-shaped. Flowers large, pale red, horn-shaped, cut at their brim into six almost equal segments. Stigmas three, and each is split into two linear parts.—*Watsonian Antholyza*. *Cape of Good Hope*. *Hot-house*.

ANTHOSPERMUM. *Amber Tree*. Comp. p. 46.

Plants Diœcious.

Male Calyx of 1 leaf, deeply cut into 4 oblong egg-shaped, somewhat coloured segments, rolled backward.—*Corolla* none, unless the calyx be so called.—*Stamina* 4, hair-like, erect, as long as the calyx, and inserted into the receptacle.

Female Calyx like the male.—*Germen* egg-shaped, 4-sided, below the calyx.—*Styles* 2, recurved.—*Stigmas* simple.—*Seed-vessel* dry, roundish, 4-celled.—*Seeds* solitary, angular.

1. *Æthiopicum*. Shrubby, bushy, evergreen, with very slender, pliant, brownish branches. Leaves

small, like those of Heath, stand in whorls at small distances round the branches, and when rubbed emit a fragrant smell. Flowers small, greenish yellow, in whorls amongst the leaves.

—*Ethiopian Amber Tree*. Green-house.

2. *Ciliare*. Roots woody, and put forth short, almost simple branches. Leaves narrow-lance-shaped, keeled, and ciliated both on their keel and margin. Flowers sessile, from the sides of the branches. — *Cape Amber Bush*. Green-house.
3. *Herbaceum*. Stalks herbaceous, diffuse, red, smooth, with opposite branches. Leaves lance-shaped, smooth, sessile, in whorls. Flowers from the sides of the branches. — *Cape Herbaceous Anthospermum*.

ANTHYLLIS. *Lady's-finger*. Comp. p. 35.

Flowers Butterfly-shaped.

Calyx formed of 1 oblongish, inflated, hairy, abiding leaf, cut into 5 unequal teeth.

Standard of the corolla long, reflexed on the sides, and has its heel as long as the calyx.

Wings oblong, shorter than the standard.

Keel compressed, near as long as the wings, and resembles them.

Stamina 10, all united.—*Summits* small.—*Germen* oblong.—*Style* simple.—*Stigma* obtuse.—*Pod* roundish, small, 2-valved, concealed within the calyx.—*Seeds* 1 or 2.

* *Herbaceous.*

1. *Vulneraria*. Stalks round, feeble, hairy, about a foot long. Leaves distant, and winged with many narrow alternate lobes, the terminating one the largest. Flowers yellow, or red, and terminate the stalks in roundish, twin-clusters. — *Common Lady's-finger*; *Double-headed Kidney-Vetch*. England.

2. *Montána*. Stalks prostrate. Leaves winged, and composed of ten or twelve pair of equal lobes, terminated by an odd one. Flowers deep purple, oblique, in one-sided clusters at the tops of the stalks.—*Purple Kidney-Vetch*. Italy.

** *Shrubby*.

3. *Heterophylla*. Somewhat shrubby, with round, procumbent, hoary branches. Leaves winged, and composed of about eight pair of lance-shaped, silky lobes, terminated by an odd one. Flowers small, yellowish, two or three on a short peduncle, having at its tip a leaf composed of three lance-shaped lobes——*Portugal Variable-leaved Anthyllis*. Green-house.

4. *Cytifoides*. Shrubby, from two to three feet high, with round, slender, downy branches. Leaves hoary, some simple, but for the more part they are composed of three oval lobes, the middle one the longest. Flowers yellow, and come forth three or four on a peduncle, at the sides of the branches. Calyces woolly.—*Dwarf Silver-bush*. Spain. Green-house.

5. *Barba-jóvis*. Shrubby, from eight to ten feet high. Leaves winged, and composed of many pair of equal, silvery, oblong, lobes, terminated by an odd one. Flowers pale yellow, or whitish, in roundish heads, at the ends of the branches.——*Large Silver Bush; Jupiter's Beard*. Spain. Green-house.

ANTIRRHINUM. *Snapdragon*. Comp. p. 30.

Flowers Lipped.

Calyx of 1 abiding leaf, cut into five oblong segments, the 2 lowest the most diverging.—*Corolla* of 1 gaping petal, having an oblong, gibbous tube, mostly ending in a spur: *upper-lip* bifid, reflexed on its sides; *lower-*

lip cut into 3 obtuse segments.—*Palate* convex, and closes the mouth.—*Stamina* 4, two rather shorter than the rest, and all lodged under the upper lip.—*Summits* close.—*Stigma* obtuse.—*Seed-vessel* mostly roundish, 2-celled.—*Seeds* many, small and angular.

* *Leaves Angular.*

1. *Cymbalaria*. Stalks procumbent. Leaves smooth, heart-shaped at their base, cut into three or five obtuse lobes, and stand alternate, on long footstalks. Flowers light purple, with a yellow palate, solitary, on peduncles from the footstalks of the leaves. Spur short, purple, and curved.—*Ivy-leaved Toadflax*. England.
2. *Elatine*. Stalks procumbent, much branched, about a span long. Leaves hairy, arrow-shaped. Flowers small, yellow and purple, solitary, on peduncles from the bosoms of the leaves. Spur long and pointed. — *Sharp-pointed Fluellin*. England.

** *Leaves Entire, Opposite, or Crowded.*

3. *Linaria*. Stalk erect, round, branching, about two feet high. Leaves narrow, linear, entire, acute, numerous, and of a bluish green. Flowers pale yellow, with a deep yellow bearded palate, and they terminate the branches in an imbricated, leafy, swelling racemus. Spur long.—*Common Yellow Toadflax*. England.
4. *Triphýllum*. Stalk erect, about a foot high. Leaves egg-shaped, and stand opposite by threes. Flowers mostly yellow, mixed with purple, and terminate the stalk in a spike.—*Three-leaved Toadflax*. Sicily. ☉
5. *Trifste*. Stalks weak, succulent, declining. Leaves lance-shaped, scattered, the lower ones opposite. Flowers large, sessile, yellow, striped with pur-

- ple, and have dark purple lips. Spur awl-shaped,——*Gibraltar Toadflax*. Green-house.
6. *Purpureum*. Stalks erect, four or five feet high. Leaves linear, and sometimes stand by fours. Flowers bluish purple, in numerous spikes at the tops of the stalks. Spur awl-shaped, recurved.——*Purple Italian Toadflax*.
7. *Monspessulanum*. Stalks erect, shining, branched into a panicle upward. Leaves linear, crowded. Flowers blue, and terminate the branches in spikes. Spur very short, straight, hardly so long as the calyx.——*Sweet smelling Toadflax*. France.
8. *Repens*. Stalks round, smooth, and put forth slender, spreading branches. Leaves linear, about four at a place near the bottom of the stalk. Flowers light blue, or ash colour, striped with purple, and terminate the branches in a long racemus. Palate bearded. Spur curved. Seed-vessel equal to the calyx.——*Creeping Toadflax*. England.

*** *Flowers without Spurs.*

9. *Majus*. Stalk erect, more than half a yard high, and branching. Leaves lance-shaped, sometimes variegated. Flowers large, red, purple, or white, and terminate the branches in a racemus. Spur wanting. Calyx short, and roundish.——*Greater Snapdragon*. England. ♂
10. *Molle*. Stalk round, hairy, about half a yard long, and rather decumbent. Leaves egg-shaped, entire, hairy, on short footstalks. Flowers large, white, on longish peduncles, from the wings of the leaves. Palate yellowish, bearded. Spur wanting.——*Spanish Snapdragon*. Green-house.
11. *Afarina*. Stalks prostrate. Leaves heart-shaped, deeply crenated, hairy, and opposite. Flowers

large. Spur wanting. — *Chelone-flowered Snapdragon*. Geneva.

ΑΡΟCΥΝΟΜ. *Dog's-bane*. Comp. p. 12.

Calyx of 1 small erect, abiding leaf, cut about half way into 5 parts.—*Corolla* of 1 roundish, bell-shaped petal, cut about half way into 5 revolute segments.—*Neetarium* 5 small, oval, prominent glands, furrounding the germina.—*Stamina* 5, very short.—*Summits* oblong, erect, cleft at their base.—*Germina* oval.—*Styles* scarce any.—*Stigmas* 2, large, and roundish.—*Seed-vessels* 2 oblong, pointed bags, having 1 cell each.—*Seeds* many, small, crowned with long down.

1. *Androsæmifolium*. Stalk about three feet high, and puts forth many spreading, bushy, branches. Leaves egg-shaped, on both sides smooth, opposite, on short footstalks. Flowers white, striped with red, and terminate the branches in short panicles.—*Tutsan-leaved Dog's-bane*. Canada.
2. *Venëtum*. Stalk two or three feet high, and branching. Leaves egg-shaped, lance-pointed, opposite. Flowers purple or white, and terminate the branches in a kind of umbel.—*Venetian Dog's-bane*.
3. *Cannábinum*. Stalk erect, about two feet high, of a reddish colour. Leaves oblong. Flowers small, of a whitish green, and terminate the branches in panicles.—*Hemp-flowered Dog's-bane*. Canada.
4. *Frutëscens*. Shrubby, with an erect stem five or six feet high. Leaves oblong, lance-pointed, and very smooth. Flowers small, tubular, with a hairy throat, and they are produced in loose bunches at the wings of the leaves.—*Shrubby Ceylon Dog's-bane*.

AQUILÉGIA. *Columbine.* Comp. p. 27.

Calyx none.—*Corolla* composed of 5 nearly equal, lance-shaped, spreading petals.—*Nectariums* 5 horn-shaped, coloured leaves, ranged alternately with the petals.—*Stamina* from 30 to 40, awl-shaped, the outer ones the shortest.—*Summits* oblong, erect. Between the germina and the stamina are placed 10 short, wrinkled scales.—*Germina* 5, terminated by awl-shaped *Styles*, longer than the stamina.—*Stigmas* erect, small.—*Seed-vessels* 5, cylindrical, erect, parallel and pointed.—*Seeds* many, oval.

1. *Vulgaris*. Stalks erect, three or four feet high. Leaves composed of nine lobes, each cut into three obtuse, notched segments. Flowers blue, white, and of other colours, single or double, and have the tails of their nectariums turned inward.—*Common Columbine.* England. *In the Rose Columbine, which is only a variety of this, the nectariums are wanting.*
2. *Alpina*. Leaves twice three lobed, and the lobes are cut into many linear, obtuse segments. Flowers large, blue, and have the tails of their nectariums short, and straight.—*Mountain Columbine.* England. ♂
3. *Canadensis*. Flowers mostly red, with yellow bottoms. Nectariums straight. Stamina longer than the corolla.—*Early Canadian Columbine.*

OBSERVATION. *The herb, flowers, and seeds of the first sort are used in medicine, and are sometimes prescribed against the Jaundice, and ill habits of the body.*

A'R BUTUS. *Strawberry Tree.* Comp. p. 20.

Calyx formed of 1 very small, abiding leaf, cut into 5 obtuse teeth,—*Corolla* of one egg-shaped petal, having a transparent base, and a small mouth, cut into 5 reflexed segments.—*Stamina* 10, awl-shaped, gibbous

near their base, about half as long as the corolla, and inserted into its bottom.—*Summits* bifid, drooping.—*Germen* almost globular, within the corolla.—*Style* cylindrical, rather shorter than the corolla.—*Stigma* thickish, obtuse.—*Berry* roundish, 5-celled.—*Seeds* small and hard.

1. *U'nedo*. Stem erect, like a small tree. Leaves nearly oval, smooth, rigid, obsoletely ferrated. Flowers red, or whitish, single, or double, and terminate the branches in loose panicles, having smooth peduncles. Summits horned.—*Common Strawberry Tree*. Ireland.
2. *Andrächne*. Stem erect, like a small tree. Leaves large. Flowers in erect panicles at the ends of the branches, and have their peduncles rough. Berries many-seeded.—*Eastern Strawberry Tree*. This very much resembles the former, but the panicle is a little clammy, in the other quite smooth.
3. *Laurifolia*. Stalk erect, like a small tree. Leaves oblong, pointed at both ends, smooth, acutely ferrated, the ferrations pointed. Flowers in a simple racemus from the sides of the branches, and are all turned one way.—*North American Strawberry Tree*.
4. *Alpina*. Shrubby, with procumbent stalks, a foot or more long. Leaves oblongish, rough, ferrated, and of a pale green colour. Flowers on long, slender peduncles, from the wings of the leaves. Berries blackish.—*Mountain Arbutus*. England.
5. *Uva-Ursi*. Shrubby, with woody, diffuse, procumbent branches. Leaves smooth, oval, entire. Flowers white, in small bunches near the ends of the branches. Calyces purple. Berries red.—*Bearberry*. Northumberland.

ARCTOTIS. *Arctotis*. Comp. p. 41.

Flowers Compound, Radiated.

Common calyx roundish, imbricated: the lower scales loose, awl-shaped, and spreading; the middle ones egg-shaped; the upper ones oblong, rounded, and parched at their tip.

Florets in the disk many, funnel-shaped, cut into 5 equal, reflexed teeth.—*Germen* scarce any.—*Style* rather longer than the floret.—*Stigma* small.—*Seed* often none.

Female rays from 12 to 20, strap-shaped, tubular at their base, and slightly cut into 3 teeth at their tip.—*Germen* oval, 4-cornered.—*Style* thread-like.—*Stigmas* two, oblong, thickish, and erect.—*Seed* roundish, hairy, crowned with a small, 5-leaved calyx.—*Receptacle* flattish, hairy, or chaffy.

In some species of this genus the florets in the disk are barren, and the rays fertile; in others the disk florets are fertile, and the rays barren.

1. *Supérba*. Stalk about five feet high, putting forth rambling branches. Leaves winged with dentated, biparted lobes. Flowers large; disks yellow; rays barren, greenish on their outside.—*Superb Arctotis*. Æthiopia. *Green-house*.
2. *A'spera*. Stalk four or five feet high, putting forth many branches. Leaves rough, hoary beneath, and deeply divided into several oblong, sinuated, dentated lobes. Flowers large; rays fertile, sulphur-colour or whitish, yellow at their base, and striped with crimson on their outsides. Receptacle hairy.—*Rough-leaved Arctotis*. Æthiopia. *Green-house*.
3. *Angustifolia*. Leaves lance-shaped, dentated. Flowers sulphur-colour within, deep red on the outside, and have their rays fertile.—*Narrow-leaved Arctotis*. Æthiopia. *Green-house*.

4. *Palaécea*. Leaves winged with narrow, linear lobes. Flowers large, yellow, and have their rays barren. Chaff equal to the florets in the disk. — *Great Yellow Arctotis*. Cape of Good Hope. *Green-house*.

ARISTOLOCHIA. *Birthwort*. Comp. p. 42.

Calyx none.—*Corolla* formed of 1 tubular, irregular petal, having a gibbous base, and a 6-sided, cylindrical tube, terminating in a dilated mouth, the lower part of which is stretched out like a tongue.—*Stamina* none.—*Summits* 6, double, fastened to the sides of the stigma.—*Germen* oblong, angular, below the corolla.—*Style* scarce any.—*Stigma* roundish, cut into 6 parts.—*Seed-vessel* large, roundish, or oblong, 6-angled, and 6-celled.—*Seeds* many, compressed.

1. *Rotunda*. Root roundish. Stalks few and trailing. Leaves heart-shaped, rounded at their tip, entire, and stand on short footstalks. Flowers dark purple, or white and purple, and stand solitary at the bosoms of the leaves, near the ends of the stalks.—*Round Rooted Birthwort*. Spain.
2. *Longa*. Root tap-shaped. Stalks weak and trailing. Leaves heart-shaped, obtusifish, entire, on long footstalks. Flowers pale purple, or yellowish, and stand solitary at the bosoms of the leaves.—*Long Rooted Birthwort*. Spain.
3. *Clematitis*. Stalks erect, simple, and channelled. Leaves heart-shaped, entire, on long footstalks. Flowers in clusters from the wings of the leaves.—*Climbing Birthwort*. England.
4. *Pistolochia*. Stalks feeble, branching. Leaves heart-shaped, somewhat crenated, reticulated,

or netted beneath, on footstalks. Flowers solitary. Lip of the corolla incurved.—*Spanish Branching Birthwort.*

5. *Sempervirens.* Stalks feeble, angular, about two feet long. Leaves oblong-heart-shaped, glossy, waved on their margins. Flowers dull purple, recurved, solitary.—*Evergreen Birthwort.* Crete. *Green-house.*
6. *Indica.* Stalks twining, and rise to a considerable height. Leaves oblong-heart-shaped. Flowers dark purple, many on a peduncle.—*Jamaica Birthwort; Bastard Contrayerva.* Hot-house. *The true Contrayerva is the root of the Dorstenia Contrayerva.*
7. *Serpentaria.* Stalks feeble, round, and bent to and fro near their top. Leaves oblong-heart-shaped, flat. Flowers recurved, solitary.—*Virginian Snakeroot.* *Green-house.*
8. *Arboræscens.* Shrubby, and sends up erect, durable branches, about two feet high. Leaves lance-shaped, with a heart-shaped base.—*Tree Birthwort.* America.
9. *Anguicida.* Stalks shrubby, twining. Leaves heart-shaped, pointed. Flowers solitary. Stipulæ heart-shaped. Corolla straight, with the lip lance-shaped.—*Mexican Birthwort.* Hot-house.

OBSERVATION. *The roots of the first, second, and third sorts are used in Medicine to attenuate phlegm, and promote the fluid secretions; and that of the sixth is employed in Jamaica for the same purposes that the true Contrayerva is here. The root of the seventh is the Snakeroot of the shops. This is very hot and pungent, and is seldom omitted in prescriptions for malignant fevers. The juice of the root of the last sort, mixed with ones spittle, and a drop or two put into the mouth of a venomous Serpent in America, will render the creature*

harmless, and safely to be handled; but 3 or 4 drops of this mixture forced into the stomach, will actually kill it.

ASCLEPIAS. Swallow-wort. Comp. p. 12.

Calyx of 1 abiding leaf, cut to the base into 5 acute parts. *Corolla* of 1 petal, cut into 5 reflexed, egg-shaped, pointed segments. In the center of the corolla stands a short stumped column, inclosed by 5 scales, longitudinally split on their sides.—*Nectariums* 5, ear-shaped, furround the column, and each has mostly a little horn issuing from its center, and turned towards the column.—*Stamina* scarce any.—*Summits* 5, inserted between the scales inclosing the column.—*Germina* 2, egg-shaped, pointed.—*Styles* scarce any.—*Stigmas* 2, simple.—*Seed-vessels* 2 large, oblong, pointed bags, of 1 cell each.—*Seeds* numerous, imbricated, crowned with down.

1. *Gigántea*. Stalk erect, about seven feet high. Leaves oblong-oval, opposite, embrace the stalk. Flowers red, and terminate the stalk in a loose kind of umbel. Nectariums five solid, conniving folds.—*Greater Upright Dog's-Bane*. India. *Hot-house*.
2. *Syriaca*. Stalk erect, quite simple, and about five feet high. Leaves large, oval, downy beneath, opposite, almost sessile, and have many veins beneath, nearly at right angles with their midrib. Flowers pale purple, or white, sweet-scented, and come forth in large nodding umbels at the bosoms of the leaves. Nectariums ear-shaped, and furnished with a horn.—*Virginian Dog's-Bane*.
3. *Purpuráscens*. Stalk simple, about three feet high, and slightly downy. Leaves oblong oval, entire, somewhat hairy beneath, on footstalks opposite. Flowers purplish, in erect umbels

from the wings of the leaves. Nectariums declining, ear-shaped, and furnished with a horn
 —— *Upright Carolina Dog's-Bane.*

4. *Amœna.* This resembles the *Purpurascens*, but the nectariums are erect. —— *Purple American Dog's-Bane.*
5. *Nivea.* Stalks erect, about five feet high, simple. Leaves lance-shaped, rounded at their base, smoothish, and opposite. Flowers greenish white, with perfectly white nectariums, and come forth in erect, single umbels, at the sides of the stalks. —— *Snowy Virginian Swallow-wort.*
6. *Incarnata.* Stalks erect, about two feet high, dividing near their top. Leaves lance-shaped, smooth, opposite. Flowers flesh-colour, and terminate the stalks in erect, double umbels. —— *Small Canada Dog's-Bane.*
7. *Curassavica.* Stalks erect, five or six feet high, simple. Leaves lance-shaped, smooth, and stand opposite on footstalks. Flowers scarlet, with saffron-colour nectariums, in erect, single umbels, near the tops of the stalks. —— *Bastard Ipecacuana.* West Indies. *Hot-house.* The true Ipecacuana is the root of the *Psychotria Emetica.*
8. *Vincetoxicum.* Stalks erect, near two feet high, and branching. Leaves egg-shaped, lance-pointed, opposite, and have their base and ribs hairy. Flowers white, in irregular umbels, from the wings of the leaves. Nectariums stumped. —— *Official Swallow-wort.* Europe.
9. *Nigra.* Stalks erect, twining near their top. Leaves egg-shaped, lance-pointed, opposite, and bearded at their base. Flowers black. Nectariums stumped. —— *Montpelier Swallow-wort.*

10. *Fruticósa*. Shrubby, six feet or more high, with slightly downy branches. Leaves narrow lance-shaped, opposite, and have their edges rolled back. Flowers whitish, in thin simple umbels, from the bosoms of the leaves.—*Willow-leaved Swallow-wort*. Æthiopia. *Greenhouse*.

ASCYRUM. *Saint Peter's-wort*. Comp. p. 37.

Calyx composed of four abiding leaves, the two outer ones opposite, small, and linear; the two inner ones large, heart-shaped, and erect.—*Corolla* of four egg-shaped petals, the two outer ones large, and opposite.—*Stamina* numerous, bristle-like, joined at their base in four distinct parcels.—*Summits* roundish.—*Style* scarce any.—*Stigma* small.—*Seed-vessel* oblong, pointed, two valved, wrapped in the leaves of the calyx.—*Seeds* many, small, and roundish.

1. *Villósum*. Shrubby, with erect, straight stalks, about three feet high. Leaves oblong, hairy. Flowers yellow, terminal, and resemble those of the common *St. John's-wort*.—*Hairy St. Peter's-wort*. Virginia.
2. *Hypericoïdes*. Shrubby, about half a yard high, with compressed, somewhat winged branches. Leaves oblong, smooth, opposite, and have two glands at their base. Flowers large, yellow, terminal.—*Carolinian St. Peter's-wort*.
3. *Crux-andreae*. Stalk near a span high, round, and forked near the top. Leaves egg-shaped, small, opposite. Flowers small, yellow, in loose panicles, from the divisions of the stalk.—*St. Andrew's Cross*. Virginia.

ASPALATHUS. *African Broom.* Comp. p. 34.

Flowers Butterfly-shaped.

Calyx of 1 leaf, cut about half way into 5 parts, the upper one the longest.

Standard of the corolla reverse heart-shaped, compressed, obtuse with a point, and is often hairy.

Wings moon-shaped, obtuse, spreading, and shorter than the standard.

Keel bifid, of the shape of the wings.—*Stamina* ten, all united in a sheath, which is longitudinally cleft on the upper part.—*Summits* oblong.—*Germen* egg-shaped.—*Style* simple.—*Stigma* acute.—*Pod* egg-shaped.—*Seeds* often two, kidney-shaped.

1. *Indica.* Shrubby, four or five feet high, with slender branches, furnished with small leaves, standing by fives. Flowers pale purple, solitary, on long peduncles.—*Indian Aspalathus.*
2. *Capitata.* Shrubby. Leaves linear, acute, and stand in clusters. Flowers iron-colour, slightly hairy, and terminate the branches in capitated spikes. Teeth of the calyx awl-shaped.—*Capitated Cape Aspalathus.* Green-house.
3. *Crética.* Shrubby. Leaves wedge-shaped, smooth, placed by threes, the two side ones the shortest. Stipulæ obsolete. Flowers yellow, in small clusters along the branches.—*Cretan Aspalathus.* Green-house.
4. *Chenopoda.* Shrubby. Leaves hairy, awl-shaped, lengthened by a sharp slender point, and come out in clusters. Flowers yellow, and terminate the branches in very woolly, roundish heads.—*Juniper-leaved Aspalathus; Ethiopian Goosefoot.* Green-house.
5. *Argentea.* Shrubby. Leaves lance-shaped, silky, and come out in clusters. Flowers yellow, large,

two on a peduncle. Standard hairless. — *Silky Aspalathus*. Green-house.

6. *Ericifolia*. Shrubby. Leaves awl-shaped hairy, and stand in clusters. Flowers yellow, small, alternate. Calyx linear. Standard hairy. — *Heath-leaved Aspalathus*. Ethiopia. Green-house.

ASPHODELUS. *King's-Spear*. Comp. p. 15.

Calyx none.—*Corolla* of 1 petal, cut to the base into six oval, or lance-shaped, spreading segments.—*Nectarium* composed of 6 oblong scales, covering the germen.—*Stamina* 6, awl-shaped, arched, unequal, and inserted into the scales of the nectarium.—*Summits* oblong, incumbent.—*Germen* roundish, within the nectarium.—*Style* awl-shaped, ranged with the stamina.—*Stigma* stumped, 3-cornered.—*Seed-vessel* globular, fleshy, 3-lobed, and 3-celled.—*Seeds* many, angular, with the fore-side gibbous.

1. *Luteus*. Stalk erect, about three feet high, simple, and leafy. Leaves awl-shaped, long, streaked, three-cornered, and of a glaucous green. Flowers yellow, of short duration, and come out singly on all sides the upper part of the stalk, forming a long racemus.— *Common Yellow Asphodel*. Sicily.
2. *Ramosus*. Stalk about three feet high, branching, and leafless. Leaves sword-shaped, smooth, keeled beneath. Flowers white, and come out on all sides the tops of the branches.— *White Asphodel*. Spain.
3. *Fistulosus*. Stalks naked, near two feet high, slender, and branching near their top. Leaves awl-shaped, straight, and somewhat hollow. Flowers whitish, with a longitudinal brownish line on each petal. *Sigma* trifid.— *Cretan Asphodel*. Green-house.

ASTER. *Starwort.* Comp. p. 39.

Flowers Compound, Radiated.

Common calyx imbricated with many lance-shaped scales, the bottom ones being somewhat spreading, and the inner ones having their tips prominent.

Florets in the disk numerous, hermaphrodite, funnel-shaped, and cut into 5 spreading teeth.—*Germen* oblong.—*Style* as long as the stamina.—*Stigmas* 2, spreading.—*Seed* oblong-egg-shaped, crowned with hair like down.

Female rays strap-shaped, often lance-pointed, and cut into three teeth.—*Germen, Stigmas,* and *Seed* like the former.—*Receptacle* flattish, naked.

* *Leaves Serrated.*

1. *Præcox.* Whole plant hairy. Stalk round, erect, and about half a yard high. Leaves numerous, narrow, lance-shaped, dentated near their tip, and half embrace the stalk. Flowers large, light blue, and terminate the stalk in a broad, flattish bunch.—*Early Upright Starwort.* July.
2. *Puniceus.* Stalks about two feet high, dark purple. Leaves rough, broad-lance-shaped, serrated, and half embrace the stem. Flowers blue, and terminate the stalk on alternate peduncles. Calyx longer than the disk.—*Red-stalked American Starwort.*
3. *Cordifolius.* Stalk erect, smoothish, branching, two feet or more high. Lower leaves large, heart-shaped, pointed, acutely serrated, and stand on long footstalks. Flowers pale purple, or white, and terminate the branches in a loose panicle.—*Broad-leaved Autumnal Starwort.* Asia.

4. *Divaricatus*. Stalks rather feeble, dividing near their top into divaricating branches. Leaves egg-shaped, pointed, serrated; the floral ones entire, obtusish, and embrace the branches. Flowers white, solitary, on naked peduncles. Calyces simple.——*White Virginian Starwort.*
5. *Annuus*. Stalk about half a yard high, dividing into angular branches. Leaves egg-shaped, lance-pointed, acutely serrated, and sessile. Flowers white, on simple or forked peduncles, from the wings of the leaves. Calyces hemispherical.——*White Canadian Aster.* ☉
6. *Tradescanti*. Stalks about four feet high, regularly branching on all sides near the top. Leaves smooth, of a yellowish green, lance-pointed, broadest and serrated near their middle, narrowed downward, and half embrace the stalk. Flowers of a pale reddish blue, rather large, and stand on leafy peduncles. Calyces erect.——*Tradescant's Starwort.* Virginia.
7. *Lævis*. Stalks erect, smooth, angular, mostly dark purple, and branching. Leaves lance-shaped, on both sides smooth, remote, sessile, the lower ones a little serrated. Flowers light blue, or white, and stand on long leafy, branching peduncles.——*Common Michaelmas Daisy.* America.
8. *Novi-bélgii*. Stalk about four feet high, branching into a panicle. Leaves lance-shaped, slightly serrated, sessile. Flowers pale violet, and mostly terminate the branches singly. Leaves of the calyx straddling——*New Holland Starwort.*
9. *Chinensis*. Stalk about a foot high, and branching. Leaves egg-shaped, wrinkled, angularly dented. Flowers large, single, or double, of va-

rious colours, and terminate the branches singly, surrounded by a large, spreading calyx.
 —Queen Margaret; China Aster.

Leaves Entire.

10. *Linariifolius*. Stalks purplish. Leaves rather small, linear, pointed, entire, roughish, keeled, scattered. Flowers few, of a violet-colour, and stand solitary on leafy peduncles.—
Toad-flax-leaved Starwort. America.
11. *Linifolius*. Stalk erect, somewhat angular, near two feet high, and puts out many short, slender branches near the top, forming a roundish, even topped bunch. Leaves narrow, linear, acute, and entire. Flowers pale blue, or white.
 —*Flax-leaved Starwort*. America.
12. *Ericoides*. Stalks erect, brittle, about three feet high, and branch near their top into numerous slender, tapering, reddish, twigs. Leaves linear, entire: the lower ones about an inch long; those on the branches about a quarter of an inch. Flowers small, white, numerous, and terminate the twigs in a racemus. Peduncles leafy.—*Heath-leaved Starwort*. America.
13. *Dumosus*. This somewhat resembles the twelfth, but it is more bushy. The flowers are larger, fewer, the branches or twigs are thread-shaped, and their leaves about half an inch long.—
 —*Bushy Starwort*. America.
14. *Amellus*. Stalks about two feet high, erect, a little hairy and branching. Leaves rough, entire, obtuse with a small point, the bottom ones rather wedge-shaped, and three ribbed. Flowers blue or purple, and terminate the stalk in a roundish bunch. Scales of the calyx broad, open, and obtuse.—*Italian Starwort*.
15. *Tripolium*. Stalk firm, two or three feet high, and puts forth unequal branches near the top.

Leaves fleshy, alternate, smooth, entire, narrow lance-shaped. Flowers pale purple, and terminate the branches in roundish bunches. Calyces oblong. — *Sea Starwort; English Starwort.*

16. *Novæ-angliæ.* Stalks from five to seven feet high, of a purplish brown colour, and furnished with rough, whitish hairs. Leaves lance-shaped, entire, hollowed at their base, and half embrace the stalk. Flowers large, and are furnished with numerous narrow, violet colour rays, and they stand on short peduncles, terminating the branches in clusters. Scales of the calyx narrow-lance, or awl-shaped, hairy, and numerous. — *New England Starwort.*
17. *Grandiflorus.* Stalks about four feet high, sending out straight, rigid branches near their top. Leaves rough, flat, tongue-shaped, entire, and half embrace the stalk. Flowers large, purple, one at the end of each branch, or peduncle. Scales of the calyx many, broadish, straddling, and reflexed. — *Bugloss-leaved Starwort. America.*
18. *Fruticófus.* Shrubby, about three feet high. Leaves narrow, linear, dotted, and come out in bundles, like those of the Larch. Flowers blue, or white, solitary, on long naked peduncles, from the sides of the bunches. — *Shrubby African Starwort. Green-house.*

ASTRÁGULUS. *Milk Vetch.* Comp. p. 35.

Flowers Butterfly-shaped.

Calyx of 1 tubular leaf, cut into 5 acute teeth, decreasing in size from the uppermost to the lowest.

Standard of the corolla nearly straight, reflexed on the sides, and notched at the tip.

Wings oblong, shorter than the standard.
Keel as long as the wings, and notched.—*Stamina* 10, one detached, 9 united, and they are almost straight.—*Summits* roundish.—*Germs* taper.—*Style* awl-shaped, arched.—*Stigma* obtuse.—*Pod* 2-celled, gibbous, and of various forms.—*Seeds* kidney-shaped.

* *Stalks erect, Leafy.*

1. *Alopecuroides.* Stalk round, erect, hairy, two or three feet high. Leaves winged, and composed of near twenty pair of oval lobes, terminated by an odd one. Flowers pale yellow, in thick cylindrical, almost sessile spikes, from the bottoms of the leaves. Calyces and pods very woolly.—*Fox-tail Milk Vetch.* Spain. ♂
2. *Christiánus.* Stalks erect, taper, two or three feet high. Leaves winged, and composed of many pair of oval, distant lobes, terminated by an odd one. Flowers bright yellow, and come out in roundish, sessile clusters, from the wings of the leaves, almost from the bottom to the top of the stalk.—*Oriental Milk-Vetch; Christian Root.*
3. *Capitatus.* Stalks many, erect. Leaves winged, and composed of several pair of lobes, which are notched at their tip. Flowers purple, in globular heads, on long peduncles from the wings of the leaves.—*Capitated Eastern Milk Vetch.*
4. *Sulcatus.* Stalk erect, smooth, and furrowed. Leaves winged, and composed of about nine pair of narrow, lance-shaped lobes, terminated by an odd one. Flowers small, blue, in loose, erect spikes. Calyces very short. Pods obsoletely three-cornered.—*Furrowed-stalked Milk-Vetch.* Siberia.

5. *Galegiformis*. Stalk erect, four or five feet high, smooth, and straight. Leaves winged, and composed of about fourteen pair of oblong lobes, terminated by an odd one, and they much resemble those of the Goat's Rue. Flowers sulphur-colour, pendulous, in long, erect racemi at the upper part of the stalk. Pods smooth, short, three-cornered, pointed at both ends.—*Tall Siberian Milk-Vetch*.

** *Stalks diffuse, Leafy.*

6. *Canadensis*. Stalks diffuse, irregular, about two feet long. Leaves winged, and composed of many pair of oval lobes, which are downy beneath. Flowers greenish yellow, in spikes from the wings of the leaves. Pods nearly cylindrical and pointed.—*Canada Milk-Vetch*.

7. *Cicer*. Stalks prostrate, two or three feet long. Leaves winged, and composed of about ten pair of small, oblongish lobes, terminated by an odd one. Flowers yellow, in loose spikes from the wings of the leaves. Pods roundish, pointed, hairy, and inflated.—*Bladder-Podded Milk-Vetch*. Italy.

8. *Glycyphyllos*. Stalks prostrate, branching. Leaves winged, and composed of about six pair of oval lobes, terminated by an odd one. Flowers pale yellow, in thick clusters. Pods broad, obsoletely three-cornered. — *Liquorice-Vetch*. England.

9. *Hamósus*. Stalks procumbent. Leaves winged, and composed of about eight pair of reverse heart-shaped, lobes, terminated by an odd one. Flowers pale yellow, about five in a spike. Pods smooth, awl-shaped, and recurved, or hooked.—*Montpelier Milk-Vetch*. ☉

10 *Sesaméus*. Stalks weak, diffuse. Leaves winged and composed of many pair of hairy lobes

Flowers blue, in roundish sessile heads, at the wings of the leaves. Pods erect, awl-shaped, with a reflexed point.—*Blue Italian Milk-Vetch.* ☉

11. *Arenarius.* Stalks procumbent, about four inches long. Leaves winged, and composed of many pair of very small, oval, downy lobes, terminated by an odd one. Flowers purple, in an erect short spike, or cluster, at the end of the stalk.—*Purple Milk-Vetch.* England.

*** *Simple, naked Flower-stalks.*

12. *Uralensis.* Leaves winged, and composed of many pair of silky lobes, terminated by an odd one. Flower-stalk naked, longer than the leaves, and it is terminated by a spike of bluish-purple flowers. Pods awl-shaped, inflated, hairy, erect.—*Hairy English Milk-Vetch.*

13. *Montanus.* Leaves winged, and composed of many pair of narrow lobes, terminated by an odd one. Stalk very short, or scarce any. Flowers large, purple, in erect, loose spikes, rising above the leaves. Pods egg-shaped, pointed, inflexed. ———— *Helvetian Milk-Vetch.*

14. *Grandiflorus.* Flower-stalks erect, hairy, thickish. Leaves winged, and composed of about eight pair of obtuse, oval, hairy lobes, terminated by an odd one. Flowers large, yellow, in erect, thickish spikes. Calyces hairy.—*Large-flowered Siberian Milk-Vetch.*

**** *Shrubby.*

15. *Tragacantha.* Stem short, thick, woody, and furnished with numerous branches. Leaves winged, and composed of oval, or lance-shaped lobes, on a spiny midrib, and terminated by an

odd one. Flowers large, white, red, or purple, and come out from the sides and at the ends of the branches.—*Goat's Thorn*. Italy. *Green-house*.

OBSERVATION. *The last sort produces the Gum Tragacanth. This Gum is deemed very strengthening, of great service in obtunding acrimonious humours, and thereby it stops defluxions, and heals tickling coughs. Two drams will sufficiently thicken a pint of water.*

ASTRANTIA. *Black Masterwort*. Comp. p. 12.

Flowers in Umbels; Florets at the edge abortive.

Common umbel mostly composed of 3 rays.—Common involucre of 3 or 5 leaves.

Partial umbel composed of numerous hair-like rays.—Partial involucre of about 20 lance-shaped, equal, spreading, coloured leaves, longer than the rays.

Proper calyx of 1 abiding leaf, cut into 5 acute teeth.—Corolla composed of 5 erect, bifid, inflexed petals.—Stamina 5, as long as the corolla.—Summits simple.—Germen oblong, below the corolla.—Styles 2, erect, thread-like.—Stigmas simple, spreading.—Fruit egg-shaped, obtuse.—Seeds 2, oblong, covered with a crust.

1. *Major*. Stalks leafy, streaked, branching, near two feet high. Leaves composed of five broadish, somewhat wedge-shaped, dentated, trifid lobes. Flowers white, or purple, and terminate the stalks and branches in umbels.—*Greater Black Masterwort*. *Bohemia*.
2. *Minor*. Stalks about a foot high. Leaves fingered, and composed of seven or eight serrated lobes.—*Lesser Black Masterwort*. *Alps*.
3. *Ciliaris*. Stalk simple, erect, about a foot high, and divided near the top into a few branches.

Radical leaves on footstalks: those on the stalk sessile; all of them lance-shaped, smooth, and equally cut on their margins into fine, bristle-like teeth. Partial umbels many, very short. — *Ciliated-leaved Astringia*. Cape of Good Hope. *Green-house*.

ATHANASIA. *Athanasia*. Comp. p. 38.

Flowers Compound. Florets all Tubular.

Common calyx egg-shaped, and imbricated with lance-shaped, closing scales.—*Florets* all hermaphrodite, equal, funnel-shaped, longer than the calyx, and cut into five erectish teeth.—*Stamina* short.—*Germen* oblongish.—*Style* rather longer than the stamina.—*Stigma* obtuse, bifid.—*Seed* oblong.—*Down* very short, bristle-like.—*Receptacle* chaffy: *Chaff* lance-shaped, longer than the seeds.

1. *Trifurcata*. Shrubby, about five feet high, with hoary slender branches. Leaves gray, almost triangular, or wedge-shaped, small, cut at their tip into three or more teeth. Flowers pale yellow, and terminate the branches in close, roundish, simple bunches.—*Hoary Æthiopian Goldylock*. *Green-house*.
2. *Dentata*. Shrubby, low, and divides into many branches. Lower leaves linear, and dentated; the upper ones egg-shaped, and serrated. Flowers pale yellow, and terminate the branches in close, compound bunches.—*Various leaved-Goldylocks*. *Æthiopia*. *Green-house*.
3. *Crithmifolia*. Shrubby, about five feet high. Leaves cut about half way into three, or more narrow segments. Flowers pale yellow, in simple, roundish bunches at the ends of the branches. — *Sapphire-leaved Goldylocks*. *Æthiopia*. *Green-house*.

4. *Pubescens*. Shrubby, with lance-shaped, entire leaves, covered with soft hairs. Flowers yellow, in simple roundish bunches.—*Hairy Goldylocks*. Æthiopia. *Green-house*.
5. *Pinnáta*. Shrubby, with downy branches. Leaves crowded, downy, and cut into five or seven linear lobes. Flowers yellow, numerous, in dense, roundish, compound bunches. Calyces hairy.—*Pinnated-leaved Goldylocks*. Cape of Good Hope. *Green-house*.

ATRAPHÁXIS. *Atraphaxis*. Comp. p. 17.

Calyx composed of two opposite, abiding, coloured leaves.—*Corolla* of two roundish, abiding, sinuated petals, larger than the calyx.—*Stamina* six, hair-like, as long as the calyx.—*Summits* roundish.—*Germen* compressed.—*Style* none.—*Stigmas* two, knob-like.—*Seed-vessel* none.—*Seed* one, roundish, compressed, shut up in the calyx.

1. *Spinósa*. Shrubby, erect, about four feet high, with slender, weak, spiny branches. Leaves lance-shaped, smooth, ash-coloured. Flowers white, tinged with purple, in clusters at the ends of the branches.—*Thorny Atraphaxis*. Persia. *Green-house*.
2. *Unduláta*. Shrubby, and puts forth several trailing, thornless branches. Leaves oval, small, waved, and curled at their edges. Flowers greenish, having no petals, but a four parted calyx.—*Curled-leaved Atraphaxis*. Æthiopia. *Green-house*.

A'TROPA. *Deadly Nightshade*.—Comp. p. 9.

Calyx of one large, abiding, gibbous leaf, cut into 5 acute parts.—*Corolla* of 1 bell-shaped petal, having a very short tube, a bellying limb, longer than the

calyx, and a mouth divided into 5 almost equal segments.—*Stamina* 5, awl-shaped, bowed, sometimes as long the corolla, and spring from its base.—*Summits* thickish, furrowed.—*Germen* half egg-shaped.—*Style* thread-like, inclined, as long as the stamina.—*Stigma* knob-like, broader than long.—*Berry* globular, 2-celled, and fits in the calyx.—*Receptacle* kidney-shaped, on both sides convex.—*Seeds* many, kidney-shaped.

1. *Belladonna*. Stalk three, or four feet high, with many forked branches. Leaves large, egg-shaped, pointed, entire. Flowers purplish brown, and come forth singly at the wings of the leaves, on long peduncles. Berries large, black and glossy.—*Deadly Nightshade; Dwale.* England.
2. *Physaloides*. Stalk erect, from three to five feet high, with a few angular branches. Leaves large, smooth, alternate, oblong, sinuated, or cut into angular teeth. Flowers large, broad-bell-shaped, light blue at their brim, white downward, marked at their bottom with five deep blue spots, and they stand solitarily on naked peduncles. Stamina broad and fuzzy at their base, covering the germen. Calyces egg-shaped, very acute angled, deeply divided, and hollowed at their base.—*Peruvian Atropa.* ☉
3. *Mandrágora*. Root large, tap-shaped, about three feet long, and often puts out two or three thick branches. Leaves large, oblong, dark green, almost sessile. Flowers greenish white, solitary, on peduncles near a finger long, rising immediately from the root. Berry greenish yellow.—*Mandrake.* Italy.
4. *Frutésceus*. Shrubby, six feet or more high. Leaves egg-shaped, but hollowed at their base. Flowers yellow, striped with brown, several in a cluster,

on short peduncles at the bosom of the leaves.
 ————*Spanish Deadly Nightshade.* Green-house.

5. *Arboréscens.* Leaves oblong. Flowers white, and revolute. ————*American Deadly Nightshade.* Green-house.

OBSERVATION. *The Berries of the first sort have too often accidentally proved a most deadly poison. Their glossy black is very apt to take the eyes of children, therefore the Plant should never be suffered to grow where they have access. The third sort is supposed to produce the Mandrake mentioned in Genesis, to be brought by Reuben to his mother Leah. The berries have a narcotick, stupifying quality.*

AZÁLEA. *American Honey-suckle.* Comp. p. 9.

Calyx of 1 erect, abiding, coloured leaf, divided into 5 acute parts.—*Corolla* of 1 bell or funnel-shaped petal, cut about half way into 5 segments, having their sides inflexed.—*Stamina* 5 thread-like, loose, and inserted into the receptacle.—*Summits* simple.—*Germens* roundish.—*Style* thread-like, abiding, about as long as the corolla.—*Stigma* obtuse.—*Seed-vessel* roundish, 5-celled, 5-valved.—*Seeds* many, roundish.

1. *Nudiflora.* Shrubby, about three feet high. Leaves egg-shaped, smooth, entire. Flowers red, in clusters, on long naked peduncles, from the divisions of the branches. *Stamina* near twice as long as the corolla. *Red American Honey-suckle.* Virginia.
2. *Viscosa.* Shrubby, two or three feet high. Leaves oblong, lance-pointed, rough on their margins. Flowers yellowish white, hairy, clammy, in clusters between the short leafy branches. Tube of the corolla long. *Stamina* scarce

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longer than the corolla.—*White American Honey-suckle*. Virginia.

3. *Lappónica*. Shrubby, half a yard or more high, with dark brown, crooked branches. Leaves small, elliptical, entire, dark green above, concave, and dotted beneath, where they are covered with an iron-coloured wool. Flowers white, wheel-shaped, and terminate the branches in roundish bunches. Calyx minute.—*Lapland Azalea*.
4. *Procumbens*. Shrubby, with short, diffuse, procumbent branches. Leaves very small, elliptical, concave beneath. Flowers flesh-colour.—*Trailing Lapland Azalea*.

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BACCHARIS. *Plowman's Spikenard*. Comp. p. 38.

Common calyx nearly cylindrical, and imbricated with linear, acute scales.—*Hermaphrodite* and *Female* florets, (if any) all tubular, funnel-shaped, and mixed with the others.—*Germs* egg-shaped.—*Style* rather longer than the floret.—*Stigma* bifid.—*Seed* small, oblongish, crowned with simple down, which in some species is very long, in others scarcely longer than the calyx.—*Receptacle* naked.

1. *Halimifolia*. Shrubby, six feet or more high, with numerous streaked branches. Leaves smooth, reverse egg-shaped, decreasing to a very narrow base, coarsely indented near their tip, and alternate. Flowers small, whitish, in clusters at

the sides and ends of the branches. Tips of the calyces purple.—*Orach-leaved Groundsel Tree*. Virginia. Some of the leaves at the extremity of the twigs are entire.

2. *Neriifolia*. Shrubby, five or six feet high. Leaves lance-shaped, stiff, and have a tooth or two at their tip. Flowers whitish, in bunches.—*Oleander-leaved Baccharis*. Æthiopia. Green-house.
3. *Ivaefolia*. Shrubby, about five feet high. Leaves long, lance-pointed, ferrated, and indented their whole length. Hermaphrodite florets few, cut into five teeth; female florets trifid; all of them white.—*Peruvian Groundsel Tree*. Green-house.

BANISTERIA. *Banisteria*. Comp. p. 21.

Calyx of 1 small, abiding leaf, having porous glands at the base, and it is cut at the brim into five segments, four of which have two honey-glands under each.—*Corolla* of 5 large, roundish, crenated petals, having oblong, narrow heels, forming a kind of butterfly-shaped flower.—*Stamina* 10, very small.—*Summits* simple.—*Germina* 3, broad, and united.—*Styles* simple.—*Stigmas* obtuse.—*Seed-vessels* 3, one-celled, and they are terminated by a long, membranous wing.—*Seeds* solitary, dentated on their margin.

1. *Brachiata*. Stalks woody, climbing, mounting to a great height, and putting forth tendrils and branches, opposed cross-ways. Leaves nearly egg-shaped, pointed. Flowers gold-colour, turning to a scarlet, and come forth in loose bunches at the ends of the branches.—*Cross Branching Banisteria*. America. *Hot-house*.
2. *Laurifolia*. Stalks woody, twining. Leaves large, rigid, oblong-oval, and opposite. Flowers

yellow, in a racemus at the ends of the branches.

———*Bay-leaved Banisteria.* Jamaica. *Hot-house.*

3. *Benghalensis.* Stalks woody, twining. Leaves oblong-oval, pointed. Flowers blue, in loose racemi at the sides of the branches.——*Bengal Banisteria.* Hot-house.

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BARLERIA. *Barleria.* Comp. p. 30.

Calyx abiding, cut into 4 parts, the two opposite ones the largest.—*Corolla* funnel-shaped, cut into 5 almost equal segments; the fifth segment deeply divided.—*Stamina* 4, thread-like, two of them very short.—*Summits* 4, the upper ones oblong; the lower ones withered.—*Germen* egg-shaped.—*Style* thread-like, as long as the stamina.—*Stigma* bifid.—*Seed-vessel* compressed, as long as the calyx, 4-angled, 2-celled, and opens with an elastick force.—*Seeds* 2, roundish, compressed.

1. *Solanifolia.* Stalks square, about three feet high. Leaves lance-shaped, entire, or but very slightly dentated, opposite. Flowers blue, somewhat labiated, and come out in clusters at the joints of the stalks, surrounded by six sharp spines.——*Solanum-leaved Barleria.* America. *Hot-house.*

2. *Prionitis.* Stalks round, six feet or more high. Leaves oval, pointed, downy beneath, opposite, entire, and each is attended by four long spines, standing cross-ways.——*Four-thorned Barleria.* India. *Hot-house.*

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BERBERIS. *Barberry.* Comp. p. 16.

Calyx composed of six concave, coloured, spreading, deciduous, egg-shaped leaves, which are narrow at

their base, and one is alternately smaller than the other. *Corolla* of 6 roundish, concave petals, rather larger than the calyx, each having two coloured glands within side its base.—*Stamina* 6, erect, flat, broadest upward.—*Summits* 2 at the top of each stamen.—*Germen* cylindrical, as long as the stamina.—*Style* none.—*Stigma* orbicular, broader than the germen, and girt with a ring.—*Berry* cylindrical, obtuse, umbilicated, 1-celled.—*Seeds* about 2, oblong, obtuse.

1. *Vulgáris*. Shrubby, and puts forth branching stems, eight feet or more high, covered with a whitish bark, and armed with triple and double spines. Leaves reverse egg-shaped, finely serrated, in clusters. Flowers yellow, in racemi from the sides of the branches.—*Common Barberry*. England.

2. *Crética*. Shrubby, and puts forth many spiny stems, about three feet high. Leaves reverse egg-shaped, entire, in clusters. Flowers solitary, on slender peduncles arising from the leaves, and forming a sort of umbel.—*Box-leaved Barberry*. Crete. *Green-house*.

OBSERVATION. *The inner bark of the first is bitter. Steeped in brandy it is frequently used with good success in the Jaundice. The stamina of this sort, on being touched with a pin will immediately move from the petals to the germen.*

BETONICA. *Betony*. Comp. 28.

Calyx of 1 abiding, cylindrical leaf, cut into 5 aristated teeth.—*Corolla* of 1 gaping petal, having an incurved, cylindrical tube: *upper-lip* erect, roundish, entire, and flat; *lower-lip* trifid, with the middle segment broad, roundish, notched, or entire.—*Stamina* 4, awl-shaped, equal to the mouth of the corolla, two rather shorter than the rest, and all inclining to the upper-

lip.—*Summits* roundish.—*Germs* 4-parted.—*Style* awl-shaped, about the size of the *stamina*.—*Stigma* bifid.—*Seeds* 4, egg-shaped, lodged in the calyx.

1. *Officinalis*. Stalks about half a yard high, erect, hairy, and branching. Leaves oblong, hairy, coarsely serrated, obtuse, opposite, on long footstalks. Flowers purple and whitish, and terminate the stalks and branches in leafy, interrupted spikes. Middle lobe of the lower-lip notched.—*Wood Betony*. England.
2. *Orientalis*. Stalks erect, hairy, about two feet high. Leaves long, narrowish, obtuse, regularly serrated, hairy, and opposite. Flowers pale purple, in close thick spikes at the top of the stalks. Middle lobe of the lower-lip entire.—*Eastern Betony*.

OBSERVATION. *The first sort has been deemed a great dryer, and of service against defluxions of rheum, for which the dried leaves are frequently smoked with Tobacco.*

BÉTULA. *Birch*. Comp. p. 43.

Plants Monœcious.

Male-florets disposed in a loose, imbricated, cylindrical catkin.

Proper calyx an obtuse, jagged, wedge-shaped scale, containing 3 florets of one petal each, cut at their brim into four small, obtuse segments.—*Stamina* 4 in each floret.—*Summits* double.

Female-florets ranged in a somewhat conical, imbricated catkin, which is thinner, and shorter by more than half than the Male.

Proper calyx composed of 3 opposite, heart-shaped scales, including 2 florets.—*Corolla* none.—*Germs* small, egg-shaped.—*Styles* 2, bristle-like, as long as the

scales.—*Stigmas* simple.—*Seeds* solitary, oval, winged, lodged under the scales.

1. *Alba*. An erect tree, covered with a smooth, white, glossy bark. Leaves egg-shaped, pointed, serrated, glossy, and come out with the catkins.—*Common Birch*. England. *The Weeping Birch* is a variety, and has its twigs covered with tubercles.
2. *Alnus*. An erect, slender tree, covered with a smooth, brown bark. Leaves roundish, or reverse egg-shaped, serrated, wrinkled, sometimes clammy.—*Common Alder*. England.
3. *Nana*. Shrubby, about two feet high. Leaves small, round, crenated, and stand alternate on very short footstalks.—*Dwarf Birch*. Alps.

BIGNÓNIA. *Trumpet-Flower*. Comp. p. 30.

Calyx of 1 oblong cup-shaped leaf, cut into 5 parts.—*Corolla* of 1 large petal, having a small tube, as long as the calyx: *Throat* very long, oblong-bell-shaped, swelled beneath: *Limb* cut into 5 segments; the two upper ones reflexed, and the lower ones spreading.—*Stamina* 4, (sometimes 5) awl-shaped, two shorter than the rest, and all shorter than the corolla.—*Summits* oblong, reflexed, and appear double.—*Germen* oblong.—*Style* thread-like, ranged with the stamina.—*Stigma* knob-like.—*Pod* 2-celled, 2-valved, and in figure either oblong, roundish, or heart-shaped.—*Seeds* many, imbricated, compressed, and winged.

1. *Rádicans*. Stalks climbing, by means of fibres sent forth at their joints. Leaves winged, and composed of four or five pair of distant, egg-shaped, pointed, serrated, or cut lobes, terminated by an odd one. Flowers large, scarlet, or deep orange, in clusters at the ends of the

- branches. Stigma trifid. Stamina often five.
 — *Ash-leaved Trumpet-flower*. America.
2. *Catálpa*. A small tree, dividing into many thick branches, furnished with large egg, or heart-shaped leaves, mostly standing by threes. Flowers white, spotted with purple, and come out in panicles at the ends of the branches. Two of the stamina are fertile, the rest barren. Calyx five-leaved. Pod very long. — *Carolinian Catalpa*.
3. *Sempervirens*. Stalks twining, mounting to a great height. Leaves oblong, lance-pointed, entire, and opposite. Flowers yellow, sweet-scented, in clusters of three or four at the wings of the leaves. Pod heart-shaped. — *Evergreen Trumpet-flower*. Virginia.
4. *Unguis-cati*. Stalks reddish, smooth, and climb by means of short, bowed, 3-parted tendrils. Leaves composed of two pair of oblongish lobes. Flowers large, oblong, yellowish red, and come mostly by twos at the joints of the stalks. — *Four-leaved Trumpet-flower*. Barbadoes.
5. *Pentaphýlla*. Stem tall, erect. Leaves opposite, fingered, and composed of 5 reverse-egg-shaped, entire lobes. Flowers bluish, or white, on short peduncles, forming thin clusters at the ends of the branches. — *Five-leaved Trumpet-flower*. Jamaica. *Hot-house*.
6. *Capreoláta*. Stalks slender, trailing. Leaves conjugate, putting forth tendrils: lobes heart-shaped, lance-pointed. Flowers yellow, from the bosoms of the leaves. — *Short-podded Trumpet-flower*. America. *Hot-house*.

BLITUM. *Strawberry Spinach.* Comp. p. 3.

Calyx of 1 abiding leaf, cut into 3 oval, spreading, equal teeth.—*Corolla* none.—*Stamen* 1, as long as the calyx.—*Summit* double.—*Germen* egg-shaped, pointed.—*Styles* 2, spreading, as long as the stamen.—*Stigmas* small.—*Seed-vessel* none.—*Seed* 1, globular, lodged in the calyx.

1. *Capitatum*. Stalks erect, near two feet high, and branching. Leaves almost triangular, coarsely dentated. Flowers in small spiked heads, or clusters at the upper parts of the stalks and branches.—*Strawberry Spinach, or Blite.* Spain. ☉
2. *Virgatum*. Flowers in small scattered heads, or clusters, at the wings of the leaves, almost the whole length of the branches; otherwise much like the former.—*Mulberry Spinach, or Blite.* Tartary. ☉

BOCCONIA. *Bocconia.* Comp. p. 22.

Calyx of 2 egg-shaped, obtuse, concave leaves, which soon drop off.—*Corolla* none.—*Stamina* 12, very short.—*Summits* large, linear, and as long as the calyx.—*Germen* roundish, large, contracted at both ends, and supported by a footstalk.—*Style* cut about half way into two.—*Stigma* simple, reflexed.—*Berry* nearly egg-shaped, contracted at both ends, 1-celled, and filled with pulp.—*Seed* 1, globular.

Frutescens. Shrubby, seven feet or more high, having a straight stem, covered with a white smooth bark. Leaves very large, oblong, deeply sinuated, and of a glaucous green. Flowers in terminal racemi.—*Bocconia; Greater Tree Celandine.* Jamaica. *Hot-house.*

OBSERVATION. This shrub contains a yellow, acrid juice, which is used by the Americans for taking off warts and specks from the eyes, in the same manner as the juice of our *Celandine* is used.

BORBONIA. *Borbonia*. Comp. p. 34.

Flowers Butterfly-shaped, hairy on the outside.

Calyx of 1 top-shaped-leaf, shorter by half than the corolla, and cut about half way into 5 lance-shaped parts, terminating in rigid, acute points; the lower part the longest.

Standard obtuse, reflexed, the heel as long as the calyx.

Wings half heart-shaped, rather shorter than the standard.

Keel moon-shaped, obtuse. — *Stamina* 10, nine united in a cylinder, and one detached at the top. — *Summits* small. — *Germen* awl-shaped. — *Style* very short. — *Stigma* obtuse, notched. — *Pod* roundish, with a point terminating in a spine, and 1-celled. — *Seed* kidney-shaped.

1. *Lanceolata*. Shrubby, about four feet high, putting forth many smooth, slender branches. Leaves lance-shaped, many-nerved, rigid, entire, and alternate. Flowers brownish yellow, in small clusters between the leaves at the ends of the branches. — *Lance-leaved Borbonia*. *Æthiopia*. *Green-house*.
2. *Trinervia*. Shrubby, about five feet high. Leaves lance-shaped, pointed, rigid, entire, three-nerved, alternate. Flowers yellow, and terminate the branches in a racemus. — *Three-nerved-leaved Borbonia*. *Æthiopia*. *Green-house*.
3. *Cordata*. Shrubby, four or five feet high. Leaves heart-shaped, pointed, rigid, many-nerved, en-

tire, and embrace the stalks. Flowers yellow, in small clusters at the ends of the branches.—*Heart-leaved Borbonia*. Æthiopia. Greenhouse.

BROWALLIA. *Browallia*. Comp. p. 30.

Calyx of 1 nearly cylindrical leaf, cut into five almost equal teeth.—*Corolla* of 1 salver-shaped petal, having a slender, cylindrical tube, twice as long as the calyx, and a spreading limb, slightly cut into 5 roundish segments, the uppermost one the largest.—*Stamina* 4, in the throat of the corolla: the upper two very short; the lower two broader, coloured, and reflexed.—*Summits* incurved, conniving: the inner ones double; the outer ones perforated at their tip, and close the mouth of the tube.—*Germs* oval, hollowed at the tip.—*Style* thread-like, as long as the tube of the corolla.—*Stigma* thick, cut into 4 lobes.—*Seed-vessel* oval, obtuse, 1-celled, and opens 4 ways at the tip.—*Seeds* small, numerous.

1. *Alata*. Stalk erect, four or five feet high, putting out branches near the bottom, which reach almost to the top of the stalk. Leaves egg-shaped, pointed, alternate, on footstalks. Flowers violet blue, and terminate the branches standing singly, or three or more on a common peduncle.—*Peruvian Browallia*. ☉
2. *Demissa*. This grows about half the height of the former, and constantly has but one flower on a peduncle.—*Panamian Browallia*. Hot-house. ☉ *Probably only a variety of the former*.

BRUNSFELSIA. *Brunsfelsia*. Comp. p. 10.

Calyx of 1 small, abiding, bell-shaped leaf, cut into 5 obtuse parts.—*Corolla* of 1 funnel-shaped petal,

having a very long limb, cut into 5 small, obtuse segments.—*Stamina* 5, as long as the tube, and inserted into it.—*Summits* oblong.—*Germen* small, roundish.—*Style* thread-like, as long as the tube.—*Stigma* thickish.—*Berry* globular, 1-celled.—*Seeds* numerous, roundish, and stick to the skin of the berry.

Americána. Shrubby, seven feet or more high, sending forth many branches, covered with a rough bark. Leaves oblong, obtuse, entire, on footstalks. Flowers large, white, in clusters at the ends of the branches. Berries saffron-colour.—*Brunsfelsia.* Hot-house.

BUBON. *Macedonian Parsley.* Comp. p. 12.

Flowers in Umbels.

Common umbel composed of 10 rays, the middle ones the shortest.

Common involucrem of 5 equal, abiding, pointed, spreading leaves.

Partial umbel composed of near 20 rays.—*Partial involucrem* of many leaves.—*Calyx* small, abiding, cut into 5 teeth.—*Florets* all fertile, and composed of 5 lance-shaped, inflexed petals.—*Stamina* 5, as long as the floret.—*Summits* simple.—*Germen* egg-shaped, below the floret.—*Styles* 2, bristle-like.—*Stigma* obtuse.—*Fruit* egg-shaped, hairy, crowned with the styles and it splits into 2 parts.—*Seeds* solitary, oval, hairy, flattened on one side.

1. *Macedónicum.* Radical leaves spreading, winged, and composed of somewhat diamond-shaped, crenated, pale green lobes. Stalk a foot or more high, putting out numerous branches, terminated by umbels of white flowers.—*Macedonian Parsley.* Green-house. ♂

2. *Galbanum*. Shrubby, with an erect stem six feet or more high, covered with a whitish powder. Leaves winged, and composed of smooth, dentated, diamond-shaped, streaked lobes. Flowers yellow, in umbels at the tops of the branches. Umbels few.—*Galbaniferous Bubon*. *Æthiopia*. *Green-house*.
3. *Gummiferum*. Shrubby, with an erect, woody stem, six feet or more high. Leaves winged: the bottom ones composed of diamond-shaped, smooth, serrated lobes; the upper ones deeply cut into narrow, three-toothed lobes. Flowers yellow, in umbels.—*Gum-bearing Bubon*. *Æthiopia*. *Green-house*.
4. *Rigidus*. Stalk near a foot high. Leaves winged, and composed of linear, stiff, lobes. Flowers white, and terminate the stalk in an umble.—*Sicilian Ferula*.

OBSERVATION. *The seeds of the first sort are directed to be used in the Venice Treacle, in decoctions, diet-drinks, and medicinal ales, for cleansing the stomach, bowels, and unrrinary passages of slimy adhesions. They are warm, aromatick, and much of the nature of our Parsley seeds, which generally now supply their place. The second sort is said to produce the gum Galbanum of the shops; and the third sort yeilding a gum of the same nature, the Galbanum may be extracted from both.*

¹
BULBOCIDIUM. *Bulbocodium*. Comp. p. 14.

Calyx none.—*Corolla* funnel-shaped, and composed of six petals, having very long, linear heels, and almost erect, lance-shaped, concave limbs.—*Stamina* six, awl-shaped, inserted into the neck of the petals.—*Summits* incumbent.—*Germen* egg-shaped at the base, but taper upward.—*Style* thread-like, as long as the stamina.—*Stigmas* three, oblong, erect, furrowed.—*Seed-vessel*

3-celled, triangular, pointed; the angles obsolete.—
Seeds numerous.

Vernum. Root a bulb. Leaves few, narrow-lance-shaped. Stalk three or four inches high. Flower purple or whitish, terminal.—*Spring Meadow Saffron.* Spain.

¹
 BUPHTHALMUM. *Ox-eye.* Comp. p. 39.

Flowers Compound, Radiated.

Common calyx imbricated, variable in the different species.

Florets in the disk hermaphrodite, numerous, funnel-shaped, cut into 5 spreading teeth, and form an even surface.—*Germen* egg-shaped, compressed.—*Style* as long as the stamina.—*Stigma* thickish, simple.—*Seed* oblong, crowned with a ragged margin.

Female rays 10 or more, long, strap-shaped, spreading, cut into 3 teeth.—*Germen* two-edged.—*Style* thread-like.—*Stigmas* 2, oblong.—*Seed* compressed, sharp on both sides, and crowned with a like margin as the former.—*Receptacle* convex, chaffy.

1. *Frutescens.* Shrubby, seven feet or more high. Leaves lance-shaped, thickish, hoary or silky, opposite, on footstalks having two erect teeth near their base. Flowers yellow, at the ends of the branches.—*Shrubby Virginian Ox-eye.* Green-house.
2. *Arborescens.* Shrubby, with a tree-like stem. Footstalks of the leaves toothless.—*Tree-like American Ox-eye.* Green-house.
3. *Helianthoides.* Stalks herbaceous, five feet or more high. Leaves opposite, oblong-heart-shaped, three-nerved, and they have one side of their base longer than the other. Flowers bright yellow, terminal. Calyx leafy.—*Figwort-leaved Ox-eye.* Virginia.

4. *Grandiflorum*. Stalks herbaceous, about two feet high. Leaves lance-shaped, smooth, slightly dentated, and alternate. Flowers bright yellow, terminal. Calyx leafless. ——— *Austrian Ox-eye*.
5. *Salicifolium*. Stalks herbaceous, two or three feet high, hairy. Leaves lance-shaped, hairy, slightly serrated, and alternate. Flowers yellow, terminal. ——— *Willow-leaved Ox-eye*.
Montpelier.

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CACÁLIA. *Alpine Colt's-foot*. Comp. p. 38.

Flowers Compound. Florets all Tubular.

Common calyx simple, cylindrical, and composed of from 5 to 10 equal, linear, acute scales, having a few very short scales lodging on their base.

Florets all hermaphrodite, funnel-shaped, their limb cut into 5 erect teeth, and their tube gradually growing slenderer to the base.—*Germen* oblong.—*Style* as long as the stamina.—*Stigmas* 2, oblong, revolute.—*Seed* oblongish.—*Down* hair-like, very long.—*Receptacle* flat, naked, dotted.

* *Herbaceous.*

1. *Alpina*. Stalk more than a foot high, round, and branching near the top. Leaves kidney-shaped, acutely dentated, thickish, of a glossy green

above, whitish beneath, and stand on long footstalks. Flowers purplish, composed of about three florets each, and they terminate the branches in umbels. — *Mountain Cacalia*. Austria. *There is a variety of this with thick hairy leaves.*

2. *Suaveolens*. Stalk six feet or more high, and branching. Leaves triangular, or somewhat arrow-shaped, ferrated, on footstalks broadest upward. Flowers white, composed of many florets, and they terminate the branches in umbels. Bractæ like bristles. — *Sweet-scented Virginian Cacalia*.
3. *Atriplicifolia*. Stalk about six feet high, and branching. Lower leaves heart-shaped, dented; the upper ones oblongish, and jagged. Flowers yellowish, composed of five florets, and they terminate the branches in umbels. — *American Nardus; Atriplex-leaved Cacalia*. Canada.
4. *Hastata*. Stalk erect, six feet or more high. Leaves javelin-shaped, or cut into three pointed lobes, which are ferrated between their divisions, and the middle lobe is much the largest. Flowers purplish, in small panicles, on downy peduncles. Bractæ none. — *Siberian Cacalia*.

** *Shrubby.*

5. *Articulata*. Whole plant of a grayish-colour. Stalk divided into joints which are thickest in the middle. Leaves variable, some being javelin-shaped, others lyrate, or deeply cut into five lobes. Flowers whitish, in a thin umbel, on a common thread-like peduncle. — *Jointed Cape Cacalia*. Green-house.
6. *Kleinia*. Stalk thick, fleshy, somewhat divided into long, swelling joints, scarred by the fallen

leaves. Leaves flat, lance-shaped, and come out near the ends of the joints. Flowers pale flesh-colour, in clusters.—*Lavender-leaved Cacalia*; *Cabbage-tree*; *Indian Cacalia*. Green-house.

7. *Papilláris*. Stalk thick, fleshy, somewhat jointed, and guarded all round with the stumped footstalks of the leaves. Leaves narrow and succulent.—*Thorny Cacalia*. Green-house.
8. *Ficoides*. Stalks round, six feet or more high, and put forth many irregular branches. Leaves thick, fleshy, compressed, pointed, and covered with a whitish powder. Flowers white, in small umbels at the ends of the branches.—*Ficoides-leaved Cacalia*. Æthiopia. Green-house.
9. *Ante-uphórbium*. Stalks succulent, thickish, and put forth many irregular branches. Leaves egg-shaped oblong, succulent, alternate, and have three ribs running along the back of their footstalks.—*Ante-uphorbium*. Æthiopia. Green-house.

CACTUS. *Melon-Thistle*. Comp. p. 23.

Calyx of 1 oblong, hollowed leaf, furnished with many deciduous, rough scales at the base.—*Corolla* composed of numerous broad, obtusifish petals: the outer ones the shortest; the inner ones the largest, and conniving.—*Stamina* numerous, long, awl-shaped, inserted into the calyx.—*Summits* oblong, erect.—*Germen* below the corolla.—*Style* cylindrical, as long as the stamina.—*Stigma* thick, multifid.—*Berry* oblongish, umbilicated, 1-celled, and rough.—*Seeds* roundish, small, and nestling.

* *Stems Erect, Angular.*

1. *Tetragónus*. Stem erect, four-sided, with the angles compressed, and it puts forth many shoots:

from the sides.—*Quadrangular Torch-thistle*.
America. *Hot-house*.

2. *Pentagónus*. Stem erect, long, somewhat five-angled and jointed.—*Pentangular Torch-thistle*. America. *Green-house*.
3. *Hexagónus*. Stem erect, long, thick, column-like, six-angled. Flowers large and white.—*Greater Six-angled Torch-thistle*. Surinam. *Green-house*.

** *Stalks creeping, and put forth fibres from their sides.*

4. *Grandiflorus*. Stalks creeping, jointed, and have from five to seven bluntish angles. Flowers very large, sweet-scented, whitish, with the innermost leaves of the calyx of a sandy yellow, darkening to a brownish in the outermost. They come out in the evening, and fade in the morning.—*Grand-flowered Creeping Cereus*. Jamaica. *Hot-house*.
5. *Flagelliformis*. Stalks roundish, creeping, resembles whips, and have ten obsolete angles. Flowers bright rose-colour, numerous, solitary, from the sides of the branches.—*Common Creeping Cereus*. America. *Green-house*.
6. *Parasiticus*. Stalks creeping, round, slender, spineless and streaked.—*Slender Creeping Torch-thistle*. America. *Hot-house*.
7. *Triangularis*. Stalks weak, creeping, triangular, and furnished with very short spines in clusters. Flowers white.—*Brazilian Creeping Cereus*. *Hot-house*.

*** *Stems composed of proliferous, compressed Joints.*

8. *Moniliformis*. Stem composed of globular, proliferous, spiny joints, resembling a necklace.—*Necklace-shaped Indian Fig*. *Hot-house*.
9. *Opúntia*. Stem composed of egg-shaped, lax, fleshy, proliferous joints, armed with short,

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- bristly spines. Flowers pale yellow. Fruit large, purplish and spiny.—*Common Indian Fig. Virginia. Green-house.*
10. *Ficus-indicus.* Stem composed of proliferous, erectish, oval-oblong joints, armed with longish, bristly spines. Flowers large, bright yellow. Fruit large, deepish purple, and furnished with long spines.—*Middling Indian Fig. America. Hot-house.*
11. *Tuna.* Stem composed of proliferous, oval-oblong joints, armed with whitish, awl-shaped spines. Flowers bright yellow.—*Greater Indian Fig. Jamaica. Hot-house.*
12. *Cochinillifer.* Stem composed of proliferous, oval-oblong, almost spineless joints. Flowers blood-red. Fruit the same.—*Cochineal Indian Fig. Jamaica. Hot-house.*
13. *Curassávicus.* Stem composed of proliferous, cylindrical, bellying, somewhat compressed, very spiny joints.—*Pin-cushion-like Indian Fig. America. Hot-house.*
14. *Phyllánthus.* Stem composed of proliferous, sword-shaped, waved, serrated, spineless joints. Flowers pale yellow.—*Notched-branched Indian Fig. Brasil. Hot-house.*
- **** *Stems Tree-like.*
15. *Peréskia.* Stem round, tree-like, with spreading branches, furnished with recurved prickles in pairs. Leaves obtusely lance-shaped, succulent. Flowers white. Fruit small, yellowish, ————*American Gooseberry, Jamaica. Hot-house.*
16. *Protulacifólius.* Stem round, tree-like, and very spiny. Leaves wedge-shaped, hollowed at their tip.—*Purslane-leaved Indian Fig. America. Hot-house.*

OBSERVATION. *The Cochineal, a drug much used in medicine, and in the dying business, is a small Insect, which hatches its eggs upon the twelfth species; whence the trivial name.*

CALENDULA. *Marygold.* Comp. p. 40.

Flowers compound, Radiated.

Common calyx simple, rather upright, and divided to the base into about 18 linear, lance-pointed, nearly equal segments.

Florets in the disk male or hermaphrodite, as long as the calyx, and cut nearly half way into 5 teeth.

Female rays strap-shaped, cut into 3 teeth, hairy at their base, in number about equal to the divisions of the calyx—*Germen* oblong, 3-cornered.—*Style* thread-like.—*Stigmas* 2, oblong, pointed, reflexed.—*Seed* large, incurved, triangular, the edges membranous.—*Receptacle* flat, naked.

1. *Arvensis.* Stalks angular, crooked, hairy, and branching. Leaves lance-shaped, hairy, entire, alternate, and half embrace the stalk. Flowers small, yellow, solitary on long peduncles. Tips of the calyces somewhat muricated, or furnished with purple hairs. Inner seeds boat-shaped, rough, incurved; the outer ones erect, and linear. ———— *The Least Marygold.* Europe. ☉
2. *Sancta.* Plant very much like the former, but quite hairless, and the edges of the leaves are rough. The calyces are muricated, or furnished with soft prickles. The seeds are pitcher-shaped, and smooth. ———— *Middling Marygold.* Palestine. ☉
3. *Officinalis.* Plant larger than either of the former. Seeds all boat-shaped, incurved and muricated.

——Common *Marygold*. Europe. ☉ *There are many varieties of this sort with double flowers.*

4. *Pluviális*. Stalk about a foot high, erect, leafy, and branching. Leaves narrow-lance-shaped, sessile, irregularly waved, and dentated. Flowers white within, dark violet colour on the outside, and terminate the branches on thread-like peduncles. Stigmas dark purple.——
Small Cape Marygold. ☉
5. *Hýbrida*. Stalk about half a yard high, hairy, leafy, and branching. Leaves lance-pointed, dentated, narrow near their base. Flowers white within, purplish without, and stand on peduncles thickening upward.——*Æthiopian Mule Marygold*. ♂
6. *Nudicáulis*. Stalk about a foot high, almost naked. Leaves lance-shaped, sinuated-dentated. Flowers white within, purplish on their outside. Seeds flat, heart-shaped, or almost orbicular.——*Naked-stalked Marygold*. Æthiopia.
7. *Graminifólia*. Stalk about a foot high, slender and almost naked. Leaves narrow, linear, entire, or have only a few small denticles. Flowers white within, purple without, and stand on long, naked peduncles.——*Grass-leaved Marygold*. Æthiopia. *Green-house*.
8. *Fruticósa*. Shrubby, six feet or more high, with many weak, slender branches. Leaves reverse egg-shaped, somewhat dentated. Flowers white within, purplish without, on naked peduncles, at the ends of the branches.——
Shrubby Cape Marygold. *Green-house*.

CALTHA. *Marsh-Marygold*. Comp. p. 27.

Calyx none.—*Corolla* composed of 5 broad-egg-shaped, flat, deciduous petals.—*Stamina* numerous, thread-like, shorter than the corolla.—*Summits* com-

pressed, obtuse erect.—*Germina* from 5 to 10, oblong, compressed, erect.—*Styles* none.—*Stigmas* small.—*Seed-vessels* short, pointed, spreading, on both sides keeled, and open at the upper seam.—*Seeds* many, roundish, fixed to the upper seam.

Palustris. Stalk about a foot high, dividing into spongy, streaked, spreading, branches. Leaves nearly kidney-shaped, crenated: the upper ones sessile; the lower ones on long footstalks. Flowers yellow, single, or double.—*Marsh-Marygold.* England.

CALYCANTHUS. *Carolina Allspice.* Comp. p. 25.

Calyx (you may call it a corolla) somewhat pitcher-shaped, and composed of 2 or 3 series of narrow-lance-shaped, coloured, straddling leaves, united at their base, the upper ones resembling petals.—*Stamina* numerous, awl-shaped, inserted into the neck of the calyx.—*Summits* oblong, furrowed.—*Germina* many, and end in taper, compressed *Styles*, as long as the stamina.—*Stigmas* naked.—*Seed-vessel* none, but the calyx thickening, incloses the seeds, and looks like a berry.—*Seeds* many and tailed.

Floridus. Shrubby, three or four feet high. Leaves large, egg-shaped, hairy beneath, on footstalks opposite. Flowers dark copper-colour, about the size of a *Ranunculus*, highly perfumed, and come out between the leaves.—*Carolina Allspice.*

CAMPANULA. *Bell-Flower.* Comp. p. 11.

Clayx of 1 leaf, cut into 5 somewhat spreading, acute parts.—*Corolla* of 1 bell-shaped petal, having an impervious base, and a brim deeply divided into 5 broad, acute, spreading segments.—*Nectarium* composed of 5

acute, conniving valves, placed at the bottom of the corolla.—*Stamina* very short, inserted into the tips of the nectarium.—*Summits* long, linear, and compressed.—*Germen* angular, below the corolla.—*Style* thread-like, longer than the stamina.—*Stigma* cut into 3 oblong, thickish, revolute parts.—*Seed-vessel* roundish or oblong, cornered, hairy or smooth, 5-celled.—*Seeds* small, and numerous.

* *Leaves Smoothish.*

1. *Rapúnculus*. Root tap-shaped, fleshy. Stalk two or three feet high, rough, streaked and branching. Leaves hairy, waved: the radical ones somewhat elliptical; those on the stalk lance-shaped. Flowers blue, on slender peduncles, terminating the stalk in a narrow, contracted panicle. Calyces cut into five long, bristle-like teeth.—*Esculent-rooted Bell-flower; Rampious*. England. ♂
2. *Persicifolia*. Stalks erect, two or three feet high, and angular. Radical leaves reverse-egg-shaped; the upper ones almost linear, lance-pointed, slightly serrated, sessile and remote. Flowers large, short-bell-shaped, light blue or white, single or double.—*Peach-leaved Bell-flower*. Europe.
3. *Pyramydalis*. Stalks erect, three feet or more high, furnished with numerous very short branches. Leaves oblong-egg-shaped, smooth, slightly serrated. Flowers large, short-bell-shaped, light blue or white, and stand on all sides the short branches, the whole forming a large pyramid.—*Pyramidal Bell-flower*.
4. *Americána*. Stalks more than a foot high, branching. Leaves stiff, variable, some being heart, and others lance-shaped, and they stand on ciliated footstalks. Flowers blue or white, cut into

five flat segments, and are all ranged on one side the branches.—*Pennsylvanian Bell-flower.* ♂

* *Leaves Rough.*

5. *Latifolia.* Stalk simple, erect, round, near five feet high. Leaves large, roughish, oval at their base, lance-pointed and serrated. Flowers blue, solitary at the bosoms of the leaves, forming a long, leafy racemus at the top of the stalk.—*Giant Throatwort; Broad-leaved Bell-flower.* England.
6. *Trachelium.* Stalks about three feet high, hairy, angular, and branching. Leaves hairy, heart-shaped at their base, lance-pointed, deeply serrated, and resemble those of the Nettle. Flowers blue, flesh-colour, or white, bearded within, single or double, and mostly stand by threes on a common peduncle, at the wings of the leaves. Calyces ciliated.—*Common Throatwort; Nettle-leaved Bell-flower.* England.
7. *Glomerata.* Stalks erect, simple, hairy, angular, about half a yard high. Leaves hairy, slightly crenated; the lower ones oblong-egg-shaped, on footstalks; the upper ones sessile, lance-shaped, roundish at their base, and alternate. Flowers blue, or white, and terminate the stalks in roundish, sessile clusters.—*Meadow Bell-flower.* England. *Sometimes there are three sessile flowers at the wings of the leaves, besides the terminating head. A variety, too, is now and then met with, having the three flowers pedunculated.*
8. *Thyrsoides.* Whole plant rough. Stalk quite simple. Leaves nearly linear, acute. Flowers blue, and terminate the stalk in a thick, ob-

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long-egg-shaped cluster.——*Bugloss-leaved Bell-flower.* Germany.

9. *Médium.* Stalk erect, hairy, two or three feet high, branching all round from the bottom. Leaves lance-shaped, slightly serrated, narrowing toward their base. Flowers erect, large, oblong-bell-shaped, blue or white, on long peduncles at the bosoms of the leaves. Base of the calyx puffy, and divided into five furrowed folds. Seed-vessel five-celled, covered.——*Canterbury Bells.* Italy. ♂

*** *Seed-vessel Prismatic-shaped.*

10. *Spéculum.* Stalk about a foot high, with many angular, diffuse branches. Leaves oblong, waved, sessile, and alternate. Flowers purple, with yellow bottoms, or they are totally white, on slender peduncles at the ends of the branches. Calyx rather longer than the corolla. Seed-vessel linear, three-cornered.—*Venus Looking-glass.* Europe. ☉
11. *Hybrida.* Stalk erect, about six inches high, rough, simple, or branching only at the base. Leaves oblong, alternate, crenated, sessile. Flowers purple, sunk as it were in their calyces, which are much longer than the corolla.——*Lesser Venus Looking-glass.* England. ☉
12. *Canariénsis.* (See *Canarina.*)

CANARINA. *Canary Bell-flower.* Comp. p. 16.

Calyx of 6 narrow-lance-shaped leaves—*Corolla* of 1 bell-shaped petal, shorter than the calyx, and cut into 6 acute segments.—*Stamina* 6, short, awl-shaped.—*Summits* linear, erect, longer than the *stamina*.——*Germen* below the corolla.—*Style* club-shaped.—*Stigmas* 6.—*Seed-vessel* dry, hollow, 6-celled.—*Seeds* many in each cell.

Campánula. Root tuberous. Stalks erect, from five to seven feet or more high, smooth, branching, and have their joints remote and swelled. Leaves javelin-shaped, dentated, of a bluish green beneath, and mostly stand by threes on long footstalks. Flowers flame-colour, striped with dirty red, hang nodding, and they come out from between the forked parts of the branches.—*Canary Bell-flower.* Greenhouse.

CANNA. *Indian Flowering Reed.* Comp. p. 3.

Calyx composed of three shortish, lance-shaped, abiding, coloured-leaves.—*Corolla* of 1 petal, much longer than the calyx, and divided to the base into 6 lance-shaped segments: the three outer ones erect; the three inner ones the largest, two of which are erect, one a little reflexed, and they constitute the upper lip. In the center is a petal-like *Nectarium*, divided into 2 linear segments, as long as the petals, the lower segment revolute.—*Stamina* none.—*Summit* 1, long, linear, and fastened to the left margin of the upper segment of the nectarium.—*Germs* roundish, below the corolla.—*Style* tongue-shaped, petal-like, fastened to the base of the upper segment of the nectarium.—*Stigma* linear, on the left margin of the style.—*Seed-vessel* rough, roundish, 3-furrowed, 3-celled, and 3-valved.—*Seeds* few, globular.

1. *Indica.* Stalk erect, three or four feet high. Leaves nearly elliptical, sessile, ribbed, about a foot long, and pointed at both ends. Flowers scarlet or yellow, in a thin spike at the top of the stalk.—*Broad-leaved Indian Reed.* *Hot-house.*

2. *Angustifolia.* Leaves lance-shaped, ribbed, on footstalks. Flowers red.—*Narrow-leaved*

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Indian Reed. Probably only a variety of the former.

3. *Glauca.* Stalk erect, six feet or more high. Leaves long, lance-shaped, on footstalks, and of a glaucous colour, and without ribs. Flowers pale yellow, in short thick spikes.—*Long-flowered Carolinian Cane.* Hot-house.

OBSERVATION. *The seeds of the two first sorts being round, smooth, and very hard, are used by the Indians as shot for killing of game; whence they are frequently called Indian shot.*

CAPPARIS. *Caper.* Comp. p. 26.

Calyx tough, deeply divided into 4 concave, gibbous parts.—*Corolla* of 4 large, obtuse, spreading petals.—*Stamina* numerous, thread-like, spreading.—*Summits* oblong, moveable.—*Germen* pedunculated.—*Style* none.—*Stigma* obtuse, sessile.—*Berry* fleshy, 1-celled, pedunculated, and differently shaped in the different species.—*Seeds* numerous, kidney-shaped, nestling.

1. *Spinosa.* Shrubby, three or four feet high, and puts out many slender branches, having two crooked thorns under each. Leaves roundish, smooth, entire, deciduous. Stipulæ spiny. Flowers large, white, solitary. Seed-vessels oval.—*True Caper Bush.* Italy. *Green-house.*
2. *Zeylanica.* This differs from the former in its leaves being pointed at both ends.—*Ceylon Caper Bush.* Hot-house.

OBSERVATION. *The flower buds of the first species pickled, are the Capers made use of for sauce.*

CAPSICUM. *Guinea Pepper.* Comp. p. 10.

Calyx of 1 erect, abiding leaf, cut into 5 parts.—*Corolla* of 1 wheel-shaped petal, having a very short tube,

and a spreading, plaited limb, cut into 5 broad, acute pointed segments.—*Stamina* 5, very small.—*Summits* oblong, conniving.—*Germe*n egg-shaped.—*Style* thread-like, longer than the *stamina*.—*Stigma* obtuse.—*Berry* dry, of various shapes in the different species.—*Seeds* kidney-shaped, compressed.

1. *Annuum*. Stalk herbaceous, about half a yard high. Leaves oblong, entire. Flowers small, white, solitary. Fruit red or yellow, oblong, round, heart-shaped, and of other forms.—*Common Guinea Pepper*. America. ☉
2. *Frutescens*. Shrubby, with a roughish branching stem. Flowers white, mostly by pairs. Berries red or yellow, conical or roundish, sometimes very small.—*Shrubby Indian Guinea Pepper*. Hot-house.

CARDAMINE. *Lady's Smock*. Comp. p. 32.

Flowers Cross-shaped,

Calyx composed of 4 small egg-shaped-oblong, gibbous, somewhat spreading, deciduous leaves.—*Corolla* of 4 oblong-reverse-egg-shaped, spreading petals, forming a cross, and having narrow heels, twice the length of the calyx.—*Stamina* 6, awl-shaped: the two opposite ones twice as long as the calyx, the rest rather longer.—*Summits* small, erect.—*Germe*n cylindrical, as long as the *stamina*.—*Style* none.—*Stigma* knob-like, entire.—*Pod* long, cylindrical, somewhat compressed, 2-celled, 2-valved; the valves opening spirally.—*Seeds* many, roundish.

1. *Pratensis*. Stalk about a foot high, branching. Leaves winged: the bottom ones cut into roundish lobes, and the upper ones into lance-shaped ones. Flowers white, or pale purple,

single or double.——*Cuckow-flower.* Eng-
land.

2. *Trifolia.* Stalk simple, about a span high, almost naked. Leaves by threes, obtuse, slightly crenated.——*Helvetian Lady's Smock.*

CARTHAMUS. *Safflower.* Comp. p. 38.

Flowers Compound. Florets all Tubular.

Common calyx egg-shaped, imbricated with numerous scales, the lower ones spreading, and terminated with large, flat, oblong-oval, leafy appendages.

Florets all hermaphrodite, equal, funnel-shaped, and deeply cut into five erect, equal segments.—*Ger-
men* very short.—*Style* longer than the stamina.—*Stig-
ma* small.—*Seed* oblong, sometimes crowned with hair.—*Receptacle* flat, very hairy; hairs longer than the seeds.

1. *Tinctorius.* Stalk woody, smooth, two or three feet high, branching near the top. Leaves oblong-egg-shaped, acute, sessile, stiff, of a glossy green, and have spiny teeth on their margin. Flowers large, saffron-colour, solitary at the ends of the branches.———*Bastard Saffron.* Egypt. ☉

2. *Ceruleus.* Stalk hairy, about two feet high, branchless. Leaves broad-lance-shaped, hairy, sharply serrated. Flowers large, blue, and seldom more than one terminate the stalk. Summits blackish———*Blue Spanish Cnicus.*

OBSERVATION. *The flowers of the first sort furnish a valuable article in the dying business. In conjunction with other preparations they yield to silk a fine pink-colour. For this, and other purposes, large quantities of these flowers are annually imported from the Levant.*

CASSIA. *Wild Senna.* Comp. p. 20.

Calyx composed of 5 loose, concave, coloured, deciduous leaves.—*Corolla* of 5 roundish, concave petals, the lower ones the largest, remote, and the most spreading.—*Stamina* 10, declining; the three lower ones the largest. The three lower *Summits* are the largest, bowed, and each is terminated by a beak, opening at its tip; the three upper ones are very small, and scarcely fertile.—*Germen* long, pedunculated.—*Style* very short.—*Stigma* obtuse, rising upward.—*Pod* long, in some species gibbous and inflexed.—*Seeds* many, roundish.

1. *Marilándica.* Stalks herbaceous, about two feet high, a little hairy. Leaves winged, and composed of eight pair of egg-shaped, oblong, equal lobes, and their common footstalks have a gland at their base. Flowers yellow, and they terminate the stalks in spikes. Calyces reflexed.—*Maryland Wild Senna.*
2. *Chamæcrísta.* Stalks slender, about two feet high. Leaves winged, and composed of many pair of almost linear lobes. Stipulæ awl-shaped. Flowers yellow, with their two upper petals spotted with purple, and mostly stand by pairs, on short peduncles.—*Many-leaved Jamaica Cassia.* Hot-house.
3. *Aláta.* Shrubby, from four to six feet high. Leaves winged, and composed of about eight pair of oval-oblong lobes, the interior ones the smallest. Stipulæ spreading. Flowers yellow, in a loose racemus at the ends of the branches. Pods winged.—*Winged Podded Cassia.* America. *Hot-house.*
4. *Tenuíffima.* Shrubby. Leaves winged, and composed of nine pair of oblong lobes, the lower

ones having an awl-shaped gland between them. Pod very slender.——*Slender Podded Cassia*. Havannah. *Hot-house*.

5. *Senna*. Stalks about half a yard high, branching. Leaves winged, and composed of three or four pair of somewhat egg-shaped lobes. Flowers yellow, in loose bunches at the ends of the branches. —— *True Senna of the shops*. Egypt. ☉

CASSINE. *Hottentot Cherry*. Comp. p. 13.

Calyx formed of 1 small abiding leaf, cut into 5 obtuse parts.—*Corolla* of 1 petal, cut into 5 obtuse, spreading segments, larger than the calyx.—*Stamina* 5, awl-shaped, spreading.—*Summits* simple.—*Germen* conical, above the corolla.—*Style* none.—*Stigmas* 3, reflexed, obtuse.—*Berry* roundish, 3-celled, and umblicated with the stigmas.—*Seeds* solitary, somewhat oval.

1. *Peragúa*. Shrubby, six feet or more high, with two edged branches. Leaves elliptical, acutish, ferrated, on footstalks opposite. Flowers white, in roundish bunches at the wings of the branches.——*South Sea Tea*.
2. *Maurocénia*. Shrubby, with round branches, and reverse egg-shaped, stiff, entire leaves. Flowers white. Berries red.——*Cape Hottentot Cherry*. *Green-house*.

CATANÁNCHÉ. *Candy Lion's-foot*. Comp. p. 37.

Flowers Compound.

Common calyx top-shaped, and imbricated with many dry, pellucid, egg-shaped, pointed, loose scales.

Florets all hermaphrodite, strap-shaped, stumped, cut into 5 teeth, and the outer ones the longest.—*Germen* oblong.—*Style* rather longer than the *stamina*.——

Stigma bifid, reflexed.—*Seed* nearly top-shaped, and crowned with 5 pellucid bristles, resembling a small calyx.—*Receptacle* chaffy.

1. *Cærulea*. Stalks about three feet high, branching. Lower leaves long, jagged, and somewhat resemble those of Buckhorn Plantain. Flowers solitary, and composed of light blue florets, having a dark blue spot at their base. Lower scales of the calyx egg-shaped.—*Blue Candy Lion's-foot*. Narbonne.
2. *Lutea*. The leaves of this are broader than the former, and less jagged. Flowers yellow. Lower scales of the calyx lance-shaped.—*Yellow Candy Lion's-foot*. Crete.

CEANO¹THUS. *New Jersey Tea*. Comp. p. 10.

Calyx of 1 small top-shaped, abiding leaf, cut into 5 acute, conniving parts.—*Corolla* of 5 equal, roundish, very obtuse, conniving petals, forming an arched bag with their limbs, and having narrow heels, springing from the divisions of the calyx.—*Stamina* 5, awl-shaped, somewhat erect, as long as the petals, and opposite to them.—*Summits* roundish.—*Germen* 3-cornered.—*Style* cylindrical, as long as the stamina.—*Stigma* obtuse.—*Berry* dry, 3-celled, very obtuse, 3-cornered; the corners quite distinct at the tip.—*Seeds* solitary, egg-shaped.

1. *Americanus*. Shrubby, four or five feet high. Leaves egg-shaped, pointed, acutely serrated, three-nerved, and alternate. Flowers small, dirty white, in oblongish bunches at the ends of the branches.—*New Jersey Tea*.
2. *Asiaticus*. Leaves egg-shaped, nerveless.—*Ceylon Ceanothus*. Green-house.
3. *Africanus*. Shrubby, eight feet or more high, with slender, drooping branches. Leaves

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Leaves broad-lance-shaped, slightly ferrated, shining, and nerveless. Stipulæ roundish. Flowers greenish, in clusters from the sides of the branches.—*African Ceanothus*; *Alaternoides*. Green-house.

CELÁSTRUS. *Staff Tree*. Comp. p. 10.

Calyx of 1 small, flat leaf, cut about half way into 5 obtuse, unequal parts. — *Corolla* of 5 egg-shaped, equal, spreading, sessile petals, having their margins reflexed.—*Stamina* 5, awl-shaped, nearly as long as the corolla.—*Summits* very small.—*Germs* small, and sunk in a large, flat, round receptacle, marked with ten furrows.—*Style* awl-shaped, shorter than the stamina.—*Stigma* obtuse, trifid.—*Seed-vessel* egg-shaped, obtusely 3-cornered, gibbous, 3-celled, and 3-valved. *Seeds* few, egg-shaped, smooth, partly rolled inward, and covered with a coloured coat, having its mouth cut into four unequal parts,

1. *Bullátus*. Shrubby, spineless, and eight feet or more high. Leaves egg-shaped, entire, alternate. Flowers white. Seed-vessels scarlet, and studded with protuberances.—*Virginian Staff Tree*.
2. *Scándens*. Shrubby, with climbing, twining, spineless stalks, rising ten feet or more high. Leaves pretty large, oblong-oval, ferrated. Flowers greenish, in small bunches near the ends of the branches.—*Climbing Celastrus*. Canada.
3. *Myrtifólius*. Shrubby, with erect, spineless stalks. Leaves broad-egg-shaped, slightly ferrated. Flowers white, in a racemus.—*Myrtle-leaved Celastrus*. Jamaica. *Green-house*.
4. *Buxifólius*. Shrubby, spiny, with feeble, angular branches. Leaves very obtuse, slightly ferrated, and mostly come out in clusters at the base of

the spines. Flowers whitish, in bunches from the sides of the branches.—*Box-leaved Celastrus*. Æthiopian. *Green-house*.

5. *Pyracanthus*. Shrubby, with roundish branches, and naked spines. Leaves lance-shaped, both ends pointed, stiff, shining, serrated near their tips. Flowers greenish, in tufts from the sides of the branches.—*Pyracanthus-leaved Celastrus*. Æthiopia. *Green-house*.

CELOSIA. *Cock's-comb*. Comp. p. 10.

Calyx formed of 2 lance-shaped, dry, abiding, coloured leaves, resembling petals.—*Corolla* of 5 lance-shaped, pointed, erect, dry, abiding petals, rather longer than the calyx.—*Nectarium* small, 5-pointed, and is placed round the edge of the germen.—*Stamina* 5, awl-shaped, fixed on the points of the nectarium, and are as long as the corolla.—*Summits* oblong, moveable.—*Germen* globular.—*Style* awl-shaped, erect, as long as the stamina.—*Stigma* small.—*Seed-vessel* globular, 1-celled, girt with the corolla.—*Seeds* few, roundish and notched. *At the base of the calyx there is a coloured bractea, which by some has been mistaken for a leaf of the calyx.*

1. *Cristata*. Leaves oblong-oval. Stalk erect, simple, and is terminated by a large, flat, obtuse fleshy head, scalloped and folded at the top like a cock's-comb, and is red, crimson, yellowish, and of other colours.—*Common Cock's-comb*.
Asia. ☉

2. *Margaritacea*. Stalk erect, branching. Leaves oblong-oval, pointed. Flowers dry, red, tinged with yellowish white, and terminate the stalk and branches in taper spikes, about as long and as thick as a finger.—*Spiked Cock's-comb*.
America. ☉

OBSERVATION. *The different sorts of Celosia seem to be now so mixed by standing together in the Green-houses and Stoves, that it is quite impossible to ascertain the different species with certainty. The Sugar-loaf Cock's-comb, as the Gardners call it, is a most elegant sort: the head is of a purplish crimson colour, of a conical figure, and composed of a number of close, compound spikes of shining silky flowers. This I think may be deemed a distinct species. It is said to have been brought from Persia.*

CENTAUREA. *Knapweed. Comp. p. 40.*

Flowers Compound. Florets all Tubular.

Common calyx roundish, and imbricated with scales variously terminated in the different species.

Florets in the disk many, hermaphrodite, erect, and formed of a thread-shaped tube, and a bellying, oblong-limb, cut into five erect, linear segments.—Germen small.—Style as long as the stamina. Stigma thick, cut into 2 or more parts.—Seed crowned with hair-like, or feathered down.

Neuter florets at the margin few, loose, larger than the hermaphrodites, and are formed of a slender tube, gradually widening upward into a large, oblique mouth, deeply cut into many narrow, irregular segments.—Seeds none.—Receptacle bristly.

Scales of the Calyx smooth, spineless, and entire.

1. *Moscháta.* Stalk two or three feet high, round, channeled, and branching. Leaves sessile, and cut into long, distant teeth or segments. Flowers large, solitary, sweet scented, and are purple, flesh-colour, or white. Scales of the calyx egg-shaped, entire.—*Sweet William; Oriental Knapweed. Persia. ☉*
2. *Amberbói.* This resembles the former, but grows more spreading, and not quite so tall. The

flowers are of a most delicate yellow, and sweet scented.———*Yellow Sweet William*.
Persia. ☉ *Linnaeus makes it only a variety of the former.*

3. *Alpina*. Stalk near a foot high, branching. Leaves winged, and composed of smooth, entire lobes, terminated by an odd one, which is serrated. Flowers yellow. Scales of the calyx egg-shaped, obtuse, and spineless.—*Yellow Alpine Centuary*.
Mount Baldus.

** *Scales of the Calyx ciliated, or cut into fine Teeth.*

4. *Montana*. Stalk quite simple. Leaves lance-shaped, woolly, entire, and run along the stalk at their base. Flowers blue, with very long marginal florets. Scales of the calyx serrated.—*Mountain Blue Bottle*. Austria.

5. *Cyanus*. Stalk two or three feet high, erect, angular, and puts out many branches. Leaves long, linear, sessile: the lower ones dentated; the upper ones entire. Flowers terminal, and are either blue, red, white, single, or double. Scales of the calyx serrated.—*Common Corn Bottle*. England. ☉

6. *Ragusina*. Stem perennial, three feet or more high, and branching. Leaves oblong, covered with a very short, white plush, and they are somewhat winged, or deeply cut into roundish lobes, increasing in size from the lowest to the end. Flowers bright yellow. Scales of the calyx large, yellowish, and ciliated at their tip.———*Silvery Knapweed*. Crete. *Greenhouse*.

7. *Cineraria*. Stalk about three feet high, branching. Leaves very hairy: those on the stalk doubly winged, and composed of acutely cut lobes, the odd one hand-shaped; those on the branches

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1. *Arvensis*. Stalks feeble, hairy, scarce eight inches high. Leaves almost linear, obtusifish, smooth, opposite. Flowers large, white, from the wings of the leaves, at and near the tops of the stalks. Seed-vessel oblong.—*Corn Mouse-ear Chickweed*. England.
2. *Tomentosum*. Whole plant white and downy. Stalks about a span high, branching. Leaves long, narrow, opposite. Flowers white, large, on branching peduncles. Seed-vessels globular.—*Woolly Mouse-ear Chickweed*. Wales.

CERCIS. *Judas Tree*. Comp. p. 20.

Flowers somewhat Butterfly-shaped.

Calyx of 1 very short, bell-shaped leaf, gibbous below, and cut at the mouth into 5 erect, obtuse teeth.

Wings formed of two long heeled petals, turned upward, and fixed by their heels.

Standard of one roundish petal, shorter than the wings, and under them.

Keel composed of two petals, conniving in form of a heart, and fixed by their heels.—*Nectarium* a style-like gland, under the germen.—*Stamina* 10, awl-shaped, distinct, four longer than the rest.—*Summits* oblong, incumbent, rising.—*Germen* linear, acute, and pedunculated.—*Style* as long as the stamina.—*Stigma* obtuse.—*Pod* oblong, with an oblique point at the top, and it is 1-celled.—*Seeds* few, roundish, fixed to the upper seam of the pod.

1. *Siliquastrum*. A small tree, ten feet or more high, with many reddish, irregular branches. Leaves almost round, smooth, entire, slightly notched at their apex, and lobed, or heart-shaped at their base. Flowers purple, or white, in

- clusters from the sides of the branches, on short peduncles.—*European Judas Tree*.
2. *Canadensis*. A small tree, having weak, feeble branches. Leaves heart-shaped, pointed, and downy. Flowers red, smaller than the former.—*Canadian Judas Tree; Red Bud*.

CERIN¹THE. *Honey-Wort*. Comp. p. 8.

Calyx of 5 oblong, abiding leaves, the two outer ones the largest, and heart-shaped at their base.—*Corolla* of 1 shortish club-shaped petal, divided at the mouth into 5 acute, reflexed parts.—*Stamina* 5, thick, awl-shaped, very short, and inserted into the tube.—*Summits* long, acute, and erect.—*Germen* 4-cornered.—*Style* thread-like, and equal with the summits.—*Stigma* obtuse.—*Seed-vessel* none.—*Seeds* two, hard, shining, nearly oval, but are convex on one side, and lodged in the calyx.

1. *Major*. Stalk smooth, fleshy, more than a foot high, and branching. Leaves oblong-heart-shaped, roughish, on their margins, of a dark bluish green, and embrace the stalk. Flowers reddish purple, mixed with yellow, or they are totally yellow, mostly stand by pairs, and are broad and obtuse at their mouth. Summits horned at their base.—*Greater Honeywort*. Europe. ☉
2. *Minor*. Stalk more slender than the former, the flowers are much smaller, and are more deeply cut into five segments.—*Smaller Honeywort*. Austria. ☉

CHEIR¹ANTHUS. *Wall-Flower*. Comp. p. 32.

Flowers Cross-shaped.

Calyx compressed, and composed of 4 erect, parallel, closed, deciduous leaves, the two outer ones gibbous

at their base.—*Corolla* of 4 roundish petals, forming a cross, and having narrow heels, about the length of the calyx.—*Stamina* 6, parallel, awl-shaped, as long as the calyx, two rather shorter than the rest, which two are gibbous at their base, and spring from the center of a small gland.—*Summits* oblong, erect, bifid at their base, acute and reflexed at their tip.—*Germen* 4-sided, as long as the stamina, and sometimes it is marked with a tooth on each side its tip.—*Style* scarce any.—*Stigma* oblong, erect, parted in two, thickish, abiding.—*Pod* long, compressed, somewhat 4-cornered, two of the opposite corners imperfect, 2-celled, 2-valved, and furnished with the bifid, erect stigma.—*Seeds* many, pendulous, alternate, almost egg-shaped, compressed, and bordered with a membrane.

1. *Cheiri*. Stem rigid, and puts out many angular branches. Leaves lance-shaped, acute, smooth, entire, or but slightly ferrated. Flowers bright, deep, or bloody yellow, single, or double, and they terminate the branches in a racemus. —Common Wall-flower. England.
2. *Annuus*. Stalk branching, about half a yard high. Leaves lance-shaped, obtuse, somewhat dented, and hoary. Flowers red, purple, or white, single or double, and terminate the branches in a long racemus.—Ten-week Stock Gilliflower. Europe. ☉
3. *Incarnus*. Stem somewhat shrubby, half a yard or more high, branching. Leaves entire, lance-shaped, obtuse, many. Flowers red, purple, or white, single, or double, and they terminate the branches in a long racemus. Pod compressed and stumped at the tip.—Quen's Stock Gilliflower. Spain.
4. *Fenestralis*. Stem about a span high, thickish, erect, naked to the top, where it is crowned

with a large cluster of long, lance-shaped, obtusifish, sessile, waved, recurved, hoary leaves. Flowers purple, and they terminate the stalk in long, erect racemi.—*Window, or Cluster-leaved Stock Gilliflower.* ♂ This seems to be only a variety of the *Incanus*.

5. *Maritimus.* Stalk a span or more high, sending out many diffuse branches near the root. Leaves oblong-oval, lance-pointed, almost sessile, veined, and have often an obsolete tooth or two on their margin. Flowers reddish purple, in loose bunches at the ends of the branches. Petals slightly notched. Seed-vessel awl-shaped.—*Virgin Stock Gilliflower.* Europe. ☉

6. *Chius.* This differs from the former in the leaves being veinless, reverse egg-shaped, and notched at their tip.—*Chion Virgin Stock.* Europe. ☉

CHELIDONIUM. *Celandine.* Comp. p. 26.

Calyx composed of 2 oblong-egg-shaped, concave, deciduous leaves.—*Corolla* of 4 large, flat, roundish, spreading petals, narrowed at their base.—*Stamina* many, flat, broadest upward, and shorter than the corolla.—*Summits* oblong, compressed, erect, furrowed.—*Germen* nearly cylindrical, as long as the stamina.—*Style* none.—*Stigma* knob-like, bifid.—*Pod* almost cylindrical, 1 or 2-celled., with one or more valves.—*Seeds* many, small, shining.

1. *Majus.* Stalk smooth, about two feet high, branching, and stored with a yellow juice. Leaves cut into five or seven broad, irregularly jagged lobes, the terminating one the largest, and trifid. Flowers yellow, single, or double, in thin umbels, containing 5 or 6 flowers each.

Calyces and peduncles hairy.——Common
Celandine. England.

2. *Glaucium*. Whole plant of a bluish green. Stalk about two feet high, smooth, and puts out many spreading branches. Lower leaves oblong, and divided to the midrib into cut lobes; the upper ones heart-shaped, sinuated, and embrace the stalk. Flowers large, yellow, solitary at the bosom of the leaves, and at the ends of the branches. Pod very long and rough.——
Yellow Horned Poppy. England.
3. *Corniculatum*. Stalks rough, more than a foot high, and branching. Leaves green, long, deeply lobed, and sessile. Flowers red, solitary at the bosoms of the leaves. Pod rough.——
Scarlet Horned Poppy. England. ☉
4. *Hybridum*. Stalk smooth, more than a foot high, and branching. Leaves cut into many linear lobes. Flowers blue purple, solitary at the bosoms of the leaves, and at the ends of the branches. Pod long, three-valved.——
Bastard Horned Poppy. England. ☉

OBSERVATION. *The juice of the first sort has been long used for taking off films and specks of the Eyes.*

CHELONE. *Chelone*. Comp. p. 29.

Calyx of 1 very short, abiding leaf, cut into 5 erect, egg-shaped parts.—*Corolla* of 1 gaping petal, having a very short tube, and an inflated, oblong throat, which is convex above, and flat beneath. Limb small, and closed.—*Upper-lip* obtuse, notched; —*lower-lip* mostly equal with the upper one, and slightly trifid.—*Stamina* 4, with the remains of a fifth, the two side ones rather longer than the rest.—*Summits* incumbent.—*Germen* egg-shaped.—*Style* thread-like, as long as the stamina.—*Stigma* obtuse.

—*Seed-vessel* egg-shaped, 2-celled, longer than the calyx.—*Seeds* many, roundish, and girt with a membrane.

1. *Glabra*. Stalk smooth, erect, about three feet high, and branching. Leaves lance-shaped, smooth, serrated, on footstalks; the upper ones opposite. Flowers rose-colour, or white, and terminate the branches in short spikes. Lower-lip bearded. Summits woolly.—
Smooth Virginian Chelone.
2. *Penstemon*. Stalk erect, near two feet high. Leaves egg-shaped, pointed, opposite, dentated, and embrace the stalk. Flowers violet-colour, or white, in forked panicles.—*Broad-leaved Chelone*. Virginia.
3. *Hirsuta*. Stalk erect, about three feet high, hairy, and branching. Leaves hairy, pointed. Flowers white.—*Hairy Chelone*. Virginia.

CHIONANTHUS. *Snowdrop Tree*. Comp. p. 4.

Calyx of 1 small, abiding leaf, cut into 4 or 5 erect, acute, parts.—*Corolla* of 1 long, slender petal, cut almost to the base into 4 or 5 very long, narrow, linear, erect, acute segments.—*Stamina* 2 (often 3) very short, and inserted into the base of the corolla.—*Summits* heart-shaped, erect.—*Germen* egg-shaped, above the calyx.—*Style* as long as the stamina.—*Stigma* obtuse, trifid.—*Plum* roundish, 1-celled.—*Nut* streaked.

Virginica. Shrubby, six or eight feet high. Leaves oblong-oval, entire, pointed at both ends, and opposite. Flowers white, on trifid peduncles, forming a long, pendulous bunch.—*Fringe Tree*. Virginia.

CHIRONIA. *Chironia*. Comp. p. 10.

Calyx of 1 erect, abiding leaf, cut into 5 oblong, acute parts.—*Corolla* of 1 petal, having a narrow tube, and a spreading limb, divided into 5 equal, egg-shaped segments.—*Stamina* 5, broad, short, and spring from the tip of the tube.—*Summits* large, oblong, erect, and when old, become twisted.—*Germen* egg-shaped.—*Style* thread-like, declining, rather longer than the stamina.—*Stigma* knob-like.—*Seed-vessel* egg-shaped, 2-celled.—*Seeds* small, numerous.

1. *Frutescens*. Shrubby, two or three feet high. Leaves linear, lance-pointed, a little downy, opposite. Flowers bright red, and terminal. *Calyx* bell-shaped. *Style* deflexed.—*Chironia* with hollow seed-vessels. *Æthiopia*. *Green-house*.
2. *Baccifera*. Shrubby, about three feet high. Leaves short, narrow, thick, and succulent. Flowers of a deeper red, and much smaller than the former.—*Berry Bearing Chironia*. *Æthiopia*. *Green-house*.

CHRYSANTHEMUM. *Corn Marigold*. Comp. p. 39.

Flowers compound, *Radiated*.

Common calyx hemispherical, and imbricated with compact scales, the inner ones gradually increasing in size, and the innermost terminated with a filmy membrane.

Florets in the disk hermaphrodite, numerous, funnel-shaped, cut into 5 parts.—*Germen* egg-shaped.—*Style* longer than the stamina.—*Stigmas* 2, revolute.—*Seed* oblong, void of down.

Female rays 12 or more, strap-shaped, cut into 3 teeth.—*Germen* egg-shaped.—*Style* like the former.—

Stigmas 2, revolute.—*Seed* like the former.—*Receptacle* naked, dotted, and convex.

1. *Leucánthemum*. Stalk erect, stiff, angular, branching, from one to two feet high. Leaves narrow, obtuse, serrated near their tip, dentated at their base, alternate, and embrace the stalk. Flowers large, white, solitary at the ends of the branches. Scales of the calyx narrow.—*Greater Ox-eye Daisy*. England.
2. *Coronárium*. Stalk erect, two or three feet high, dividing into many spreading branches. Leaves winged, or cut to the midrib into several narrow, jagged lobes. Flowers yellow, sulphur-colour, or white, single, or double, and stand solitary at the ends of the branches.—*Garden Chrysanthemum*. Crete. ☉
3. *Serótinum*. Stalk more than four feet high, branching. Leaves lance-shaped, deeply serrated, and pointed at both ends. Flowers large, white, solitary at the ends of the branches. *Late American Chrysanthemum*.
4. *Flosculósum*. Shrubby, about two feet high. Leaves narrow, rigid, dentated. Flowers yellow, without rays, being wholly composed of tubular florets.—*African Shrubby Chrysanthemum*. Green-house.
5. *Frutéscens*. Shrubby, about two feet high. Leaves thick, succulent, and winged with linear trifid lobes. Flowers white, small, on naked peduncles from the wings of the leaves.—*Canary Chrysanthemum*. Green-house.

OBSERVATION. *The herb and flowers of the first sort have been recommended as very useful in ulcers of the lungs, and spitting of blood.*

C E L

CHRYSOCOMA. *Goldy Locks.* Comp. p. 38.

Flowers Compound. Florets all Tubular.

Common calyx hemispherical, and imbricated with linear, convex, pointed scales.—*Florets* all tubular, hermaphrodite, numerous, funnel-shaped, and cut into five revolute teeth.—*Germen* oblong.—*Style* short.—*Stigmas* two, oblong, involute.—*Seed* egg-shaped—oblong, compressed, crowned with hair-like down.—*Receptacle* flat, naked.

* *Herbaceous.*

1. *Linofýris.* Stalks herbaceous, erect, near two feet high, and branching near the top. Leaves very narrow, smooth, linear, crowded, so as almost to cover the stalk. Flowers numerous, on long, leafy peduncles, or rather branches. Scales of the calyx loose.—*German Goldy Locks; Flax-leaved Goldy Locks.*
2. *Biflóra.* Stalks herbaceous. Leaves narrow, lance-pointed, rigid, three nerved, dotted and naked. Flowers yellow, in a kind of umbel.—*Siberian Goldy Locks.* There is a variety of this, having a few rays at the edge of the flowers.
3. *Graminifólia.* Stalks herbaceous, smooth, erect, a little angular. Leaves linear, lance-pointed, smooth, remote, alternate, and have three obsolete nerves. Flowers small, numerous, about three on a peduncle, the whole forming a roundish cluster.—*Grass-leaved Goldy Locks.* Canada.
4. *Villósa.* Stalks herbaceous. Leaves lance-shaped, covered with soft hair. Flowers yellow, in a kind of umbel. Calyx contracted.—*Hairy Siberian Goldy Locks.*

** *Somewhat Shrubby.*

5. *Coma-áurea.* Shrubby, about half a yard high. Leaves small, linear, smooth, straight, of a

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- deep green, and their back part runs along the stalk. Flowers yellow, solitary at the ends of the branches.—*Greater African Goldy Locks.*
Green-house.
6. *Ciliata*. Somewhat shrubby. Leaves linear, straight, and ciliated. Branches a little hairy. Flowers yellow.—*Heath-leaved Goldy Locks.*
Æthiopia. Green-house.
7. *Scabra*. Somewhat shrubby. Leaves egg-shaped at their tip, narrowed at their base, dentated, and reflexed. Flowers yellow, on downy peduncles.—*Rough-leaved African Goldy Locks.*
Green-house. *The peduncles are sometimes smooth.*
8. *Cernua*. Somewhat shrubby. Leaves linear, roughish, recurved. Flowers pale yellow, and before blown hang nodding.—*Lesser Goldy Locks.*
Green-house.
- Cimicifuga.* (See *Adæa*.)

CINERARIA. *Sky Flower.* Comp. p. 39.

Flowers compound, Radiated.

Common calyx simple, and composed of many, narrow, equal, acute leaves.

Florets in the disk hermaphrodite, funnel-shaped, cut into 5 erect teeth.—*Summits* parted at their tip.—*Germen* oblong.—*Style* as long as the stamina.—*Stigmas* 2, rather upright.—*Seed* linear, 4-angled, and crowned with plenty of hair-like down.

Female rays strap-shaped, dentated at their tip, and about equal in number to the leaves of the calyx.—*Germen* oblong.—*Style* short.—*Stigmas* 2, oblong, revolute.—*Seeds* like the former.—*Receptacle* flattish, naked.

1. *Maritima*. Whole plant very woolly, somewhat shrubby, two feet, or more high, with spreading,

- irregular branches. Leaves dark green above, very white beneath, and cut to their midrib into many lobes, which are broadest near their tip, and obtusely sinuated. Flowers yellow, in roundish, branching panicles at the ends of the branches. Rays rolled back.—*Sea Ragwort; The Powdered Beau.* France.
2. *Canadensis.* Stalks herbaceous, erect, about three feet high, and a little hoary. Leaves slightly hoary, cut into larger lobes than the former, and are more deeply sinuated. Flowers yellow, in roundish, open panicles at the ends of the branches. Rays straight. Tips of the calyces somewhat withered.—*Broad-leaved Canadian Ragwort.*
3. *Aúrea.* Stalk erect, three feet or more high, and hairy. Leaves lance-shaped, equally, and distinctly serrated, and downy beneath. Flowers large, yellow, in roundish clusters.—*Golden Siberian Ragwort.*
4. *Lanáta.* Somewhat shrubby. Leaves small, very woolly, mostly cut into five angular lobes, and are about as broad as long. Flowers purple without, whitish within.—*Ivy-leaved Sky Flower.* Africa. *Green-house.*
5. *Amelloides.* Whole plant of a dark green colour, hairy, somewhat shrubby, and two or three feet high, with many round, opposite, rough branches. Leaves egg-shaped, entire, opposite, almost sessile, and furnished with small, rough hairy glands. Flowers light blue, or white, with yellow disks, and stand solitary, on very long, naked peduncles.—*Rough-leaved Sky Flower.* Cape of Good Hope. *Green-house.* This is frequently called by the Gardeners *Cape Aster.*

CISTUS. *Rock Rose*. Comp. p. 26.

Calyx composed of 5 abiding leaves, two of which are smaller than the others.—*Corolla* of 5 large, flat, roundish, spreading petals.—*Stamina* numerous, hair-like, much shorter than the corolla.—*Summits* small, oblongish.—*Germs* roundish.—*Style* short.—*Stigma* flat, orbicular.—*Seed-vessel* roundish, defended by the calyx.—*Seeds* small, roundish, numerous.

* *Shrubby, without Stipulæ.*

1. *Populifolius*. Shrubby, with a small tree-like stem. Leaves large, heart-shaped, pointed, smooth, on footstalks. Flowers white.—*Black Poplar-leaved Cistus*. Portugal.
2. *Laurifolius*. Shrubby, with a small tree-like stem. Leaves oblong-oval, three-nerved, smooth on their upper side, opposite, on footstalks united at their base, forming a kind of imperfect sheath to the branch. Flowers white with purple heels, and come out in a sort of umbel.—*Bay-leaved Cistus*. Spain.
3. *Ladaniferus*. Shrubby, with a small tree-like stem, and the branches thinly besmeared with an odoriferous gum. Leaves narrow-lance-shaped, somewhat undulated, obsoletely three-nerved, on footstalks united at their base, forming a sheath to the branch. Flowers large, white, with dark purple eyes, mixed with yellow.—*Gum-bearing Cistus*. Spain.
4. *Monspeliensis*. Shrubby, with a small tree-like stem. Leaves narrow-lance-shaped, the uppermost ones broadest at their base, all three-nerved, sessile, opposite, and hairy. Flowers white, and terminate the branches in racemi. Peduncles and calyces hairy.—*Montpelier Gum-bearing Cistus*. Green-house.

5. *Albidus*. Shrubby, with downy, hoary branches. Leaves oval, or broad-lance-shaped, flat, downy, obsoletely three-nerved, sessile, horizontal, sometimes united at their base. Flowers reddish purple, and have their petals somewhat crenated.——*White-leaved Spanish Cistus*. Green-house.

6. *Incánus*. Shrubby, with hairy branches. Leaves reverse-egg-shaped, downy, ruffled, opposite, and the lower ones united in a sort of sheath. Flowers reddish purple. Calyces hairy.——*Hoary-leaved Spanish Cistus*. Green-house. *Probably this is only a variety of the former, or the former of this.*

7. *Salvifólius*. Shrubby, with a small tree-like stem. Leaves egg-shaped, obtuse, wrinkled, on both sides hairy, opposite, on footstalks. Flowers yellowish or white, solitary, on long, two-leaved peduncles.——*Sage-leaved Cistus*. Italy. Green-house.

*** Somewhat shrubby, without stipulæ.*

8. *Umbellátus*. Somewhat shrubby, with procumbent branches. Leaves small, and resemble those of Thyme. Flowers pale yellow, in a sort of umbel.——*Thyme-leaved Dwarf Cistus*. France. Green-house.

9. *Lævipes*. Somewhat shrubby, with ascending, almost erect branches. Leaves small, smooth, thread-like, and come out in alternate clusters. Flowers yellow, in racemous bunches.——*Heath-leaved Dwarf Cistus*. Montpellier. Green-house.

**** Herbaceous, without stipulæ.*

10. *Tuberária*. Perennial, and puts forth herbaceous branches, near a foot high. Bottom leaves egg-shaped, three-nerved, downy; those on the

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branches lance-shaped, smooth, the upper ones alternate. Flowers on longish peduncles near the tops of the branches.—*Plantain-leaved Spanish Cistus*. Green-house.

11. *Guttatus*. Stalk about a foot high, branching at the top. Leaves lance-shaped, three-nerved, opposite. Flowers pale yellow, with a red spot on each petal, and come out in a racemus, having no bractæ. ————— *Annual Cistus*. England. ☉

**** Somewhat shrubby, with stipulæ.

12. *Heliánthemum*. Somewhat shrubby, with numerous, procumbent branches, about a foot long. Leaves oblong, with their margin rolled back, rather downy beneath, opposite, and have four lance-shaped, hairy stipulæ at their base. Flowers yellow, in a loose racemus at the ends of the branches. Petals roundish, entire. ————— *Dwarf Sun-flower*. England.

13. *Appenninus*. Somewhat shrubby, about a foot high. Leaves lance-shaped, hairy, green above, and whitish beneath. Flowers white. ————— *Italian Dwarf Cistus*.

CITRUS. *Lemon and Orange*. Comp. p. 36.

Calyx formed of 1 withering leaf, having a flat base, and a brim cut into 5 distant teeth.—*Corolla* of 5 oblong, flat, thick, spreading petals.—*Stamina* most commonly 20, awl-shaped, compressed, erect, forming a cylinder, and united at their base in distinct parcels.—*Summits* oblong.—*Germen* roundish.—*Style* cylindrical, as long as the stamina.—*Stigma* globular.—*Fruit* roundish, covered with a fleshy skin, inclosing a succulent pulp, having 9 cells, each containing 2 egg-shaped seeds.

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1. *Médica*. A tree having oval, lance-pointed leaves, on linear footstalks, and producing oval, yellow fruit, having both ends pointed.——
Citron, Lemon, and Lime Tree. Asia. Green-house.
2. *Aurantium*. A tree having oval, lance-pointed leaves, with wings, or appendages at their base, and producing large, yellow fruit, having both ends depressed.——*Orange Tree.* India. Green-house.

¹
CLEMATIS. *Virgin's Bower.* Comp. p. 27.

Calyx none.—*Corolla* of 4 oblong, loose petals.—*Stamina* many, awl-shaped, shorter than the corolla.—*Summits* linear, and stick to the sides of the stamina.—*Germina* many, roundish, ending in styles longer than the stamina.—*Stigmas* simple.—*Seed-vessel* none.—*Receptacle* knob-like, small.—*Seeds* many, roundish, compressed, furnished with the styles.

* *Stalks erect.*

1. *Integrifolia*. Stalks angular, erect, four feet, or more high. Leaves egg-shaped, pointed 3-nerved, entire, sessile, opposite, woolly on their margins. Flowers blue, and hang nodding, on long, stiff, erect, opposite, peduncles, from the bosoms of the leaves.——*Hungarian Virgin's Bower.*
2. *Erecta*. Stalks erect, about five feet high, channelled. Leaves winged, and composed of three or four pair of egg-shaped, lance-pointed, entire lobes, on footstalks, and terminated by an odd one. Flowers white, and terminate the stalks in compound bunches. Petals four, five, or six.——*Austrian Virgin's Bower.*

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* *Plants climbing.*

3. *Viticélla.* Stalks exceedingly branched, and climb by the twisting of the footstalks of the leaves. Leaves decomposed of many lobes; some of which are egg-shaped and entire, others lobed, and some elliptical. Flowers dull blue, or reddish; single, or double, on long peduncles. Petals thinish, spreading, very obtuse, and nearly wedge-shaped.—*Italian Virgin's Bower.*
4. *Viórna.* Stalks much branched, and climb by the twisting footstalks of the leaves. Leaves decomposed of many lobes, which are for the most part trifid. Flowers purple, on short peduncles. Petals thickish, and almost closed.—*Carolinian Virgin's Bower.*
5. *Crispa.* Stalks weak, and climb about four feet high. Leaves various, some being simple, some trifoliate, others 3-lobed, and opposite. Flowers purple, solitary, on short peduncles from the sides of the branches. Petals thick, curled on their inside.—*Curled-flowered Virgin's Bower.* Carolina.
6. *Virginiana.* Plants dicæcious, and climb by the twisting footstalks of the leaves. Leaves composed of about nine nearly egg-shaped, angled lobes, standing by threes. Flowers white, very fragrant.—*Virginian Climber.* The female flowers have summits, but they are barren.
7. *Dioica.* Stalks much branched, and climb by the twisting footstalks of the leaves. Leaves composed of egg-shaped, entire, shining, 5-nerved lobes, standing by threes.—*Jamaican Virgin's Bower.*
8. *Cirrhósa.* Stalks climbing by means of clasps coming out distinct from the leaves. Leaves simple, egg-shaped, cut, or serrated, on foot-

stalks, and stand single, or in clusters at the joints. Flowers greenish, solitary at the sides of the branches.——*Spanish Pear-leaved Climber.*

CLETHRA. *Clethra.* Comp. p. 20.

Calyx formed of 1 abiding leaf, cut to the base into 5 erect, egg-shaped, concave parts.—*Corolla* of 5 oblong, somewhat spreading, obtuse petals, broad near their tips.—*Stamina* 10, awl-shaped, about as long as the corolla.—*Summits* oblong, rather erect, gaping at their tips.—*Germen* roundish.—*Style* thread-like, erect. *Stigma* trifid.—*Seed-vessel* roundish, 3-celled, 3-valved, covered by the calyx, crowned by the style.—*Seeds* many, angular.

Alnifolia. Shrubby, from three to five feet high. Leaves oblong, broadest upward, lance-pointed, acutely serrated, and alternate. Flowers white, in long spikes at the ends of the branches.——*Carolinian Clethra.*

CLIFFORTIA. *Cliffortia.* Comp. p. 47.

Plants Diœcious.

Male calyx composed of 3 egg-shaped, acute, tough, deciduous leaves.—*Corolla* none.—*Stamina* about 30, hair-like, erect, as long as the calyx.—*Summits* double, oblong, erect, compressed.

Female calyx of 3 equal, erect, abiding, lance-shaped leaves.—*Corolla* none.—*Germen* oblong, below the calyx.—*Styles* 2, long, thread-like, feathered.—*Stigmas* small.—*Seed-vessel* oblong, 2-celled, crowned with the calyx.—*Seeds* solitary and linear.

1. *Ilicifolia.* Shrubby, about four feet high, with many diffuse branches. Leaves small, rigid, roundish heart-shaped, dentated, alternate, and half embrace the stalk. Flowers green, sessile,

- in the bosoms of the leaves.—*Holly-leaved Cliffortia*. *Æthiopia*. *Green-house*.
2. *Ruscifolia*. Shrubby, about four feet high, with whitish branches. Leaves lance-shaped, smooth, rigid, entire, and in clusters. Flowers yellowish, in loose bunches from the bosoms of the leaves.—*Butcher's Broom-leaved Cliffortia*. *Æthiopia*. *Green-house*.
3. *Trifoliata*. Shrubby, with very feeble stalks and branches. Leaves composed of three lobes, the middle one much the longest, and cut into three teeth. Flowers on short peduncles, at the bosoms of the leaves.—*Trifoliate Cliffortia*. *Æthiopia*. *Green-house*.

CLITORIA. *Clitoria*. Comp. p. 35.

Flowers Butterfly-shaped.

Calyx of 1 erect, tubular, abiding leaf, cut into 5 teeth.

Standard large, spreading, notched, waved on the margin, and shadows the wings.

Wings oblong, straight, obtuse, shorter than the standard.

Keel shorter than the wings, roundish scythe-shaped. (*The face of the whole corolla looks upward.*)—*Stamina* 10, one detached, and nine united.—*Summits* simple.—*Germen* oblong.—*Style* ascending.—*Stigma* obtuse. *Pod* very long, linear, compressed, 1-celled, 2-valved, the tip awl-shaped.—*Seeds* many, and kidney-shaped.

1. *Ternatea*. Stalks twining, four or five feet high. Leaves alternate, winged, and composed of two or three pair of lobes, terminated by an odd one. Flowers large, blue, or white, solitary, on peduncles from the wings of the leaves.—*Asiatic Clitoria*. *Hot-house*.

2. *Brafiliana*. Stalks twining, five or six feet high. Leaves composed of three lobes, terminating a long footstalk. Flowers blue, very large, solitary, on longish peduncles from the footstalks of the leaves. Calyx bell-shaped.—*Brafilian Clitoria*. Hot-house.
3. *Virginiána*. Stalks twining, from five to seven feet high. Leaves composed of three oblong lobes. Flowers small, greenish white, one or two on a short peduncle from the side of the stalk. Calyx bell-shaped.—*Virginian Clitoria*.
4. *Mariána*. Stalks twining, about five feet high. Leaves composed of three narrowish lobes, of a gray colour beneath. Flowers pale blue, or whitish, mostly two at the end of a peduncle. Calyces cylindrical.—*Maryland Clitoria*.
5. *Galáctia*. Stalks twining, three or four feet high. Leaves composed of three egg-shaped, acute lobes, somewhat angled at the base. Flowers pale rose-colour, with whitish heels, 2, 3, 4, or 5, at the end of a long, naked peduncle. Calyces 4-parted, the upper part equal to the other 3, and each calyx has two small bractæ at its base.—*Jamaican Clitoria*. Green-house.

CLYPEOLA. *Treacle Mustard*. Comp. p. 31.

Flowers cross-shaped.

Calyx composed of 4 egg-shaped, oblongish, abiding leaves.—*Corolla* of 4 roundish, entire petals, forming a cross, and having heels about the length of the calyx.—*Stamina* 6, two opposite, toothless, shorter than the rest, all shorter than the corolla.—*Summits* simple.—*Germen* roundish, compressed.—*Style* short.—*Stigma* obtuse.—*Pod* orbicular, flattish, erect, 2-celled.—*Seeds* 1 or 2, orbicular, in the center of the pod.

1. *Maritima*. Stalks about half a yard long, prostrate, and somewhat perennial. Leaves narrow, acute, sessile, alternate, and furnished with silvery, prostrate hairs. Flowers white, small, in roundish bunches, at the ends of the branches, and smell like honey. Stamina purplish. Pod 2-seeded.—*Honey Flower; Spanish Treacle Mustard.*

CLUSIA. *Balsam Tree.* Comp. p. 45.

Plants Polygamous.

Male calyx imbricated with 4, 5, or 6 concave, abiding leaves, the inner ones gradually decreasing in size.—*Corolla* composed of 4, 5, or 6 large, roundish, concave, spreading petals.—*Stamina* numerous, shorter than the corolla.—*Summits* simple, fixed to the sides of the stamina near their tip.

Female calyx and corolla like the male.—*Nectarium* globular, formed of the united summits, and includes the germen.—*Germen* oblong-oval.—*Style* none.—*Stigma* star-like, flat, with 4, 5, or 6 obtuse indentures.—*Berry* egg-shaped, with 4, 5, or 6 furrows, 4, 5, or 6 cells, and as many *valves*, opening in the form of a star.—*Seeds* numerous, egg-shaped, covered with pulp, and affixed to an angular, column-like *Receptacle*.—*Some of the flowers are barren as to the male part, or Summits; and others are barren as to the female part, or Stigma.*

1. *Flava*. A small tree. Leaves roundish, shining, without veins. Flowers composed of four pale yellow petals.—*Jamaica Balsam Tree.*
Hot-house.
2. *Alba*. A small tree. Leaves roundish, without veins. Flowers composed of five white petals. Fruit scarlet.—*White-flowered Clusia.*
America. Hot-house.

3. *Rófea*. A small tree. Leaves roundish, without veins. Flowers composed of six rose-colour petals. Fruit greenish.—*Carolina Balsam Tree*. Hot-house.
4. *Venófa*. A small tree. Leaves lance-shaped, broad, and rounded at their base, and have several principal veins. Flowers small, rose-colour. Fruit yellowish.—*Veined-leaved Clusia*. America. Hot-house.

¹
CNEORUM. *Widow Wail*. Comp. p. 5.

Calyx of 1 very small, abiding leaf, cut into 3 teeth.—*Corolla* of 3 oblong, erect, concave, deciduous petals. *Stamina* 3, awl-shaped, shorter than the corolla.—*Summits* small.—*Germen* obtuse, 3-sided.—*Style* erect, longer than the stamina.—*Stigma* trifid, spreading.—*Berry* dry, roundish, 3-lobed, 3-celled.—*Seeds* round, solitary.

Tricóccum. Shrubby, about two feet high. Leaves more than two inches long, a quarter broad, obtuse, and alternate. Flowers yellow, small, solitary, on short peduncles at the wings of the leaves.—*Widow Wail*. Spain. Greenhouse.

¹
COFFEA. *Coffee Tree*. Comp. p. 11.

Calyx of 1 very small leaf, cut into 5 teeth.—*Corolla* of 1 salver-shaped petal, having a slender, almost cylindrical tube, a deal longer than the calyx, and a flat limb, longer than the tube, which is cut into 4 or 5 lance-shaped segments.—*Stamina* 5, awl-shaped, placed on the tube of the corolla.—*Summits* linear, incumbent, as long as the stamina.—*Germen* roundish, below the corolla.—*Style* as long as the corolla.—*Stigmas* 2, awl-shaped, reflexed.—*Berry* roundish, umbilicated.—*Seeds* 1 or 2, elliptical, gibbous on one side, flat on the other, and covered with a loose coat.

1. *Arábica*. Shrubby, about eight feet high. Leaves large, oblong, shining, opposite. Flowers white, sweet-scented, divided into five segments, and they come out in close clusters from the sides of the branches. Berry 2-seeded.——
Arabian Coffee. Hot-house.
2. *Occidentális*. Shrubby about eight feet high, but differs from the former in the flowers being cut into but four segments, and in the berry containing but one seed.——*American Coffee*. Hot-house.

OBSERVATION. *The berries of both sorts are used, but those of the first make by far the most agreeable, and the best flavoured Coffee.*

COLCHICUM. *Meadow Saffron*. Comp. p. 17.

Calyx none.—*Corolla* of 1 petal, having a very long, slender, angled tube, inserted into the root, and a large limb, divided into 6 nearly oval, erect, concave segments.—*Stamina* 6, awl-shaped, shorter than the corolla.—*Summits* oblong, incumbent.—*Germs* 3-cornered, buried within the root.—*Styles* 3, thread-like, as long as the stamina.—*Stigmas* furrowed, reflexed.—*Seed-vessel* 3-celled, 3-lobed, the lobes connected inwardly by a seam.—*Seeds* many, roundish, rough.

1. *Autumnále*. Leaves erect, lance-shaped, and flat. Flowers purple, flesh-colour, or white, single, or double, and come forth at autumn, after the leaves are decayed.——*Common Colchicum*; *Naked Boys*. England.
2. *Montánium*. Leaves narrow, linear, very spreading. Flowers reddish purple, and come forth towards autumn.——*Mountain Colchicum*. Spain.
3. *Variégátum*. Leaves waved, spreading. Flowers striped with purple and red, and appear after the leaves in autumn.——*Chequered Colchicum*. Chios.

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COLLINSONIA. *Collinsonia*. Comp. p. 4.

Calyx of 1 tubular, lipped, abiding leaf: *Upper-lip* the broadest, trifid, and reflexed; *Under-lip* cut into two awl-shaped, erect parts.—*Corolla* of 1 unequal petal, having a funnel-shaped tube, a great deal longer than the calyx, and a limb cut into 5 segments, forming two lips: the upper segments are short, obtuse, and two of them reflexed; the lower lip is long, and fringed.—*Stamina* 2, bristle-like, very long and erect.—*Summits* incumbent, compressed, obtuse.—*Germen* obtuse, deeply cut into 4 parts, with a large gland under each.—*Style* bristle-like, as long as the *stamina*.—*Stigma* bifid, acute.—*Seed-vessel* none.—*Seed* 1, globular, lodged at the bottom of the calyx.

Canadensis. Stalk square, erect, four or five feet high. Leaves heart-shaped, serrated, opposite. Flowers yellowish purple, and terminate the stalks in loose spikes.—*Canada Collinsonia*.

COLUTEA. *Bladder Senna*. Comp. p. 35.

Calyx of 1 erect, bell-shaped, abiding leaf, cut into 5 nearly equal, distant parts.—*Standard, Wings, and Keels*, of different figures in the different species.—*Stamina* 10, one detached, and nine united.—*Summits* simple.—*Germen* oblong, compressed, slender at both ends.—*Style* flattened.—*Stigma* a bearded line from about the middle of the style to the tip.—*Pod* large, very broad, inflated, its skin transparent, its upper seam straight, its lower one gibbous, 1-celled, and it opens at the base of the upper seam.—*Seeds* many, and kidney-shaped.

1. *Arboréscens*. Shrubby, from six to ten feet or more high, with a tree-like stem. Leaves winged, and composed of four or five pair of oval, or reverse-heart-shaped, opposite lobes, on short

footstalks, and they are terminated by an odd one. Flowers short, yellow, or they are deep red striped with yellow, and come in thin bunches from the footstalks of the leaves.—*Common Bladder Senna and Pocock's Colutea.* Italy.

2. *Frutescens.* Somewhat shrubby, with an erect, hoary stalk, four or five feet high. Leaves winged, and composed of about 9 pair of small, oblong-oval lobes, terminated by an odd one. Flowers scarlet, and are long and narrow, with the standard shorter than the keel, the wings very small, and sometimes deficient.—*Æthiopian Colutea.* Green-house.

¹
COMARUM. *Marsh Cinquefoil.* Comp. p. 25.

Calyx of 1 large, coloured, spreading, abiding leaf, deeply cut into 10 acute parts, one alternately much smaller than the other.—*Corolla* of 5 small, oblong, pointed petals, inserted at the divisions of the calyx.—*Stamina* about 20, awl-shaped, abiding, as long as the corolla, and inserted into the calyx.—*Summits* bowed, deciduous.—*Germina* numerous, roundish, collected in a head, on a somewhat oval receptacle.—*Styles* short, inserted into the sides of the germina.—*Stigmas* simple.—*Seeds* numerous, pointed, and cover the receptacle.

Palustris. Stalks spreading, reddish, about half a yard long. Leaves cut into five or seven oblong, coarsely serrated lobes, the lower ones the smallest. Flowers of a dull, reddish purple, and terminate the stalks in thin, open bunches.—*Marsh Cinquefoil.* England.

¹
COMMELINA. *Commelina.* Comp. p. 5.

Calyx a large, heart-shaped, compressed, abiding sheath.—*Corolla* composed of 6 petals: the three outer ones small, egg-shaped, concave, and resemble

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a calyx; the three *inner* ones large, roundish, coloured, and alternate.—*Nectariums* three, resembling the *stamina*, and are placed upon the proper *stamina*.—*Stamina* 3, awl-shaped, reclining, and are ranged with the *nectariums*.—*Summits* egg-shaped.—*Germs* roundish, within the *corolla*.—*Style* awl-shaped, reflexed.—*Stigma* simple.—*Seed-vessel* naked, globular, 3-furrowed, 3-celled, 3-valved. *Seeds* angular, 2 in each cell.

1. *Africana*. Stalks decumbent, smooth, two or three feet long. Leaves lance-shaped. Flowers yellow, unequal, two of the three inner petals being somewhat kidney-shaped.—*Perennial Trailing Commelina*. *Æthiopia*. *Green-house*.
2. *Erecta*. Stalks erect, about two feet high, rough, and quite simple. Leaves broad-lance-shaped, rounded at their base. Flowers light blue, unequal, two of the inner petals being larger than the others.—*Upright Commelina*. *Virginia*. *Green-house*.
3. *Tuberosa*. Root composed of several fleshy tubers. Stalks declining. Leaves broad-lance-shaped, rounded at their base, and somewhat ciliated. Flowers blue, the three inner petals equal.—*Tuberous-rooted Commelina*. *Mexico*. *Green-house*.
4. *Zanonia*. Stalks trailing. Leaves narrow-lance-shaped, broad at their base, forming a sheath round the stalk. Flowers sky-blue, the three inner petals equal. *Bractææ* lance-shaped, opposite.—*Grass-leaved Commelina*. *America*. *Green-house*.

CONVALLARIA. *Lily of the Valley*. *Comp. p. 15.*

Calyx none.—*Corolla* of one bell, funnel, or wheel-shaped, smooth petal, cut into 6 somewhat reflexed

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parts.—*Stamina* 6, awl-shaped, shorter than the corolla, and inserted into it.—*Summits* oblong, erect.—*Germen* globular, within the corolla.—*Style* thread-like, longer than the stamina.—*Stigma* obtuse, 3-cornered.—*Berry* globular, 3-celled, and before ripe, spotted.—*Seeds* solitary, roundish.

* *Corolla* bell, or funnel-shaped.

1. *Majalis*. * Stalk about six inches high, angular, and furnished with two oblong, erectish leaves near its base. Flowers bell-shaped, white, red, single, or double, in a thin racemus, all looking one way.—*Lily of the Valley*. England.

2. *Polygonatum*. Stalk a foot or more high, two edged. Leaves oval, plaited, alternate, and half embrace the stalk. Flowers oblong, pendulous, white, tipped with green, one, or two on a peduncle, from the wings of the leaves.—*Small Solomon's Seal*. England.

3. *Multiflora*. Stalk about two feet high, roundish near the base, but angular upward. Leaves oval, plaited, alternate, and half embrace the stalk. Flowers oblong, pendulous, white, tipped with green, four, or five on a peduncle, from the wings of the leaves.—*Greater Solomon's Seal*. England.

4. *Verticillata*. Stalk erect, about two feet high. Leaves long, narrow, and stand in whorls round the joints of the stalk. Flowers oblongish, of a dirty white, tipped with green, about five on a peduncle, from the joints of the stalk.—*Whorled Solomon's Seal*. Europe.

** *Corolla* wheel-shaped.

5. *Racemosa*. Stalks near two feet high. Leaves large, oblong, pointed, sessile, alternate, and

* Pronounced *Majalis*

have three principle, longitudinal ribs. Flowers yellowish, star-like, and terminate the stalk in a compound racemus.—*Virginian Solomon's Seal*.

6. *Stellata*. Stalks about two feet high. Leaves many, oblong, and embrace the stalk. Flowers whitish, star-like, in a spike at the top of the stalk.—*Canadian Solomon's Seal*.

CONVOLVULUS. Bindweed. Comp. p. 9.

Calyx of 1 egg-shaped, abiding leaf, cut into five parts.—*Corolla* of 1 large, bell-shaped, plaited petal, having a spreading brim cut into 5, or 10 obsolete lobes.—*Stamina* five, awl-shaped, about half as long as the corolla.—*Summits* egg-shaped, compressed.—*Germs* roundish.—*Style* thread-like, as long as the stamina.—*Stigmas* 2, oblong, broadish.—*Seed-vessel* roundish, 1, 2, or 3-valved, and covered by the calyx.—*Seeds* roundish, placed by twos.

* *Annual*.

1. *Tricolor*. Stalks about half a yard long, round, hairy, and declining. Leaves lance-pointed, broadest upward, sessile, alternate. Flowers blue near their margin, white and yellow lower down, or all white and solitary, on long peduncles from the wings of the leaves.—*Convolvulus Minor*. Spain. ☉
2. *Purpureus*. Stalks twining. Leaves large, heart-shaped, entire. Flowers purple, blue, flesh-colour, or white, two or three to a common footstalk, on peduncles thickening upward. Calyces sprinkled with hairy glands. Fruit nodding.—*Convolvulus Major*. America. ☉
3. *Hederaceus*. Stalks twining. Leaves variable, some being heart-shaped, and others 3-lobed. Flowers purple, blue, white, or striped, and

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entire at their brim. Fruit erect.———*Ivy-leaved Bindweed.* America. ☉

4. *Nil.* Stalks twining. Leaves heart-shaped, somewhat 3-lobed. Flowers blue, cut about half way into five segments, and they stand on peduncles shorter than the footstalks of the leaves. Fruit erect.———*Deep Blue American Bindweed.* ☉

5. *Pentaphyllus.* Stalks twining, hairy. Leaves fingered, and composed of five or seven hairy, entire lobes. Flowers white. Bractææ two, large, and include the calyx.———*Hairy Five-leaved Bindweed.* America. ☉

6. *Quinquefolius.* Stalks twining, smooth. Leaves fingered, and composed of five smooth dentated lobes.———*Smooth Five-leaved Bindweed.* America. ☉

** *Perennial.*

7. *Panduratus.* Stalks reddish, twining: lower leaves heart-shaped, entire: the upper ones three lobed, or fiddle-shaped. Flowers white, with purple bottoms, and they stand on smooth peduncles. Calyces smooth.———*Twining Virginian Convolvulus.*

8. *Scammónia.* Root very thick, tap-shaped, and stored with a milky juice. Stalks twining. Leaves arrow-shaped, stumped at their base. Flowers sulphur-colour, and mostly come out by twos, on round peduncles, longer than the leaves.———*Syrian Scammony.*

9. *Falápa.* Root thick, and stored with a milky juice. Stalks twining. Leaves variable, some being heart-shaped, some angular, and others oblong and pointed. Flowers solitary.———*True Falap.* Peru.

10. *Cneórum.* Somewhat shrubby, erect, about two feet high. Leaves silky, sessile, crowded, and

of the size and shape of those of the *Widow Wail*; viz. near two inches long, and a quarter broad. Flowers pale red or white, and terminate the branches in heads or roundish clusters. Calyces hairy.—*Silvery Umbellated Convolvulus*. Spain. *Green-house*.

11. *Cantábrica*. Somewhat shrubby, two or three feet high, with many downy, somewhat forked branches. Leaves linear, acute, silvery, and about half the breadth of the former. Flowers pale rose-colour, in compound umbels, having their common involucre of three leaves, and the partial umbels of about three flowers. Calyces covered with long white hairs.—*Flax-leaved Convolvulus*. Italy. *Green-house*.

12. *Canariénsis*. Shrubby, with twining stalks, covered with soft hairs. Leaves oblong-heart-shaped, somewhat downy. Flowers blue, or white, several on a peduncle.—*Evergreen Canary Convolvulus*. *Green-house*.

OBSERVATION. *The Resin, called Scammony, so much used in medicine, is extracted from the eighth sort; and Jalap, a common purge, is the root of the ninth.*

CÓRCHORUS. *Jew's Mallow*. Comp. p. 26.

Calyx composed of 5 narrow, acute, erect, deciduous leaves.—*Corolla* of 5 erect, oblong, obtuse petals, narrowing downward, and about as long as the calyx.—*Stamina* numerous, hair-like, shorter than the corolla.—*Summits* small.—*Germen* oblong, furrowed.—*Style* thick, short.—*Stigma* bifid.—*Seed-vessel* oblong, or roundish, 5-celled, 5-valved.—*Seeds* many, angular, and pointed.

1. *Capsuláris*. Stalks about three feet high, branching. Leaves oblong-heart-shaped, pointed, serrated. Flowers small, yellow, solitary, and

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sessile. Petals notched. Pod roundish, rough.
 ————*Round Podded Jew's Mallow.* India.

Hot-house. ☉

2. *Olitorius.* Stalks about two feet high, branching. Leaves variable, some being lance-shaped, others oval, or somewhat heart-shaped, with two bristly, reflexed segments at their base. Flowers yellow, solitary, almost sessile, and they stand opposite to the leaves. Pods oblong, bellying. ————*Common Jew's Mallow.* Africa.

Hot-house. ☉

OBSERVATION. *The last sort is much esteemed by the Jews about Aleppo, who sow it as a sallad, and boil and eat it with their meat.*

¹
 COREOPSIS. *Tick-seed Sunflower.* Comp. p. 40.

Flowers compound, Radiated.

Common calyx double: the *outer one* composed of about eight narrow, distant leaves, ranged in a circle; the *inner one* of just as many, but they are broader, membranous, and coloured.

Florets in the disk hermaphrodite, numerous, funnel-shaped, and cut into 5 teeth.—*Germen* oblong, compressed.—*Style* as long as the *stamina*.—*Stigma* bifid, acute.—*Seed* oblongish, the fore side convex, the other concave, with a transverse protuberance both at the tip and base; it is girt with a membrane on the margin, and terminated by 2 horns.

Rays about eight, large, spreading, cut into 3 or 4 teeth, and are barren.—*Receptacle* chaffy.

1. *Verticillata.* Stalk three or four feet high, erect, angular, and puts out opposite branches at the joints. Leaves twice or three times winged with narrow, linear, entire lobes, and they stand almost round the joints of the stalk. Flowers yellow, on long, cylindrical, erect pe-

- duncles.—*Larkspur-leaved Tick-feed.* Virginia.
2. *Tripteris.* Stalk about six feet high, smooth, round, and branching. Leaves opposite: the lower ones often composed of five lance-shaped lobes, and the upper ones of three. Flowers pale yellow, on round, smooth, branching peduncles.—*Three-leaved Tick-feed.* Virginia.
3. *Alternifolia.* Stalk about eight feet high, very rigid. Leaves large, lance-shaped, ferrated; the lower ones standing by threes and fours, but the upper ones are solitary, alternate, and their footstalks run down the stem. Flowers yellow, in roundish bunches.—*Canada Tick-feed.*
4. *Lanceolata.* Stalk about two feet high, erect, Leaves simple, long-lance-shaped, ciliated on their margins. Flowers yellow, the rays broad, and deeply indented.—*Carolina Tick-feed.* ♂

CORIARIA. *Myrtle-leaved Sumach.* Comp. p. 47.

Plants Diœcious.

Male calyx composed of 5 very short, roundish leaves.—*Corolla* of 5 short petals, resembling the calyx.—*Stamina* 10, as long as the corolla.—*Summits* oblong, parted in 2.

Female calyx like the male.—*Corolla* of 5 conniving petals like the calyx.—*Germina* 5, compressed, united inwardly.—*Styles* 5, bristle-like.—*Stigmas* simple.—*Seed-vessel* none.—*Seeds* 5, kidney-shaped, covered by the petals, the whole resembling a berry.—*The Plants I have examined produced complete hermaphrodite flowers.*

Myrtifolia. Somewhat shrubby, three or four feet high, bushy, and creeps by the root. Leaves small, oblong-egg-shaped, glossy. Flowers

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small, greenish, with red styles, and they come out in a racemus from the sides of the branches.

—*Montpelier Sumach.*

CORNUS. *Dog-Berry.* Comp. p. 6.

Calyx of 1 small deciduous leaf, cut into 4 teeth.—*Corolla* of 4 oblong, acute, flat petals, forming a cross.—*Stamina* 4, awl-shaped, erect, longer than the corolla.—*Summits* oblongish, incumbent.—*Germs* roundish, below the corolla.—*Style* thread-like, as long as the corolla.—*Stigma* obtuse.—*Plumb* roundish, umbilicated.—*Nut* oblongish, 2-celled.—*Seeds* solitary.

* *Umbels without Involucrums.*

1. *Sanguinea.* Shrubby, about six feet high, with very red, straight branches. Leaves egg-shaped, pointed, entire, green or variegated, on foot-stalks opposite. Flowers white, in short compound bunches at the ends of the twigs, having no involucrums.—*Common Red Dog-Berry; Female Dog-Berry.* England.
2. *Alba.* This so resembles the first as scarcely to be distinguished, but the leaves are longer and narrower, the twigs are crooked, somewhat hairy at their base, and it flowers later.—*White Dog-Berry.*
3. *Sericea.* A tree having red, opposite branches, sprinkled with ash-coloured dots. Leaves egg-shaped, pointed, entire, and silky beneath. Flowers white, in roundish, compound bunches, having no involucrums.—*Silky-leaved Dog-wood.*

** *Umbels with Involucrums.*

4. *Máscula.* A small tree. Leaves egg-shaped, smooth, pointed, entire. Flowers small, yellowish, and come out with the leaves, in sessile umbels,

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surrounded by involucrum, consisting of four tough, egg-shaped, coloured, abiding leaves, nearly as long as the rays of the umbel.—
Male Cornel; Cornelian Cherry. Austria.

5. *Flórida.* A small tree or shrub, about six feet high. Leaves reverse-heart-shaped. Flowers in roundish bunches, surrounded by large, spreading, four-leaved, whitish involucrum.
 —*Male Virginian Dogwood.*

CORONILLA. *Jointed-podded Colutea.* Comp. p. 35.

Flowers Butterfly-shaped, in simple Umbels.

Calyx of 1 very short, pear-shaped, compressed, erect, abiding leaf, cut into 5 small teeth: the two upper teeth close, and incurved; the three lower ones distant.

Standard heart-shaped, scarce longer than the wings, and has its whole margin reflexed.

Wings reverse-egg-shaped, conniving upward, gaping downward.

Keel compressed, pointed, bowed inward, shorter than the wings.—*Stamina* 10, one detached, and nine united.—*Summits* small.—*Germs* round, oblong.—*Style* bristle-like.—*Stigma* small, obtuse.—*Pod* very long, round, straight, 1-celled, and contracted between the seeds.—*Seeds* many.

* *Herbaceous.*

1. *Securidaca.* Stalks somewhat decumbent, about half a yard long, furrowed. Leaves winged, and composed of many smooth, oval, obtuse lobes. Flowers yellow. Common peduncle furrowed, and hairy near the base. Pod broadsword-shaped.—*Spanish Herbaceous Coronilla.* ☉

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2. *Vária*. Stalks decumbent, four or five feet long. Leaves winged, and composed of many oblongish, obtuse lobes, on short footstalks, most of them opposite, and they are terminated by an odd one. Flowers deep and light purple, mixed with white, in almost globular umbels, of sixteen, or more flowers each.—*Bohemian Herbaceous Coronilla*.

3. *Crética*. This somewhat resembles the former, but the branches are much shorter. The flowers are purplish, and there are seldom more than five or six in an umbel.—*Cretan Herbaceous Coronilla*.

* * *Shrubby*.

4. *Mínima*. Somewhat shrubby, with smooth, rather decumbent branches, about half a yard long. Leaves winged, and composed of about nine thickish, egg-shaped lobes, the lower pair clasping the stalk, as they do in the *Coronata*. Flowers yellow, small. Lower stipulæ notched. Pods nearly cylindrical, knotted, and reflexed.—*Shrubbyish French Coronilla*.

5. *Elmerus*. Shrubby, six or eight feet high, with slender, angular branches. Leaves winged, and composed of three pair of obtuse lobes, terminated by an odd one. Flowers yellow, tinged with red, in umbels of two or three flowers each. Tails of the petals three times as long as the calyx.—*Scorpion Senna. Geneva*.

6. *Valéntia*. Shrubby. Leaves winged, and composed of about nine small, wedge-shaped lobes, nearly of the colour of those of Rue. Flowers yellow. Stipulæ large, almost orbicular.—*Valentinian Coronilla. Green-house*.

7. *Glauca*. Shrubby. Leaves winged, and composed of about seven obtuse, distant lobes. Flowers

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yellow, very fragrant in the day time, but almost scentless in the night. Stipulæ 2, lance-shaped, opposite, deciduous.—*French Coronilla*. Green-house.

8. *Coronaria*. Shrubby. Leaves winged, and composed of about nine, reverse egg-shaped, distant lobes, the lowest pair clasping the stalk. Flowers yellow. Stipulæ two bipartite, or cut into two parts.—*Greater Nine-leaved Coronilla*. Europe. Green-house.
9. *Argentea*. Shrubby. Leaves winged, and composed of about eleven small, silvery lobes, the odd one the largest. Flowers yellow.—*Silvery Cretan Coronilla*. Green-house.

¹
CORTUSA. *Bear's-ear Sanicle*. Comp. p. 8.

Calyx of 1 small, spreading, abiding leaf, cut into 5 obtuse parts, having their tips reflexed.—*Corolla* of 1 wheel-shaped petal, with scarcely any tube, but it has a large, flat limb, cut into 5 roundish segments, having at their base a prominent tubercle.—*Stamina* 5, short, obtuse.—*Summits* oblong, erect, folded.—*Germen* egg-shaped.—*Style* thread-like, nearly equal with the stamina.—*Stigma* small.—*Seed-vessel* oblong-egg-shaped, pointed, on both sides longitudinally furrowed, 1-celled, 2-valved, and the margins of the valves are rolled inward.—*Seeds* numerous, small, oblong.

1. *Matthioli*. Leaves heart-shaped. Flower-stalk about four inches high, terminated by an umbel of pale red flowers, having their calyx shorter than the corolla.—*Austrian Bear's-ear Sanicle*.
2. *Gmelini*. Leaves somewhat kidney-shaped. Flower-stalk about four inches high, terminated by an umbel of white flowers, having their calyx

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longer than the corolla.—*Siberian Bear's-ear Sanicle.*

COTYLEDON. ¹*Navelwort.* Comp. p. 21.

Calyx of 1 small leaf, cut about half way into 4 or 5 acute parts.—*Corolla* of 1 bell-shaped petal, cut about half way into 4 or 5 segments.—*Nectarium* a concave scale at the exterior base of each germen.—*Stamina* 8 or 10, awl-shaped, straight, as long as the corolla.—*Summits* erect, 4-furrowed.—*Germina* 4 or 5, oblong, thickish, and end in awl-shaped *Styles*, longer than the stamina.—*Stigmas* simple.—*Seed-vessels* 4 or 5, oblong, bellying, pointed, and open longitudinally on the inside.—*Seeds* many, small.

1. *Orbiculáta.* Somewhat shrubby, three feet or more high, with irregular, crooked, woody branches. Leaves large, thick, flat, succulent, entire, sessile, opposite, purple on their edges, roundish, but narrowing near their base. Flowers large, pendulous, their tube cylindrical, several on a long, common peduncle. Stamina often eight.—*Roundish-leaved Navelwort.* Africa. *Green-house.*

2. *Spúria.* Of the size and habit of the former, but the leaves are oblong, roundish, sometimes alternate, and about the breadth of a finger. Flowers pale yellow, and have often but eight stamina.—*Bastard Cotyledon.* Africa. *Green-house.*

3. *Hemisphærica.* Stem thick, succulent, about a span high, dividing into many branches. Leaves small, semiglobular, or flat above and convex beneath, sessile, and spotted. Flowers greenish tipped with purple, five or six on a long, common peduncle.—*Half-globular-leaved Navelwort.* Æthiopia. *Green-house.*

4. *Laciniata*. Stem erect, jointed, about a foot high and branching. Lower leaves broad, and cut into three or five lobes; the uppermost leaves entire. Flowers deep yellow, cut into four segments, and come out in clusters on longish peduncles.—*Cut-leaved Navelwort*. Egypt. *Hot-house*.

CRASSULA. *Lesser Orpine*. Comp. p. 13.

Calyx composed of 5 lance-shaped, erect, abiding, conniving leaves, forming a tube.—*Corolla* of 5 straight, linear, long-heeled petals, forming a tube: they are joined at their base, but spread open at their brim.—*Nectarium* a small notched scale at the exterior base of each germen.—*Stamina* 5, awl-shaped, as long as the tube, inserted into the heels of the petals.—*Summits* simple.—*Germina* 5, oblong, and end in awl-shaped *Styles*, as long as the stamina.—*Stigmas* obtuse.—*Seed-vessels* 5, oblong, pointed, and open longitudinally on the inside.—*Seeds* many, and small.

1. *Coccinea*. Somewhat shrubby, with round, jointed stalks, two or three feet high. Leaves flat, gristly and ciliated on their margins, opposite, the pairs crossing each other, and they are joined at their base, forming a sort of sheath. Flowers scarlet, erect, and terminate the branches in close umbels.—*Scarlet Crassula*. *Æthiopia*. *Green-house*.
2. *Perfoliata*. Stem erect, six feet or more high. Leaves long, lance-shaped, awl-pointed, flat, and furrowed above, convex beneath, opposite, the pairs crossing each other, and united at their base. Flowers greenish white, in large clusters at the top of the stalk.—*Perfoliate Tallest Crassula*. *Æthiopia*. *Green-house*.

3. *Tetragóna*. Stem smooth, two or three feet high. Leaves opposite, spreading, awl-shaped, obsoletely four-sided, and a little incurved. Flower white, with purple summits, on round peduncles forming large, even-topped bunches at the tops of the stalks.—*Four-cornered-leaved Crassula*. Æthiopia. *Green-house*.
4. *Cultráta*. Stalks weak, succulent, about two feet long, with irregular branches. Leaves opposite, obtusely-egg-shaped, entire. Flowers greenish, and terminate the branches in clusters.—*Orpine-leaved Crassula*. Æthiopia. *Green-house*.
5. *Punctáta*. Stalk smooth, round, low and simple. Leaves oblong, sessile, fleshy, dotted, ciliated, convex beneath, opposite, and ranged in two rows. Floral leaves egg-shaped. Flowers white, bell-shaped, and come out in even topped bunches.—*Dotted-leaved Crassula*. Æthiopia. *Green-house*.
6. *Pellúcida*. Stalks trailing, knotted, very much branched, and take root at the joints. Leaves roundish, or rather heart-shaped, slightly serrated, fleshy, pellucid and opposite, on very short footstalks. Flowers small, white tinged with red, spread like those of *Sedum*, and they terminate the branches in clusters.—*Pellucid Crassula*. Æthiopia. *Green-house*.
7. *Cordáta*. Stalk leafy. Leaves heart-shaped, on footstalks. Flowers solitary, terminal, pedunculated.—*Cape Heart-leaved Crassula*. *Green-house*.

CRATÆGUS. *Hawthorn*. Comp. p. 24.

Calyx of 1 concave, spreading, abiding leaf, cut into 5 teeth.—*Corolla* of 5 concave, roundish, sessile petals, inserted into the calyx.—*Stamina* 20 or more, awl-

shaped, inserted into the calyx.—*Summits* roundish.—*Germen* below the corolla.—*Styles* 1, 2, or more, thread-like, erect.—*Stigmas* knob-like.—*Berry* fleshy, roundish, umbilicated.—*Seeds* 1 or 2, oblongish, distinct.

1. *Aira*. A tallish tree. Leaves egg-shaped, unequally serrated, very hoary, or woolly beneath. Flowers white, in compound bunches at the ends of the twigs. Calyces and peduncles woolly.—*White Beam Tree*. England.
2. *Torminális*. A tall tree. Leaves oblongish, acutely serrated, somewhat heart-shaped at their base, downy beneath, cut into five or seven lobes, the two lowest the most spreading, and the upper ones diminishing in size to the top. Flowers white, in compound bunches at the ends of the twigs.—*Maple-leaved Service Tree*. England.
3. *Coccinea*. A small tree, having brown, smooth, entangling branches, armed with very long, slightly curved thorns. Leaves thin, smooth, broad egg-shaped, irregular on their margins, and snipped into large, acutely serrated teeth, or segments.—Flowers white with reddish bottoms, in compound bunches. Teeth of the calyx serrated. Stamina 8, 9, or 10. Styles 3, 4, or 5. Berries large, scarlet.—*True Canada Cockspur Hawthorn*.—The old trees are often thornless. There is a variety, too, with shorter, thicker, and straighter thorns. The leaves are thicker, and somewhat wedge-shaped near their base.
4. *Crus-gállli*. A small tree, having almost horizontal branches, armed with long, robust thorns. Leaves smooth, glossy, pear-shaped, finely serrated. Flowers white, in roundish bunches.

Styles mostly three. Berries large, red.—
Virginian Cockspur Hawthorn. The old trees
shed their thorns, and the leaves lose their
glossiness.

5. *Oxyacantha*. A small tree, having thorny branches.
Leaves obtuse, cut into three or five serrated
lobes. Flowers white, tinged with red, single
or double, in roundish bunches. Berries red
or yellow.—*Common White Thorn; Glaston-
berry Thorn*. England.
6. *Azarólus*. This differs from the former only in its
size; it being a great deal smaller in all its
parts, and it is sometimes thornless.—*Azarole*.
Montpelier.

OBSERVATION. *It is very extraordinary that the flow-
ers of the Common White Thorn in many parts of Norfolk
this season, (1789) produced only one stale, when the year
before the flowers of the same trees contained two and
often three.*

CREPIS. *Bastard Hawkweed*. Comp. p. 37.

Flowers compound.

Calyx double: the *outer* one short, spreading, and
deciduous; the *inner* one egg-shaped, furrowed, abid-
ing, and composed of linear, acute, conniving scales.

Florets all hermaphrodite, imbricated, strap-shaped,
stumped, and cut into five teeth.—*Germen* nearly oval.
—*Style* thread-like, as long as the *stamina*.—*Stigmas*
two, reflexed.—*Seed* oblong.—*Down* hair-like, pedun-
culated.—*Receptacle* naked.

1. *Rubra*. Stalk erect, about half a yard high,
branching. Leaves lyre-shaped, irregularly
jagged near their base. Flowers light red,
solitary at the ends of the branches.—*Red
Flowered Hawkweed*. Apulia. ☉

2. *Barbata*. Stalks feeble, much branched. Leaves oblong, dentated, or somewhat jagged. Flowers bright yellow, with dark purple bottoms, and they have an involucre of many bristle-like leaves, longer than the calyx.———*Greater Spanish Hawkweed*. ☉
3. *Alpina*. Stalk erect, rigid, about two feet high. Bottom leaves large, oblong, and slightly dentated near their tips; the upper ones oblong, pointed, and embrace the stalk. Flowers white, terminal. Involucre dry, and of the length of the calyx.———*Alpine Hawkweed*. ☉

CRINUM. *Asphodel Lily*. Comp. p. 14.

Common calyx, or involucre of the umbel composed of 2 oblong, reflexed leaves.—*Corolla* of 1 funnel-shaped petal, having an oblong, almost cylindrical, inflexed tube, and a limb cut into 6 narrow-lance-shaped segments, every other segment hooked.—*Stamina* 6, awl-shaped, as long as the limb, and arise from its base.—*Summits* oblong, linear, incumbent.—*Germs* in the bottom of the corolla.—*Style* awl-shaped, shorter than the stamina.—*Stigma* very small, trid.—*Seed-vessel* nearly egg-shaped, 3-celled.—*Seeds* many.

1. *Latifolium*. Leaves flat, sessile, round, more than two inches broad at their base, and gradually decreasing till terminated by a point. Flowers purple and white, in an umbel.———*Broad-leaved Asphodel Lily*. Asia. *Hot-house*.
2. *Americanum*. Leaves flat, abiding. Flowers white, in an umbel, and have their tips bent inward like claws.———*Evergreen Asphodel Lily*. America. *Hot-house*.
3. *Africanum*. Leaves flat, nearly lance-shaped. Flowers fine blue, obtuse, in an umbel.———*Blue African Asphodel Lily*. *Green-house*.

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4. *Asiaticum*. Leaves long, thick, and keeled. Flowers purplish, edged with white, or all white, in a large umbel, producing bulbs betwixt the feed-vessels.——*Bulbiferous Asphodel Lily*
Æthiopia. Hot-house.

CROCUS. *Saffron*. Comp. p. 5.

Calyx a sheath of 1 oblong leaf.—*Corolla* of 1 petal, having a long tube, and a large erect limb, divided into 6 equal, oblong-egg-shaped, concave segments.—*Stamina* 3, awl-shaped, shorter than the corolla.—*Summits* arrow-shaped.—*Germs* roundish, below the corolla.—*Style* thread-like.—*Stigmas* flat, broadest at their tips, somewhat convolute and ferrated.—*Seed-vessel* roundish, 3-lobed, 3-celled, 3-valved.—*Seeds* many, round.

1. *Sativus* vel *Officinalis*. Leaves very narrow, with their margins rolled back. Flowers blue, or white. Stigmas very long, and of a deep orange colour.—*Autumnal Crocus; Saffron.*
Alps.
2. *Vernus*. Leaves narrow, with a longitudinal white line in their middle, and their margins expanded. Flowers blue, yellow, or white.—
Common Crocus. Alps.

OBSERVATION. *Linnaeus* considers these as only one species, but they certainly are distinct. Besides other circumstances, the great distance of the time of their flowering favours the latter opinion. The stigmas of the first are the true Saffron, and they are six times as long as those of the second sort.

CROTALARIA. *Crotalaria*. Comp. p. 34.

Flowers Butterfly-shaped.

Calyx of 1 large leaf, rather shorter than the corolla, and cut into 3 lance-shaped parts: the two upper

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parts lodge upon the standard; the lower one is trifid, concave, and sustains the keel.

Standard large, heart-shaped, acute, with the sides depressed.

Wings egg-shaped, about half as long as the standard.

Keel pointed, about the length of the wings.—*Stamina* 10, all united, but are split on their back part near their base.—*Summits* simple.—*Germen* oblong, hairy, reflexed.—*Style* simple.—*Stigma* obtuse.—*Pod* short, turgid, 1-celled, 2-valved.—*Seed* 1, or more, almost globular.

1. *Alba*. Stalk smooth, erect, about three feet high. Leaves composed of three narrow-lance-shaped, entire lobes. Flowers white, in a terminal racemus.—*White Carolinian Crotalaria*.
2. *Laburnifolia*. Shrubby, three or four feet high. Leaves composed of three egg-shaped, smooth, pointed lobes. Stipulæ none. Flowers large, yellow. Pod pedunculated.—*Laburnum-leaved Crotalaria*. Asia. Hot-house.
3. *Chinensis*. Shrubby, about three feet high, with round, downy branches. Leaves simple, egg-shaped, entire. Stipulæ minute, awl-shaped. Bractæ lance-shaped, as long as the peduncles. Flowers yellow, in a thin racemus. Standard streaked.—*Chinese Crotalaria*. Hot-house.

CROTON. *Bastard Ricinus*. Comp. p. 44.

Plants Monœcious.

Male calyx composed of 5 small, egg-shaped, erect leaves.—*Corolla* (if any) of 5 oblong, obtuse petals, scarce longer than the calyx.—*Nectarium* 5 small glands, affixed to the calyx.—*Stamina* 10 or 15, awl-shaped, as long as the floret, and united at their base.—*Summits* roundish, double.

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Female flowers like the males, but remote from them.—*Germen* roundish.—*Styles* 3, as long as the floret, and femibifid.—*Stigmas* reflexed, bifid.—*Seed-vessel* roundish, 3-lobed, 3-celled, of the size of the calyx.—*Seeds* large, folitary, and egg-shaped.

1. *Tinctórium*. Stalk about a foot high, branching. Leaves large, somewhat diamond-shaped. Flowers in spikes from the sides of the branches. Petals 5, lance-shaped. Fruit pendulous.—*French Turnsole*. ☉
2. *Lobátum*. Stalk taper, more than a foot high, and branching. Leaves smooth, ferrated; the lower ones deeply divided into five lobes, and the upper ones into three. Flowers in loose spikes at the ends of the branches.—*Lobated-leaved Croton*. ☉
3. *Cascarilla*. Shrubby, with a tree-like stem. Leaves narrow-lance-shaped, entire, downy beneath, and have their margins reflexed. Flowers in long, loose spikes, between the branches.—*Rosemary-leaved Croton*. America. *Hot-house*.
4. *Glabéllum*. Shrubby. Leaves smooth, egg-shaped, obtuse, entire. Flower in small spikes, and smell like Mugwort. Fruit pedunculated.—*Smooth Jamaica Croton*. *Hot-house*.

CUPRESSUS. *Cypress*. Comp. p. 44.

Plants Diœcious.

Male catkin egg-shaped, thinly furnished with florets. *Scales* roundish, and contain 1 floret each.—*Corolla* none.—*Stamina* none.—*Summits* 4, adhering to the bottom of the scale.

Female cone roundish, composed of 8 or 10 florets.—*Scales* egg-shaped, opposite, and bear 1 floret each.

—*Corolla* none.—*Germen* and *style* scarce visible.—*Cone* at last almost globular, the scales become target-shaped, they cover one seed each, and they open suddenly.

1. *Sempervirens*. A tree having erect, or in the variety, horizontal branches; the twigs imbricated with very small scales, standing in four different directions.—*Upright Evergreen Cypress*; *Horizontal Evergreen Cypress*. Crete.
2. *Disticha*. A large tree, having delicate winged leaves, composed of numerous narrow, acute lobes, standing in opposite directions, like the teeth of a double comb.—*Virginian Deciduous Cypress*.
3. *Thyoides*. A small tree, having two edged branches, and imbricated twigs, resembling those of the *Arbor Vitæ*. Cones blue, and of the size of Juniper berries.—*Dwarf Blue-coned Cypress*. Canada.

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CYCLAMEN. *Sowbread*. Comp. p. 8.

Calyx of 1 roundish, abiding leaf, cut about half way into 5 egg-shaped parts.—*Corolla* of 1 petal, having an almost globular tube, longer than the calyx, and a large limb, divided into 5 lance-shaped segments, bent back, hiding the calyx.—*Neck* prominent.—*Stamina* 5, very short, inserted into the base of the tube.—*Summits* straight, acute, conniving, and placed in the neck of the corolla.—*Germen* roundish.—*Style* straight, longer than the stamina.—*Stigma* acute.—*Seed-vessel* globular, 1-celled, and opens five ways at the tip.—*Seeds* many, oval, angular.—*Receptacle* egg-shaped, detached.

1. *Europæum*. Leaves oblong-heart-shaped, marbled, crenated, and angled at their base. Segments of the corolla flat, straight, and reflexed back to the calyx.—*European Sowbread*.

2. *Indicum*. Leaves roundish-heart-shaped, finely crenated, varying a little in shape in the different varieties. Segments of the corolla twisted to the left, turned back to the calyx, and have their tip a little reflexed.—*Indian, or Persian Sowbread*. Green-house.

CYNANCHUM. *Bastard Dog's-bane*. Comp. p. 12.

Calyx formed of 1 small, erect, abiding leaf, cut into 5 teeth.—*Corolla* of 1 flat petal, divided into 5 long, linear segments.—*Nectarium* placed in the center of the flower, and is erect, of a cylindrical shape, as long as the corolla, and cut at the mouth into 5 teeth.—*Stamina* 5, parallel, as long as the nectarium.—*Summits* closing, placed in the mouth of the corolla.—*Germen* oblong, bifid.—*Style* scarce any.—*Stigmas* 2, obtuse.—*Seed-vessels* 2 oblong, pointed bags, opening longitudinally.—*Seeds* oblong, imbricated, crowned with down.

1. *Erectum*. Stalks herbaceous, erect, about three feet high, parting in two. Leaves broad, smooth, heart-shaped, pointed, opposite. Flowers white, in small bunches from the wings of the leaves.—*Broad-leaved Bastard Dog's-bane*. Syria.
2. *Acutum*. Stalks herbaceous, twining. Leaves smooth, oblong-heart-shaped, pointed, opposite, on long footstalks. Flowers white, star-like, in small bunches from the wings of the leaves.—*Montpelier Scammony*.
3. *Suberosum*. Stems twining, and covered at the bottom with a cork-like bark, having fissures. Leaves heart-shaped, pointed, opposite, on long footstalks. Flowers greenish purple, star-like, in small bunches from the wings of the leaves.—*Carolinian Bastard Dog's-bane*.
4. *Hirtum*. Stems shrubby, twining, covered at the bottom with a cork-like bark, having fissures.

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Leaves between egg and heart-shaped. Flowers greenish yellow, star-like, in small bunches from the wings of the leaves. — *Citron-leaved Bastard Dog's-bane*. Jamaica. *Hot-house*.

CYNOGLOSSUM. *Hound's-tongue*. Comp. p. 8.

Calyx of 1 abiding leaf, cut into 5 oblong, acute parts.—*Corolla* of 1 funnel-shaped petal, having a very short almost cylindrical tube, a limb cut about half way into 5 obtuse segments, and the mouth of the tube is closed by 5 prominent, obtuse scales.—*Stamina* scarce any.—*Summits* 5, oblongish, fixed in the throat.—*Germina* 4.—*Style* about the length of the tube, abiding.—*Stigma* obtuse, notched.—*Seed-vessel* none.—*Seeds* 4, somewhat triangular, gibbous, covered with a rough, deciduous coat, and fixed in a circle to the style by their inner point or angle.

1. *Omphalodes*. Stalks creeping, and send up branches almost a span high, dividing near their top. Radical leaves oblong-heart-shaped, those on the stalk egg-shaped, pointed. Flowers sky-blue, and have five pale red, or whitish lines, running from the divisions of the petal to the center.—*Spring Venus Navelwort*. Spain.
2. *Lusitanicum*. Whole plant of a glaucous colour. Stalk erect, near a foot high, and much branched. Leaves lance-shaped, sessile, alternate, roughish to the touch. Flowers white, on long, alternate peduncles, from near the bottoms to the ends of the branches — *Portugal Hound's-tongue*; *Taller Venus Navelwort*. ☉
3. *Linifolium*. This differs from the second in being less branched, in not growing above half as high, and in the leaves being very long and narrow.—*Flax-leaved Venus Navelwort*. Portugal. ☉

CYPRIPEDIUM. *Lady's Slipper.* Comp. p. 42.

Flower-stalk simple, produced from a sheath.—*Calyx* none.—*Corolla* of 4 or 5 narrow-lance-shaped, spreading petals.—*Nectarium* slipper-shaped, lipped, inflated, obtuse, hollow, shorter and broader than the petals, and placed within the lower one: *Upper-lip* small, flat, egg-shaped, and inflexed.—*Stamina* 2, very short, and sit upon the style.—*Germen* long, twisted, below the corolla.—*Style* very short, and fixed to the upper-lip of the nectarium.—*Stigma* obsolete.—*Seed-vessel* reverse-egg-shaped, with 3 obtuse sides, 3 seams, 1 cell, and it opens at the angles.—*Seeds* small, numerous.

1. *Calcéolus.* Root fibrous. Flower-stalk near a foot high, furnished with lance-shaped leaves, having a few longitudinal veins. Flower large, yellow and purple, but varies to other colours. Petals 4.—*English Lady's Slipper.*
2. *Bulbósum.* Root roundish, as are the radical leaves. Petals five.—*Lapland Lady's Slipper.*

CYTISUS. *Base Trefoil.* Comp. p. 35.

Flowers Butterfly-shaped.

Calyx formed of 1 short-bell-shaped leaf, having an obtuse base, and a brim cut into 2 lips: *Upper-lip* either bifid, or entire. *Lower-lip* cut into three small teeth.

Standard egg-shaped, bending upward, with the sides reflexed.

Wings straight, obtuse, near as long as the standard.

Keel bellying, pointed.—*Stamina* 10, united below, but separate above.—*Summits* small.—*Germen* oblong. *Style* slender.—*Stigma* obtuse.—*Pod* oblong, obtuse, rigid, slender at the base.—*Seeds* few, kidney-shaped and compressed.

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1. *Laburnum*. A small tree, having leaves composed of three oblong, somewhat oval lobes. Flowers yellow, in long, simple pendulous bunches, at the ends and sides of the branches.—*Common Broad and Narrow-leaved Laburnum*. Helvetia.
2. *Nigricans*. Shrubby, three or four feet high, with spreading branches near the bottom. Leaves composed of three oblong, somewhat oval lobes. Flowers yellow, in erect bunches at the ends of the branches.—*Smooth Black Cytisus*. Italy.
3. *Sessilifolius*. Shrubby, six or eight feet high, with numerous slender branches. Leaves composed of three reverse-egg-shaped lobes, the middle one the largest. The leaves on the lower branches have footstalks, but those on the flowering twigs are sessile. Flowers bright yellow, in erect bunches. Three small bractæ at the base of the calyx.—*Sessile-leaved Cytisus; Cytisus Secundas Clutii*. Italy.
4. *Hirsutus*. Shrubby, six or eight feet high, with angular branches. Leaves composed of three reverse-egg-shaped lobes, which are hairy beneath. Flowers yellow, in short bunches from the sides of the branches. Calyces trifid, hairy, somewhat bellying. Pods hairy.—*Evergreen Hairy Cytisus*. Spain.
5. *Austriacus*. Shrubby, three or four feet high, with erect branches. Leaves composed of three lance-shaped lobes. Flowers bright yellow, and terminate the branches in umbels.—*Upright Austrian Cytisus*.
6. *Supinus*. Shrubby, with short, weak, trailing branches. Leaves composed of three egg-shaped lobes, which are downy beneath. Flowers yellow, and terminate the branches in umbels. Pods woolly.—*Trailing Downy Cytisus*. Siberia.

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DAPHNE. *Spurge Laurel.* Comp. p. 18.

Calyx none.—*Corolla* of 1 funnel-shaped petal, having an almost cylindrical, imperforated tube, longer than the limb.—*Limb* divided into four egg-shaped, acute, flat, spreading parts.—*Stamina* 8, short, and are alternately inserted into the tube, one above another.—*Summits* oblongish, erect.—*Germen* egg-shaped.—*Style* very short.—*Stigma* knob-like.—*Berry* roundish, 1-celled.—*Seed* roundish, fleshy.

1. *Mezereum.* Shrubby, with lance-shaped leaves. Flowers purple, crimson, pale red, or white, and come out before the leaves, in numerous clusters of three each, along the sides of the branches.—*Common Mezereon; Spurge Olive.* Europe.
2. *Lauréola.* Shrubby, evergreen, and about three feet high. Leaves lance-shaped, shining. Flowers greenish-yellow, and stand in close clusters between the leaves.—*Spurge Laurel* England.
3. *Alpina.* Shrubby, about two feet high. Leaves lance-shaped, obtusifish, downy beneath. Flowers blush-colour, or white, in clusters from the sides of the branches.—*Downy-leaved Daphne; Alpine Chamelæa.*

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3. *Cneórum*. Shrubby, about a foot high. Leaves narrow, obtuse, broadest upward, diminishing to their base. Flowers purple, very fragrant, and they terminate the branches in sessile, erect clusters.——*Hungarian Daphne*.

OBSERVATION. *The powder of the leaves, berries, and bark of the roots of the two first sorts is extremely acrid, and a small quantity of it will operate vehemently by stool. It will also sometimes vomit. It is serviceable in purging off bilious and watry humours, but is too violent to be trusted in the hands of unskilful people.*

D A T U R A. *Thorn Apple*. Comp. p. 9.

Calyx of 1 tubular, oblong, bellying, 5 angled leaf, cut into 5 teeth, and is deciduous, except a small orbicular part at the base.—*Corolla* of 1 funnel-shaped petal, having an almost cylindrical tube, and a large erectish, folded, five angled brim, often terminated by as many points as angles.—*Stamina* 5, awl-shaped, as long as the calyx.—*Summits* oblong, compressed.—*Germen* egg-shaped.—*Style* thread-like, straight.—*Stigma* somewhat club-shaped.—*Seed-vessel* nearly egg-shaped, 2-celled, 4-valved, and sits upon the base of the calyx. *Receptacle* large, convex, dotted, affixed to the partition. *Seeds* numerous, kidney-shaped.

1. *Ferox*. Stalk about half a yard high, with spreading branches. Leaves oblong, angled. Flowers white, smallish. Seed-vessels erect, egg-shaped and spiny; the upper spines the largest, and converging.——*China Thorn Apple*. ☉
2. *Stramónium*. Stalk two or three feet high, with spreading branches. Leaves large, smooth, nearly egg-shaped, angled. Flowers long, purple, or white, and stand at the divisions of the branches. Seed-vessels erect and spiny.——*Common Thorn Apple*. America. ☉

3. *Tátula*. Stalk four or five feet high, and of a purple colour, dotted with white. Leaves smooth, heart-shaped, dentated. Flowers blue, pale purple, or white. Seed-vessels erect, egg-shaped, and spiny.—*Giant Stramonium*. ☉
4. *Metal*. Stalk downy, about three feet high, branching. Leaves heart-shaped, downy, almost entire. Flowers very long, white, or purple and white, single or double. Seed-vessels globular, nodding and spiny.—*Asiatick Thorn Apple*. ☉
5. *Fastuósa*. Stalk about three feet high, polished and branching. Leaves large, smooth, egg-shaped, on long polished footstalks. Flowers very long, purple without, white within, or all white, and come two or three within each other. Seed-vessels globular, nodding, and tubercled.—*Egyptian Thorn Apple*. ☉

DELPHINIUM. *Larkspur*. Comp. p. 26.

Calyx none. — *Corolla* of 5 unequal petals, ranged in a circle: the upper 1 is extended behind into a long, straight, bluntish, tubular spur, covering the base of a petal-like, bifid, *Nectarium*; the other 4 are somewhat egg-shaped, and nearly equal.—*Stamina* 15 to 20, crooked, broadest at their base.—*Summits* small, erect. *Germina* 3, 2, or 1, egg-shaped, and terminate in *Styles* as long as the *stamina*.—*Stigmas* reflexed.—*Seed-vessels* taper, straight, univalved, and open inwardly.

1. *Consólida*. Stalk subdivided into many spreading branches. Leaves composed of many very narrow segments. Flowers blue, flesh-colour, white, or striped, single, or double. *Nectarium* bifid, and have 2 side lobes covering the *stamina*.———*Branching Annual Larkspur*. England.

2. *A'jacis*. Stalk erect, simple, putting forth a few almost erect branches near the top. Flowers blue, and of various other colours, single, or double. Nectarium bifid, and have 2 side lobes covering the stamina.———*Upright Annual Larkspur*.
3. *Elátum* Stalk erect, from four to six feet high, covered with a bluish flue. Leaves large and divided to the base into about five wedge-shaped, irregularly snipped segments. Flowers azure blue, and they have a two-leaved dark brown nectarium, accompanied on each side the receptacle by an obtuse, bifid, bearded leaf of the same colour. Spur of the Nectarium wrinkled.———*Bee Larkspur*. Siberia.
4. *Grandiflorum*. Stalks near two feet high, branching. Leaves composed of linear segments, cut into many parts. Flowers blue, often solitary. Nectarium of two leaves, and the labels or lobes are entire. Seed-vessels hoary.———*Large Flowered Siberian Larkspur*.

DENTARIA. *Toothwort*. Comp. p. 31.

Flowers Cross-shaped.

Calyx composed of 4 oblong-egg-shaped, parallel, deciduous leaves.—*Corolla* of 4 roundish, almost entire petals, forming a cross, and having heels as long as the calyx.—*Stamina* 6, awl-shaped, about as long as the calyx, but two are shorter than the rest.——*Summits* oblong-heart-shaped, erect.—*Germen* oblong, as long as the stamina.—*Style* thick, very short.—*Stigma* obtuse, and notched.—*Pod* long, round, 2-celled, 2-valved, the valves rather longer than the partition.—*Seeds* many, roundish.

1. *Bulbifera*. Stalks about a foot high, producing bulbs at their sides. Lower leaves winged, and composed of seven or five lobes: the up-

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per leaves are simple. Flowers purple, in clusters at the tops of the stalks.—*Bulb-bearing Toothwort*. England.

2. *Pentaphyllos*. Stalks a foot or more high. Leaves fingered; the lower ones composed of seven long, hairy lobes, and the upper ones of five. Flowers blush-colour, or white, and terminate the stalks in loose spikes.—*Fingered Helvetican Toothwort*.
3. *Enneaphyllos*. Stalks about a foot high. Leaves composed of nine lobes, standing by threes. Flowers in small bunches at the tops of the stalks.—*Austrian Toothwort*.

DIANTHUS. *The Pink*. Comp. p. 21.

Calyx of 1 cylindrical, tubular, streaked, abiding leaf, cut into 5 acute teeth, and furnished at the base with 4 scales, the two lower ones opposite.—*Corolla* of 5 petals, having flat, obtuse limbs, and narrow heels, as long as the calyx, inserted into the receptacle.—*Stamina* 10, awl-shaped, as long as the calyx, and spread at their tips.—*Summits* oblong-oval, compressed, incumbent.—*Germen* oval.—*Styles* 2, longer than the stamina.—*Stigmas* recurved, pointed.—*Seed-vessel* cylindrical, 1-celled, and opens at the tip 4 ways.—*Seeds* many, compressed, roundish.—*Receptacle* loose, 4-sided, and shorter by half than the seed-vessel.

* *Flowers Aggregate*.

1. *Barbatus*. Leaves broad-lance-shaped, and have a prominent rib beneath. Flowers aggregate, or collected, in dense, even-topped bunches at the tops of the branches. Scales of the calyx egg-shaped, and terminate in awl-shaped points as long as the calyx.—*London Tuft; Sweet William*. It differs greatly in gardens in the

- breadth of the leaves, and in the colour of the flowers.
2. *Carthusianórum*. Leaves linear, rigid, and they have three ribs or nerves beneath. Flowers red, somewhat aggregate, have their petals distant, and hairy on their upper sides. Scales of the calyx egg-shaped, and terminate in awl-shaped points nearly as long as the calyx.—*Monk's Sweet William*. Italy.
 3. *Arméria*. Whole plant of a darkish green. Leaves narrow, hairy. Flowers red, and terminate the stalks in thin aggregate, even-topped bunches. Petals oblong, dentated. Scales of the calyx lance-shaped, a little hairy, and about the length of the tube of the calyx.—*Wild Sweet William*; *Deptford Pink*. England.
 4. *Hýbridus*. Whole plant of a darkish green. Leaves narrow-lance-shaped. Flowers bright crimson, mostly double, and terminate the branches in somewhat aggregate bunches. Petals crenated. Scales of the calyx awl-pointed, and about half the length of the calyx.—*Mule Pink*; *Bastard Sweet William*.
* * *Flowers solitary*.
 5. *Caryophýllus*. Stalk two or three feet high, producing one crenated flower on a branch, having four very short, nearly egg-shaped scales at the base of the calyx.—*Clove-Gilliflower*. Italy. *From this species all the variety of Carnations are produced*.
 6. *Supérbus*. Stalk about two feet high, and is terminated by thin panicles of bluish-colour, or white flowers, having their petals irregularly cut almost to the base into many very narrow segments. Scales of the calyx four, two shorter

than the rest, and all of them pointed.——

Superb Pink. Germany. ♂

7. *Chinensis.* Stalk more than a foot high, producing one single, or double flower from each upper joint, having its petals dentated, the scales of its calyx awl-shaped, spreading, and as long as the tube.——*China Pink.* ☉

8. *Rupéstris.* Radical leaves linear, very narrow, stiffish, furrowed above, keeled beneath, joined in small tufts, and are rough on their keel and margins. Stalks erect*, short, composed of three or four joints, and bear one, or at most but two sweet-scented, red, crenated flowers each. Scales of the calyx only two, very short, almost orbicular, a little pointed, and closely embrace the calyx, their edges lapping over each other.—*Rock Pink.* Found this Summer (1789) by Mr. E. Rigby, surgeon, of Norwich, at the foot of the *Pont du Gardon*, in the South of France. Also in the road between *Nice* and *Turin*, in Italy.

OBSERVATION. The common garden Pinks, such as the early white, the red, the pheasant's eyed, &c. whether single or double, are undoubtedly a mixture of different species, as tis scarce possible to find one completely answering the characters given by Linnæus of any individual. Sir John Hill, and others, have concluded they all originally sprung from the *Deltoides*; but a close inspection will discover the marks of other species, and especially of the *Glaucus* and *Plumarius* blended with those of the former. I shall set down Linnæus's characters of these three species, and leave the propriety of the remark to others.

9. *Deltoides.* One crenated flower from each of the upper joints of the stalk or branches, having

* Linnæus says prostrate. Perhaps the stalks may be so in some soils.

but two lance-shaped scales at the base of its calyx.—*Narrow-leaved English Pink*, falsely called *Maiden Pink*.

10. *Glaucus*. One or two crenated flowers from each joint of the stalk, or branches, having four short lance-shaped scales at the base of their calyx.—*Broad-leaved English Pink*.
11. *Plumarius*. Stalk covered with a bright glaucous flue, and produces one lacerated flower from each of the upper joints, or branches, having a downy throat, and four nearly egg-shaped scales at the base of its calyx.—*Feathered Pink*. Europe.

DICTAMNUS. *Fraxinella*. Comp. p. 20.

Calyx composed of 5 oblong, acute, pointed, leaves.—*Corolla* of 5 lance-shaped, spreading petals, rounded at their base. The two upper ones bend upward; the two side ones are placed obliquely, and the lower one is deflexed.—*Stamina* 10, awl-shaped, unequal, about as long as the corolla, declining, and are studded with glands near their top.—*Summits* 4-cornered.—*Germen* roundish, 5-cornered, elevated by the receptacle.—*Style* shorter than the stamina, incurved.—*Stigma* acute. *Seed-vessels* 5, rough, compressed, acute, bivalved, 1-celled, and united by their margins inwardly.—*Seeds* egg-shaped, hard, very smooth, 2 or 3 in each vessel.

Albus. Stalks two or three feet high, simple. Leaves winged, and composed of three or four pair of egg-shaped lobes, terminated by an odd one. Flowers reddish, striped with purple, or they are totally white, and terminate the stalks in long, conical bunches.—*White Dittany; Fraxinella*. Germany.

OBSERVATION. *The bark of the root of this plant, rolled up into quills, was formerly imported by the Druggists. It is bitter, pungent, and accounted alexipharmick.*

DIGITALIS. *Fox-Glove.* Comp. p 30.

Calyx of 1 abiding leaf, cut into 5 oblongish, acute segments, the upper one the narrowest.—*Corolla* of 1 somewhat bell-shaped petal, bellying beneath, much contracted near the base, and divided at the mouth into 2 principal parts: the *upper* part stumped, entire, or notched; the *lower* one the longest and obtuse.—*Stamina* 4, awl-shaped, declining, 2 shorter than the rest, and all inserted into the base of the corolla.—*Summits* parted in two.—*Germs* pointed.—*Styles* ranged with the stamina.—*Stigma* small.—*Seed-vessel* egg-shaped, pointed, rather longer than the calyx, 2-celled, 2-valved, the valves breaking in two.—*Seeds* many, small.

1. *Lutea.* Stalk two or three feet high. Leaves long, smooth, obtusifish. Flowers yellow, and are ranged on one side the stalk. Corolla acute: the upper lip bifid. Segments of the calyx lance-shaped.—*Yellow Fox-Glove.* France.
2. *Purpurea.* Stalk erect, about four feet high. Leaves oblong-egg-shaped, ruffled, crenated, alternate. Flowers purple, dotted with white on the inside; or they are white dotted with brown, or all white, and hang drooping on one side the stalk and branches, in an imbricated manner. Corolla obtuse; the upper lip entire; lower lip hairy on the inside.—*Common Fox-Glove.* England. ♂
3. *Ferruginea.* Stalk about six feet high. Leaves long, narrow, smooth, and entire. Flowers

iron-colour, in a very long spike at the top of the stalk. Lower lip bearded, and as long as the rest of the corolla. Segments of the calyx roundish.—*Iron-coloured Fox-Glove.* Italy.

4. *Canariensis.* Shrubby, from four to six feet high. Leaves lance-shaped, rough. Flowers gold-colour, and terminate the branches in spikes. Corolla acute, with two acute segments at the chaps. Segments of the calyx lance-shaped. ————*Canary Fox-Glove.* Green-house.

OBSERVATION. *A very few grains of the powder of the leaves of the second sort, taken at certain intervals, have done wonders in the dropsy, and also in cancerous and scrophulous cases; but the medicine is too rough to be unadvisedly meddled with.*

DIOSMA. *African Spiræa.* Comp. p. 10.

Calyx of 1 small, abiding leaf, cut to the base into 5 acute parts.—*Corolla* of 5 obtuse, sessile, somewhat spreading petals.—*Nectarium* crown-like, hollowed, 5-parted, and sits upon the germen.—*Stamina* 5, awl-shaped.—*Summits* roundish, erect.—*Germen* crowned with the nectarium.—*Style* as long as the stamina.—*Stigma* obsolete.—*Seed-vessels* 5, pointed, compressed, united inwardly by their margin, and open at their upper seam.—*Seeds* solitary, oblong, pointed, and covered with an elastick, loose coat.

1. *Rubra.* Shrubby, two or three feet high, and furnished with many branches, forming a bushy head. Leaves linear, smooth, awl-pointed, keeled beneath, and resemble those of the Juniper, but they have a dotted line on each side their keel. Flowers reddish, or totally white, sessile and solitary, at and near the ends of the twigs.————*Juniper-leaved Diosma.* Æthiopia. *Green-house.*

2. *Oppositifolia*. Shrubby, three or four feet high. Leaves awl-shaped, opposite, the pairs crossing alternately. Flowers white, at the sides and ends of the twigs.—*Opposite-leaved Diosma*. Africa. *Green-house*.
3. *Hirsuta*. Shrubby, about three feet high. Leaves linear, hairy and alternate. Flowers white, in clusters at the ends of the twigs. *Hairy-leaved Diosma*. Cape of Good Hope. *Green-house*.
4. *Ericoides*. Shrubby, about two feet high. Leaves small, linear, acute, and convex beneath. Flowers white, in clusters at the ends of the twigs.—*Heath-leaved Diosma*. Æthiopia. *Green-house*.
5. *Ciliata*. Shrubby, about three feet high. Leaves lance-shaped, somewhat keeled, and ciliated both on their keel and margin. Flowers white, in umbels. *Ciliated-leaved Diosma*. Æthiopia. ————*Green-house*.

DODECATHÉON. *American Cowslip*. Comp. p. 8.

Involucrum composed of many, small, obtuse leaves. *Calyx* of 1 abiding leaf, cut about half way into 5 reflexed parts.—*Corolla* of 1 petal, having a tube shorter than the calyx, and a limb divided into 5 very long, lance-shaped segments, bent back to the peduncle.—*Stamina* 5, very short, and sit on the tube of the corolla.—*Summits* arrow-shaped, closed into a long beak.—*Germen* conical.—*Style* thread-like, longer, than the *stamina*.—*Stigma* obtuse.—*Seed-vessel* oblong, 1-celled, and opens at the tip.—*Seeds* many, small.—*Receptacle* small, at liberty.

Meadia. Leaves oblong, smooth. Stalk about a foot high, round, erect, naked, and terminated by a large umbel of drooping, peach-colour flowers.—*Meadia*. Virginia.

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DRABA. *Whitlow Grass.* Comp. p. 31.

Calyx of 4 egg-shaped, concave, somewhat spreading, deciduous leaves.—*Corolla* of 4 oblong petals, forming a cross, and having very minute heels.—*Stamina* 6, rather spreading, about as long as the calyx, the two shortest opposite. — *Summits* erect. — *Germen* egg-shaped.—*Style* scarce any.—*Stigma* knob-like, flat at the top.—*Pod* elliptical-oblong, compressed, entire, without a style, 2-celled, with the partition parallel to the valves.—*Valves* flattish.

1. *Alpina*. Leaves linear, acute, entire, ciliated, and crowded at the ends of the branches, forming small heads. Flowers yellow, in a loose, short racemus at the end of a short, naked stalk. Petals slightly notched.—*Hairy Alpine Madwort*. April.

2. *Pyrenáica*. Leaves wedge-shaped, mostly cut into three lobes, and form imbricated clusters. Flowers purple, or whitish, four or five at the top of a very short, naked foot-stalk.—*Trifid-leaved Pyrenean Whitlow-Grass*.

DRACOCÉPHALON. *Dragon's Head*. Comp. p. 29.

Flowers Lipped.

Calyx of 1 short, tubular, abiding leaf, cut into 5 teeth.—*Corolla* of 1 gaping petal having a wide, inflated throat, and a tube as long as the calyx: *Upper-lip* arched, obtuse, either entire, or notched: *Lower-lip* trifid, with the side segments erect, and the middle one drooping, roundish, and notched.—*Stamina* 4, two rather shorter than the rest, and all covered by the upper lip. — *Summits* nearly heart-shaped.—*Germen* 4-parted.—*Style* thread-like, ranged with the stamina.

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—*Stigma* bifid, the parts acute, slender, and reflexed.
 —*Seed-vessel* none.—*Seeds* 4, oval-oblong, 3-cornered,
 lodged in the calyx.

* *Flowers in Spikes.*

1. *Virginianum*. Stalk square, erect, two or three feet high. Leaves narrow-lance-shaped, slightly serrated, opposite. Flowers large, bright purple, in a spike at the top of the stalk.—
American Dragon's Head.
2. *Canariensis*. Stalk square, three or four feet high, and much branched. Leaves winged, and composed of three or five lance-shaped, coarsely serrated lobes. Flowers small, whitish purple, in short, thick spikes at the ends of the branches.—
Balm of Gilead. Green-house.
3. *Russchiána* Stalks square, two or three feet high. Leaves and bractæ lance-shaped, entire. Flowers large, blue, in spikes at the tops of the stalks.—
Hyssop-leaved Dragon's Head. Siberia.

* * *Flowers in Whorls.*

4. *Grandiflorum*. Stalk square, and sends out a few branches near the root. Leaves oval, deeply and obtusely serrated. Bractæ lance-shaped, small, entire. Flowers large, blue, and stand round the stalk and branches in whorls.
Grand-flowered Dragon's Head. Siberia. ☉
 5. *Moldávica*. Stalk square, about half a yard high, with many side branches. Leaves lance-shaped, serrated, the serratures of the upper leaves ending in bristles. Flowers blue or white, in whorls. Upper lip of the calyx large and trifid; the lower one small and bifid.
Moldavian Balm. ☉
- Canéscens*. Stalk square, hoary, about half a yard high with two or three branches. Leaves

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lance-shaped, slightly serrated, and hoary. Flowers large, oblong, blue or white, and surround the branches in whorls. — *Eastern Moldavian Balm.* ☉

DRYAS. *Dryas.* Comp. p. 25.

Calyx of 1 abiding leaf, deeply cut into 5 or 8 equal, linear, obtuse, spreading segments, shorter than the petals. — *Corolla* of 5 or 8 spreading, obtuse petals, inserted into the calyx. — *Stamina* numerous, hair-like, not half the length of the petals, and inserted into the calyx. — *Summits* roundish. — *Germina* many, small, close together. — *Styles* hair-like, woolly, inserted into the sides of the germina. — *Stigmas* simple. — *Seed-vessel* none. — *Seeds* numerous, roundish, furnished with very woolly styles.

1. *Octopétala.* Leaves simple, oblong-egg-shaped, deeply serrated, white beneath, and wrinkled. Flowers white, composed of eight petals, solitary, on a stalk or peduncle, two or three inches long. — *Hibernian Dryas.*
2. *Pentapétala.* Leaves winged. Flowers composed of eight petals. — *Kamshatkan Dryas.*

E.

E'CHINOPS. *Globe Thistle.* Comp. p. 41.

The flower is composed of numerous hermaphrodite florets, equally disposed on a common globular receptacle.

Partial calyx oblong, angular, and imbricated with many awl-shaped, abiding scales.

Florets funnel-shaped: their tube as long as the calyx; their limb deeply cut into 5 linear, reflexed segments. — *Stamina* 5, short, inserted at the divisions of the petal. — *anthers* long, united into a cylindrical. — *Germen* oblong. — *Style* thread-like, as long as the floret. — *Stigmas* 2, rolled back. — *Seed-vessel* none. — *Seed* oblong, hairy, obtuse at the tip, and slender at the base.

1. *Sphærocéphalus*. Stalk erect, hairy, clammy, branching, from four to six feet high. Leaves large, oblong, downy beneath, and deeply cut into coarse segments, terminating in spines. Flowers blue or white, in large globular heads at the ends of the branches. The long points of the calyces are covered with downy hairs to their tip. — *Greater Globe Thistle.* Spain.
2. *Ritro*. Leaves long, white beneath, smooth above, cut to the midrib into many narrow, prickly

segments. Stalk about two feet high, whitish, and mostly terminated by a single globular head of blue or white flowers. The long points of the calyces are ciliated to their tip.—*Lesser Globe Thistle.* France.

2. *Strigófus.* Stalk white, two or three feet high. Leaves cut into many spiny segments; they are woolly beneath, but their upper surface is covered with brown, lance-shaped bristles. Flowers pale blue, and are not collected in a globular head, but in little bundles on the common receptacle. Side calyces often destitute of florets.—*Annual Globe Thistle.* Spain.

ELÆAGNUS. *Wild Olive.* Comp. p. 7.

Calyx of 1 straight, bell-shaped, 5-parted, deciduous leaf, which is rough without, and coloured within.—*Corolla* none.—*Stamina* 4, very short, and inserted below the divisions of the calyx.—*Summits* oblong, incumbent.—*Germen* roundish, below the calyx.—*Style* rather shorter than the calyx.—*Stigma* small.—*Plum* egg-shaped, obtuse, smooth, with a puncture at the tip.—*Nut* oblong, obtuse.

1. *Angustifolia.* Shrubby and spineless, with lance-shaped leaves.—*Narrow-leaved Wild Olive.* Spain.
2. *Latifolia.* Shrubby and spineless, with egg-shaped leaves.—*Broad-leaved Wild Olive.* Ceylon. *Green-house.*
3. *Spinosa.* Shrubby, with spines at the base of the branches, and elliptical leaves.—*Eastern Broad-leaved Wild Olive.* Ægypt. *Green-house.*

EPIGÆA. *Trailing Arbutus.* Comp. p. 20.

Calyx double, abiding: the *exterior* one formed of 3 egg-shaped, pointed leaves; the *interior* one erect, rather longer than the other, and cut into 5 lance-shaped parts.—*Corolla* of 1 salver-shaped petal, having a cylindrical tube, often longer than the calyx, and hairy on the inside: *Limb* spreading, cut into 5 oblongish segments.—*Stamina* 10, thread-like, as long as the tube, and fixed to its base.—*Summits* oblong, acute.—*Germen* globular, hairy.—*Style* thread-like, as long as the stamina.—*Stigma* obtuse, cut into 4 or 5 parts.—*Seed-vessel* nearly globular, depressed, 5-sided, 5-celled, and 5-valved.—*Seeds* many, round.—*Receptacle* large, 5-parted.

Repens. Shrubby, with trailing rooting branches. Leaves oblong, rough, waved on their margins. Flowers white, in loose bunches at the ends of the branches.—*Trailing Arbutus.* Virginia.

EPILOBIUM. *Willow Herb.* Comp. p. 18.

Calyx composed of 4 nearly linear, acute, deciduous, coloured leaves. — *Corolla* of 4 roundish, spreading, notched, or entire petals.—*Stamina* 8, awl-shaped, one alternately shorter than the other.—*Summits* oval, compressed, obtuse.—*Germen* almost cylindrical, very long, below the corolla.—*Style* thread-like.—*Stigma* cut into 4 thickish, obtuse, revolute parts.—*Seed-vessel* very long, nearly cylindrical, streaked, 4-celled, and 4-valved.—*Seeds* numerous, oblong, crowned with down.—*Receptacle* very long, loose 4-sided, and coloured.

1. *Angustifolium.* Stalks from four to six feet high. Leaves long, narrow-lance-shaped, transverse-ly veined beneath, and entire. Flowers rose-

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colour, in long, swelling spikes at the ends of the branches. Petals unequal, entire. Styles declining.—*French Willow; Rosebay Willow Herb.* England. *There is a variety of this with very narrow, slightly dentated leaves, and equal petals.*

2. *Latifolium.* Leaves long, broad, and roundish near their end, with an acute tip: they stand alternate, and are covered on both sides with soft, downy hairs. Flowers much larger than the former.—*Broad-leaved French Willow Herb.* Siberia.

ERICA. *Heath.* Comp. p. 18.

Calyx composed of 4 erect, egg-shaped, coloured, abiding leaves.—*Corolla* of 1 oval, oblong, or bell-shaped petal, cut into four segments.—*Stamina* 8, hair-like, inserted into the receptacle.—*Summits* bifid, or horned.—*Germs* roundish.—*Style* straight, longer than the stamina.—*Stigma* 4-cornered.—*Seed-vessel* roundish, smaller than the calyx, 4-celled, and 4-valved.—*Seeds* many, very small.

* *Summits* horned.

1. *Arborea.* Stem erect, tree-like, covered with down. Leaves linear, spreading, and stand by fours and threes at a place. Flowers white, bell-shaped, in spike-like bunches at the ends of the branches. Summits within the corolla. Style protruded.—*Great White Heath.* Europe.
2. *Scoparia.* Shrubby, with white branches. Leaves spreading, and stand by threes. Flowers long-bell-shaped, greenish. Summits within the corolla. Style protruded. Stigma broad.—*Beech Heath.* Spain. *Green-house.*

* * *Summits hornless.*

3. *Triflora*. Branches shaggy. Leaves by threes. Flowers white, almost globular, mostly three on a common peduncle. Summits plumed, within the corolla. Style mostly included. Stigma broad.—*Triflorous Heath*. Æthiopia. *Green-house*.
4. *Coccinia*. Branches downy. Leaves smooth, short, and stand by threes. Flowers scarlet, club-shaped, with their brim deeply cut into four segments. Summits bifid, protruded. Scales of the calyx eight, imbricated.—*Scarlet Flowering Heath*. Æthiopia. *Green-house*.
5. *Tubiflora*. Leaves by fours, somewhat ciliated. Flowers long, nearly club-shaped, incurved, a little downy, solitary, and of a bright purple colour. Summits bifid, within the corolla.—*Oblong-flowered Heath*. Æthiopia. *Green-house*.
6. *Mediterranea*. Erect, and very much branched. Leaves smooth, spreading, and stand by fours. Flowers egg-shaped, purplish. Summits rather protruded. Style long. Stigma small.—*Inland Heath*.
7. *Didyma*. Branches erect. Leaves mostly by fives. Flowers oblongish, bright purple or white, numerous, terminating the branches in long, taper, spike-like branches. Summits double, protruded.—*Cornwall Heath*; generally called *the Multiflora*. England.

OBSERVATION. *Besides the last species, the following are found growing wild in England.*

8. *Vulgaris*. Leaves very small, and imbricated in four rows. Flowers bell-shaped, pale purple, with calyces of the same colour, and rather larger than the petal. Summits horned, in-

cluded. Style protruded. — — *Common Heath.*

9. *Cinérea.* Leaves smooth, by threes. Flowers egg-shaped, purple, in clusters along the branches.. Summits horned, included. Style included.. — — *Fine-leaved Heath.*

10. *Tétralix.* Leaves hairy, by fours. Flowers egg-shaped, pale purple, in roundish heads at the ends of the branches. Summits horned, included. Style rather protruded. — — *Cross-leaved Heath.*

ERIOCEPHALUS. *Eriocephalus.* Comp. p. 41.

Flowers compound, Radiated.

Common calyx erect, and composed of about 100 equal, egg-shaped, conniving scales, the *outer* 5 keeled; the *inner* 5 flat.

Florets in the disk male or hermaphrodite, about 20, funnel-shaped, cut into 5 spreading parts. — *Germs* very small, naked. — *Style* simple. — *Stigma* bifid, acute. — *Seed* none.

Female rays about 5, broadest upward, and cut at their tip into 3 equal lobes. — *Germs* egg-shaped, naked. — *Stigma* pointed, inflexed. — *Seed* reverse-egg-shaped, naked. — *Receptacle* flat, naked, or only the down of the calyx is interposed between the hermaphrodite and female florets.

1. *Africánus.* Shrubby, from four to six feet high. Leaves in clusters, and each is deeply divided into three or five spreading, entire lobes.. Flowers erect, and terminate the branches in roundish bunches. — — *Evergreen Eriocephalus.* *Aethiopia. Green-house.*

2. *Racemófus.* Shrubby, with narrow-lance-shaped, silvery leaves, and flowers growing in a race-

mus.—Narrow-leaved Cape Eriocephalus.
Green-house.

ERYNGIUM. *Eryngo*. Comp. p. 12.

Common involucrem of many spreading, flat leaves, at the base of the receptacle.—*Receptacle* conical, and furnished with sessile chaff, parting the florets.—*Proper calyx* of 5 erect, acute leaves, longer than the floret, and placed on the germen.

Florets numerous, all hermaphrodite, and are composed of 5 oblong petals, having their tips turned inward.—*Stamina* 5, hair-like, straight, longer than the petals.—*Summits* oblong.—*Germen* rough, below the corolla.—*Styles* 2, thread-like, as long as the stamina. *Stigmas* small.—*Fruit* egg-shaped, divided into 2 parts, each containing 1 oblong seed.

1. *Maritimum*. Whole plant of a gray green-colour. Leaves roundish, stiff, plaited and spiny. Flowers light blue, in roundish heads at the ends of the branches. Leaves of the involucrem many. Chaff of the receptacle trifid.—*Sea Holly*. England
2. *Planum*. Radical leaves large, broad-egg-shaped, flat and crenated; the upper ones sessile, and mostly trifid. Flowers blue or white, in smallish oval heads, on peduncles from the ends and sides of the branches. Leaves of the involucrem about six. *Russian Eryngo*.
3. *Alpinum*. Radical leaves large, oblong-heart-shaped, crenated; those on the stalk are fingered, and the lobes are jagged and spiny. Flowers blue, in almost cylindrical heads at the top of the stalk. Leaves of the involucrem numerous. Chaff trifid. *Alpine Eryngo*. Italy.
4. *Amethystinum*. Lower leaves winged, and they enwrap the stalk with their base. The lobes are

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nearly linear, dentated, spiny, and mostly cut into three segments at their tip. Upperr leaves trifold. Flowers deep blue, in small roundish heads, at the ends and divisions off the branches. Leaves of the involucre about eight: they are linear, awl-pointed, bristly at their base, and double the length of the head.

—*Amethystine Eryngo*. September.

OBSERVATION. *The root of the first sort is candid, and recommended in weak, consumptive habits of body as a restorative.*

¹
ERYSIMUM. *Hedge Mustard*. Comp. p. 32.

Flowers Cross-shaped.

Calyx composed of 4 oblong, parallel, coloured, deciduous, almost closing leaves.—*Corolla* of 4 oblong petals, having flat obtuse limbs, forming a cross, and gradually diminishing to a narrow base.—*Stamina* 6, about as long as the calyx, but the 2 opposite ones are rather shorter than the rest.—*Summits* small.—*Germen* linear, 4-cornered, about as long as the stamina.—*Style* scarce any.—*Stigma* knob-like, small, abiding.—*Pod* long, linear, straight, 4-cornered, 2-valved, 2-celled.—*Seeds* many, small and roundish.

1. *Barbarea*. Stalk erect, furrowed, branching, and from one to two feet high. Leaves smooth, harp-shaped, or narrowed, and lobed near their base, and they terminate in a very large roundish segment. Flowers small, yellow, single or double, in a racemus at the ends of the stalks and branches.—*Winter Cress*. England.

¹
ERYTHRONIUM. *Dog's-tooth Violet*. Comp. p. 15.

Calyx none.—*Corolla* of 6 oblong-lance-shaped pointed petals, alternately lodging on the base of each

other.—*Nectariums* 2, hard, obtuse tubercles at the interior base of each other petal.—*Stamina* 6, awl-shaped, very short.—*Summits* oblong.—*Germen* top-shaped.—*Style* straight, shorter than the corolla.—*Stigma* triple, spreading, obtuse.—*Seed-vessel* dry, hollow, almost globular, narrowed at the base, 3-celled, 3-valved.—*Seeds* many, oval, pointed.

Dens-Canis. Leaves two, roundish, or oblong-egg-shaped, and they are marbled with brownish purple. Flower-stalk naked, about four inches high, and it is terminated by one large, white, yellow, or purple, nodding Flower.——
Dog's-tooth Violet. Hungary.

¹
EUONYMUS. *Spindle Tree.* Comp. p. 10.

Calyx of 1 flat leaf, cut into 4 or 5 roundish, concave parts. *Corolla* of 4 or 5 flat, egg-shaped, spreading petals, longer than the calyx.—*Stamina* 4 or 5, awl-shaped, erect, shorter than the corolla, and placed on the sides of the germen.—*Summits* double.—*Germen* pointed.—*Style* short.—*Stigma* obtuse.—*Seed-vessel* coloured, flattened at the top, 4 or 5 cornered, 4 or 5 celled, with as many valves.—*Seeds* solitary, egg-shaped, muffled up in a loose coat.

1. *Europus.* Shrubby, putting forth numerous green, slender branches. Leaves oblong-oval, pointed, dark green, glossy, obsoletely serrated, on short foot-stalks opposite. Flowers greenish white, on forked peduncles from the sides of the short branches. Petals mostly four. Seed-vessel red, pink-colour, or white, somewhat top-shaped, with four very obtuse lobes.—*Common Spindle Tree; Prickwood.* England.

2. *Latifolius.* Shrubby, with a stiff, tree-like stem. Leaves oblong-oval, lance-pointed, three or four inches long, half as much broad, obsoletely

ferrated, of a yellowish green, on short foot-stalks opposite. Flowers whitish, on very long, smooth, red, forked peduncles from the wings of the leaves. Petals and stamina mostly five. Seed-vessels large, of a fine crimson, much flattened, divided on their side into four or five distant, acute lobes, standing like the cogs of a wheel.—*Broad-leaved Austrian Spindle Tree.*

3. *Americanus.* Shrubby, with greenish, slender branches. Leaves smooth, lance-pointed, slightly serrated, near two inches long, more than half an inch broad, stiffish, almost sessile and opposite. Flowers greenish, mixed with dull red, often solitary, on very short peduncles from the wings of the leaves. Petals broad, always five. Seed-vessels rough, roundish.—*Evergreen Spindle Tree.* Virginia.

OBSERVATION. *The fine colour and elegant form of the pendulous bunches of seed-vessels of the second sort, in the Autumn, recommended the shrub to a place in every garden.*

EUPHORBIA. *Cautick Plant.* Comp. p. 23.

Calyx of 1 bellying, abiding, somewhat coloured leaf, cut into 4 or 5 teeth.—*Corolla* of 4 or 5 thick, gibbous, top-shaped petals, standing alternate with the teeth of the calyx, and fixed to its edge by their heels.—*Stamina* 12, or more, thread-like, jointed, longer than the corolla, and inserted into the receptacle.—*Summits* double, roundish.—*Germen* roundish, 3-cornered, pedunculated.—*Styles* 3, bifid.—*Stigmas* obtuse.—*Seed-vessel* roundish, 3-lobed, 3-celled, and opens suddenly.—*Seeds* roundish, solitary.

* *Shrubby, prickly.*

1. *Antiquorum.* Stalk tall, almost naked, triangular, succulent, jointed, and puts out many prickly,

spreading branches, having 2, 3, or four angles. Leaves roundish, and come out at the extremity of the branches, but are of short duration. Flowers whitish, near the ends of the branches.—*Triangular Indian Euphorbia*. Hot-house. *There is a variety of this with erect branches.*

2. *Canariensis*. Stalks tall, thick, succulent, leafless, four or five angled, armed with prickles in pairs, and furnished with large, prickly ascending branches. Flowers terminal.—*Canary Double-spined Euphorbia*. Hot-house.
3. *Heptagóna*. Stalk erect, roundish, succulent, leafless, and puts forth many seven-angled branches, armed with long, single, awl-shaped prickles. Flower terminal.—*Seven-angled Cape Euphorbia*. Hot-house.
4. *Mammilláris*. Stalk roundish, bellying in the middle, leafless, and the angles are furnished with knobs. Spines long, straight, placed between the knobs.—*Mammillary Ethiopian Euphorbia*. Hot-house.
5. *Officinárum*. Stalks thick, taper, succulent, armed with prickles in pairs, leafless, and have eight or more angles, which age wears out. Branches irregular. Flowers small, near the ends of the branches.—*Officinal Euphorbia*. Hot-house.
6. *Neriifólia*. Stalk, erect, tall, leafless about half way up, prickly, branching, and has its angles obliquely tuberculated. Leaves oblong, smooth, entire, placed at the protuberances of the angles. Flowers greenish, sessile.—*Oleander-leaved Euphorbia*. Hot-house.

* * *Shrubby, without Prickles.*

7. *Caput-medúſæ*. Stalk low, thick, roundish, imbricated with tubercles, and furnished with

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branches, twining round each other, like so many serpents. Leaves narrow, thick, and come out at the ends of the branches. Flowers large, white.———*Medusa's Head*. Green-house.

8. *Mauritánica*. Stalks many, weak, thread-like, three or four feet long, and leafless downward. Leaves oblong, smooth, entire, alternate. Flowers yellowish, in small clusters at the ends of the branches.———*Mauritanian Spurge*. Green-house.

* * * *Branches forked.*

9. *Hypericifolia*. Stalks near two feet high, with forked branches. Leaves oval-oblong, smooth, serrated. Flowers white; in small clusters from the sides of the branches.———*Smooth Indian Spurge*. ☉

10. *Portulacoides*. Stalk erect, with forked branches. Leaves oval, entire, terminating in an obtuse hollow. Flowers greenish, solitary, on peduncles as long as the leaves.———*Purslane-leaved Spurge*. Philadelphia.

* * * * *Common Umbels trifid.*

11. *Peplus*. Stalk about a span high, much branched. Leaves reverse egg-shaped, entire, on short footstalks. Leaves of the involucre egg-shaped. Partial umbels forked.———*Petty Spurge*. England.

* * * * * *Common Umbels of 4 Rays*

12. *Láthyris*. Stalk three or four feet high, sending out many branches upward. Leaves lance-shaped, entire, smooth, with whitish veins on their upper surface, and they stand opposite, the pairs crossing each other at right angles. Common umbel of four rays. Common invo-

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lucrum of four large, lance-shaped leaves. Partial umbels of two rays. Partial involucrum of two leaves.—*French Spurge.*

***** *Common Umbels of 5 Rays.*

13. *Spinósa.* Shrubby, and the old dry branches put on the appearance of spines. Leaves oblong, entire. Umbel simple, composed of four or five rays, having an involucrum of three egg-shaped leaves at their base. Flowers yellow, one on a ray, or peduncle.—*Cretan Shrubby Euphorbia.* Green-house.

14. *Helioscópia.* Stalk about a foot high, branching at the top. Leaves wedge-shaped, very obtuse and serrated. Common umbel of five rays, the second umbels of three, and the terminating ones of two. Leaves of the involucrum reverse-egg-shaped.—*Sun Spurge.* England.

15. *Coralloides.* Stalk red, four or five feet high. Leaves lance-shaped, obtusifish, smooth, alternate. Common umbel of five rays, the second umbels of three, and the terminating ones of two. Leaves of the involucrum egg-shaped. Seed-vessels woolly.—*Red Sicilian Spurge.* Green-house.

***** *Common Umbels of many Rays.*

16. *Elfula.* Stalk erect, about a span high, furnished with narrow, strap-shaped, obtuse, spreading leaves, and terminated by a common umbel of twelve or more rays. Partial umbels bifid. Common involucrum of many oblong-egg-shaped leaves. Partial involucrum of two somewhat heart-shaped leaves. Flowers yellow. Petals scarcely horned. Under the common umbel, when the flowers decay, comes

a circle of slender, barren branches, thickly set with spreading leaves, narrower than those on the stalk.—*German Spurge.*

17. *Myrsinitis.* Low and somewhat shrubby, with deflexed branches. Leaves tough, rather concave, of a glaucous green, crowded, broadest and roundish at their tip, with a small point. Common umbel of about eight rays. Common involucre of several nearly oval leaves. Partial umbels bifid. Partial involucres of two broad, somewhat heart-shaped leaves. Petals four, yellow.—*Dwarf Calabrian Spurge.*

18. *Amygdaloïdes.* Somewhat shrubby, two or three feet high. Leaves long, obtuse, narrowest downward, entire, the radical ones in a spreading cluster, and are downy beneath. Common umbel of many rays. Partial umbels forked. Partial involucres, nearly orbicular, perfoliate. — *Almond-leaved Wood Spurge.* England.

OBSERVATION. A variety of the last sort, with variegated leaves, is frequently kept in green-houses. The 11th and 14th sorts are common weeds in gardens, and being thus always at hand, I have described them as proper examples for illustrating the generic character. The gum Euphorbium exudes from the fifth sort. This is seldom used now but by the Farriers, who employ it as a caustick.

F.

FAGUS. *The Beech.* Comp. p. 44.

Plants Monœcious.

Male catkin either globular, or cylindrical.—*Calyx* of the florets bell-shaped, cut into 5 parts.—*Corolla* none.—*Stamina* about 12, bristle-like, as long as the calyx.—*Summits* oblong.

Female florets enclosed in a bud on the same plant.—*Calyx* of 1 erect leaf, cut into 4 or 5 parts.—*Corolla* none.—*Germen* covered by the calyx.—*Styles* 3, awl-shaped.—*Stigmas* reflexed.—*Seed-vessel* dry, roundish, and armed with soft spines, 1-celled, 4-valved.—*Nuts* 2 or 3, egg-shaped, 3-cornered.

1. *Sylvatica.* A large tree, covered with a white, smooth bark, and having egg-shaped, glossy, somewhat undulated leaves, which, when young, are downy on their margins. Male catkin globular.—*Common Beech.* England. *There is a variety of this with striped, and another with dark purplish leaves.*
2. *Castanea.* A large tree, having long, smooth, acutely serrated leaves. Male catkin cylindrical.—*Common Chestnut.* Italy.
3. *Pumila.* A small tree, having lance-shaped-oval, acutely serrated leaves, which are downy be-

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neath. Male catkin cylindrical, knotted.—
Dwarf American Chestnut; Chinquepin.

¹
 FRAXINUS. *The Ash.* Comp. p. 48.

Plants Polygamous.

Calyx of the hermaphrodite florets either wanting, or there is 1 very small leaf, cut into 4 erect teeth.—
Corolla either wanting, or there are 4 long, linear, acute, erect petals.—*Stamina* 2, erect.—*Summits* erect, oblong, 4-furrowed.—*Germs* egg-shaped, compressed.—*Style* thread-like, erect.—*Stigma* thickish, bifid.—
Seed-vessels lance-shaped, compressed into a sort of membrane, and is 1-celled.—*Seed* tongue-shaped.

Female flowers, Seed-vessel, and Seed like the former.

1. *Excelsior.* A large tree, having winged leaves, composed of about five pair of lance-shaped, serrated lobes, terminated by an odd one. Flowers without petals.—*Common Ash.*
2. *Ornus.* A tallish tree, having winged leaves, composed of about three pair of thin, smooth, almost elliptical, pointed, serrated lobes, terminated by an odd one. Flowers white, in large panicles. Petals four.—*Flowering Ash.* Europe.
3. *Americana.* A small tree, having winged leaves, composed of three or four pair of entire lobes, terminated by an odd one. Flowers without petals.—*Carolinian Ash.* The varieties of this are the
 - White American Ash.*
 - Red American Ash.*
 - Black American Ash.*

OBSERVATION. *The Manna of the Shops, a safe and gentle purge, is a concreted exudation from the second sort, and is collected in Calabria for sale.*

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F^rITILLARIA. *Chequered Daffodil.* Comp. p. 14.

Calyx none.—*Corolla* bell-shaped, swelled at the base, and composed of 6 oblong, parallel petals.—*Nectarium* formed of 6 excavated glands, one at the base of each petal, and are differently shaped in the different species.—*Stamina* 6, awl-shaped, close to the style.—*Summits* oblong, erect, 4-cornered.—*Germen* oblong, obtuse, 3 or 6-cornered.—*Style* longer than the stamina.—*Stigma* cut into 3 obtuse, spreading parts.—*Seed-vessel* oblong, 3-lobed, 3-celled, 3-valved.—*Seeds* many, flat, ranged in a double row.

1. *Meleágris.* Stalk more than a foot high, furnished with narrow leaves, standing alternately, and it is terminated by one or two nodding flowers, which are either chequered, or they are black, purple, or white. Nectariferous glands oblong.—*Common Chequered Daffodil.* England.
2. *Pyrenáica.* Lowest leaves opposite; the upper ones alternate. Stalk about half a yard high, and it is terminated by two or more dull yellow, nodding flowers.—*Pyrenean Fritillaria.*
3. *Pérsica.* Stalk two or three feet high, has its lower part furnished with oblique leaves, standing by twos, threes, and fours, and it is terminated by a racemus of purplish, spreading flowers.—*Persian Fritillaria.*
4. *Imperialis.* Stalk three or four feet high, naked above, but furnished downward with long, narrow, entire, acute pointed leaves, and it is terminated by a large cluster of red, orange, or yellow, nodding flowers, crowned with a tuft of green leaves.—*Crown Imperial.*

FUMARIA. *Fumatory.* Comp. p. 34.

Flowers Lipped.

Calyx composed of 2 small, equal, acute, opposite, deciduous leaves.—*Corolla* of 1 oblong, tubular,

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gaping petal, having a prominent palate, and it terminates behind in an obtuse spur.—*Upper-lip* plain, obtuse, and reflexed: *Lower-lip* nearly like the upper, but it is a little keeled near the base.—*Chaps* 4-cornered, and are split longitudinally.—*Stamina* 2, broad, equal, and each is terminated by 3 *Summits*.—*Germs* oblong, compressed, pointed.—*Style* scarce any.—*Stigma* orbicular, erect, compressed.—*Pod* 1-celled, and of various shapes in the different species, some being roundish, some egg-shaped, others very long and linear.—*Seeds* roundish.

* *Flowers with double spurs.*

1. *Cucullaria*. Root tuberous. Radical leaves three times compounded. Flower-stalk leafless, terminated by a simple racemus, having scarcely any bractæ, and the spurs of the flowers are double.—*Virginian Tuberous-rooted Fumatory*.
2. *Speſtâbilis*. Stalk erect, leafy, terminated by a naked racemus of very large flower, ending in two equal lobes or spurs behind.—*Siberian Large-flowered Fumatory*.

** *Flowers with single spurs.*

3. *Bulbôsa*. Root a solid bulb. Stalk simple, erect, about a span high, and it is furnished with two leaves, composed of many obtuse, grayish lobes, jagged near their tip. Flowers purple, or totally white, and they terminate the stalk in a thick racemus. Peduncle inserted into the center of the corolla, so as to make it represent a little weather cock.—*Bulbous Fumatory*. Europe. *There is a variety of this with a hollow root.*
4. *Sempervirens*. Stem short, erect, somewhat woody, and sends out several smooth, round, brittle, spreading branches. Leaves of a bluish green,

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and compounded of obtuse, snapped lobes. Flowers reddish purple, with yellow lips, in very thin panicles at the ends of the branches. Pods very narrow, linear, compressed, and are more than an inch long.——*Evergreen Virginian Fumatory.*

5. *Enneaphylla.* Stalks weak, trailing, much branched. Leaves composed of nine rather large, heart-shaped lobes. Flowers greenish, in loose panicles from the sides of the branches.——*Nine-leaved Spanish Fumatory.*
6. *Capnoides.* Stalks diffuse, or spreading, acute angled, pellucid, much swelled at their joints. Leaves composed of many obtuse, snapped lobes. Flowers whitish yellow, in short bunches from the joints of the branches. Pods linear, a little compressed, four-angled, and about half an inch long.——*Evergreen Yellowish Fumatory.* France.
7. *Lútea.* Stalks diffuse, obtuse angled. Flowers yellow. Pods round.——*Evergreen Yellow Fumatory.* Tangier.

OBSERVATION. *The two last sorts are now considered as distinct, by such as are fond of multiplying the species, but if their differences were more permanent than they are commonly found to be, they do not differ equal to many that are still accounted one and the same species.*

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GALANTHUS. *Snowdrop.* Comp. p. 16.

Calyx an oblong, obtuse, feeble, withering sheath, which splits longitudinally.—*Corolla* bell-shaped, and composed of 3 oblong, obtuse, equal petals, spreading open near their tip.—*Nectarium* almost cylindrical, and formed of 3 obtuse, notched leaves, about half the length of the petals.—*Stamina* 6, very short.—*Summits* awl-shaped, and terminate in bristle-like, conniving points.—*Germs* globular, below the corolla.—*Style* thread-like, rather longer than the stamina.—*Stigma* small.—*Seed-vessel* almost globular, obtusely 3-cornered, 3-celled, 3-valved.—*Seeds* many, globular.

Nivalis. Root a bulb, sending out three or four long, narrow leaves, protruded from a sheath. Flowers white, single or double.—*Common Snowdrop.* England, but certainly is not a native here.

GALEGA. *Goat's Rue.* Comp. p. 35.

Flowers Butterfly-shaped.

Calyx of 1 short, tubular leaf, cut about half into 5 nearly equal, awl-shaped teeth.

Standard of the corolla large, egg-shaped, with the sides reflexed.

Wings oblong, enlarged by an appendage, and are mostly as long as the standard.

Keel oblong, straight, compressed, gibbous downward, acute at the tip.

Stamina 10, one detached, and nine united.—*Summits* oblong.—*Germen* slender, oblong.—*Style* slender, shorter than the germen.—*Stigma* a very small knob.—*Pod* long, compressed, pointed, and has oblong streaks between the seeds.—*Seeds* many, oblong-kidney-shaped.

Officinális. Stalk about three feet high, hollow, streaked, and branching. Leaves winged, and composed of about seven pair of almost linear, streaked, entire lobes, having a short bristle at their tip, and they are terminated by an odd lobe, which is often bifid. Flowers blue or white, in oblong bunches from the wings of the leaves. Pod straight, erect.—Common *Goat's Rue*. Spain.

OBSERVATION. *This was formerly used in Medicine as an alexipharmick and a powerful resister of Contagions, but it is now entirely laid aside.*

GAURA. *Virginian Loose Strife.* Comp. p. 18.

Calyx of 1 deciduous leaf, having a long, cylindrical tube, thickish at the base, and cut at the brim into 4 oblong, reflexed segments.

Corolla of 4 oblong, ascending petals, having narrow heels, placed in the tube of the calyx.—*Stamina* 8, thread-like, straight, shorter than the corolla, with a conical gland within side the base of each.—*Summits* oblong, moveable.—*Germen* oblong, below the corolla.—*Style* thread-like, as long as the stamina.—*Stigmas* 4, round, nearly egg-shaped, spreading.—*Seed-vessel*

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hard, and of the shape and size of a grain of Barley.
—Seed solitary, oblong, angular.

Biennis. Stem hairy, angular, about six feet high.
Leaves lance-shaped, waved or slightly den-
tated, and dotted with black on their surface.
Flowers whitish, in clusters at the ends and sides
of the branches. Calyces purple. ——— *Vir-*
ginian Loose Strife.

GENISTA. *Single-seeded Broom.* Comp. p. 34.

Flowers Butterfly-shaped.

Calyx formed of 1 tubular leaf, imperfectly divided
into two lips: *Upper lip* cut into 2 distant, acute teeth;
Lower lip divided into 3 almost equal, awl-shaped teeth.

Standard of the corolla nearly egg-shaped, remote
from the keel, and totally reflexed.

Wings oblong, loose, rather shorter than the rest.

Keel straight, notched, rather longer than the stand-
ard.—*Stamina* 10, all united, and emerge from the
keel.—*Summits* oblong.—*Style* oblong.—*Stigma* very
small, acute and curved.—*Pod* roundish.—*Seeds* kid-
ney-shaped.

* *Spineless,*

1. *Tinctoria.* Shrubby, two or three feet high,
with round streaked branches. Leaves nar-
row-lance-shaped. *Stipulæ* small, awl-shaped.
Flowers yellow, and terminate the branches in
spike-like bunches. ——— *Woodwaxen; Dyer's*
Broom. England.

The Lucca Broom is the same as this but grows rather
taller.

2. *Tridentata.* Shrubby, a foot or more high, with three
cornered, membranaceous, jointed branches.
Leaves three pointed. Flowers pale yellow,

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in loose spike-like bunches. Pods woolly.
 —————*Forked-leaved Portugal Broom.*

3. *Sagittális.* Herbaceous, sending forth many prostrate broad, two edged, jointed branches. Leaves broad-lance-shaped. Flowers dirty yellow. —————*Sagittated Broom.* Germany.
4. *Pilósa.* Shrubby, and puts forth many decumbent branches, about a foot long, and furnished with tubercles. Leaves small, hairy, obtusifish, in clusters of two, three, and four. Flowers yellow, hairy, in short bunches at the ends of the branches. —————*Hairy Genista.* England.
5. *Canariénsis.* Shrubby, about five feet high, having angular branches. Leaves reverse-egg-shaped, downy, three on a foot-stalk. Flowers yellow, or white, in bunches of five or six each. Pods white, hairy. —————*Evergreen Canary Broom.* Green-house.

** *Spiny.*

6. *Hispánica.* Shrubby, and the stalks are armed with branching spines, but the flowering branches have none. Leaves very narrow, linear, and hairy. Flowers yellow, in clusters at the ends of the branches. —————*Prickly Spanish Broom.*
7. *Germánica.* Shrubby, and the stalks are armed with compound spines, but the flowering branches have none. Leaves lance-shaped, smooth, alternate. Flowers yellow, in loose bunches at the ends of the branches. —————
Prickly German Broom.

OBSERVATION. *The branches of the first sort are used by the Dyers, from which they obtain a yellow colour.*

GENTIANA. *Fellwort.* Comp. p. 12.

Calyx of 1 abiding leaf, cut into 5 oblong, acute parts.—*Corolla* of 1 bell, or funnel-shaped petal, di-

vided at the brim into 4 or 5 segments.—*Stamina* 5, awl-shaped, shorter than the corolla.—*Summits* oblong.—*Germen* nearly cylindrical, as long as the stamina.—*Style* none.—*Stigmas* 2, egg-shaped.—*Seed-vessel* almost cylindrical, pointed, slightly bifid, 1-celled, 2-valved.—*Seeds* small and numerous.—*Receptacles* 2, fastened longitudinally to each valve.

* *Flowers cut into four Segments.*

1. *Ciliáta*. Stalk about a finger high. Leaves small, narrow, acute, pointed and opposite. Flowers large, blue, salver-shaped, cut into four hairy segments, one at the end of a stalk.—*Bearded Italian Gentian*.

2. *Cruciáta*. Stalk erect, near a span high. Leaves large, smooth, broad-lance-shaped, sessile, opposite, the pairs crossing each other. Flowers sessile, light blue, cut into four beardless segments, and they stand in whorls round the upper part of the stalk.—*Helvetian Crosswort Gentian*.

** *Flowers cut into five Segments.*

3. *Lútea*. Stalk about four feet high. Leaves oblong-oval, somewhat pointed, stiffish, sessile, opposite. Flowers wheel-shaped, pale yellow, in whorls at the joints of the stalks. Calyx like a sheath.—*Greater Yellow Gentian*.

4. *Asclepiadéa*. Stalk erect, more than a foot high. Leaves egg-shaped, pointed, sessile, opposite, the pairs pretty close, and cross each other: they have five veins beneath, and much resemble those of the *Asclepias Vincitoxicum*. Flowers oblong-bell-shaped, of a fine blue, sessile and opposite, in the bosoms of the leaves near the top of the stalk. Germen large, swelled in the middle like a rolling-pin.—*Asclepias-leaved Gentian*. Helvetia.

5. *Pneumonánthe*. Stalk from six inches to a foot high. Leaves linear, smooth, sessile, opposite. Flowers deep blue, oblong-bell-shaped, or rather club-shaped, at the top and from the wings of the leaves, near the end of the stalk. Summits united into a cylinder.—*Calathian Violet; Marsh Gentian*. England.
6. *Acaúlis*. Stalk near two inches high, and it is furnished upward with a pair or two of smooth, egg-shaped leaves, besides a cluster of six or eight at its base. Flowers very large, oblong-bell-shaped, swelled in the middle, of a fine blue without, greenish within, solitary, and rather longer than the stalks. Summits united into a cylinder. *Stalkless Gentian; Gentianella*. Alps.

OBSERVATION. *The last sort in its wild state has scarcely any stalk, and the flower is narrow and almost cylindrical. The root of the third sort is thick, tough, extremely bitter, and it is the principal ingredient in the Bitter-wine, Tincture, and Infusion of the shops.*

GERANIUM. *Crane's-Bill*. Comp. p. 32.

Calyx of 5 egg-shaped, acute, concave, abiding leaves, or in some species only cut into 5 parts.—*Corolla* of 5 large, reverse-heart-shaped, or oval, spreading petals.—*Stamina* 10, awl-shaped, unequal, mostly united, but spread at their tip, and are shorter than the corolla.—*Summits* oblong, moveable.—*Germen* 5-cornered, and terminates in a beak.—*Style* awl-shaped, longer than the stamina, abiding.—*Stigmas* 5, reflexed.—*Seeds* 5, oblong, terminated by the styles, which are mostly twisted, and surrounded with a husk.

* *Five fertile Stamina. Herbaceous.*

1. *Moschátum*. Stalks hairy, declining. Leaves irregularly winged, composed of alternate lobes,

cut into many obtuse segments, and they smell like musk. Flowers small, pale red, several on a common peduncle. Stipulæ transparent.—*Musk Crane's-Bill*. ☉ England.

2. *Románium*. Leaves winged, and composed of many cut lobes. Flowers purple, many on a stalk, coming immediately from the root.—*Roman Crane's-Bill*.

* * *Seven fertile Stamina*. Shrubby.

3. *Fúlgidum*. Shrubby, low, the stalks fleshy, and branches few. Leaves soft, hairy, divided into three obtuse, snipped lobes, the middle one much the largest. Flowers deep scarlet, glittering, two or three in an umbel.—*Flaming-red Flowered Geranium*. Æthiopia. *Green-house*.
4. *Inquinans*. Shrubby, six feet or more high, with somewhat erect branches. Leaves roundish-kidney-shaped, slightly crenated, thick and downy beneath. Flowers bright scarlet, in loose umbels from the wings of the branches.—*Downy-leaved Staining Geranium*. Africa. *Green-house*.
5. *Papilionáceum*. Shrubby, six feet or more high. Leaves large, angular, rough, on long foot-stalks. Flowers somewhat butterfly-shaped: the two upper petals are large, turned upward, and finely variegated; the two lower ones are small, scarcely visible, and reflexed.—*Butterfly Geranium*. Africa. *Green-house*.
6. *Betulínium*. Shrubby. Leaves flat, broad-egg-shaped, unequally serrated. Flowers large, red, in umbels.—*Birch-leaved Geranium*. Cape of Good Hope. *Green-house*.
7. *Cucullátum*. Shrubby, with downy branches. Leaves large, soft, roundish, dentated, somewhat angled, erect, and drawn into a hollow

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- like a hood. Flowers pale purple, striped with crimson, in large umbels.—*Hooded-leaved Geranium*. Africa. *Green-house*.
8. *Gibbōsum*. Shrubby, the stalks swelled into large, woody knots at their joints. Leaves opposite, bluish green, divided into three or five irregular, obtuse, snipped lobes, and they somewhat resemble those of the *Columbine*. Flowers dark purple, in thin umbels.—*Columbine-leaved Geranium*. Africa. *Green-house*.
9. *Carnōsum*. Shrubby, the stalks thick, fleshy, and gibbous at their joints. Leaves divided into many oblong segments. Flowers small, with very narrow, linear, white petals.—*Fleshy-stalked Geranium*. *Æthiopia*. *Green-house*.
10. *Peltatum*. Shrubby, with many slender, trailing branches. Leaves smooth, five-lobed, otherwise roundish, entire, fleshy, and have their footstalk inserted near their center, round which there is a brownish circle. Flowers peach-colour, striped with purple, in umbels.—*Ivy-leaved Geranium*. Africa. *Green-house*.
11. *Vitifolium*. Shrubby, with tall, upright stalks and stout branches. Leaves large, Balm-scented, a little hairy beneath, heart-shaped at their base, are generally divided into three rounded, crenated lobes, and they somewhat resemble those of the *Vine*. Flowers small, pale blue, in close umbels.—*Vine-leaved Balm-scented Geranium*. Africa. *Green-house*.
12. *Zonale*. Shrubby, with erect, tall stalks, and irregular branches. Leaves roundish-heart-shaped, slightly cut into dentated lobes, and they are marked towards their margin with a purplish, horse-shoe-shaped line. Flowers red, crimson, or flesh-colour, in large umbels.

- Horseshoe Geranium.* Africa. *Green-house.* Several varieties with variegated leaves.
13. *Capitatum.* Shrubby, dividing into several weak, irregular branches. Leaves covered with soft hairs, Rose-scented, divided into three unequal lobes, which are waved on their margins. Flowers bluish purple, in a close, hairy, roundish head, on a long, common peduncle.——
Close-headed Rose-scented Geranium. Africa. *Green-house.*
14. *Glaucum.* Shrubby, of a glaucous colour, about two feet high, with erect stalks, and angular branches. Leaves thick, smooth, whitish, opposite, lance-shaped, entire, and terminate in a slender point. Flowers white, striped with red, mostly solitary. Stipulæ awl-shaped.——
—————*Glaucous Crane's-Bill.* *Green-house.*
15. *Rádula.* Shrubby, with an erect stem, and bushy branches. Leaves broad, triangular, and divided into numerous, narrow, linear, rough segments, having their margins rolled back. Flowers peach-colour, striped with deep crimson, in umbels of 4 or 5 flowers each.——
Rasp-leaved Geranium. Cape of Good Hope. *Green-house.*
16. *Quercifolium.* Shrubby, with round, hairy branches. Leaves hairy, opposite, oblongish, rather heart-shaped at their base, deeply cut into five rounded, slightly crenated lobes. Flowers peach-colour, the two upper petals notched, striped with crimson, in thin umbels.——
—————*Cape Oak-leaved Geranium.* *Green-house.*
17. *Tetragonium.* Somewhat shrubby, erect, the branches very smooth, fleshy, jointed, and they have four irregular sides. Leaves few, small, lobed and crenated. Flowers purple

striped with crimson, two on a peduncle. Petals four, the two lower ones narrow and scarce longer than the calyx.—*Square-stalked Cape Geranium*. Green-house.

* * * *Seven fertile Stamina*. *Herbaceous*.

18. *Alchimilloides*. Herbaceous, the stalks very slender and decumbent. Leaves opposite, roundish-hand-shaped, cut, furnished with long hairs, and they are marked near their center with a purplish circle. Flowers white tinged with purple, in a thin umbel, on a very long common peduncle.—*Lady's Mantle-leaved Geranium*. Africa. *Green-house*.
19. *Odoratissimum*. Stalk very short, fleshy, and send out several long, herbaceous branches. Leaves opposite, roundish-heart-shaped, soft and crenated. Flowers small, white, very fragrant, in thin umbels.—*Odoriferous Geranium*. Africa. *Green-house*.
20. *Grossularoides*. Herbaceous, the stalks round, slender, very smooth and procumbent. Leaves opposite, roundish-heart-shaped, cut and crenated. Flowers small, reddish, one or two on a thread-like peduncle.—*Gooseberry-leaved Geranium*. Africa. *Green-house*.
21. *Triste*. Root tuberous. Stalk erect, a foot or more high, often parted in two, and has one or two leaves, cut into several oblong segments. Flowers greenish-yellow marked with brownish purple, and smell sweet in the night.—*Tuberous-rooted Cape Geranium*. *Green-house*.
22. *Althæoides*. Herbaceous, the stalks prostrate. Leaves between egg and heart-shaped, plaited, sinuated, crenated and downy. Flowers bluish purple, in umbels.—*Marshmallow-leaved Geranium*. Africa. *Green-house*.

**** *Ten fertile distinct Stamina. Two flowers on a peduncle.*

23. *Macrorrhizum*. Root very long. Stalks a foot or more high, branching. Leaves sweet-scented, deeply cut into five principal obtuse, jagged lobes. Flowers bright purple, two on the middle peduncle, the rest in clusters. Petals entire. Stamina longer than the petals, and the style at last longer than the stamina. Calyces almost globular, aristated.—*Long-rooted Italian Crane's-Bill.*
24. *Phæum*. Stalks erect, a foot or more high, branching. Leaves alternate, cut into several jagged lobes. Flowers dark copper-colour, two on each peduncle coming out opposite to the leaves, and have their petals waved. Calyces pointed.—*Brown Crane's-Bill.* Hungary.
25. *Nodofum*. Stalks smooth, angular, about a foot long, with thick, reddish joints. Leaves on the stalk lucid beneath, cut into three serrated lobes; the uppermost ones are almost sessile. Flowers reddish purple, two on a peduncle, having their petals notched. Calyces aristated.—*Knotted Crane's-Bill.* England.
26. *Striatum*. Stalks angular, a little downy, about half a yard high. Leaves opposite, cut into five or three obtusish, snipped lobes, marked with brown at their divisions. Flowers whitish, with fine purple lines like net work, two on a peduncle having their petals cut into two lobes. Calyces aristated.—*Italian Striated Crane's-Bill.*
27. *Sylvaticum*. Stalk erect, about two feet high, and very much branched. Leaves somewhat shield-shaped, opposite, wrinkled, divided into five principal lobes, which are cut on their edges.

- Flowers numerous, purple, or white, two on a peduncle—*Wood Crane's-Bill*. England.
28. *Pratense*. Stalks round, two or three feet high, with spreading branches. Leaves large, shield-shaped, wrinkled, divided into many parts, which are cut into acute segments. Flowers large, light blue or white, two on a peduncle, having their petals entire. Calyces aristated. —*Meadow Crane's-Bill*. England.
29. *Pyrenaicum*. Stalks somewhat erect, branching, about half a yard high, and furnished with soft, spreading hairs. Leaves opposite, hairy, roundish kidney-shaped; the lower ones cut into five rounded, many-parted lobes, and the upper ones into three. Flowers pale purple, or white, two on a peduncle, having their petals notched. Tips of the calyces terminated by an imperfect gland.—*Mountain Crane's-Bill*.
30. *Maculatum*. Stalks erect, about, a foot high, dividing into forked branches. Leaves spotted: the lower ones are divided into five cut lobes; the upper ones are sessile. Flowers pale purple, two on a peduncle from the divisions of the branches, having their petals entire.—*Spotted-leaved American Crane's-Bill*.

***** One flower on a peduncle.

31. *Reichardi*. Radical leaves small, oblongish, slightly cut into three or five crenated lobes. Flowers white, solitary, on short, naked stalks, or peduncles, immediately from the root.—*Small Uniflorous Geranium*. Green-house.
32. *Sanguineum*. Stalks round, hairy, branching, about a foot high. Leaves roundish, opposite, cut to the base into five or six trifid lobes, having their segments entire and linear. Flow-

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ers large, blood-red, solitary, on long peduncles from the joints of the branches. Petals entire.
 ———*Bloody Crane's-Bill.* England.

GEUM. *Herb Bennet.* Comp. p. 25.

Calyx formed of 1 leaf, cut about half way into 10 acute parts, one alternately larger than the other.—
Corolla of 5 roundish petals, having narrow heels, inserted into the calyx.—*Stamina* numerous, awl-shaped, about the length of the calyx, and inserted into it.—
Summits broadish.—*Germina* numerous, hairy, and collected into a head.—*Styles* long, hairy, geniculated, inserted in the sides of the germina.—*Stigmas* simple.—
Seeds compressed, hairy, terminated by the long, geniculated styles.

1. *Rivále.* Stem two or three feet high, erect, and hairy. Leaves long, winged, the extreme lobe very large, roundish, trifid and dentated. Flowers purplish, hang nodding. Petals reverse heart-shaped. Styles twisted, feathered.—
Water Avens. England.
2. *Montánium.* Stalk near a span high, hairy. Leaves almost wedge-shaped, winged, the lobes very obtuse, crowded together, crenated and hairy. Flowers bright yellow, orbicular, and terminate the stalks singly. Styles straight, feathered.—
Mountain Avens. Austria.
3. *Virginiánium.* Stalk two feet or more high. Leaves three, lobed. Flowers small, white, erect. Styles hooked, naked.—
Virginian Avens.

GLADIOLUS. *Corn Flag.* Comp. p. 5.

Flower-sheath of 2 leaves.—*Calyx* none.—*Corolla* of 1 petal, deeply cut into 6 oblong, obtuse segments, forming a short, incurved tube with their base: the

three upper segments close to each other; the three lower ones rather spreading.—*Stamina* 3, awl-shaped, alternately inserted at the divisions of the petal, and bend with the three upper segments.—*Summits* long, linear.—*Germs* below the corolla.—*Style* about the length of the stamina.—*Stigma* broad, trifid and concave.—*Seed-vessel* oblong, bellying, obtuse, rather 3-cornered, 3-celled, 3-valved.—*Seeds* many, and roundish.

1. *Communis*. Stem erect, two feet or more high, roundish. Leaves sword-shaped, and embrace each other at their base. Flowers reddish purple or white, distant, alternate on each side the upper part of the stalk, but they all bend to one side. Petal unequal.—*Common Corn-Flag*. Europe.
2. *Angustus*. Stalk about two feet high. Leaves almost linear, long and grassy. Flowers reddish, few, erect, and stand on one side the top of the stalk. Petal almost equal. Tube longer than the segments.—*Grass-leaved Corn-Flag*. Africa. *Green-house*.
3. *Trifidis*. Stalk round, about two feet high. Radical leaves about two, and are long, narrow, and almost 4-cornered. Flowers two, distant, yellowish, bell-shaped, with a purplish stripe on each segment.—*Sad Flowered Corn-Flag*. *Æthiopia*. *Green-house*.
4. *Spicatus*. Stalk very simple. Leaves linear. Flowers in a spike.—*Spiked Corn-Flag*. Africa. *Green-house*.

GLEDITSIA. *Honey Locust*. Comp. p. 48.

Plants Polygamous.

Male catkin long, cylindrical and compact.—*Proper calyx* of 3 small, acute leaves.—*Corolla* of 3 roundish, sessile, spreading, calyx-like petals, and the

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whole grow to the edge of a top-shaped *Nectarium*.—*Stamina* 6, thread-like, longer than the petals.—*Summits* oblong, compressed, double, incumbent.

Hermaphrodite Florets mostly at the end of the male catkins.—They are like the males, but have a 4-leaved calyx, 4 petals, and a style like the females.

Female catkin loose, and on a distinct plant.—*Proper Calyx* of 5 leaves.—*Petals* 5, long, acute, and somewhat erect.—*Nectariums* 2, short, and like the stamina.—*Germen* broad, compressed, and longer than the petals.—*Style* short, reflexed.—*Stigma* thick, as long as the style, and downy on the upper part.—*Pod* large, broad, and has many transverse partitions, stored with pulp.—*Seeds* solitary, roundish, hard, shining.

1. *Triacanthos*. A tree, having an erect stem, which together with the branches, is armed with long, triple thorns. Leaves winged, and composed of numerous small lobes.—*Triple-thorned Acacia*. Virginia. There is a variety of this with an oval pod, having but one seed, and is called Water Acacia.
2. *Inermis*. A tree without thorns, and the leaves doubly winged.—*Thornless Gleditsia*. Java.

GLOBULARIA. *Globe Daisy*. Comp. p. 6.

Flowers Aggregate.

Common calyx imbricated with equal scales, about the length of the disk.

Partial calyx of 1 tubular, abiding leaf, cut into 5 acute parts.—*Floret* of 1 petal, having a tubular base, and is divided upward into two lips: *Upper-lip* very narrow, cut into 2 short segments: *Lower-lip* divided into 3 large, equal parts.—*Stamina* 4, as long as the floret.—*Summits* incumbent, distinct.—*Germen* egg-shaped.—*Style* as long as the stamina.—*Stigma* obtuse.—*Seed* egg-shaped, included in the calyx.—*Receptacle* oblong, chaffy; chaff distinct.

1. *Vulgáris*. Stalk more than a span high. Lower leaves tridentated; those on the stalk lance-shaped. Flowers blue.—*Common Globularia*. England.
2. *Nudicáulis*. Stalk a foot or more high, naked. Leaves lance-shaped, entire. Flowers blue.—*Naked Stalked Globularia*. Austria.
3. *Alypum*. Shrubby, about two feet high. Leaves lance-shaped, some tridentated, others entire. Flowers blue, on the tops of the branches.—*Myrtle-leaved Globularia*. Italy. *Greenhouse*.

GLORIOSA. *Superb Lily*. Comp. p. 15.

Calyx none.—*Corolla* of 6 very long, lance-pointed, undulated, totally reflexed petals.—*Stamina* 6, awl-shaped, shorter than the corolla, somewhat spreading.—*Summits* incumbent.—*Germs* globular.—*Style* thread-like, inclining, longer than the stamina.—*Stigma* trifid, obtuse.—*Seed-vessel* oval, pellucid, 3-celled, 3-valved.—*Seeds* many, globular, ranged in two rows,

Superba. Stalk 8 or 10 feet high, round, and branching. Leaves long, distant, alternate, slender-pointed, and terminate in tendrils. Flowers drooping, and when fully blown, of a deep gold colour.—*Superb Lily*. Malabar. *Hot-house*.

GNAPHALIUM. *Cudweed*. Comp. p. 38.

Flowers Compound. *Florets* all Tubular.

Common calyx imbricated with dry, coloured scales, rounded on their margins, and somewhat open above.—*Florets* in the disk hermaphrodite, funnel-shaped, cut into 5 reflexed parts, and they are sometimes mixed with female florets without petals.—*Germs* egg-shaped.—*Style* of the length of the stamina.—*Stigma* bifid.—*Seed* oblong, small, crowned with down.

—Seeds of the female florets the same.—Receptacle naked.

1. *Margaritáceum*. Stalk herbaceous, woolly, about half a yard high, and bushy near the top. Leaves narrow-lance-shaped, woolly, sessile and alternate. Flowers silvery, with yellowish middles, in roundish, even-topped clusters at the tops of the branches.—*Pearly Cudweed*. America.
2. *Fætidum*. Stalk more than a foot high. Leaves oblong, acute, entire, downy beneath, and embrace the stem. Flowers white, in roundish clusters at the tops of the branches. Calyces white and yellow.—*Most Stinking African Cudweed*. ☉
3. *Undulátum*. Stalk more than a foot high, branching. Leaves lance-shaped, acute, waved, downy beneath, and run down the stalk at their base. Flowers whitish, and terminate the branches in roundish clusters.—*Stinking Goldyllocks*. Africa. ☉
4. *Luteo-álbium*. Leaves sword-shaped, with irregular margins, on both sides hairy, and half embrace the stalk. Flowers in roundish spikes crowded together, and are of a yellowish white.—*Cluster-headed Cudweed*. Spain. ☉
5. *Niveum*. Shrubby, and very much branched. Leaves thread-like imbricated, or crowded together. Flowers in silvery heads.—*Snowy Cudweed*. Æthiopia. *Green-house*.
6. *Ericoides*. Shrubby, and sends forth many thread-like branches. Leaves linear, acute, hoary beneath, and sessile. Flowers white, in clusters. Calyces purplish.—*Heath-leaved Cudweed*. Cape of Good Hope. *Green-house*.
7. *Stæchas*. Shrubby, much branched. Leaves linear, woolly, more than an inch long, and about a

line broad. Flowers yellow with silvery cups, nearly cylindrical, and terminate the branches in compound bunches. The plant has the smell of Liquorice.—*Golden Cassidony; Elichrysum.* Spain. *Green-house.*

8. *Orientalé.* Shrubby, with a short stalk, putting out many woolly branches. Leaves narrow-lance-shaped, entire, on both sides woolly. Flowers sulphur-colour, and terminate the branches in compound bunches.—*Eastern Cudweed; Immortal Flower.* Africa. *Green-house.*

G O M P H R Æ N A. *Globe Amaranth.* Comp. p. 12.

Calyx composed of 2 abiding, boat-shaped, coloured leaves, larger than the petals.—*Corolla* hairy, cut to the base into 5 abiding awl-shaped parts.—*Nectarium* tubular, nearly cylindrical, as long as the corolla, and cut at the mouth into 5 teeth.—*Stamina* scarce visible.—*Summits* 5, erect, placed in the mouth of the nectarium.—*Germs* egg-shaped.—*Style* thread-like.—*Stigmas* 2, slender.—*Seed-vessel* roundish.—*Seed* large, roundish, with an oblique tip.—*By some this genus is described to have three leaves to the calyx, but the lower one is a bractea.*

1. *Globósa.* Stem more than a foot high, branching. Leaves broad-lance-shaped, entire, opposite, a little hairy. Flowers purple or white in a roundish head, terminating a long, 2-leaved peduncle.—*Globe Amaranth.* India. ☉
2. *Interrúpta.* This differs from the former in the flowers being smaller, and growing in an interrupted spike.—*Spiked Globe Amaranth.* America. ☉

GORTERIA. *Gorteria*. Comp. p. 40.

Flowers compound, radiated.

Common calyx of 1 imbricated leaf: scales somewhat spiny; the interior ones straight, rigid, awl-shaped, and lengthen by degrees till they become longer than the disk.

Florets in the disk hermaphrodite, funnel-shaped, cut into 5 teeth.—*Germs* hairy.—*Style* as long as the floret.—*Stigma* bifid.—*Seed* roundish, crowned with woolly down.

Female rays strap-shaped, lance-pointed.—*Germs* obsolete.—*Style* none.—*Stigma* none.—*Seed* none.—*Receptacle* naked.

1. *Rigens*. Stalk short, woody, and puts out many irregular branches, which bend downward. Leaves narrow-lance-shaped, rigid, and have their margins rolled back: they are white beneath, where each has a prominent, longitudinal rib. Flowers large, of a red-orange-colour, and are beautifully chequered at their bottom with black and white; solitary on long peduncles.—*Stiff-leaved Cape Gorteria*. Green-house. *Sometimes the leaves terminate in three lobes.*

2. *Fruticosa*. Shrubby, near three feet high, with feeble branches. Leaves broadish, oblong, lance-pointed, hoary beneath, and have spiny teeth on their margins. Flowers gold-colour, terminal.—*Ilex-leaved Gorteria*. *Æthiopia*. *Green-house.*

GYPSOPHILA. *Gypsophila*. Comp. p. 21.

Calyx bell-shaped, angular, abiding, and deeply cut into 5 egg-shaped parts.—*Corolla* of 5 egg-shaped,

obtuse, spreading, almost sessile petals.—*Stamina* 10, awl-shaped, spreading.—*Summits* roundish.—*Germen* nearly globular.—*Styles* 2, thread-like.—*Stigmas* simple.—*Seed-vessel* globular, 1-celled.—*Seeds* many, and roundish.

1. *Aggregáta*. Stalk a foot or more high, branching. Leaves small, pointed, recurved. Flowers white, and terminate the branches in close, roundish bunches.—*Spanish Lychnis*.
2. *Prostráta*. Radical leaves smooth, lance-shaped, in clusters. Stalks many, smooth, round, more than a foot long, and prostrate. Flowers whitish, bell-shaped. Style longer than the corolla.—*Mountain Gysophila*.
3. *Fastigiáta*. Stalk a foot or more high, ascending. Leaves linear, lance-pointed, obsoletely three-cornered, smooth, in clusters. Flowers white, in even-topped bunches.—*Helvetian Lychnis*.
4. *Perfoliáta*. Stalks thick, fleshy, 2 or three feet high. Leaves broad-lance-shaped, and half embrace the stalk. Flowers small, white, in loose clusters.—*Spanish Gysophila*.

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HÆMANTHUS. *Blood Flower.* Comp. p. 16.

Involucrum of 6 large, oblong, erect, abiding leaves, representing an umbel.—*Corolla* of 1 petal, having a very short, angular tube, and a limb divided into 6 erect, linear segments.—*Stamina* 6, awl-shaped, longer than the corolla, and inserted into its tube.—*Summits* oblong, incumbent.—*Germen* below the corolla.—*Style* as long as the stamina.—*Stigma* small.—*Berry* roundish, 3-celled.—*Seeds* solitary, 3-cornered.

1. *Coccineus*. Leaves broad, flat, fleshy, tongue-shaped and spread on the ground. Stalk a foot or more high, and is terminated by a cluster of blood-red flowers.—*Scarlet Cape Hæmanthus*. Green-house.
2. *Ciliaris*. Leaves tongue-shaped, ciliated and spreading. Flowers pale red.—*Ciliated Cape Blood Flower*. Green-house.
3. *Carinatus*. Leaves long, linear and keeled. Flowers red.—*Hollow-leaved Blood Flower*. Cape of Good Hope. Green-house.
4. *Puniceus*. Leaves broad-lance-shaped, waved and erect. Flowers yellowish red.—*Bastard Dragon*, Guinea, Hot-house.

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HALLERIA. *African Fly Honeyfuckle.* Comp. p. 30.

Calyx formed of 1 leaf, cut about half way into 3 parts, the upper one much the broadest.—*Corolla* of 1 gaping petal, having a roundish base, an inflexed bellying throat, and a limb, cut into 4 parts, the uppermost being obtuse, notched, rather the longest, and the lowermost very short, slender and acute.—*Stamina* 4, bristle-like, straight, two shorter than the rest, all longer than the corolla, and inserted into its tube.—*Summits* roundish, double.—*Germe*n egg-shaped, and ends in a style as long as the stamina.—*Stigma* simple.—*Berry* roundish, 2-celled, and contains 2 hard seeds.

Lúcida. Shrubby, evergreen, five or six feet high, much branched near the top. Leaves oval, serrated, shining and opposite. Flowers red, solitary, scattered on the branches.—*African Fly Honeyfuckle.* Green-house.

HAMAMELIS. *Witch Hazel.* Comp. p. 7.

Involucrum of 3 or 4 roundish leaves, surrounding three or four flowers.—*Calyx* double: the exterior one of two small, roundish leaves; the interior of 4 oblong, erect ones.—*Corolla* of four very long, linear, equal, reflexed petals.—*Nectarium* of 4 stumped leaves, adhering to the corolla.—*Stamina* four, linear, shorter than the calyx.—*Summits* horned, inflexed.—*Germe*n egg-shaped, hairy, ending in two styles as long as the stamina.—*Stigmas* knob-like.—*Nut* egg-shaped, about half covered by the calyx.

Virginiána. Shrubby, with a stem about three feet high, putting out many slender branches. Leaves oval, dentated, and resemble those of the hazel.—*Witch Hazel.*

HEDORA. *Ivy*. Comp. p. 11.

Calyx cup-shaped, very small, and cut into 5 obtuse teeth.—*Corolla* of 5 oblong, spreading petals, having their tips turned inward.—*Stamina* 5, awl-pointed, about the length of the corolla.—*Summits* oblong, incumbent.—*Germen* top-shaped.—*Style* very short.—*Stigma* simple.—*Berry* globular, 1-celled.—*Seeds* about five, somewhat angular.

1. *Hélix*. Stems woody, trailing, and support themselves by sending out fibres into any thing in their reach. Leaves nearly egg-shaped, lobed, smooth, totally green, or striped with white or yellow.—*Common Ivy*. England.
2. *Quinquefolia*. Stems slender, swelled at their joints, and may be trained to a great length. Leaves composed of five almost oval, pointed lobes, on short footstalks, and are coarsely serrated near their tip. When decaying, they turn red.—*Virginian Creeper*.

HEDYSARUM. *French Honey-suckle*. Comp. p. 35.

Flowers Butterfly-shaped.

Calyx of 1 abiding leaf, cut about half way into 5 awl-shaped, erect parts.

Standard of the corolla oblong, compressed, reflexed and notched at the tip.

Wings oblong, straight, narrower than the other parts.

Keel compressed, straight above half its length, when it is bent inward almost at a right angle.—*Stamina* 10, one detached, and nine united.—*Summits* roundish, compressed.—*Germen* linear, compressed.—*Style* awl-shaped.—*Stigma* very simple.—*Pod* compressed, jointed.—*Seeds* kidney-shaped one in each joint.

* *Leaves winged.*

1. *Coronarium*. Stalk crooked, smooth, two or three feet high, and sends out many diffuse branches. Leaves winged, and composed of about five pair of oval, entire lobes, terminated by an odd one, which is the largest. Flowers red or white, in shortish spikes from the wings of the leaves. Pods rough, straight, divided into 3 or 4 orbicular joints.—*Common French Honeyfuckle. Italy.*
2. *Flexuosum*. Stalks diffuse, about a foot long. Leaves winged, and composed of about three pair of oval lobes, terminated by an odd one. Flowers bluish-red, in spikes at the tops of the branches. Pods prickly, bent too and fro. — *Crooked-podded Honeyfuckle. Asia. ☉*
3. *Onobrychis*. Stalks about half a yard high, naked near their top. Leaves winged, and composed of seven or more pair of oblong-oval lobes, terminated by an odd one. Flowers pale red, have their wings shorter than their calyx, in spikes at the ends of the branches.—*St. Foin; Cock's-head. England.*

* * *Leaves composed of 3 Lobes.*

4. *Canadense*. Stalks herbaceous, erect, somewhat streaked and angular. Lower leaves simple, but those on the stalks are composed of three lance-shaped lobes. Stipulæ awl-shaped. Flowers in a racemus.—*Canadian Hedyсарum.*
5. *Frutescens*. Somewhat shrubby, two or three feet high, with bushy branches near the top. Leaves composed of three oval, lance-pointed lobes, which are hairy beneath. Flowers purplish-yellow, in short spikes at the ends of the branches.—*Shrubby Virginian Hedyсарum.*

6. *Viscidum*. Shrubby, the stalks round, purple, bristly and clammy. Leaves composed of three small, roundish lobes, which are hairy beneath, and the middle one the largest. Flowers bluish, and terminate the branches in a long racemus. Pods slender, pointed, entire, membranous.—*Indian Rough-stalked Hedy-sarum*. Hot-house.

* * * Leaves composed of 2 Lobes.

7. *Diphyllum*. Stalks about nine inches high. Leaves composed of two oval lobes. Floral leaves small, simple, sessile. Flowers yellow, solitary, amongst the leaves, near the tops of the stalks.—*Two-leaved French Honey-suckle*. India. ☉

* * * * Leaves simple.

8. *Alhagi*. Shrubby, about three feet high, with many spreading, prickly branches. Leaves simple, lance-shaped, somewhat obtuse. Flowers reddish-purple, in small clusters from the sides of the branches.—*Shrubby Syrian Hedy-sarum*. Green-house.

9. *Maculatum*. Stalks slender, about a foot long. Leaves simple, egg-shaped, obtuse, spotted, on footstalks. Flowers yellowish-red, mostly stand by pairs, forming spikes at the ends of the branches. Pods narrow, curved.—*Spotted-leaved Indian Hedy-sarum*.

10. *Gangeticum*. Stalk erect, angular, purplish, and hairy. Leaves simple, broad-egg-shaped, pointed, smooth above, hairy beneath, alternate, on footstalks, having two membranous scales at their base. Flowers yellowish-purple, and terminate the stalks in long, erect, hairy spikes. Pods smooth.—*Gangetic Hedy-sarum*. India. Hot-house.

11. *Vaginále*. Stalks round, procumbent, and jointed. Leaves simple, oblong, pointed, rather fleshy, on long footstalks, having a sheath at their base. Flowers blue, in long slender spikes from the joints of the stalks. Pods smooth.—*Procumbent Indian Hedyfarum*. ☉

OBSERVATION. *The third sort is frequently sown as fodder for cattle, and many people greatly esteem it, as it abides many years, and generally produces a plentiful crop, especially on a gravelly soil.*

HELENIUM. *Bastard Sunflower*. Comp. p. 39.

Flowers Compound, Radiated.

Common calyx of 1 flattish leaf, deeply divided into about 20 narrow, acute segments.

Florets in the disk hermaphrodite, numerous, tubular, shorter than the calyx, and cut into 5 erect teeth.—*Germen* oblong.—*Style* of the length of the stamina.—*Stigma* bifid.—*Seed* reverse egg-shaped, angular, crowned by a small, 5-toothed calyx.

Female rays near twenty, wedge-shaped, plaited, longer than the calyx, deeply cut into 3 or 4 teeth.—*Germen* oblong.—*Style* very short.—*Stigmas* 2, spreading.—*Seed* like the former.—*Receptacle* convex, naked in the disk; chaffy at the edge.

Autumnále. Stem 5 or 6 feet high, branching near the top. Leaves oblong-oval, both ends pointed, coarsely serrated, with their base running equally down the stalk, from leaf to leaf. Flowers yellow, on leafy peduncles 3 or 4 inches long.—*Bastard Sunflower*. North America.

HELIANTHUS. *Sunflower*. Comp. p. 40.

Flowers Compound, Radiated.

Common calyx imbricated with many oblong, pointed, spreading scales, having their tips very open.

Florets in the disk hermaphrodite, very numerous, almost cylindrical, but swelled at their base, and are cut into 5 acute, spreading teeth.—*Germen* oblong.—*Style* of the length of the floret.—*Stigmas* 2, reflexed.—*Seed* oblongish, compressed, 4-sided, crowned by 2 lance-shaped, deciduous *aristæ*.—*Rays* strap-shaped, lance-pointed, very long, and barren.—*Receptacle* large, flat, chaffy.—*Chaff* lance-shaped, 2 between each seed, and deciduous.

1. *Annuus*. Stem thick, simple, from 4 to 6 feet or more high. Leaves, large and all of them heart-shaped and 3-nerved. Flowers very large, yellow, single or double, and hang nodding.—*Annual Sunflower*. Peru.
2. *Multiflorus*. Stems about five feet high, very rough, and branching. Leaves between egg and heart-shaped, pointed, 3-nerved, coarsely ferrated, and totally green or striped. Flowers pretty large, yellow, single, or double, and each has a recurved style at its base. Scales of the calyx between 40 and 50, dark green, ciliated with white hairs.—*Common Perennial Sunflower*. Virginia.
3. *Decapetalus*. Stems 5 or 6 feet high, smooth below, rough upward, and branching. Leaves egg-shaped, pointed, roughish, 3-nerved, ferrated, opposite, on short footstalks. Flowers yellow; rays narrow, about ten in number. Scales of the calyx between 20 and 30.—*Ten-Petaled Sunflower*. Canada.
4. *Altissimus*. Stalk erect, round, smooth, deep purple, ten feet or more high, and puts out many roughish branches near the top. Leaves rough, alternate, lance-shaped, with a long, entire point, but they are cut downward into a few distant teeth, and are ciliated at their base:

the lower ones are broadish, and have three prominent nerves near their bottom. Flowers pale yellow, on long, hairy peduncles. Rays from twelve to sixteen.—*Tallest Pennsylvanian Sunflower.*

5. *Gigánteus.* Stalk erect, about nine feet high, green and branching near the top. Leaves rough, alternate, lance-shaped, ciliated near their base, but are not 3-nerved as in the former. Flowers yellow, on rough peduncles. Rays about twenty.—*Giant Sunflower.* Virginia.
6. *Lævis.* Stalk five or six feet high, smooth, brownish, and branching. Leaves lance-shaped, smooth, opposite, serrated, 3-nerved. Flowers yellow, on smooth peduncles. Rays about twelve. Leaves of the calyx awl-shaped, smooth.—*Smooth Virginian Sunflower.*
7. *Angustifólius.* Stalks purplish, five or six feet high. Leaves very narrow, linear, pointed, rough, pale beneath, have their margins revolute, and they stand alternate. Flowers brown in the middle, and have yellow rays.—*Narrow-leaved Virginian Sunflower.*
8. *Diviariçátus.* Stalk purplish, about five feet high, the upper part very smooth. Leaves oblong-egg-shaped, 3-nerved, sessile and opposite. Flowers small, yellow, in panicles composed of three principal branches, the middle one simple.—*Forking American Sunflower.*

HELIOTRÓPIUM. *Turnsole.* Comp. p. 8.

Calyx formed of 1 abiding, tubular leaf, cut into 5 teeth.—*Corolla* of 1 petal, having a tube as long as the calyx, a naked mouth, and a flat brim cut about half way into 5 obtuse, almost equal segments.—*Stamina*

scarce any.—*Summits* 5, oblong, placed in the tube of the corolla, and form an arch with their tips.—*Germina* 4.—*Style* very short.—*Stigma* obtuse, notched.—*Seeds* 4, oval, pointed, lodged in the calyx.

1. *Peruviánum*. Shrubby, about three feet high, dividing into many slender branches. Leaves nearly oval, lance-pointed, hairy and wrinkled. Flowers purplish or white, and terminate the branches in clusters of reflexed spikes.—
Sweet-scented Turnsole. Peru. *Hot-house*.
2. *Fruticósum*. Leaves narrow-lance-shaped, hairy. Flowers in solitary, sessile spikes.—*Gromwel-leaved Turnsole*. Jamaica. *Green-house*.

HELLEBORUS. *Hellebore*. Comp. p. 27.

Calyx none.—*Corolla* composed of 5 large, roundish, concave petals.—*Nectariums* many, small, scoop-shaped, notched leaves, ranged round the base of the stamina.—*Stamina* numerous, thread-like.—*Summits* oblongish, erect, furrowed.—*Germina* from 3 to 6, compressed.—*Styles* awl-shaped.—*Stigmas* thickish.—*Seed-vessels* oblong, compressed.—*Seeds* many and roundish.

1. *Niger*. Leaves spreading, foot-shaped, and composed of about seven oblong, leathery lobes, slightly serrated near their tips. Flowers large, white tinged with purple, on almost naked peduncles about a finger long. Styles about six.—
Black-rooted Hellebore; Christmas Rose. Austria.
2. *Hyemális*. Root tuberous, and sends forth a few jagged leaves and a short flower-stalk, terminated by one yellow flower, sitting on a large snipped, horizontal leaf. Styles from five to seven.—*Winter Aconite*. Italy.
3. *Viridis*. Stalk erect, about half a yard high, a little branching. Leaves fingered, and composed of

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about nine, long, acutely ferrated lobes. Flowers green, in clusters.—*Green Hellebore*. England.

4. *Fætidus*. Stalks jointed, and divided into many spreading branches. Leaves foot-shaped, composed of seven or eight ferrated, acute pointed lobes. Flowers greenish, tinged with purple, in clusters.—*Bear's-foot*; *Setterwort*; *Peg-root*. England.

OBSERVATION. *The root of the first sort is the Black Hellebore of the shops, and that of the fourth is the Pegroot used by the Farriers.*

HEMEROCALLIS. *Day Lily*. Comp. p. 16.

Calyx none.—*Corolla* composed of a short cylindrical tube, and a long bell-shaped limb, cut to the base into 6 oblong, pointed segments.—*Stamina* 6, awl-shaped, declining, shorter than the corolla, the upper ones the longest.—*Summits* oblong, incumbent.—*Germs* roundish.—*Style* thread-like, longer than the stamina.—*Stigma* small, obtuse.—*Seed-vessel* egg-shaped, 3-cornered, 3-celled.—*Seeds* many and roundish.

1. *Flava*. Stalk naked, about two feet high, having its branches terminated by several bright yellow flowers.—*Yellow Day Lily*. Hungary.
2. *Fulva*. This grows taller than the former, and the flowers are of a tawny-red colour.—*China Day Lily*; *St. Burno's Lily*.

HERMANNIA. *Hermannia*. Comp. p. 32.

Calyx of 1 roundish, inflated, abiding leaf, cut into 5 teeth, bent inward.—*Corolla* of 5 petals, twisted contrary to the motion of the sun, having obtuse, spreading limbs, and hood-like, half tubular heels, as long

as the calyx.—*Stamina* 5, broadish, smooth below and united.—*Summits* erect, pointed, conniving.—*Germs* roundish, 5-cornered.—*Styles* 5, longer than the *stamina*, and closed into a thread-shaped body.—*Stigmas* simple.—*Seed-vessel* roundish, 5-cornered, 5-celled, and wide open at the tip.—*Seeds* many and small.

1. *Althæifolia*. Whole plant woolly, about two feet high. Leaves egg-shaped, irregular on their margins, and slightly crenated. Flowers large, deep yellow, in clusters from the bosom of three-lance-shaped, sessile leaves, and each peduncle sustains two flowers.—*Marshmallow-leaved Hermannia*. Æthiopia. Green-house.
2. *Alnifolia*. Shrubby, five or six feet high, putting forth many round, woolly branches. Leaves wedge-shaped, roundish, folded, and crenated at their tip. Flowers small, yellow, in short clusters at the ends of the branches.—*Alder-leaved Hermannia*. Africa. Green-house.
3. *Hyssopifolia*. Shrubby, about six feet high, much branched, with the young shoots hairy. Leaves more than an inch long, narrow wedge-shaped, obtuse, and serrated near their tip. Flowers sulphur-colour, in small bunches from the wings of the branches. Calyces very much inflated.—*Hyssop-leaved Hermannia*. Æthiopia. Green-house.
4. *Lavendulifolia*. Shrubby, bushy, and about half a yard high. Leaves narrow, obtuse, entire, hairy, and of a pale green. Flowers smooth and yellow.—*Lavender-leaved Hermannia*. Æthiopia. Green-house.

HESPERIS. *Dame's Violet*. Comp. p. 32.

Flowers Cross-shaped.

Calyx composed of 4 linear, acute, parallel, deciduous leaves, two of them gibbous at their base, and

opposite.—*Corolla* of 4 petals in form of a cross, having linear heels rather longer than the calyx, and oblongish limbs, a little reflexed to the left.—*Stamina* 6, awl-shaped, two of them shorter by half than the rest, and each is inserted into a roundish gland.—*Summits* oblong, erect, bifid at their base, reflexed at their tip.—*Germen* obsoletely 4-cornered, of the length of the calyx.—*Style* none.—*Stigma* erect, parted in two, the parts conniving at their tip.—*Pod* long, roundish, streaked, 2-celled.—*Seeds* many, egg-shaped, compressed.

1. *Matronális*. Stem simple, erect, about half a yard high, round and hairy. Leaves oblong-egg-shaped, lance-pointed and dentated. Flowers purple or white, single or double. Petals notched.—*Common Garden Rocket*. Italy ♂.
2. *Inodóra*. Stem simple, erect, two feet or more high. Leaves somewhat halbert-shaped and dentated. Petals obtuse, scentless.——
Unsavory Dame's Violet ♂.

HIBISCUS. *Syrian Mallow*. Comp. p. 33.

Calyx double, abiding: *the outer one* of from 5 to 12 linear leaves; *inner one* cup-shaped, and cut about half way into 5 segments.—*Corolla* of 5 reverse-heart-shaped petals, united at their base.—*Stamina* many, united below into a tube, spread open above.—*Summits* kidney-shaped.—*Germen* roundish.—*Styles* 5, thread-like, united downward into a column.—*Stigmas* knob-like.—*Seed-vessel* either oblong, or globular, 5-celled.—*Seeds* kidney-shaped.

1. *Syriacus*. Shrubby, about 8 feet high, with spreading branches, covered with a grayish bark. Leaves oblong, pointed, serrated upward, wedge-shaped downward, and lobed near their

middle. Flowers red, purple, or whitish, with dark crimson bottoms, and stand on short peduncles. Segments of the outer calyx about seven, and as long as the inner.——*Syrian Mallow; Althæa Frutex.* Syria.

2. *Rosa-sinensis.* Shrubby, and puts forth many slender branches near the top. Leaves smooth, egg-shaped, pointed, coarsely serrated upward. Flowers red, single or double, on long peduncles. Segments of the outer calyx shorter than the inner.——*China Rose.* India. *Hot-house.*
3. *Mutabilis.* Shrubby, and puts forth several hairy branches near the top. Leaves heart-shaped at their base, five angled, and slightly serrated. Flowers at their first blowing white, afterwards reddish, and at last purple.——*Martinico Rose.* India. *Hot-house.*
4. *Malvaviscus* Shrubby, with a tree-like stem. Leaves smooth, crenated, heart-shaped at their base, with small outward angles. Flowers scarlet, the petals twisted and never open. Seed-vessel roundish. —— *Mexican Mallow.* *Hot-house.*
5. *Populneus.* Shrubby, dividing into many downy branches near the top. Leaves broad-heart-shaped, entire. Flowers yellowish, and terminate the branches in loose spikes. Outer calyx mostly entire.——*Popular-leaved Hibiscus.* India. *Hot-house.*
6. *Mánihot.* Somewhat shrubby, sending up shoots a yard or more high. Leaves hand-shaped, and deeply divided into five long, finger-like, irregularly serrated lobes, the two lower ones angled near their base. Flowers large, sulphur-colour, with purple bottoms, on short peduncles from the sides of the stalk. Seed-vessel

conical, hairy and five-cornered. Segments of the outer calyx 5.—*Fingered-leaved Hibiscus*.
India. *Hot-house*.

7. *Abelmóschus*. Stem herbaceous, about a yard high, with 3 or 4 side branches. Leaves large, hairy, nearly shield-shaped, and cut into 5 or 7 acutely serrated angles. Flowers sulphur-colour with purple bottoms, on long peduncles from the sides of the stalk. Seeds of a musky smell.
—*Musky Hibiscus*. India. *Hot-house*.
8. *Triónum*. Stalk more than a foot high, round and hairy. Leaves generally cut into 3 somewhat jagged lobes. Flowers sulphur-colour with dark purple bottoms. Segments of the outer calyx about 12. Inner calyx inflated. —
Bladdered Ketmia; *Venice Mallow*. Italy. ☉

HIERATUM. *Hawkweed*. Comp. p. 37.

Flowers Compound.

Common calyx cylindrical, and imbricated with many, unequal, linear scales, longitudinally lodging on each other.

Florets all hermaphrodite, numerous, strap-shaped, stumped, 5-toothed, and spreading.—*Germs* nearly egg-shaped.—*Style* as long as the stamina.—*Stigmas* 2, recurved.—*Seed* short, crowned with hair-like down.—*Receptacle* naked.

Aurántium. Leaves oblong, broadest upward, lance-pointed, slightly serrated, and hairy. Stalk round, hisped, almost leafless, more than a foot high, and it is terminated by a kind of umbel of deep orange flowers, having blackish, hairy calyces.—*Garden Hawkweed*; *Grim the Collier*. Austria

HIPPOPHAE. *Bastard Rhamnus.* Comp. p 46.

Plants Diœcious.

Calyx of the male flower cut into 2 egg-shaped, conniving scales.—*Corolla* none.—*Stamina* 4, very short.—*Summits* oblong, angular.

Calyx of the female flower of 1 oblongish, bifid, deciduous leaf.—*Corolla* none.—*Germen* small, roundish.—*Style* very short.—*Stigma* oblong, erect, longer than the calyx.—*Berry* globular, 1-celled.—*Seed* roundish.

1. *Rhamnoïdes.* Shrubby, about eight feet high, with slender rugged branches, having solitary spines placed in their divisions. Leaves narrow-lance-shaped, sessile, white beneath, with a prominent rib. Flowers small, and come forth from the sides of the branches at the wings of the leaves.—*Swallow Thorn; Sea Buck Thorn.* England.
2. *Canadensis.* The leaves of this are oblong-egg-shaped, and about half the length of the former.—*Canada Sea Buck Thorn*

HYACINTHUS. *Hyacinth.* Comp. 15.

Calyx none.—*Corolla* of 1 egg, or bell-shaped petal, divided into 6 reflexed parts at the brim.—*Stamina* 6, short, awl-shaped.—*Summits* conniving.—*Germen* roundish, 3-cornered, with 3-furrows.—*Style* shorter than the corolla.—*Stigma* obtuse.—*Seed-vessel* roundish, 3-cornered, 3-celled.—*Seeds* roundish.

1. *Nonscriptus.* Flowers oblong-bell-shaped, of a blue, flesh, or white colour, are cut almost to their base into six segments, having their tips rolled back, and they generally hang nodding on one side the stalk.—*Wood Hyacinth; Harebells.* England.

2. *Serótinus*. Much like the former, but the three exterior segments of the corolla are detached from the three interior, and the three interior are united.—*Late-flowering Hyacinth*. Spain.
3. *Orientalis*. Flowers funnel-shaped, have a roundish bellying base, and are cut about half way from their top into six spreading segments.—*Common Garden Hyacinth*. Asia.
4. *Muscári*. Flower-stalk round, thickish, scarcely a span high, and is terminated by an almost cylindrical spike of bluish green, or ash-colour, oblong-egg-shaped, equal flowers, smelling much like those of the *Narcissus Poeticus*. Summits large, double.—*Musk Hyacinth*. Asia.
5. *Comósus*. Flower-stalk about a foot high. Flowers cylindrical, angular, of a purplish brown colour, appearing like seed-vessels, and they form a loose racemus, which is terminated by a tuft of blue barren flowers, on long peduncles of the same colour. Bractæ very short and hooked.—*Fair-Haired Hyacinth*. France.
6. *Monstrósus*. This, though deemed a distinct species, is no more than a variety of the *Comósus*. The panicle of flowers, which is large and bushy, consists of barren flowers only; these are proliferous, and at every ramification may be observed the same kind of bractæ as in the former.—*Feathered Hyacinth*.
7. *Botryoides*. Leaves erect, furrowed, and have their edges rolled inward. Flowers globular, uniform, almost scentless, and they terminate the stalk in a racemus.—*Greater Grape Hyacinth*. Italy.
8. *Racemósus*. Leaves spreading, decumbent, and keeled beneath. Flowers egg-shaped, sweet-

scented, the upper ones sessile, and they terminate the stalk in a racemus.—*Lesser Grape Hyacinth.* Southern parts of Europe.

9. *Orchioïdes.* (See *Lachenalia.*)

OBSERVATION. From the third sort is raised that vast variety of beautiful double *Hyacinths*, which so much attract the care and attention of the Florist, and which now amount to above five hundred.

HYOSCŶAMUS. *Henbane.* Comp. p. 9.

Calyx formed of 1 abiding leaf, cut into 5 acute teeth.—*Corolla* of 1 funnel-shaped petal, having a shortish, almost cylindrical tube, and a somewhat spreading brim, cut about half way into 5 obtuse segments, the two foremost slit the deepest and diverge.—*Stamina* 5, awl-shaped, shorter than the corolla, inclining.—*Summits* oblongish, compressed.—*Germen* roundish.—*Style* thread-like.—*Stigma* knob-like.—*Seed-vessel* 2-celled, egg-shaped, obtuse, with a large lid covering the top horizontally.—*Seeds* numerous.

1. *Albus.* Stalks about half a yard high. Leaves roundish, obtuse angled, on long footstalks. Flowers sulphur-colour, with either green or dark purple bottoms.—*Lesser Henbane.* Europe. ☉

Aureus. Whole plant very hairy. Stalks weak, round, near two feet high. Leaves small, roundish, gnawed or irregularly dentated, opposite on flat footstalks. Flowers yellow, with purple bottoms, on peduncles from the sides of the branches.—*Cretan Henbane.* Greenhouse.

HYPECŶUM. *Hypocoum.* Comp. p. 7.

Calyx composed of 2 small, opposite, egg-shaped, deciduous leaves.—*Corolla* of 4 petals: the outer two are

opposite, broad, and cut into three obtuse lobes; the two *inner* ones are cut into three segments, the middle ones concave and erect.—*Stamina* 4, awl-shaped, erect, covered by the middle segments of the inner petals.—*Summits* oblong, erect.—*Germen* oblong, almost cylindrical.—*Styles* scarce any.—*Stigmas* 2, acute. *Pod* long, incurved, either jointed, or not.—*Seeds* solitary, 1 in each joint, globular and somewhat compressed.

1. *Procumbens*. Stalks slender, prostrate. Leaves winged, and composed of pointed, grayish lobes. Flowers yellow, solitary, on peduncles from the wings of the leaves. Pods long, jointed, compressed, and bowed.———*Broad-leaved Hypocoum*. Spain. ☉
2. *Pendulum*. Stalks more upright, and the lobes of the leaves narrower than the former. Pods long, cylindrical, not jointed, pendulous.———*Narrow-leaved Hypocoum*. ☉
3. *Erectum*. This greatly resembles the second sort, but the pods are erect and twisted.———*Eastern Hypocoum*. ☉

HYPERICUM. *Saint John's-wort*. Comp. p. 36.

Calyx of 1 abiding leaf, cut to the base into 5 egg-shaped parts.—*Corolla* of 5 oblong-oval, spreading petals.—*Stamina* numerous, hair-like, united at their base into 3 or 5 distinct parcels.—*Summits* small.—*Germen* roundish.—*Styles* 1, 2, 3, or 5, thread-like.—*Stigmas* obtuse.—*Seed-vessels* either globular, or oblong-egg-shaped, 2-valved, crowned with the styles, and have as many cells as styles.

1. *Baleáricum*. Shrubby, about two feet high, with very slender, reddish, warted branches. Leaves small, oval, sessile, opposite, and warted,

Flowers yellow, one at the end of a branch. Styles five.—*Majorcan St. John's-wort*. Green-house.

2. *Ascyron*. Stalks herbaceous, about half a yard long, simple, and 4-cornered. Leaves large, oblong-oval, entire, opposite, sessile. Flowers very large, bright yellow. Germen conical. Styles five. ——— *Large-flowered Tutsan*. Siberia.
3. *Androsæmum*. Shrubby, two or three feet high, with two edged branches. Leaves egg-shaped, sessile, entire, opposite. Flowers small, dull yellow. Germen globular. Styles three, very short. ——— *Common Tutsan; Park-leaves*. England.
4. *Olympicum*. Shrubby, with a short erect, woody, stem, dividing into many branches. Leaves narrow, obtusish, entire, slender at their base, and opposite. Flowers bright yellow. Calyces acute. Stamina numerous, most of them shorter than the corolla, petals thickish, reflexed. Germen oblong-egg-shaped. Styles three, longer than the stamina.—*Eastern St. John's-wort*.
5. *Hircinum*. Shrubby, about three feet high, with round stalks, and two-edged branches. Leaves oblong-egg-shaped, opposite. Flowers yellow. Stamina longer than the corolla. Germen oblong-egg-shaped. Styles three.——— *Stinking St. John's-wort*. Crete.
6. *Canariense*. This grows twice the height of the fifth, which is the chief distinction. The leaves have the same rank smell.—*Canary St. John's-wort*.
7. *Monogynum*. Shrubby, with purplish stalks near two feet long. Leaves oblong, smooth, oppo-

site. Flowers yellow. Stamina rather longer than the corolla. Style one, crowned by five stigmas. Calyces purple.—*Chinese St. John's-wort.*

HYSSOPUS. *Hyssop.* Comp. p. 28.

Flowers Lipped.

Calyx of 1 abiding, almost cylindrical leaf, cut into five acute teeth.—*Corolla* of 1 gaping petal, having an almost cylindrical tube, as long as the calyx: *upper-lip* flat, straight, and notched; *lower-lip* trifid, the side segments short, the middle one broad, and cut into two equal, diverging, crenated parts.—*Stamina* 4, erect, distant, longer than the corolla, and the 2 upper ones the shortest.—*Summits* incumbent.—*Germs* 4-parted.—*Style* about the length of the upper-lip.—*Stigma* bifid.—*Seeds* 4, egg-shaped, lodged in the calyx.

1. *Officinalis.* Somewhat shrubby, about a foot high, with four cornered branches. Leaves small, lance-shaped, opposite, with smaller leaves issuing from their wings. Flowers blue, and terminate the branches in leafy spikes.—*Common Hyssop.*
2. *Nepetoides.* Stalks erect, 4-cornered, about four feet high. Leaves nearly heart-shaped, serrated, pointed, opposite on short footstalks. Flowers blue or pale yellow, in close spikes at the tops of the stalks.— — *Figwort-leaved Hyssop.*
Canada. ♂

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JASMINUM. *Jasmine.* Comp. p. 3.

Calyx formed of 1 abiding leaf, having a tubular base, and a brim cut into 5 linear parts.—*Corolla* of 1 salver-shaped petal, having a long, cylindrical tube, and a flat limb, divided into 5 either acute, or obtuse segments.—*Stamina* 2, short, inserted into the tube of the corolla.—*Summits* oblong.—*Germen* roundish.—*Style* thread-like, longer than the stamina.—*Stigma* bifid.—*Berries* oval, simple or double, 2-celled.—*Seeds* 2, large, oblong-egg-shaped.

1. *Officinále.* Shrubby, with long trailing stalks. Leaves opposite, and composed of about seven lance-shaped lobes, the odd one twice as long as the others. Flowers white, and their segments acute.—*Common Jasmine.* India.
2. *Grandiflorum.* Shrubby, with erect stalks. Leaves opposite, and composed of about seven lobes, the side ones obtuse, the odd one lance-shaped, and lobed near its base. Flowers white, tinged with red downward.—*White Catalonian Jasmine.* Green-house.
3. *Azoricum.* Shrubby. Leaves opposite, and composed of 3 large, shining, almost heart-shaped

- lobes, on footstalks. Flowers white.——
Azorian Jasmine. India. *Green-house*
4. *Odoratissimum.* Shrubby, with cylindrical branches. Leaves alternate, and composed of three or five oval, shining lobes, the odd one much the largest. Flowers yellow, and their segments obtuse. Teeth of the calyx very short.——
Yellow Indian Jasmine. *Green-house.*
5. *Fruticans.* Shrubby, six or eight feet high, with weak, angular branches. Leaves alternate, and are either simple, or composed of three oblong, obtuse lobes. Flowers yellow, scentless.——
Common Yellow Jasmine. Europe.
6. *Humile.* Shrubby, with angular branches. Leaves alternate, and composed of three or five sharp-pointed lobes. Flowers yellow, rather larger than the former.——*Dwarf Italian Jasmine.*

IBERIS. *Candy Tuft.* Comp. p. 31.

Flowers cross-shaped.

Calyx composed of 4 equal, reverse-egg-shaped, spreading, deciduous leaves.—*Corolla* of 4 petals: the two *outer* ones oblong, obtuse, spreading, equal, and have narrow heels as long as the calyx; the *inner* ones are small and reflexed.—*Stamina* 6, awl-shaped, erect, the 2 side ones shorter than the rest.—*Summits* roundish.—*Germen* roundish, compressed.—*Style* thread-like.—*Stigma* obtuse.—*Seed-vessel* roundish, notched, compressed, concave, and keeled.—*Seeds* few, nearly egg-shaped.

1. *Umbellata.* Stalk about a foot high branching. Lower leaves dentated; the upper ones lance-shaped, acute and entire. Flowers purple, crimson, or white, and terminate the branches

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in hemispherical bunches.—*Common Candy Tuft.* Spain. ☉

1. *Odoráta.* Stalk about a span high, branching. Leaves narrow, serrated, and broadest near their end. Flowers white, sweet-scented, in roundish bunches at the tops of the branches. *Savory Candy Tuft.* ☉
3. *Sempervirens.* Somewhat shrubby, and puts forth numerous stalks about a span high. Leaves almost linear, entire. Flowers pure white, and terminate the branches in large roundish bunches.—*Evergreen Candy Tuft.* Crete.
4. *Semperflórens.* Shrubby, about half a yard high, with drooping, crooked branches. Leaves wedge-shaped, thick, rounded at their tip. Flowers white, in a sort of umbel.—*Ever-flowering Candy Tuft.* Persia. *Greenhouse.*

I L E X. *The Holly.* Comp. p. 7.

Calyx of 1 small, abiding leaf, cut into 4 teeth.—*Corolla* of 1 petal, cut to the base into 4 roundish, spreading segments.—*Stamina* 4, shorter than the corolla, and inserted into it.—*Summits* oblongish.—*Germen* roundish.—*Styles* none.—*Stigmas* 4, obtuse.—*Berry* roundish, 4-celled.—*Seeds* 4, hard, oblong.

1. *Aquifólium.* Leaves oblong-egg-shaped, sinuated, spiny, and are either of a glossy green or blotched with yellow, or white.—*Common Holly.* England. *The varieties as to the blotched leaves are very numerous.*
2. *Cassine.* Leaves long, broad-lance-shaped, spiny and serrated upward.—*Dahoon Holly.* Carolina.

ILLECEBRUM. *Mountain Knotgrafs.* Comp. p. 10.

Calyx 5-angled, and composed of 5 acute pointed, cartilaginous, abiding leaves, having their tips distant.—*Corolla* none.—*Stamina* 5, hair-like, within the calyx.—*Summits* simple.—*Germen* egg-shaped, acute, ending in a short, bifid style.—*Stigma* obtuse.—*Seed-vessel* dry, hollow, roundish, pointed at both ends, 5-valved, 1-celled, and covered by the calyx.—*Seed* 1, large, shaped like the seed-vessel.

1. *Paronychia.* Stalks procumbent, slender, more than a foot long, and branching. Leaves small, almost linear, sessile. Flowers very small, at the wings of the leaves, inclosed by large, lance-pointed, silvery bractæ.—*Spanish Mountain Knotgrafs.* Green-house.

2. *Suffruticosum.* Somewhat shrubby; the stalks procumbent. Leaves lance-shaped. Flowers solitary at the sides of the branches.—*Under-shrubby Mountain Knotgrafs.* Spain. Green-house.

IMPATIENS. *Balsam.* Comp. p. 41.

Calyx composed of 2 small, roundish, equal, coloured, pointed, deciduous leaves.—*Corolla* gaping, and mostly composed of 5 unequal petals.—The *upper* one is roundish, flat, erect, slightly trifid, and forms the *upper-lip*: the 2 *side* ones are opposite, and spring from the base of the upper petal; the *lower* two are large, obtuse, reflexed, and form the *lower-lip*.—*Nectarium* of 1 horned, hood-shaped leaf, having a large oblique mouth, receiving the outer base of the corolla.—*Stamina* 5, very short, incurved.—*Summits* united at their top.—*Germen* egg-shaped, pointed.—*Style* none.—*Stigma* simple.—*Seed-vessel* either long, or egg-shaped, 1-cell-

ed, and suddenly opens with 5 valves, which roll up in a spiral form.—*Seeds* many and roundish.

1. *Balsamina*. Stalk near two feet high, erect and branching. Leaves lance-shaped, serrated. Flowers white, red, and of other colours, single or double, crowded together, though but one on a peduncle from the wings of the leaves. Mouth of the nectarium shorter than the corolla.
——*Balsam*. India. ☉

2. *Noli-tangere*. Stalk erect, about two feet high, with swelled joints. Leaves oval, smooth, alternate. Flowers yellow, several on a long, common peduncle from the joints of the stalk. Pods taper.——*Quick-in-Hand*; *Touch-me-not*. England. ☉

IPOMŒA. *Scarlet Convolvulus*. Comp. p. 9.

Calyx of 1 small, oblong, abiding leaf, cut into 5 teeth.—*Corolla* of 1 funnel-shaped petal, having a very long, and almost cylindrical tube, and a spreading limb divided into 5 oblong, flat segments.—*Stamina* 5, slender, mostly as long as the corolla.—*Summits* roundish.—*Germen* roundish.—*Style* thread-like, as long as the stamina.—*Stigma* knob-like.—*Seed-vessel* roundish, dry, hollow, 1-celled.—*Seeds* few, nearly egg-shaped.

1. *Quámoclit*. Stalks slender, twining, six or eight feet high. Leaves winged with many exceeding narrow, linear lobes, mostly opposite. Flowers scarlet, solitary, on slender peduncles from the sides of the stalk.——*American Jasmine*. Indies. ☉

2. *Coccinea*. Stalk twining, about five feet high. Leaves heart-shaped, pointed, angular at their base. Flowers red, three or four on a common peduncle from the sides of the branches.——*Ivy-leaved Ipomœa*. America.

3. *Violácea*. Stalks twining, and climb to a considerable height. Leaves large, heart-shaped, entire. Flowers blue with entire brims, and come out in clusters from the sides of the branches.—
Purple Quamoclit. America.
4. *Cárnea*. Shrubby. Leaves heart-shaped, pointed, entire. Flowers flesh-colour and notched at their brim, three or four on a common peduncle.—
Flesh-colour Ipomæa. America.

IRIS. *Flower de Luce*. Comp. p. 5.

Calyx a sheath of 2 abiding leaves, embracing each other.—*Corolla* of 1 petal, cut almost to the base into 6 oblong segments: the 3 *outer* ones are obtuse and reflexed; the 3 *inner* ones are acutish and erect.—
Stamina 3, awl-shaped, lodged under the segments of the stigma.—*Summits* oblong.—*Germen* below the corolla.—*Style* very short.—*Stigma* large, divided into 3 petal-like segments, which are hooded and bifid at their tip, and cover the heels of the reflexed petals.—
Seed-vessel oblong, 3 or 6-cornered, 3-celled.—*Seeds* large and many.

* *Bearded*.

1. *Sufiána*. Stalk erect, round, taller than the leaves, and produces one very large, bearded flower, finely marbled with black, purple, and whitish.—
Calcedonian Iris.
2. *Germánica*. Stalk erect, branching, almost naked, and produces several bearded, distant, purple and blue, all blue, or whitish flowers, the lower ones on peduncles.—
German Flower de Luce.
3. *Sambúcina*. Stalk higher than the leaves, and produces several bearded flowers, having their reflexed petals flat, and of a deep violet, and their

- erect ones of a pale blue and notched. — *Elder Smelling Iris*. Southern parts of Europe.
4. *Florentina*. Stalk higher than the leaves, and produces about two sessile, white, bearded flowers, having their petals entire. — *Florentine Iris*.
5. *Variégata*. Stalk about the height of the leaves, and produces several flowers, having their erect petals yellow, and their reflexed ones striped with purple, yellow, and white. — *Variégated Iris*. Hungary.
6. *Púmila*. Stalk shorter than the leaves, and produces one or two bearded, purple, blue, or reddish flowers. — *Dwarf Flower de Luce*. Austria. April.
- * * *Beardless*.
7. *Sibírica*. Stalk round, smooth, tall and slender. Leaves very long, linear, awl-pointed. Flowers blue, beardless, have their reflexed petals streaked with sandy-brown near their base, and striped with white toward their tip. Germen three-cornered. — *Grass-leaved Siberian Iris*.
8. *Versicolor*. Stalk round, bent to and fro. Leaves sword-shaped. Flowers purplish-crimson, mixed with white, and the reflexed petals have a yellow stripe in place of the beard. — *Party-coloured Iris*. Virginia.
9. *Spúria*. Stalk round, rather higher than the leaves. Leaves linear, acute pointed, and when bruised generally emit a foetid smell. Flowers purplish blue, beardless. Seed-vessel six-cornered. — *Bastard Iris*. Germany.
10. *Xiphium*. Root a bulb. Leaves narrow, taper, furrowed, double near their tip, and embrace the stalk with their base. Flowers either totally blue, blue and violet, yellow and violet, white,

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white and purple, single or double, and beardless.—*Common Bulbous Iris.* Spain.

11. *Pérfica.* Root a bulb. Leaves taper, furrowed, longer than the stalk, which is not above four inches high. Flowers beardless, sweet-scented, of a sky blue-colour, and have their reflexed petals marked with a large dark purple spot near their tip.—*Persian Iris.* March.
12. *Sifyrinchium.* Root a double bulb, one on the top of the other. Leaves furrowed. Flowers beardless, purple, with a yellow spot in place of the beard.—*Double Bulbed Iris.* Spain.

I/TEA. *Itea.* Comp. p. 10.

Calyx formed of 1 small, abiding, coloured leaf, cut into 5 erect, acute, distant teeth.—*Corolla* of 5 long, lance-shaped petals, inserted into the calyx.—*Stamina* 5, awl-shaped, erect, as long as the corolla, and inserted into the calyx.—*Summits* roundish, incumbent.—*Germen* egg-shaped.—*Style* obtuse.—*Seed-vessel* egg-shaped, much longer than the calyx, 1-celled, crowned with the style.—*Seeds* small, oblong and shining.

Virginica. Shrubby, four or five feet high. Leaves oblong-oval, smooth, slightly serrated, alternate, on short footstalks. Flowers white, small, in cylindrical bunches at the ends of the twigs.—*Itea.* Virginia.

JUNIPERUS. *Juniper.* Comp. p. 47.

Plants Diœcious.

Male calyx conical, and imbricated with broad, short scales, fixed to the midrib by very short footstalks; it contains 10 florets, placed opposite by threes, and terminated by a single one.—*Corolla* none.—*Stamina* 3, united below in one body, but are scarcely visible, except in the terminating floret.—*Summits* distinct.

Female calyx small, abiding, cut into 3 parts, and grows to the germen.—*Corolla* of 3 stiff, acute petals.—*Germen* below the floret.—*Styles* 3.—*Stigmas* simple.—*Berry* fleshy, roundish, and marked at the tip with 3 small teeth, with a dimple between them.—*Seeds* 3, hard, oblong, angular on one side, convex on the other.

1. *Commúnis*. A small tree, covered with a reddish bark, and growing in a conical form, from three to five feet high. Leaves small, narrow, spreading, concave on the upper side, keeled beneath, awl-pointed, and stand by threes round the branches. Berries roundish, dark purple.—*Common Juniper*. England. *The Swedish Juniper is deemed only a variety, though it grows much taller.*
2. *Oxycédrus*. A tree having awl-pointed, spreading leaves, standing by threes and fours, and short brownish berries.—*Greater Spanish Juniper*.
3. *Phœnicea*. A tree having round, brownish branches, the small ramifications of which are closely imbricated with exceeding small obtuse leaves, giving the ramifications the appearance of fine braids. Berries yellowish.—*Phœnician Cedar*. Southern parts of Europe,
4. *Virginiána*. A tree having the leaves standing by threes, and united at their base, the young ones imbricated, and the elder ones spreading.—*Virginian Red Cedar*.
5. *Sabína*. Shrubby, about four feet high, with slender, spreading branches, closely set with small, lance-shaped, opposite, decurrent, green or variegated leaves.—*Savin*. Italy.

I'XIA. *Ixia*. Comp. p. 5.

Calyx a sheath of 2 abiding leaves.—*Corolla* of 1 petal, having a thread-like tube, and a bell-shaped

limb, divided into 6 equal parts.—*Stamina* 3, awl-shaped, shorter than the corolla, equally distant.—*Summits* oblong.—*Germs* egg-shaped, 3-cornered, below the corolla.—*Style* erect, as long as the *stamina*. *Stigma* thickish, trifid —*Seed-vessel* nearly egg-shaped, 3-cornered, 3-celled.—*Seeds* roundish.

1. *Bulbocodium*. Root a bulb. Leaves narrow, linear, furrowed, reflexed. Flower-stalk about three inches high, terminated by one whitish flower, having a yellow inside. Stigma six-parted —*Crocus-leaved Ixia*. Italy.
2. *Bulbifera*. Stalk more than a foot high, and produces bulbs at the joints. Leaves narrow-sword-shaped, alternate, and embrace the stalk. Flowers white striped with blue, and stand alternate at the joints of the stalk. Stigma trifid.—*Bulb-bearing Ixia*. Cape of Good Hope. *Green-house*.
3. *Africana*. Leaves very narrow and veined. Stalk about four inches high, and is terminated by a woolly head of small flowers from a lacerated sheath.—*Woolly-headed African Ixia*. *Green-house*.
4. *Corymbosa*. Leaves lance-shaped. Flower-stalk short, two edged, and is terminated by a roundish bunch of blue, pedunculated flowers. —*Corymbous-flowering Cape Ixia*. *Green-house*.
5. *Scillaris*. Leaves sword-shaped, streaked. Flowers blue, alternate, remote, and form an elongated spike.—*Scilla-like Cape Ixia*. *Green-house*.
6. *Crocata*. Leaves sword-shaped. Flowers alternate, their tube as long as the bractæ, of a deep yellow, their segments egg-shaped, and are marked at their base with a blackish-water-

colour spot.—*Crocus-flowered Ixia.* Green-house.

7. *Maculáta.* Leaves sword-shaped. Flowers alternate, yellow, and spotted at their base.—*Spotted Ixia.* Green-house.

8. *Chinénsis.* Leaves sword-shaped. Flowers yellow, spotted with blood-colour, pedunculated, in forked panicles.—*Chinese Ixia.* Green-house.

I'XORA. *American Jasmine.* Comp. p. 6.

Calyx formed of 1 small, erect, abiding leaf, cut into 4 parts.—*Corolla* of 1 funnel-shaped petal, having a long, slender, almost cylindrical tube, and a flat limb, divided into 4 egg-shaped segments.—*Stamina* 4, very short, incurved, and placed in the divisions of the corolla.—*Summits* oblong.—*Germen* roundish, within the base of the calyx.—*Styles* thread-like, as long as the tube of the corolla.—*Stigma* bifid.—*Berry* roundish, 2-celled.—*Seeds* 2, angular on one side, convex on the other.

1. *Coccinea.* Shrubby, about five feet high, covered with a brownish bark. Leaves large, oval, half embrace the stem. Flowers scarlet, and terminate the branches in even-topped bunches.—*Scarlet Indian Ixora.* Hot-house.

2. *Alba.* Shrubby, with broad-lance-shaped leaves, and white flowers in even-topped bunches.—*White Indian Ixora.*

3. *Americána.* Shrubby, with lance-shaped leaves, broadest upward, and standing by threes. Flowers white, in egg-shaped panicles.—*Wild Indian Jasmine.*

K.

KALMIA: *Dwarf American Laurel.* Comp. p. 20.

Calyx of 1 small, abiding leaf, cut into 5 oblong, acute teeth.—*Corolla* of 1 short salver-shaped petal, cut about half way into 5 segments, having at their back 5 or 10 puffy tubercles.—*Stamina* 10, taper, spreading, rather shorter than the corolla.—*Germs* roundish.—*Style* thread-like, rather longer than the corolla.—*Stigma* obtuse.—*Seed-vessel* nearly globular, depressed, 5-celled, 5-valved.—*Seeds* numerous.

1. *Angustifolia.* Shrubby, about two feet high. Leaves lance-shaped, or oblong-oval, entire, rigid, two or three at a place, on short footstalks. Flowers red, in small clusters from the sides of the branches.—*Pennsylvanian Kalmia.*

2. *Latifolia.* Shrubby, six feet or more high, with irregular crooked branches. Leaves egg-shaped, entire, rigid. Flowers peach-colour, and terminate the twigs in roundish bunches.—*Virginian Kalmia.*

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KNAUTIA. *Lychnis Scabious.* Comp. p. 6.

Flowers Aggregate.

Common calyx cylindrical, erect, and composed of about as many awl-shaped leaves, as it contains florets. — *Partial calyx* small, and crowns the germen. — *Florets* of 1 petal each, having a tube as long as the common calyx, and a limb divided into 4 unequal segments, the outer 1 the longest and egg-shaped. *Stamina* 4, longer than the tube of the corolla. — *Summits* oblong, incumbent. — *Germen* below the floret. — *Style* thread-like, as long as the stamina. — *Stigma* bifid. — *Seeds* oblong, solitary, hairy at their tip. — *Receptacle* very small, flat and naked.

Orientalis. Stalk two or three feet high, dividing into many forked, spreading branches. Lower leaves oblong and jagged; upper ones lance-shaped, entire. Flowers red, five or six in a calyx, on a long peduncle.

OBSERVATION. *On a cursory view the flowers may be mistaken for simple ones, the whole head having the appearance of a Lychnis.*

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LACHENALIA. *Moch Aloe.* Comp. p. 14.

Calyx of 2 or 3 coloured, petal-like leaves, more than half as long as the corolla.—*Corolla* between cylindrical and funnel-shaped, and is composed of 3 oblong petals, having broadish, obtuse tips.—*Stamina* 6, thread-like, as long as the corolla.—*Summits* oblongish, incumbent.—*Germen* 3-cornered, within the corolla.—*Style* as long as, and ranged with the stamina.—*Stigma* simple.—*Seed-vessel* 3-cornered, 3-celled, 3-valved.—*Seeds* many, oblong.

Tritolor. Root a bulb. Leaves two, large, lance-shaped, entire, and are spotted with brown like those of an *Orchis*. Stalk erect, round, naked, almost a foot high, and is often terminated by a small comb of awl-shaped bractææ. Flowers drooping, in a racemus, and are greenish, yellow, and red, but they often vary to all yellow, all red, or a whitish green.—
Moch Aloe. Cape of Good Hope. *Greenhouse.*

LANTANA. *American Viburnum.* Comp. p. 30.

Calyx very short, tubular, and cut into 4 obsolete teeth.—*Corolla* of 1 petal, having an almost cylindrical

cal tube, and a flat brim, divided into 4 obtuse, unequal segments.—*Stamina* scarce any.—*Summits* 4, oblongish, two rather higher than the others, and are placed in the tube of the corolla.—*Germs* roundish.—*Style* thread-like, shorter than the tube.—*Stigma* oblongish, and adheres obliquely to the apex of the style.—*Berry* roundish, 1-celled.—*Nut* roundish.

1. *Africana*. Shrubby, from three to five feet high, with many slender, hairy, irregular branches, closely set with egg-shaped, hairy, alternate, pointed, acutely serrated leaves. Flowers white, are cut into five obtuse segments, and stand solitary at the bosoms of the leaves.—*Ilex-leaved Lantana*. Africa. *Green-house*.
2. *Aculeata*. Shrubby, three feet or more high, with a prickly, branching stem. Leaves egg-shaped, somewhat hollowed at their base, softish beneath, opposite, and slightly serrated. Flowers red and yellowish, in hemispherical heads, having linear bractæ.—*Prickly American Lantana*. Hot-house.
3. *Cámara*. Shrubby, with a branching, spineless stem. Leaves oblongish, wrinkled, opposite. Flowers red and yellowish, in roundish, leafless head-like umbels.—*Leafless-headed Lantana*. America. *Hot-house*.
4. *Involucrata*. Shrubby, with a spineless stem. Leaves obtuse, between egg and diamond-shaped, downy, wrinkled, opposite, and by threes. Flowers in roundish heads, having their outer bractæ open and straddling, and those amongst the flowers egg-shaped.—*Leafy-head Lantana*. America. *Hot-house*.
5. *Odorata*. Shrubby, with a spineless stem, and hairy branches. Leaves elliptical, wrinkled, opposite, and by threes. Flowers pale purple, or whitish, in leafy, imbricated heads,

on peduncles shorter than the leaves. Bractæe lance-shaped. ——— Sweet-scented Lantana, America. Hot-house.

LATHYRUS. Chickling Vetch. Comp. p. 35.

Flowers Butterfly-shaped.

Calyx of 1 abiding, bell-shaped leaf, cut about half way into 5 lance-shaped, acute parts, the two uppermost the shortest.

Standard large, reverse-heart-shaped, and the margin reflexed.

Wings oblongish, moon-shaped, mostly shorter than the standard.

Keel semiorbicular, nearly as long as the wings, puffed out in the middle, and gapes open inwardly.—

Stamina 10, one detached and nine united.—*Summits* oblongish.—*Germs* linear, compressed.—*Style* flat, broadest near the end, hairy on the forepart from the middle to the tip, forming a *Stigma*.—*Pod* long, pointed, and is either cylindrical or compressed.—*Seeds* many, oblongish, somewhat angled.

* One flower on a peduncle.

1. *Sativus*. Claspers winged with two, (sometimes three) long, narrow, opposite, awl-pointed leaves. Flowers small, light blue, tinged with red, one on a peduncle. Pods somewhat egg-shaped, compressed, their back seam flat with a ridge on each side.—*French Chickling Vetch*. ☉

2. *Articulatus*. Claspers winged with several narrow, alternate leaves. Flowers small, one, (sometimes two) on a peduncle, and have their standard of a bright crimson, and their wings and keel white. Pods smooth, articulated.—*Variegated Spanish Chickling Vetch*. ☉

* * *Two flowers on a peduncle.*

3. *Odorátus*. Claspers winged with two oblong-egg-shaped leaves. Flowers large, sweet-scented, two on a peduncle, and are either of a very dark crimson and blue, totally red, red and white, or all white. Pods hairy.—*Sweet-scented Pea*. Sicily. ☉ *The red and white flowered is called the Painted Lady, and is a native of Ceylon.*
4. *A'nnuus*. Claspers winged with two long, sword-shaped leaves. Stipulæ two-parted. Flowers pale yellow, two on a peduncle. Pods long and smooth.—*Yellow Spanish Chickling Vetch*. ☉
5. *Tingitánus*. Claspers winged with two narrow lance-shaped, alternate leaves. Flowers large, deep crimson, two on a peduncle. Stipulæ moon-shaped. Pods long, smooth, and flat on their back seam.—*Tangier Pea*. ☉

* * * *Many flowers on a peduncle.*

6. *Tuberósus*. Root creeping, and has small bulbs attached to the fibres. Stalks feeble, angular. Claspers furnished with two oval leaves. Flowers totally red, several on a long peduncle.—*Tuberous-rooted Luthyrus*.
7. *Sylvéstris*. Stalks from four to six feet long. Claspers simple and furnished with two sword-shaped, leaves. Flowers whitish red, many on a peduncle, and all looking one way.—*Narrow-leaved Everlasting Pea*. England.
8. *Latifólius*. Stalks more than six feet long, and membranous between the joints. Claspers furnished with two oblong-oval leaves, having three ribs beneath. Flowers either rose-colour, or purple, many on a peduncle, and all looking one way.—*Broad-leaved Everlasting Pea*. England.

LAVANDULA. *Lavender*. Comp. p. 28.

Flowers Lipped.

Calyx of 1 abiding, streaked, egg-shaped leaf, cut into obscure teeth.—*Corolla* of 1 gaping petal, having an almost cylindrical tube, and a spreading limb: *upper-lip* large, spreading and bifid; *lower-lip* cut into 3 roundish, nearly equal segments.—*Stamina* 4, all of them short, but two shorter than the rest, and placed within the tube of the corolla.—*Summits* oblongish.—*Germs* 4-parted.—*Style* thread-like, about the length of the calyx.—*Stigma* obtuse, 2-lobed.—*Seed-vessel* none.—*Seeds* 4, oval, lodged at the bottom of the calyx.

1. *Spica*. Shrubby, two or three feet high, with square branches. Leaves lance-shaped, entire, and variable as to their breadth. Flowers blue or white, in long naked spikes at the ends of the branches.—*Common Lavender*. Europe.
2. *Dentata*. Stalk square, branching, about two feet high, a little hairy. Leaves opposite, and are composed of narrow linear lobes, regularly cut into small, obtuse teeth, or lobes. Flowers pale blue or white, in shortish spikes having broad, egg-shaped bractæ.—*Spanish Lavender*. Green-house.
3. *Stæchas*. Somewhat shrubby, with erect, square stalks about three feet high. Leaves sessile, linear, with a longitudinal rib beneath, and have their margins rolled back. Flowers small, very dark purple, in short, compact, four-cornered spikes, crowned by a few pale purple leaves.—*French Lavender*. Europe. Green-house.
4. *Multifida*. Stalks square, about two feet high, and woolly. Leaves opposite, and winged

with many lobes, cut into about five almost linear segments. Flowers blue or white, in shortish four-cornered spikes.—*Jagged-leaved Lavender*. Green-house. ♂

5. *Pinnáta*. Somewhat shrubby; the branches square and slender. Leaves hoary, opposite, and winged, or cut to their midrib into about seven narrow-wedge-shaped lobes, having their margins reflexed. Flowers light blue, in imbricated spikes.—*Pinnated-leaved Lavender*. Green-house.

OBSERVATION. *The third sort was that formerly used in distillation for obtaining the essential oil and water of Lavender, but the broad-leaved variety of the first species being much more fragrant has long supplied its place.*

LAVATÉRA. *Cretan Mallow*. Comp. p. 33.

Calyx double, abiding: the *outer* one formed of one short leaf, cut about half way into 3 obtuse parts; the *inner* of one erect leaf, cut about half way into 5 acute parts.—*Petals* 5, reverse-heart-shaped, flat, spreading, and united at their base.—*Stamina* numerous, joined below in a cylinder, loose above, and inserted into the corolla.—*Germen* orbicular.—*Style* short.—*Stigmas* from 7 to 14, bristle-like, as long as the style.—*Seeds* many, kidney-shaped, wrapped in distinct, deciduous coats, forming a depressed whorl round a short column-like receptacle.

1. *Triméstris*. Stalk three or four feet high, rough, hairy, and branching. Lower leaves roundish, crenated; upper ones three-lobed; the uppermost lance-shaped. Flowers large, pale rose-colour or white. Outer calyces folded. Seeds ranged in a circle under a smooth, flat, orbicular cover.—*Variable-leaved Mallow*; *Virgin Mallow*. Spain. ☉

2. *Crética*. Stalk erect, two or three feet high, having the lowest branches spreading. Lower leaves roundish, lobed; the upper ones acute. Flowers red or white, and come out in clusters, on peduncles bearing one flower each.—*Cretan Lavatera*.
3. *Arborea*. Stalk thick, woody, from six to eight feet high. Leaves large, roundish, downy, plaited, cut into about seven short lobes or angles. Flowers purple, and come forth in clusters from the wings of the leaves, on peduncles bearing one flower each.—*Tree Mallow; Venetian Lavatera*. ♂
4. *Triloba*. Shrubby, six feet or more high. Leaves woolly, somewhat heart-shaped, mostly cut into three obsolete, roundish, crenated lobes. Stipulæ heart-shaped. Flowers pale purple, three or four together, on short peduncles at the wings of the leaves.—*Three-lobed Lavatera*. Spain. *Green-house*.
5. *Olbia*. This differs from the fourth in the leaves being divided into three or five acute pointed lobes, and in the flowers standing singly.—*Olbian Shrubby Lavatera*. *Green-house*.

LAURUS. *The Bay Tree*. Comp. p. 19.

Calyx none.—*Corolla* of 1 petal, cut to the base into 4, 5, or 6, egg-shaped, pointed, erect, concave segments.—*Nectarium* 3-pointed, coloured glands, surrounding the germen, each ending in 2 bristles.—*Stamina* 9, compressed, obtuse, shorter than the corolla, and stand by threes.—*Summits* slender, fastened to both sides the upper part of the stamina.—There are 2 globular glands, fixed by very short footstalks to the base of some of the stamina.—*Germen* oval, within the corolla.—*Style* as long as the stamina.—*Stigma*

obtuse, oblique.—*Plum* oval, pointed, 1-celled.—*Nut* of the same form.

1. *Nobilis*. An evergreen tree, having oval, lance-pointed, veined, stiff, smooth, green, or variegated leaves, which are either flat, or waved on their margin. Flowers four-parted.—*Common Bay*. Italy.
2. *Indica*. A smallish, evergreen tree, with tuberculated, scarred branches. Leaves large, lance-shaped, smooth, veined, flat, of a light green. Flowers in a long racemus.—*Indian Bay*; *Portugal Bay*. Green-house.
3. *Camphora*. A tree putting forth oval, lance-pointed, entire, waved, shining leaves, having three principal, bowed veins, united near their base. When the leaves are rubbed they emit a strong smell of Camphor. Flowers white, six-parted, several on a branching peduncle.—*True Camphor Tree*. Japan. Green-house.
4. *Sassafras*. A small shrubby tree, having large, deciduous, shining leaves, which are either entire, or they are deeply cut into three lobes. Flowers yellowish, five-parted, several on a branching peduncle.—*Sassafras Tree*. Virginia.
5. *Cinnamomum*. A tree putting forth oval-oblong, flat, shining leaves, having three principal veins, which disappear near the tip. Flowers small, white.—*True Cinnamon Tree*. Ceylon. Hot-house.
6. *Benzoin*. A small tree, having egg-shaped, entire, nerveless, deciduous leaves, pointed at both ends.—*Benjamin Tree*. Virginia.

OBSERVATION. Perhaps no tribe of vegetables so abundantly supplies the *Materia Medica* as the *Laurus*. The berries of the first sort furnish two kinds of oil, the one obtained by expression, the other by distillation. They

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are warm medicines, and are used both externally, and internally against cholicks and hysteric disorders. A decoction of the leaves in beer, drank pretty warm, is also excellent for dissipating flatulencies. The several uses of the Sassafras wood are well known, as are likewise those of Camphor. From the bark of the Cinnamonum is drawn an essential oil, a simple, a spirituous water, and a tincture. The resin, called Benzoine, is a concrete from the last species. When warmed it is extremely fragrant. By sublimation it is reduced to a powder, called the flowers of Benjamin. These are recommended in disorders of the breast, and with this intention they enter some pectoral compositions.

LEONURUS. *Lion's Tail.* Comp. p. 29.

Flowers Lipped.

Calyx of 1 almost cylindrical, 5-angled, abiding leaf, cut into 5 teeth.—*Corolla* of 1 petal, having a narrow tube, a long throat, and a gaping limb: *upper lip* semi-cylindrical, concave, gibbous, the tip roundish, entire and hairy; *lower-lip* reflexed, and cut into 3 nearly equal, lance-shaped segments.—*Stamina* 4, two shorter than the rest, and covered by the upper lip.—*Summits* oblong, compressed, incumbent, split in the middle, and sprinkled with globular, shining, elevated particles.—*Germina* 4.—*Style* thread-like, ranged with the stamina.—*Stigma* bifid, acute.—*Seeds* 4, oblong, somewhat angular, lodged in the calyx, but are scarcely covered by it.

1. *Cardiaca.* Stalk erect, near four feet high, with upright branches. Leaves wrinkled, hairy beneath, cut into three acute-pointed, dentated lobes, the middle one much the longest, and they hang drooping on footstalks. Flowers purplish, in broken whorls at the joints of the

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branches. Teeth of the calyx like prickles.
—*Motherwort*. England.

2. *Indicus*. Stalk erect, about two feet high, obtusely four-cornered. Leaves lance-shaped, slightly ferrated, a little downy, opposite, on footstalks. Flowers reddish or white, and come out in whorls close to the ends of the branches. Calyces cut into seven obsolete teeth. — *Indian Lion's Tail*. This is supposed only a variety of the *Phlomis Zeylanica*.

OBSERVATION. *An infusion of the leaves of the first sort has been found to strengthen the stomach, and to do service in hysterick disorders.*

1
LEUCOJUM. *Greater Snowdrop*. Comp. p. 16.

Calyx an oblong withering sheath, opening on one side.—*Corolla* of 1 spreading bell-shaped petal, cut to the base into 6 oval segments, thickest at their tip, and united at their base.—*Stamina* 6, very short.—*Summits* oblong, erect, obtuse, 4-cornered, distant. *Ger-men* roundish, below the corolla.—*Style* either club, or thread-shaped.—*Stigma* slender, erect, acute, longer than the summits.—*Seed-vessel* top-shaped, 3-celled, 3-valved.—*Seeds* many, roundish.

1. *Vernum*. Leaves flat, about half an inch broad. Stalk more than nine inches high, triangular, and produces one or two white, drooping flowers from its sheath, having a green spot at the tip of their segments. Style club-shaped.—*Spring Leucojum*. Germany.
2. *Aestivum*. Leaves flat. Stalk more than half a yard high, triangular, and produces many white, drooping flowers from its sheath, having a green spot at the tip of their segments. Style club-shaped.—*Summer Leucojum*.

3. *Autumnale*. Leaves very narrow. Several white flowers from a sheath, having their style thread-shaped.—*Autumnal Leucojum*.

OBSERVATION. The two first sorts have been deemed distinct species, but from circumstances too trivial. The number of flowers from a sheath, and the little difference in the time of their flowering, (the second sort flowers the beginning of May) are not sufficient, when other marks are wanting. Their styles are exactly the same. It is well known that the same species of plant is often found in different climates, that it varies as to its size and time of flowering, and that many retain their native habit after long cultivation. The so much renowned Glastenbury Thorn, which appears to have been brought from the East, is generally allowed to be the same with our Common Hawthorn; yet this puts out its leaves and flowers at a different time from ours.

LIGUSTRUM. Privet. Comp. p. 4.

Calyx of 1 small, tubular leaf, cut into 4 obtuse, erect teeth.—*Corolla* of 1 funnel-shaped petal, having an almost cylindrical tube, and a limb cut into 4 egg-shaped, spreading segments.—*Stamina* 2, opposite.—*Summits* oblong, erect, about equal to the corolla.—*Germen* roundish.—*Style* very short.—*Stigma* obtuse, bifid.—*Berry* globular, smooth, 1-celled.—*Seeds* 4, angular.

1. *Vulgare*. Shrubby. Leaves oblong-oval, acute pointed. Flowers dull white, and terminate the branches in conical, compound bunches. Berries black.—*Common Privet*. England. Some flowers have three stamina.

LILIUM. *The Lily.* Comp. p. 14.

Calyx none.—*Corolla* of 6 petals, forming a bell with a narrow base: petals incumbent, keeled downward, thick at their tip, are either but little, or totally reflexed, and each has a longitudinal gland at its base, which is either bearded or not.—*Stamina* 6, awl-shaped, erect, shorter than the corolla.—*Summits* oblong, incumbent.—*Germen* oblong.—*Style* cylindrical, about as long as the corolla.—*Stigma* thickish, triangular.—*Seed-vessel* oblong, 3-cornered, 3-celled.—*Seeds* numerous, flat, and are lodged one on another in a double row.

1. *Cándidum*. Stalk from four to five feet high, having its leaves scattered. Flowers bell-shaped, either erect or drooping, white or striped, single or double, and smooth within. —Common *White Lily*. Syria.
2. *Bubiferum*. Stalk two or three feet high, bearing scattered leaves with bulbs at their bosom. Flowers bell-shaped, erect, orange-colour, or purple, single or double, and rough within. —Orange or *Fiery Lily*. Austria. *There is a variety which produces no bulbs, and grows almost double the height of the bulb-bearing.*
3. *Pomponium*. Stalk about three feet high, having its leaves narrow, acute-pointed, and scattered. Flowers red, reflexed, and have their petals rolled back. —Red *Martagon Lily*. Siberia.
4. *Chalcedónicum*. Stalk about three feet high, round and hollow. Leaves lance-shaped, scattered, hairy on their margin. Flowers scarlet, have their petals rolled back, and hang drooping on long peduncles from the top of the stalk. —*Calcedonian Martagon*.

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5. *Supérbum*. Stalk about four feet high, bearing scattered lance-shaped leaves. Flowers yellow, have their petals rolled back, and spotted with black, and they come forth on branched, reflexed peduncles at the top of the stalk.——*Superb Lily; Yellow Martagon*. America.
6. *Mártagon*. Stalk from three to five feet high. Leaves lance-shaped, and stand in whorls. Flowers purple, white, or spotted, reflexed, and have their petals rolled back.——*Common Martagon Lily*. Hungary.
7. *Canadénse*. Leaves narrow, and stand in whorls. Flowers bell-shaped, reflexed, and are yellow, spotted with black.——*Canada Lily*.
8. *Camschatcénse*. Leaves in whorls. Flowers bell-shaped, erect, deep yellow, with their petals egg-shaped, sessile, and a little spotted.——*Kamschatkan Lily*.
9. *Philadélficum*. Leaves in whorls. Flowers bell-shaped, erect, bright purple, spotted, and have the heels of their petals narrow.——*Philadelphian Lily*.

LINUM. *Flax*. Comp. p. 13.

Calyx of 5 small, lance-shaped, abiding leaves.—*Corolla* funnel-shaped, and composed of 5 oblongish, obtuse petals, increasing in breadth upward.—*Stamina* 5, awl-shaped, erect, much shorter than the corolla.—*Summits* arrow-shaped.—*Germs* egg-shaped.—*Styles* 5, thread-like, erect, mostly shorter than the stamina.—*Stigmas* reflexed.—*Seed-vessel* globular, 10-celled.—*Seeds* solitary, egg-shaped, smooth and flat-tish.

1. *Perénne*. Root thick and woody. Stalks round, smooth, erect, from three to five feet high, and

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branching. Leaves nearly linear, acute, alternate. Flowers large, fine blue or white, and terminate the branches in a loose racemus. Calyces and seed-vessels obtusifish.—*Perennial Siberian Flax.*

2. *Maritimum.* Stalk about two feet high, branching. Leaves smooth, narrow-lance-shaped, the lower ones opposite. Flowers yellow, and terminate the branches in a racemus. Calyces smooth and acutish.—*Montpelier Flax.* Green-house.
3. *Suffruticosum.* Somewhat shrubby, more than a foot high. Leaves linear, acute, rough, rigid, alternate. Flowers light blue, and terminate the branches in short bunches.—*Flax of Valentia.* Green-house.

LOBELIA. *Cardinal Flower.* Comp. p. 41.

Calyx of 1 small leaf, cut into 5 narrow, acute parts.—*Corolla* of 1 rather gaping petal, having a cylindrical tube, longer than the calyx, and a brim cut into 5 lance-shaped segments, the 2 upper ones rather smallest, deeply divided, reflexed, and constitute the upper lip: the 3 lower ones spreading, and mostly bent like a knee. *Stamina*, 5 awl-shaped.—*Summits* united into a 5-cornered cylinder.—*Germen* conical, below the corolla.—*Style* cylindrical, as long as the stamina.—*Stigma* obtuse, hairy.—*Seed-vessel* egg-shaped, 2-celled, girt with the calyx, and opens at the tip.—*Seeds* many, small.

1. *Cardinalis.* Stem erect, three feet or more high. Leaves lance-shaped, slender pointed, serrated, alternate. Flowers scarlet, smooth, and terminate the stalk in a long racemus, having a leaf at each flower.—*Common Cardinal Flower.* Virginia.

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2. *Siphilitica*. Stalk about two feet high, erect. Leaves broad-lance-shaped, slightly crenated. Flowers blue or white, and have the sinuses of their calyx reflexed. ————— *Blue Cardinal Flower*. Virginia.

OBSERVATION. *The root of the last sort is purgative. A decoction of it is said to be a specific against the Lues Venerea.*

LONICERA. *Honeysuckle*. Comp. p. 11.

Calyx formed of 1 small leaf, cut into 5 parts. — *Corolla* of 1 petal, having an oblong, gibbous tube, and a limb divided into 5 revolute segments, one mostly very much separated from the rest. — *Stamina* 5, awl-shaped, nearly as long as the corolla. — *Summits* oblong. — *Germs* roundish, below the corolla. — *Style* thread-like, about as long as the stamina. — *Stigma* knob-like. — *Berry* dimpled at the tip, 2-celled. — *Seeds* roundish, compressed.

* *Stalks twining.*

1. *Periclymenum*. Stalks long and twining. Leaves nearly oval, opposite on distinct footstalks. Flowers red, or yellowish white, and terminate the branches in oval, imbricated heads. — *Common Honeysuckle*. England.
2. *Caprifolium*. Stalks long and twining. Leaves oval, opposite, almost sessile, the upper ones united, and perforated by the branches. Flowers red, white, or yellowish, and terminate the bunches in whorls round a short, conical receptacle. — *Early Italian Honeysuckle*. May.
3. *Sempervirens*. Stalks long and twining. Lower leaves oblong-oval: the middle ones surround the stem, the uppermost are united and perfo-

rated by the branch. Flowers scarlet, trumpet-shaped, cut into five almost equal segments, and terminate the branches in whorled spikes. — *Evergreen Trumpet Honeysuckle.* Virginia.

* * *Two flowers on a peduncle.*

4. *Nigra.* Shrubby, four or five feet high. Leaves elliptical, opposite, entire, or slightly serrated. Flowers whitish, two on a peduncle. Berries distinct. — *Black-Berried Honeysuckle.* France.
4. *Tatarica.* Shrubby, four or five feet high. Leaves heart-shaped, opposite, smooth. Flowers pale flesh-colour, have their upper lip trifid with the middle segment bifid, and come out two on a peduncle. Berries distinct. — *Tartarian Red-Berried Honeysuckle.*
6. *Xylósteum.* Shrubby, six or eight feet high. Leaves broad-oval, downy, entire, opposite on short footstalks. Flowers whitish, two on a peduncle. Berries red, distinct. — *Common Fly Honeysuckle.* Europe.
7. *Alpigena.* Shrubby, six or eight feet high. Leaves oblong, acute pointed, entire, opposite on footstalks. Flowers dull red, lipped, bearded within, and come out two on a long peduncle. Berries united. — *Red-Berried Helvetian Honeysuckle.*
8. *Cærúlea.* Shrubby, about four feet high, having round, rigid, reddish branches. Leaves egg-shaped, small, entire, clustered. Flowers whitish, lipped, two to each germen, on a very short peduncle. — *Single Blue-Berried Upright Honeysuckle.* Helvitia.

Leucocarpa } An upright sort
Symphora racemosa } of honeysuckle with
 white berries

*** *Many flowers on a peduncle.*

9. *Symphoricarpos*. Shrubby, from four to six feet high, having numerous spreading, slightly hairy, branches. Leaves broad-oval, wrinkled, entire, opposite on short footstalks. Flowers small, bell-shaped, greenish, in short heads from the sides of the branches.—*Shrubby St. Peter's-wort*. Virginia. October.
10. *Diervilla*. Shrubby, two or three feet high. Leaves oblong, egg, or somewhat heart-shaped, acute, serrated, opposite on short footstalks. Flowers pale yellow, and terminate the branches in a short racemus.—*Yellow Acadian Honey-suckle*.

LOTUS. *Bird's-foot Trefoil*. Comp. p. 36.

Flowers Butterfly-shaped; mostly in Umbels.

Calyx formed of 1 round, abiding, leaf, cut about half way into 5 equal, erect, acute teeth.

Standard roundish, bent downward, and terminate in a long, concave heel.

Wings oblongish, shorter than the standard, closed near their tip.

Keel narrow, shorter than the wings, closed upward, gibbous near the middle, curved, and pointed at the tip.—*Stamina* 10, one detached, nine united, and are broadish at their tip.—*Summits* very small.—*Germen* oblong, cylindrical.—*Style* thread-like.—*Stigma* thin, bent inward.—*Pod* cylindrical, straight, longer than the calyx.—*Seeds* many, oblong.

1. *Tetragonolobus*. Whole plant hairy. Stalks about a foot long, decumbent. Leaves three-lobed. Bractææ egg-shaped, acute. Flowers dark red, solitary. Pod, long, four-cornered, and each

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- corner has a membrane running its whole length.—*Winged Pea*. Sicily. ☉
2. *Maritimus*. Stalks more than a foot long, trailing. Leaves three-lobed, smooth. Bractææ lance-shaped. Flowers yellow, solitary. Pod long, four-cornered, winged like the former.—*Spanish Bird's-foot Trefoil*. Green-house.
 3. *Jacobæus*. Stalks slender, erect, more than a foot high. Leaves composed of three or five linear lobes. Flowers yellow and dark purple, four or five in each umbel, on a long peduncle.—*Lotus of St. James's Island*. Green-house.
 4. *Créticus*. Somewhat shrubby, with slender feeble stalks three or four feet high. Leaves composed of three silvery, shining lobes. Flowers yellow, and often form a double umbel, of about three or four flowers in each. Pods drooping.—*Silvery Cretan Lotus*. Green-house.
 5. *Hirsutus*. Somewhat shrubby, three or four feet high, having erect, hairy stalks. Leaves oval, sessile, hairy, four or five at the joints of the branches. Flowers white, tinged with purple, and come forth in hairy umbels. Calyces red, hairy.—*Hairy Italian Lotus*. Green-house.
 6. *Dorycnium*. Somewhat shrubby, about three feet high with smooth slender branches. Leaves smooth, lance-shaped, five at each joint of the branches. Flowers small, whitish, in naked umbels; and each flower has its wings swelled on their side into a little bag.—*Spanish Five-leaved Lotus*. Green-house.
 7. *Cytisoides*. Stalk feeble, two or three feet high, with a few diffuse branches. Leaves distant, and composed of five lance-shaped, silvery lobes, the two lower ones close to the stalk.

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Flowers yellow, in leafy, semiorbicular umbels, on long peduncles.—*Mock Cytifus.* Europe. *Green-house.*

LUNARIA. *Sattin Flower.* Comp. p. 31.

Flowers Cross-shaped.

Calyx of 4 oblong, bluntish, deciduous leaves, the 2 outer ones the broadest, and bag-shaped at their base.—*Corolla* of 4 large, entire petals forming a cross, and have heels about the length of the calyx.—*Stamina* 6, awl-shaped, 2 shorter than the rest, and bowed at their base.—*Summits* oblong, erect.—*Germs* oblong-oval, pedunculated.—*Style* shortish.—*Stigma* obtuse. *Pod* large, elliptical, flat, entire, 2-celled, and terminated by the style.—*Seeds* few, kidney-shaped, compressed, and fixed in the middle of the Pod.

Rediviva. Stalk erect, hairy, two or three feet high, with many somewhat spreading branches. Leaves large, heart-shaped, pointed, hairy, wrinkled, the lower ones opposite, the others alternate. Flowers purple or white, and terminate the branches in large clusters.—
Greater Moon-wort; Honesty. England. ♂

OBSERVATION. *The seed-vessels being large are often dyed of various colours, and kept in jars for ornaments.*

LUPINUS. *Lupine.* Comp. p. 35.

Flowers Butterfly-shaped.

Calyx variable, but mostly consists of 1 bifid leaf, with two appendages.

Standard of the corolla roundish, notched, the sides reflexed and compressed.

Wings oblongish, rather shorter than the standard, and are not fixed to the keel.

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Keel narrow, pointed, entire, parted at the base, and as long as the wings.—*Stamina* 10, united, but distinct upward.—*Summits* 10, five of them oblong, and five roundish.—*Germen* awl-shaped, compressed, hairy.—*Style* taper.—*Stigma* obtuse.—*Pod* large, oblong, compressed, tough, pointed, 1-celled.—*Seeds* roundish, and compressed.

1. *Perennis*. Root creeping. Leaves composed of nine or ten obtusish lobes, diminishing to their base, where they are joined in a kind of circle. Flowers blue, in a long racemus. Calyx without appendages; the upper lip notched; the lower one entire.—*Creeping Virginian Lupine*.
2. *Albus*. Leaves composed of about eight oblong, hairy lobes, joined at their base in a kind of circle. Flowers white. Calyx without appendages; the upper lip entire; the lower one cut into three teeth.—*White Lupine*. ☉
3. *Hirsutus*. Whole plant hairy. Leaves composed of about ten wedge-shaped lobes, joined at their base in a kind of circle. Flowers large, blue, rose-colour, or white, and terminate the branches in whorls. Calyx with appendages; the upper lip two-parted, the lower one cut into three teeth.—*Giant Lupine; Rose Lupine*. Spain. ☉
4. *Varius*. Leaves composed of about six linear lobes, joined at their base in a kind of circle. Flowers reddish blue, and terminate the branches in half whorls. Calyx with appendages; the upper lip bifid; the lower one cut into three imperfect teeth. Seed variegated.—*Sicilian Lupine*. ☉
5. *Angustifolius*. Leaves composed of about eight linear lobes, joined at their base in a kind of circle. Flowers blue. Calyx with appendages; the

upper lip two-parted; the lower one entire.

—*Taller Narrow-leaved Blue Lupine.* ☉

6. *Luteus.* Leaves composed of about nine narrow hairy lobes, joined at their base in a kind of a circle. Flowers yellow, and terminate the branches in whorls. Calyx with appendages; the upper lip two-parted; the lower one cut into three teeth.—*Common Yellow Lupine.* Sicily. ☉

LYCHNIS. *Campion.* Comp. p. 22.

Calyx of 1 membranous tubular, abiding leaf, cut into 5 teeth.—*Corolla* of 5 petals, having heels as long as the calyx, and flat limbs, mostly split at their tip, and crowned as in the *Silene*.—*Stamina* 10, longer than the calyx, and alternately fastened to the heels of the petals.—*Summits* incumbent.—*Germen* oval.—*Styles* 5, taper, about the length of the stamina.—*Stigma* hairy, a little reflexed.—*Seed-vessel* oval, covered, 5-valved.—*Seeds* many, roundish.

1. *Chalcedónica.* Stalk erect, hairy, three or four feet high, hollow. Leaves lance-shaped, opposite, and embrace the stalk. Flowers scarlet, flesh-colour, or white, single or double, and come out in even-topped bunches at the ends of the branches.—*Scarlet Lychnis.* Tartary.
2. *Dioica.* Stalk two feet or more high, having many spreading, hairy branches, swelled at their joints. Leaves oval, acute, opposite, hairy. Flowers red or white, single or double, male and female on distinct plants, and terminate the branches in clusters.—*Bachelor's Button.* England.
3. *Viscaria.* Stalk a foot or more high, erect, simple, clammy, and has red, tumid joints, furnished with two long, narrow leaves, placed opposite, and joined at their base. Flowers purple,

single, or double, in clusters at the bosoms of the leaves, near the top of the stalks. Petals entire. Seed-vessel five-celled.——*Viscous* *Campion*; *German Catchfly*.

4. *Floſ-cúculi*. Stalk erect, two feet or more high, furrowed, hollow and branching. Leaves long, narrow-lance-shaped, smooth, opposite, entire. Flowers large, pale red or white, single or double, and have all their petals deeply cut into four segments.——*Meadow Pink*; *Cuckow-flower*; *Ragged Robin*. England.

OBSERVATION. According to the Sexual Doctrine of plants, the Diœcious ones, the same as the rest, cannot perfect their seeds, unless there be an actual junction of the sexes, although the plants are distinct. This is certainly true in general, but it appears also true there are some exceptions, especially amongst the annuals of this class. Most perennials, (not all) are furnished with other means of increase, besides that by seed, but perfect annuals can have no other way; therefore, if the junction of the sexes be entirely cut off, either by adverse winds, by their being at too great a distance from each other, or by whatever cause, the species is in danger of being lost. To prevent this when so circumstanced, Nature seems to have endowed them with an individual power of increase, although it is small compared to that produced when they are near, and can sport freely; for then they not only propagate abundantly, but are apt to breed varieties, some of which, no doubt, have been mistaken for distinct species. It is well known there are some Insects that can propagate through several successions, only from the impregnation of one female: Why then may not this be the case with some vegetables? I experienced something of this kind in the Hemp, by placing a female plant in a small, but well defended garden, and where no male plants could be near. I carefully examined this plant every

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day, but could find only female flowers for a long time; at last, when these began to decay, I discovered here and there an hermaphrodite one opening amongst the bunches of females. The stamina of the hermaphrodites were very short, but the flowers perfected their seeds, which I sowed the following season, and they produced both male and female plants distinct. The reverse of this I have seen in the *Lynchis Dioica*, which is deemed a perennial, though it seldom lasts above two or three years. Late in the summer, and beyond the general time of this species flowering, I fell in with a solitary male plant. Some of the flowers were yet perfect, their summits three times their natural size, and were copiously stored with a dark purple dust, which they had plentifully scattered over the surface of the petals. These flowers had a large, turgid germen, tipped with five short, but complete styles. The seeds, too, were almost fully grown, and had the plant stood till they had been quite matured, I doubt not but they would have vegetated. It is somewhat extraordinary that some female polygamous trees, should often produce male or hermaphrodite flowers, as do the common *Ash*. Perhaps the loftiness of trees of this kind may render their impregnation by the male trees the more uncertain.

L'YCIUM. *Box Thorn*. Comp. p. 10.

Calyx of 1 small, abiding leaf, cut about half way into 2, 3, or more parts.—*Corolla* of 1 funnel-shaped petal, having a cylindrical, incurved tube, and a spreading limb, cut into 5 obtuse segments.—*Stamina* 5, awl-shaped, shorter than the corolla, woolly on their lower-part, fixed in the tube, and they close its mouth with their wool.—*Summits* roundish.—*Germen* roundish.—*Style* as long as the stamina.—*Stigma* thick, bifid.—*Berry* oblongish, 2-celled.—*Seeds* many, small and kidney-shaped.

1. *Bárbarum*. Shrubby, with slender stalks, and very long, pendulous branches, armed with distant, whitish, solitary spines. Leaves lance-shaped, flat, thickish, entire and alternate. Flowers pale purple, striped with darkish purple, and have their style equal with their stamina. Calyces cut into parts, the lower one bifid. — *Barbary Box Thorn*.
2. *Chinénse*. Shrubby, and has the general habit of the former, but the leaves are egg-shaped, lance-pointed, the upper ones small, and undulated. Flowers dull purple, and have their style much longer than the stamina. Calyces cut into two principal parts, the upper one bifid, the lower one trifid. — *Chinese Box Thorn*. This is commonly supposed to be only a variety of the first.

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LYSIMACHIA. *Willow-herb*. Comp. p. 9.

Calyx of 1 abiding leaf, deeply cut into 5 erect parts.—*Corolla* of 1 wheel-shaped petal, cut nearly to the center into 5 oblong-egg-shaped segments.—*Stamina* 5, awl-shaped.—*Summits* oblong, pointed.—*Style* thread-like, as long as the stamina.—*Stigma* obtuse.—*Seed-vessel* globular, 1-celled, 10-valved.—*Seeds* many, angular.—*Receptacle* large, globular, dotted.

1. *Vulgáris*. Stalk erect, four feet or more high, somewhat hairy and branching. Leaves broad-lance-shaped, smooth, three or four at a joint. Flowers yellow, several on a peduncle, forming a large, oblong bunch at the ends of the branches.—*Common Yellow Loofstrife; Willow-herb*. England.
2. *Thyriflóra*. Stalk erect, simple, about half a yard high. Leaves narrow-lance-shaped, two at a

joint. Flowers yellow, several on a peduncle, forming roundish compact clusters, on foot-stalks from the wings of the leaves.—*Tufted Willow-herb.* England.

3. *Stricta* vel *Bulbifera*. Stalk erect, branching. Leaves lance-shaped, sessile, opposite, and in autumn produce bulbs at their base. Flowers yellow, spotted with red, have their segments lance-shaped and spreading, and they terminate the branches in a long racemus.—*Bulb-bearing Willow-herb, or loofestrife.* New York.

LYTHRUM. *Purple Willow-herb.* Comp. p. 22.

Calyx of 1 cylindrical, streaked leaf, cut into 12 teeth, one alternately smaller than the other.—*Corolla* of 6 oblong, bluntish petals, fixed by their heels in the divisions of the calyx.—*Stamina* mostly 12, thread-like, about as long as the calyx, but the upper ones the shortest.—*Summits* small.—*Germen* oblong.—*Style* awl-shaped, as long as the stamina, declining.—*Stigma* knob-like.—*Seed-vessel* oblong, pointed, dry, hollow, 2-celled, covered.—*Seeds* small, numerous.

1. *Salicaria*. Stalk erect, angular, about three feet high, and branching. Leaves lance-shaped, hollowed, or egg-shaped at their base, entire, opposite. Flowers purple, and terminate the branches in long, somewhat interrupted spikes.—*Common Purple Willow-herb.* England.
2. *Virgatum*. Leaves nearly linear, lance-pointed, shining, mostly opposite. Flowers purple, and stand by threes, in a rod-like panicle at the end of the stalk.—*Austrian Purple Willow-herb.*
3. *Hyssopifolia*. Stalks scarcely a foot high. Leaves linear alternate. Flowers pale blue, or white, at the wings of the leaves, and they have only six stamina.—*Hedge Hyssop; Grass-poly.* England.

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MAGNOLIA. *Laurel-leaved Tulip-tree.* Comp. p. 27.

Calyx of 3 egg-shaped, concave, deciduous leaves.—*Corolla* of about 9 large, oblong, obtuse, concave petals, narrowed at their base.—*Stamina* numerous, short, compressed, pointed, and are inserted below the germina into the same common club-shaped *Receptacle*.—*Summits* linear, fastened to both margins of the stamina.—*Germina* numerous, oblong-oval, and cover the receptacle.—*Styles* short, recurved, twisted, longitudinally hairy, forming the *Stigmas*.—*Common Seed-vessel* an egg-shaped cone, covered with nearly orbicular, compressed, scale-like, *Partial Seed-vessels*, opening on the outside.—*Seeds* solitary, roundish, berry-like, and suspended by a fine thread.

1. *Grandiflora*. A tall, evergreen tree, having large, thick, lance-shaped leaves, of a lucid green above, and somewhat purplish beneath. Flowers purplish white, very large, sweet-scented, and terminate the branches.——*Evergreen Tulip Tree.* Carolina.

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2. *Glauca*. A small, deciduous tree, covered with a smooth, whitish bark. Leaves oval-oblong, whitish beneath. Flowers white, and terminate the branches.—*Small Virginian Tulip Tree*.
3. *Acuminata*. A deciduous tree, having very large, oblong, pointed leaves, green on both sides. Flowers white. Wood yellow.—*Long-leaved Tulip Tree*. Pennsylvania.
4. *Tripétala*. A slender deciduous tree, having very long lance-shaped leaves, forming a circle like an umbrella. Flowers very large, of a fragrant smell, and have their exterior petals drooping.—*Umbrella Magnolia*. Virginia.

MALVA. Mallow. Comp. p. 33.

Calyx double, abiding: the *outer* one of 3 oblong, acute leaves; the *inner* of one leaf, cut about half way into 5 broad segments.—*Corolla* of 5 reverse-heart-shaped petals, appearing as if bitten at their tip.—*Stamina* numerous, spreading above, but joined in a cylinder below.—*Germs* orbicular.—*Style* short.—*Stigmas* bristle-like, as long as the style.—*Seeds* kidney-shaped, and are wrapped in distinct, deciduous coats, forming a depressed whorl round a short column-like receptacle.

1. *Crispa*. Stalk erect, about five feet high. Leaves large, roundish and curled on their edges. Flowers whitish, small, in close clusters at the wings of the leaves.—*Curled Mallow*. Syria. ☉
2. *Alcea*. Stalk erect, about four feet high. Leaves cut into three irregularly indented lobes, the middle one much the longest. Flowers pale purple, and are larger than those of the common Mallow.—*Greater Vervain Mallow*; *Alcea Major*. England. ♂

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3. *Capensis*. Shrubby, erect, six feet or more high, with slender hairy branches. Leaves small, angular, serrated, and somewhat resemble those of the Gooseberry. Flowers red, with purple bottoms, on slender hairy peduncles at the wings of the leaves.—*Gooseberry-leaved Mal-low*. Cape of Good Hope. *Green-house*.

OBSERVATION. *The flowers of the first sort have no beauty in them, but the leaves are pretty, and are used for garnishing dishes.*

MARRUBIUM. *Horehound*. Comp. p. 29.

Flowers Lipped.

Calyx formed of 1 funnel-shaped, ten-streaked leaf, having an unequal spreading mouth, mostly cut into 10 teeth.—*Corolla* of 1 gaping petal with a cylindrical tube, and a long tubular throat: *upper-lip* erect, cut into 2 linear, straight parts; *lower-lip* broad, reflexed, cut about half way into 3 segments, the middle one broad, and notched; the side ones acute.—*Stamina* 4, two shorter than the rest, all shorter than the corolla, and lodged under the upper lip.—*Germen* 4-parted.—*Style* thread-like, as long as the stamina.—*Stigma* bifid. *Seeds* 4, lodged in the calyx.

1. *Pseudo-dictamnus*. Whole plant very hoary, shrubby, and about two feet high. Leaves heart-shaped, concave, on short footstalks. Flowers pale purple, and terminate the branches in whorls. Limbs of the calyces flat and hairy.—*Unsavory Bastard Dittany*. Crete. *Green-house*.
2. *Acetabulosum*. In this the limb of the calyx is membranous, naked, longer than the tube, and cut into many angles.—*Indented Cupped Bastard Dittany*. Crete. *Green-house*.

MEDICAGO. *Medick.* Comp. p. 36.

Flowers Butterfly-shaped.

Calyx of 1 straight, somewhat bell-shaped leaf, cut about half way into 5 equal, acute pointed teeth.

Standard egg-shaped, entire, totally reflexed, with the margins bent inward.

Wings oblong, and fixed to the keel by an oblong appendage.

Keel oblong, bifid, spreading, obtuse, and turns back from the standard. — *Stamina* 10, united almost up to their tip. — *Summits* small. — *Germs* oblong, compressed, pedunculated, and terminated by a short, awl-shaped style. — *Stigma* minute. — *Pod* long, compressed, bent inward. — *Seeds* many, kidney-shaped, or angular.

Arborea. Shrubby, five feet or more high, with downy, hoary branches. Leaves composed of three distant wedge-shaped lobes, slightly crenated at their tip. Flowers yellow, four or more on a peduncle from the sides of the branches. Pods moon-shaped. — *Neapolitan Medick.* Green-house.

MELIANTHUS. *Honey Flower.* Comp. p. 30.

Calyx of 1 large coloured leaf, divided to the base into 5 unequal parts: the two upper ones oblong, and erect; the lower one short, bag-shaped, and gibbous downward; the two side ones lance-shaped, straight and opposite. — *Corolla* of 4 linear, lance-pointed conniving petals, having their tips reflexed, and are placed betwixt the nectarium, and the side segments of the calyx. — *Nectarium* a short, compressed, bag-like leaf, placed within-side the lower segment of the calyx, and is fastened to it and the receptacle. — *Stamina* 4, awl-shaped, about as long as the calyx, but two rather

shorter than the rest.—*Summits* oblong, incumbent.—*Germen* large, 4-cornered, gibbous, cut into 4 teeth.—*Style* erect, awl-shaped, as long as the *flamina*.—*Stigma* 3 or 4-parted.—*Seed-vessel* 4-cornered, cut from the top about half way into 4 inflated, acute parts, forming 4 cells, opening inwardly.—*Seeds* almost globular, solitary, and fixed near the center of the cell.

1. *Major*. Whole plant of a sea green-colour, and six feet or more high. Leaves winged, or divided into about nine oblong, obtuse, coarsely ferrated distant lobes, running down the mid-rib at their base, and each leaf has a broad-lance-shaped stipulæ joined to the bottom of its footstalk. Flowers dull purple, and come forth in a long spike, on the upper part of a very long stalk or peduncle from the top of the stem.—*Large African Honey Flower*. Green-house.
2. *Minor*. This is a smaller plant than the former, and has two distinct Stipulæ adhering to the footstalks of the leaves.—*Small African Honey Flower*. Green-house.

MELISSA. *Balm.* Comp. p. 29.

Flowers Lipped.

Calyx formed of 1 tubular, rigid, angular, abiding leaf, having two lips: *Upper-lip* flat, a little reflexed, stumped, and cut into 3 remote, acute teeth; *Lower-lip* inflexed, rather acute, 2-parted.—*Corolla* of 1 gaping petal, having a cylindrical tube, and a spreading throat: *Upper-lip* short, arched, roundish and notched; *Lower-lip* trifid, with the middle segment the largest, and reverse-heart-shaped.—*Stamina* 4, two as long as the corolla, the others much shorter.—*Summits* small.—*Germen* 4-parted.—*Style* thread-like,

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as long as the corolla.—*Stigma* bifid, reflexed.—*Seeds* 4, egg-shaped, and lodge in the calyx.

1. *Grandiflora*. Stalks square, a foot or more high: Leaves egg-shaped, coarsely serrated, of a lucid green above, but whitish beneath. Flowers bright purple, striped with white, are more than twice the length of the calyx, and stand four or five on a peduncle from the wings of the leaves.—*Large Flowered Balm*. Heturia.
2. *Officinalis*. *Common Garden Balm*. Too well known to need any description.

MELITTIS. *Bastard Balm*. Comp. p. 29.

Flowers Lipped.

Calyx of 1 bell-shaped, erect, lipped leaf, much wider than the corolla: *Upper lip* the longest, and notched; *Lower lip* bifid and dentated.—*Corolla* of 1 gaping petal, having a tube longer than the calyx: *Upper lip* straight, roundish and entire; *Lower lip* spreading, cut into 3 obtuse segments, the middle one the largest.—*Stamina* 4, awl-shaped, the two inner ones the shortest, all lodged under the upper lip.—*Summits* 2-lobed.—*Germs* obtuse, hairy, 4-parted.—*Style* thread-like.—*Stigma* bifid, acute.—*Seeds* 4, lodged in the calyx.

Melissophyllum. Stalks square, about half a yard high. Leaves oblong egg-shaped, crenated, opposite, on footstalks. Flowers whitish with purple lips, on hairy peduncles from the wings of the leaves, near the tops of the branches.—*Bastard Balm*. England.

MENTHA. *Mint.* Comp. p. 28.

Flowers somewhat Lipped.

Calyx of 1 abiding, erect leaf, cut into 5 teeth.—*Corolla* of 1 erect, tubular petal, cut at the brim into 4 segments, the upper one the broadest, notched, and forms the upper lip.—*Stamina* 4, awl-shaped, two rather shorter than the rest.—*Summits* roundish.—*Germs* 4-parted.—*Style* thread-like, longer than the tube.—*Stigma* bifid.—*Seeds* 4, small, lodged in the calyx.

1. *Gentilis*. Stalks about half a yard high, red. Leaves egg-shaped, acutely serrated, green, or striped with yellow. Flowers small, have their stamens shorter than the corolla, and they terminate the stalks in whorls.—*Red Mint; Orange Mint.* England.
2. *Canariensis*. Shrubby, about four feet high, with slender branches. Leaves small, oval, serrated, opposite, on footstalks. Flowers whitish, in roundish clusters, on forked peduncles from the wings of the leaves.—*Shrubby Canary Mint.* Green-house.

MESEMBRYANTHEMUM. *Fig Marigold.* Comp. p. 24.

Calyx of 1 abiding leaf, cut about half way into 5 acute, spreading parts.—*Corolla* of numerous, linear, lance-pointed petals, longer than the calyx, ranged in many circular orders, but are all joined in one parcel at their base.—*Stamina* numerous, hair-like, as long as the calyx.—*Summits* incumbent.—*Germs* obtuse, 5-cornered, below the corolla.—*Style* mostly 5, awl-shaped, and somewhat reflexed.—*Stigmas* simple.—*Seed-vessel* roundish, fleshy, marked with a rayed dimple,

and has as many cells as styles.—Seeds many and roundish.

* *Flowers white.*

1. *Crystallinum*. Stalk very short. Branches prostrate. Leaves egg-shaped, alternate, waved, and covered with ice-like, spangling pimples. Flowers white, sessile. Calyces broad-egg-shaped, cut into three segments.—*Ice Plant; Diamond Ficoides.* Africa. ☉
2. *Nodiflorum*. Leaves alternate, nearly cylindrical, obtuse, ciliated at their base. Flowers white, and come forth at the knots of the stalks.—*White Egyptian Fig Marigold.* ☉
3. *Cópticum*. Stalks branching by threes. Leaves half cylindrical, pimpled, distinct, as long as the joints of the branches. Flowers white, solitary, in the divisions of the branches. Calyces cut into five parts.—*Coptic Fig Marigold.* ☉
4. *Geniculiflorum*. Shrubby. Leaves half cylindrical, pimpled, distinct at their base. Flowers white, sessile, at the joints of the branches. Calyces cut into four parts.—*Joint-flowering Fig Marigold.* Cape of Good Hope. Green-house.
5. *Noctiflorum*. Shrubby. Leaves half cylindrical, smooth, distinct at their base. Flowers reddish white, sweet-scented, on peduncles. Calyces cut into four parts.—*Sweet Night-flowering Cape Fig Marigold.* Green-house.
6. *Splendens*. Stalk dotted with white. Leaves half cylindrical, smooth, in clusters, distinct at their base. Flowers yellowish white. Calyces erect, finger-shaped.—*Bright-leaved Cape Fig Marigold.* Green-house.

7. *Umbellatum.* Shrubby, the stem erect. Leaves awl-shaped, joined at their base, and are rough with dots. Flowers white, in umbels. — *Umbellated Fig Marigold.* Cape of Good Hope. *Green-house.*
8. *Calamiforme.* Stalk none. Leaves round, like quills, smooth, united at their base. Flowers whitish straw-colour, and have eight styles. — *Onion-leaved Fig Marigold.* Cape of Good Hope. *Green-house.*
9. *Tripolium.* Stalks weak, trailing. Leaves flat, lance-shaped, alternate, smooth. Flowers silvery white. Calyces five-cornered, — *Sea Starwort-leaved Fig Marigold.* Cape of Good Hope. *Green-house.*
- * * *Flowers yellow.*
10. *E'dule.* Stalk two edged. Leaves thick, shining, three-square, joined at their base, and are somewhat serrated on their keel or lower angle. Flowers perfectly yellow. — *Eatable Cape Fig Marigold.* *Green-house.*
11. *Bicolorum.* Shrubby. Leaves almost linear, awl-pointed, somewhat triangular, smooth, slightly dotted, opposite, and often joined at their base. Flowers purplish saffron-colour on their outside, yellow within. — *Two-coloured Fig Marigold.* Cape of Good Hope. *Green-house.*
12. *Serratum.* Shrubby. Leaves awl-shaped, three-square, dotted, distinct, and are serrated on their keel or lower angle, the tips of the serratures pointing to the base. Flowers yellow. — *Serrated-leaved Cape Fig Marigold.* *Green-house.*
13. *Micans.* Shrubby, with a rough stem. Leaves almost cylindrical, pimples, silvery and distinct.

- Flowers deep yellow. — *Rough-stalked Cape Fig Marigold.* Green-house.
14. *Glaucum.* Shrubby. Leaves three-square, sharp pointed, distinct, furnished with scattered dots. Flowers bright yellow, and the segments of their calyces are heart-shaped. — *Gray-leaved Cape Fig Marigold.* Green-house.
15. *Corniculatum.* Leaves long, half cylindrical, three-cornered, rough with dots, and joined above their base by an elevated line. Flowers yellow, pale on their inside. — *Corniculated-leaved Fig Marigold.* Africa. Green-house.
There is a variety of this with short leaves.
16. *Tortuosum.* Stalks procumbent. Leaves flat, oblong-egg-shaped, somewhat pimpled, in clusters, and joined at their base. Flowers whitish on their outside, yellow within. Calyces of three horned leaves. — *Twisted-leaved Cape Fig Marigold.* Green-house.
17. *Pomeridianum.* Stalks round, scarcely a span high, hairy. Leaves broad-lance-shaped, smooth, somewhat ciliated, distinct, spreading. Flowers sulphur-colour, and are composed of numerous linear, acute petals. Germen hairy. — *Afternoon-flowering Cape Fig Marigold.* ☉
18. *Veruculatum.* Shrubby. Leaves cylindrical, somewhat three-cornered, pellucid, brownish at their tip, bowed, often joined at their base. Flowers yellow, small, crowded, sweet-scented, and are scarcely longer than their calyx. — *Bowed-leaved African Fig Marigold.* Green-house.
19. *Rostratum.* Stalk none. Leaves half cylindrical, tuberculated, and united at their base. Flowers yellow. — *Heron-billed Fig Marigold.* Cape of Good Hope. Green-house.
20. *Ringens.* Stalk very short. Leaves thick, triangular, dotted, dentated, the teeth ending in a

- hair. Flowers yellow, gaping.——*Gaping-flowered Cape Fig Marigold.* Green-house. Varieties the Dog's-chap and Cat's-chap *Fig Marigold.*
21. *Dolabrifórme.* Stalk none. Leaves axe-shaped, dotted. Flowers yellow, and expand in the night.——*Axe-leaved Fig Marigold.* Cape of Good Hope. *Green-house.*
22. *Diffórme.* Stalk none. Leaves broad, thick, shining, dotted, deformed, and united at their base. Flowers yellow.——*Deformed-leaved Cape Fig Marigold.* Green-house.
23. *Albidum.* Stalk none. Leaves three-square, thick, whitish and entire. Flowers large, yellow.——*White-leaved Æthiopian Fig Marigold.* Green-house.
24. *Linguaefórme.* Stalk none. Leaves tongue-shaped, not dotted, thicker on one edge than on the other. Flowers yellow.——*Tongue-leaved Cape Fig Marigold.* Green-house. Varieties, the broad, narrow, and long-leaved.
25. *Pugionifórme.* Leaves very long, awl-shaped, three-square, smooth, alternate and close together. Flowers yellow.——*Dagger-leaved Cape Fig Marigold.* Green-house.
26. *Capilláre.* Stalk erect, and puts forth slender, smooth, thread-like branches. Leaves round, pimples, joined at their base. Flowers yellow, one at the end of a branch.——*Fine-branched Cape Fig Marigold.* Green-house.
- * * * *Flowers reddish, or purple.*
27. *Cordifólium.* Herbaceous, stalks prostrate. Leaves heart-shaped, small, on footstalks opposite, the pairs remote. Flowers purple, on peduncles from the wings of the branches. Calyces four-leaved; two of them oval, the

- other two conical.—*Heart-leaved Fig Marigold*. Cape of Good Hope. *Green-house*.
28. *Bellidiflorum*. Stalk none. Leaves three-square, linear, not dotted, and have three teeth at their tip pointing different ways. Flowers reddish, resembling a daisy.—*Daisy-flowering Cape Fig Marigold*. *Green-house*.
29. *Deltoides*. Shrubby. Leaves shortish, thick, three-sided, somewhat triangular, dentated, distinct, not dotted. Flowers pale purple, sweet-scented.—*Delta-leaved Fig Marigold*. Cape of Good Hope. *Green-house*. Sometimes the leaves are prickly on their edges.
30. *Barbatum*. Leaves round, oblong-egg-shaped, pimples, distinct, and together with the calyces, are tipped with about five bristles, expanding like rays. Flowers purple.—*Starry, or Bearded-leaved Fig Marigold*. Cape of Good Hope. *Green-house*. Varieties the small-leaved and large-leaved.
31. *Hispidum*. Stalks slender, rough. Leaves cylindrical, pimples, distinct. Flowers purple, striped, or orange-colour.—*Rough-stalked Cape Fig Marigold*. *Green-house*.
32. *Scabrum*. Leaves awl-shaped, distinct, slightly prickly beneath. Flowers purple. Calyces hairless.—*Rough-leaved Fig Marigold*. Cape of Good Hope. *Green-house*.
33. *Emarginatum*. Leaves awl-shaped, somewhat rough, collected in clusters. Flowers purple, and have their petals notched. Calyces spiny.—*Emarginated Fig Marigold*. Cape of Good Hope. *Green-house*.
34. *Uncinatum*. Leaves short, opposite, acute, united at their base, dentated at their tip, and they terminate the joints of the stalks.—*Buck's-horn Fig Marigold*. Cape of Good Hope. *Green-house*.

35. *Spinósum*. Shrubby, with thorny branches. Leaves somewhat three-cornered, dotted, distinct. Flowers reddish.—*Thorny Cape Fig Marigold*. Green-house.
36. *Tuberósum*. Root tuberous. Leaves awl-shaped, pimpled, distinct, spreading at their tip. Flowers reddish.—*Tuberous-rooted Cape Fig Marigold*. Green-house.
37. *Tenuifólium*. Shrubby, the stalks woody and procumbent. Leaves long, slender, half cylindrical, tapering, smooth and distinct. Flowers scarlet, composed of numerous petals.—*Trailing fine-leaved Fig Marigold*. Cape of Good Hope. Green-house.
38. *Stipuláceum*. Shrubby, with an erect, rigid stem. Leaves somewhat three-cornered, linear, fleshy, acute, much compressed, dotted, incurved, in clusters on the twigs, and joined at their base by horizontal stipulæ. Flowers purple.—*Bordered-leaved Cape Fig Marigold*. Green-house.
39. *Crassifólium*. Stalks creeping, half cylindrical. Leaves thick, half cylindrical, three-cornered at their tip, not dotted, united at their base. Flowers purple.—*Creeping Thick-leaved Cape Fig Marigold*. Green-house.
40. *Glomerátum*. Shrubby, the stalk branching into panicles, bearing many purple flowers. Leaves somewhat cylindrical, compressed, dotted, distinct.—*Clustered Cape Fig Marigold*. Green-house.
41. *Filamentósum*. Shrubby, with six-cornered branches. Leaves equally three-square, acute, dotted, rough on their angles. Flowers dull purple, and their petals awl-shaped.—*Shreddy-flowered Cape Fig Marigold*. Green-house.
42. *Lóreum*. Stalks weak, pendulous. Leaves half cylindrical, recurved, clustered, gibbous on their

interior base, and united. Flowers purple.
 ——*Thong-stalked Cape Fig Marigold*. Green-house.

43. *Falcátum*. Shrubby, with roundish branches. Leaves somewhat short-simitar-shaped, incurved, triangular, a little bowed, dotted, and distinct at their base. Flowers small, purple.
 ——*Scythe-leaved Cape Fig Marigold*. Green-house.
44. *Forficátum*. Stalk two-edged. Leaves simitar-shaped, obtuse, smooth, united at their base, spiny at their tip. ——*Forked Cape Fig Marigold*. Green-house.
45. *Acinacifórme*. Leaves simitar-shaped, not dotted, united at their base, rough on their keel, or lower edge. Flowers fine purple, and their petals lance-shaped. ——*Simitar-leaved Cape Fig Marigold*. Green-house.

MESPILUS. *Medlar*. Comp. p. 24.

Calyx of 1 concave, spreading, abiding leaf, cut into 5 teeth.—*Corolla* of 5 roundish, concave petals, inserted into the calyx.—*Stamina* about 20, awl-shaped, inserted into the calyx.—*Germen* below the corolla.—*Styles* 5, erect.—*Stigmas* knob-like.—*Berry* globular, dimpled.—*Seeds* 5, hard and gibbous.

1. *Pyracántha*. Shrubby, and puts forth numerous weak, spiny branches. Leaves nearly elliptical, acute pointed, smooth and finely serrated. Flowers white, in large flattish bunches at the ends of the twigs. Fruit red and obtuse. ——*Evergreen Thorn*. Italy.
2. *Amelánchier*. Shrubby, about three feet high, with a few spineless, spreading branches. Leaves small, nearly elliptical, obtuse with a small point, smooth, and finely serrated. Flowers

white, in loose bunches from the sides and ends of the branches. Peduncles woolly.—

Dwarf Black Fruited Medlar. Austria.

3. *Canadensis.* Shrubby, about five feet high, with smooth, spineless, purple branches. Leaves oblong-oval, serrated, smooth, on long, slender footstalks. Flowers white, and terminate the branches in very thin bunches. Fruit purplish.—*Snowy Medlar.* Canada.

4. *Cotoneaster.* Shrubby, about four feet high, with spineless branches. Leaves egg-shaped, entire, on short footstalks. Flowers small, purplish, about three in a cluster, standing close to the sides of the branches.—*Bastard Quince; Pyrenean Medlar.*

MIMOSA. *Sensitive Plant.* Comp. p. 45.

Plants Polygamous.

Male calyx cut into 3 or 5 teeth.—*Corolla* (if any) cut into 5 segments.—*Stamina* 5, or more.

Hermaphrodite calyx cut into 5 teeth.—*Corolla* none, or there is one small, funnel-shaped petal, cut into 5 segments.—*Stamina* 4, 5, 10, or more, hair-like, very long.—*Summits* incumbent.—*Germen* oblong.—*Style* thread-like, shorter than the stamina.—*Stigma* stumped.—*Pod* long, with many transverse partitions.—*Seeds* of different shapes in the different species.

* *Leaves conjugate, or the lobes by pairs.*

1. *Viva.* Stalks herbaceous, spineless, creeping. Leaves conjugate, and composed of four pair of small, roundish lobes, on very short footstalks, and are sensible to the touch. Flowers yellowish, in small, globular heads, on naked peduncles from the wings of the leaves.—*Creeping Sensitive Plant.* Jamaica. *Hot-house.*

2. *Sensitiva*. Shrubby, with a slender, woody, erect stalk, armed with prickles. Leaves conjugate, and composed of two pair of lobes, the inner ones the smallest, and are somewhat sensible to the touch. Flowers pale purple, in globular heads, on short peduncles.——
Greater Brazilian Sensitive Plant. Hot-house.
** *Leaves doubly winged*.
3. *Pudica*. Stalk woody, branching, armed with short spines, and stinging bristly hairs. Leaves composed of about four long, winged lobes, placed at the end of a long, jointed footstalk, and they spread like the fingers when extended. On touching the leaves they drop at the joint or knee of their footstalk. Flowers white, without petals, in oval heads, on long peduncles from the wings of the leaves.——*Brazilian Humble Plant*. Hot-house.
4. *Punctata*. Stalk erect, round, spineless, dotted. Leaves doubly winged. Flowers in oblong, erect spikes, and have ten stamina, those of the lower ones without summits.——*Dotted American Sensitive Plant*. Hot-house.
5. *Pernambucana*. Stalks decumbent, spineless. Leaves doubly winged. Flowers yellowish, in nodding spikes, and have ten stamina, those of the lower ones without summits.——*Slothful Plant*. America. Hot-house.
6. *Quadrivalvis*. Stalks trailing, four-cornered, and are armed with short, recurved spines. Leaves doubly winged, on prickly footstalks. Flowers pale purple, in globular heads, on long peduncles from the sides of the branches. Pods four-valved.——*Trailing Prickly Sensitive Plant*. Vera Cruz. Hot-house.

7. *Cinérea*. A small tree, covered with an ash-colour bark, and armed with solitary, very acute thorns. Leaves doubly winged, and resemble bird's feathers. Flowers reddish white, in spiked heads, on peduncles from between the thorns and footstalks of the leaves.—*Narrow-leaved Gray-barked Acacia*. India. *Hot-house*.
8. *Nilótica*. A tree, having smooth branches covered with a purple bark, and armed with thorns by twos, serving as stipulæ to the footstalks of the leaves. Leaves doubly winged, and composed of about five pair of lobes, the outermost separated by a gland. Flowers in globular, pedunculated heads.—*True Egyptian Acacia*. *Hot-house*.
9. *Sénegal*. A tree covered with a white bark, and armed with thorns by threes, the middle one reflexed. Leaves doubly winged, on footstalks from the base of the thorns. Flowers in pedunculated spikes.—*Silky Spiked Acacia*. Arabia. *Hot-house*.
10. *Farnesiána*. Shrubby, and armed with distinct thorns, serving as stipulæ to the footstalks of the leaves. Leaves doubly winged, and composed of eight pair of lobes. Flowers fragrant, in sessile, globular heads.—*West-Indian Sponge Tree*. *Hot-house*.
11. *Pennáta*. Shrubby, with an angular stem, armed with brown, robust, hooked thorns. Leaves composed of about fifteen pair of long, winged lobes, made up of numerous small lobes, placed close together. Flowers white, in globular heads on the tops of the branches.—*Ceylon Feather-leaved Acacia*. *Hot-house*.

OBSERVATION. *The eighth sort produces the Gum Arabic, and the true Succus Acacia. The last is the inspissated juice of the unripe fruit. It is a mild astringent, and is generally counterfeited by the inspissated juice of Sloes. The ninth sort yields the Gum Senegal.*

MIRABILIS. *Marvel of Peru. Comp. p. 9.*

Calyx of 1 bellying, abiding leaf, cut to the base into 5 lance-shaped parts.—*Corolla* of 1 funnel-shaped petal, having a long, slender tube, fitting upon the nectarium, and an open, folded, 5-pointed brim.—*Nectarium* globular, abiding, and includes the germen.—*Stamina* 5, unequal, nearly as long as the corolla, and spring from the receptacle.—*Summits* lobed.—*Germen* roundish, within the nectarium.—*Style* thread-like, of the length of the stamina.—*Stigma* globular, covered with cup-like glands.—*Nut* oval, 5-cornered.

1. *Falápa.* Stalk branching, about two feet high. Leaves opposite, on footstalks. Flowers short, and are yellow, red, purple, or striped, in close clusters at the tops of the branches. Calyces smooth.—*Upright Marvel of Peru. India.*
For the true Falap see Convolvulus.

2. *Longiflóra.* Taller than the former, with feeble, hairy, viscous, branches. Leaves opposite; lowers ones on short footstalks; upper ones sessile. Flowers white, with purple eyes; their tubes are six inches long, and they terminate the branches in clusters. Calyces woolly.—*Long-tubed Marvel of Peru. Mexico.*

OBSERVATION. *The impregnation of these plants is wonderful. The stigma will be found rolled in among the summits, and the farina of the latter will be seen to consist of little balls of the size of the cups covering the stigma. When the summits burst, these balls fall into*

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the cups of the stigma, and are there retained by a glutinous liquor.

MOLUCCELLA. *Molucca Balm.* Comp. p. 29.

Flowers Lipped.

Calyx of 1 top-shaped leaf, having a large brim, cut into 5, 7, or more spiny teeth, the 2 upper ones remote.—*Corolla* of 1 gaping petal, having both the tube and throat short: *upper lip* trifid, the middle segment much the longest and notched.—*Stamina* 4, two shorter than the rest, all placed under the upper lip.—*Summits* small.—*Germs* 4-parted.—*Style* about the length of the *stamina*.—*Stigma* bifid.—*Seeds* 4, angular, stumped, lodged in the calyx.

1. *Lævis.* Stalks square, branching, near three feet high. Leaves smooth, roundish, indented, and stand opposite on long footstalks. Flowers purplish, smaller than the calyces. Calyces cut into about five equal teeth.—*Smooth Molucca Balm.* Syria. ☉

2. *Spinosa.* Stalks square, about two feet high, with purplish branches. Leaves smaller than those of the former. Flowers about six in a whorl. Upper lip of the calyx large, terminated by a spine: lower lip roundish, entire, and tipped with seven spines.—*Prickly Molucca Balm.* ☉

MOMORDICA. *Male Balsam Apple.* Comp. p. 45.

Plants Monœcious.

Male calyx of 1 concave leaf, cut into 5 lance-shaped, spreading parts.—*Corolla* of 1 large, rough petal, fastened to the calyx, and cut into 5 spreading segments. *Stamina* 3, awl-shaped, short.—*Summits* 3; two of them are bifid, and eared on each side; the third is simple, compressed, has only one ear, and a line containing the farina.

Female calyx and *corolla* like the male.—*Stamina* 3, very short, and want the summits.—*Germs* large, below the *corolla*.—*Style* round, taper, trifid.—*Stigmas* 3, oblong, gibbous.—*Apple* oblong, with 3 membranous cells, filled with compressed seeds, and it spirts with an elastic, sudden force.

Elatarium. Stalks trailing, two or three feet long, and much branched. Leaves nearly heart-shaped, rough, of a gray-colour, and stand on long footstalks. Flowers pale yellow, with greenish bottoms; the males on short peduncles, and the females on the fruit.———*Spirting Cucumber*; *Asses Cucumber*. Europe.

OBSERVATION. *The inspissated juice of the unripe fruit of this Plant is the Elaterium of the shops, and is a very strong cathartick.*

MONARDA. *Lion's Tail*. Comp. p. 4.

Flowers Lipped.

Calyx formed of 1 cylindrical, abiding, streaked leaf, cut into 5 awl-shaped teeth.—*Corolla* of 1 gaping petal, having a tube longer than the calyx: *Upper lip* narrow, straight, linear and entire: *Lower lip* reflexed, trifid, the middle segment the longest, linear and notched.—*Stamina* 2, hair-like, about the length of the upper lip.——*Summits* boat-shaped.——*Germs* 4-parted.——*Style* thread-like, involved with the *stamina*.—*Stigma* bifid, acute.—*Seeds* 4, roundish, lodged in the calyx.

1. *Didyma*. Stalks square, near two feet high, and smooth. Leaves egg-shaped, pointed, ruffled, acutely serrated, opposite. Flowers scarlet, and terminate the stalks and branches in large whorls. *Stamina* longer than the *corolla*.

Summits two lobed. — *Oswego Tea*. Pennsylv-
 vania.

2. *Fistulosa*. Stalks square, about four feet high, erect, hairy, and branching. Leaves oblong, acute, a little hairy, serrated, opposite. Flowers pale purple, and terminate the branches in close heads, surrounded by large involucrum, composed of lance-shaped leaves. Mouths of the calyces bearded. — *Canada Lion's Tail*.
3. *Clinopodia*. Stalks square, smooth, two feet or more high. Leaves oblong-egg-shaped, pointed, smooth, acutely serrated. Flowers pale sulphur-colour, and terminate the branches in close heads, having pretty large involucrum. — *Pale Virginian Lion's Tail*.
4. *Punctata*. Stalk square, about two feet high, putting forth branches from near the bottom to the top. Leaves lance-shaped, slightly dentated, irregular in size, and stand in clusters at the joints of the stalk. Flowers dull yellow, spotted with purple, in whorls at the tops of the branches, having involucrum composed of many small, reddish leaves. — *Spotted Virginian Lion's Tail*. ♂

MYRICA. Gale. Comp. p. 46.

Plants Dioecious.

Male catkin small, nearly egg-shaped, and totally imbricated with obtusish, concave scales, enclosing 5 or 6 short *Stamina* each, terminated by twin *Summits*, having bifid lobes.

Female catkin like the male. — *Corolla* none. *Germen* nearly egg-shaped. — *Styles* 2, thread-like, longer than the scale. — *Stigma* simple. — *Berry* 1-celled. — *Seed* one.

1. *Gale*. Shrubby, about four feet high, with many slender branches. Leaves lance-shaped, smooth,

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a little serrated at their tip, and have a fragrant smell. Catkins from the sides of the branches.
 ————*Sweet Willow; Dutch Myrtle.* Eng-
 land.

2. *Cerifera.* Shrubby, about five feet high. Leaves broad lance-shaped, smooth, coarsely serrated from near their middle to their point. Catkins from the sides of the branches. ———— *Candle-berry Myrtle.* Carolina.
3. *Quercifolia.* Shrubby, evergreen, five feet or more high. Leaves oblong, obtuse, sinuated, the jags or lobes opposite, and are either smooth or hairy. Catkins from the sides of the branches. ———— *Oak-leaved Gale.* *Æthiopia.* *Green-house.*
4. *Cordifolia.* Shrubby, about five feet high, with weak, slender branches. Leaves nearly heart-shaped, slightly serrated, or quite entire and sessile. Catkins from the sides of the branches. ———— *Cape Hermes; Heart-leaved Myrica.* *Green-house.*
5. *Trifoliata.* Shrubby, with dentated leaves standing by threes. ———— *Trifoliate Cape Gale or Myrtle.* *Green-house.*

OBSERVATION. *From the berries of the second sort the inhabitants of North America extract a sort of wax, of which they make candles.*

MYRTUS. *Myrtle.* Comp. p. 23.

Calyx formed of 1 erect, abiding leaf, cut about half way into 4 or 5 acute teeth.—*Corolla* of 4 or 5 broad, egg-shaped, entire petals, inserted into the calyx.—*Stamina* numerous, hair-like, as long as the corolla, and inserted into the calyx.—*Summits* small.—*Germen* below the corolla.—*Style* simple, thread-like.—*Stigma*

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obtuse.—Berry oval, 3-celled, crowned by the calyx.
Seeds solitary, kidney-shaped.

1. *Commúnis*. Leaves oval, smooth, lance-pointed. Flowers solitary. Involucrum two leaved.
——Common Myrtle. Asia. The Romana, or Broad-leaved Myrtle; the Tarentina, or Box-leaved Myrtle; the Italica, or Italian upright Myrtle; the Bœtica, or Orange-leaved Myrtle; the Lusitanica, or Portugal acute-leaved Myrtle; the Belgica, or Broad-leaved Dutch Myrtle; and the Mucronata, or Rosemary and the Thyme-leaved Myrtle; are deemed only varieties of the Communis.
2. *Brasiliána*. Leaves egg-shaped, obtuse, smooth opposite, on footstalks. Flowers solitary, on leafless peduncles. Petals four or five, obtuse, torn or ciliated and reflexed. Stamina about forty.—Brazilian Myrtle. Hot-house.
3. *Biflóra*. Leaves lance-shaped, opposite. Flowers two on a peduncle from the wings of the leaves.
——Two Flowered Jamaica Myrtle. Hot-house.
4. *Zeylánica*. Leaves egg-shaped, almost sessile. Flowers many on a peduncle, and are very fragrant. Berries white.—Sweet Smelling Ceylon Myrtle. Hot-house.
5. *Piménta*. Leaves oblong-oval, smooth, alternate, large, and resemble those of the bay-tree. Flowers in a racemus at the ends and sides of the branches.—Jamaica Pepper; Allspice. Hot-house.
6. *Lúcida*. Leaves shining, almost sessile, somewhat egg-shaped at their base, diminishing to a lance-shaped point. Flowers about three on a peduncle. Petals five.—Shining Surinam Myrtle. Hot-house.

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7. *Cúmini*. Leaves lance-pointed, broadest upward. Flowers many on a peduncle.—*Multiflorous Ceylon Myrtle*. Hot-house.
8. *Dioíca*. Leaves opposite, thick, oblong, broadest upward. Flowers diœcious, in panicles of three forks at the ends and sides of the branches. ————*Diœcious American Myrtle*. Hot-house.
9. *Androsæmoídes*. Leaves broad, nearly oval and sessile. Peduncles trifid, and sustain many flowers.—*Tutsan-leaved Ceylon Myrtle*. Hot-house.
10. *Caryophylláta*. Leaves reverse egg-shaped. Peduncles trifid, and sustain many flowers.—*Clove-scented Ceylon Myrtle*. Hot-house.

OBSERVATION. *The Jamaica Pepper, or Allspice is the fruit of the fifth species.*

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NARCISSUS, *Daffodil.* Comp. p. 16.

Calyx an oblong, withering sheath, opening on one side.—*Corolla* of 6 oval, spreading petals, fastened to a central, coloured, bell-shaped leaf, called the *Nectarium*.—*Stamina* 6, awl-shaped, shorter than the nectarium, and fixed to its tube.—*Summits* oblong.—*Germs* roundish, obtuse, 3-cornered, below the corolla.—*Style* thread-shaped, longer than the stamina.—*Stigma* trifid, obtuse.—*Seed-vessel* roundish, obtusely 3-cornered, 3-celled, 3-valved.—*Seeds* many and globular.

* *One flower from a Sheath.*

1. *Bulbocodium.* Stalk scarcely a span high, producing one yellow flower from its sheath, having short, narrow petals, and a large top-shaped cup, longer than the petals, regularly decreasing in width from its brim to its base. Stamina and style declining.—*Hoop Petticoat Daffodil.* Portugal.

2. *Pseudo.* One yellow, single or double flower from a sheath, having a bell-shaped, erect, crisped cup or nectarium, as long as the petals, and egg-shaped petals fastened nearly to the middle of the cup. — *Common Daffodil.* England.
3. *Major.* One very large yellow flower from a sheath, having an almost cylindrical cup or nectarium, rather longer than the petals. — *Large Bastard Daffodil.* The leaves of this are broad and a little twisted. The stalk about half a yard high. The petals are of a light sulphur-colour. It may be only a variety of the *Pseudo.*
4. *Méδιο-lúteus.* One or two dirtyish white, single or double flowers from a sheath, having a very short, light yellow, crenated, saucer-shaped cup, with a pale, filmy brim, surrounded by obtuse petals, turned up at their edges, the three inner ones alternately narrower than the rest. — *Pale English Daffodil.*
5. *Poéticus.* One single or double snow white flower from a sheath, having a very short, saucer-shaped, crenated, greenish-yellow cup, with a crimson brim, surrounded by obtuse, flat, nearly equal petals. — *Poetic Daffodil.* It is not certain whether this plant be a native of England, though it has been found wild in several places. It flowers nearly a month later than the fourth sort, and has a more grateful smell.

* * *Two, or more flowers from a Sheath.*

6. *Trilóbus.* Stalk compressed. Leaves flattish, obtuse. Petals pale sulphur-colour. Cup yellow, cylindrical, about half the length of the petals, and irregularly cut into three slightly

- crimped lobes. Flowers about two from a sheath.—*Trifid-cupped Narcissus*. Europe.
7. *Odórus*. Stalk compressed. Leaves half cylindrical. Petals yellow, lance-shaped. Cup bell-shaped, yellow, about half the length of the petals, and divided at the brim into six short, obtuse lobes. Flowers about two from a sheath.—*Sweet-scented Yellow Narcissus*. Europe.
8. *Fonquílla*. Stalk compressed. Leaves half cylindrical. Cup hemispherical, crenated, shorter than the petals. Flowers single or double, several from a sheath, having their peduncles three-cornered.—*Fonquil; Rush-leaved Daffodil*.
9. *Tazétta*. Stalk two edged, thick, streaked. Leaves broad and flat. Cup bell-shaped, shorter than the petals, and is even and stumped at its brim. Flowers many from a sheath, and are either totally yellow, or white and yellow.—*Polyanthus Narcissus*. Spain.
10. *Incomparábilis*. One very large double flower from a sheath, having whitish, or sulphur-coloured petals, mixed with deep gold, lacerated cups, nearly half the length of the petals.—*Incomparable Daffodil; Butter and Eggs*.

OBSERVATION. There is little doubt of the last being an hybrid plant, and probably was bred by a junction of the *Poeticus* and *Odorus*. In the leaves and stalk it nearly resembles the *Poeticus*; in the petals and cup the *Odorus*. The more double the flower is, the deeper colour is the cup, and the whiter the petals; but when reduced to a simple flower it is much of the colour of the *Odorus*. By suffering a root to stand amongst some bushes for about five years without disturbing, the flowers became perfectly single; the petals were

ance-pointed; the cup was about half the length of the petals, and cut into six obtuse lobes.

¹
NEPETA. *Cat Mint.* Comp. p. 28.

Flowers Lipped.

Calyx of 1 tubular, cylindrical leaf, cut into 5 erect, acute teeth; the upper ones rather the longest, the lower ones the most spreading.—*Corolla* of 1 gaping petal, having an almost cylindrical, incurved tube, with its chaps short, obtuse and reflexed: *Upper lip* nearly erect, roundish and notched; *Lower lip* a large, concave, entire, crimped lobe.—*Stamina* 4, awl-shaped, approaching, placed under the upper lip, 2 rather shorter than the rest.—*Summits* incumbent.—*Germs* 4-parted.—*Style* thread-like, as long as the stamina, and ranged with them.—*Stigma* bifid, acute.—*Seed-vessel* none.—*Seeds* 4, somewhat egg-shaped, lodged in the calyx.

1. *Catária.* Stalk erect, square, hoary, very much branched, about three feet high. Leaves broad-heart-shaped, wrinkled, coarsely dentated, on footstalks opposite. Flowers whitish, in thick interrupted, somewhat pedunculated whorled spikes at the ends of the branches.—*Nep* or *Cat Mint.* England.

2. *Violácea.* Stalk firm, erect, square, bluish, branching, four feet or more high. Leaves oblong-egg-shaped, dentated, on footstalks opposite, and much resemble those of *Betony*. Flowers blue, in roundish, pedunculated, opposite whorls, along the upper part of the branches.—*Blue Spanish Cat Mint.*

3. *Índica.* Stalk erect, square, branching. Leaves roundish, smooth, serrated, on footstalks opposite. Flowers white, have their upper lip very short and entire, and they come out in whorls

from the wings of the leaves.—*Indian Cat Mint.*

OBSERVATION. *Cats are very much allured by the smell of the first sort. They will frequently champ it, tear it in pieces, and roll themselves on it. The leaves are used in the compound Bryony-water, which is sometimes directed in hysterical cases.*

ⁱ
NERIUM. *Rose Bay.* Comp. p. 11.

Calyx formed of 1 abiding leaf, cut into 5 acute teeth. *Corolla* of 1 funnel-shaped petal, having an almost cylindrical tube, and a large limb, divided into 5 broad, obtuse, oblique segments.—*Neclarium* 5 oblong, lacerated scales, fastened to the mouth of the tube.—*Stamina* very short, placed in the tube.—*Summits* arrow-shaped, and each is terminated by a long, hairy thread.—*Germen* roundish, bifid.—*Style* cylindrical, as long as the tube.—*Stigma* knotty.—*Pods* 2, long, round, pointed, erect, and contain numerous oblong *Seeds*, crowned with down.

1. *Oleánder.* Shrubby, evergreen, six feet or more high. Leaves long, lance-pointed, entire, rigid, somewhat erect, and stand by threes round the branches. Flowers red, scarlet, white or striped, single or double, and terminate the branches in large, loose bunches.—*Oleander; Common Indian Rose Bay.* Green-house.
2. *Zeylónicum.* A small tree with straight branches, opposite lance-shaped leaves, and small flowers.—*Indian Straight-branched Rose Bay.* Green-house.

ⁱ
NICOTIANA. *Tobacco.* Comp. p. 9.

Calyx formed of 1 abiding, egg-shaped leaf, cut about half way into 5 parts.—*Corolla* of 1 funnel-shaped pe-

tal, having a tube longer than the calyx, and a spreading brim, cut nearly half way into 5 plaited segments.—*Stamina* 5, awl-shaped, curved at their base, mostly as long as the corolla.—*Summits* oblong.—*Germs* egg-shaped.—*Style* thread-like, as long as the stamina.—*Stigma* knob-like.—*Seed-vessel* egg-shaped, marked with a line on each side, 2-celled, and opens at the tip.—*Seeds* rough, kidney-shaped.

1. *Rústica*. Stalk about three feet high, clammy, a little compressed. Leaves egg-shaped, entire, alternate, and have one side of their base lower than the other. Flowers salver-shaped, of a greenish yellow, their segments obtuse, and they come out in loose bunches at the tops of the branches. Base of the germs orange-colour.—*English Tobacco*. America. ☉
2. *Tabácum*. Stalks from five to seven feet high. Leaves very large, oblong, lance-pointed, entire, sessile, and sometimes they run down the stem. Flowers bright purple, in loose bunches at the tops of the branches. Tube of the flower long, swelled near the mouth, and the segments of the brim are acute. Stamina hairy.—*Broad-leaved Tobacco*. America. ☉
3. *Fruticósa*. This is very much like the second sort, but the stalks are perennial.—*Shrubby Tobacco*. China. *Green-house*.

NIGELLA. *Fennel Flower*. Comp. p. 27.

Calyx none, (except the Involucrum be so called.)
 —*Corolla* of 5 spreading, egg-shaped petals, contracted at their base.—*Nectarium* 8 lipped leaves, ranged in a circle: *Upper lip* broad, short, obtuse: *Lower lip* long and bifid.—*Stamina* numerous, awl-shaped, shorter than the petals.—*Summits* oblong, compressed, erect.—*Germs* from 5 to 10, oblong, compressed,

N O L

erect, and terminate in very long, angular, revolute styles. — *Stigmas* fixed longitudinally. — *Seed-vessels* oblong, compressed, pointed, equal in number to the styles, connected inward, but are divided on the outside by furrows. — *Seeds* many, rough and angular.

1. *Damascéna*. Stalk about half a yard high, much branched. Leaves cut into numerous very narrow lobes. Flowers pale blue or white, single or double, and have five styles each. Seed-vessels large, puffy, and girt longitudinally with a fine divided, leafy, involucre. — *Devil in a Bush; Love in a Mist.*
Spain. ☉

2. *Hispánica*. Stalk about half a yard high, branching. Upper leaves cut into broadish segments. Flowers large, fine blue, single, or double, and each has ten styles as long as the petals. — *Broad-leaved Spanish Nigella.* ☉

3. *Orientalis*. Flowers yellow, and each has ten styles longer than the petals. — *Aleppo Nigella.* ☉

¹
NOLANA. *Nolana*. Comp. p. 8.

Calyx of 1 abiding leaf, having a top-shaped base, 5 prominent angles round the middle, and is cut at the brim into 5 acute parts. — *Corolla* of 1 petal, having a short bell-shaped tube, and a round, broad, flat, folded brim. — *Stamina* 5, awl-shaped, erect, hairy at their base, about half the length of the corolla, and are inserted into it. — *Summits* roundish, flattened, split at their base. — *Germina* 5, roundish. — *Style* 1, thread-like, as long as the stamina, and springs from the center of the germina. — *Stigma* obtuse. — *Seed-vessels* 5, roundish, 2-celled, lodged in the calyx.

Prostrata. Stalks prostrate, much branched. Leaves egg-shaped, smooth, entire, on flat footstalks.

Flowers solitary, sky-blue, streaked with deep blue, on long peduncles from the sides of the branches.—*Nolana*. ☉

NYCTANTHES. *Night-flowering Jasmine*. Comp. p. 4.

Calyx of 1 small, cylindrical, abiding leaf, cut about half way into 8 awl-shaped teeth.—*Corolla* of 1 salver-shaped petal, having a cylindrical tube, longer than the calyx, and a flat, spreading limb, cut into 8 oblong segments.—*Stamina* 2, small, inserted into the receptacle.—*Summits* erect.—*Germen* roundish, depressed.—*Style* as long as the tube of the corolla.—*Stigmas* 2, erect.—*Berry* roundish, double, 2-celled.—*Seeds* large, solitary, roundish.

1. *Arbor-tristis*. Shrubby, the stem four-cornered. Leaves egg-shaped, pointed, brownish on the upper side, green beneath, and stand opposite on short footstalks. Flowers white, honey-scented, and come out in small clusters from the wings of the leaves. Seed-vessels membranous, compressed.—*Sorrowful Tree*; *Mournful Nyctanthes*. India. *Hot-house*.
2. *Sambac*. Shrubby, with twining stalks. Leaves opposite, the lower ones heart-shaped and obtuse; the upper ones egg-shaped and acute. Flowers white, single or double, and terminate the branches in clusters of three or four each.—*Climbing Arabian Jasmine*. *Hot-house*.
3. *Undulata*. Shrubby, the branches round. Leaves egg-shaped, pointed, waved on their margin. Flowers white.—*Malabarian Broad-leaved Nyctanthes*. *Hot-house*.
4. *Hirsuta*. Shrubby, and has the footstalks of the leaves and peduncles hairy.—*Indian Hairy Nyctanthes*. *Hot-house*.

3. *Angustifolia*. Leaves narrow-egg-shaped. —
Narrow-leaved Malabarian Nyctanthes. Hot-
 house.

O.

ÆNOTHERA. *Tree Primrose*. Comp. p. 18.

Calyx of 1 deciduous leaf, having an erect, cylindrical tube, and a limb cut into 4 oblong, pointed segments, turned back to the peduncle.—*Corolla* of 4 obtuse petals, about the length of the segments of the calyx, and inserted at their divisions.—*Stamina* 8, awl-pointed, bent inward, shorter than the corolla, and fixed in the chaps of the calyx.—*Summits* oblong, incumbent.—*Germen* cylindrical, below the tube of the calyx.—*Style* thread-like.—*Stigma* cut into 4 spreading parts.—*Seed-vessel* nearly cylindrical, 4-cornered, 4-celled.—*Seeds* many, angular, naked, and adhere to a linear, 4-cornered receptacle,

1. *Biennis*. Stalk three or four feet high, branching, roughish, and a little hairy. Lower leaves flat, oblong-egg-shaped, acute, slightly dentated;

upper ones lance-shaped. Flowers pale yellow, and come out on all sides the branches, at the wings of the leaves, forming very long spikes.—*Six o'Clock Primrose*. Virginia. ♂

2. *Parviflora*. Stem two feet or more high, having red, roughish, hairy branches. Leaves lance-shaped, with irregular, slightly dentated margins. Flowers yellow, about half the size of the former. Seed-vessels club-shaped, hairy.—*Small Flowered Tree Primrose*. America. ♂

3. *Sinuata*. Stalk a foot or more high. Leaves lance-pointed, dentated, jagged, angular at their base, and are slightly hairy. Flowers small, purple.—*Jagged-leaved Tree Primrose*. Virginia.

ONONIS. *Rest-harrow*. Comp. p. 34.

Flowers Butterfly-shaped.

Calyx of 1 abiding leaf, almost as long as the corolla, and deeply cut into 5 narrow, sharp-pointed segments, the lowest bending inward directly under the keel.

Standard broad-heart-shaped and streaked.

Wings rather egg-shaped, half as long as the standard.

Keel pointed, mostly as long as the wings.—*Stamina* 10, all united.—*Summits* very small.—*Germen* oblong and downy.—*Style* very slender.—*Stigma* obtuse.—*Pod* somewhat diamond-shaped, turgid, 1-celled, 2-valved.—*Seeds* few, kidney-shaped.

1. *Fruticosa*. Shrubby, near three feet high. Leaves sessile, composed of three narrow, finely serrated lobes. Flowers purple, and terminate the branches in bunches, having two and three flowers on each common peduncle, issuing from a sheath-like, dentated stipula.—*Shrubby Alpine Rest-harrow*.

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2. *Tridentata*. Shrubby, two or three feet high. Leaves composed of three linear, thick, fleshy lobes, cut into three teeth at their tip. Flowers purple, and terminate the branches in bunches, having one and two flowers on each peduncle. Stipulæ awl-shaped.—*Spanish Shrubby Rest-harrow*.
3. *Crispa*. Shrubby, with slender, hairy, viscous branches. Leaves composed of three roundish, plaited, dentated, clammy lobes. Flowers yellow, solitary, on leafless peduncles from the sides of the branches. Stipulæ bifid.—*Curled-leaved Shrubby Ononis*. Spain. *Green-house*.
4. *Natrix*. Somewhat shrubby, about two feet high, with round, somewhat clammy, slightly hairy branches. Lower leaves composed of three oval, dentated lobes; floral ones simple. Flowers yellow, large, one on a peduncle having a short arista. Lower stipulæ entire; upper ones dentated. Standard of the corolla streaked with red on the outside.—*Viscous Spanish Rest-harrow*. *Green-house*.
5. *Pinguis*. Somewhat shrubby. Leaves composed of three lance-shaped-oblong-lobes. Flowers yellow, one on a peduncle having an arista as long as the flower.—*Eat South European Rest-harrow*. *Green-house*.
6. *Rotundifolia*. Shrubby. Leaves composed of three egg-shaped, dentated lobes. Flowers three on a peduncle. Calyces girt with three heart-shaped bractææ.—*Round-leaved Alpine Rest-harrow*. *Green-house*.

OPHRYS. *Ophrys*. Comp. p. 42.

Calyx none.—*Corolla* of 5 equal, oblong petals, conniving so as to form a helmet.—*Nectarium* of 1

drooping leaf, longer than the petals, and somewhat keeled beneath.—*Stamina* 2, very short, and sit on the style.—*Summits* erect, covered by the inner margin of the nectarium.—*Germen* oblong, twisted, placed below the corolla.—*Style* fixed to the inner margin of the nectarium.—*Stigma* obsolete.—*Seed-vessel* nearly egg-shaped, 3-cornered, obtuse, streaked, 1-celled, 3-valved.—*Seeds* like dust.

1. *Apifera*. Bulb roundish. Flower-stalk near a foot high, leafy, and supports four or five distant flowers, having their three exterior petals oblong, pale purple, spreading, and their two interior ones green, linear, and hairy. Nectarium large, black purple, cut into five reflexed lobes, and is marked with yellow lines and dots, giving it the appearances of the body of a bee.—*Humble Bee Orchis*. England.
2. *Muscifera*. Bulb roundish. Flower-stalk leafy, more than a foot high, terminated by several flowers, having their three exterior petals egg-shaped, spreading, entire, smooth and greenish; the two interior ones linear, and of a blackish purple. Nectarium oblong, quadrifid, of a blackish purple above, greenish beneath, and marked with a blue band below the upper segments.—*Fly Orchis*. England.
3. *Aranifera*. This chiefly differs from the second sort in having the lip of the nectarium convex, roundish and entire, except a very slight notch.—*Spider Orchis*. England.

ORIGANUM. *Marjorem*. Comp. p. 29.

Flowers lipped, and collected in heads composed of many coloured bractæ.

Calyx various.—*Corolla* of 1 gaping petal, having an almost cylindrical, compressed tube: *Upper lip*

erect, flat, obtuse and notched; *lower lip* trifid, and the segments are nearly equal.—*Stamina* 4, thread-like, 2 shorter than the rest.—*Summits* double.—*Germs* 4-parted.—*Style* thread-like.—*Stigma* short, bifid.—*Seeds* 4, egg-shaped, lodged in the calyx.

1. *Vulgáris*. Stalks somewhat erect, near two feet high. Leaves egg-shaped, acute, entire, dark green, on footstalks opposite. Flowers pale purple, or white, in roundish heads, forming irregular panicles at the ends of the branches. Bractæ egg-shaped, smooth, coloured, longer than the calyces. Calyx tubular, with a bearded, five toothed mouth.—*Common Wild Marjorem*. England.
2. *Sipyléum*. Stalks smooth, slender, more than a foot long, with numerous opposite branches. Leaves egg-shaped, smooth, of a grayish green, and those on the branches are very small. Flowers fine purple, in small nodding heads at the ends of the branches. Calyces tubular, five-toothed. Stamina much longer than the petal.—*Dittany of Mount Sipylus*.
3. *Ægyptiacum*. Stalks herbaceous, about a foot high, branching. Leaves fleshy, roundish, woolly and concave. Flowers small, pale red, in naked heads.—*Ægyptian Marjorem*. Green-house.
4. *Majorána*. Stalks erect, about a foot high, with reddish branches. Leaves oval, obtuse, entire, downy, on footstalks. Flowers white, very small, in roundish, compact, hairy heads, mostly by threes on a common peduncle, and the middle one is sessile. Calyces obtuse, open on their forepart.—*Sweet Marjorem*; *Pot Marjorem*; *Knopped Marjorem*. Green-house.

5. *Diſſámnus*. Stalks about a span high, purplish, downy. Leaves round, thick, very white and woolly. Flowers in loose, nodding, purple heads at the ends and sides of the branches. Calyces scoop-shaped. Stamina much longer than the corolla.—*Cretan Dittany*. Greenhouse.

ORNITHOGALUM. *Star of Bethlehem*. Comp. p. 15.

Calyx none.—*Corolla* of 6 lance-shaped petals, which are erect near their base, * but spread open above.—*Stamina* 6, erect, broad at their bottom, and much shorter than the corolla.—*Summits* oblongish, incumbent.—*Germs* angular.—*Style* taper, abiding.—*Stigma* obtuse.—*Seed-vessel* roundish, angled, 3-celled.—*Seeds* many and roundish.

* *Some of the species want this mark.*

1. *Lúteum*. Root a large bulb. Leaves few, keel-shaped. Flower-stalk about half a foot high, angular, with two narrow leaves near the top. Flowers yellow, on simple peduncles, forming a kind of umbel. Stamina awl-shaped.—*Yellow Star of Bethlehem*. England.
2. *Umbellátum*. Leaves long, narrow, and keeled. Flower-stalk near a span high, naked. Flowers white with green stripes on the outside, on simple peduncles, forming a sort of umbel; the lowest peduncles reaching higher than the upper ones.—*Common Star of Bethlehem*. England. *This is the umbellatum of Hudson, but is certainly not Linnæus's plant; the stamina in this being awl-shaped and entire, but in Linnæus's three of them are notched.*
3. *Nutans*. Stalk about a foot high, round, thick, and glossy. Flowers large, white, striped with green, distant, hang nodding on one side

the stalk on longish peduncles, and each has a bell-shaped nectarium in the center, sustaining the summits. The nectarium is composed of six petal-like leaves, alternately notched.

—*Neapolitan Star of Bethlehem.*

4. *Pyrenáicum.* Leaves narrow, convolute. Stalk two or three feet high, erect, and naked. Flowers yellowish green, on equal, spreading peduncles, forming a very long racemus at the upper part of the stalk. After flowering the peduncles become nearly erect. Stamina awl-shaped.—*Long Spiked Star of Bethlehem.* England.

5. *Latifólium.* Leaves long, keeled, an inch or more broad, and lance-pointed. Flower-stalk about three feet high, thick and erect. Flowers totally white, on long peduncles, forming a very long racemus, from near the middle to the end of the stalk. Stamina awl-shaped.—*Alexandrian Lily; Ægyptian Star of Bethlehem.*

6. *Pyramidále.* Leaves long, narrow and keeled. Flower-stalk near three feet high. Flowers white, on peduncles arching upward, and form a long, conical racemus to the end of the stalk. Stamina awl-shaped.—*Great Portugal Star of Bethlehem.*

O'ROBUS. *Bitter Vetch.* Comp. p. 35.

Flowers Butterfly-shaped.

Calyx of 1 tubular leaf, having an obtuse base, and an oblique mouth, cut into 5 teeth: the two *upper* teeth the shortest and straddling; the three *lower* ones acute.

Standard reverse-heart-shaped, and has its margin and tip reflexed.

Wings oblong, closed, and near as long as the standard.

Keel compressed, bellying, open at the base, but closed upward.—*Stamina* 10, one detached, and nine united.—*Summits* roundish.—*Germen* linear, compressed.—*Style* thread-like.—*Stigma* linear, downy on the inside.—*Pod* long, round, curved, pointed at the tip, and 1-celled.—*Seeds* many and roundish.

1. *Vernus*. Stalk angular, simple, about a foot high. Leaves winged with two or three pair of egg-shaped, pointed, sessile, three-ribbed lobes. *Stipulæ* half arrow-shaped. Flowers purple and blue, about six on a peduncle from the wings of the leaves.—*Vernal Bitter Vetch*. Europe.

2. *Niger*. Root woody. Stalk smooth, branching, angular, and near two feet high. Leaves winged, and composed of about twelve oblong-oval, convolute lobes, not quite opposite. *Stipulæ* lance-shaped. Flowers purplish, on long peduncles from the wings of the leaves.—*Black Bitter Vetch*. Europe.

OSTEOSPERMUM. *Hard-Seeded Chrysanthemum*.
Comp. p. 41.

Flowers Compound, Radiated.

Common calyx simple, hemispherical, and cut into many small, awl-shaped parts.

Florets in the disk many, tubular, 5-toothed, as long as the calyx.—*Stamina* very short.—*Germen* small.—*Style* thread-like, hardly so long as the stamina.—*Stigma* obsolete.—*Seed* none.

Female rays about 10, very long, linear, cut into 3 teeth.—*Germen* globular.—*Style* thread-like.—*Stigma* notched.—*Seed* globular, coloured, and as hard as bone.—*Receptacle* flat, naked.

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1. *Spinosum*. Shrubby, two or three feet high, furnished with branching spines at the ends of the twigs. Leaves long, narrow, and somewhat clammy. Flowers yellow, one at the end of a branch. *Thorny Osteospermum*. Africa. *Green-house*.
2. *Moniliferum*. Shrubby, five feet or more high. Leaves oval, thick, serrated, hoary, on somewhat decurrent footstalks. Flowers yellow, in small clusters at the ends of the branches. ————*White Poplar-leaved Osteospermum*. *Æthiopia*. *Green-house*.
3. *Pisiferum*. Shrubby, five feet or more high. Leaves smooth, serrated, pointed, narrowed downward, forming a kind of bordered footstalk. Flowers small, yellow, in tufts at the ends of the branches. Seeds like peas. ————*Pea-bearing Cape Osteospermum*. *Green-house*.

OTHONNA. *African Ragwort*. Comp. p. 41.

Flowers Compound, Radiated.

Calyx of 1 very simple, tubular leaf, having an obtuse base, and is cut at its tip into 8 or 12 acute teeth or segments.

Florets in the disk many, male or hermaphrodite, tubular, 5-toothed, scarce longer than the calyx. — *Germen* oblong. — *Style* mostly longer than the stamina. *Stigma* bifid, simple. — *Seed* none.

Female rays strap-shaped, 3-toothed, reflexed, longer than the calyx. — *Germen* oblong. — *Style* thread-like. — *Stigma* large, reflexed. — *Seed* oblong, naked, or crowned with down. — *Receptacle* naked, dotted.

1. *Pechinata*. Shrubby, with a stem near two feet high, dividing into several downy branches. Leaves oblong, and cut almost to the midrib into many narrow, linear, equal, parallel,

hoary lobes, indented at their tip. Flowers large, yellow, on long peduncles from the wings of the leaves, near the tops of the branches ——— *Pedinated African Ragwort*. Green-house.

2. *Abrotanifolia*. Shrubby, with a low, jointed, hairy, branching stem. Leaves thick, and cut into many linear segments, which are cut again into others. Flowers yellow, on short peduncles at the ends of the branches. ——— *Multifid-leaved African Ragwort*. Green-house.
3. *Coronopifolia*. Shrubby, four or five feet high. Lower leaves lance-shaped, entire; the upper ones cut into distant teeth. Flowers yellow, and terminate the branches in a loose kind of umbel. ——— *Buck's-horn Plantain-leaved African Ragwort*. Green-house.
4. *Cheirifolia*. Shrubby, the branches creeping, spreading, and crooked. Leaves oblong, grayish, entire, sessile, alternate, obtusish, narrowest near their base, and have three obsolete veins beneath. Flowers yellow, solitary, on long peduncles thickest at their end. ——— *Creeping Shrubby Ragwort*. Africa.

Oxalis. *Wood-sorrel*. Comp. p. 21.

Calyx of 1 very short, abiding leaf, cut into 5 acute parts. — *Corolla* of 5 erect, obtuse, notched petals, joined by their heels. — *Stamina* 10, hair-like, erect, the outer ones shorter than the rest. — *Summits* roundish, furrowed. — *Germen* 5-cornered. — *Styles* 5, thread-like, as long as the stamina. — *Stigmas* obtuse. — *Seed-vessel* 5-angled, 5-celled, and opens at the corners. — *Seeds* roundish.

* *With stalks.*

1. *Corniculata*. Stalks trailing, and put forth many diffuse branches. Leaves composed of three reverse-heart-shaped lobes, deeply notched. Flowers yellow, in small umbels, on long naked peduncles from the sides of the branches. Seed-vessels long and pointed.—*Yellow Wood-forrel*. Italy. ☉
2. *Stricta*. In this the stalks are erect, which is the chief difference between it and the former. —*Upright Yellow Wood-forrel*. Virginia.
3. *Verficolor*. Stalk erect, hairy, branching. Leaves composed of three linear, notched lobes. Flowers reddish and yellow, or reddish and white, one on a peduncle. —*Variable Æthiopian Wood-forrel*. Green-house.
4. *Incarnata*. Stalks slender, about six inches high, producing bulbs, and dividing into branches by pairs. Leaves composed of three reverse-heart-shaped lobes. Flowers whitish purple, smallish, one on a long slender peduncle from the divisions of the stalk. —*Flesh-coloured Wood-forrel*. Æthiopia. Green-house.
5. *Frutescens*. Shrubby, near two feet high. Leaves opposite, and composed of three oval lobes, the middle one the largest. Flowers very small, yellow, in umbels, on peduncles from the wings of the branches. —*Shrubby American Wood-forrel*. Hot-house.

* * *Without stalks.*

6. *Acetosella*. Leaves composed of three reverse-heart-shaped lobes. Flowers white, tinged with red, one on a peduncle arising immediately from the root. —*Common Wood-forrel*. England.
7. *Purpurea*. Leaves composed of three reverse-heart-shaped, entire, ciliated lobes. Flowers

purple with a yellowish tube, one on a hairy peduncle arising immediately from the root. Stigmas feathered, and stand higher than the exterior stamina.—*Purple Ethiopian Wood-sorrel.* Green-house.

8. *Violacea.* Leaves composed of three smooth, reverse-heart-shaped lobes. Flowers blue purple, several on a peduncle immediately from the root, forming an umbel.—*Purple Virginian Wood-sorrel.*
9. *Pes-Cápræ.* Leaves composed of three very obtuse lobes, cut about half way down from their tip. Flowers very yellow, many on a peduncle immediately from the root, forming an umbel.—*Goat's-foot-leaved Wood-sorrel.* *Æthiopia.* Green-house.
10. *Flava.* Leaves composed of three lobes, deeply cut into two parts. Flowers yellow, one on a peduncle immediately from the root.—*Finger-leaved Ethiopian Wood-sorrel.* Green-house.

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PÆONIA. *Piony*. Comp. p. 26.

Calyx of 5 small, roundish, concave, reflexed, abiding, unequal leaves.—*Corolla* of 5 large, roundish, concave, spreading petals, narrow at their base.—*Stamina* numerous, short, hair-like.—*Summits* large, oblong, erect, 4-cornered.—*Germina* 2, (sometimes 3) egg-shaped, erect and downy.—*Styles* none.—*Stigmas* 2 or 3, oblong, compressed, obtuse, coloured.—*Seed-vessels* oblong, thick at their base, rather spreading, downy, 1-celled, and open longitudinally on the inside.—*Seeds* oval, shining, coloured, fixed to the gaping seams.

1. *Officinális*. Stalks about two feet high, with spreading branches. Leaves composed of several oblong, or lance-shaped, deformed, cut lobes. Flowers large, purple, crimson, flesh-colour, or white, single or double.—*Common Male and Female Piony*. Helvetia.

2. *Tenuifolia*. Stalks a foot or more high. Leaves small, and cut into many linear segments. Flowers small, purple, single or double.—*Dwarf Piony*.

OBSERVATION. *The root, flowers, and seeds of the first sort are in esteem for convulsions in children, and are deemed useful in all kinds of nervous disorders.*

PANCRATIUM. *Sea Daffodil*. Comp. p. 16.

Common calyx an oblong, compressed, withering sheath, opening on one side.—*Corolla* composed of 6 lance-shaped petals, fastened to the outside of a funnel-shaped *Nectarium*, which is coloured upward, and cut into 12 parts at the brim.—*Stamina* 6, awl-shaped, longer than the nectarium, and inserted into its brim.—*Summits* oblong, incumbent.—*Germs* 3-cornered, below the corolla.—*Style* thread-like, longer than the stamina.—*Stigma* obtuse.—*Seed-vessel* roundish, 3-cornered, 3-celled.—*Seeds* many, globular.

1. *Illyricum*. Leaves sword-shaped. Stalk round, about a foot high, and produces several large, white, sweet-smelling flowers from its sheath, having their stamina longer than the nectarium.—*Sclavonian Lily Daffodil*.
2. *Zeylanicum*. Leaves narrow, erect. Stalk round, about a foot high, and produces one large, sweet-smelling, six-cornered flower from its sheath, having its petals reflexed.—*Hexagonal Lily Daffodil*. Ceylon. *Hot-house*.
3. *Mexicanum*. Leaves long, and have three longitudinal furrows. Stalk about a foot high, and produces two white, scentless flowers from its sheath, on distinct peduncles.—*Mexican Two-flowered Pancratium*. *Hot-house*.

4. *Caribæum*. Leaves lance-shaped. Stalk near two feet high, compressed, and produces several white, sweet-smelling flowers from its sheath. — *Jamaica Narcissus*; *Caribæan Daffodil*. Hot-house.
5. *Amboinense*. Leaves about four, egg-shaped, large, pointed, on long footstalks. Stalk naked, round, about two feet high, and produces several white, fragrant flowers from its sheath. — *Amboyna Lily Daffodil*. Hot-house.

PAPAVER. *Poppy*. Comp. p. 26.

Calyx formed of 2 egg-shaped, obtuse, deciduous, notched leaves.—*Corolla* of 4 large, roundish, flat, spreading petals, one alternately smaller than the other.—*Stamina* numerous, hair-like, shorter than the corolla.—*Summits* oblong, compressed, erect.—*Germen* large, roundish.—*Style* none.—*Stigma* shield-shaped, flat, radiated and abiding.—*Seed-vessel* globular, or oblong, either smooth, or rough, 1-celled, and discharges its seeds through small holes under the stigma.—*Seeds* small and numerous.

1. *Rhæas*. Stalk about half a yard high, rough, branching, and furnished with spreading hairs. Leaves deeply cut into several jagged lobes, the lower ones the longest. Flowers red, purple, striped or white, single or double. Seed-vessel smooth and roundish.—*Round Smooth-headed Poppy*. England. ☉
2. *Somniferum*. Stalk smooth, erect, about three feet high, branching. Leaves large, gray, smooth, simple, jagged, and embrace the stalk. Flowers very large, white, red, striped, and of various tints, single or double. Calyces and seed-vessels smooth.—*Common Garden Poppy*. Europe. ☉

3. *Orintále.* Stalk two or three feet high, and almost covered with prostrate, white, bristly hairs. Leaves nearly a foot long, tapering, rough with white hairs, and cut to the midrib into many lance-shaped, serrated lobes. Flower red, very large, single or double, and terminates the stalk. Seed-vessel smooth.——*Oriental Poppy.* ☉
4. *Cámbricum.* Stalk about a foot high, smooth, branching. Leaves winged, and composed of three or four pair of distant, angular, jagged lobes, terminated by an odd one. Flowers yellow. Seed-vessels smooth and oblong.——*Perennial Yellow Poppy* Wales.

OBSERVATION. *The second sort produces both white and black seeds, and it is this sort that yields Opium, which is only the thickened juice of the plant.*

PASSIFLORA. *Passion Flower.* Comp. p. 42.

Calyx of 1 large, coloured leaf, cut to the base into 5 flat, petal-like segments.—*Corolla* of 5 flat petals, of the size and figure of the segments of the calyx, and one side of their tip is lance-shaped.—*Neclarium* a large, circular, triple fringe, crowning the petals.—*Stamina* 5, spreading, awl-shaped, fastened at their base to the column of the styles, which is crowned by a roundish germen.—*Summits* oblong, obtuse, incumbent.—*Styles* 3, spreading.—*Stigmas* knob-like.—*Berry* oval, fleshy, 1-celled.—*Seeds* many, egg-shaped.

1. *Cærúlea.* Stalks climbing. Leaves hand-shaped, and are cut into five entire, finger-like lobes, the two lower ones mostly divided near their base. Flowers large, light blue, solitary, on long peduncles at the footstalks of the leaves. In-

- involucrum of three oval leaves, shorter than the calyx.—*Common Passion-flower.* Brasil.
2. *Incarnata.* Stalks slender, climbing. Leaves cut into three oblong, serrated lobes, the two side ones often divided. Flowers purplish flesh-colour, solitary, on long peduncles at the foot-stalks of the leaves. Involucrum of five oblong leaves.—*Virginian Trifid-leaved Passion-flower.* Green-house.
3. *Lutea.* Stalks feeble, three feet or more high. Leaves heart-shaped, smooth, and are cut into three entire lobes. Flowers very small, dirty yellow, solitary, on slender peduncles from the wings of the stalks.—*Ivy-leaved Virginian Passion-flower.* Green-house.
4. *Vespertilio.* Stalks slender and streaked. Leaves large, cut into two roundish, acute, and widely extended, three-nerved lobes. Flowers white, solitary, on short peduncles from the joints of the stalks.—*Bat's-wing-leaved Passion-flower.* America. *Hot-house.*

PERIFLOCA. *Virginian Silk.* Comp. p. 11.

Calyx a small abiding leaf, deeply cut into 5 egg-shaped parts.—*Corolla* a flat petal, divided into 5 linear, stumped, notched segments, in form of a star.—*Nectarium* a folded rim, round the center of the petal, having 5 incurved threads, shorter than the corolla, and placed at its divisions.—*Stamina* 5, very short.—*Summits* erect, hairy, conniving.—*Germen* small, bifid.—*Style* very short, double.—*Stigma* large, knob-like, 5-cornered.—*Seed-vessel* 2 large, oblong, bellying bags, of 1-cell each.—*Seeds* many, imbricated, crowned with down.—*Receptacle* a longitudinal thread.

1. *Græca.* Stalks shrubby, twining, and rise to a great height. Leaves oblong oval, acute pointed,

smooth, entire, and opposite. Flowers dull purple, hairy on the inside, and terminate the twigs in thin bunches.—*Purple Periploca*.
Syria.

2. *Africana*. Stalks slender, hairy, twining, about three feet high. Leaves nearly egg-shaped, pointed, or they are sinuated and hairy. Flowers purplish, or pale green, sweet-scented, and come out in small bunches from the sides of the stalks.—*Hairy African Periploca*.
Green-house.
3. *Esculenta*. Stalks twining. Leaves long, narrow, awl-pointed, roundish at their base and opposite. Flowers yellow, streaked with iron-colour, hairless within, and are produced in bunches, from two to eight flowers in each.—*Esculent Periploca*.
India. Hot-house.

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PHALARIS. *Canary Grass*. Comp. p. 6.

Calyx a glume of 2 equal valves, including 1 flower, and each valve has a ridge along its back.—*Corolla* of 2 valves, smaller than the calyx; the outer one is oblong, pointed, convolute, and larger than the inner.—*Stamina* 3, hair-like, shorter than the calyx.—*Summits* oblong.—*Germen* roundish.—*Styles* 2, hair-like.—*Stigmas* hairy.—*Seed* smooth, oblong, pointed at both ends, and it is covered by the valves of the corolla.

1. *Arundinacea*. Stalk four or five feet high, and furnished at each joint with a long, streaked, pointed leaf, which is either green or striped. Flowers in large, oblong, bellying panicles.—*Reed Canary Grass*; *Striped Canary Grass*.
England.
2. *Canariensis*. Stalk about half a yard high, and furnished at each joint with a long, narrow,

pointed leaf. Flowers in green and white, compact, conical panicles. ———— *Manured Canary Grass.*

OBSERVATION. *The second sort is cultivated in England as food for Canary birds. Probably the seed was introduced with them.*

PHILADELPHUS. *Mock Orange.* Comp. p. 23.

Calyx formed of 1 abiding leaf, cut into 4 or 5 lance-shaped parts.—*Corolla* of 4 or 5 large, roundish, flat, spreading petals, inserted into the calyx.—*Stamina* about 20, awl-shaped, shorter than the corolla.—*Summits* erect, furrowed.—*Germen* below the corolla.—*Style* thread-like, split into 4 parts.—*Stigmas* obtusifish.—*Seed-vessel* oval, at both ends pointed, 4-celled, girt round the middle by the calyx.—*Seeds* oblong, numerous

1. *Coronarius.* Shrubby, about six feet high, with gray, irregular branches. Leaves nearly egg-shaped, lance-pointed, ferrated, totally green or variegated. Flowers white, single or double, very fragrant, in loose bunches from the sides and ends of the twigs———*Syringa; Mock Orange. Verona.*
2. *Inodorus.* Shrubby, about twice the height of the former, with entire leaves, resembling those of the pear-tree, and the flowers are scentless. ————*Unsavory Carolina Syringa.*
3. *Aromaticus.* Shrubby, six feet or more high, with numerous slender, brown branches. Leaves not half an inch long, nearly elliptical, dotted, grayish beneath and sessile. Flowers small, white, solitary, on short peduncles from the bosoms of the leaves, on the upper part of the branches, Calyces five-parted, downy, tinged

with purple. Style entire.——*Aromatick Syringa.* Green-house.

OBSERVATION. *There is a variety of the first sort, called the Dwarf Syringa, it not rising above three feet high. The leaves are rather shorter than those of the first, but have the same taste of cucumber. When it flowers, which is but seldom, they are generally produced solitary.*

PHILLYREA. *Mock Privet.* Comp. p. 4.

Calyx of 1 small, abiding, tubular leaf, cut into 4 small teeth.—*Corolla* of 1 petal, having a very short tube, and a limb cut into 4 egg-shaped, revolute segments.—*Stamina* 2, very short and opposite.—*Summits* large, egg-shaped, flat on one side, convex on the other.—*Germen* roundish, within the corolla.—*Style* as long as the stamina.—*Stigma* thickish.—*Berry* globular, 1-celled.—*Seed* large and globular.

1. *Angustifolia.* Shrubby, about ten feet high, with brown, spotted, slender, opposite branches. Leaves very narrow, lance-pointed, stiff, entire, opposite, and are either of a dark green or striped. Flowers brownish, in small, close clusters at the joints of the branches.—*Narrow-leaved Phillyrea.* Italy.
2. *Media.* Shrubby, with an erect stem rising to a considerable height. Leaves egg-shaped, lance-pointed, smooth, opposite, and nearly entire. Flowers greenish white, in small clusters from the sides of the branches.—*True Phillyrea; Common Mock Privet.* Europe. *The leaves are sometimes obtuse.*
3. *Latifolia.* Shrubby, rising to a considerable height. Leaves broad, between egg and heart-shaped, ferrated, and are often prickly. Flowers

greenish white, in clusters from the wings of the branches.———*Broad-leaved Phillyrea*. Europe.

PHLOMIS. *Jerusalem Sage*. Comp. p. 29.

Flowers Lipped.

Calyx formed of 1 oblong, abiding leaf, having 5 or 10 angles, each terminated by a short tooth.—*Corolla* of 1 gaping petal, having a long tube: *Upper lip* egg-shaped, arched, compressed, hairy, almost entire; *Lower lip* trifid, the middle segment obtuse and 2-lobed; the side ones small and acutish.—*Stamina* 4, two shorter than the rest, all lodged under the upper lip.—*Summits* oblong.—*Germs* 4-parted.—*Style* as long as the stamina, and ranged with them.—*Stigma* bifid, acute, the inner part the longest.—*Seeds* 4, oblong, angled, lodged in the calyx.

1. *Fruticósa*. Shrubby, four or five feet high, with woolly, angular branches. Lower leaves roundish; upper ones oblong, or egg-shaped, and all of them are opposite, hoary, wrinkled, and slightly crenated. Flowers bright yellow, in large compact whorls at the tops of the branches. Leaves of the involucre lance-shaped.———*Common Jerusalem Sage*. Spain.
2. *Purpúrea*. Somewhat shrubby, with downy, feeble branches. Leaves heart-shaped, oblong, hoary and opposite. Flowers purplish, about six in a whorl. Leaves of the involucre linear, obtuse, about half as long as the calyx.———*Purple Portugal Sage*. Green-house.
3. *Tuberósa*. Root tuberous. Stalks herbaceous, about five feet high. Leaves heart-shaped, deeply crenated, rough and opposite. Flowers purple, and terminate the stalks in whorls.

Leaves of the involucre awl-shaped. Upper lip of the corolla dentated.—*Purple Siberian Sage.*

4. *Leonurus.* Shrubby, six feet or more high. Leaves lance-shaped, opposite, coarsely serrated about half way from their tip. Flowers deep orange-colour, and come out at and near the ends of the branches in large whorls. Leaves of the involucre linear. Upper lip of the corolla long, entire, silky, and fringed with a thick plush. Summits lobed. Calyces marked with ten angles and ten teeth.—*Scarlet African Lion's Tail.* Green-house.
5. *Zeylanica.* Leaves lance-shaped, slightly serrated. Flowers in terminal heads. Calyces cut into seven teeth. (*See Leonurus Indicus.*)

PHLOX. *Lychnidea.* Comp. p. 9.

Calyx of 1 cylindrical, 10-angled, abiding leaf, cut into 5 acute teeth.—*Corolla* of 1 petal, having a cylindrical tube, longer than the calyx, and a broad, spreading brim cut into 5 very obtuse segments.—*Stamina* 5, within the tube of the corolla, two longer and one shorter than the rest.—*Summits* oblong.—*Germs* conical.—*Style* thread-like, equal with the longest stamens.—*Stigma* trifid, acute.—*Seed-vessel* oval, 3-cornered, 3-celled, 3-valved.—*Seeds* oval, solitary.

1. *Paniculata.* Stalks smooth, about three feet high, obtuse angled upward. Leaves broad-lance-shaped, opposite, almost sessile, and rough on their margins, being furnished with very minute teeth. Flowers numerous, either darkish or pale purple, in roundish bunches at the tops of the branches. Tube of the corolla downy. Teeth of the calyx awl-shaped.—*Virginian Bastard Lychnis.*

2. *Maculáta*. Stalks round, erect, about three feet high, and closely speckled with brownish red and green spots. Leaves smooth, long-pointed, somewhat heart-shaped at their base, opposite, sessile. Flowers reddish blue, and they come out on the upper part of the stalks in opposite racemi.—*Spotted Virginian Bastard Lychnis*.
3. *Pilósa*. Whole plant a little hairy. Stalks slender, a foot or more high. Leaves lance-shaped. Flowers of a pearly blue, and terminate the branches in loose, roundish bunches. Calyces very hairy, and divided almost to their base.—*Hairy Bastard Lychnis*. Virginia.
4. *Glabérrima*. Stalks smooth, erect, about half a yard high. Leaves narrow-lance-shaped, sessile, opposite, and resemble those of the greater Stichwort, but are rather broader. Flowers purple or white, and terminate the branches in imperfect umbels ————*Smoothest Bastard Lychnis*. Virginia.
5. *Carolina*. Stalks roughish, about four feet high. Leaves broad-lance-shaped. Flowers numerous, mostly white, and terminate the stalks in even-topped bunches.—*Carolinian Bastard Lychnis*.
- Phórmium*. (See *Lachenalia*.)

PHY'LICA. *Bastard Alaternus*. Comp. p. 11.

Calyx a common *Receptacle*, collecting the flowers into a disk or head.—*Proper calyx* of 1 abiding, top-shaped leaf, having a woolly mouth, cut into 5 parts. *Corolla* none, but there are 5 acute, conniving scales, guarding the stamina.—*Stamina* 5, very small, inserted under the scales.—*Summits* roundish.—*Style* short.—*Stigma* obtuse.—*Seed-vessel* roundish, 3-lobed, 3-celled, 3-valved.—*Seeds* solitary, one side gibbous, the other angular.

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1. *Plumósa*. Shrubby, two or three feet high, and very bushy. Leaves numerous, linear, awl-pointed, short, whitish beneath and alternate. Flowers white, fringed, in small heads at the ends of the twigs.—*Yew-leaved Bastard Alaternus*. Æthiopia. *Green-house*.
2. *Ericoides*. Shrubby, about three feet high, bushy. Leaves numerous, short, narrow, acute, and placed in whorls. Flowers white, in small clusters at the ends of the twigs.—*Heath-leaved Bastard Alaternus*. Æthiopia. *Green-house*.
3. *Buxifolia*. Shrubby, about five feet high, with downy branches. Leaves egg-shaped, hoary beneath, near an inch long. Flowers greenish, and terminate the twigs in small heads.—*Box-leaved Bastard Alaternus*. Æthiopia.

PHYSALIS. *Winter Cherry*. Comp. p. 10.

Calyx of 1 abiding, bellying leaf, cut about half way into 5 acute-pointed parts.—*Corolla* of 1 wheel-shaped petal, having a very short tube, and a large, plaited limb, cut into 5 broad and pointed segments.—*Stamina* 5, awl-shaped.—*Summits* oblong, erect, somewhat conniving.—*Germen* roundish.—*Style* thread-like, mostly longer than the stamina.—*Stigma* obtuse.—*Berry* almost globular, 2-celled, inclosed in the calyx, which now becomes large, much puffed up, 5-sided and coloured.—*Seeds* many, kidney-shaped, compressed.

* *Perennial*.

1. *Alkekengi*. Root creeping. Stalk about half a yard high. Leaves egg-shaped, often pointed, somewhat angled at their base, on longish footstalks, and are produced alternately by twos on one side of each joint of the stalk.

Flowers white, solitary, on peduncles from the wings of the stalk. Berries red, like cherries, one in each calyx.—*Common Winter Cherry; Alkekengi.* Italy.

2. *Somnifera.* Shrubby, two or three feet high, and the branches erect. Leaves egg-shaped, pointed, entire. Flowers small, greenish white, in close clusters from the sides of the branches. —*Mexican Winter Cherry.* Green-house.
3. *Flexuosa.* Shrubby, four feet or more high, the branches flexible, bending to and fro. Leaves oblong-oval. Flowers small, greenish yellow, in clusters at the footstalks of the leaves. —*Indian Winter Cherry.* Hot-house.
4. *Arborescens.* Shrubby, with a tall tree-like stem, covered with a gray hairy bark. Leaves egg-shaped, lance-pointed, hairy, entire. Flowers small pale yellow, with purple bottoms, have their limb rolled back, and they come out one or two on a peduncle from the wings of the branches. —*Tree Alkekengi.* Campeachy. Hot-house.

* * Annual.

5. *Angulata.* Two or three feet high, with numerous smooth, angular branches. Leaves egg-shaped, pointed, dentated. Flowers small, whitish, on short peduncles near the end of the branches. Berries large, yellowish. —*Angular Indian Winter Cherry.* ☉
6. *Pubescens.* Low, with numerous, dangling, downy branches. Leaves heart-shaped, hairy, clammy, indented. Flowers yellowish, with brown bottoms, on short peduncles from the sides of the branches. Berries large, clammy, yellowish. —*Downy Virginian Winter Cherry.* ☉

OBSERVATION. *The berries were formerly in great esteem as a lithontriptic, or power of breaking the Stone,*

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bringing away gravel, or whatever obstructed the urinary passages. They have also been deemed very serviceable in the Jaundice. For these purposes, four or five of the berries, or an ounce of their juice, may be taken at a time.

PINUS. *Fir and Pine Tree.* Comp. p. 44.

Plants Monœcious.

Male flowers collected in a conical bunch.—*Partial calyx* of 4 leaves.—*Corolla* none.—*Stamina* many, united in a column at their base.—*Summits* erect.

Female flowers contained in an egg-shaped scaly cone, producing two florets under each scale.—*Corolla* none.—*Style* awl-shaped.—*Stigma* simple.—*Nut* oval, with a membranous wing.

* *Leaves solitary and quite distinct.*

1. *Picea.* Leaves solitary, or placed singly, flat, notched at their tip, and silvery beneath. Cones long, upright. — *Silver Fir; Pitch Tree.* Germany. ←————— length of leaves
2. *Balsamea.* Leaves solitary, flat, somewhat notched, marked beneath with two longitudinal, whitish, dotted lines, and they spread in two rows like the teeth of a comb. Cones short and roundish. — *Balm of Gilead Fir.* Virginia. ←—————
3. *Canadensis.* Leaves solitary, linear, obtusish, somewhat membranous. Cones small. — *Canada Spruce Fir.* ←—————
4. *Abies.* Leaves solitary, awl-shaped, fine-pointed, smooth, and are ranged two ways. Cones long, pendulous. — *Common Spruce Fir; Norway Spruce.*
5. *Orientalis.* Leaves solitary, short, four-cornered. Cones very small. — *Eastern Fir Tree.*

** Leaves two from a sheath.

6. *Sylvestris*. Two short, smooth leaves from a sheath, and small cones.——*Scotch Fir*; *Wild Pine*.
The *Pinaster*, which is said to be only a variety of this, has long, smooth leaves by twos, and very long cones.

leaves 5 1/2 inches long very stiff
7. *Pinea*. Two long, smooth leaves from a sheath, and large, close, top-shaped cones.——*Stone Pine*. Italy. It resembles the *Pinaster*.

*** Leaves three, or more from a sheath.

8. *Tæda*. Three long leaves from a sheath, and large, loose cones.——*Three-leaved Virginian Pine*; *Swamp Pine*; *Frankincense-tree*.

9. *Cembra*. Five long, smooth, narrow leaves from a sheath, and a rough bark. Cones pretty large, erect——*Siberian Mountain Pine*.

10. *Strobus*. Five long, narrow leaves from a sheath, which are roughish on their margin, and a smooth bark. Cones long, loose and slender.——*Weymouth Pine*. Canada.

11. *Cedrus*. Leaves acute, in bundles, abiding. Cones close, roundish.——*Cedar of Lebanon*. Syria.

12. *Larix*. Leaves obtusifish, in bundles, deciduous. Cones small, acute.——*Common Larch*. Alps.

OBSERVATION. These trees not only yield plenty of timber for building and household furniture, but they furnish the *Materia Medica* with several valuable medicines. The first sort produces the black and Burgundy Pitch; also the Strasburgh Turpentine. From the second is drawn a very fragrant, gummy liquid, called *Balsamum Canadense*. The seventh yields the Venice Turpentine. Resin is extracted from several of them, but especially from the sixth, which affords the red-wood Deal, as doth the fourth the white. The eleventh sort

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is the famous Cedar mentioned in Scripture, which was held in the highest esteem for its power of resisting the depredations of worms. The wood of the Larch is supposed equally durable with Oak; but the certainty of this must be determined by future generations.

PLATANUS. *Plane Tree.* Comp. p. 44.

Plants Monœcious.

Male flowers numerous, small, and collected into a globular head.—*Calyx* and *Corolla* scarce visible.—*Stamina* oblong.—*Summits* 4-cornered.

Female flowers collected into a much larger ball than the males—*Calyx* scaly.—*Corolla* scarce visible.—*Germen* roundish.—*Style* long, awl-shaped and abiding.—*Stigma* recurved.—*Seeds* roundish, surrounded with down.

1. *Orientalis.* A large tree, having hand-shaped deciduous leaves, deeply divided into five principal lobes.—*Oriental Plane Tree.* Asia.

2. *Occidentalis.* A large tree, having deciduous leaves cut into three principal lobes.—*Occidental Plane Tree.* America.

PLUMBAGO. *Leadwort.* Comp. p. 9.

Calyx of 1 nearly cylindrical, rough, 5-angled, abiding leaf, cut into 5 straight teeth.—*Corolla* funnel-shaped, with an almost cylindrical tube, longer than the calyx, and a limb divided into 5 oval, somewhat spreading parts.—*Nectarium* 5 small, pointed scales, surrounding the germen.—*Stamina* 5, hair-like, and sit upon the scales of the nectarium.—*Summits* oblong.—*Germen* small, egg-shaped.—*Style* slender, as long as the tube.—*Stigma* cut into 5 points.—*Seed-vessel* none.—*Seed* 1, included in the nectarium.

1. *Europæa*. Stalks slender, channelled, about three feet high, branching. Leaves smooth, lance-pointed, entire, roundish at their base, and embrace the stalk. Flowers blue or white, in tufts at the ends of the branches.——
Italian Leadwort; Toothwort.
2. *Zeylánica*. Stalks thread-like, smooth, about two or three feet high, branching. Leaves egg-shaped, smooth, alternate, acute, on short footstalks. Flowers white, very glutinous, and terminate the branches in spikes. Tube of the corolla twice as long as the calyx.——
Ceylon Leadwort. Hot-house
3. *Rósea*. Stalks gibbous, or swelled at their joints. Leaves egg-shaped, smooth, on footstalks. Flowers red.——*Indian Rose Plumbago. Hot-house.*
4. *Scandens*. Stalks climbing, bent to and fro. Leaves smooth, egg-shaped, on footstalks. Flowers white.——*Climbing Plumbago. America. Hot-house.*

PLUMERIA. *Red Jasmine.* Comp. p. 11.

Calyx of 1 small leaf, cut into 5 obtuse parts.——
Corolla of 1 funnel-shaped petal, having a long tube, gradually widening upward, and an open limb, cut into 5 oblong-oval, oblique segments.—*Stamina* 5, awl-shaped, placed in the middle of the tube.—*Summits* conniving.—*Germen* oblong, bifid.—*Style* scarce any.—*Stigma* double, acute.—*Seed-vessel* two long, bellying, pointed, reflexed bags.—*Seeds* numerous, oblong, and imbricated.

1. *Rubra*. A small shrubby tree, with a succulent, milky stem, and thick branches. Leaves oblong-egg-shaped, on footstalks having two glands each. Flowers large, rose-colour, very

fragrant.—*Red-flowering Plumeria*. Jamaica.
Hot-house.

2. *Alba*. Shrubby, with long lance-shaped leaves, having their margins rolled back. Flowers white, on peduncles furnished with tuberous knots on their upper part.—*White-flowering Plumeria*. America. *Hot-house*.

POLEMONIUM. *Greek Valerian*. Com. p. 9.

Calyx of 1 abiding cup-shaped leaf, cut about half way into 5 acute parts.—*Corolla* of 1 wheel-shaped petal, having a very short tube, closed by 5 valves, and a flat limb, cut into 5 roundish, obtuse segments.—*Stamina* 5, shorter than the limb, and inserted into the valves of the tube.—*Summits* roundish, incumbent.—*Germen* oval, acute, within the calyx.—*Style* thread-like, as long as the corolla.—*Stigma* trifid, revolute.—*Seed-vessel* egg-shaped, 3-cornered, 3-celled.—*Seeds* many, irregular and acute.

1. *Cæruleum*. Stalks near two feet high, hollow and channelled. Leaves winged, and composed of many pair of lance-shaped lobes, terminated by an odd one. Flowers blue, white, or striped, in close erect bunches at the ends of the branches.—*Common Greek Valerian; Jacob's Ladder*. England.
2. *Reptans*. Root creeping. Stalk near a foot high, and much branched. Leaves winged, and composed of about seven alternate, narrow lobes. Flowers light blue, and hang drooping in loose bunches.—*Creeping Greek Valerian*. Virginia.

POLYANTHES. *Tuberosa*. Comp. p. 15.

Calyx none.—*Corolla* of 1 funnel-shaped petal, having a long incurved tube, and a limb cut into 6

oblong, spreading segments.—*Stamina* 6, thick, placed in the tube of the corolla.—*Summits* linear, longer than the stamina.—*Germen* roundish, placed at the bottom of the tube.—*Style* thread-like, shorter than the corolla.—*Stigma* trifid.—*Seed-vessel* roundish, with 3 obtuse corners, 3-celled.—*Seeds* many, half round, and disposed in a double row.

Tuberósa. Stalk round, about three feet high, and furnished with many narrow, sword-shaped, alternate leaves. Flowers white, very fragrant, single or double, and terminate the stalk in a loose spike.—*Indian Hyacinth; Tuberoſe.* Hot-house.

POLYGALA. *Milkwort.* Comp. p. 34.

Flowers somewhat Butterfly-shaped.

Calyx composed of 3 small, egg-shaped, acute, abiding leaves, 1 above, and 2 below the corolla.

Standard mostly short, tubular, nearly cylindrical, with a small, reflexed, bifid mouth.

Wings large, flat, almost egg-shaped, abiding, and are in fact part of the calyx.

Keel compressed, bellying near the tip, where in some species it is crowned with a pencil-like tuft, or beard.—*Stamina* 8, united, lodged in the keel.—*Summits* simple.—*Germen* oblong.—*Style* thread-like.—*Stigma* bifid.—*Seed-vessel* reverse-heart-shaped, compressed, 2-celled.—*Seeds* solitary, egg-shaped.

1. *Myrtifolia.* Shrubby, five or six feet high, putting forth weak, irregular branches near the top. Leaves oblong, obtuse, smooth, shining, almost sessile and numerous. Flowers greenish-white mixed with purple, bearded, on short peduncles at the ends of the branches, issuing from a small, three-leaved bractea. Keel half-moon-

shaped and trifid.—*Myrtle-leaved Ethiopian Milkwort.* Green-house.

2. *Microphylla.* Shrubby, a foot or more high, with thread-like branches. Leaves very minute, sessile, remote, some awl-shaped, others elliptical, and soon drop off. Flowers pretty large, beardless, in a short racemus at the end of the branches.—*Small-leaved Portugal Milkwort.* Green-house.
3. *Chinensis.* Somewhat shrubby, with decumbent, woody, roughish stalks, scarce a foot long. Leaves pretty large, oval, entire, almost sessile. Flowers greenish, beardless, in spikes from the sides of the stalks.—*Chinese Milkwort.* Green-house.

POLYGNUM. *Bistort.* Comp. p. 18.

Calyx none.—*Corolla* of 1 small, abiding, top-shaped petal, cut into 5 egg-shaped segments.—*Stamina* 7 or 8, awl-shaped, as long as the corolla.—*Summits* roundish, incumbent.—*Germen* nearly orbicular.—*Styles* from 1 to 3, very short.—*Stigmas* knob-like.—*Seed* 1, 3-cornered, acute, involved by the petal.

Orientalé. Stalk round, jointed, branching, from four to six feet high. Leaves large, egg-shaped, pointed, alternate, and have a salver-shaped stipula at the base of their footstalk round the stem. Flowers crimson, in long, nodding spikes from the joints of the branches. *Stamina* seven. *Stigmas* two.—*Eastern Persicaria.* ☉

OBSERVATION. *This plant agrees with neither the Class nor Order Linnæus has placed it in, but as there are many of the genus which do, he would not separate it.*

P O P

POLYPODIUM. *Polypody.* Comp. p. 48.

Flowers collected in roundish, distinct dots on the back of the leaf, in lines parallel to the midrib.

Aureum. Leaves large, smooth, and cut almost down to the midrib into seven or nine long, lance-shaped lobes, the lower ones spreading, and the odd one by much the longest. Dots of a deep gold-colour.——*Golden Polypody.* America. *Green-house.*

POPULUS. *Poplar.* Comp. p. 47.

Plants Diœcious.

Male catkin cylindrical, and loosely imbricated.—*Partial calyx* an oblong, flat scale, torn on its margin.—*Corolla* none, but instead there is an oblique, hollow, top-shaped nectarium, with a spreading brim.—*Stamina* 8, very short.—*Summits* oblong, with four furrows.

Female catkin like the male.—*Germen* egg-shaped, pointed.—*Style* scarce any.—*Stigma* 4-parted.—*Seed-vessel* 2-celled, oval, and contains numerous, downy, oval seeds. *Notwithstanding the character of eight stamina, I have found in some species from eight to eighteen. The leaves of all the trees of this genus have their foot-stalks flattened on their sides.*

1. *Alba.* A bushy-topped tree, having roundish, dentated, or slightly lobed leaves, of a glossy green above, white beneath, and downy foot-stalks. Catkins greenish-yellow.——
White Poplar. England. *The Abele, which grows taller, and has large, oblongish, deeply-lobed, very downy leaves, is deemed only a variety of this; and indeed the young shoots from the the roots of the Alba are exceeding downy, and*

deeply lobed, greatly resembling those of the Abele.

2. *Trémula*. Leaves rounder than those of the *Alba*, on both sides green, or but slightly hoary beneath; coarsely and obtusely dentated, and have a double gland where they join their footstalk. Catkins greenish-brown and very hairy.—*Asp; Trembling Poplar*. England.
3. *Nigra*. A very tall tree, having smooth, somewhat diamond-shaped, pointed, finely serrated leaves. Catkins red.—*Black Poplar*. England. The *Italian, or Lombardy Poplar* is undoubtedly a variety.
4. *Heterophýlla*. A large tree, having green, angular twigs, sprinkled with white oblong glands, and furnished with thickish, varieable leaves; some being heart-shaped, some oblongish and pointed, others obtuse and stumped at their base, all of them slightly serrated, and stand on footstalks very much flatted.—*Varieable-leaved Poplar*. Virginia.
5. *Balsamifera*. A tree having thick, gummy, odoriferous buds, and oblong egg, or somewhat heart-shaped, acute pointed, serrated leaves, of a dark green above, whitish beneath, and stand on round footstalks.—*Carolina Poplar; Tacamahacca*.

OBSERVATION. *The Poplars are very subject to a tremulous motion of their leaves, and the second sort is remarkable for this, which seems to be owing to the roundness of the leaves, and the slenderness and superior elasticity of their footstalks. The young leaves of the third sort are used for the ointment, called Populneum: this is cooling, and applied to the outward piles is found very beneficial. The buds of the fifth sort exude a fine balsamick resinous gum, which is excellent for cuts and*

green wounds. This gum or resin is kept in the shops by the name Tacamahacca. Its uses are extensive. Applied as a plaster to the belly it does service in hystericks. In the same manner if laid to the nape of the neck, or temples, it eases pains of the head, helps defluxions of rheum upon the throat, inflammations of the eyes and the tooth ach. It was observed at the bottom of the generic character, that the footstalks of the leaves of all the Poplars are flattened. Now those of the fifth sort are round; but when this tree flowered in England, it was found not to be a Poplar, though it is still retained in this genus.

POTENTILLA. Cinquefoil. Comp. p. 25.

Calyx of 1 flat leaf, cut about half way into 10 acute parts, one alternately larger than the other.—*Corolla* of 5 roundish, spreading petals, having their heels inserted into the calyx.—*Stamina* about 20, awl-shaped, shorter than the corolla.—*Summits* oblongish, curved.—*Germina* numerous, small, collected into a head.—*Styles* thread-like, as long as the stamina, and are inserted into the sides of the germina.—*Seeds* numerous, roundish, affixed to a small, roundish, dry receptacle, included in the calyx.

1. *Opaca*. Stalks about six inches long, thread-like, decumbent. Radical leaves composed of five deeply dentated, wedge-shaped lobes, all from one point, and having their three terminating teeth equal. Upper leaves three lobed, mostly opposite. Flowers yellow. Petals reverse-heart-shaped.—*Small rough Cinquefoil*. England.

2. *Alba*. Whole plant hairy. Stalks procumbent, thread-like, five or six inches long. Radical leaves composed of five sessile, obtuse lobes, serrated at their tip, covered with silver prof-

- trate hairs beneath, and are fixed to the end of a long, common footstalk. Flowers large, white. Receptacle hoary.—*White Cinquefoil*. England.
3. *Rupēstris*. Stalks erect, more than a foot high, round, red, hairy, and forked near their top. Radical leaves composed of five or seven egg-shaped, deeply crenated lobes. Upper leaves three lobed. Flowers white, and terminate the stalks in thin panicles. Petals entire.—*Rock Cinquefoil*. Wales.
4. *Fruticōsa* Shrubby, three or four feet high, and much branched. Leaves composed of five oblong, lance-pointed, entire lobes. Stipulæ membranous. Flowers yellow or whitish. Petals entire.—*Shrubby Cinquefoil*. England.

¹
PRIMULA. *Primrose*. Comp. p. 8.

Common calyx an involucre of many awl-shaped leaves.—*Proper calyx* of 1 erect, tubular, 5 angled leaf, cut into 5 acute teeth.—*Corolla* of 1 petal, having a cylindrical tube, as long as the calyx, terminating in a small, hemispherical neck, and a spreading limb, cut about half way into 5 very obtuse, notched segments.—*Stamina* scarce any.—*Summits* 5, erect, placed in the neck of the corolla.—*Germen* globular.—*Style* thread-like, near as long as the calyx.—*Stigma* globular.—*Seed-vessel* round, mostly as long as the calyx, 1-celled, and opens at the tip with 10 teeth.—*Seeds* numerous, roundish.—*Receptacle* oblongish, at liberty.

1. *Veris*. Leaves oblong, wrinkled, dentated. Flower-stalk none, or there is one or more stalks about six inches high, supporting an umbel of white, yellow, or other coloured flowers.
———*Common Primrose; Cowslip; Polyanthus*.

P R U

England. *In the pin-eyed flowers, (as the florists call them) the style is extended twice its natural length.*

2. *Farinosa.* Leaves elliptical, smooth, crenated, powdered. Flowers red, in umbels. Limb of the corolla flat.—*Bird's-eye.* England.
3. *Auricula.* Leaves smooth, fleshy, roundish, powdered. Flowers yellow, red, purple, and of various other colours.—*Bear's-ear.* Helvetia. *See the Florist's Catalogue.*

PRINOS. *Winter Berry.* Comp. p. 16.

Calyx of 1 very small, abiding, flat leaf, cut into 6 parts.—*Corolla* of 1 small, wheel-shaped petal, divided into 6 egg-shaped, reflexed segments.—*Stamina* 6, awl-shaped, erect, shorter than the corolla.—*Summits* oblong, erect.—*Germen* egg-shaped.—*Style* shorter than the stamina.—*Stigma* obtuse.—*Berry* roundish, larger than the calyx, and divided into 3 or 6 cells.—*Seeds* solitary, hard, obtuse angular.

1. *Glaber.* Shrubby, about four feet high. Leaves oblong, lance-pointed, smooth, slightly serrated near their tip. Flowers small, white, two or three on a peduncle from the wings of the leaves.—*Evergreen Winter Berry.* Canada.
2. *Verticillatus.* Shrubby, about six feet high. Leaves oblong-oval, pointed, wrinkled, acutely serrated and slightly hairy beneath. Flowers white, small, in close, roundish clusters at the footstalks of the leaves.—*Deciduous Winter Berry.* Virginia.

PRUNUS. *Cherry.* Comp. p. 24.

Calyx formed of 1 bell-shaped leaf, cut into 5 points at the brim.—*Corolla* of 5 roundish, concave, spread-

ing petals, fastened by their heels to the calyx.—*Stamina* 20 or more, awl-shaped, inserted into the calyx.—*Summits* double.—*Germen* roundish.—*Style* thread-like, as long as the *stamina*.—*Stigma* round.—*Berry* roundish.—*Nut* roundish and compressed.

1. *Padus*. Shrubby, about ten feet high. Leaves oblong-egg-shaped, pointed, roughish, ferrated, and have two glands on the under side of their base. Flowers white, in long, pendulous racemi from the sides of the branches. Petals often crimped.—*Bird's Cherry*. England.
2. *Virginiana*. Leaves pointed, oblong-oval, smooth, shining, and have two glands on the fore side their base. Bark sprinkled with ash-coloured dots.—*Virginian Bird's Cherry*.
3. *Lusitánica*. Shrubby, the younger branches red. Leaves oblong-oval, acutely ferrated, very glossy and glandless. Flowers white, in long, thin racemi.—*Evergreen Portugal Laurel*.
4. *Lauro-Cérasus*. Shrubby, evergreen. Leaves large, thick, oblong-oval, rigid, slightly ferrated, glossy, and have two or three glands on their back above their base. Flowers white, in long, erect, close racemi.—*Common Cherry Laurel*.

OBSERVATION. *The leaves of the last sort are used to put into custards. The distilled water is poisonous.*

¹
PSORALEA. *Psoralea*. Comp. p. 36.

Flowers Butterfly-shaped.

Calyx of 1 abiding, dotted leaf, cut into 5 acute parts, the lower one the longest.

Standard of the corolla roundish, and streaked with coloured veins.

Wings oblong, obtuse, a little curved, shorter than the standard.

Kcal of 2 obtuse, half-moon-shaped petals.—*Stamina* 10, one detached, nine united.—*Summits* roundish.—*Style* awl-shaped, as long as the stamina.—*Stigma* obtuse.—*Pod* compressed, pointed, about the length of the calyx.—*Seed* 1, kidney-shaped.

1. *Pinnáta*. Shrubby, erect, three or four feet high, with hairy branches. Leaves short, much crowded, and are composed of about seven very narrow, linear, dotted, sessile lobes. Flowers bluish, mostly solitary, on short peduncles at the bosoms of the leaves, issuing from a small, three-toothed sheath.—*Pinnated African Pforalea*. Green-house.
2. *Bituminósa*. Shrubby, erect, about two feet high, with shining, compressed branches. Leaves composed of three almost elliptical lobes, *Stipulæ* awl-shaped. Flowers purplish, in close, roundish heads, on very long, naked peduncles. Calyces streaked.—*Italian Pforalia*. Green-house.

¹
PTELEA. *Shrub Trefoil*. Comp. p. 7.

Calyx very small, and cut to the base into 4 egg-shaped parts.—*Corolla* of 4 oblong-oval, toughish, spreading petals, much longer than the calyx.—*Stamina* 4, short, awl-shaped.—*Summits* roundish.—*Germen* orbicular, compressed, within the corolla.—*Style* very short.—*Stigmas* 2, obtuse.—*Seed-vessel* roundish, membranous, and has 2-cells in the center, each containing 1 or 2 obtuse *Seeds*

Trifoliáta. Shrubby, about ten feet high, and covered with a smooth, grayish bark. Leaves composed of three large, entire, egg-shaped lobes, terminating the footstalk. Flowers greenish white, in large bunches at the ends of the branches.—*Virginian Shrub Trefoil*.

PULMONÁRIA. *Lungwort.* Comp. p. 8.

Calyx of 1 abiding, tubular, 5-cornered leaf, cut into 5 acute teeth.—*Corolla* of 1 funnel-shaped petal, having an almost cylindrical tube, as long as the calyx, a small throat, and a somewhat spreading limb, cut about half way into 5 obtuse segments.—*Stamina* 5, very short, placed in the corolla.—*Summits* oblong, erect.—*Germina* 4.—*Style* thread-like, shorter than the calyx.—*Stigma* obtuse, slightly notched.—*Seeds* 4, roundish, lodged in the calyx.

1. *Officinális.* Whole plant hairy. Stalks spongy, about a span high, alternately furnished with egg-shaped, sessile, rough leaves, mostly marbled with greenish white. Flowers blue, purple, or reddish, and terminate the stalks in clusters. *Stamina* within the tube.——*Spotted Lungwort; Bugloss Cowslip.* England.

2. *Virginica.* Stalks smooth, a foot or more high. Bottom leaves large, thin, oblong, smooth, entire, on long footstalks; those on the stalk alternate. Flowers very pale purple, and terminate the stalk in thin panicles. *Calyx* not a third of the length of the tube, and cut almost to the base. Brim of the corolla cup-shaped, and contains the summits.——*Smooth Virginian Lungwort.*

PUNICA. *Pomegranate.* Comp. p. 24.

Calyx of 1 bell-shaped, abiding, coloured leaf, cut about half way into 5 acute parts.—*Corolla* of 5 roundish, erectish petals, inserted into the calyx.—*Stamina* numerous, hair-like, shorter than the calyx and inserted into it.—*Summits* rather oblong.—*Germen* below the corolla.—*Style* about as long as the sta-

mina.—*Stigma* knob-like.—*Apple* large, almost globular, crowned with the calyx, 9-celled, and each cell is partly divided into 2 by a membranous *Receptacle*.—*Seeds* numerous, roundish, lodged in a watery pulp.

Granátum. A tallish tree, having smooth, lance-shaped, entire leaves, of a light green, standing opposite, and sometimes by threes. Flowers scarlet, single or double, in bunches at the ends of the branches.—*Common Pomegranate*. Spain.

OBSERVATION. *The fruit and flowers are rough and astringent, and on that account are prescribed in weakness of the stomach and bowels, to remove reachings to vomit, and to stop fluxes of all kinds. The dried double flowers are the Balauftines and Cytini of the shops.*

Q.

QUERCUS. *The Oak.* Comp. p: 43.

Plants Monœcious.

Male catkin long, slender and loose.—*Proper calyx* cut to the base into 4 or 5 acute teeth.—*Corolla* none.—*Stamina* scarce any.—*Summits* from 5 to 10, large and double.

Female florets in small, sessile buds, placed above the males.—*Proper calyx* of 1 rough, hemispherical, entire leaf.—*Corolla* none.—*Germen* very small.—*Style* divided into 3 or 5 parts longer than the calyx.—*Stigmas* small, abiding.—*Nut* oval, covered with a leathery husk, and fixed in the calyx.

1. *Phellos.* Leaves lance-shaped, smooth, entire, pale green, and deciduous. Acorns small.——
Willow-leaved Oak. America. *There is a variety of this having both entire and sinuated leathery, evergreen leaves.*

2. *Prinus*. Leaves deciduous, large, oblong, broadest upward, pointed at both ends, regularly dentated, the teeth notched, and they somewhat resemble those of the chestnut.—*Chestnut-leaved Oak*. Virginia.
3. *Rubra*. Leaves deciduous, oblong, obtusely sinuated, with a bristle on each sinus, and when old they turn of a reddish colour.—*Red Virginian Oak*.
4. *Ilex*. Leaves broad-lance-shaped, stiff, smooth above, whitish beneath, abiding, are often found both entire and serrated on the same tree, and they stand on fuzzy footstalks.—*Montpelier Evergreen Oak*.
5. *Suber*. Leaves oblong-oval, serrated, slightly downy beneath, abiding. Bark thick and fungous.—*Broad-leaved Cork Tree*. Europe.
6. *Coccifera*. Leaves smooth, abiding, egg-shaped, indented, and the teeth are tipped with prickles, like those of the Common Holly.—*Spanish Kermes-bearing Oak*.
7. *Ægilops*. Leaves oblong, a little downy beneath, coarsely serrated, the teeth pointed, and often reflexed. Acorns oblong, their cups very large and woody, rather prickly on their outside, being covered with hard, angular protuberances, somewhat resembling the scales of a fir cone.—*Large Cupped Oak*. Spain.

OBSERVATION. The sixth sort is that which furnishes the Scarlet Grain, called Kermes. They are about the size of peas, and are the nests of insects. On expression they yield a red, bitterish juice, which is deemed cordial and corroborant, and as such it enters a syrup and confection, bearing its name. The Acorns and Cups of the last sort are used by dyers, under the appellation of *Velani*. These they grind to a powder, and mixing it

with a copperas liquor, they obtain a much more glossy and permanent black, than they can do from Nut-galls, which are from the common Oak, and are caused by insects puncturing the leaves. Cork is the external bark of the fifth sort.

R.

RANUNCULUS. Crowfoot. Comp. p. 27.

Calyx composed of 3 or 5 egg-shaped, concave, deciduous leaves.—*Corolla* of 5, (sometimes 8) shining, obtuse petals, with short heels, having a honey gland fixed to the inner base of each.—*Stamina* many, not half the length of the corolla.—*Summits* oblong, erect, furrowed.—*Germina* numerous, collected into a globular head.—*Styles* none.—*Stigmas* small, reflexed.—*Seeds* many. *The main character of the genus is the honey-glands at the inner base of the petals.*

1. *Gramineus*. Root a bulb. Plant of a grayish green. Radical leaves long, narrow, lance-point-

R E S

- ed and streaked. Stalk slender, erect, smooth, more than a foot high, having a few branches near the top, each sustaining one yellow flower. Petals wedge-shaped.—*Grass-leaved Crowfoot*. France.
2. *Amplexicaulis*. Whole plant of a glaucous green. Radical leaves egg-shaped, ribbed, on long footstalks; the upper ones alternate, roundish at their base, pointed and embrace the stem. Flowers white, and two or three terminate the stalk. Honey-glands scoop-shaped.—*Plantain-leaved Crowfoot*; *Pyrenean Crowfoot*.
3. *Ficaria*. Stalks six or eight inches high. Leaves angular, heart-shaped at their base, on spongy footstalks. Flowers yellow, terminal, single or double. Calyx of three leaves.—*Pilewort*; *Lesser Celandine*. England.
4. *Aconitifolius*. Stalk erect, about half a yard high, with spreading branches. Leaves broad, deeply divided into five lance-shaped, dentated lobes, having longitudinal veins. Flowers white, single or double.—*White Mountain Crowfoot*. Alps.
5. *Acris*. Stalk about half a yard high, with slender branches. Lower leaves cut into three principal parts, which are again deeply cut into many segments; uppermost ones linear. Flowers yellow, single or double.—*Upright Meadow Crowfoot*. England.
6. *Asiaticus*. *Common Garden Ranunculus*. For the numerous varieties of this, see the Florist's Catalogue.

RESEDA. *Base Rocket*. Comp. p. 22.

Calyx formed of 1 abiding leaf, cut into several narrow, erect, acute parts, 2 of them more open than the

rest.—*Corolla* composed of several, irregular, small petals, most of them trifid, the upper ones gibbous at their base, and as long as the calyx.—*Nectarium* a flat, erect gland, seated between the stamina and the upper petal.—*Stamina* from 11 to 15, short.—*Summits* erect, obtuse.—*Germs* gibbous.—*Styles* mostly 3, short.—*Stigmas* very small.—*Seed-vessel* oblong, gibbous, angular, always gaping, smallest at the tip, 1-celled.—*Seeds* many and kidney-shaped.

1. *Alba*. Stalks erect, about two feet high, branching. Leaves winged with many narrow, entire, alternate lobes. Flowers white, and terminate the branches in a very long racemus. Calyces cut into six parts. Petals six, all of them trifid. Stamina eleven. Styles four.—*Spanish White Base Rocket*. ☉
2. *Odorata*. Stalks about a foot long, declining. Lower leaves three lobed; upper ones lance-shaped, entire. Flower yellowish, sweet-scented, and terminate the branches in a long racemus. Calyces as long as the petals. Styles four.—*Mignonette; Sweet Reseda*. Ægypt. ♂
3. *Phyteuma*. This very much resembles the *Odorata*, but the flowers have no scent. Calyces longer than the petals.—*Lesser Bastard Rocket*. Italy. ☉

RHAMNUS. *Buckthorn*. Comp. p. 10.

Calyx of 1 funnel-shaped leaf, coloured on the inside, and cut at the brim into 4 or 5 spreading parts, each having a scale at its division, guarding the stamen.—*Corolla* none.—*Stamina* 4 or 5.—*Summits* small.—*Germs* roundish.—*Style* thread-like, as long as the stamina.—*Stigma* obtuse, 3 or 4-parted.—*Berry* roundish, and has as many cells as there were divisions in

the stigma.—*Seeds* solitary, one side gibbous, the other compressed. *Some species are diœcious.*

1. *Cathárticus*. Shrubby, ten feet or more high, the young branches terminating in a spine. Leaves roundish, or broad-egg-shaped, pointed, finely serrated, a little hairy. Flowers diœcious, greenish, and are mostly cut into four parts. —*Common Buckthorn*. England.
2. *Frángula*. Shrubby, eight feet or more high, the branches spineless. Leaves egg-shaped, obtuse, entire, hairless. Flowers greenish, hermaphrodite, having one style each.—*Black-berry-bearing Alder*. England.
3. *Alatérnus*. Shrubby, spineless, and seven or eight feet high. Leaves egg-shaped, serrated, smooth, alternate. Flowers diœcious, greenish-yellow, in clusters from the wings of the leaves. Stigma trifid.—*Common Alaternus*. Europe. *The varieties are the Blotched, the Silver, the Gold-striped, and the Narrow-leaved.*
4. *Paliúrus*. Shrubby, eight feet or more high, having slender branches, armed with thorns by pairs, the lower one reflexed. Leaves oval, alternate. Flowers greenish, in clusters from the wings of the branches.—*Christ's Thorn*. Palestine.

OBSERVATION. *The berries of the first sort yield a strong cathartick juice, which made into a syrup is very useful in purging off watery humours, and is therefore in great esteem in Dropsies and Rhumatisms. The dose to full grown persons is from one to two ounces. A dram of the inner bark of the second sort is sometimes taken for the same purposes, but it is a very rough purge. The last sort growing in Palestine, Judæa, and those parts, is generally supposed the same with that the Jews crowned our Saviour with, when going to crucify him.*

RHEUM. *Rhubarb.* Comp. p. 19.

Calyx none.—*Corolla* of 1 small petal, cut to the base into 6 parts, one alternately larger than the other.—*Stamina* 9, hair-like, as long as the corolla, and inserted into it.—*Summits* double, oblong, obtuse.—*Germen* 3-cornered.—*Styles* scarce any.—*Stigmas* 3, feathered and reflexed.—*Seed-vessel* none.—*Seeds* large, acute, 3-cornered, the edges membranous.

1. *Rhapónticum.* Radical leaves smooth, roundish-heart-shaped, with a wide sinus at their base, and stand on footstalks channelled on their upper side, and rounded on their edges. Stalk purplish, two or three feet high. Flowers white, in close obtuse bunches at the top of the stalk.—*Pontick Rhubarb.* Tartary.
2. *Undulátum.* Radical leaves heart-shaped, with a wide sinus at their base, waved on their margins, a little hairy, on footstalks flatted on their upper side, and have acute edges. Stalk about four feet high, branching at the top. Flowers white, in loose panicles.—*Indian Rhubarb.* China.
3. *Compáctum.* Radical leaves heart-shaped, very obtuse, somewhat lobed, denticulated, smooth, and shining. Stalk pale green, four or five feet high, branching at the top. Flowers white, in nodding panicles.—*Thick-leaved Tartarian Rhubarb.*
4. *Palmátum.* Radical leaves very large, roughish, hand-shaped, with a wide sinus at their base, and the lobes long and pointed. Stalk speckled, the joints scarlet, eight feet or more high and branching. Flowers white, in large, loose panicles.—*True Turkey Rhubarb.* Tartary.

OBSERVATION. *It is a common practice now to make tarts of the peeled footstalks of the leaves of the first sort. The medicinal uses of Rhubarb are generally known, but we may just observe that the root of the fourth sort is the best, it being the mildest, the most astringent and strengthening. There is a hybrid plant now common in gardens of a habit between the two last species, and which constantly propagates by seed. I obtained this in the year 1766, by purposely impregnating the one with the other. This is an additional proof of what was observed in the Preface concerning hybrid plants. There are some of this kind, however, that will not propagate by seed. Perhaps the fertile ones are bred from different species of the same natural genus, and the sterile ones from species of distinct natural genera. This supposition will not in the least affect the hitherto seeming analogy in the propagation of Animals and Vegetables, but rather confirm it. In framing systems of natural history we can be guided only by the external appearances of the principal parts of such objects as come under our view. On the similarity of these the genera have been founded. We have not yet been able (perhaps never shall) to trace the secret internal operations of nature. By art the Horse and Ass are made of the same genus. We know their Mule is barren; but, who can by any certain means prove, that the Horse and Ass are absolutely of the same natural genus? It is said the Dog will breed by the Fox, (two species of another artificial genus) and that their offspring is fertile. If this be true, tis exactly similar to what may be observed in Plants, some of the hybrid ones are barren and some fertile.*

RHODODENDRON. *Dwarf Rose Bay. Comp. p. 20.*

Calyx of 1 abiding leaf, cut into 5 parts.—Corolla of 1 somewhat funnel-shaped petal, with a spreading limb, deeply cut into about 5 rounded segments.—Stamina 10, thread-like, mostly as long as the corolla

and declining.—*Summits* oval.—*Germen* 5-cornered, hollowed at the top.—*Style* thread-like, as long as the corolla.—*Stigma* obtuse.—*Seed-vessel* egg-shaped, somewhat angular, 5-celled.—*Seeds* numerous, very small.

1. *Hirsutum*. Shrubby, near two feet high, with light brown branches. Leaves lance-shaped with a broad, roundish base, are on both sides smooth, ciliated on their margin, and deciduous. Flowers pale red, and terminate the branches in clusters.—*Hairy Dwarf Rose Bay*. Alps.
2. *Ferrugineum*. Shrubby, two or three feet high, with irregular, purplish branches. Leaves lance-shaped, entire, green above, iron-coloured beneath, and deciduous. Flowers pale red, in roundish clusters at the ends of the branches. The two lower segments of the corolla the narrowest.—*Ferruginous Dwarf Rose Bay*. Alps.
3. *Ponticum*. Shrubby, five feet or more high. Leaves lance-shaped, smooth, abiding, on short footstalks. Flowers large, bell-shaped, pale purple, in a racemus at the ends of the branches. Calyces very minute. Stamina declining, and as long as the corolla.—*Gibraltar Dwarf Rose Bay*.
4. *Maximum*. Shrubby, taller than the third. Leaves abiding, oval, obtuse, thick, with acute, reflexed margins; veined, and are as large as those of Cherry Laurel. Flowers pale rose-colour, one on a peduncle, forming large, roundish clusters at the ends of the branches.—*Greater Laurel-leaved Rhododendron*. Virginia.

RHUS. *Sumach*. Comp. p. 12.

Calyx formed of 1 erect, abiding leaf, cut into 5 parts.—*Corolla* of 5 oblong-egg-shaped, somewhat

spreading petals.—*Stamina* scarce any.—*Summits* 5, very short.—*Germen* roundish, above the corolla, and nearly as large.—*Style* scarce any.—*Stigmas* 3, small, heart-shaped.—*Berry* roundish, 1-celled.—*Seed* 1, hard and roundish.

1. *Coriária*. Shrubby, branching from near the bottom to about eight feet high. Leaves winged, and composed of several pair of oval, obtusifish, ferrated lobes, terminated by an odd one, and are hairy beneath. Flowers greenish, in panicles at the ends of the branches.—*Tanner's Sumach*; *Elm-leaved Sumach*. Syria.
2. *Typhinum*. Shrubby, from six to eight feet high, with irregular branches, having their twigs covered with a brown plush. Leaves winged, and composed of several pair of lance-shaped, acutely ferrated lobes, terminated by an odd one; they are hoary beneath and not always opposite. Flowers red, and terminate the branches in close, compound, conical panicles.—*Scarlet Sumach*; *Stag's-horn Sumach*. Virginia.
3. *Glabrum*. Shrubby, eight or ten feet high. Leaves winged, and composed of several pair of lance-shaped, acutely ferrated lobes, which are naked on both sides, and are terminated by an odd one. Flowers greenish, in loose panicles.—*New England Sumach*.
4. *Cótinus*. Shrubby, from eight to ten feet high, with irregular spreading branches. Leaves simple, reverse-egg-shaped, stiffish, entire, on longish footstalks, and stand alternate. Flowers greenish, very small, in large divaricated panicles at the ends of the twigs.—*Venetian Sumach*; *Coccygia*. Carolina.
5. *Copallinum*. Shrubby, four or five feet high, with smooth, spreading branches. Leaves winged,

and composed of four or five pair of narrow, entire lobes, terminated by an odd one, and having their midrib winged and articulated. Flowers yellowish, in loose panicles at the ends of the branches.—*Lentiscus-leaved Sumach*. America.

6. *Vernix*. Shrubby, pretty tall, covered with a hoary, warted bark. Leaves deciduous, and winged with egg-shaped, entire lobes, terminated by an odd one, having their midrib entire and equal. Flowers yellow, sweet-scented, in loose panicles from the wings of the leaves. Berries small, white, and nearly diamond-shaped. ————*Varnish Tree; Poison Wood*. North America.

7. *Succedaneum*. This so much resembles the sixth that it is hardly to be distinguished, only the leaves are abiding, and the lobes narrower and shining.—*Spurious Varnish Tree*. Japan.

OBSERVATION. The bark and branches of the first sort are used in the country where it grows for tanning of leather, as are also the leaves of the fourth. The fifth sort emits a poisonous vapour, which, in young people, produces violent inflammations. On wounding the tree it distills a milky juice; this when purified is the Varnish so much esteemed by the Japanese. The seventh species also yields a Varnish, but it is in small quantity and much inferior to the true sort.

RICINUS. *Palma Christi*. Comp. p. 45.

Plants Monœcious. Males below the Females.

Male calyx of 1 abiding leaf, cut into 3 or 5 concave, egg-shaped parts.—*Corolla* none.—*Stamina* very numerous, joined below into several branching parcels, —*Summits* roundish, somewhat double.

Female calyx of 1 deciduous leaf, cut into 3 egg-shaped parts.—*Corolla* none.—*Germen* covered with a prickly membrane.—*Styles* 3, short, bifid.—*Stigmas* small.—*Seed-vessel* roundish, prickly, 3-furrowed, 3-celled, 3-valved.—*Seeds* solitary, nearly oval.

1. *Commúnis*. Stalk five feet or more high. Leaves shield-shaped, cut into several serrated lobes, and stand on long footstalks, having glands.—*Common Palma Christi*. India. ♂
2. *Africánus*. Stalk more than ten feet high, jointed, red, and sparkling. Leaves very large, shield-shaped, cut into several serrated lobes, and stand on very long footstalks, having glands. Seeds large and beautifully striped. ♂

OBSERVATION. *The second sort, notwithstanding its size above the former, appears to be only a variety. I have seen leaves of this sort measure more than three feet diameter. The Castor Oil, which is often prescribed in bilious complaints, is expressed from the seeds of these plants.*

ROBINIA. *False Acacia.* Comp. p. 35.

Flowers Butterfly-shaped.

Calyx of 1 short, bell-shaped leaf, cut into 4 parts of equal length: upper 1 broad, obtusish and notched; the 3 lower ones acute and distant.

Standard large, roundish, obtuse and spreading.

Wings oblong-oval, and each has a short appendage.

Keel semiorbicular, compressed, obtuse, as long as the wings.—*Stamina* 10, one detached, and nine united.—*Summits* roundish.—*Germen* cylindrical, oblong.—*Style* thread-like, bent upward.—*Stigma* hairy to the tip.—*Pod* elongated, compressed, gibbous.—*Seeds* few, kidney-shaped.

R O S

1. *Pseudo-Acacia*. A large tree, having the branches armed with strong thorns. Leaves winged, and composed of many oblong-oval lobes, terminated by an odd one, and are mostly alternate. Flowers white, of a fragrant smell, in long, pendulous bunches from the sides of the branches.—*Bastard Acacia; Locust Tree.* Virginia.
2. *Hispida*. Shrubby, rather low, and puts forth spreading branches near the ground, almost covered with brown spines. Leaves winged, and composed of several broad-oval lobes, mostly terminated by an odd one. Flowers rose-colour, in short bunches on hispid peduncles. Upper part of the calyx deeply divided.—*Rose Acacia.* Carolina.
3. *Pygmaea*. Shrubby, about seven feet high, with erect, yellow branches. Leaves composed of four obtuse, sessile lobes. Flowers yellow, on simple peduncles from the joints of the branches.—*Dwarf Four-leaved Robinia.* Siberia.

ROSA. *Rose Bush.* Comp. p. 25.

Calyx of 1 leaf, having a bellying, fleshy tube, resembling a germen, a contracted neck, and a leafy limb, cut into 5 long taper segments.—*Corolla* of 5 reverse-heart-shaped petals, of the length of the calyx, and inserted into its neck.—*Stamina* numerous, very short, inserted into the neck of the calyx.—*Summits* 3-cornered.—*Germina* numerous, placed in the fleshy tube of the calyx.—*Styles* numerous, hairy, very short, inserted into the sides of the germina, and are squeezed by the neck of the tube.—*Berry* top-shaped, egg-shaped, or globular, 1-celled, crowned by the segments of the calyx.—*Seeds* numerous, oblong, hairy attached to the inside of the berry.

* *Germina nearly globular.*

1. *Pimpinellifolia.* Stem armed with straight, scattered spines. Lobes of the leaves small, obtuse, on rough footstalks. Flowers red or white, on smooth peduncles. Germina smooth, globular. ——— *Small-leaved Burnet Rose.* South of Europe.
2. *Spinosissima.* Stem and footstalks of the leaves exceeding spiny. Flowers red, white, or striped, on rough peduncles. Germina smooth, globular. ——— *Burnet-leaved Scotch Rose.*
3. *Carolina.* Stem smooth, and armed with spines at the leaves, serving as stipulæ. Leaves smooth, on prickly footstalks. Flowers red, single or double, on rough peduncles. Germina globular, rough. ——— *Greater Burnet-leaved Rose.* North America.
4. *Villosa.* Stem armed with scattered spines. Leaves on both sides downy, on prickly footstalks. Flowers red, single, or double, on rough peduncles. Germina globular, roughish. ——— *Apple Rose.* England.
5. *Sinica.* Stem and footstalks of the leaves spiny. Germina almost globular, smooth, on rough, spiny peduncles. Leaves of the calyces lance-shaped ——— *Chinese Rose.* Green-house.
6. *Cinnamomea.* Stem armed with spines, serving as stipulæ to the leaves. Footstalks of the leaves almost smooth. Flowers small, pale red, single or double, on smooth peduncles. Germina globular, smooth. ——— *Cinnamom Rose.* South of Europe.
7. *Lutea.* Branches armed with straight spines. Flowers either totally yellow, or they are yellow on the outside and red within, single, and stand on smooth peduncles. Calyces spiny.

R O S

Germina smooth, globular.———*Yellow, and Red and Yellow Austrian Rose.*

8. *Sulphúrea.* Stem armed with numerous, double spines, some larger and some smaller. Lobes of the leaves oval, on spiny footstalks. Flowers double, pale yellow. Germina globular.———*Double Yellow Rose.* Levant.

9. *Provinciális.* Stem and branches armed with straight, rather declining scattered spines. Lobes of the leaves egg-shaped, somewhat hairy beneath, have their serratures glandulous, and their footstalks rough. Flowers double, red, blush-colour or white, on rough peduncles. Germina rough, nearly globular.———*Red, Blush-colour, and White Provence Rose.*

* * *Germina egg-shaped.*

10. *Muscósa.* Branches armed with straight, scattered spines. Peduncles and calyces covered with brown hairs, having viscous glands. Germina egg-shaped.———*Moss Provence Rose.* No doubt a variety of the former.

11. *Centifólia.* Stem rough, spiny. Footstalks of the leaves spineless. Germina egg-shaped, rough, on rough peduncles.———*Hundred-leaved Rose.* The varieties are the

Dutch hundred-leaved rose,
Blush hundred-leaved rose,
Burgundy rose,
Single velvet rose,
Double velvet rose,
Sultan rose,
Garnet rose,
Lisbon rose.

12. *Damascéna.* Stem spiny. Lobes of the leaves egg-shaped, pointed, downy beneath, and stand on prickly footstalks. Calyces half-pinnated,

Germina egg-shaped, rough, turgid, on rough, peduncles.—*Damask Rose*. The varieties are the

Red Damask,
Blush Damask,
Blush Belgick,
York and Lancaster,
Red Monthly,
White Monthly,
Great royal rose.

13. *Gállica*. Stem and footstalks of the leaves rough and prickly. Flowers red, almost single, on rough peduncles. Germina egg-shaped, rough, —*Red Officinal Rose*. South of Europe.

The varieties are the

Double variegated rose, or rose of the world,
Marbled rose,
Virgin rose.

14. *Alba*. Stem and footstalks of the leaves spiny. Flowers white, single or double. Germina egg-shaped, smooth, on rough peduncles.—*Common White Rose*. Europe. The varieties are the

Greater maiden's blush,
Small maiden's blush.

15. *Rubiginósa*. Stem armed with recurved spines. Lobes of the leaves egg-shaped, rusty beneath, on prickly footstalks. Germina egg-shaped, rough, on rough peduncles.—*England*. The varieties are the

Common sweet briar, or eglantine,
Common double sweet briar,
Mossy double sweet briar,
Evergreen double sweet briar,
Marbled double sweet briar,
Red double sweet briar.

16. *Sempervirens*. Stem and footstalks of the leaves spiny. Bractæ lance-shaped, reflexed. Flow-

ers white, of a musky scent, in umbel-like bunches at the ends of the branches, on rough peduncles. Germina egg-shaped, rough.—
Evergreen Rose. Germany.

17. *Moschata.* Stem spiny. Lobes of the leaves oblong, pointed, serrated, smooth, on prickly footstalks. Flowers white, musk-scented, single or double, in panicles on downy peduncles. Germina egg-shaped, downy.—*Musk Rose.*

18. *Alpina.* Stem spineless. Lobes of the leaves smooth, on rough footstalks. Flowers red, single, on rough peduncles. Germina egg-shaped, smooth.—*Alpine Rose.*

* * * *Germina either oblong, or top-shaped.*

19. *Pendulina.* Stem spineless. Lobes of the leaves oval, doubly serrated, on footstalks. Segments of the calyces long, slender, and terminated by an oval, serrated leaf. Flowers red, single, on rough peduncles. Fruit oblong, pendulous.—
Smooth Pendulous Fruited Rose. North America.

20. *Turbinata.* Branches armed with scattered, recurved spines. Footstalks of the leaves downy, Germina top-shaped, hairy, on hairy peduncles.—
Frankfort Rose.

OBSERVATION. *The Roses, like the Geraniums, are very numerous, and it is equally impossible to distinguish with exact propriety the different species from the varieties of either genus. It is probable that some of both genera, now made distinct species, are seminal variations, or else they are mungrels produced by their impregnating one another, none having a better opportunity than these, unless it be Cabbages, they being so generally cultivated, on account of the beauty of their flowers and their fine perfumes. Those who grow them for sale, too, are never behind hand in raising all the varieties*

they can by art. The distilled Rose Water, and the Syrup of the shops are made from the flowers of the twelfth sort. The variety, called Blush Damask, is the best for these purposes. For the Conserve the half blown flowers of the thirteenth are used.

¹
ROYENA. African Bladder Nut. Comp. p. 21.

Calyx formed of 1 abiding leaf, cut into 5 parts.—*Corolla* of 1 petal, having a tube as long as the calyx, and a limb divided into 5 egg-shaped, reflexed segments.—*Stamina* 10, very short, fastened to the corolla.—*Summits* oblong, acute, erect, double, as long as the tube.—*Germen* egg-shaped, and ends in 2 styles rather longer than the stamina.—*Stigmas* simple.—*Seed-vessel* egg-shaped, 4-furrowed, 1-celled and 4-valved.—*Seeds* 4, oblong, triangular, rolled up in a loose coat.

1. *Lúcida*. Shrubby, six feet or more high, with regular branches. Leaves egg-shaped, roughish, shining, alternate. Flowers from the wings of the leaves.—*Shining-leaved Royena*. Cape of Good Hope. *Green-house*.
2. *Glabra*. Shrubby, about five feet high. Leaves small, broad-lance-shaped, entire, of a lucid green. Flowers white, pitcher-shaped.—*Box-leaved Royena*. Cape of Good Hope. *Green-house*.
3. *Hirsúta*. Shrubby, six feet or more high. Leaves narrow-lance-shaped, covered with soft white hairs. Flowers dull purple, small.—*Rosemary-leaved Royena*. Cape of Good Hope. *Green-house*.

RUBUS. Raspberry, Bramble. Comp. p. 25.

Calyx of 1 abiding leaf, cut into 5 oblong, spreading parts.—*Corolla* of 5 roundish, somewhat spreading petals, about as long as the calyx, and inserted into it.

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—*Stamina* numerous, shorter than the corolla, inserted into the calyx.—*Germina* numerous.—*Styles* hair-like, and spring from the sides of the germina.—*Stigmas* small, abiding.—*Fruit* nearly globular, and composed of numerous little fleshy knobs, each containing one oblong *Seed*.

1. *Fruticósus*. Stalks long, angular, and are armed with strong thorns. Leaves composed of three or five lobes on a prickly footstalk.—*Common Bramble*. The cultivated varieties are the

Cut-leaved Bramble

Striped-leaved

White fruited

Double blossomed Bramble

The last is the most common in gardens. The flowers are large, exceeding double, and of a pure white.

2. *Odorátus*. Shrubby, six feet or more high, with thornless, purplish stalks, plentifully furnished with large hand-shaped leaves, on hispid, taper footstalks, and are cut into three serrated lobes. Flowers numerous, large, purple, single, on hairy peduncles.—*Flowering Raspberry*.
Virginia.

RUDBECKIA. Dwarf Sunflower. Comp. p. 40.

Flowers compound, radiated.

Common calyx composed of two orders of spreading, flat, lance-pointed leaves, of from 6 to 12 in each order.

Florets in the disk hermaphrodite, numerous, and form a conical head.—*Germin* 4-cornered.—*Style* as long as the floret.—*Stigma* cut into 2 revolute parts.—*Seed* oblong, angular, crowned by 4 obsolete teeth.

Female rays about 12, flat, narrow, very long, pendulous, barren, and cut into 2 or 3 teeth.—*Receptacle*

R U D

conical, chaffy, longer than the calyx.—*Chaff* erect, furrowed, deciduous, and as long as the seed.

1. *Laciniáta*. Stalks smooth, branching, six feet or more high. Leaves light green, and are generally composed of five principal, lance-pointed, jagged lobes, the two lower ones distinct and trifid; the odd one the largest, trifid, and wedge-shaped. Flowers yellow, solitary, on long, smooth, naked peduncles.—*Broad Jagged-leaved Rudbeckia*. Virginia.
2. *Digitáta*. About the height of the former, and much branched. Leaves smooth, dark green, the lower ones composed of seven or more narrow lobes, some of which are entire, others jagged; those on the stalk are five or three lobed, and the uppermost ones are simple. Flowers yellow.—*Narrow Jagged-leaved Rudbeckia*. Siberia.
3. *Angustifólia*. Leaves linear, entire, opposite. Flowers yellow. Outer scales of the calyx awl-shaped, spreading.—*Narrow-leaved Virginian Rudbeckia*.
4. *Hirta*. Whole plant very hairy. Stalk about half a yard high, having a leaf or two near the bottom. Leaves oblong-oval, coarsely serrated. Flowers large, yellow, with dark purple disks, and terminate the stalks singly.—*Hairy Dwarf Sunflower*. Canada.
5. *Purpúrea*. Stalk about two feet high. Leaves broad-lance-shaped, smooth, three-nerved, alternate. Flowers large; the rays very long, reflexed, of a peach-colour, the disk very prominent, and of a dark purple.—*Purple Rudbeckia*. Carolina.

RUSCUS. *Butcher's Broom.* Comp. p. 47.

Plants Diœcious.

Male calyx of 6 oval, convex leaves, having their margin reflexed.—*Corolla* none, but there is an egg-shaped, erect, inflated *Nectarium* having a gaping mouth, and is as large as the calyx.—*Stamina* none.—*Summits* 3, joined at their base, and sit on the apex of the nectarium.

Female calyx and *Nectarium* like the male.—*Germs* oval.—*Style* cylindrical, as long as the nectarium.—*Stigma* obtuse, and stands above the mouth of the nectarium.—*Berry* globular, 3-celled.—*Seeds* 2, globular.

1. *Aculeatus*. Shrubby, about two feet high, with round, green, streaked branches. Leaves smooth, alternate, sessile, egg-shaped, terminating in a spine. Flowers small, naked, on the disk of the leaves.—Common *Butcher's Broom*; *Knee Holly*. England.

2. *Hypophyllum*. Somewhat shrubby, with slender stalks near two feet high. Leaves stiff, oblong-egg-shaped, pointed, alternate. Flowers naked, on the back of the leaves.—*Broad-leaved Butcher's Broom*. Italy.

3. *Hypoglôssum*. Stalks near a foot high. Leaves lance-shaped, stiff, mostly entire, alternate, and have a small leaf on their upper surface. Flowers pale yellow, from the bosom of the small leaves.—*Tongue-leaved Butcher's Broom*; *Tongue upon Tongue*. Italy.

4. *Racemôsus*. Stalks very slender, three or four feet high. Leaves lance-shaped, alternate, on short footstalks. Flowers yellowish, hermaphrodite, in bunches at the ends of the branches.—*True Alexandrian Laurel*.

R U S

5. *Andrógynus*. Shrubby, six feet or more high, with short compressed branches. Leaves large, broad-lance-shaped, and rounded on the lower side of their base. Flowers white, in clusters at the edges of the leaves.———*Canary Butcher's Broom*.

OBSERVATION. *The fourth is supposed to be the plant used by the ancients for crowning their poets and conquerors.*

S A L

S.

SALIX. Willow. Comp. p. 46.

Plants Dioecious.

Male catkin oblong, and on all sides imbricated with numerous flat, oblong, spreading scales, bearing 1 floret each.—*Corolla* none, but there is a small, stumped, cylindrical gland in the center of each scale.—*Stamina* 2, 3, or 5, thread-like, straight, longer than the scale.—*Summits* double.

Female catkin like the male.—*Corolla* none.—*Ger-
men* slender.—*Styles* scarce any.—*Stigmas* 2, bifid, erect,
—*Seed-vessel* egg-shaped, awl-pointed, 1-celled, 2-
valved.—*Seeds* egg-shaped, numerous, crowned with
hairy down.

1. *Reticuláta.* A small bushy shrub, covered with a brown bark. Leaves roundish, or reverse-egg-shaped, entire, wrinkled, on hairy foot-stalks. They are white beneath, and reticu-

S A L

- lated or marked like net work.———*Dwarf Round-leaved Willow.* England.
2. *Pentándra.* A smallish tree, having smooth, somewhat oval, lance-pointed, finely serrated, sweet-scented leaves, and the florets of the male catkins producing five stamina each.———*Sweet Willow; Bay-leaved Willow.* England.
3. *Alba.* A large tree, having narrow-lance-shaped leaves, of a pale green above, and white beneath. *Common White Willow.* England.
4. *Babylónica.* A tall tree, having long, slender, pendulous branches, and linear, lance-pointed, smooth, serrated leaves.———*Weeping Willow.* Levant.

SALVIA. Sage. Comp. p. 4.

Flowers Lipped.

Calyx of 1 abiding, streaked leaf, divided into 2 lips: *Upper lip* large, flatted on the back part, and slightly cut into 3 teeth; *Lower lip* divided into 2 teeth.———*Corolla* of 1 gaping petal, having a short tube, and a swelling throat: *upper lip* compressed, incurved; *lower lip* broad, trifid, the middle segment roundish and notched.—*Stamina* 2, short, forked below; the outer prongs fastened to the chaps of the corolla; the two inner ones thick, gland-like, and joined at their base.—*Summits* oblong.—*Germen* 4-parted.—*Style* thread-like, longer than the corolla.—*Stigmas* bifid.—*Seed-vessel* none.—*Seeds* 4, at the bottom of the calyx.

1. *Officinális.* Leaves lance-egg-shaped, slightly crenated. Flowers blue, in whorled spikes. Calyces acute.———*Common Garden Sage.* South of Europe. *Varieties*
The Narrow-leaved, or Sage of Virtue,
Lavender-leaved Sage,
Broad-leaved green Sage,

S A L

Variiegated green Sage,
Broad-leaved hoary Sage,
Wormwood Sage,
Broad-leaved red Sage,
Variiegated red Sage.

2. *Coccinia.* Shrubby, hairy, sometimes woolly, about two feet high, with square opposite branches. Leaves truly heart-shaped, acutely serrated, soft, on footstalks opposite. Flowers fine scarlet, and terminate the branches in whorled spikes. Calyces oblong, trifid. Stamina protruded beyond the corolla.———*Scarlet Flowering Sage.* Cape of Good Hope. *Green-house.*
3. *Aúrea.* Shrubby, and of a grayish green-colour. Stem erect, about six feet high, with opposite and almost horizontal branches. Leaves short, oval or roundish, stumped at their base and entire. Flowers dark gold-colour, but turn rusty, and terminate the branches in opposite pairs. Calyces 3-parted, bell-shaped, woolly at their base. ———*Shrubby Yellow Flowering Sage.* Cape of Good Hope. *Green-house.*
4. *Paniculáta.* Shrubby, two feet or more high, with rough, four-cornered branches. Leaves small, rough, reverse-egg-shaped, with a taper, entire base, but are dentated near their tip. Flowers light blue, fading to almost white at their margins, and they terminate the branches in a sort of loose panicle. ———*Paniculated Æthiopian Sage.* *Green-house.*
5. *Africana.* Shrubby, four or five feet high. Leaves roundish, serrated, stumped and dentated at their base, of a grayish colour. Flowers blue, and terminate the branches in whorls. ———*African Shrubby Sage.* *Green-house.*

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6. *Coloráta*. Shrubby, four or five feet high. Leaves elliptical, downy, on footstalks, the lower ones ferrated, but the upper ones are entire. Flowers blue. Calyces red, bell-shaped, with a broad membranous limb.—*Coloured Æthiopian Sage*. Green-house.
7. *Pomifera*. Shrubby, four or five feet high, with branches producing apple-like protuberances. Leaves lance-egg-shaped, slightly crenated. Flowers pale blue, in spikes at the ends of the branches. Calyces obtuse.—*Apple-bearing Sage*. Crete. Green-house.
8. *Praténsis*. Stalks herbaceous, erect, square, branching two or three feet high. Leaves oblong-heart-shaped, crenated, opposite, the upper ones sessile and embrace the stalk. Flowers blue, in naked whorls at the ends of the branches. Upper lip of the corolla viscous.—*Meadow Clary*. England.
9. *Sclárea*. Stalks herbaceous, erect, square, branching about three feet high, hairy and a little clammy. Leaves large, oblong-heart-shaped, hairy, wrinkled, opposite. Flowers large, pale blue, in whorled spikes. Floral leaves whitish, concave, pointed, longer than the calyx.—*Garden Clary*. Syria. ♂
10. *Verticilláta*. Stalks herbaceous, square, two feet or more high and branching. Leaves heart-shaped, obtusely dentated, those on the stalk sessile. Flowers blue, numerous, in very long, almost naked whorled spikes. Style lodged on the lower lip of the corolla.—*Whorled Clary*. Austria.
11. *Glutinósa*. Stalk herbaceous, about two feet high, branching. Leaves between heart and arrow-shaped, ferrated, acute-pointed. Flowers yel-

low, in whorls of about six in each.——

Clammy Sage. Germany.

12. *Viridis.* Stalk square, about half a yard high, and the branches are terminated by a cluster of green, red, or violet-coloured leaves. Lower leaves oblong-oval, crenated. Bractæ large and diamond-shaped. Flowers small, pale blue, in whorls at the joints of the branches. Upper lip of the corolla semiorbicular.——*Red and Purple Topped Clary.* Austria. ☉

OBSERVATION. *An infusion of the leaves of the first species is frequently ordered as a cooling drink in fevers. The varieties most proper for this purpose are the Tea Sage, or Sage of Virtue, and the Red Sage. A fine cordial tincture may be obtained by steeping the leaves of the ninth in French brandy; and of the young leaves and flowers of this is made a wine which is exceedingly pleasant, and also highly cordial.*

SAMBU¹CUS. *Elder Tree.* Comp. p. 13.

Calyx of 1 small, abiding leaf, cut into 5 parts.—*Corolla* of 1 wheel-shaped petal, cut about half way into 5 obtuse, reflexed segments.—*Stamina* 5, awl-shaped, as long as the corolla.—*Summits* roundish.—*Germen* egg-shaped, below the corolla.—*Style* none, but in its place there is a bellying gland.—*Stigmas* 3, obtuse.—*Berry* roundish, 1-celled.—*Seeds* 3, angular.

1. *Nigra.* A small tree having winged leaves, composed of several almost egg-shaped, serrated lobes. Flowers white, in large, five rayed umbels. Berries black. Varies to jagged and striped leaves, and to white berries.——
Common Elder. England.

2. *Canadensis.* Shrubby, about six feet high. Leaves composed of seven or nine, oblong-oval, sei-

rated, pointed lobes. Flowers whitish, in five rayed umbels. Berries black, but smaller than the former.—*Canadian Elder*.

3. *Racemosa*. Shrubby, putting forth many stalks eight or ten feet high. Lower leaves composed of five short, broad, deeply serrated lobes, and the upper ones of but three. Flowers in egg-shaped bunches at the ends of the branches. Berries red.—*Mountain Elder*. Italy.

OBSERVATION. *An infusion of the inner bark of the first sort is gently purgative. Of the leaves is made an ointment, and of the flowers a distilled water, which is deemed a good cosmetick. A Rob is made of the juice of the berries, and is frequently given on catching cold, in the quantity of about a spoonful at going to bed. It opens obstructions of the bowels, and powerfully promotes sweat and urine.*

SANTOLINA. ¹*Lavender Cotton*. Comp. p. 38.

Flowers compound. Florets all tubular.

Common calyx hemispherical, and imbricated with oblongish, acute, compact scales.

Florets all hermaphrodite, funnel-shaped, longer than the calyx, and cut into 5 reflexed teeth.—*Germs* oblong, 4-cornered.—*Style* as long as the stamina.—*Stigmas* 3, oblong, depressed, stumped.—*Seeds* oblong, 4-cornered.—*Down* none.—*Receptacle* flattish, chaffy: *Chaff* convex.

1. *Chamae-Cyparissus*. Shrubby, about half a yard high, with round branching stems, covered with a short, white wool. Leaves hoary, linear, and set with short, oblong teeth, pointing four ways. Flowers yellow, solitary, terminating a long, almost naked peduncle.—*Common Lavender Cotton*. Europe.

2. *Rosmarinifolia*. Somewhat shrubby, and puts forth linear, hoary leaves, having tubercles on their margin. Peduncles long, and support one flower each. *Rosemary-leaved Lavender Cotton*. Spain.

SAPINDUS. *Soap Berry*. Comp. p. 19.

Calyx composed of 4 or 5 oval, flat, coloured, spreading, deciduous, nearly equal leaves.—*Corolla* of 4 or 5 egg-shaped, slender heeled petals, 2 of them standing closer than the others.—*Nectarium* 4 small, erect, oblong leaves, inserted into the base of the petals.—*Stamina* 8, as long as the corolla.—*Summits* heart-shaped, erect.—*Germen* triangular.—*Styles* 3, short.—*Stigmas* small, obtuse.—*Seed-vessels* 1, 2, or 3, globular, inflated, united, and contain 1 globular *Nut* each.

1. *Saponaria*. A slender, spineless tree, which will rise to a considerable height. Leaves winged, and composed of many pair of lance-shaped lobes, standing on a leafy midrib, and terminated by an odd one. Flowers small, white, in loose spikes at the ends of the branches. *Indian Soap Berry*. Hot-house.
2. *Spinosus*. A very spiny tree, having winged leaves, not terminated by an odd lobe. *Jamaica Thorny Sapindus*. Hot-house.
3. *Trifoliatus*. A smallish, spineless tree, having leaves composed of only three lobes. *American Three-leaved Sapindus*. Hot-house.

OBSERVATION. The *Seed-vessels* of the first sort are as large as *Cherries*, and their skins of a soapy nature; these the Americans use as soap for washing their linen, but they prove a bad succedaneum, as their caustick juice destroys the linen very fast.

S A T

SAPONARIA. Soapwort. Comp. p. 21.

Calyx of 1 abiding, tubular leaf, cut into 5 teeth.—*Corolla* of 5 broad, flat, obtuse petals, having narrow heels as long as the calyx.—*Stamina* 10, slender, rather longer than the tube of the corolla, and alternately inserted into the tails of the petals.—*Summits* oblong, obtuse, incumbent.—*Germen* almost cylindrical.—*Styles* 2, straight, about as long as the stamina.—*Stigmas* acute.—*Seed-vessel* cylindrical, as long as the calyx, 1-celled.—*Seeds* many, small.—*Receptacle* at liberty.

Officinális. Stalk two feet or more high, roundish, branching and knotty at the joints. Leaves oval, lance-pointed, entire, three-nerved, opposite, running into each other at their base. Flowers pale red, single or double, and terminate the branches in irregular umbels. Calyxes swelled in the middle. Petals crowned at the bottom of their limb with two coloured scales each.—*Soapwort*. England.

OBSERVATION. The plant is of service in Asthmas, and all disorders requiring expectoration. Outwardly applied it discusses and suppurates tumours. An infusion of the root is absorbent, and a great sweetener of the blood. Some deem it superior to Sarsaparilla.

SATUREJA. Savory. Comp. p. 28.

Flowers Lipped.

Calyx of 1 abiding, streaked leaf, cut about half way into 5 erect, nearly equal, awl-shaped teeth.—*Corolla* of 1 gaping petal, having a shortish cylindrical tube: *Upper lip* erect, obtuse, as long as the lower lip, and slightly notched; *Lower lip* cut into three equal, obtuse segments.—*Stamina* 4, two shorter than the rest, the longest 2 equal to the upper lip.—*Summits* conniving.—*Germen* 4-parted.—*Style* as long

as the corolla.—*Stigmas* 2, recurved. *Seeds* 4, roundish, lodged in the calyx.

1. *Horténsis*. Stalks erect, slender, about a foot high, putting out branches by pairs. Leaves nearly linear, acute, stiff, slightly hairy and opposite. Flowers blush-colour, two on a peduncle from the wings of the leaves, near the ends of the branches.—*Summer Savory*. Italy. ☉
2. *Montána*. Somewhat shrubby, a foot high, and much branched. Leaves almost linear, pointed, opposite, with clusters of small leaves at their base. Flowers pale blush-colour, on forked peduncles from the sides of the branches.—*Winter Savory*. France.
3. *Thymbra*. Shrubby, about two feet high. Leaves small, oval, and acute-pointed. Flowers bright red, and terminate the branches in four or five thick, hairy, distinct whorls. *Cretan Savory*. Green-house.
4. *Capitata*. Shrubby, very low, and totally hoary. Leaves keeled beneath, dotted and ciliated. Flowers white, in short, roundish spikes at the ends of the branches.—*Aromatick Cretan Savory*. Green-house.

SAXIFRAGA. *Saxifrage*. Comp. p. 21.

Calyx of 1 short, abiding leaf, cut into 5 acute teeth.
—*Corolla* of 5 spreading petals, having narrow heels.
Stamina 10, awl-shaped.—*Summits* roundish.—*Ger-
men* roundish, with a point, ending in two short styles.
—*Stigmas* obtuse.—*Seed-vessel* nearly oval, 1-celled,
terminated by two horns, and opens between their
tips.—*Seeds* small numerous.

* *Leaves undivided. Stalks almost naked.*

1. *Nivalis*. Leaves oval, crenated, almost sessile, and spread in tufts upon the ground. Stalk sim-

- ple, about a foot high. Flowers white, and terminate the stalk in a compact, roundish cluster. *Mountain Sengreen*. Wales.
2. *Umbrófa*. Leaves spoon-shaped, whitish on their margins, deeply crenated, and form a circle round the root. Stalk about a foot high, red, hairy and branched near the top into a panicle. Flowers small, white, dotted with red. — *London Pride*; *None-so-pretty*. Ireland.
3. *Cotylédon*. Radical leaves gathered into a round, spreading cluster; they are long, tongue-shaped, roundish at their end, and have a whitish horny margin, which is very finely ferrated. Stalk two feet or more high, hairy, red, and branched into slender, horizontal panicles, diminishing in length to the top, the whole forming a pyramid. Flowers white, sometimes spotted with red. — *Pyramidal Saxifrage*. Italy.
4. *Craffiſolia*. Leaves three or four inches broad, oval, smooth, leathery, waved on their margins, and stand on long footstalks. Stem more than a foot high, thick and naked. Flowers large, bell-shaped, pale-purple, and terminate the stalk in a thick, dense panicle, composed of roundish clusters. Stamina inserted into the calyx. — *Thick-leaved Siberian Saxifrage*.
5. *Sarmentóſa*. Whole plant hairy. Radical leaves almost orbicular, coarsely crenated, or slightly lobed, veined with white above, of a livid colour beneath, and they send forth many slender rooting runners from their bosoms. Stalk more than a foot high, often leafless, and it branches upward into a loose panicle of flowers, having their three upper petals short and dotted with red, and their two lower ones very long and perfectly white. Stamina thickest

upward. Summits slender, seldom more than two. Germen furnished on one side with yellow, turgid honey-glands. — *Japanese Bastard Saxifrage*. Green-house. *This Plant, though retained here, is evidently of a distinct Genus.*

** *Leaves undivided. Stalks leafy.*

6. *Autumnalis*. Stalks erect, about a span high. Radical leaves oblong, in clusters; those on the stalks linear, alternate and ciliated. Flowers yellow, spotted, on long peduncles from the wings of the leaves. — *Autumnal Sengreen*. England.

7. *Aizoïdes*. Stalks decumbent. Leaves on the stalk awl-pointed, scattered and naked. — *Yellow Mountain Sengreen*. England. Probably only a variety of the sixth.

*** *Leaves lobed. Stalks erect.*

8 *Granulata*. Root a collection of little knobs, or grains. Leaves hairy, kidney-shaped, lobed, on long footstalks. Flowers large, white, single or double, and terminate a branching stalk, about a foot high, in small clusters. — *Common White Saxifrage*. England.

9. *Hypnoïdes*. Radical leaves cut into three, or five, acute segments; those on the branches linear and alternate. Branches thread-like, procumbent, and run over each other, forming a sort of cushion. Flower-stalks erect, about five inches high, almost naked, and are terminated by two or three whitish flowers. — *Trifid Sengreen*. England.

SCABIOSA. *Scabious*. Comp. p. 6.

Flowers Aggregate.

Common Calyx composed of many leaves, ranged in

various orders or rows, and gradually decreasing in size inward.—*Partial calyx* double: the *outer* one short, plaited, membranous and abiding; the *inner* terminated by 5 or 10 bristles.—*Florets* of 1 tubular petal each, cut into 4 or 5 either equal, or unequal segments.—*Stamina* 4, weak, hair-like.—*Summits* oblong, incumbent.—*Germen* below the corolla.—*Style* thread-like, as long as the corolla.—*Stigma* obtuse, obliquely notched.—*Seed* oblong-oval, crowned with the bristly inner calyx.—*Receptacle* convex, chaffy.

1. *Stellata*. Stalk round, hairy, branching, and two or three feet high. Leaves pale green, deeply jagged, the terminating lobe mostly broad, and cut into several acute segments. Flowers purple or whitish, on long, naked peduncles, from the divisions of the stalk. Florets cut into five segments. When the florets fall the outer calyces become large, and cup-shaped, and the inner ones expand in the form of a star.—*Starry Scabious*. Spain. ☉
2. *Atropurpurea*. Stalk three or four feet high, branching. Leaves oblong, deeply jagged. Flowers conical, sweet-scented, dark purple, red, blush-colour, or white, on long, naked peduncles. Florets cut into five unequal segments. Receptacle awl-shaped. Chaff like bristles.—*Sweet Scabious*. India. ☉
3. *Crética*. Shrubby, about three feet high. Leaves lance-shaped, almost entire, and stand in clusters. Flowers white, slightly tinged with red, and the florets are cut into five segments.—*Cretan Shrubby Scabious*, Green-house.
4. *Africana*. Shrubby, four or five feet high. Lower leaves hairy, oblong-oval, bluntly serrated, and of a pale green; the upper ones deeply cut into many narrow segments. Flowers flesh-

colour, and the florets are cut into five unequal parts.—*Shrubby African Scabious*. Greenhouse.

SCILLA. *Squill*. Comp. p. 15.

Calyx none.—*Corolla* of 6 spreading, deciduous petals.—*Stamina* 6, awl-shaped, about half as long as the petals.—*Summits* oblong, incumbent.—*Germs* roundish.—*Style* about the length of the stamina.—*Stigma* simple.—*Seed-vessel* smooth, nearly oval, furrowed, 3-celled and 3-valved.—*Seeds* many, roundish.

1. *Bifolia*. Root solid. Leaves generally two, flower-stalk near a span high, angled. Flowers light blue or white, in a thin racemus at the top of the stalk. Petals spread in form of a star.—*Spring Starry Hyacinth*. England.
2. *Autumnalis*. Root solid. Leaves long, thread-like. Flower-stalk six or seven inches high. Flowers in a roundish cluster, on naked, ascending peduncles, of the length of the flowers.—*Autumnal Starry Hyacinth*.—England.
3. *Peruviana*. Root large, solid. Leaves about six, broadish, keeled, and spread almost flat on the ground. Flower-stalk about a span high, thick, succulent, and is terminated by a short, spreading, conical bunch of deep blue, or white flowers, expanding like stars.—*Peruvian Hyacinth*.
4. *Amœna*. Root large, solid. Leaves about six, near a foot long, keeled and channelled. Stalk about a span high. Flowers violet blue, somewhat nodding, and come out alternately from the sides of the stalk.—*Hyacinth of Byzantium*.
5. *Campanulata*. Leaves broadish, smooth, shining, keeled, lance-pointed. Stalk round, smooth, naked, a foot or more high, and is terminated

by an obtuse, conical racemus of rather upright, bell-shaped, light blue flowers, marked with whitish lines. Summits at first blue, afterwards greenish.—*Bastard Squill*.

SCOLYMUS. *Golden Thistle*. Comp. p. 38.

Flowers Compound.

Common Calyx egg-shaped, and imbricated with numerous lance-shaped, pointed loose scales.

Florets all hermaphrodite, equal, numerous, strap-shaped, flumped, and cut into 5 slender teeth.—*German* oblongish.—*Style* longer than the stamina.—*Stigmas* 2, reflexed.—*Seed* rather oblong, triangular, pointed at the base.—*Down* none.—*Receptacle* chaffy, convex.—*Chaff* longer than the seed, and cut into 3 teeth.

1. *Maculatus*. Stalk about five feet high, branching below. Leaves smooth, shining, with thin, dentated, spiny, cartilaginous margins, and they run down each side the stalk from joint to joint. Flowers deep yellow, smallish, solitary at the tops of the branches.—*Annual Golden Thistle*. Italy. ☉

2. *Hispanicus*. Stalk thick, more than a foot high, branching from the bottom. Leaves stiff, roughish, with spiny margins thicker than the other part. Flowers yellow, about four in a cluster. Summits yellow.—*Biennial Golden Thistle*. Spain. ♂

SCUTELLARIA. *Skullcap*. Comp. p. 29.

Flowers Lipped.

Calyx of 1 very short tubular leaf, having an almost entire mouth, furnished behind with a cap-like scale, shutting it as a lid.—*Corolla* of 1 gaping petal, having a very short crooked tube, and long, com-

pressed chaps: *Upper lip* concave, trifid; the side segments flat, acutish, and are under the middle one: *Lower lip* broad and notched.—*Stamina* 4, two rather shorter than the rest, and all lodged under the upper lip.—*Summits* small—*Germs* 4-parted—*Style* thread-like, as long as the stamina, and ranged with them.—*Stigma* simple, pointed, incurved.—*Seed-vessel* none.—*Seeds* 4, roundish, lodged in the calyx, which now becomes helmet-shaped.

1. *Alpina*. Somewhat shrubby, with square, drooping stalks, about a foot long. Leaves oblong-egg-shaped, coarsely serrated, smooth on both sides, on footstalks opposite. Flowers large, violet blue and whitish, and terminate the branches in imbricated, somewhat four-cornered spikes. Bractæ egg-shaped, acute, shorter than the tube of the corolla.—*Alpine Skullcap*.
2. *Integrifolia*. Somewhat shrubby, with square, branching stalks, about two feet high. Leaves egg-shaped, opposite; the lower ones obsoletely serrated, the upper ones entire. Flowers blue, in long, loose spikes at the ends of the branches.—*Virginian Baulm-leaved Skullcap*.
3. *Orientalis*. Somewhat shrubby, with square prostrate stalks. Leaves almost triangular, cut on their edges, downy beneath, and opposite. Flowers yellow, in short spikes at the ends of the branches.—*Eastern Skullcap*.
4. *Galericulata*. Stalks square, branching, two feet or more high. Leaves oblong, heart-shaped at their base, lance-pointed, crenated and opposite. Flowers blue, by pairs at the wings of the leaves.—*Greater English Skullcap*.
5. *Minor*. Stalks square, about a span high. Leaves heart-shaped-oval, almost entire, opposite.

S E D

Flowers purple, at the wings of the leaves.—
Lesser English Skullcap.

OBSERVATION. *The two last sorts are seldom to be met with in Gardens, but being English plants I was unwilling to omit them.*

SEDUM. *Lesser Houseleek.* Comp. p. 21.

Calyx of 1 erect, abiding leaf, cut into 5 acute parts. — *Corolla* of 5 lance-shaped, pointed, flat, spreading petals. — *Nectariums* 5 small, notched scales, singly inserted at the outer base of each germen. — *Stamina* 10, awl-shaped, as long as the corolla. — *Summits* roundish. — *Germina* 5, oblong, ending in taper *Styles*. — *Stigmas* obtuse. — *Seed-vessel* 5, spreading, pointed, compressed, and open longitudinally on the inside. — *Seeds* many, small.

**Leaves flat.*

1. *Téléphium.* Stem erect, about two feet high. Leaves oblong, thick, flat, serrated, alternate, and often reddish. Flowers purple, or whitish, and terminate the stalks in thick, leafy clusters. — *Common Orpine; Live Long.* England.
2. *Anacampseros.* Stalks round, decumbent, pliant, and about a foot long. Leaves glaucous, roundish, or broad wedge-shaped, entire, thick, flat, alternate, and have a loose membrane at their base. Flowers pale purple, and terminate the stalks in very close, roundish, leafless clusters. — *Smaller Evergreen Orpine.* Provence.
3. *Aizoon.* Stalks round, erect, and about a foot high. Leaves lance-shaped, serrated, flat, thick and alternate. Flowers bright yellow, and terminate the stalks in flattish, close sitting bunches. — *Siberian Orpine.*

4. *Populifolium*. Stalks erect, smooth, much branched, a foot or more high. Leaves heart-shaped, obtuse, coarsely dentated, flat, smooth, fleshy, alternate, on footstalks. Flowers perfectly white, in short, almost even-topped panicles at the ends of the branches.—*Poplar-leaved Sedum*. Siberia.

** *Leaves roundish.*

5. *Dasyphyllum*. Stalk low, weak, branching, a little clammy. Leaves short-egg-shaped, obtuse, fleshy, sessile, convex beneath, close, opposite, the pairs crossing each other. Flowers white, thinly placed at the tops of the stalks. Petals obtuse. Summits purple.—*Round-leaved Stonecrop*. England.

6. *Album*. Stalks about six inches high, divided near the top into short branches. Leaves oblong, obtuse, roundish, sessile and spreading. Flowers white, in branching clusters. Petals acute. *Officinal Stonecrop*. England.

7. *Rupéstre*. Stalks purple, trailing, about 6 inches long. Leaves awl-shaped, with a loose membrane at their base; they are numerous, and point five ways. Flowers bright yellow, and terminate the stalks in roundish bunches.—*St. Vincent's Rock Sedum*.

8. *Reflexum*. Flowering stalks erect, bowed at their base. Leaves thick, awl-shaped, scattered, the lower ones reflexed, and have a loose membrane at their base. Flowers yellow, in reflexed bunches at the top of the stalk. *Common Stonecrop*. England.

9. *Acre*. Stalks erect, about four inches high. Leaves numerous, small, fleshy, nearly egg-shaped, gibbous, somewhat erect, alternate, sessile, attached by the fore part of their base. Flowers yellow,

S E M

in a trifid bunch at the top of the stalk. Leaves of the calyx fleshy. *Wall Pepper*. England.

10. *Sexangulare*. Leaves nearly egg-shaped, gibbous, sessile, attached by the fore part of their base, are somewhat erect, and imbricated six ways. Flowers yellow, in a trifid bunch at the top of the stalk.—*Insipid Stonecrop*. England. Now supposed to be a variety of the ninth.

SEMPERVIVUM. *Greater Houseleek*. Comp. p. 23.

Calyx of 1 abiding leaf, cut into 6 or 12 acute parts.—*Corolla* of 6 or 12 oblong, acute pointed, concave petals, rather larger than the calyx.—*Stamina* from 6 to 12, slender, awl-pointed.—*Summits* roundish.—*Germina* from 6 to 12, erect, ranged in a circle, and terminated by as many spreading *Styles*.—*Stigmas* acute, —*Seed-vessels* 6 or 12, ranged in a circle; they are oblong, compressed, sharp on the outside, and they open on the inside.—*Seeds* many, small, roundish.—*Notwithstanding the generick character, in some cultivated species, the parts of fructification will be found almost double in number.*

1. *Tectórum*. Offsets round, flat, and composed of many oblong, thick, fleshy, sharp-pointed leaves, having short hairs on their margins. Stalk erect, round, reddish, about a foot high, divided near the top into two or three branches, and the lower part is furnished with narrow, imbricating leaves. Flowers red, in reflexed spikes at the end of the branches. *Common Houseleek*. Europe.
2. *Globiferum*. Offsets compact, globular, and composed of numerous narrow, thickish, incurved, ciliated leaves. Stalk thick, red, scarce a foot high, and branched near the top. Flowers pale purple, or yellowish, in recurved spikes.

S E N

Petals three times as long as the calyx. Stamina from 12 to 24.—*Globular-headed Houseleek.*

3. *Arachnoideum.* Offsets small, compact, globular, and composed of numerous sharp-pointed leaves, having fine whitish threads spread across, and intersecting each other, so as to resemble a cobweb. Stalk near a span high, round, a little branched near the top. Flowers bright red, in half spikes at the tops of the branches, and all looking upward. *Cobweb Sedum.* Italy. *Green-house.*
4. *Canariense.* Stem thick, rugged, about half a yard high, and crowned at the top with a large, circular cluster of wedge-shaped obtuse leaves, in form of a full-blown rose. Flower stalk about two feet high, springs from the center of the crown, and branches from the bottom into a sort of pyramid of greenish white flowers, having about eight petals each. *Shrubby Canary Houseleek.* *Green-house.*
5. *Arboreum.* Stem smooth, and branching to six or eight feet high. Branches naked below, but are crowned with large rose-like clusters of green, or variegated, wedge-shaped leaves, very finely serrated. Flower-stalks from the center of the crowns, branching into a sort of pyramid of yellow or white flowers. *Tree Houseleek.* Portugal. *Green-house.*

SENECIO. *Ragwort.* Comp. p. 39.

Flowers compound.

Common Calyx conical, stumped, and composed of many equal, narrow, parallel, acute scales, withered at their tips, and surrounded at their base with a few short scales, forming another small calyx.

S E N

Florets in the disk numerous, hermaphrodite, funnel-shaped, cut into 5 reflexed parts.—*Germen* egg shaped.—*Style* as long as the stamina.—*Stigmas* 2, rolled back.—*Seed* egg-shaped, crowned with long hair-like down.

Female rays (if any) oblong, cut into 3 obsolete teeth.—*Germen* egg-shaped.—*Style*, *Stigmas*, and *Seed* like the former.

1. *Élegans*. Stalk about two feet high, dividing into many spreading branches. Leaves sessile, glossy, and cut to the midrib into many obtuse lobes, irregularly notched. Flowers purple, or white with yellow disks, and terminate the branches in loose, spreading bunches. Outer calyx large, and of many scales.—*African Purple Ragwort*.

2. *Alpinus*. Stalks herbaceous, slender, two feet or more high, somewhat angular, branching near their top, and often turn purple, as do the leaves. Lower leaves large, roundish, with a sinus at their base, lobed, dentated, on long footstalks having ears at their bottom; upper leaves somewhat lyre-shaped. Flowers small, yellow, in loose panicles at the ends of the branches, on very slender peduncles, having two or three minute awl-shaped scales.—*Helvetian Groundsel*. Culture causes great variations in this plant.

3. *Saracenicus*. Root creeping. Stalk erect, smooth, four or five feet high. Leaves lance-shaped, smooth, slightly serrated. Flowers yellow, and terminate the stalks in roundish clusters, somewhat like umbels. Rays five.—*Broad-leaved Ragwort*. England.

4. *Halimifolius*. Shrubby, five feet or more high, covered with a light brown bark. Leaves reverse egg-shaped, dented near their tip,

smooth, somewhat fleshy, alternate. Flowers yellow, in roundish bunches at the ends of the branches. Rays short, about eight.—*Orach-leaved Tree Groundsel*. Æthiopia. Greenhouse.

5. *Populifolius*. Shrubby, with round, smooth, slender branches. Leaves nearly egg-shaped, slightly dentated, white beneath, on slender foot-stalks, and somewhat resemble those of the White Poplar. Flowers totally purple, in panicles at the end of the branches. Rays five.—*Poplar-leaved Cape Groundsel*. Greenhouse.

SIDA. *Indian Mallow*. Comp. p. 33.

Calyx of 1 angular, abiding leaf, cut about half way into 5 parts.—*Corolla* of 5 notched, somewhat wedge-shaped petals, united at their base.—*Stamina* many, united into a column below, but are at liberty above.—*Summits* roundish.—*Germen* orbicular.—*Style* short, many-parted.—*Stigmas* knob-like.—*Seed-vessel* roundish, pointed, mostly 5-cornered, 5-celled.—*Seeds* solitary, pointed and angular.

1. *Cordifolia*. Stalk two or three feet high, with erect branches. Leaves heart-shaped, somewhat angular, serrated, a little hairy, and stand on long foot-stalks. Flowers small, sulphur-colour, on long peduncles from the wings of the stalk.—*Heart-leaved Indian Mallow*. Cape of Good Hope. Hot-house. ☉
2. *Alnifolia*. Stalk about two feet high, putting forth slender branches. Leaves roundish, plaited, serrated, on long foot-stalks. Flowers pale copper colour, one or more from a place, on long peduncles.—*Alder-leaved Indian Mallow*. Hot-house. ☉

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3. *Triquetra*. Leaves heart-shaped; ferrated, somewhat downy. Branches three-cornered.—
American three-cornered Sida. Hot-house.
4. *Abutilon*. Leaves roundish-heart-shaped, entire. Peduncles shorter than the leaves. Seed-vessels many-celled, and have their horns parted in two.—*Large-leaved Indian Mallow*. Hot-house.

SILÉNE. *Viscous Campion*. Comp. p. 21.

Calyx of 1 long, tubular, abiding leaf, cut into 5 teeth.—*Corolla* of 5 petals, having heels as long as the calyx, and obtuse, spreading limbs, which are sometimes bifid, and each has at its neck two oblong teeth, or scales, forming a crown to the mouth of the corolla.—*Stamina* ten, awl-shaped, alternately inserted into the heels of the petals, one above another.—*Summits* oblong.—*Germen* cylindrical.—*Styles* 3, longer than the stamina.—*Stigmas* bent towards the left.—*Seed-vessel* almost cylindrical, 3-celled, and opens at the tip five ways.—*Seeds* many, kidney-shaped.

1. *Quinquévulnera*. Stalk erect, about a foot high and hairy. Leaves almost linear, opposite. Flowers red, whitish on their margins, and terminate the stalk and branches in bending, clammy spikes. Petals roundish, entire. Seed-vessels erect, alternate.—*Variegated Catchfly*. England. ☉
2. *Arméria*. Stalk about half a yard high, erect and branching. Leaves of a glaucous colour, sessile: the lower ones broad-lance-shaped; upper ones oblong-heart-shaped. Flowers red or white, and terminate the branches in even topped branches. Teeth of the calyx obtuse. Petals slightly notched.—*Lobel's Catchfly*.

England. ☉ *On a stiff soil this will sometimes be branchless.*

3. *Fruticósa*. Shrubby, more than a foot high, and divides into several short branches. Leaves broad-lance-shaped, acute, smooth. Flowers greenish white, and terminate the branches in panicles, mostly divided into two or three parts. Petals bifid. Seed-vessels oval.—*Myrtle-leaved Silene*. Sicily. *Green-house*.
4. *Gigántea*. Stalks erect, round, smooth, and near three feet high. Lower leaves hollow, spoon-shaped; upper ones somewhat lance-shaped. Flowers pale green, and terminate the stalks in loose spikes.—*African Silene*. *Green-house*.

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SILPHIUM. *Bastard Chrysanthemum*. Comp. p. 40.

Flowers compound, radiated.

Common Calyx egg-shaped, and imbricated with many oblong, egg-shaped, prominent, abiding, straddling scales, reflexed at their middle.

Florets in the disk male or hermaphrodite, funnel-shaped, and cut into 5 small teeth.—*Stamina* very short.—*Germen* round, slender.—*Style* thread-like, very long, hairy.—*Stigma* simple.—*Seed* none.

Female rays lance-shaped, long, often cut into 3 teeth.—*Germen* reverse-heart-shaped.—*Style* short.—*Stigmas* 2, bristle-like, as long as the style.—*Seed* oblong, or reverse-heart-shaped, with a membranous margin, and is crowned with 2 teeth.

1. *Perfoliátum*. Stalk six or seven feet high, four-cornered. Leaves oblong-egg-shaped, angled at their base, serrated, opposite, and have their foot-stalks joined so as to form a bag or sheath to the stalk. Flowers yellow, on round peduncles from the sheaths of the upper leaves.

—*Square-stalked Perfoliate Silphium*. North America.

2. *Connatum*. Stalk round, rough. Leaves opposite, joined at their base, and surround the stalk.

—*Round-stalked Perfoliate Silphium*. America.

3. *Laciniatum*. Stalk round, simple, ten feet or more high, smooth below, rough above. Leaves very large, alternate, and are cut into about ten narrow, sinuated, distant lobes. Flowers yellow.—*Jagged-leaved American Silphium*.

4. *Trifoliatum*. Stalk purplish, smooth, five or six feet high, and branching near the top. Leaves lance-shaped, rough, slightly dentated, sessile, and stand by fours below, by threes higher up, and by twos at the top. Flowers yellow, solitary, on smooth, leafy peduncles.—*Trifoliate Silphium*. Virginia.

5. *Asteriscus*. Stalk near three feet high, branching, and furnished with prickly hairs. Leaves rough, sessile; the lower ones alternate, the upper ones opposite. Flowers large, yellow, Petals about nine.—*Carolina Silphium*; *Mock Sunflower*.

SISYRINCHIUM. *Bermudiana*. Comp. p. 42.

Common sheath of the flowers composed of 2 compressed, keeled, acute-pointed leaves.—Calyx none.—Corolla of 6 oblong petals, terminated by awl-shaped points.—Stamina 3, forming a cylindrical sheath to the style.—Summits bifid at their base, affixed to the style.—Germen reverse-egg-shaped, below the corolla.—Style awl-shaped, straight, shorter than the corolla.—Seed-vessel reverse-egg-shaped, 3-cornered, 3-celled.—Seeds many, and roundish.

1. *Bermudiana*. Stalks near a span high, compressed,

two-edged, branching. Leaves narrow-sword-shaped, keeled, alternate, and sheath the stalk with their base. Flowers deep blue, with yellow bottoms, and come out in clusters at the ends of naked peduncles, or branches, longer than the leaves.—*Grass-leaved Sisyrinchium*. Bermuda. *Green-house*.

2. *Latifolium*. Root a bulb. Leaves thin, sword-shaped, with several longitudinal plaits. Flower-stalk naked, about four inches high, and is terminated by two or three blue flowers from its sheath.—*West-Indian Sisyrinchium*. *Hot-house*.

SMILAX. *Rough Bindweed*. Comp. p. 46.

Plants Diœcious.

Male Calyx composed of 6 oblong leaves, forming a narrow bell with their base, and are reflexed at their tips.—*Corolla* none.—*Stamina* 6.—*Summits* oblong.

Female Calyx like the male.—*Corolla* none.—*Germen* egg-shaped.—*Styles* 3, small.—*Stigmas* oblong, reflexed, a little hairy.—*Berry* globular, 3-celled.—*Seeds* 2, globular.

* *Stalks spiny, angular.*

1. *Aspera*. Stalks six feet or more high, angular, spiny. Leaves heart-shaped, acute-pointed, stiff, cut into spiny teeth, and have nine longitudinal veins. Flowers whitish, in short bunches from the wings of the stalk.—

Italian Rough Bindweed.

2. *Excelsa*. Stalks angular, spiny, and climb to a great height. Leaves heart-shaped, spineless, have five longitudinal veins. Flowers whitish, in short bunches.—*Tallest Eastern Smilax.*

3. *Zeylanica*. Stalks spiny, angular. Leaves spine-

less: on the stalk they are heart-shaped; those on the branches egg-shaped-oblong.—
Ceylon Rough Bindweed.

4. *Sarsaparilla.* Stalks angular, spiny. Leaves heart-shaped, pointed, angular at their base, three-nerved and spineless. Flowers in loose bunches at the wings of the stalk.—*Ivy-leaved Rough Bindweed.* America.

** *Stalks spiny, round.*

5. *China.* Stalks roundish, spiny, and climb to a considerable height. Leaves thick, between egg and heart-shaped, obtuse, spineless, have five longitudinal veins. Flowers in loose clusters.—*Chinese Smilax.* Green-house.
6. *Laurifolia.* Stalks round, spiny. Leaves egg-shaped, lance-pointed, spineless, three-nerved.—*Laurel-leaved Virginia Smilax.*
7. *Rotundifolia.* Stalks round, armed with a few straight spines. Leaves heart-shaped, pointed, spineless, five or seven nerved.—*Round-leaved Rough Bindweed.* Canada.
8. *Cadúca.* Stalk round, armed with a few straight spines. Leaves egg-shaped, acute, spineless, three-nerved, deciduous.—*Deciduous Canadian Smilax.*

OBSERVATION. *The root of the fourth sort is the Sarsaparilla of the shops, and the fifth the China Root. They are both given as absorbents, in order to sweeten the blood after foul diseases.*

SOLANUM. *Nightshade.* Comp. p. 10.

Calyx of 1 abiding leaf, deeply cut into 5 acute parts.—*Corolla* of 1 petal, having a very short tube, and a large, flat, spreading brim, cut about half way into 5 acute segments.—*Stamina* 5, very short.—*Sum-*

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mils large, oblong, conniving, with two gaping pores* at the tip of each.—*Germen* roundish.—*Style* thread-like, as long as the summits.—*Stigmas* 2.—*Berry* smooth, roundish, tip marked with a dot, 2-celled.—*Seeds* many, roundish, closely fixed to a convex *Receptacle*.

* *This circumstance is not easily seen till the summits are far advanced.*

* *Spiny.*

1. *Melóngena*. Stalk erect, two or three feet high, Leaves egg-shaped, entire, downy beneath. Flowers white. Calyces prickly. Berry large, egg-shaped, pendulous, mostly white, but sometimes purple, red, or yellow, on peduncles thickening upward.—*Egg Plant; Mad Apple*. Africa. ☉
2. *Sodoméum*. Shrubby, with a thick, woody stem and branches, copiously armed with sharp, straight, naked, slender, dark purple spines, which turn to a shining yellow. Leaves hairy, on both sides spiny, deeply cut into five irregular lobes and obtuse sinuses, and stand on hairy, spiny foot-stalks. Flowers pale blue or white, in small bunches from the sides of the branches. Calyces spiny. Berries yellow.—*Apple of Sodom*. Africa. *Green-house*.
3. *Sanctum*. Shrubby, with a downy stem and branches, armed with short, thick, straight, yellowish spines, downy at their tip. Leaves egg-shaped, obtuse, downy, with a white serpentine margin, an oblique base, and spiny footstalk. Flowers purplish, blue, in bunches from the sides of the branches.—*Borrageflowered Nightshade*. Palestine. *Green-house*,

4. *Tomentosum*. Whole plant downy. Stem armed with very slender, naked spines. Leaves heart-shaped, obtuse, and are powdered with purple on their margin. Calyces spineless.——
Downy Ethiopian Nightshade. Green-house.
5. *Capense*. Shrubby, with a round stem, copiously armed with very sharp, yellow spines. Leaves on both sides spiny, and are deeply cut into oblongish, alternate, obtuse, entire lobes. Flowers in small bunches from the sides of the branches. —— *Shrubby Cape Nightshade*. Green-house.
6. *Bonariense*. Shrubby, with a tall, almost spineless stem. Leaves large, wedge-shaped, somewhat sinuated. Flowers large, white, almost entire, in bunches at the ends of the branches. Berries large, yellow.——*Bonarian Nightshade*. Buenos Ayres. Green-house.

** Spineless.

7. *Lycopersicum*. Stalks trailing, hairy, branching five feet, or more long, and spineless. Leaves winged with four or five pair of jagged lobes. Flowers yellow, in long racemi from the sides of the branches. Berry large, compressed, furrowed, smooth, red, or orange colour.——
Love Apple; *Pomum Amoris*; *Wolf's Peach*. America. ☉
8. *Dulcamara*. Somewhat shrubby, with smooth, woody, twining stalks, running to a considerable height. Upper leaves halbert-shaped, on long foot-stalks. Flowers purple, dotted with white, in loose bunches from the sides of the branches.——*Woody Nightshade*; *Bittersweet*. England.
9. *Pseudo-capsicum*. Shrubby, near five feet high, with slender, spineless branches. Leaves

smooth, lance-shaped, their margins irregular. Flowers white, solitary, or in small, sessile umbels, from the sides of the branches. Berries red or yellow, about the size of cherries.

—————*Bastard Capsicum*; *Amomum Plinii*.
Madeira. *Green-house*.

10. *Verbascifolium*. Shrubby, the stem and branches spineless. Leaves egg-shaped, downy, entire. Flowers in compound umbels. — *Mullein-leaved American Nightshade*. *Greenhouse*.
11. *Diphyllum*. Shrubby, spineless. The leaves by twos, one much less than the other. Flowers in roundish bunches. — *Two-leaved American Nightshade*. *Hot-house*.
12. *Quercifolium*. Stalks rough, angular, partly herbaceous. Leaves oblong, deeply lobed, rough beneath. Flowers purple, in a roundish racemus. — *Oak-leaved Nightshade*. *Peru*. *Green-house*.
13. *Radicans*. Stalks herbaceous, smooth, roundish, prostrate, and strike root at their joints. Leaves deeply cut into several oblong lobes. Flowers in a roundish racemus. — *Rooting-stalked Nightshade*. *Peru*. *Green-house*.

OBSERVATION. *The berries of the first and seventh sort are in great esteem amongst the Spaniards and Portuguese. They deem them very nutritive, and commonly make them an ingredient in their soups and sauces.*

SOLDANÉLLA. *Soldanel*. *Comp. p. 8.*

Calyx of 1 straight, abiding leaf, cut into 5 lance-shaped parts. — *Corolla* of 1 bell, or rather saucer-shaped petal, torn like a fringe into about 30 parts.

—*Stamina* 5, awl-shaped.—*Summits* arrow-shaped.—*Germen* roundish.—*Style* thread-like, abiding, as long as the corolla.—*Stigma* simple.—*Seed-vessel* dry, round, obliquely streaked, 1-celled and opens with 10 teeth at the tip.

Alpina. Leaves roundish, kidney-shaped. Flower-stalk naked, scarce a span high, and is terminated by two or more blue, peach-colour, or white flowers.—*Soldanel.* Austria.

SOLIDAGO. *Golden Rod.* Comp. p. 39.

Common Calyx oblong, and imbricated with many narrow, acute, straight, clofish scales.—*Florets* in the disk many, hermaphrodite, funnel-shaped, and cut into 5 teeth.—*Germen* oblong.—*Style* as long as the stamina.—*Stigma* bifid.—*Seed* oblong, thickest upward, crowned with hair-like down.

Female rays strap-shaped, few, cut into 3 teeth.—*Germen* oblong.—*Style* as long as the stamina.—*Stigmas* 2, revolute.—*Seed* like the former.—*Receptacle* flat, naked.

* *Stalks* smooth.

1. *Sempervirens.* Stalk erect, glossy. Leaves long-lance-shaped, entire, fleshy, on both sides smooth. Flowers in erect, obtuse panicles, on hairy scaly peduncles. Rays much longer than the disk.—*Evergreen Golden Rod.* Canada.
2. *Mexicana.* Stalk oblique, glossy. Leaves lance-shaped, somewhat fleshy, entire, on both sides smooth. Flowers in erect, clofish panicles, on smooth, scaly peduncles. Rays longer than the disk.—*Mexican Golden Rod.* Canada.

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3. *Striata*. Stalk erect, glossy. Leaves lance-shaped: the radical ones serrated; those on the stalk entire and rough on their margins. Flowers in erect, clofish panicles, on smooth peduncles. — *Willow-leaved American Golden Rod*.
4. *Cæsia*. Stalk smooth, straight. Leaves lance-shaped, smooth, serrated. Flowers in erect racemi. — *Maryland Golden Rod*.
5. *Serôtina*. Stalk erect, smooth. Leaves narrow-lance-shaped, three-nerved, smooth, serrated and rough on their margin. Flowers in racemous panicles, and are all inclined to one side. — *Upright American Golden Rod*.
6. *Gigántea*. Stalk erect, glossy. Leaves lance-shaped, serrated, smooth, rough on their margin. Flowers in racemous panicles, on hairy peduncles, and are all inclined to one side. Rays shorter than the disk. — *Gigantick American Golden Rod*.
7. *Flexicaulis*. Stalk glossy, angular, bent to and fro. Leaves egg-shaped, pointed, acutely serrated. Flowers in erect racemi from the sides of the stalk. — *Crooked-stalked Golden Rod*; *Broad-leaved Golden Rod*. North America.
8. *Latissimifolia*. Stalk erect, glossy. Leaves elliptical, smooth, serrated. Flowers in racemous panicles, and are all inclined to one side. — *Broadest Oval-leaved Golden Rod*. North America.
9. *Ambigua*. Stalk smooth, angular, somewhat crooked. Leaves oblong-lance-shaped, closely serrated, a little hairy beneath. Flowers in erect racemi. Rays longer than the disk. — *Ambiguous Golden Rod*.

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10. *Argúta*. Stalk erect, glossy. Radical leaves oblong-egg-shaped: those on the stalk elliptical; all of them acutely and unequally ferrated. Flowers in racemous panicles, and are all inclined to one side. Rays longer than the disk.—*Sharp-notched American Golden Rod.*

** *Stalks hairy.*

11. *Intergérrima*. Stalk erect, somewhat downy. Leaves linear, lance-pointed, thin, slender at their base, rough on their margin: the lower ones somewhat ferrated. Flowers in erect racemi. Rays longer than the disk.—*Thin-leaved American Golden Rod.*

12. *Lateriflóra*. Stalk erect, a little hairy. Leaves lance-shaped, smooth, rough on their margin, imperfectly three-nerved: the lower ones slightly ferrated. Flowers in somewhat recurved, racemous panicles, and are all inclined to one side.—*Lateral-flowered American Golden Rod.*

13. *Canadénsis*. Stalk erect, covered with soft hair. Leaves lance-shaped, ferrated, rough, three-nerved. Flowers in recurved, racemous panicles, and are all inclined to one side. Rays shorter than the disk.—*Fine Panicled American Golden Rod.*

14. *Refléxa*. Stalk erect, covered with soft hair. Leaves lance-shaped, somewhat ferrated, three-nerved, reflexed, rough on their margin. Flowers in racemous panicles, and are all inclined to one side.—*Reflexed American Golden Rod.*

15. *Altíssima*. Stalk erect, hairy. Leaves lance-shaped, ferrated, very rough, wrinkled, nerveless. Flowers in racemous panicles, and are

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- all inclined to one side. — *Tall American Golden Rod.*
16. *Odorata.* Stalk erect, downy. Leaves linear, lance-pointed, entire, smooth, rough on their margin. Flowers in racemous panicles, and are all inclined to one side. — *Sweet-scented American Golden Rod.*
17. *Petiolaris.* Stalk erect, covered with soft hair: Leaves elliptical, roughish, on foot-stalks. Flowers in erect racemi. Rays longer than the disk. — *Late-flowering American Golden Rod.*
18. *Aspera.* Stalk erect, hairy. Leaves nearly elliptical, ferrated, rough, wrinkled, nerveless. Flowers in racemous panicles, and are all inclined to one side. — *Rough-leaved American Golden Rod.*
19. *Alba.* Stalk thinly scattered with hairs. Leaves elliptical, hairy: the lower ones ferrated; the upper ones entire. Flowers yellowish, white, in erect racemi. Leaves of the calyces obtuse. — *Whitish American Golden Rod.*
20. *Rigida.* Stalk rough and hairy. Leaves egg-shaped, stiff, rough, hairy: the lower ones ferrated; the upper ones entire. Flowers in erect, compact bunches. Rays longer than the disk. — *Stiff-leaved American Golden Rod.*

SOPHORA. *Sophora.* Comp. p. 19.

Calyx of 1 bell-shaped leaf, gibbous just above the base, and cut at the mouth into 5 rather obtuse parts.

Standard straight, oblongish, broadest upward, reflexed on the sides.

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Wings oblong, with an appendage at their base.

Keel of 2 petals, joined at their bottom like the keel of a boat.

Stamina 10, distinct, parallel, awl-shaped, as long as the corolla, and lodged in the keel.—*Summits* small.—*Germs* oblong, rather taper, mostly hairy.—*Style* as long as the stamina, and ranged with them.—*Stigma* obtuse.—*Pod* very long, slender, and knotted at the seeds.—*Seeds* many, roundish.

1. *Tinctória*. Stalks herbaceous, procumbent. Leaves composed of three smooth, roundish, almost sessile lobes. Stipulæ minute. Flowers yellow.
—*Bastard Indigo*. Virginia.
2. *Alopecuroides*. Stalks herbaceous, two or three feet high. Leaves winged, and composed of numerous oblong, hairy lobes. Flowers pale blue, in long, erect spikes from the wings of the branches.—*Fox-tailed Eastern Sophora*.
3. *Tomentósa*. Shrubby, totally downy, five feet or more high. Leaves winged, and composed of several pair of roundish lobes, terminated by an odd one. Flowers yellow, in short spikes from the wings of the branches.—
Long-podded Downy Sophora. Ceylon. *Green-house*.
4. *Biflóra*. Shrubby, about five feet high. Leaves simple, reverse-egg-shaped, somewhat downy. Flowers blue, two on a peduncle, in loose spikes at the ends of the branches.—*Two-flowered African Sophora*. *Green-house*.
5. *Sericea*. Shrubby, five feet or more high, with slender, whitish branches. Leaves simple, reverse-egg-shaped with a point, exceeding silky, on very short foot-stalks, having two awl-shaped stipulæ at their base. Flowers peach-colour, solitary, on short peduncles at the

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bosoms of the leaves, near the ends of the branches. Calyces cut above half way into five parts.—*Silky-leaved Sophora*. Greenhouse.

SORBUS. *Service-Tree*. Comp. p. 24.

Calyx of 1 concave, abiding leaf, cut into 5 spreading teeth.—*Corolla* of 5 concave, roundish, sessile petals, affixed to the calyx.—*Stamina* 20 or more, awl-shaped, inserted into the calyx.—*Summits* roundish.—*Germs* below the corolla.—*Styles* 3, thread-like, erect.—*Stigmas* knob-like.—*Berry* soft, globular, dimpled at the tip.—*Seeds* 3, oblongish, distinct.—*The leaves of the species of this genus are winged.*

1. *Aucupária*. A slender tree, with a brown, smooth bark. Leaves winged with about eight pair of long, narrow, acute, sessile, serrated lobes, smooth on both sides, and terminated by an odd one. Flowers white, in in large, spreading, umbel-like bunches. Berries red.—*Mountain Ash*; *Rundle Tree*. England.
2. *Doméstica*. A large tree, having winged leaves, with the lobes downy beneath, and large pear, or apple-shaped, eatable berries.—*Cultivated Service-Tree*; *True Service-Tree*. England.
3. *Hybrida*. A small tree, having leaves cut about half way into angular lobes, and are woolly beneath.—*Bastard Service-Tree*. England.

SPARTIUM. *Broom*. Comp. p. 34.

Flowers Butterfly-shaped.

Calyx of 1 short, coloured, tubular leaf, divided into 2 obtuse parts: *Upper part* the shortest; the *lower one* cut into 3, 4, or 5 small teeth.

Standard of the corolla large, roundish, or reverse-heart-shaped, and totally reflexed.

Wings oblong, about as long as the standard, and fastened to the base of the stamina.

Keel 2 oblong, lance-pointed petals, rather longer than the wings, fixed by their heels to the stamina, and generally have their lower edges woolly.

Stamina 10, unequal, all united.—*Style* taper, longer than the stamina.—*Stigma* oblong, acute.—*Pod* obtuse, 1-celled.—*Seeds* many, nearly kidney-shaped.

1. *Júnceum*. Shrubby, six or eight feet high, with numerous roundish, smooth, opposite, spongy branches. Leaves smooth, lance-shaped. Flowers large, yellow, sweet-scented, single or double, and terminate the branches in a racemus.—*Common Spanish Broom*.
2. *Scopárium*. Shrubby, from four to six feet high, with spineless, angular branches. Leaves narrow, acute, hairy, and some stand single, and some by threes. Flowers large, of a good yellow, and on each side there is an angular protuberance.—*Common English Broom*.
3. *Multiflórum*. Shrubby, from six to eight feet high, with streaked, flexible, straight branches. Leaves few, small, silky, narrow-lance-shaped, some solitary, and some by threes. Flowers small, white, in clusters of two or three in each, all along the sides of the branches.—*White-flowering Portugal Broom*.
4. *Monospérmum*. Shrubby, with roundish, streaked branches. Leaves lance-shaped, silky. Flowers white, in bunches of very few in each.—*White-flowered Single-seeded Broom*. Spain. *Green-house*.

5. *Sphaerocarpum*. Shrubby, with round, streaked branches. Leaves lance-shaped, sessile, hairy beneath. Flowers yellow, many in a racemus, standing remote.——*Yellow-flowered Single-seeded Broom*. Spain. *Green-house*.
6. *Angulatum*. Shrubby, with slender, six-angled branches. Leaves few, some solitary, and some trifoliate. Flowers yellow, in loose bunches at the ends of the branches. Pods smooth.——*Eastern Broom*. *Green-house*.
7. *Radiatum*. Shrubby, about three feet high, with angular, spreading, opposite branches. Leaves trifoliate; the lobes linear, and are disposed around the branches in the form of a star. Flowers yellow, in small clusters at the ends of the branches.——*Italian Starry Broom*.
8. *Patens*. Shrubby, with streaked, spreading, divaricating branches. Leaves egg-shaped, smooth, and stand by threes. Flowers yellow, nodding, and come out by twos from the sides of the branches. Pods woolly, compressed.——*Woolly-podded Portugal Broom*.
9. *Spinosum*. Shrubby, four or five feet high, with angular, spiny branches. Leaves trifoliate. Flowers yellow, in clusters at the ends of the branches, on long peduncles.——*Prickly Italian Broom*. *Green-house*.
10. *Scorpius*. Shrubby, with spiny, spreading branches. Leaves egg-shaped. Flowers yellow.——*Spanish Scorpion Broom*.

OBSERVATION. The common people have a great opinion of the efficacy of the second sort in dropsies, and other bad habits of body. They make a diet drink of the young tops, by infusing them in ale. This drink not only purges off watery humours, but it often brings away

gravel. The flowers are used to more advantage for the same purposes. The tender buds of the latter are pickled in the manner of Capers, and they greatly imitate them in flavour.

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SPIGELIA. Worm-grafs. Comp. p. 9.

Calyx small, abiding, cut into 5 pointed parts.—*Corolla* of 1 funnel-shaped petal, having a club-shaped tube, much longer than the calyx, and a spreading limb, cut into 5 broadish, acute-pointed segments.—*Stamina* 5, simple.—*Summits* simple.—*Germs* composed of 2 globular bodies placed within the corolla.—*Style* awl-shaped, as long as the tube.—*Stigma* simple.—*Seed-vessels* 2, globular, united, 2-celled.—*Seeds* numerous, round, very small.

1. *Marilandica*. Stalk erect, about a span high. Leaves large, egg-shaped, pointed, smooth, entire, opposite and sessile. Flowers scarlet on their outside, orange-colour within, and they come out in a spike on one side the end of the stalk.—*Maryland Worm-grafs; Indian Pink.*
2. *Anthelmia*. Stalk erect, about half a yard high, with a few opposite branches. Leaves broad-lance-shaped, sessile, and stand by fours near the top of the stalk and branches. Flowers greenish, in short spikes, and are all inclined to one side.—*Brazilian Worm-grafs.* ☉

OBSERVATION. These two plants are remarkable for their efficacy in destroying Worms. They are constantly used for these purposes both by the Brazilians and the inhabitants of the West-Indies. A strong decoction of either sort is anodyne, and procures sleep almost as certainly as Opium. The decoction is given from two

to four ounces at going to bed, according to the age and strength of the patient.

SPIRÆA. *Spiked Willow.* Comp. p. 24.

Calyx small, abiding: the upper part cut into 5 acute, spreading teeth; the lower part top-shaped.—*Corolla* of 5 roundish, spreading petals, inserted into the calyx.—*Stamina* 20 or more, thread-like, inserted into the calyx.—*Summits* roundish.—*Germina* 3, 5, or more.—*Styles* 3, 5, or more, thread-like, about the length of the stamina.—*Stigmas* obtuse.—*Seed-vessels* oblong, pointed, compressed.—*Seeds* few, small and pointed.

* *Herbaceous.*

1. *Ulmária.* Stalks erect, about three feet high, angular. Leaves hoary beneath, and are interruptedly winged with two or three pair of doubly-ferrated lobes, terminated by an odd one, which is much the largest. Flowers white, single or double, in loose bunches at the ends of the branches.—*Meadow Sweet; Queen of the Meadows.* England.

2. *Lobáta.* Root sweet-scented. Stalks about three feet high and branching. Leaves cut into several doubly-ferrated, lobed segments, the odd one large and much jagged. Flowers red, in roundish bunches. Seed-vessels not twisted, but straight.—*Lobated-leaved Siberian Spirea.*

3. *Filipéndula.* Root a collection of oval knobs. Stalks near two feet high, almost naked. Leaves long, and winged with many pair of nearly linear, distant, uniformly dentated lobes. Flowers white, single or double, and terminate

the stalks in loose bunches.——*Dropwort*.
England.

4. *Arúncus*. Stalk about three feet high. Leaves very large, doubly and triply winged with oblong-oval, acute, doubly-ferrated lobes. Flowers whitish, diæcious, in paniculated spikes at the tops of the stalks.——*Austrian Meadow Sweet*; *Goat's Beard Spiræa*.
5. *Trifoliáta*. Stalks slender, erect, smooth, branching, and near two feet high. Leaves mostly by threes, slender-pointed, and doubly ferrated. Flowers large, white tinged with red, and terminate the branches in thin, loose panicles. Petals very long, almost linear. Stamina in the tube of the calyx.——*Jasmine-flowered Spiræa*; *Virginian Meadow Sweet*.

** *Shrubby*.

6. *Salicifolia*. Shrubby, about five feet high, with reddish, taper branches. Leaves broad-lance-shaped, obtuse, ferrated, naked. Flowers pale red, and terminate the branches in a close, obtuse, double racemus. Stamina twice as long as the petals.——*Willow-leaved Spiræa*; *Spiræa Frutex*. Siberia.
7. *Tomentósa*. Shrubby, with erect, branching, downy stalks, about four feet high. Leaves broad-lance-shaped, deeply and unequally ferrated, and covered beneath with a rusty down. Flowers very small, of a fine red, and terminate the branches in a long, double racemus. Teeth of the calyx reflexed.——*Philadelphian Spiræa*.
8. *Paniculáta*. Shrubby, five or six feet high, with short, streaked, angular branches. Leaves numerous, rather long, thin, a little silky,

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lance-pointed, somewhat wedge-shaped near their base, and acutely serrated upward. Flowers white, in a long, conical panicle at the ends of the branches.—*Thin-leaved American Spiræa.*

9. *Hypericifolia.* Shrubby, five or six feet high, with very slender, dark brown branches. Leaves small, wedge-shaped, entire, and punctured on their surface. Flowers white, in small, loose, sessile umbels from the sides of the branches.—*Hypericum Frutex.* Canada.
10. *Crenata.* Shrubby, about six feet high, with slender branches. Leaves small, oblongish, very obtuse, and crenated or serrated at their tip. Flowers white, in roundish bunches at the ends of the branches.—*Spanish Crenated leaved Spiræa.*
11. *Opulifolia.* Shrubby, six or seven feet high, having a thick trunk, covered with a light brown, loose bark, which cracks and falls off. Leaves large, lobed and serrated. Flowers white, dotted with red, in roundish bunches at the ends of the twigs. Styles three.—*Gelder Rose-leaved Spiræa.* Virginia.

STACHYS. *Base Horehound.* Comp. p. 28.

Flowers lipped.

Calyx formed of 1 abiding, tubular, angular leaf, cut about half way into 5 nearly equal, awl-shaped teeth.—*Corolla* of 1 gaping petal, having a very short tube, and an oblong throat, with a gibbous base: *Upper lip* nearly egg-shaped, erect, convex, either notched or entire; *Lower lip* large, trifid, the side segments reflexed, the middle one the largest, notched and folded back.—*Stamina* 4, awl-shaped, 2 rather

longer than the rest. — *Summits* small. — *Germs* 4-parted. — *Style* thread-like, as long as the stamens, and ranged with them. — *Stigma* bifid. — *Seeds* 4, small, lodged in the calyx.

1. *Palústris*. Stalk erect, square, two or three feet high, with opposite branches from near the bottom. Leaves lance-shaped, serrated, sessile, opposite, and half embrace the stalk. Flowers reddish purple, in whorls of about six in each, forming an interrupted spike. — *Clown's Allheal*. England.
2. *Germánica*. Stalk erect, woolly, about three feet high. Lower leaves oblong-heart-shaped; the upper ones almost elliptical, lance-pointed: all of them downy, and cut into imbricating teeth. Flowers whitish purple, in thick whorls at the ends of the branches. — *Greater Base Horehound*. England.
3. *Lanáta*. Whole plant thickly covered with a white wool. Stalks procumbent and rooting at their base, but become erect, simple, and near two feet high. Leaves oblong, acutish, soft, entire, or but very slightly crenated. Flowers small, dull purple, many in a whorl at the joints of the stalk. — *Woolly Base Horehound*. Siberia.
4. *Glutinósa*. Stalk smooth, clammy, about a foot high, and very much branched near the bottom. Leaves few, lance-shaped, smooth. Flowers small, of a dirty white, in whorls round the joints of the branches. — *Viscous Base Horehound*. Crete.

OBSERVATION. *The first sort is not often met with in gardens, though it better deserves a place than many that are kept there. The country people frequently apply the leaves to cuts and green wounds; whence its common name.*

S T A

STAPĒLIA. *Coxcomb Fritillary*. Comp. p. 12.

Calyx of 1 abiding leaf cut, to the base into 5 acute parts.—*Corolla* of 1 large, flat, tough petal, cut above half way into 5 acute-pointed segments.—In the center stands a short stump, covering the germina.—*Nectariums* 2 stars, surrounding the stump: the lower one flat, and divided into 5 lacerated parts; the upper one placed on the edge of the stump, and is cut into 5 entire, acute segments.—*Stamina* 5, broad, flat, erect, and fixed on the top of the stump.—*Summits* linear, 1 on the side of each stamen.—*Germina* 2, oblong-oval.—*Styles* none.—*Stigmas* obsolete.—*Seed-vessels* 2 oblong, pointed, 1-celled bags.—*Seeds* numerous, imbricated, crowned with down.

1. *Variiegáta*. Branches thick, succulent, about six inches high, with horizontal protuberances on their sides. Flowers yellowish, spotted with purple, on thick peduncles near the bottoms of the branches, and they expand in form of a star.—*Stapelia Minor*. Cape of Good Hope. *Hot-house*.
2. *Hirfúta*. Branches thick, succulent, about six or eight inches high, four-cornered, with protuberances having erect tips. Flowers large, yellowish green, checquered with purple, and covered on the inside with long, purple hairs.—*Stapelia Major*. Cape of Good Hope. *Hot-house*.

STAPHYLĒA. *Bladder Nut*. Comp. p. 13.

Calyx of 5 concave, coloured, oblongish, spreading leaves, as large as the petals.—*Corolla* of 5 oblong, erect petals, resembling the calyx.—*Nectarium* a large, roundish, concave gland, placed at the bottom of the

corolla.—*Stamina* 5, oblong, erect, as long as the calyx, and inserted into the side of the nectarium.—*Summits* small.—*Germen* thickish, 3-parted, in the center of the nectarium.—*Styles* 3, (sometimes but 2) rather longer than the stamina.—*Stigmas* obtuse, contiguous.—*Seed-vessels* 2 or 3, inflated, united, with acute tips, opening inwardly.—*Seeds* 2, hairy, and somewhat globular, with an oblique point.

1. *Pinnata*. Shrubby, eight or ten feet high, with pithy branches, covered with a smooth bark. Leaves winged, and composed of about five oblong, pointed, smooth, finely serrated lobes. Flowers white, in oblong, pendulous, clustered bunches, from the wings of the branches. Styles mostly two.—*Common Bladder Nut*. England.
2. *Trifolia*. Leaves composed of three smooth, oval, pointed, serrated lobes. Flowers large, white, in pendulous bunches from the sides of the branches. Styles three.—*Virginian Bladder Nut*.

STATICE. *Thrift*. Comp. p. 13.

Common Calyx different in the different species.—*Proper Calyx* of 1 funnel-shaped leaf, having a narrow tube, and a dryish, filmy, coloured, plaited brim.—*Corolla* funnel-shaped, and composed of 5 obtuse petals, having narrow heels.—*Stamina* 5, awl-shaped, shorter than the petals, and inserted into their heels.—*Summits* incumbent.—*Germen* very minute.—*Styles* 5, thread-shaped, distant.—*Stigmas* acute.—*Seed* 1, very small, and inclosed in the proper calyx.

1. *Arméria*. Radical leaves numerous, linear, grassy, and form a large tuft on the ground. Flower-

stalk naked, simple, about six inches high, and is terminated by a round head of red or white flowers.—*Common Thrift; Sea July Flower.* England.

2. *Graminifolia.* Leaves linear, furrowed. Flower-stalk naked, divided at the top into several three-cornered branches. — *Grass-leaved Thrift.*
3. *Limonium.* Leaves broadish-lance-shaped, smooth, nerveless, entire, and are terminated by a point which springs from just under their tip. Flower-stalk round, naked, sometimes a foot high, and branches into a panicle at the top. Flowers pale blue, in one-sided spikes.—*Common Sea Lavender.* England.
4. *Echioides.* Leaves long, narrow and rough with tubercles. Flower-stalk round, jointed, naked, about a span high, and branches into a panicle at the top. Flowers pale blue, in reflexed spikes.—*Bugloss-leaved Thrift.* Italy. ♂
5. *Tartarica.* Leaves long, lance-shaped, sharp pointed. Flower-stalk not a span high, forked. Flowers pale blue, distant and alternate.—*Narrow-leaved Tartarian Thrift.*
6. *Speciosa.* Leaves egg-shaped, sharp pointed. Flower-stalk two-edged, forked. Flowers aggregate.—*Plantain-leaved Thrift.* Russia. ♂
7. *Sinuata.* Stalk about half a yard high, and branching. Lower leaves long, hairy, deeply sinuated, or divided into obtuse lobes; the extreme one the largest. Upper leaves awl-shaped, three-cornered, waved, placed by threes, and run down the branch, forming three wings. Flowers yellowish white, with blue calyces, and terminate the branches in imbricated clusters.—*Spleenwort-leaved Statice.* Africa. *Hot-house.*

8. *Cordáta*. Leaves roundish, with a broad, linear base, smooth, and spread on the ground. Flower-stalk naked, about a span high, and branching at the top into a panicle. Flowers pale red.—*Obtuse-leaved Thrift*. Provence.
9. *Suffruticósa*. Stem rather shrubby, the upper part naked and branching. Leaves narrow-lance-shaped, and sheath the stalk with their base. Flowers in sessile heads.—*Shrubby Siberian Thrift*. Green-house.
10. *Monopétala*. Stalk rather shrubby, leafy. Leaves lance-shaped, and sheath the stalk with their base. Flowers solitary.—*Sicilian Monopetalous Thrift*. Green-house.

STYRAX. *Storax Tree*. Comp. p. 22.

Calyx of 1 short, erect, cylindrical leaf, cut into 5 teeth.—*Corolla* of 1 funnel-shaped petal, having a short, cylindrical tube, about as long as the calyx, and a large, spreading limb, cut into 5 obtuse segments.—*Stamina* 10 or 12, awl-shaped, erect, disposed in a circle, slightly united at their base, inserted into the corolla.—*Summits* oblong, straight.—*Germen* roundish.—*Style* as long as the stamina.—*Stigma* slumped.—*Plumb* roundish, 1-celled.—*Nuts* 2, roundish, pointed, convex on one side, flat on the other.

Officinále. A small tree, having slender branches, covered with a smooth, grayish bark. Leaves pretty large, oblong-oval, hoary beneath, alternate, on short foot-stalks. Flowers white, in bunches from the sides of the branches.—*Storax Tree*. Italy.

OBSERVATION. *On wounding the tree it yields a Gum or reddish Resin of a very fragrant smell. It is pectoral and cephalick, and is often given in languors and weakness of the nerves.*

SYRINGA. *Lilack.* Comp. p. 4.

Calyx of 1 small, tubular, abiding leaf, cut into 5 erect teeth.—*Corolla* of 1 funnel-shaped petal, having a very long tube, and a limb divided into 4 spreading, obtusifish segments.—*Stamina* 2, very short, inserted into the neck of the tube.—*Summits* oblong.—*Germen* oblong.—*Style* thread-like, much shorter than the tube.—*Stigma* bifid.—*Seed-vessel* oblong, compressed, pointed, 4-celled, 1-valved.—*Seeds* 4, compressed, pointed at both ends, and membranous on their margin.

1. *Pérfica.* Shrubby, about six feet high, with numerous slender, smooth branches, forming a bushy head. Leaves narrow-lance-shaped, smooth, entire and opposite. Flowers pale purple or white, in large, erect panicles at the ends of the twigs.—*Small Persian Lilack.*—There is a variety of this with cut leaves.
2. *Vulgáris.* A tree, sixteen feet or more high, with spreading branches. Leaves large, smooth, between heart and egg-shaped. Flowers purple, blue, or white, in large panicles at the ends of the twigs.—*Common Lilack.* Persia.—*There is a variety of this with bleached leaves.*

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TAGETES. *African Marigold.* Comp. p. 39.

Flowers compound, radiated.

Common Calyx of 1 oblong, tubular, abiding leaf, having 5 or 10 angles, and as many teeth.

Florets in the disk many, hermaphrodite, tubular, longer than the calyx, gradually rising higher, and are cut into 5 linear, erect parts, hairy on their inside.—*Germs* oblong.—*Style* of the length of the stamina.—*Stigma* bifid, slender and reflexed.—*Seed* linear, flattened, crowned with 5 erect, pointed, unequal teeth.

Female rays 5 or more, strap-shaped, very obtuse, often notched, abiding.—*Germs* oblong.—*Stigma* bifid, slender, reflexed.—*Seed* like the former.—*Receptacle* smallish, flat and naked.

1. *Pátula.* Stalk more than a foot high, and divided into many spreading branches. Flowers yel-

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low, or of a fox-colour, or sometimes they are beautifully striped, and are single or double.

—*French Marigold.* Mexico. ☉

2. *Erecta.* Stalk simple, erect, near two feet high. Flowers large, light or deep yellow, single or double, and stand solitary on naked peduncles. —*African Marigold.* Mexico. ☉ Sometimes the florets of this come all tubular; then it is called the Quilled African Marigold.
3. *Minuta.* Stalk simple, erect, more than six feet high, with a few upright branches near the top. Flowers small, white, three or four on an erect, scaly peduncle. —*Chili Marigold.* Hot-house. ☉

TAMARIX. *Tamarisk Tree.* Comp. p. 13.

Calyx of 1 small, abiding leaf, shorter by near half than the corolla, and deeply cut into 5 erect teeth.—*Corolla* of 5 egg-shaped, spreading petals.—*Stamina* 5 or 10, hair-like.—*Summits* roundish.—*Germs* taper.—*Styles* none.—*Stigmas* 3, oblong, feathered.—*Seed-vessel* oblong, pointed, 3-cornered, longer than the calyx, 1-celled and 3-valved.—*Seeds* many, small, crowned with long down.

1. *Gállica.* A small tree, more than twelve feet high, with numerous slender branches. Leaves slender, and are imbricated with very small scales. Flowers flesh-colour, in a tapering kind of panicle at the end of the branches. *Stamina* five.—*French Tamarisk.*
2. *Germanica.* Shrubby, eight or ten feet high, with erect branches. Scales of the leaves lance-shaped, much longer than those of the former. Flowers in a large, loose racemus. *Stamina* ten.—*German Tamarisk.*

TANACETUM. *Tansy*. Comp. p. 38.

Flowers compound.

Common Calyx hemispherical, and imbricated with acute, compact scales.

Florets in the disk hermaphrodite, numerous, funnel-shaped, cut into 5 reflexed teeth.—*Germen* small, oblong.—*Style* as long as the stamina.—*Stigma* bifid, revolute.—*Seed* oblong, naked.

Female rays few, (if any) trifid, and deeply divided.—*Germen* oblong.—*Style* simple.—*Stigmas* 2, reflexed.—*Seed* like the former.—*Receptacle* convex, naked.

1. *Vulgáre*. Stalk erect, branching, about three feet high. Leaves doubly winged with acutely-ferrated lobes, standing close together. Flowers yellow, and terminate the branches in close, flat, naked bunches.—*Common Tansy*. England.
2. *Balsámita*. Stalk round, branching, about two feet high. Leaves oval, finely ferrated, of a grayish green: the radical ones on long foot-stalks. Flowers small, of a whitish yellow, in bunches at the tops of the branches.—*Costmary*; *Alecost*. France.
3. *Suffruticósum*. Stem under shrubby, branching three or four feet high. Leaves winged with many lobes, cut into narrow, acute segments. Flowers bright yellow, and terminate the branches in small, roundish bunches.—*Æthiopian Shrubby Tansy*. Green-house.
4. *Frutésceus*. Somewhat shrubby, six or eight feet high, with slender, hairy branches. Leaves winged with many narrow-lance-pointed, entire lobes. Flowers pale yellow, in small, loose bunches at the ends of the branches.—*Shrubby African Tansy*. Green-house.

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OBSERVATION. *The first sort is found efficacious in destroying worms, especially the seeds of it. The second has greatly the smell of Mint, and formerly was eaten with cold Sallads.*

TEUCRIUM. *Germander.* Comp. p. 28.

Flowers lipped.

Calyx formed of 1 abiding leaf, having the fore side of its base gibbous, and its brim cut into 5 almost equal teeth.—*Corolla* of 1 gaping petal, with a short, incurved, cylindrical tube:—*Upper lip* none; *Lower lip* divided into 5 segments, the middle one either roundish or oblong, and drooping; the side ones oblique, nearly equal, and the two lower ones are placed at the base of the stamina.—*Stamina* 4, awl-shaped, and stand naked in the place of the upper lip.—*Summits* kidney-shaped.—*Germs* 4-parted.—*Style* thread-like, ranged with the stamina.—*Stigmas* 2, slender.—*Seeds* 4, roundish, lodged in the calyx.

1. *Chamæpitys.* Stalks weak, diffuse, hairy, about six inches high. Leaves narrow, trifid, opposite. Flowers small, yellow, sessile, solitary at the wings of the leaves.—*Ground Pine.* England. ☉
2. *Chamædryis.* Stalks procumbent, square, a little hairy, and about a foot long. Leaves oval, wedge-shaped at their base, deeply cut or crenated, opposite, on short foot-stalks. Flowers red, and come forth mostly by threes at the wings of the leaves.—*Common Germander.* England.
3. *Scórdium.* Stalks weak, square, diffuse. Leaves oblong, dentated, opposite, sessile. Flowers reddish purple, on peduncles, standing by twos

at the wings of the leaves.—*Water Germander*. England.—*It has much the smell of Garlick.*

4. *Scorodonia*. Stalks erect, square, branching, about two feet high. Leaves heart-shaped, serrated, wrinkled, on foot-stalks opposite. Flowers greenish white, in spikes at the tops of the branches, and they all incline to one side.—*Wood Sage*. England.

5. *Flavum*. Shrubby, two or three feet high, with woody, hairy branches. Leaves nearly egg-shaped, crenated, of a shining green above, somewhat hoary beneath, opposite, on flattish foot-stalks. Floral leaves lance-shaped, concave, entire. Flowers yellowish, and come out by twos and threes on each side the branches, forming a long racemus. Corolla hairy.—*Common Tree Germander*. Italy.

6. *Fruticans*. Shrubby, six feet or more high, with white, downy, slender branches. Leaves oblong-oval, entire, dark green above, white beneath, on short foot-stalks. Flowers light blue, solitary on each side the upper part of the branches. Calyces short, hoary.—*Narrow-leaved Tree Germander*. Green-house. Spain.

7. *Latifolium*. Shrubby, about five feet high, with yellowish, downy branches. Lower leaves somewhat heart-shaped, angled, acute, downy beneath: Upper ones egg-shaped, and downy on both sides. Flowers pale blue, solitary on each side the ends of the branches. Calyces hoary and pretty large.—*Broad-leaved Spanish Tree Germander*. Green-house.

8. *Canescens*. Shrubby, two or three feet high, with crooked branches, covered with a sandyish bark. Leaves oblong-egg-shaped, pointed, entire at their base, serrated upward, whitish

beneath, on foot-stalks opposite. Flowers reddish purple, and terminate the branches in several racemi, forming a cone.—*Whitish Shrubby Germander*. Green-house.

This plant was sent me by the present name, but it does not perfectly agree with this genus.—The corolla has a short, notched stump, in room of an upper lip. The lower lip is cut into but three segments; the side ones of which are small, the middle one large, concave, and roundish. The germen is very woolly. The whole plant has the smell of *Strawberries*.

9. *Márum*. Shrubby, about half a yard high; the branches very slender and downy. Leaves small, numerous, egg-shaped, acute, and resemble those of Thyme, but they are downy beneath. Flowers rose-colour, on short peduncles, and all inclined to one side.—*Cat's Thyme*; *Syrian Mastick*. Green-house.

10. *Maffiliénse*. Somewhat shrubby, about a foot high. Leaves rather small, egg-shaped, obtusifish, unequally serrated, wrinkled, hoary, on foot-stalks opposite. Flowers pale purple, in a one-sided racemus.—*Sweet-scented Cretan Germander*. Green-house.—*It has a fine aromatick, Mint-like smell*.

11. *Pólium*. Stalks prostrate, about a foot long. Leaves oblong, obtuse, crenated, downy, sessile. Flowers white, in roundish heads at the top of the stalks.—*Mountain Germander*. Italy.

There are several varieties of this species, differing very much. One in particular is frequently to be met with in Green-houses, having erect stalks, and longish, crenated leaves, standing by threes, and yellowish flowers.

12. *Hircánicum*. Stalk branched; the branches forked. Leaves heart-shaped-oblong, obtuse. Flowers

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in very long, winding spikes.—*Betony-leaved Germander.* Persia.

OBSERVATION. *The Materia Medica is much indebted to this genus. The first species has been long recommended in various chronick distempers. A decoction of it is strongly diuretick, and very powerful in opening obstructions. It has been found to do great service in rheumatisms, but its chief excellency is in the gout. It takes off the asperity of the pains by dislodging the matter, which causes swellings and chalky indurations. The dried plant is an ingredient in the Duke of Portland's Gout Powder.—The second sort, too, is diuretick, a gentle bitter, and in great esteem with many for strengthening the stomach and bowels.—The third has many good properties ascribed to it, but particularly those of opening obstructions, helping expectoration, and giving relief in gouty pains.—The ninth has a most grateful smell and pungent taste. Powdered and used occasionally as Snuff, it will cause a copious discharge of mucous, and often give relief in pain of the head. Indeed most of these plants may be usefully employed in medicine.*

THALICTRUM. *Meadow Rue.* Comp. p. 27.

Calyx none.—*Corolla* of 4 or 5 roundish, concave petals, which soon fall off.—*Stamina* many, broadest and compressed near their top.—*Summits* oblong, erect.—*Germina* many, roundish, sometimes on foot-stalks.—*Styles* very short.—*Stigmas* thickish.—*Seed-vessel* none.—*Seeds* naked, egg-shaped, furrowed.

1. *Alpinum.* Stalk very simple, about a foot high, naked toward the top. Leaves composed of small, obtuse lobes. Flowers red, drooping, and terminate the stalk in a loose racemus. Petals four. Stamina about twelve.—*Mountain Meadow Rue.* England.

2. *Minus*. Stalk round, leafy, more than a foot high, with spreading branches near the top. Leaves composed of many small, obtuse lobes, the upper ones cut into three teeth. Flowers yellowish, nodding, in loose panicles.——
Lesser Meadow Rue. England.
3. *Angustifolium*. Stalk two or three feet high. Leaves composed of many narrow-lance-pointed, entire lobes. Flowers small, greenish, and terminate the stalks in panicles. Petals four. Stamina about sixteen.——*Narrow-leaved Meadow Rue*. Germany.
4. *Flavum*. Stalk leafy, erect, furrowed, about three feet high. Leaves large, somewhat erect, and composed of oblongish lobes, cut into three acute teeth. Flowers yellow, in erectish panicles. Petals four. Stamina about twenty.——*Common Meadow Rue*. England.
5. *Aquilegifolium*. Stalk erect, leafy, about three feet high, and is either whitish or purple. Leaves composed of broad obtuse lobes, resembling those of the columbine, and furnished with orbicular stipulæ. Flowers white, or purple, and terminate the branches in large panicles. Petals four. Stamina numerous. Germina pedunculated.——*Feathered Columbine*. Alps.

THUJA. *Arbor Vitæ*. Comp. p. 44.

Plants Monœcious.

Male Catkin small, egg-shaped, and imbricated with oval, opposite, concave scales, containing 1 floret each.——*Corolla* none.——*Stamina* scarce visible.——*Summits* 4, adhering to the base of their scale.——*Female Cone* nearly egg-shaped, and composed of oval scales, having 2 florets standing opposite in each.——*Corolla* none.——

Germen small.—*Style* taper.—*Stigma* simple.—*Seed-scales* oblong, and open longitudinally.—*Seed* oblong, and girt with a notched membrane.

1. *Occidentális.* A tall, evergreen tree, having irregular, horizontal, and sometimes pendulous branches, thinly furnished with dark green, or striped leaves, imbricated with small scales. Female cones smooth, and the scales obtuse. *Common Arbor Vitæ.* Canada.
2. *Orientalis.* An evergreen tree, having erect branches, well furnished with bright green leaves, closely imbricated with very small scales. Female cones of a grayish colour, and the scales are acute-pointed and reflexed. — *Chinese Arbor Vitæ.* *Flowers in April.*

THYMUS. *Thyme.* Comp. p. 29.

Flowers lipped.

Calyx formed of 1 tubular, abiding leaf, cut about half way into 2 lips, and its throat is closed with downy hairs: *Upper lip* broad, flat, and cut into 3 rather upright teeth; *Lower lip* divided into 2 parallel, bristly parts.—*Corolla* of 1 gaping petal, with a tube as long as the calyx, having a small throat: *Upper lip* short, erect, flat, obtuse, and notched; *Lower lip* the longest, spreading, obtuse, trifid, the middle segment the broadest.—*Stamina* 4, incurved, 2 shorter than the rest.—*Summits* small.—*Germen* 4-parted.—*Style* thread-like.—*Stigma* bifid, acute.—*Seeds* 4, small, roundish, lodged in the calyx.

1. *Serpyllium.* Somewhat shrubby, creeping, and puts forth numerous trailing branches. Leaves egg-shaped, obtuse, flat, ciliated at their base. Flowers collected in heads.—*Mother of*

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Thyme. England. — *The Silver-striped and Lemon Thyme are varieties of this. Their flowers are produced in whorled spikes.*

2. *Vulgáris.* Shrubby, with a low stalk, producing numerous woody branches. Leaves egg-shaped, slightly dotted, a little hoary beneath, entire, and have their margin rolled back. Flowers purple, or whitish, in whorled spikes at the ends of the branches. — *Common Garden Thyme.* France.

3. *Zygis.* Somewhat shrubby; the stalks erect. Leaves linear, ciliated at their base. — *Narrow-leaved Spanish Thyme.*

4. *Villofus.* Shrubby, with erect, hairy branches. Leaves bristle-like, hairy. Flowers purple, in large, oblong, imbricated heads, having dentated bractæ. — *Bristly-leaved Hairy Thyme.* Portugal. *Green-house.* — It varies to a round head of flowers.

5. *Mastichina.* Shrubby, with round, slender, smoothish branches. Leaves flat, smooth, rather larger than those of the Common Thyme. Flowers white, in downy whorls at the upper part of the branches. Mouth of the calyx open: the teeth bristle-like and hairy. — *Mastick Thyme.* Spain.

6. *Virginicus.* Stalks erect, herbaceous. Leaves lance-shaped. Flowers in terminal heads. — *Virginian Thyme.*

TILIA. *Lime Tree.* Comp. p. 26.

Calyx 1 concave, coloured, 5-parted leaf, mostly as long as the corolla, and soon falls off. — *Corolla* 5 oblong, obtuse petals, crenated at their tip. — *Stamina* 20 or more, awl-shaped, longer than the corolla. —

Summits small.—*Germen* roundish.—*Style* thread-like, as long as the *stamina*.—*Stigma* obtuse, 5-cornered.—*Seed-vessel* leathery, almost globular, 5-celled, 5-valved, opening at the base.—*Seeds* solitary, roundish.

1. *Americána.* A tree, having dark brown branches. Leaves large, smooth, heart-shaped, pointed, deeply and acutely serrated. Flowers whitish, in bunches. Petals narrow, with a scale affixed to the base of each, forming a nectarium.—*Black Virginian Lime Tree.*—Variety the *Carolina Lime Tree*, having longer and more slightly serrated leaves, a little downy beneath.

2. *Europæa.* A tree, having a conical, bushy head. Leaves heart-shaped, serrated. Flowers whitish, without a nectarium, in bunches.—*Common Lime Tree; Linden Tree.* England.—*The following are the most remarkable varieties:*

- Large-leaved Lime Tree.
- Small-leaved Lime Tree.
- Elm-leaved Lime Tree.
- Striped-leaved Lime Tree.
- Red-twigged Lime Tree.

OBSERVATION. *There are some other varieties of the last sort, but the superficialness of noticing every small variation of a plant was exposed in the preface; it only tending to obscure the science. Indeed, the marks of these two species are such, that all the above might have been omitted without injury. The business of a Botanist is to trace out the species; therefore, it matters not to him whether the leaves be rather broader or narrower than usual, or the twigs red or green. Plants in a state of nature are always subject to such variations, but art can carry them to almost any length, and yet some*

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Specifick mark will still remain. Here are two species of Lime Tree; the flowers of one have neclarii, the other none. Where the neclarii are wanting, then, according to the description, they belong to the Europæa, and vice versa.

Much has been written on the extraordinary virtues of the flowers of the second sort. They have been universally recommended in epilepsies, and all nervous distempers. On this account they make a part in the Compound Piony Water. Some deem them useful in complaints of the gravel.

TINUS. *Jamaica Bay. Comp. p. 19.*

Calyx of 1 erect, bell-shaped leaf, cut into 5 parts.—Corolla of 1 petal, cut into 5 obtuse segments.—Neclarium pitcher-shaped, and includes the germen.—Stamina 9, short.—Summits heart-shaped.—Germen globular.—Style short.—Stigmas 3, obtuse.—Berry roundish, 3-celled, 3-valved.—Seeds oblong, solitary.

Occidentális. A tree, having oblong-egg-shaped, alternate leaves, which are smooth above, slightly hairy beneath, and the branches terminated by compound spikes of flowers, succeeded by pale yellow, roundish, eatable berries.—*Jamaica Tinus.* Hot-house.

TOURNEFORTIA. *Tournefortia.*

Calyx of 1 small, abiding leaf, cut into 5 awl-shaped parts.—Corolla of 1 funnel-shaped petal, having a cylindrical tube, with a short, gibbous base, and a spreading limb, cut into 5 acute-pointed, horizontal segments, gibbous in their middle.—Stamina 5, awl-shaped.—Summits simple, pointed, conniving, placed in the throat of the corolla.—Germen globular.—Style

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club-shaped, as long as the stamina.—*Stigma* entire. *Berry* globular, spotted.—*Seeds* 4, egg-shaped, distinct, 2-celled.

1. *Volúbilis*. Shrubby, the stalks twining, and put out many slender branches. Leaves egg-shaped, pointed, smooth, on reflexed foot-stalks. Flowers white, in branching racemi from the ends and sides of the branches.—*Climbing Tournefortia*. Jamaica. *Hot-house*.
2. *Hirsutissima*. Shrubby, with tall, rough, hairy stalks, sending out many branches. Leaves egg-shaped, alternate, on foot-stalks. Flowers white, in branching spikes at the ends of the branches.—*Hairy American Tournefortia*. *Hot-house*.
3. *Serrata*. Shrubby. Leaves egg-shaped, serrated, on foot-stalks becoming spiny. Flowers in terminal, recurved spikes.—*Germander-leaved Tournefortia*. America. *Hot-house*.
4. *Humilis*. Low, shrubby. Leaves lance-shaped, sessile. Flowers in simple, recurved spikes from the sides of the branches.—*Dwarf American Tournefortia*. *Hot-house*.

TRACHELIUM. *Mountain Throatwort*. Comp. p. 11.

Calyx of 1 small leaf, cut into 5 parts.—*Corolla* of 1 funnel-shaped petal, having a very slender tube, and a small, spreading limb, cut into 5 egg-shaped, concave segments.—*Stamina* 5, hair-like, as long as the corolla.—*Summits* small.—*Germen* roundish, 3-cornered, below the corolla.—*Style* thread-like, twice as long as the corolla.—*Stigma* globular.—*Seed-vessel* roundish, obtusely 3-lobed, 3-celled and 3-valved.—*Seeds* small, numerous.

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1. *Cæruleum*. Stalk erect, leafy, branching, about half a yard high. Leaves egg-shaped, serrated, alternate, with several small leaves at their base. Flowers azure blue, and terminate the branches in a kind of compound umbel.—
Blue Italian Throatwort. Green-house. ♂
2. *Diffusum*. Stalk divided into numerous spreading, recurved branches. Leaves awl-shaped.—
Branching Throatwort. Cape of Good Hope. Green-house.
3. *Tenuifolium*. Stalk somewhat erect. Leaves linear, rough, ciliated.—*Linear-leaved Cape Throatwort*. Green-house.

TRADESCANTIA. *Spiderwort*. Comp. p. 14.

Calyx composed of 3 egg-shaped, spreading, abiding leaves. — *Corolla* of 3 large, flat, roundish, equal, spreading petals. — *Stamina* 6, erect, shorter than the corolla, and furnished with long, jointed hairs. — *Summits* kidney-shaped. — *Germs* egg-shaped. — *Style* thread-like, as long as the stamina. — *Stigma* obtuse. — *Seed-vessel* egg-shaped, covered by the calyx. — *Seeds* few, angular.

1. *Virginica*. Stalk thick, erect, smooth, pulpy, jointed, branched, about a foot long. Leaves long, awl-shaped, keeled, alternate, and embrace the joints of the stalks with their base. Flowers deep blue, purple, or white, in terminal clusters, standing in the center of two or three long, narrow, spreading leaves.—
Common Spiderwort. Virginia.
2. *Malabárica*. Stalk erect, smooth. Flowers solitary, on very long peduncles.—*Malabarian Spiderwort*. Green-house.

TRAGOPOGON. *Goat's Beard*. Comp. p. 37.

Flowers compound.

Common Calyx simple, and composed of about 8 equal, lance-shaped leaves, placed out and in alternately, but are united at their base.

Florets all hermaphrodite, strap-shaped, imbricated, stumped, 5-toothed, the outer ones the longest.—*Germen* oblong.—*Style* as long as the stamina.—*Stigmas* 2, revolute.—*Seed* rough, angular, slender at both ends.—*Down* feathered, wheel-shaped, supported on a foot-stalk.—*Receptacle* rough, flat, and naked.

1. *Pratense*. Stalk erect, branching, about two feet high. Leaves long, narrow, straight, pointed, entire, embrace the stalk, and resemble those of grass. Flowers large, yellow, solitary at the ends of the branches, and their calyx is but little longer than the rays.—*Yellow Goat's Beard*; *Go to Bed at Noon*. England.
2. *Porrifolium*. Stalk erect, jointed, four feet or more high. Leaves long, straight, taper, and of a bluish green. Flowers large, deep blue, have their calyx much longer than their rays, and stand solitary on peduncles thickening upward.—*Purple Goat's Beard*; *Salsafie*. England. ♂
3. *Crocifolium*. Stalk scarce a foot high. Leaves very narrow, hairy at their base. Flowers dark purple on the outside, yellowish within, on peduncles hairy at their base.—*Saffron-leaved Goat's Beard*. Italy.

OBSERVATION. *The two first sorts have a diuretick quality, and on that account are supposed serviceable in the gravel. The roots and young shoots of both are frequently boiled and eaten in the manner of Asparagus; particularly the second sort, called by Gardeners Salsafie.*

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TRIFOLIUM. *Trefoil.* Comp. p. 36.

Flowers mostly Butterfly-shaped.

Calyx of 1 tubular leaf, cut into 5 teeth.

Standard reflexed.

Wings shorter than the standard.

Keel shorter than the wings.

Stamina 10, 1 detached and 9 united.—*Summits* oblongish.—*Germen* nearly egg-shaped.—*Style* awl-shaped.—*Stigma* very small.—*Pod* short.—*Seeds* few, roundish.

1. *Incarnatum.* Stalks erect, hairy, near two feet high. Leaves composed of three roundish, crenated lobes. Flowers of a deep flesh colour, in obtuse, hairy, leafless spikes at the tops of the stalks.—*Naked-spiked Trefoil.* Italy. ☉
2. *Rubens.* Stalks erect, smooth, near three feet high. Leaves composed of three long, slightly serrated lobes. Flowers of one petal each, of a fine red colour, and they terminate the stalks in long, hairy spikes.—*Red Italian Trefoil.* ☉
3. *Angustifolium.* Stalks erect, about two feet high. Leaves composed of three very narrow, linear lobes. Flowers pale red, in oblong, conical, hairy spikes at the tops of the stalks.—*Narrow-leaved Italian Trefoil.* ☉
4. *Officinális.* Stalk erect, two or three feet high, with spreading, angular branches. Leaves composed of three oblong-oval, serrated lobes. Flowers yellow, or white, drooping, in long, straight, erect racemi.—*Common Melilot.* England.
5. *Cærúlea.* Stalks erect, hollow, about half a yard high, with a few branches near the top. Leaves composed of three oblong-oval, slightly serrated lobes. Flowers pale blue, or white, in

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oblongish heads, on long peduncles from the wings of the leaves.——*Sweet Trefoil.* Bohemia. ☉

OBSERVATION. *The leaves of the fourth sort are used in the Melilot Plaster, to which they give both name and colour, but perhaps not much virtue. The fifth sort is sown by the country people, under the absurd name of Balm of Gilead, and they deem it a sovereign remedy for the outer piles. They steep the heads of flowers in oil, and bathe the piles with it.*

TRILLIUM. *American Herb Paris.* Comp. p. 17.

Calyx composed of 3 egg-shaped, abiding leaves.—*Corolla* of 3 reverse-heart-shaped petals, larger than the calyx.—*Stamina* 6, awl-shaped, erect, shorter than the petals.—*Summits* oblong, of the length of the stamina.—*Germs* roundish.—*Style* thread-like, recurved.—*Stigma* small.—*Berry* roundish, 3-celled.—*Seeds* many, roundish.

1. *Séssile.* Flower-stalk about five inches high, naked, except at the top, where it is terminated by three sessile, egg-shaped, marbled leaves. Flower dark purple, has no peduncle, but sits close to the leaves.—*Virginian Herb Paris.*
2. *Cérnuum.* Flower-stalk about six inches high, terminated by three egg-shaped leaves. Flower drooping, on a short peduncle from the center of the three leaves.—*Carolina Herb Paris.* Green-house.
3. *Eréctum.* Flower erect, and stands on a long peduncle, from the center of three leaves at the top of the stalk.—*Canada Herb Paris.*

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TROLLIUS. *Globe Ranunculus*. Comp. p. 27.

Calyx none.—*Corolla* of about 14 petals, ranged in 4 rows; the three exterior rows are formed of 3 petals each, and the interior one of 5.—*Nectariums* 9 flat, linear, incurved leaves, perforated at their base.—*Stamina* very numerous, bristle-like, shorter than the corolla.—*Summits* long, erect.—*Germina* numerous, sessile.—*Styles* none.—*Stigmas* pointed, shorter than the stamina.—*Seed-vessels* egg-shaped, pointed, collected into a head.—*Seeds* solitary.

1. *Europæus*. Radical leaves divided to their base into five acutely-jagged lobes. Stalks simple, smooth, hollow, and about half a yard high, having trifid leaves near their top. Flowers large, bright yellow, globular and solitary. Nectariums yellow, near as long as the stamina.—*Common Globe Flower*; *Locker Gowlongs*. England.
2. *Asiaticus*. This resembles the former, but the flowers are of a deep orange-colour, the petals somewhat crenated, and spread open. The nectariums are brown, rather longer than the stamina.—*Siberian Globe Flower*.

TROPÆOLUM. *Indian Cress*. Comp. p. 18.

Calyx (or rather *Nectarium*) coloured, and consists of a long, awl-shaped spur, and a large brim, deeply divided into 5 lance-shaped segments, the 2 lower ones the narrowest.—*Corolla* of 5 petals, inserted into the divisions of the calyx: the 2 upper ones are somewhat wedge-shaped, and sessile; the 3 lower roundish, ciliated at their base, and end in narrow heels.—*Stamina* 8, short, unequal, declining.—*Summits* ob-

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long, erect.—*Germen* roundish, 3-lobed.—*Style* erect, as long as the stamina.—*Stigma* trifid.—*Berries* 3 together, united inwardly, furrowed, convex on the outside, angular within and firm.—*Seeds* solitary, furrowed, roundish, convex on the outside, angular on the other.

1. *Május*. Stalk trailing, crooked, branching, and run to a considerable length. Leaves orbicular, somewhat five-lobed, have their footstalk inserted near their center. Flowers either totally yellow, or orange-colour striped with red, and are single or double. Summits oblong. Spur of the calyx about the length of the petals.—*Greater Indian Cress*; *Nasturtium Major*. Peru. ☉
2. *Mínus*. Stalk slender, trailing, crooked, branching, and shorter than the former. Leaves orbicular, waved on their margin, have their footstalk inserted near their center. Flowers yellow, single or double. Summits roundish. Limbs of the petals tipped with a small tooth. Spur of the calyx about twice as long as the petals. *Lesser Indian Cress*. Peru. ☉

OBSERVATION. *The double-flowered varieties are mostly kept in Green-houses. Though annual when raised from seed, they may be propagated by cuttings, and continued many years. The berries of these plants have a warm, spicy flavour; on this account, those of the first sort are frequently pickled in imitation of Capers.*

TULBAGIA. *Tulbagia*. Comp. p. 14.

Flowers in umbels.

Sheath of the umbel 2-leaved.—*Proper Calyx* none.—*Corolla* of 1 funnel-shaped petal, having its tube

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gibbous at the base, and its limb as long as the tube, and cut into 6 narrow, spreading, obtuse segments.—*Nectarium* 3 bifid leaves, crowning the tube, and as long as the limb.—*Stamina* none.—*Summits* 6, sessile, double, placed alternately one above another.—*Germen* within the corolla.—*Style* short.—*Stigma* obtuse.—*Seed-vessel* egg-shaped, 3-cornered, 3-celled.—*Seeds* many, almost triangular.

1. *Alliacea*. Root bulbous. Leaves many, linear, somewhat fleshy. Flower-stalk about a foot high. Flowers brownish purple, and hang nodding. *Nectarium* cut into six teeth.—
Garlick Tulbagia. Cape of Good Hope. *Green-house*.
2. *Cepacea*. Root a bunch of tubers. Leaves from two to four, linear, lance-pointed, somewhat fleshy. Flower-stalk about a span high. Flowers erect, purplish. *Nectarium* of three leaves.—
Onion Tulbagia. Cape of Good Hope. *Green-house*.

TULIPA. Tulip. Comp. p. 15.

Calyx none.—*Corolla* of 6 oblong-egg-shaped, concave petals, forming a bell.—*Stamina* 6, awl-shaped, very short.—*Summits* oblong, erect, 4-cornered, distant.—*Germen* large, oblong, 3-cornered.—*Style* none.—*Stigma* 3-lobed, abiding.—*Seed-vessel* 3-cornered, 3-celled, and has 3 ciliated valves.—*Seeds* many, flat, and lodge on one another in a double row.

1. *Gesneriana*. Leaves broad-lance-shaped. Flower scentless, erect at the top of the stalk, and of various colours.—*Common Garden Tulip*. Cappadocia.—*Most of the beautiful varieties are raised from this species*.
2. *Sylvestris*. Leaves narrow-lance-shaped. Flower yellow, sweet-scented, and somewhat drooping

at the top of the stalk.—*Early Sweet-scented Tulip.* Italy.

3. *Breyniana.* Leaves linear, several on the stalk alternately. Flowers deep red, three or four at the top of the stalk.—*Many-flowered Tulip.* Æthiopia. *Green-house.*

TUSSILAGO. *Colt's-foot.* Comp. p. 39.

Flowers compound.

Common Calyx cylindrical, consists of near 20 almost linear, acute, equal, somewhat membranous scales.—*Hermaphrodite florets* funnel-shaped, and have their limb cut into 4 or 5 acute, reflexed segments.—*Germs* short.—*Style* thread-like, longer than the stamina.—*Stigma* thickish.—*Seed* oblong, compressed, crowned with hair-like down.

Female rays (if any) linear, very narrow, entire, longer than the calyx, and fertile.—*Seed* like the former.—*Receptacle* naked.—*In some species the florets are all tubular.*

1. *Fárfara.* Radical leaves large, roundish-heart-shaped, a little dentated, hoary. Stalk about a span high, scaly, and is terminated by one yellow, radiated flower.—*Common Coltsfoot; Son before the Father.* England.—*The flower-stalk comes up before the leaves.*
2. *Alpina.* Radical leaves almost round, heart-shaped at their base, on both sides green. Stalk almost naked, near a span high, and is terminated by one purplish flower. Florets all tubular.—*Alpine Coltsfoot.*
3. *Palmáta.* Radical leaves hand-shaped, deeply cut into about seven lance-pointed, coarsely dentated lobes, broadest in the middle. Stalk

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erect, about a foot high, having a few lance-shaped, distant leaves. Flowers in a roundish cluster at the top of the stalk.—*Palmated Coltsfoot.* Lubriador.

OBSERVATION. *The first is not kept in gardens, but as it comes early in the spring, and the flowers are exceeding delicate, many people about Michaelmas get the roots from the fields, and putting them into pots of mould, keep them among other early-flowering plants. They flower well in this manner, and make a very singular appearance, having then no radical leaves. The dried leaves are frequently smoked as Tobacco. A decoction of them is smooth, healing and pectoral.*

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ULEX. *Furze*. Comp. p. 35.

Flowers Butterfly-shaped.

Calyx of 2 equal, oblong-egg-shaped, abiding leaves, shorter than the corolla: the upper one cut into 2 very small teeth, and the lower one into 3.

Standard large, erect, reverse-heart-shaped, and deeply notched.—*Wings* oblong, obtuse, rather shorter than the standard.—*Keel* 2 straight, obtuse petals, woolly and conniving at their lower margin.

Stamina 10, all united below.—*Summits* oblong.—*Germen* oblong, almost cylindrical, hairy.—*Style* thread-like.—*Stigma* small, obtuse.—*Pod* oblong, straight, turgid, almost covered by the calyx, 1-celled, 2-valved.—*Seeds* few, roundish, notched.

1. *Europæus*. Shrubby, exceedingly bushy. Leaves narrow, acute, downy. Spines sharp, numerous and scattered. Flowers yellow.—

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Common Furze, Whins, or Gorse. England.—
The varieties are the

Short-spined Furze.

White-flowered Furze.

Round-podded Furze.

2. *Capénsis.* Shrubby, three or four feet high, with slender branches, terminated with single spines. Leaves small, obtuse, and placed singly. Flowers yellow.—*Heath-leaved Berry-bearing Furze.* *Æthiopia.* *Green-house.*

URENA. *Indian Mallow.* Comp. p. 33.

Calyx double: the *outer* one consists of 1 leaf, cut about half way into 5 broad parts; the *inner* one of 5 narrow, angular, abiding leaves.—*Corolla* of 5 obtuse petals, having a point at their tip, and narrow bases united.—*Stamina* many, joined in a cylinder below, but at liberty above.—*Summits* roundish.—*Germen* roundish, 5-cornered.—*Style* as long as the *stamina*.—*Stigmas* 10, knob-like, hairy, reflexed.—*Seed-vessel* roundish, prickly, 5-angled, 5-celled.—*Seeds* solitary, roundish, angular.

1. *Lobáta.* Shrubby, about two feet high, with a few taper branches. Leaves roundish, angular, dark green above, pale beneath, on longish foot-stalks. Flowers small, bluish-colour, sessile and solitary at the wings of the branches.
Lobated Urena. *China.* *Hot-house.*

2. *Sinuáta.* Shrubby, two or three feet high. Leaves somewhat hand-shaped, sinuated; the sinuses obtuse. Flowers bluish-colour, with red bottoms, and stand solitary.—*Sinuated Indian Urena.* *Hot-house.*

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3. *Procumbens*. Somewhat shrubby, with creeping, procumbent, very much branched stalks. Leaves oblong, slightly sinuated at their base, and sharply serrated. Flowers reddish.—
Procumbent Urena. China. *Hot-house*.

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 VALERIANA. *Valerian*. Comp. p. 5.

Calyx none, or if any, very small.—*Corolla* of 1 petal, having a tube gibbous on the fore side its base, and a limb cut into 5 obtuse segments.—*Stamina* mostly 3, (sometimes but 1) awl-shaped, erect, as long as the corolla.—*Summits* roundish.—*Germen* below the corolla.—*Style* thread-like, as long as the stamina.—*Stigma* thickish.—*Seed-vessel* a deciduous, crowned shell.—*Seeds* oblong, solitary.

1. *Officinális.* Stalk from three to five feet or more high. Leaves all winged: those on the stalk opposite, and composed of many very narrow, almost entire lobes. Flowers white, tinged with purple, have three stamina each, and they terminate the stalk and branches in roundish clusters.—*Wild Valerian.* England.
2. *Phu.* Stalk three or four feet high, smooth, with opposite branches. Radical leaves mostly entire: those on the stalk opposite, and winged with four or five pair of narrow lobes, terminated by an odd one. Flowers small, white, slightly cut into five parts, contain three stamina each, and they terminate the branches in roundish bunches.—*Garden Valerian.* France.
3. *Rúbra.* Whole plant of a glaucous colour. Stalk erect, two or three feet high, with opposite branches near the top. Leaves smooth, lance-shaped, opposite, entire. Flowers red or white, with long, slender tubes, having a thin spur protruded much beyond their base. The flowers have but one stamen each, and they terminate the branches in large, close panicles.—*Red Valerian.* France.—*There is a variety with very narrow leaves.*
4. *Pyrenáica.* Stalk two or three feet high, branching. Leaves heart-shaped, serrated, on foot-stalks: the very uppermost ones ternate. Flowers reddish white, and have three stamina.—*Branching Pyrenean Valerian.*
5. *Montána.* Stalk simple. Leaves oblong, rounded at their base, all of them entire, or but slightly dentated. Flowers with three stamina.—*Simple-stalked Pyrenean Valerian.*
6. *Tuberósa.* Radical leaves lance-shaped, entire; the rest are cut into oblong lobes. Flowers

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with three stamina.——*Sicilian Tuberous-rooted Valerian.*

OBSERVATION. *The roots of the two first species are used in Medicine, but at present the chief demand is for the first, and of this there are two sorts, owing to the soil the plants may grow in. The roots of the upland plants are always preferred. These when dried have a particular fœtid smell. They are deemed serviceable in obstructions of the stomach and bowels, and are found highly beneficial in hystericks, epilepsies, and most nervous complaints. Both a simple and a volatile tincture is extracted from them.*

VERATRUM. *White Hellebore.* Comp. p. 45.

Plants Polygamous.

Hermaphrodite Calyx none.—Corolla of 6 oblong-lance-pointed, ferrated, abiding petals.—Stamina 6, awl-shaped, close by the germina, spreading at their tips, and about half the length of the corolla.—Summits 4-cornered.—Germina 3, oblong, erect.—Styles scarce visible.—Stigmas simple, spreading.—Seed-vessels 3, oblong, erect, compressed, 1-celled, and open inwardly.—Seeds many, oblong, compressed, membranous.

Male flowers like the hermaphrodite, but are barren and stand below them.

1. *Album.* Stalk erect, leafy, three or four feet high, branching almost from the bottom to the top. Radical leaves large, elliptical, and have many longitudinal plaits or folds. Flowers greenish, their petals are erect, and they terminate the branches in a kind of panicle.——*White Hellebore. Austria.*

2. *Nigrum*. Stalk erect, leafy, four or five feet high, branching. Radical leaves large, elliptical, have many longitudinal folds, and are of a yellowish green. Flowers blackish red, expand quite flat, on downy peduncles, and they terminate the branches in a compound racemus.
Siberian Veratrum.

3. *Luteum*. Root bulbous. Radical leaves many, broad-lance-shaped, smooth: those on the stalk narrow, sessile. Stalk simple, about a foot high. Flowers small, yellowish, in a simple racemus at the top of the stalk.—
Single-spiked Veratrum. North America.

OBSERVATION. *The root of the first species is very pungent. It has been used in Medicine as a cathartick, but its operation was found too rough. Its chief use now is that of an errhine, as snuff; but alone it irritates too much, and is therefore generally mixed with milder things.*

VERBASCUM. *Mullein*. Comp. p. 9.

Calyx of 1 abiding leaf, cut to the base into 5 erect, acute parts.—*Corolla* wheel-shaped, has a very short tube, and its limb divided into 5 reverse-egg-shaped segments.—*Stamina* 5, awl-shaped, declining, mostly bearded.—*Summits* oblongish, compressed.—*Germen* roundish.—*Style* thread-like, rather longer than the *stamina*.—*Stigma* obtuse.—*Seed-vessel* roundish, 2-celled, and opens at the top.—*Seeds* numerous, angular.

1. *Thapsus*. Stalk simple, erect, four or five feet high. Radical leaves large, oblong-oval, on both sides downy, on very short foot-stalks: the upper ones half embrace the stalk and are decurrent. Flowers yellow, in a long, thick, somewhat

- club-shaped spike at the top of the stalk.——
High Taper; Cow's Lungwort. England. ♂
2. *Blattaria.* Stalk round, simple, about five feet high. Radical leaves sinuated: those on the stalk oblong, dentated, smooth, and embrace the stalk with their base. Flowers yellow, or white, on long peduncles from all sides the stalk, for more than a foot from the top, forming a loose racemus.——*Yellow Moth Mullein.* England. ☉
3. *Phæniceum.* Radical leaves oblong-egg-shaped, slightly crenated, on short foot-stalks. Stalk angular, almost naked, about two feet high, branching. Flowers deep purple, pretty large, in a thin racemus at the end of the branches. Calyces sprinkled with glands.——*Purple Moth Mullein.* Spain. ♂
4. *Phlomoïdes.* Stalk erect. Leaves between egg and heart-shaped, slightly crenated, on both sides woolly; the lower ones on foot-stalks. Flowers large, deep yellow, in a thick racemus at the top of the stalk.——*Thick-spiked Italian Mullein.* ♂
5. *Nigrum.* Stalk angular, four or five feet high, branching near the top. Lower leaves oblong-heart-shaped, crenated, wrinkled, downy beneath, on foot-stalks. Flowers yellow with purple summits, in short racemi at the top of the stalk.——*Black Mullein; Sage-leaved Mullein.* England.
6. *Sinuatum.* Radical leaves oblong, hoary, sinuated, or cut into obtuse lobes, and somewhat resemble those of the Yellow-horned Poppy. Stalk branching, four or five feet high. Flowers small, yellow, in distant clusters on the upper part of the branches.——*Sinuuated-leaved Mullein.* Italy. ♂

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7. *Ferrugineum*. Stalk three or four feet high, branching. Leaves wrinkled, a little hairy: the radical ones oblong-heart-shaped, doubly crenated, on foot-stalks; those on the stalk almost sessile, equally crenated. Flowers large, of a rusty colour, in a loose racemus at the end of the branches. — *Rusty Mullein*. Europe.

8. *Mycóni*. Leaves egg-shaped, thick, woolly, on flattish, hairy foot-stalks, and spread on the ground. Flower-stalk low, naked, branched at the top. Flowers large, blue, solitary. — *Borrage-leaved Pyrenean Mullein*; *Borrage-leaved Auricula*.

OBSERVATION. *The first and fifth sorts are medicinal plants. The first is said to cool inflammations, to ease pain, and to be serviceable in coughs, disorders of the breast, and spitting of blood. In hot weather, some people troubled with uneasy feet, apply the leaves as socks to the soles of them.*

VERBENA. *Vervain*. Comp. p. 4.

Calyx of 1 linear, angular, abiding leaf, cut into 5 teeth, one of which is stumped. — *Corolla* of 1 irregular petal, having a straight tube as long as the calyx, and a spreading limb, cut into 5 small, roundish, almost equal segments. — *Stamina* 2, sometimes 4, within the tube of the corolla, and if 4, two are shorter than the rest. — *Summits* incurved. — *Germen* 4-cornered. — *Style* thread-like, as long as the tube. — *Stigma* obtuse. — *Seeds* 2 or 4, oblong, lodged in the calyx.

* *Two stamina in the flowers.*

1. *Orúbica*. Shrubby, about three feet high, dividing into three or four branches. Leaves egg-shaped,

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pointed, hoary beneath, deeply ferrated, opposite, on leafy foot-stalks. Flowers large, of a fine blue, have two stamina, and they terminate the branches in very long, leafy spikes. — *Panaman Vervain*. Green-house.

2. *Mexicana*. Somewhat shrubby, five feet or more high: the branches opposite, and forked near their end. Leaves oblong, heart-shaped at their base, rough, ferrated, almost sessile. Flowers small, have two stamina, come out in loose spikes, and when faded, their calyces become swelled, rounded, reflexed and hispid. *Mexican Vervain*. Hot-house.

3. *Stæchadifolia*. Shrubby, about five feet high. Leaves lance-shaped, plaited, ferrated, on long foot-stalks. Flowers blue, have two stamina, and stand in egg-shaped spikes, from the wings of the branches. — *French Lavender-leaved Vervain*. America. Green-house.

** *Four stamina*.

4. *Bonariensis*. Stalk six feet or more high, branching. Leaves lance-shaped, and embrace the stalk with their base. Flowers blue, have four stamina, and they terminate the branches in clustering spikes. — *Tall Bonarian Vervain*.

5. *Urticifolia*. Stalks two or three feet high. Leaves egg-shaped, ferrated, acute, on foot-stalks. Flowers white, have four stamina, and they terminate the stalks in very slender spikes, forming a kind of panicle. — *Nettle-leaved Vervain*. Virginia.

6. *Officinalis*. Stalk erect, about half a yard high, branching. Leaves oblong, deeply cut and lobed. Flowers small, pale blue, have four stamina, and they terminate the branches in very slender spikes, forming a kind of panicle. *Common Vervain*. England. ☉

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OBSERVATION. *The last sort is seldom cultivated in gardens, but for the roots, which many people wear at the pit of their stomach as amulets against the King's Evil. A decoction of the plant has been in esteem as a detergent, and found to be particularly serviceable in obstructions of the liver, spleen, and reins.*

VERONICA. *Speedwell.* Comp. p. 4.

Calyx of 1 leaf, cut into 4 acute parts.—*Corolla* of 1 wheel-shaped petal, having a tube almost as long as the calyx, (sometimes longer) and a limb cut into 4 segments, the lower one the narrowest.—*Stamina* 2, ascending, broadest upward.—*Summits* oblong.—*Ger-men* mostly compressed.—*Style* thread-like, declining, as long as the stamina.—*Stigma* small, obtuse.—*Seed-vessel* dry, mostly reverse-heart-shaped, compressed at the tip, 2-celled, 4-valved.—*Seeds* many, roundish.

* *Flowers in spikes.*

1. *Officinális.* Stalks short, procumbent. Leaves oval, acute-pointed, hairy, serrated, opposite. Flowers pale red, in spikes from the sides of the stalks.—*Male Speedwell; Paul's Betony.* England.
2. *Spicáta.* Stalks simple, hairy, about half a yard high, bowed at their bottom, and then become erected. Leaves rather small, narrowish, acutely serrated near their end, slender at their base, the lower ones opposite, the uppermost alternate. Flowers blue, in a long, slender spike at the top of the stalks.—*Upright Male Speedwell.* England.
3. *Hybrida.* Stalks erect, simple, hairy, about nine inches high. Leaves broadish, almost ellip-

tical, rough, hairy, rather obtusely ferrated and opposite. Flowers pale blue, in a thickish, very dense spike at the top of the stalks.—
Welsh Speedwell; Bugle-leaved Speedwell.

The stalks of this are often bowed at their base as the former. It may be only a variety.

4. *Incána.* Stalks erect, about half a yard high, white, downy. Leaves oblong, obtuse, crenated, hoary and opposite. Flowers deep blue, in spikes at the tops of the stalks.—*Hoary Tartarian Speedwell.*
5. *Longifolia.* Stalks erect, about half a yard high. Leaves broad-lance-shaped, pointed, ferrated, opposite. Flowers blue, in long spikes at the top of the stalks.—*Long-leaved Upright Speedwell.* Austria.
6. *Marítima.* Stalks erect, two feet or more high. Leaves lance-shaped, unequally ferrated, and stand by threes, (sometimes by fours) at a place round the stalk. Flowers blue, and terminate the stalks in spikes.—*Maritime Speedwell.* Europe.
7. *Spúria.* Stalks erect, near three feet high. Leaves narrow-lance-shaped, equally ferrated, and are placed by threes round the stalk. Flowers blue, and terminate the stalks in spikes.—*Narrow-leaved Siberian Speedwell.*
8. *Virginica.* Stalks erect, near four feet high. Leaves lance-shaped, ferrated, and are disposed in whorls of four or five round the stalk. Flowers of a pure white, in long, slender spikes at the top of the stalks. Calyces irregularly cut into five parts.—*Tall Virginian Speedwell.*
9. *Sibirica.* Stalks erect, about four feet high, a little hairy. Leaves broad-lance-shaped, ferrated, six or seven in a whorl round the joints of the stalk. Flowers blue, have long tubes

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and small limbs, and they terminate the stalks in spikes. Stamina and style much longer than the corolla. Calyces irregularly cut into five segments.—*Tall Siberian speedwell.*

** *Flowers in loose bunches.*

10. *Decussata.* Shrubby, evergreen, the branches slender, round, numerous, and marked below with the vestiges of the fallen leaves. Leaves tough, entire, almost elliptical, not an inch long, on very short foot-stalks bent like a knee and opposite; the pairs crossing each other exactly at right angles. Flowers white, in very short, thin bunches amongst the upper leaves. Calyces cut into four egg-shaped parts. Stamina shorter than the corolla. Summits large, heart-shaped. Germen oblong-oval. Style very short.—*Cross-leaved Shrubby Speedwell.*
11. *Bellidoides.* Stalk bowed at the base, has two egg-shaped leaves, and is terminated by a roundish bunch of flowers.—*Daisy-leaved Speedwell.*
12. *Teucrium.* Stalks erect. Leaves egg-shaped, wrinkled, dentated, obtusish. Flowers blue, in very long racemi from the sides of the stalks.—*Greater Germander-leaved Speedwell.* Germany.
13. *Austriaca.* Stalks slender, declining. Leaves linear, lance-pointed, opposite, cut into long teeth. Flowers blue, in long racemi from the sides of the stalks.—*Narrow-leaved Austrian Speedwell.*
14. *Prostrata.* Lower part of the stalks prostrate. Leaves oblong-egg-shaped, deeply serrated, the teeth standing out somewhat like those of a comb. Flowers large, deep blue, in long ra-

racemi from the sides of the stalks. Calyces irregularly cut into five parts.—*Italian Prostrate Speedwell.*

15. *Urticifolia*. Stalks erect, slender, smooth, a foot or more high. Leaves lance-shaped, rounded at their base, opposite, hairy, acutely serrated and almost sessile. Flowers flesh-colour, in racemi from the sides of the stalks.—*Nettle-leaved Speedwell. Austria.*
16. *Orientalis*. Leaves narrow, acute-pointed, smooth, slender at their base, cut into small, oblong segments. Flowers pale blue, in racemi from the sides of the stalks. Calyces irregular.—*Oriental Speedwell.*

OBSERVATION. *The first sort is a small plant, and not often kept in gardens, except for physical purposes. It is accounted detergent and vulnerary, is given in decoction to help expectoration, and to heal soreness of the lungs. It is useful too for clearing away blotches and foul eruptions.*

VIBURNUM. *Wayfaring Tree.* Comp. p. 12.

Calyx 1 very small, abiding leaf, cut into 5 teeth.—*Corolla* 1 short, bell-shaped petal, cut about half way into 5 obtuse, reflexed segments.—*Stamina* 5, awl-shaped, as long as the corolla.—*Summits* roundish.—*Germen* roundish, below the corolla.—*Style* none, but in its place there is a top-shaped gland.—*Stigmas* 3.—*Berry* roundish, 1-celled.—*Seed* 1, very hard and roundish.

1. *Tinus*. Shrubby, with numerous slender branches, and smooth, angular twigs and peduncles. Leaves egg-shaped, entire, and the veins at their backs are hairy at their ramifications.

Flowers white, tinged with red, in roundish bunches at the ends of the twigs, having small involucrum.—*Common Laurustinus*. Spain. The most principal varieties are the

Hairy-leaved *Laurustinus*.

Silver-striped *Laurustinus*.

Gold-striped *Laurustinus*.

2. *Tinoides*. Shrubby, and greatly resembles the former, but the leaves are elliptical, and the twigs and peduncles round and hairy.—*Round-twigged Laurustinus*. America. Green-house.
3. *Nidum*. The leaves of this differ from the first in having hairless veins, and in being more shining. The bunches of flowers have no involucrum.—*Entire-leaved Virginian Viburnum*.
4. *Prunifolium*. Shrubby, eight or ten feet high, having the young branches covered with a smooth, brownish-purple bark. Leaves almost orbicular, cut into largish, distant, acute teeth, much veined, smooth, and stand on hairy foot-stalks. Flowers white, in roundish, umbel-like bunches, having no involucrum.—*Plumb-leaved Viburnum*; *Black Haw-Thorn*. Canada.
5. *Dentatum*. A small tree, having round, irregular branches. Leaves oblong-egg-shaped, plaited, finely serrated, or rather dentated; the teeth pointed. Flowers white, in large, umbel-like bunches, having deciduous involucrum.—*Dentated Virginian Viburnum*.
6. *Lantana*. A small tree, having mealy, pliant branches. Leaves between egg and heart-shaped, slightly serrated, downy. Flowers white, and terminate the twigs in umbel-like bunches, having deciduous involucrum.—

Wayfaring Tree; Pliant Mealy Tree. England.
The leaves are shorter and more obtuse than the former.

7. *Opulus.* Shrubby, eight feet or more high, with long, irregular branches. Leaves three or five lobed, serrated, and stand on smooth foot-stalks, having glands. Flowers white, in large, umbel-like bunches.—*Marsh Elder.* England.—*Varieties the*

Gelder Rose, having globular heads of flowers.—*Variegated-leaved Gelder Rose.*

8. *Acerifolium.* Leaves lobed, and stand on smooth, glandless foot-stalks.—*Maple-leaved Viburnum.* Virginia.

VINCA. *Periwinkle.* Comp. p. 11.

Calyx of 1 abiding leaf, deeply cut into 5 erect, acute parts.—*Corolla* of 1 salver-shaped petal, having a 5-angled tube, longer than the calyx, deeply cut into 5 obliquely-stumped segments, narrowing downward.—*Stamina* 5, very short, inflexed.—*Summits* membranous, obtuse, incurved.—*Germina* 2, roundish, and are terminated by 1 common, cylindrical style.—*Stigmas* 2, one placed above the other: the lower one flat and orbicular; the upper one knob-like.—*Seed-vessels* 2 long, tapering, erect bags, opening longitudinally.—*Seeds* numerous, oblong and furrowed.

1. *Rósea.* Somewhat shrubby, evergreen, two feet or more high, with round, smooth branches. Leaves oblong-oval, entire, tough, their midrib white, opposite, on short foot-stalks, having two teeth at their base. Flowers rose-colour, or white with red bottoms, mostly stand by pairs at the wings of the branches, and are

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- almost sessile. Tubes long. Calyces short.
 ———*Madagascar Periwinkle.* Hot-house.
2. *Major.* Stalks erect, near two feet high, curved at their top. Leaves egg-shaped, acutish, smooth, entire, on foot-stalks opposite. Flowers large, blue or white, on straight peduncles. Calyces as long as the tubes. ———*Large Periwinkle.* England.
3. *Minor.* Stalks procumbent, slender, and take root at their joints. Leaves egg-shaped, obtusifish, smooth, entire, totally green or variegated, on foot-stalks opposite. Flowers blue, purple or white, single or double, on curved peduncles from the wings of the leaves. Calyces short. ———*Small Periwinkle.* England.

V¹IOLA. Violet. Comp. p. 41.

Calyx composed of 5 oblong, acute, equal, abiding leaves, having an obtuse base: they are affixed just above their base, and are differently directed in the different species. — *Corolla* of 5 unequal petals.

Upper petal broad, straight, obtuse, notched, and terminates behind in an obtuse spur or horn, projecting between the leaves of the calyx.

Side petals equal, obtuse and opposite.

Lower ones the largest and reflexed.

Stamina 5, very short and tapering. — *Summits* arrow-shaped, united upward, forming a kind of cylinder. — *Germen* roundish. — *Style* thread-like, rather longer than the summits. — *Stigma* either an oblique knob, perforated at the tip, or an acute hook. — *Seed-vessel* dry, egg-shaped, 3-cornered, 1-celled, 3-valved. — *Seeds* many, egg-shaped, affixed to the valves.

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In most species the peduncle at the top is bent backward, by which the flower is inverted, and the upper petal appears to be the lower.

* *Stalks none. Peduncles immediately from the root.*

1. *Odoráta.* Shoots from the root creeping. Leaves heart-shaped, obtusely serrated. Flowers purple or white, single or double, on long, round peduncles immediately from the root. Stigma hooked.—*March Violet.* England.
2. *Lanceoláta.* Stalk none. Leaves lance-shaped, deeply crenated, on short foot-stalks. Flowers large, blue, scentless, on peduncles arising immediately from the root. Stigma hooked.—*Siberian Violet.*
3. *Primulifolia.* Stalk none. Leaves oblong, very obtuse, crenated, heart-shaped at their base, where they run along their foot-stalk, forming a membrane on each side. Flowers on peduncles immediately from the root. Stigma hooked.—*Primrose-leaved Violet.* Canada.
4. *Palmáta.* Stalk none. First leaves mostly kidney-shaped; the rest palmated, having five lobes. Flowers small, white, on peduncles immediately from the root. Stigma hooked.—*Plane-Tree-leaved Violet.* Virginia.
5. *Pedáta.* Stalk none. Leaves cut almost to the base into about seven narrow lobes. Flowers blue with yellowish bottoms, on long, naked peduncles immediately from the root. Stigma hooked.—*Cut-leaved Violet.* Virginia.

** *With stalks.*

6. *Tricolor.* Stalk rather erect, three-cornered, and puts out many diffuse branches. Leaves ob-

long-egg-shaped, coarsely dentated. Stipulæ jagged, or cut into narrow segments, the middle one the largest, resembles a leaf, and has a kind of foot-stalk. Flowers mostly of three colours, yellow, purple and whitish, on three-cornered, naked peduncles from the wings of the stipulæ. Stigma pitcher-shaped.——
Heart's-ease; *Pansies*; *Three Faces in a Hood*.
 England. ♂

There is a perennial sort, having short, procumbent, three-cornered stalks, and though an abiding plant, seems only a variety of the Tricolor, the leaves, stipulæ, and flowers having the same appearance. The flowers of this being very large, and the colours fine, it is generally, though falsely, called by gardeners the Grandiflora.

7. *Grandiflora*. Stalks short, slender, somewhat erect, simple, three-cornered. Leaves small, egg-shaped, somewhat crenated, shorter than their foot-stalks. Stipulæ small, deeply cut into very narrow, ciliated segments, the middle one the largest. Flowers yellow, on long, naked, angular peduncles from the wings of the stipulæ. Petals narrowish. Stigma pitcher-shaped.——*Yellow Mountain Violet*. Wales.
8. *Calcarata*. Stalks short, angular. Leaves between egg and heart-shaped, crenated. Stipulæ oblong, obtusifish, irregularly dentated. Flowers light blue, on long, naked, angular peduncles. Spur longer than the petals. Stigma pitcher-shaped.——*Low Pyrenean Violet*.
9. *Cornuta*. This differs from the eight in the stalks being longer, more erect, and in the leaves being oblong-egg-shaped.——*Tall Pyrenean Violet*.

10. *Canadensis*. Stalks erect, roundish, about a span high. Leaves between heart and kidney-shaped, pointed, ferrated. Stipulæ lance-shaped, erect. Flowers whitish, on naked peduncles, about as long as the leaves. Stigma hooked.——
Tall Canada Violet.
11. *Montana*. Stalks erect, a foot or more high, angular. Leaves lance-shaped, ferrated, those toward the top more than twice the length of their foot-stalk. Stipulæ lance-shaped, dentated at their base. Flowers light blue and whitish, on long peduncles, having two small, linear leaves near their top. Stigma hooked, ——
Large Austrian Violet.

OBSERVATION. *A Syrup is made of the flowers of the first sort, which is a very mild cathartick, and is frequently given to young children in the quantity of about half an ounce at a time.*

VITEX. *Chaste Tree.* Comp. p. 30.

Flowers lipped.

Calyx of 1 very short, tubular leaf, cut into 5 teeth. *Corolla* of 1 gaping petal, having a slender, cylindrical tube, and a flat limb, divided into 2 trifid lips.—*Stamina* 4, hair-like, rather longer than the tube, and 2 shorter than the rest.—*Summits* moveable.—*Germen* roundish.—*Style* thread-like, as long as the tube.—*Stigmas* 2, awl-shaped, spreading.—*Berry* globular, 4-celled.—*Seeds* egg-shaped, solitary.

1. *Agnus Castus*. Shrubby, from six to eight feet or more high, with opposite, grayish, angular

branches. Leaves opposite, fingered, and composed of seven or five lance-shaped, waved lobes, of a dark green above, and hoary beneath. Flowers small, purplish or white, in whorled, opposite spikes, from the wings of the leaves, near the ends of the branches.——

Common Agnus Castus. Sicily.

2. *Trifoliata.* Shrubby, seven feet or more high. Leaves mostly composed of three, but sometimes of five egg-shaped, acute, entire lobes, which are downy beneath. Flowers white, in panicles, having a straight, common rib, and forked peduncles.——*Trifoliate Chaste Tree.* India. *Green-house.*

3. *Negundo.* Shrubby, six feet or more high. Leaves composed of three or five lance-shaped, deeply serrated lobes, rounded at their base. Flowers blue, in racemous panicles from the wings of the branches.——*Chinese Chaste Tree.* *Green-house.*

W.

WACHENDORFIA. *Wachendorfia*. Comp. p. 5.

Calyx a bivalve sheath.—*Corolla* composed of 6 oblong petals: the 3 upper ones erect; the 3 lower ones spreading.—*Nectarium* 2 bristles, placed on each side the upper petals.—*Stamina* 3, thread-like, declining, shorter than the corolla.—*Summits* incumbent.—*Germen* roundish, 3-cornered, above the corolla.—*Style* thread-like, declining.—*Stigma* simple.—*Seed-vessel* nearly oval, 3-cornered, obtuse, and has 7 cells and 3 valves.—*Seeds* solitary, hairy.

1. *Thyrseflóra*. Leaves lance-shaped, plaited, and have five furrowed, longitudinal folds. Flower-stalk straight, simple, about half a yard high, terminated by a conical bunch of white flowers.
———*Thyrse-flowering Wachendorfia*. Cape of Good Hope. *Green-house*.

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2. *Paniculáta*. Leaves sword-shaped, three-nerved. Flower-stalk about three feet high. Flowers yellowish, in alternate panicles along the sides of the stalk.—*Paniculated Wachendorfia*. Cape of Good Hope. *Green-house*.

X.

XERANTHEMUM. *Eternal Flower*. Comp. p. 38.

Flowers compound, radiated.

Calyx imbricated with dry, coloured, lance-shaped, shining scales; the most inner ones longer than the disk, and form the rays.

Florets in the disk hermaphrodite, many, tubular, and are surrounded by a few tubular females.—*Ger-men* of both the hermaphrodites and females short.—*Style* of both thread-like, longer than the stamina.

—*Stigma* of the hermaphrodites bifid.—*Stigmas* of the females 2, oblong.—*Seeds* of both oblong, crowned either with hairs or 5 bristles.—*Receptacle* either dotted or chaffy.

1. *Annuum*. Stalk more than half a yard high, downy, branching, and angular. Leaves lance-shaped, spreading, downy beneath, sessile, alternate. Flowers purple or white, single or double, and stand solitary at the top of the branches. Seed crowned with five bristles. Receptacle chaffy.—*Annual Eternal Flower*; *Piarmica*. Italy.
2. *Retortum*. Stalks slender, woody and trailing. Leaves small, downy, sessile, reflexed. Flowers white, either solitary, or two or three together at the wings of the branches. Seed crowned with down. Receptacle naked.—*Trailing Eternal Flower*. *Æthiopia*. *Green-house*.
3. *Speciosissimum*. Shrubby, erect, about three feet high, dividing into four or five branches. Leaves large, lance-shaped, three-nerved, and embrace the stalk. Flowers large, silvery on the outside, yellow in the disk, and terminate the branches, which are almost leafless.—*Broad-leaved Shrubby Eternal Flower*. *Æthiopia*. *Green-house*.
4. *Fulgidum*. Shrubby, two or three feet high, with very woolly branches. Leaves broad-lance-shaped, entire, very woolly on their margins, embrace the stalk, and lodge upon it in a somewhat imbricated manner. Flowers large, yellow, very glittering, and come forth near the ends of the branches, on woolly, leafy peduncles. Down as long as the florets.—

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Glittering Eternal Flower. Cape of Good Hope. Green-house.

5. *Sesamoides.* Shrubby, erect, three or four feet high, having slender, hoary branches, closely covered with small, linear, scale-like leaves. Flowers large, silvery, and terminate the branches singly.—*Silvery Ethiopian Eternal Flower.* Green-house.

Y.

YUCCA. *Adam's Needle.* Comp. p. 15.

Calyx none.—*Corolla* of 1 bell-shaped petal, cut into 6 large, egg-shaped segments, joined by their heels.—*Stamina* 6, very short, thickest upward, reflexed.—*Summits* very small.—*Germen* oblong, obtusely 3-cornered, longer than the stamina.—*Style* none.—*Stigma* obtuse, cut into 3 small, bifid parts.—

Y U C

Seed-vessel oblong, obtusely 3-cornered, 3-celled and 3-valved.—*Seeds* many, ranged in a double row.

1. *Gloriósa*. Stalk two or three feet high, erect and leafy. Leaves lance-shaped, stiff, entire, of a dark green, and end in a sharp black spine. Flowers white, striped with purple on the outside, and hang nodding.——*Common Adam's Needle*. Canada.
2. *Dracónis*. Stalk three or four feet high. Leaves long, narrow, dark green, ferrated, end in a spine, and hang drooping. Flowers white. ——*Dragon-tree-leaved Yucca*. America. *Green-house*.
3. *Filamentósa*. This somewhat resembles the first sort, but the leaves have no spine, and detach many long threads from their margin.——*Virginian Yucca*.
4. *Aloifólia*. Stalk thick, tough, about ten feet high, terminated by a tuft of leaves. Leaves long, narrow, straight, slightly crenated. Flowers purple and white, in spikes, forming a large pyramid.——*Aloe-leaved Yucca*. Jamaica. *Green-house*.

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Z¹_{E A}. *Indian Corn.* Comp. p. 43.

Plants Monœcious. Male flowers above the females.

Male Calyx a glume of 2 oblong-oval, naked leaves, containing 2 flowers.—*Corolla* a glume of 2 oblong, naked leaves, as long as the calyx.—*Nectariums* 2, very short, compressed.—*Stamina* 3, hair-like.—*Summits* 4-cornered, gaping at their tip.

Z I N

Female flowers in a dense, thick spike, covered by the leaves.

Calyx a glume of 2 very short, roundish scales, the exterior one the thickest.—*Corolla* of 2 very short, broad, abiding, membranous valves.—*Germen* very small.—*Style* thread-like, very long.—*Stigma* simple, hairy near the tip.—*Seeds* solitary, roundish, angular at their base, and are half inclosed in their proper cells, fixed to a long, common receptacle.—*The glumes of the male spikes often produce but one flower.*

Mays. Stalk erect, from six to ten feet high. Leaves long, broad-lance-shaped, hang drooping, and have a white, longitudinal rib.—*Short and Long-spiked Indian Corn.*

ZINNIA. *Zinnia.* Comp. p. 39.

Flowers compound, radiated.

Common Calyx cylindrical, oval at the base, and imbricated with smooth, obtuse, compact, abiding scales.

Florets in the disk hermaphrodite, funnel-shaped, cut into 5 teeth, hairy within, and are collected into a conical head.—*Germen* oblong, 3-cornered.—*Style* short.—*Stigmas* 2, erect, obtuse.—*Seed* oblong, flattish, crowned by 2 horns, one longer than the other.

Female rays oblongish, from 5 to 15 or more, abiding.—*Seed* crowned with the petal.—*Receptacle* chaffy: chaff tongue-shaped, as long as the calyx, deciduous.

Z Y G

1. *Pauciflora*. Stalk erect, about three feet high. Leaves lance-shaped, entire, sessile, opposite. Flowers yellow, solitary at the end of the branches. *Peru*. ☉
2. *Multiflora*. Stalk erect, hairy, about three feet high. Leaves lance-shaped, entire, almost sessile, opposite. Flowers dull red, solitary at the end of the branches. *Louisiana*. ☉

The discoverable difference in these two plants is not sufficient to constitute distinct species, it not being more than what is often produced in many by accident. I shall therefore offer the following description as generally applicable to both, and leave the trivial name to others.

Stalk erect, roundish, hairy, about three feet high, putting out long, opposite branches from the wings of the leaves, becoming thick at their top. Leaves broadish-lance-shaped, entire, mostly sessile, opposite, roughish, three-nerved at their base. Flowers yellow or dull red, solitary at the end of the branches. Rays many, notched at their tip. Scales of the calyx brownish, smooth and shining.

ZYGOPHYLLUM. *Bean Caper*. Comp. p. 20.

Calyx composed of 5 erect, egg-shaped, obtuse, concave leaves.—*Corolla* of 5 obtuse, notched petals, decreasing in breadth from their tip to their base, and longer than the calyx.—*Nectarium* 10 conniving leaves or scales, including the germen, and are indi-

vidually united to the base of each stamen.—*Stamina* 10, awl-shaped, shorter than the corolla.—*Summits* oblong, incumbent.—*Germs* oblong, tapering to the base.—*Style* awl-shaped, as long as the stamens.—*Stigma* simple.—*Seed-vessel* reverse-egg-shaped, 5-cornered, 5-celled, 5-valved.—*Seeds* many, round and compressed.

1. *Fabágo*. Stalk herbaceous, three or four feet high, with a few smooth, jointed branches. Leaves on foot-stalks, conjugate, or composed of two reverse-egg-shaped, bluish green, smooth, fleshy lobes. Flowers reddish, two or three together, on short peduncles at the joints of the branches. Seed-vessels prismatical.—*Common Bean Caper*. Syria.
2. *Sessilifólium*. Shrubby, three or four feet high, putting forth numerous slender, woody, knotty branches. Leaves small, thickish, somewhat oval, narrowest at their base, sessile, and stand by fours at the joints of the branches. Flowers yellow, mostly solitary, on slender peduncles longer than the leaves, from the joints of the branches. Seed-vessel globular, depressed.—*Sessile-leaved Bean Caper*. Æthiopia. Green-house.
3. *Mórgsana*. This resembles the second, but grows rather taller. The leaves are not perfectly sessile, the seed-vessels are four-cornered, and each corner is furnished with a membranous wing. Petals four, and acute.—*Membranous Fruited Bean Caper*. Æthiopia. Green-house.
4. *Microphyllum*. Shrubby, the branches mostly alternate. Leaves opposite, almost sessile: the lobes oval, flat, smooth, and very small.

Z Y G

Flowers yellow, solitary, on hair-like peduncles as long as the leaves. Seed-vessel notched, four-cornered.—*Small-leaved Bean Caper*.
Cape of Good Hope. *Green-house*.

5. *Cordifolium*. Leaves simple, roundish-heart-shaped, opposite.—*Heart-leaved Bean Caper*.
Cape of Good Hope. *Green-house*.
6. *Album*. Leaves conjugate, on foot-stalks: lobes club-shaped, fleshy and whitish. Flowers white.—*African Bean Caper*. *Green-house*:
7. *Coccineum*. Leaves conjugate, on foot-stalks: the lobes cylindrical, fleshy and smooth. Flowers scarlet. Seed-vessels oblong.—
Scarlet African Bean Caper. *Green-house*.

A P P E N D I X.

AGAVE. *American Aloe.* (Class 6, Order 1.)

Calyx none. — *Corolla* of 1 erect, funnel-shaped petal, having its limb cut into 6 lance-shaped segments. — *Stamina* 6, thread-like, erect, longer than the corolla. — *Summits* linear. — *Germen* oblong, pointed at both ends, slender, below the corolla. — *Style* thread-like, as long as the stamina, 3-cornered. — *Stigma* knob-like, 3-cornered. — *Seed-vessel* oblong, slender at both ends, 3-cornered, 3-valved. — *Seeds* numerous.

1. *Americana.* Stem none. Leaves many, arise immediately from the root, and enfold each other at their base. They are very long, thick, fleshy, taper to a point, which is guarded by a strong thorn, and are dentated on their margin with robust spines. When it flowers, the stalk grows in a few weeks to more than twenty feet high, and branches at the top. — *Large American Aloe.* Green-house.
2. *Virginica.* Leaves narrow, and are dentated on their margin with strong spines. Flower-stalk quite simple. — *Virginian Aloe.* Green-house.
3. *Fœtida.* Leaves long, narrow and entire. — *Stinking American Aloe.* Hot-house.

A P P E N D I X.

AMBRÓSIA. *Ambrosia*. (Class 21. Order 5.)

Male Flowers compound, hemispherical.

Common Calyx of 1 flat leaf, as long as the florets.—*Florets* erect, funnel-shaped, cut into 5 parts.—*Stamina* 5, very small.—*Summits* erect, pointed.

Female Flowers below the males in the same spike.—*Calyx* of 1 entire, abiding leaf, girt round the belly with 5 teeth.—*Corolla* none.—*Germen* egg-shaped, at the bottom of the calyx.—*Style* thread-like, as long as the calyx.—*Stigmas* 2, long, bristle-like, divided into 2 spreading parts.—*Seed-vessel* nearly egg-shaped, 1-celled, and crowned by the 5 teeth which surrounded the calyx.

1. *Marítima*. Stalk two or three feet high, a little hairy, branching. Leaves soft, cut into many narrow lobes, and emit a fragrant smell. Flowers in hairy, solitary, almost sessile spikes. *Eastern Maritime Ambrosia*. ☉

2. *Elátior*. Stalk about four feet high and branching. Leaves twice divided into several oblong segments. Flowers in smooth, terminal, racemous panicles, composed of one long racemus, surrounded by several short ones.———*Tall Unsavory Ambrosia*. Virginia. ☉

3. *Artemísifolia*. Stalk short, and divides into several ascending branches, three or four feet high. The first leaves of the branches entire: the rest are divided into many oblong segments. Flowers in racemi from the wings of the stalk. *Mugwort-leaved Ambrosia*. Virginia. ☉

ANAGÁLLIS. *Pimpernel*. (Class 5. Order 1.)

Calyx of 1 abiding leaf, cut into 5 acute, keeled parts.—*Corolla* of 1 wheel-shaped petal, cut almost

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to the center into 5 roundish segments.—*Stamina* 5, erect, shorter than the corolla, hairy on their lower part.—*Summits* simple.—*Germs* globular.—*Style* thread-like, rather inclined inward.—*Stigma* knob-like.—*Seed-vessel* dry, globular, 1-celled, scarred.—*Seeds* many, angular.—*Receptacle* large, globular.

Monelli. Stalk erect, very slender, more than a foot high, and much branched. Leaves lance-shaped, entire, sessile, opposite, or sometimes by threes. Flowers blue, on thread-like peduncles from the bosoms of the leaves.—
Italian Pimpernel. Green-house.

ANCHUSA. Bugloss. (Class 5. Order 1.)

Calyx 1 round, oblong, abiding leaf, cut into 5 acute parts.—*Corolla* of 1 funnel-shaped petal, having an almost cylindrical tube, about as long as the calyx, a somewhat spreading limb, cut into 5 obtuse segments, and the throat is shut or arched over by 5 prominent scales.—*Stamina* 5, very short, shut up in the throat of the corolla.—*Summits* oblong, incumbent.—*Germs* 4.—*Style* thread-like, as long as the stamens.—*Stigma* obtuse, notched.—*Seeds* 4, oblongish, gibbous, obtuse, lodged in the calyx, which is become large and erect.

1. *Sempervirens.* Stalk round, erect, hairy, two or three feet high and branching. Leaves large, oblong-egg-shaped, entire, rough, wrinkled, alternate, on winged foot-stalks, and are often spotted with white. Flowers bright blue, in roundish bunches, on two-leaved common peduncles from the sides of the stalk. Tube of the corolla short.—
Evergreen Alkanet. England.

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2. *Tinctoria*. Root long and red. Stalk simple, downy, trailing, a foot or more long. Leaves lance-shaped, obtusish, very rough. Flowers reddish purple, in short, reflexed spikes at the end of the stalk. Stamina shorter than the corolla.—*Staining Montpellier Bugloss.*
3. *Virginica*. Stalks erect, smooth, a span or more high. Flowers bright yellow, scattered.—*Yellow Virginian Bugloss.*

OBSERVATION. *The root of the second sort infused in oil gives it a fine red colour, and is used by mechanicks for staining their wood.*

ANDRŌMEDA. *See the Dictionary.*

1. *Axillaris*. Shrubby, with round, purplish branches. Leaves oblong-egg-shaped, acute, spotted with dull purple, slightly serrated, the teeth distant and curved. Flowers oblong, in simple racemi from the sides of the branches.—*Side-flowering Andromeda.*
2. *Lúcida*. Leaves oblong-egg-shaped, dull purple, shining.—*It appears to be only a variety of the former.*

ANDRYÁLA. *Downy Sowthistle.* (Class 19. Order 1.)

Flowers compound.

Common Calyx short, roundish, hairy, and composed of many equal, awl-shaped scales.

Florets all hermaphrodite, numerous, spreading, strap-shaped, stumped, and cut into 5 teeth.—*Germs* egg-shaped.—*Style* short, about as long as the stamina.

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—*Stigmas* 2, reflexed.—*Seed* egg-shaped, crowned with hair-like down, as long as the calyx.—*Receptacle* flattish, hairy.

1. *Integrifolia*. Stalk downy, a foot or more high and branching. Leaves egg-shaped-oblong, downy, entire. Flowers yellow, in clusters at the top of the branches.—*French Andryala*. ☉ Sometimes the lower leaves are irregularly cut into large teeth.

2. *Ragufina*. Stalk a foot or more high, branching. Leaves lance-shaped, acute, downy, and have small teeth on their margin. Flowers yellow, solitary.—*Ragusan Downy Sowthistle*.

3. *Lanata*. Whole plant very woolly. Leaves oblong-egg-shaped, somewhat dentated. Flowers yellow, on branching peduncles.—*Woolly Andryala*. Spain.

⁷
ARALIA. *Berry-bearing Angelica*. (Class 5. Order 5.)

Flowers in globular umbels.

Involucrum small.—*Calyx* small, cut into 5 parts.—*Corolla* of 5 egg-shaped, acute, sessile, reflexed petals.—*Stamina* 5, awl-shaped, as long as the corolla.—*Summits* roundish.—*Germen* roundish, below the calyx.—*Styles* 5, very short, abiding.—*Stigmas* simple.—*Berry* roundish, channelled, 5-celled, crowned with the styles.—*Seeds* solitary, hard, oblong.

1. *Racemosa*. Stalk smooth, four feet or more high and branching. Leaves large, much compounded, branching into several divisions. Flowers small, whitish, in clustered umbels

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from the wings of the leaves.——*Common Berry-bearing Angelica.* Canada.

2. *Nudicaulis.* Root creeping. Radical leaves large, and branch into two or three principal divisions, each composed of about five serrated lobes. Flower-stalk almost leafless, three feet or more high, bearing at the top about three umbels of whitish flowers.——*Creeping Berry-bearing Angelica.* Virginia.
3. *Spinosa.* Stem woody, tree-like, eight feet or more high, armed with strong spines. Leaves large, and branch into several divisions having spiny ribs. Flowers greenish, in loose umbels at the end of the branches.——*Spiny Berry-bearing Angelica.* Virginia.

ARUM. *Wake Robin.* (Class 20. Order 7.)

Calyx a sheath of 1 oblong leaf, thick and rolled together at the base, compressed in the middle, pointed at the top, and coloured within.

Spadix, or flower-stalk, quite simple, club-shaped, coloured, rather shorter than the sheath, naked above, and surrounded below with germina.

Corolla none.—*Stamina* imperfect, (wanting the summits) thread-like, with a thick base, stand in a double row, and they come out from the middle of the spadix.

Summits numerous, sessile, 4-cornered, placed between the double row of the stamina, and they grow to the spadix.—*Styles* none.—*Stigmas* bearded.—*Berries* globular, 1-celled.—*Seeds* many, roundish.

* *No stalk: leaves compound.*

1. *Dracunculus.* No stalk but what is formed by the folding of the lower part of the leaves,

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and which becomes smooth, erect, beautifully spotted, about three feet high, and divided at the top into foot-shaped leaves, composed of several lance-shaped, entire lobes, equal to the sheath, which is of a dark purple, and longer than the spadix.—*Common Dragon. Europe.*

2. *Dracontium.* No stalk. Leaves spotless, about nine inches high, foot-shaped, composed of lance-shaped, entire lobes, longer than the sheath, which is shorter than the spadix.—*Dwarf American Dragon; Short-sheathed Dragon.*

** *No stalk: leaves simple.*

3. *Virginicum.* No stalk. Leaves javelin-heart-shaped; the angles obtuse.—*Virginian Dragon.*
4. *Arisarum.* No stalk. Leaves heart-shaped-oblong. Sheath sessile, bifid; the spadix incurved.—*Friar's Cowl. Italy. Green-house.*
5. *Pictum.* No stalk. Leaves heart-shaped, marked on their upper side with white veins. Sheath sessile, tap-shaped.—*Painted Dragon. Green-house.*
6. *Sagittæfolium.* No stalk. Leaves simple, arrow-shaped-triangular: the angles acute and spreading.—*Arrow-leaved Dragon. Jamaica. Hot-house.*
7. *Tenuifolium.* No stalk. Leaves simple, narrow-lance-shaped. Spadix bristly and declining.—*Grass-leaved Dragon. Dalmatia.*

*** *With stalks.*

8. *Seguinum.* Stalk almost erect, jointed and naked below. Leaves large, oblong-oval.—*Indian Dragon; Dumb Cane. Hot-house.*

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9. *Auratum*. Stalk rooting. Leaves composed of three lobes; the two side ones eared at their base.—*Ear-leaved Dragon*, Hot-house.

B.

BISCUTELLA. *Buckler Mustard*. (Class 15. Order 1.)

Flowers cross-shaped.

Calyx of 4 egg-shaped, pointed, coloured, deciduous leaves, having a gibbous base.—*Corolla* of 4 oblong, obtuse, spreading petals, forming a cross.—*Stamina* 6, about as long as the tube of the corolla, of which 2 are opposite and shorter than the rest.—*Summits* simple.—*Germen* compressed, notched.—*Style* abiding, rigid.—*Stigma* obtuse.—*Pod* erect, flattened, deeply cut into 2 rounded lobes, 2-celled, and terminated by the style, which is joined to the partition.—*Seeds* solitary, roundish, compressed, lodged in the middle of the cells.

1. *Auriculata*. Stalk about half a yard high, branching. Leaves oblong, entire, or but slightly dentated. Flowers pale yellow, in loose panicles at the end of the branches. Pod double, the lobes united into a style.—*Italian Buckler Mustard*. ☉

2. *Apula*. Stalk erect, branching. Leaves narrow-lance-shaped, serrated, sessile. Flowers yellow,

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in loose panicles at the end of the branches.
 Pods orbicular, and diverge from the style.
 ————*Hawkweed-leaved Buckler Mustard.*
 France. ☉

BORAGO. *Borragé.* (Class 5. Order 1.)

Calyx of 1 abiding leaf, cut into 5 parts.—*Corolla* of 1 wheel-shaped petal, having a tube shorter than the calyx, and a flat, spreading limb, cut into 5 parts. *Throat* crowned by 5 obtuse prominences.—*Stamina* 5, awl-shaped.—*Summits* oblong, conniving into a beak, and affixed by their middle to the inner side of the stamina.—*Germina* 4.—*Style* thread-like, longer than the stamina.—*Stigma* simple.—*Seed-vessel* none.—*Seeds* 4, roundish, rough, gibbous at their base, lodged in the calyx.

1. *Officinális.* Stalk round, thickish, hairy, branching, a foot or more high. Leaves oblong-oval, rough, alternate. Flowers blue, red, white, or variegated. Calyces spreading. ————
Officinal Borragé.

2. *Orientalis.* Stalk two feet or more high, branching near the top. Leaves oblong-heart-shaped: the radical ones on foot-stalks; those on the stem sessile. Flowers pale blue, and their segments are turned back. Calyces inflated. ————
Eastern Borragé. Constantinople.

OBSERVATION. *The young leaves and tops of the first sort are used as a pot-herb, and also to put into cool tankards.*

BUPLEURUM. *Hare's Ear.* (Class 5. Order 2.)

Flowers in umbels. Florets all fertile.

Common umbel composed of few, (less than 10) rays.

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Partial umbel of from 6 to 10 somewhat spreading rays.

Common involucrem, (if any) of many leaves.

Partial involucrem of 5 large, spreading, egg-shaped, acute leaves.

Calyx of the florets obsolete.—*Petals* 5, involute, entire, very short.—*Stamina* 5.—*Summits* roundish.—*Germen* below the corolla.—*Styles* 2, small, reflexed.—*Stigmata* very small.—*Seed-vessel* none.—*Fruit* roundish, compressed, streaked, divisible.—*Seeds* 2, oblong-egg-shaped, streaked, on one side gibbous, on the other flat.

1. *Rotundifolium*. Stalk erect, smooth, slender, branching, about two feet high. Leaves broad-egg-shaped, pointed, entire, glossy, and they surround the stalk. Flowers very small, yellowish: the umbels want the common involucrem.—*Perfoliate Hare's Ear*; *Thorough-wax*. England. ☉

2. *Fruticosum*. Shrubby, evergreen, five feet or more high, forming a regular bush. Leaves oblong, somewhat oval, broadest near their end, stiff, smooth, entire and almost sessile. Flowers yellow, in umbels at the ends of the branches.—*Shrubby Hare's Ear*: *Æthiopian Hartwort*.

C.

CALLA. *Bastard Arum.* (Class 20. Order 7.)

Sheath 1 large egg-shaped, pointed, abiding, spreading leaf, coloured on it's upper part.

Spadix, or flower-stalk, finger-shaped, erect, quite simple, and covered with fructifications.

Male Corolla none.—*Stamina* very short, compressed, stumped, abiding, and are intermixed with the female germina.—*Summits* stumped, sessile.

Female Corolla none.—*Germs* roundish.—*Style* very short.—*Stigma* acute.—*Berry* nearly globular, somewhat 4-cornered, pulpy, 1-celled.—*Seeds* many, almost cylindrical, at both ends obtuse.

Æthiópica. Leaves large, arrow-heart-shaped, smooth, of a fine green, on long foot-stalks. Flower-stalk longer than the leaves, and is terminated by a white, hood-like sheath, green at the base. Upper part of the spadix yellow, and covered with male flowers. — *Æthiopian Calla.* Green-house.

CARDUUS. *Thistle.* (Class 19. Order 1.)

Flowers compound. *Florets* all tubular.

Common Calyx bellying, and imbricated with numerous, lance-shaped, pointed, conniving, spiny scales.

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Florets all hermaphrodite, funnel-shaped, their tube slender, and their limb cut into 5 linear segments, one of which is more deeply divided than the rest.—*Stamina* very short.—*Germs* egg-shaped.—*Style* as long as the stamina.—*Stigma* awl-shaped, naked, notched.—*Seed* reverse-egg-shaped, irregularly 4-cornered, crowned with long down.—*Receptacle* flat, hairy.

1. *Erióphorus*. Stalk erect, channelled, branching, four feet or more high. Leaves long, and deeply cut into many lance-shaped, spiny lobes, alternately erected. Flowers large, purple, one at the end of a branch, having a woolly, globular calyx.—*Friar's Crown*; *Woolly-headed Thistle*. England. ♂
2. *Casabónæ*. Stalk erect, five or six feet high. Leaves lance-shaped, sessile, downy beneath, and are armed on their margin with triple spines. Flowers purple, in clusters.—*Fish Thistle*. Southern parts of Europe. ♂

CARPINUS. *Hornbeam*. (Class 21, Order 8.)

Plants Monœcious.

Male florets on a loose, cylindrical, imbricated catkin, composed of egg-shaped, concave, acute, ciliated scales, bearing 1 floret each.—*Corolla* none.—*Stamina* about 20, very small.—*Summits* double, compressed.

Female florets in a loose, oblong, imbricated catkin, composed of large, lance-shaped, somewhat hairy scales.—*Corolla* of 1 calyx-like leaf, cut into 6 parts.—*Germs* 2, very short, each terminated by 2 long, coloured styles.—*Nut* egg-shaped, angular, 1 at the base of each scale.

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1. *Bétulus*. A tree covered with a whitish bark. Leaves egg-shaped, pointed, sharply serrated, either green or variegated. Scales of the catkin flat, concave at their base.—*Hornbeam*; *Horse-Beech*. England.
2. *Ostrya*. A tree having oblong, rough leaves, and the scales of the catkins inflated.—*Hop Hornbeam*. Virginia.

CEL'TIS. *Nettle Tree*. (Class 21. Order 11.)

Plants Polygamous.

Hermaphrodite Calyx of 1 leaf, cut into 5 egg-shaped, spreading parts.—*Corolla* none.—*Stamina* 5, very short.—*Summits* oblong, thickish, 4-cornered.—*Germen* egg-shaped, pointed, as long as the calyx.—*Styles* 2, very long, awl-shaped, downy.—*Stigmas* simple.—*Plumb* globular, 1-celled.—*Nut* roundish.

Male Flowers below the hermaphrodites.

Calyx cut into 6 parts.—*Germen* none, otherwise like the hermaphrodites.

1. *Australis*. A tree having oval-lance-shaped, serrated leaves.—*Black-fruited Nettle Tree*. Southern parts of Europe.
2. *Occidentalis*. A tree having oblique-egg-shaped, pointed, serrated leaves.—*Purple-fruited Nettle Tree*. America.
3. *Orientalis*. A tree having oblique-heart-shaped, serrated leaves, hairy beneath.—*Yellow-fruited Nettle Tree*. Indies.

CLAYTONIA. *Claytonia*. (Class 5. Order 1.)

Calyx composed of 2 egg-shaped leaves.—*Corolla* of 5 oval-oblong, notched petals.—*Stamina* 5, awl-

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shaped, recurved, rather shorter than the corolla, and are singly placed within each petal.—*Summits* oblong, incumbent.—*Germen* roundish.—*Style* as long as the *stamina*.—*Stigma* trifid.—*Seed-vessel* dry, roundish, 3-celled, 3-valved, elastick.—*Seeds* 3, roundish.

1. *Virginica*. Leaves few, linear. Stalk low, and is terminated by a loose bunch of white flowers, streaked with red.—*Narrow-leaved Claytonia*. Virginia.
2. *Sibirica*. Stalk declining. Leaves egg-shaped, smooth: the radical ones on foot-stalks; those on the stalk opposite and sessile. Flowers red.—*Ovate-leaved Claytonia*. Siberia.

CLUTIA. *Clutia*. (Class 22. Order 15.)

Plants diœcious.

Male Calyx of 5 egg-shaped, obtuse, concave, spreading leaves, as large as the petals.—*Corolla* of 5 very spreading, heart-shaped petals, having flat heels.—*Nectariums* 10: five are oblong, 3-parted, as long as the heels of the petals, and are placed within them; the other 5 are gland-like, and stand within the former.—*Stamina* 5, fixed in the middle of the style.—*Summits* roundish, moveable.—*Germen* none.—*Style* almost cylindrical, very long.

Female Calyx and *Petals* as in the male.

Nectariums only 5: these are roundish, double, and placed within the calyx.—*Germen* roundish.—*Styles* 3, bifid, reflexed.—*Seed-vessel* globular, rough, 6-furrowed, 3-celled.—*Seeds* solitary, roundish, shining.

1. *Alaternoides*. Shrubby, about six feet high, with numerous roundish, slender, twiggy branches.

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Leaves narrow-lance-shaped, tipped with a small point, narrowest at their base, entire, alternate, and nearly sessile. Flowers small, erect, greenish, solitary, on short peduncles among the leaves near the end of the branches. — *Narrow-leaved Clusia*. Æthiopia. *Green-house*.—The petals of the female plants are smaller than the calyx.

2. *Pulchella*. Shrubby, about six feet high. Leaves egg-shaped, entire, alternate, on foot-stalks. Flowers greenish, on short peduncles from the sides of the branches. — *Purslain-leaved Clusia*. Æthiopia. *Green-house*.

D.

1
 DRACONTIUM. *Dragon*. (Class 20. Order 7.)

Sheath boat-shaped, large, leathery.

Spadix, or flower-stalk, quite simple, short, and covered with fructifications, forming a knob or head. — *Calyx* none. — *Corolla* of 5 egg-shaped, concave, nearly equal, coloured petals. — *Stamina* composed of about 7 erect, linear threads, longer than the corolla. — *Summits* 4-cornered, double, obtuse, erect. — *Germs* nearly egg-shaped. — *Styles* 3, straight, as long as the stamina. — *Stigma* 3-cornered. — *Berry* roundish. — *Seeds* many.

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1. *Pertusum*. Stalk climbing by means of fibres shot out at the joints. Leaves large, oblong, alternate, and have several holes through them. Flowers yellowish white, and come out near the top of the stalk.—*Climbing American Dragon*. Hot-house.
2. *Polyphyllum*. Stalk variegated, about a foot high, divided at the top into many three-lobed leaves, cut into oblong segments. Flower-stalk very short.—*Many-leaved Dragon*. Surinam. Hot-house.
3. *Spinosum*. Leaves arrow-shaped, on prickly foot-stalks immediately from the root. Flower-stalk prickly.—*Prickly Ceylon Dragon*. Hot-house.

E.

EBENUS. *Cretan Ebony*. (Class 17. Order 3.)

Flowers Butterfly-shaped.

Calyx bell-shaped, and terminated by 5 thread-like, hairy teeth, as long as the corolla.

Standard roundish, straight, entire.

Wings scarce any.

Keel moon-shaped, gibbous, with an ascending tip.

Stamina 10, all united into a sheath, but distinct at their top.—*Summits* roundish.—*Germen* roundish,

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hairy.—*Style* hair-like.—*Stigma* terminated by a point.—*Pod* egg-shaped, and contains 1 seed.

Crética. Shrubby, three feet or more high. Leaves hoary, and composed of five lance-shaped lobes, fixed to the end of a common foot-stalk. Flowers purple, in spikes at the end of the branches.—*Cretan Ebony.* Green-house.

ÉCHIUM. *Viper's Bugloss.* (Class 5, Order 1.)

Calyx erect, abiding, cut into 5 erect, awl-shaped parts.—*Corolla* of 1 bell-shaped petal, having a very short tube, and an erect limb, growing wider by degrees, and cut into 5 obtuse segments: the 2 upper ones of which are often the longest; the lower one the smallest, acute and reflexed.—*Stamina* 10, awl-shaped, unequal, declining.—*Summits* oblong, incumbent.—*Germina* 4.—*Style* thread-like, as long as the stamina.—*Stigma* obtuse, bifid.—*Seed-vessel* none.—*Seeds* 4, roundish with an oblique point, enclosed in the calyx.

Fruticósum. Shrubby, two or three feet high, the branches covered with long hairs. Leaves nearly oval, hairy, alternate and sessile. Flowers purple, solitary near the end of the branches. Stamina about as long as the corolla.—*Shrubby African Viper's Bugloss.* Green-house.

F.

FAGONIA. *Fagonia*. (Class 10. Order 1.)

Calyx composed of 5 very small, deciduous leaves.—*Corolla* of 5 heart-shaped, spreading petals, having long, slender heels, inserted into the calyx.—*Stamina* 10, awl-shaped, erect, longer than the calyx.—*Summits* roundish.—*Germs* 5-angled.—*Style* awl-shaped.—*Stigma* simple.—*Seed-vessel* dry, roundish with a point, 5-lobed, 5-celled, 10-valved.—*Seeds* solitary, roundish.

1. *Crética*. Stalks spreading, 5-cornered, forked, about a foot long. Leaves opposite, and are composed of three small, flat, smooth lobes. At the base of their foot-stalk are two recurved spines, serving as stipulæ. Flowers blue, solitary.—*Thorny Cretan Fagonia*. ☉
2. *Hispánica*. Stalks spreading, thornless, otherwise the plant resembles the former.—*Thornless Spanish Fagonia*. ♂
3. *Arábica*. Low, shrubby, with slender branches, armed with strong thorns. Leaves composed of three thick, linear lobes, convex beneath. Flowers solitary.—*Arabian Fagonia*. Green-house.

G.

GALÉNIA. *Galenia*. (Class 8. Order 2.)

Calyx 1 very small, concave leaf, cut into 4 oblong parts.—*Corolla* none.—*Stamina* 8, hair-like, about as long as the calyx.—*Summits* double.—*Germen* roundish.—*Styles* 2, reflexed.—*Stigmas* simple.—*Seed-vessel* dry, roundish, 2-celled.—*Seeds* 2, oblong, angular.

Africana.—Shrubby, evergreen, four feet or more high, with feeble branches. Leaves linear, fleshy, and somewhat resemble those of Rosemary. Flowers small, greenish, in forked panicles.—*Shrubby African Galenia*. Green-house.

GERANIUM. See the Dictionary.

1. *Acetosum*. Shrubby, with a weakish, branching stem. Leaves rather short, reverse-egg-shaped, crenated, smooth, fleshy, alternate, on foot-stalks. Flowers pale purple striped with crimson, in umbels of but few each.—*Sour Geranium*. Africa. Green-house.
2. *Cordatum*. Shrubby, from four to five feet or more high, having the young branches hairy. Leaves heart-shaped, crimped and slightly dentated. Flowers many in an umbel; the three lower

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petals are very narrow and whitish; the two upper ones broad, peach-coloured, and striped with deep crimson.—*Heart-leaved Cape Geranium.* Green-house.

GLYCYRRHIZA. *Liquorice.* (Class 17. Order 3.)

Flowers Butterfly-shaped.

Calyx of 1 tubular, abiding, 2-lipped leaf.—*Upper lip* cut into 3 parts; the side segments linear; the middle one broad and bifid.—*Lower lip* linear and entire.

Standard oval-lance-shaped, long, straight.

Wings oblong, rather larger than the keel.

Keel 2 oblong, acute petals, having heels as long as the calyx.—*Stamina* 10, straight, 1 detached and 9 united.—*Summits* roundish.—*Germen* shorter than the calyx.—*Style* awl-shaped, as long as the stamina.—*Stigma* obtuse, ascending.—*Pod* either egg-shaped or oblong, compressed, acute.—*Seeds* about 3, kidney-shaped.

1. *Glabra.* Stalks herbaceous, three or four feet high. Leaves winged, and composed of four or five pair of egg-shaped lobes, terminated by an odd one standing on a foot-stalk. Stipulæ none. Flowers pale blue or white, distant, in oblong spikes. Pods smooth.—*Common Liquorice.* Spain.
2. *Echinata.* Stalks herbaceous, three feet or more high. Leaves winged; the odd lobe sessile. Stipulæ sword-shaped. Flowers in roundish spikes. Pods broad, short and prickly.—*Rough-podded Liquorice.* Italy.

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OBSERVATION. *The roots of the first sort abound with a sweet, sugary juice, which, when inspissated, turns black, and is kept in the shops for medicinal uses.*

GOSSYPIMUM. Cotton. (Class 16. Order 5.)

Calyx double: the *outer one* the largest, flat, and cut about half way into 3 parts; the *inner one* cup-shaped, and notched 5 different ways.

Corolla of 5 reverse-heart-shaped, flat, spreading petals, united at their base.—*Stamina* numerous, joined below in a cylinder, loose above, and inserted into the corolla.—*Summits* kidney-shaped.—*Germen* roundish.—*Style* column-like, as long as the stamina.—*Stigmas* 4, thickish.—*Seed-vessel* dry, roundish, pointed, 3 or 4-celled, 3 or 4-valved.—*Seeds* 4, oval, wrapped up in wool.

1. *Herbaceum.* Stalk smooth, about two feet high, branching near the top. Leaves smooth, five-lobed. Flowers pale yellow, and they terminate the branches.—*Common Cotton.* America. *Hot-house.*
2. *Barbadense.* Somewhat shrubby. Leaves three-lobed, and have three glands on the back of their midrib. Flowers yellow.—*Barbadoes Cotton.* Hot-house.
3. *Arboreum.* Shrubby, six feet or more high, with a smooth, tree-like stem. Leaves hand-shaped; the lobes lance-shaped. Flowers deep yellow, and come out at the end of the branches.—*Shrubby Indian Cotton.* Hot-house.

OBSERVATION. *These plants are much cultivated in the Indies, and also in several Islands in the Archipelago, their pods producing that valuable commodity, Cotton.*

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GREWIA. *Grewia*. (Class 20. Order 7.)

Calyx of 5 lance-shaped, tough, deciduous leaves, coloured on the inside.—*Corolla* of 5 lance-shaped petals, notched at their base, where each has an incurved, nectariferous scale.—*Stamina* numerous, bristle-like, as long as the petals, and inserted into the base of the germen.—*Summits* roundish.—*Germen* pedunculated, roundish, and lengthened into a column-like *Receptacle*.—*Style* thread-like, as long as the stamina.—*Stigma* obtuse, 4-parted.—*Berry* 4-lobed, 4-celled.—*Seeds* solitary, globular.

1. *Occidentális*. Shrubby, from four to six feet high. Leaves nearly egg-shaped, deciduous, crenated. Flowers bright purple, solitary at the wings of the leaves.—*Elm-leaved Grewia*. *Æthiopia*. *Green-house*.

H.

HALESIA. *True Snowdrop Tree*. (Class 11. Order 1.)

Calyx of 1 very small, abiding leaf, cut into 4 parts.—*Corolla* of 1 bell-shaped, bell-shaped petal, cut at the brim into 4 obtuse, spreading segments.—*Stamina* about 12, awl-shaped, rather shorter than the corolla.—*Summits* oblong, obtuse, erect.—*Germen* oblong, below the calyx.—*Style* thread-like, longer than the corolla.—*Stigma* simple.—*Nut* oblong, at both ends

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narrowed, 4-angled, the angles membranous, 2-celled.
—Seeds solitary.

1. *Tetráptera*. Shrubby, with lance-egg-shaped leaves, somewhat downy beneath, and standing on glandular foot-stalks. Flowers white. Fruit with four equal, membranous angles.——
Quadrangular Fruited Halesia. Carolina.
2. *Díptera*. Shrubby, with very large, egg-shaped, downless leaves, on smooth foot-stalks. Fruit with two of the angles minute.——*Two-angled Fruited Halesia*. Carolina.

HELONIAS. *Helonias*. (Class 6. Order 3.)

Calyx none.—*Petals* 6, oblong, equal, deciduous.—*Stamina* 6, awi-shaped, about as long as the corolla.—*Summits* incumbent.—*Germen* roundish, 3-cornered.—*Styles* 3, short, reflexed.—*Stigmas* obtuse.—*Seed-vessel* dry, roundish, 3-celled.—*Seeds* roundish.

1. *Asphodeloides*. Stalk quite simple, and furnished with smooth, erect, bristle-like leaves. Flowers white, in a simple racemus at the top of the stalk.——*Asphodel-like Helonias*. Pennsylvania.
2. *Bulláta*. Leaves lance-shaped, nervous. Flowers in a simple racemus, and their stamina are longer than the corolla.——*Studded Helonias*. Pennsylvania.

HYDRANGEA. *Hydrangea*. (Class 10. Order 2.)

Calyx 1 small, abiding leaf, cut into 5 teeth.—*Corolla* of 5 equal, roundish petals, larger than the calyx.—*Stamina* 10, one alternately longer than the other.—*Summits* roundish, double.—*Germen* roundish,

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below the calyx.—*Styles* 2, short, distant.—*Stigmas* obtuse, abiding.—*Seed-vessel* roundish, double, crowned with the calyx, terminated with the styles, and is divided transversely into 2 cells.—*Seeds* numerous, very small, angular, pointed.

Arboréscens. Shrubby, with many pithy stems, about three feet high. Leaves oblong-heart-shaped, serrated, opposite. Flowers white, and terminate the stems in roundish bunches.—
Virginian Hydrangea.

J.

JUSTICIA. Malabar Nut. (Class 2. Order 1.)

Calyx 1 small leaf, cut into 5 erect, acute teeth.—
Corolla of 1 gaping petal, having a gibbous tube, and a limb divided into 2 lips.—*Upper lip* oblong, notched: *Lower lip* the same length, reflexed and trifid.—*Stamina* 2, awl-shaped, placed under the upper lip.—*Summits* erect, bifid at their base.—*Germs* tap-shaped.—*Style* thread-like, as long as the stamina, and ranged with them.—*Stigma* simple.—*Seed-vessel* dry, oblong, obtuse, narrow at the base, 2-celled, 2-valved, and opens at the heel with an elastick force.—*Seeds* roundish.

1. *Adhatóda.* A small tree having a strong stem, and spreading branches. Leaves large, lance-

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egg-shaped, opposite, on short foot-stalks. Bractææ egg-shaped, abiding. Flowers white, their upper lip convex, and they come out in short spikes at the wings of the leaves.—

Ceylon short-spiked Justicia. Green-house.

2. *Ecbólium.* A small tree, with a somewhat compressed stem. Leaves lance-egg-shaped, smooth, opposite, on short foot-stalks. Bractææ egg-shaped, pointed, deciduous. Flowers greenish, shaded with blue, their upper lip reflexed, in very long spikes at the end of the branches.

—*Ceylon long-spiked Justicia.* Hot-house.

3. *Infundibuliformis.* Shrubby, with round branches. Leaves lance-egg-shaped, smooth, and stand by fours on long foot-stalks. Bractææ lance-shaped, ciliated. Flowers white, funnel-shaped, with a slender tube, including the stamina, and their limb is cut into five expanded lobes, the lower one the largest.—

Funnel-flowered Justicia. Hot-house. *India.*

4. *Scorpioides.* Shrubby. Leaves lance-egg-shaped, sessile, opposite. Flowers red, in recurved spikes from the wings of the leaves.—

Scorpion-tailed Justicia. La Vera Cruz. *Hot-house.*

5. *Picta.* Shrubby, with a streaked stem. Leaves lance-egg-shaped, and are marked on their disk with lucid spots. Flowers gaping, have their throat inflated, their upper lip incurved, their lower one spreading and cut into three equal parts.—

Painted Justicia. Asia. *Green-house.*

6. *Hyssopifolia.* Shrubby, branching from the bottom to about three feet high. Leaves narrow-lance-shaped, smooth, entire. Flowers white; from one to three on a two-edged peduncle.

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Bractæ shorter than the calyces.—*Hyssop-leaved Justicia*; *Snap Tree*; *Fortunate Islands*. *Hot-house*.

K.

KÆMFERIA. *Kæmferia*. (Class 1. Order 1.)

Calyx obsolete.—*Corolla* of 1 petal, having a long, slender tube, and a flat limb cut into 6 segments; *three* of them are alternately lance-shaped; *two* of the rest are egg-shaped; the *lower one* is cut into 2 reverse-heart-shaped parts, and all the 6 are of an equal length.—*Stamen* 1, membranous, somewhat egg-shaped, notched.—*Summit* linear, totally grows to the stamen, and scarcely emerges out of the tube of the corolla.—*Germen* roundish, placed close to the root.—*Style* as long as the tube.—*Stigma* obtuse.—*Seed-vessel* dry, roundish, 3-cornered, 3-celled, 3-valved.—*Seeds* many.

1. *Galānga*. Leaves large, egg-shaped, pointed, concave near their base, and furnished with strong ribs beneath: they come immediately from the root, and are sessile. Flowers white and purple, and stand amongst the leaves near the root.—*Long-rooted Galangale*. *India*. *Hot-house*.

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2. *Rotunda*. Leaves lance-shaped, on foot-stalks. Flower tinged with blue, white, purple, and red, and have a sweet smell.—*Round-rooted Galangale*; *Round-rooted Zedoary*. India. *Hot-house*.

OBSERVATION. *The roots of these two plants have a fragrant smell, and a spicy, bitterish taste. They are deemed efficacious in pains of the stomach, cholicks, hysterical affections, and an excellent remedy against infectious diseases.*

KIGGELARIA. *Kiggelaria*. (Class 22. Order 10.)

Plant diœcious.

Male Calyx of 1 hollow leaf, cut into 5 lance-shaped, concave parts.—*Corolla* of 5 lance-shaped, concave petals, rather longer than the calyx, and with it forming a pitcher, and each petal has a 3-lobed honey-gland fastened to its base.—*Stamina* 10, very small, perforated at their tip.—*Summits* oblong, shorter than the calyx.

Female Calyx and *Corolla* like the male.—*Germs* roundish.—*Styles* 5.—*Stigmas* obtuse.—*Seed-vessel* dry, leathery, globular, rough, 1-celled, 5-valved.—*Seeds* many, roundish, on one side angular.

Africana. A smallish tree, having smooth, purplish branches. Leaves oblong, serrated, alternate, on short foot-stalks. Flowers greenish, in drooping clusters from the sides of the branches.—*African Kiggelaria*. *Green-house*.

L.

LAWSONIA. *Indian Privet*. (Class 8. Order i.)

Calyx small, abiding, cut into 4 parts.—*Corolla* of 4 flat, lance-shaped, spreading petals, rounded at the base.—*Stamina* 8, thread-like, as long as the corolla, and stand by pairs within the petals.—*Summits* roundish.—*Germs* roundish.—*Style* abiding, as long as the stamina.—*Stigma* knob-like.—*Seed-vessel* dry, globular with a point, 4-celled.—*Seeds* many, angular, pointed.

1. *Inermis*. Shrubby, with slender, whitish, spineless, opposite branches. Leaves small, egg-shaped, pointed, almost sessile. Flowers dirty white, in loose bunches at the end of the branches.—*Spineless Indian Privet*. Hot-house.
2. *Spinosa*. A small tree, having alternate, spiny branches. Leaves oblong-oval. Flowers pale yellow, in loose bunches from the sides of the branches.—*Spiny Indian Privet*. Hot-house.

OBSERVATION. Some deem the first species only a variety of the second, and that it loses its thorns by culture. The powder of the leaves is used by the Eastern people for staining their nails. They make the powder

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into a paste with water, and binding it on their nails, they become of a deep yellow colour, which is not easily worn out.

LIQUIDAMBAR. Sweet Gum. (Class 21. Order 8.)

Plants Monœcious.

Male Flowers numerous, and are ranged in a long, loose, conical catkin. — *Common Involucrum* of 4 egg-shaped, concave leaves, one alternately smaller than the other, and soon drop off. — *Corolla* none. — *Stamina* numerous, very short. — *Summits* erect, double, 4-furrowed.

Female Flowers collected into a globular form at the base of the male spikes. — *Involucrum* as in the male, but double. — *Proper Calyx* bell-shaped. — *Corolla* none. — *Germen* oblong, fastened to the calyx. — *Styles* 2, awl-shaped. — *Stigmas* as long as the style, recurved, a little downy. — *Seed-vessels* dry, egg-shaped, 1-celled, 2-valved at their tip, and are collected in a ligneous globe. — *Seeds* many, oblong, shining.

1. *Styraciflua*. A smallish tree, with regular branches forming a pyramid. Leaves angular, 5-lobed; the lobes acute. Flowers deep yellow, in spikes at the end of the branches, and come out before the leaves are expanded. — *Maple-leaved Liquidambar*. Virginia.
2. *Asplenifolium*, vel *Peregrinum*. Shrubby, with slender, hairy stalks, about three feet high. Leaves long, narrow, alternately sinuated, or cut into obtuse lobes. Catkins from the sides of the branches. — *Spleenwort-leaved Gale*. America.

OBSERVATION. The first sort exudes a gummy substance, of a very fragrant smell, and much of the nature of Storax.

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LIRIODENDRON. *Tulip Tree.* (Class 13. Order 7.)

Involucrum of 2 flat, triangular, deciduous leaves.—*Calyx* composed of 3 oblong, concave, spreading, deciduous, petal-like leaves.—*Corolla* of 6 obtuse petals, forming a bell: they are channelled at their base, and the outer 3 are deciduous.—*Stamina* numerous, linear, shorter than the corolla, and inserted into the common receptacle.—*Summits* linear, fastened longitudinally to the side of the stamina.—*Germina* numerous, collected in a cone.—*Style* none, but each germin has 1 globular *Stigma*.—*Seeds* numerous, acute, compressed at their base, collected in form of a cone: they end in a lance-shaped scale, just below which, on their inner side, they put out an acute angle.

1. *Tulipifera.* A tall, deciduous tree, producing large, smooth, three-lobed leaves, on long foot-stalks, and of a singular shape: their middle lobe is broad, stumped, and the end cut off as it were in a hollow line; the two side ones are rounded. Flowers spotted with green, yellow, and red.—*Common Tulip Tree.* America.

M.

MELASTOMA. *American Gooseberry Tree.*

(Class 10. Order 1.)

Calyx of 1 bellying, abiding leaf, cut into 5 obtuse parts.—*Corolla* of 5 roundish petals, inserted into the

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chap of the calyx.—*Stamina* 10, short, inserted into the calyx, and some of them are bent back, putting out a fracture in the middle.—*Summits* long, somewhat curved.—*Germs* roundish, below the corolla.—*Style* thread-like, straight.—*Stigma* obtuse.—*Berry* roundish, 5-celled, rolled up in the calyx, and crowned with a roundish margin.—*Seeds* many, nestling.

1. *Acinodéndron*. A shrub, having egg-shaped, acute, somewhat five-nerved, denticulated leaves; the two outermost nerves obsolete, and the three inner ones joined a little above the base. Flowers white, in bunches at the end of the branches.—*Plantain-leaved American Gooseberry*. Hot-house.
2. *Malabáthrica*. Shrubby, with an angular stem, and opposite branches. Leaves lance-shaped, entire, rough, five-nerved. Flowers large rose-colour, in hairy, silky clusters at the end of the branches.—*Malabarian Silky-headed Melastoma*. Hot-house.
3. *Holoseríceá*. A small tree, having downy branches. Leaves large, oblong-egg-shaped, entire, reticulated, three-nerved, white and silky beneath. Flowers yellowish, in brachiated, two-parted spikes.—*Silky Brazilian Melastoma*. Hot-house.

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N.

NYSSA. *Tupelo Tree.* (Class 22. Order 16.)

Plant polygamous.

Male Flowers on a distinct plant.—*Calyx* spreading, flat at the bottom, and cut into 5 parts at the brim.—*Corolla* none.—*Stamina* 10, awl-shaped, shorter than the calyx.—*Summits* double, as long as the stamina.

Hermaphrodite Calyx like that of the male, and fits upon the germen.—*Corolla* none.—*Stamina* 5, awl-shaped, erect.—*Summits* simple.—*Germen* egg-shaped, below the calyx.—*Style* awl-shaped, incurved, longer than the stamina.—*Stigma* acute.—*Nut* oval, acute, longitudinally furrowed.

Aquatica. A tall shrub, with an erect, tree-like stem. Leaves broad-lance-shaped, mostly entire. Flowers green, either solitary, or many on the same peduncle from the wings of the branches.
——*Virginian Tupelo Tree.*

O.

ÓCYMUM. *Basil.* (Class 14. Order 1.)

Flowers lipped.

Calyx of 1 short, tubular, abiding leaf, cut into 2 lips: *Upper lip* flat, and almost orbicular: *Lower lip* cut into 4 acute teeth.

Corolla of 1 gaping, inverted petal, having a very short, spreading tube.—*One lip* broader than the other, looks upward, and is cut into 4 obtuse, equal parts: the *other lip* is the longest, ferrated, and looks downward.—*Stamina* 4, declining, the exterior 2 rather longer than the rest, and put out a reflexed fracture at their base.—*Summits* half-moon-shaped.—*Germs* 4-parted.—*Style* thread-like, as long as the *stamina*, and ranged with them.—*Stigma* bifid.—*Seeds* 4, egg-shaped, lodged in the calyx, which is closed.

1. *Gratissimum.* Rather shrubby, with a simple, four-cornered stalk, more than two feet high. Leaves lance-egg-shaped, ferrated, on hairy foot-stalks. Flowers white, sweet-scented, and terminate the stalks in whorled spikes, each whorl containing about six flowers.—*Sweet-scented Ceylon Basil.* Hot-house.
2. *Tenuiflorum.* Stalk about half a yard high, roundish and branching. Leaves egg-shaped-oblong, ferrated. Bractæ heart-shaped, con-

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cave, smooth, opposite and reflexed. Flowers small, purplish or white, almost sessile, and they come out by threes from each bractea, forming long, narrow spikes at the end of the branches. Calyces smooth.—*Slender-spiked Malabarian Basil.* Hot-house. ♂

3. *Basilicum.* Stalk erect, hairy, more than a foot high, with opposite branches. Leaves egg-shaped, smooth, opposite. Flowers in whorled spikes at the end of the branches. Calyces ciliated. Plant clove-scented.—*Common Sweet Basil.* Green-house. ☉

OLEA. *Olive.* (Class 2. Order 1.)

Calyx of 1 small, tubular, deciduous leaf, cut at the mouth into 4 erect teeth.—*Corolla* of 1 funnel-shaped petal, with an almost cylindrical tube, as long as the calyx, and a flat limb, cut into 4 half-egg-shaped segments.—*Stamina* 2, awl-shaped, short, opposite.—*Summits* erect.—*Germen* roundish.—*Style* very short.—*Stigma* bifid, the divisions notched.—*Plumb* nearly egg-shaped, smooth, 1-celled.—*Nut* egg-shaped, oblong, wrinkled.

1. *Europæa.* A tree, having lance-shaped, entire leaves. Flowers small, white, in contracted bunches from the wings of the leaves.—*Common Olive.* Europe. *The varieties are the*
 Long-leaved Olive.
 Broad-leaved Olive.
 Iron-coloured Olive.
 Box-leaved Olive.

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2. *Capensis*. A shrub, having egg-shaped, entire, or sometimes undulated leaves. Flowers in a divaricated, pencil-like racemus. — *Cape Olive*. Green-house.
3. *Americana*. A shrub, having elliptical, lance-pointed leaves. Bractææ small, abiding. Flowers in narrow racemi. — *American Olive*. Green-house.
4. *Frágans*. A shrub, having lance-shaped, serrated leaves. Flowers solitary, on aggregate peduncles from the sides of the branches. — *Fragrant Olive*. Green-house.

P.

PASSERINA. Sparrow-wort. (Class 8. Order 1.)

Calyx none.—*Corolla* of 1 withering petal, having an almost cylindrical tube, swelled below the middle, and a spreading limb, cut into 4 egg-shaped, concave, obtuse segments.—*Stamina* 8, brittle-like, as long as the limb, and sit on the tube.—*Summits* nearly egg-shaped, erect.—*Germen* egg-shaped, within the tube of the corolla.—*Style* thread-like, as long as the tube, and springs from the side of the germen.—*Stigma* knob-like, hairy all round.—*Seed-vessel* egg-shaped, leathery, 1-celled.—*Seed* 1, pointed at both ends, oblique at the tip.

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1. *Filiformis*. Shrubby, from four to six feet high, with weak, downy branches. Leaves very narrow, convex, and are closely imbricated in four rows. Flowers small, white, from between the leaves near the end of the twigs. ——— *White-flowering Cape Sparrow-wort.* Green-house.
2. *Hirsuta*. Shrubby, six feet or more high, with hairy, shaggy stalks, and downy, diffuse branches. Leaves short, thick, fleshy, smooth on their outside, and imbricated. Flowers small, white. ——— *Hairy Italian Sparrow-wort.* Green-house.
3. *Ciliata*. Shrubby, about five feet high, and the branches naked to their end. Leaves lance-shaped, erect, somewhat ciliated at their tip, and are placed at the end of the branches. Flowers white. ——— *Ciliated Ethiopian Sparrow-wort.* Green-house.
4. *Capitata*. Shrubby, more than a foot high. Leaves linear, smooth, scattered. Flowers in terminal, globular, downy heads, on a common downy peduncle, thickening upward. Stamina 16, but 8 have no summits. ——— *Capitated Cape Sparrow-wort.* Green-house.
5. *Uniflora*. Shrubby, about a foot high, with smooth, slender, spreading branches. Leaves very narrow, linear and opposite. Flowers pale purple, one at the end of a branch. ——— *Uniflorous Sparrow-wort.* Ethiopia. Green-house.

PLECTRANTHUS. *Plectranthus*. (Class 14. Order 1.)
Flowers tipped.

Calyx of 1 small, somewhat bell-shaped leaf, cut into 5 unequal parts. — *Upper part* the largest, egg-

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shaped and acute: *Side ones* narrow, acute, and rather the shortest; *Lower 2* awl-shaped.

Corolla of 1 gaping, reversed petal, having a linear, compressed tube, ending in a short spur, lodged on the upper segment of the calyx.—*Upper lip* the largest, erect, and reverse-heart-shaped: *Lower lip* egg-shaped, almost entire and reflexed.—*Stamina* 4, two rather shorter than the rest.—*Summits* lobed.—*Germs* 4-parted.—*Style* thread-like, shorter than the stamens.—*Stigma* bifid, acute.—*Seeds* 4, lodged in the calyx.

1. *Fruticósus*. Stem woody, and puts forth smooth, squarish, purple, opposite branches, about two feet high. Leaves between egg and heart-shaped, wrinkled, coarsely serrated, on hairy foot-stalks opposite. Bractææ egg-shaped, acute, hairy, opposite. Flowers light blue, spotted with deep blue, and come out by threes from the bosoms of the bractææ, forming a sort of whorled racemus at the end of the branches. Calyces hairy.—*Shrubby Cape Plectranthus*. Green-house. *The plant has greatly the smell of the Garden Clary.*

2. *Punctáta*. Stalks herbaceous, round, about a foot high, branching, and marked with brown, oblong dots. Leaves egg-shaped, serrated, wrinkled, hairy, on foot-stalks opposite. Bractææ egg-shaped. Flowers bluish, nodding, in spikes at the end of the branches.—*Dotted Plectranthus*. Abyssinia. Green-house. ♂

PŌDOPHYLLUM. *Duck's-foot*. (Class 13. Order 1.)

Calyx composed of 3 large, erect, egg-shaped, concave, coloured, deciduous leaves.—*Corolla* of 9

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roundish, concave petals, plaited on their margin.—*Stamina* numerous, very short.—*Summits* large, oblong, erect.—*Germen* roundish.—*Style* none.—*Stigma* obtuse, plaited.—*Berry* egg-shaped, 1-celled, crowned by the stigma.—*Seeds* numerous, roundish.—*Receptacle* loose.

Peltatum. Root fleshy, knobby, creeping. Leaves smooth, target-shaped, lobed, on long forked foot-stalks immediately from the root. Flowers large, white, and come out from the fork of the foot-stalks of the leaves. ——— *Canada*
Duck's-foot.

POLYGONUM. See the Dictionary.

Bistorta. Stalk erect, round, jointed, quite simple, near two feet high. Leaves egg-shaped: the lower ones on foot-stalks; the upper ones sessile. Flowers pale red or white, and terminate the stalk in a thick, short spike. —
Common Bistort; Snakeweed. England.

OBSERVATION. *The root of this plant is used in medicine. It is a powerful astringent, and in decoction has been found very serviceable in vomiting, spitting of blood, and in all kinds of fluxes.*

PRASIUM. *Shrubby Hedge Nettle.* (Class 14. Order 1.)

Flowers lipped.

Calyx of 1 erect, lipped leaf, between bell and top-shaped.—*Upper lip* rather the broadest, and cut into 3 acute-pointed parts: *Lower lip* 2-parted.

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Corolla of 1 gaping petal.—*Upper lip* erect, egg-shaped, concave, and slightly notched: *Lower lip* the broadest, reflexed, with the middle segment the largest.—*Stamina* 4, awl-shaped, shorter than the upper lip, and 2 shorter than the rest.—*Summits* oblong, placed perpendicular with the upper part of the stamina.—*Germs* 4-parted.—*Style* thread-like, as long as the stamina, and ranged with them.—*Stigma* bifid, acute, one part shorter than the other.—*Berries* 4, roundish, 1-celled, lodged in the calyx.

1. *Majus*. Shrubby, two feet or more high, with numerous, slender, whitish, four-cornered branches. Leaves opposite, egg-shaped-oblong, serrated, and mostly end in a bristle-like point. Flowers white, on short peduncles from the bosoms of the leaves, near the end of the branches. Teeth of the calyces tipped with a soft spine.—*Great Shrubby Hedge Nettle*. Spain. *Green-house*.
2. *Minus*. Shrubby, about the size of the former. Leaves egg-shaped-oblong, with two notches on each side.

OBSERVATION. *The vast number of unknown plants discovered within a few years past, must necessarily add greatly to the genera. Instead then of chopping an established genus into two or three, changing specific names, making new species from the most trivial circumstances, and by these means embarrassing the science, it would be highly commendable in botanists to unite their endeavours, as much as possible, in reducing the former number of the genera and species. I gave instances in the Compendium (page 31) of four genera, that might with propriety be comprised in two, and their differences made specific, not generic marks.*

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These were Alyffum and Clypeola; Hesperis and Cheiranthus. I have also, in other places, hinted at some which pass for species, that are evidently only varieties; and here we have a fresh example in the above two Praefiums, the given distinctions of both sorts of leaves being sometimes found on the same plant, consequently they are only one species. Leaves are subject to small variations in most vegetables, and alone are not always sufficient for specifick discrimination.

PROTEA. *Silver Tree.* (Class 4. Order 1.)

Flowers aggregate.

Common Calyx roundish, and imbricated with nearly egg-shaped scales.

Aggregate Flower uniform.—*Partial Flower* of 1 petal, having a tube as long as the calyx, and a limb cut into 4 equal, spreading segments.—*Stamina* 4, hair-like, longer than the corolla.—*Summits* incumbent.—*Germen* roundish.—*Style* bristle-like, erect, as long as the stamina.—*Stigma* obtuse.—*Seeds* roundish, naked, placed between the chaff of the *Receptacle*, which is conical.

1. *Argentea.* A tallish shrub, with an erect, woody stem, and spreading branches. Leaves lance-shaped, ciliated, downy, silvery, and very shining. Flowers in globular heads.—*Silvery Cape Protea.* Green-house.
2. *Conifera.* Shrubby. Leaves elliptical, acute, smooth, tough, entire. Flowers in globular heads, having a long, acute, whole-coloured involucre.—*Cone-bearing Cape Protea.* Green-house.

R.

RHODORA. *Bastard Rose Bay*. (Class 10. Order 1.)

Calyx 1 exceeding short, abiding leaf, having an irregular brim.—*Corolla* of 3 unequal petals. *Upper petal* the broadest, oblong, recurved, gibbous at the base, and is cut at the tip into 3 closing lobes: *Lower two* lance-shaped, equal, and reflexed.

Stamina 10, thread-like, spreading, curved, as long as the corolla.—*Summits* roundish, double.—*Germs* egg-shaped, hairy, within the corolla.—*Style* thread-like, rather longer than the stamina.—*Stigma* roundish, somewhat lobed.—*Seed-vessel* dry, egg-shaped, 5-celled.—*Seeds* numerous, very small.

Du Hamel, in describing the corolla of this genus, says the lower petal is three-lobed; in my plant it is the upper one.

Canadensis. A small, upright shrub, having round, slender, smooth, woody branches. Leaves oblong-elliptical, hairy, entire, alternate, on short foot-stalks, and have their margins rolled back. Flowers bright purple, in small clusters, on short, hispid peduncles, springing from the tip of the branches.—*Canadian Rhodora*.

S.

SELAGO. *Selago*. (Class 14. Order 2.)

Calyx of 1 small, abiding leaf, cut into 4 or 5 parts, the lower one the largest.—*Corolla* of 1 petal, having a very small, hair-like tube, and a spreading limb, cut into 5 almost equal segments.—*Stamina* 4, hair-like, 2 rather shorter than the rest, about as long as the corolla, and inserted into it.—*Summits* simple.—*Germen* roundish.—*Style* as long as the stamina.—*Stigma* acute.—*Seed-vessel* egg-shaped.—*Seed* 1, roundish, involved in the corolla.

1. *Corymbósa*. Somewhat shrubby, from five to seven feet high, having a slender stalk, and weak, dangling branches. Leaves short, thread-like, numerous, and there come out several from a point on all sides of the branches. Flowers small, white, in roundish, terminal bunches, composed of a great many smaller bunches.—*Corymbous-flowering Selago*. *Æthiopia*. *Green-house*.
2. *Spúria*. Somewhat shrubby. Leaves linear, denticulated, alternate, crowded. Flowers blue, in obtuse, egg-shaped, compound spikes, closely imbricated with small spikes.—*Spurious* *Æthiopian Selago*. *Green-house*.

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3. *Polystáchia*. Shrubby, with alternate branches. Leaves thread-like, in bunches. Flowers in hairy, compound, even-topped spikes at the end of the branches.—*Pine-leaved Cape Selago*. Green-house.

SILÉNE. See the Dictionary.

Péndula. Stalks branching, a foot or more long. Leaves somewhat oval, acute-pointed, opposite, and join at their base, surrounding the stalk. Flowers rose colour, mostly solitary, on peduncles from the wings of the leaves. Seed-vessel pendulous, included in the calyx, which is inflated, and has ten rough angles.—*Pendulous Cretan Catchfly*. ☉

T.

TETRAGONIA. *Tetragonia*. (Class 10. Order 4.)

Calyx of 1 abiding, coloured leaf, cut to the base into 4 or 5 egg-shaped parts.—*Corolla* none.—*Stamina* 20 or more, hair-like, shorter than the calyx.—*Summits* oblong, incumbent.—*Germen* roundish, 4 or 5-cornered, below the calyx.—*Styles* 4 or 5, awl-shaped, recurved, as long as the stamina.—*Plumb* covered with a tough, leathery coat, having 4 or 5 winged, longitudinal angles.—*Nut* hard, 4 or 5-celled.—*Seeds* oblong, solitary.

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1. *Fruticósa*. Shrubby, three or four feet high, with weak, succulent branches, covered with shining, pellucid drops. Leaves linear, thick, concave, alternate. Flowers greenish on their outside, yellow within, and they come out single, or two or three together from the wings of the branches.—*Shrubby Tetragonia*. Æthiopia. *Green-house*.
2. *Herbácea*. Root thick and fleshy. Stalks weak and trailing. Leaves egg-shaped, flat, succulent, in clusters. Flowers sulphur-colour, and they come out from between the leaves.—*Herbaceous Tetragonia*. Æthiopia. *Green-house*.

THYMBRA. *Mountain Hyssop*. (Class 14. Order 1.)

Flowers lipped.

Calyx almost cylindrical, lipped, marked on both sides with a hairy line.—*Upper lip* the broadest, and cut into 3 equal, closing parts:—*Lower lip* 2-parted.

Corolla of 1 gaping petal, having a cylindrical tube.—*Upper lip* flat, straight, obtuse and semi-bifid: *Lower lip* flat, and trifid.—*Stamina* 4, thread-like, in pairs, the lower pair the shortest.—*Summits* cut into 2 remote lobes.—*Germen* 4-parted.—*Style* split about half way down into two.—*Stigmas* 2, acute.—*Seeds* 4, lodged in the calyx.

1. *Spicáta*. Shrubby, low, woody, and very much branched. Leaves narrow, acute, entire, sessile, opposite. Flowers purple, in close spikes at the end of the branches.—*Spiked Mountain Hyssop*. Macedonia. *Green-house*.

A P P E N D I X.

2. *Verticillata*. Shrubby, scarcely a foot high, with woody branches. Leaves linear, lance-pointed, entire, dotted, opposite. Bractææ broader than the leaves, and ciliated. Flowers purple, in whorled spikes at the end of the branches.
 ————*Verticillated Mountain Hyssop*. Spain.
Green-house.

U.

UVULARIA. *Uvularia*. (Class 6. Order 1.)

Calyx none.—*Petals* 6, long, lance-pointed and erect.—*Nectarium* an excavation at the base of each petal.—*Stamina* 6, very short, broadish.—*Summits* long, erect, shorter by half than the corolla.—*Germs* roundish, above the corolla.—*Style* split about half way down into 3 thread-like parts.—*Stigmas* simple, reflexed.—*Seed-vessel* dry, oblong, triangular, 3-celled. *Seeds* many, roundish, compressed.

1. *Amplexifolia*. Stalk smooth, near two feet high. Leaves oblong, acute, smooth, and embrace the stalk. Flowers yellowish white, solitary, drooping, on long peduncles from the bosoms of the leaves.—*Bohemian Uvularia*.
2. *Perfoliata*. Stalks mostly forked near their bottom. Leaves oblong-egg-shaped, pointed, smooth, and surround the stalk with their base. Flowers yellow, drooping, on long peduncles from the bosoms of the leaves.—*Virginian Uvularia*.

A P P E N D I X.

V.

VERBESINA. *Verbesina*. (Class 19. Order 2.)

Flowers compound, radiated.

Common Calyx concave, and composed of many channelled, almost equal scales.

Florets in the disk hermaphrodite, funnel-shaped, cut into 5 erect teeth.—*Stamina* very short.—*Germen* oblongish.—*Style* as long as the stamina.—*Stigmas* 2, reflexed.—*Seed* thickish, angular, crowned with aristæ.

Female rays various; either broad or narrow, simple, or cut into 2 or 3 teeth.—*Germen*, *Style*, *Stigmas*, and *Seed* like the hermaphrodite.—*Receptacle* chaffy.—*Chaff* deciduous.

1. *Alata*. Stalk erect, almost two feet high, branching near the top. Leaves oval, obtusish, undulated, often a little dentated, alternate, and they run down the stalk at their base, forming wings to it. Flowers small, roundish, deep orange colour, solitary, on long, leafless peduncles. Rays short, obtuse.—*Surinam*. *Hemp Agrimony*. Hot-house.

2. *Chinensis*. Stalk erect, round, branching from the upper leaves. Leaves oblong-egg-shaped, serrated, somewhat downy, alternate, on foot-stalks. Flowers yellow, solitary, on long peduncles. Rays lance-shaped, entire.—*Chinese Verbesina*. Hot-house.

A P P E N D I X.

3. *Fruticósa*. Shrubby. Leaves egg-shaped, ferrated, on foot-stalks opposite. Flowers yellow. Seeds broad.—*Shrubby American Verbesina*. Hot-house.

W.

WALThERIA. *Waltheria*. (Class 16. Order 1.)

Calyx of 1 cup-shaped, abiding leaf, cut about half way into 5 acute parts.—*Corolla* of 5 reverse-heart-shaped, spreading petals.—*Stamina* 5, short, spreading, united below.—*Summits* simple, distinct.—*Germs* egg-shaped.—*Style* thread-like, longer than the *stamina*.—*Stigmas* like small hair pencils.—*Seed-vessel* dry, reverse-egg-shaped, 1-celled, 2-valved.—*Seed* 1, broadest upward.

Americána. Somewhat shrubby. Leaves oval, plaited, ferrated, downy. Flowers yellow, in pedunculated heads.—*American Waltheria*. Hot-house.

X.

XIMENIA. *Ximania*. (Class 8. Order 1.)

Calyx of 1 small, abiding leaf, cut about half way into 4 pointed parts.—*Corolla* of 4 oblong, hairy petals, closed into a tube below, and rolled back near their top.—*Stamina* 8, erect, short.—*Summits* linear, obtuse, erect, as long as the corolla.—*Germen* oblong.—*Style* thread-like, as long as the stamina.—*Stigma* obtuse.—*Plumb* nearly egg-shaped.—*Nut* roundish.

Americana. A small tree, with oblong, entire leaves, having a thorn at the base of their foot-stalk. Flowers many on a common peduncle.—
American Prickly Ximania. Hot-house.

Z.

ZIZIPHORA. *Syrian Field Basil*. (Class 2. Order 1.)

Flowers lipped.

Calyx of 1 very long, almost cylindrical, rough, tubular leaf, having the chaps bearded, and the mouth slightly cut into 5 teeth.

A P P E N D I X.

Corolla of 1 gaping petal, with a cylindrical tube, about as long as the calyx, and a very small limb.

Upper lip egg-shaped, reflexed and entire: *Lower lip* the broadest, and cut into 3 roundish, equal segments.—*Stamina* 2, spreading, near as long as the corolla.—*Summits* oblong.—*Germs* 4-parted.—*Style* bristle-like, as long as the corolla.—*Stigma* acute, inflexed.—*Seeds* 4, oblong, obtuse, on one side gibbous, on the other angular.

1. *Capitata*. Stalks low, fistulous and branching. Leaves egg-shaped. Flowers purple, in terminal bunches.—*Oval-leaved Syrian Field Basil*. ☉
2. *Tenuior*. Stalks near a foot high, branching. Leaves lance-shaped, pointed. Flowers purple, from the wings of the leaves.—*Lance-leaved Syrian Field Basil*. ☉

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F

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| <p>Valerian. <i>Valeriana</i>
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I N D E X

Of the most singular *Specifick*, and the most common
Synonymous Names, with their *Generick* Names
affixed.

N. B: If the first Word be in *Italick*, it is a
Synonym:

A

ABELE. Populus
Abelmóscus. *Hibiscus*

Abies: *Pinus*
Abútilon. *Sida*
Acácia. Gleditfia
Acácia. Mimosa
Acácia. Robinia

Acetofélla. *Oxalis*
Adhatóda. *Justicia.* App:

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| <i>Althæa Frutex. Hibiscus</i> | <i>Barba-Jovis. Anthyllis</i> |
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| <i>Ascýron. Hypericum</i> | <i>Caryophýllus. Dianthus</i> |
| <i>Asteríscus. Silphium</i> | <i>Calcarílla. Croton</i> |
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Cotoneáster. <i>Mespilus</i>	Ficoïdes. <i>Mesembryanthemum</i>	
Cotylédon. <i>Saxifraga</i>	Ficus Indica. <i>Caëtus</i>	
Crus-Galli. <i>Gratægus</i>	Filipéndula. <i>Spiræa</i>	
Crux-Andréæ. <i>Acyrum</i>	Flos-Jovis. <i>Agrostemma</i>	
Cunónia. <i>Antholyza</i>		
Cyanus. <i>Centaurea</i>		
Cymbalária. <i>Antirrhinum</i>		
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 Ilex. *Quercus*
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 Jonquilla. *Narcissus*
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 Hypophyllum. *Ruscus*
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J

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K

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 Novi-Belgii. *Aster*

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 Viscaria. *Lychnis*
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X

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 Xylosteum. *Lonicera*

Z

Zanonia. *Commelina*
 Zonale. *Geranium*
 Zygis. *Thymus.*

ERRATA.

In the Preface.

Page 5, line 20, for *two*, read *too*.

Compendium.

Page 14, line 30, for *fourth*, read *fifteenth*; and for VI. r. XV.

23, 7, for *Sempervivum*, read *Sempervivum*.

36, 1, for *Pforalia*, read *Pforalea*.

48, 23, for *Filices*, read *Filices*.

Dictionary.

FOR ASRTRAGULUS, read *Astragalus*.

FOR HEDORA, read *Hedera*.

FOR HIERATUM, read *Hieracium*.

Under CHELONE; for *Penstemon*, read *Pentstemon*.

CORONILLA; for *Valentia*, read *Valentina*.

CRATÆGUS; for *Aira*, read *Aria*.

DATURA; for *Metal*, read *Metel*.

EUONYMUS; for *Europus*, read *Europæus*.

PAPAVBR; for *Orintale*, read *Orientalis*.

THYMUS; for *Serpyllium*, read *Serpyllum*.

Prof. Wie
Die Birk
A

