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FLORA CAROLINÆENSIS;

OR, A

HISTORICAL, MEDICAL, AND ECONOMICAL DISPLAY

OF THE

VEGETABLE KINGDOM;

ACCORDING TO THE LINNÆAN,

OR

*SEXUAL SYSTEM OF BOTANY.*

BEING A COLLECTION OR COMPILATION OF THE VARIOUS PLANTS  
HITHERTO DISCOVERED AND MADE KNOWN BY THE  
SEVERAL AUTHORS ON BOTANY, &c.

IN TWO VOLUMES.

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BY JOHN L. E. W. SHECUT.

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VOL. I.



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CHARLESTON:

PRINTED FOR THE AUTHOR, BY JOHN HOFF, NO. 6,  
BROAD STREET.

1806.

SOUTH-CAROLINA DISTRICT, TO WIT.

BE it remembered, that on the eighth day of January, anno domini one thousand eight hundred and six, and in the thirtieth year of the Sovereignty and Independence of the United States of America, Doctor John L. E. W. Shecut hath deposited a book in this office, the title of which is in the following words, the right whereof he claims—"Flora Carolinænsis; or a  
" Historical, Medical, and Economical Display of the Vegetable Kingdom;  
" according to the Linnaean or Sexual System of Botany. Being a collection  
" or compilation of the various plants hitherto discovered and made known by  
" the several authors on Botany, &c. In two volumes. By John L. E. W.  
" Shecut " In conformity to the act of the United States, entitled, " An act  
" for the encouragement of learning, by securing the copies of maps, charts,  
" and books, to the proprietors and authors of such copies, during the times  
" therein mentioned."

THOMAS HALL,  
*Clerk of South Carolina District.*

## THE FLOWER GARDEN.

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“ AT length the finish'd garden to the view  
Its vistas opens, and its alleys green.  
Snatch'd thro' the verdant maze, the hurried eye  
Distracted, wanders ; now the bowery walk  
Of covert close, where scarce a speck of day  
Falls on the length'ned gloom, protracted sweeps ;  
Now meets the bending sky ; the river now  
Dimpled along, the breezy ruffled lake,  
The forest darkening round, the glittering spire,  
Th' ethereal mountain, and the distant main.  
But why so far excursive ? When at hand  
Along these blushing borders, bright with dew.  
And in yon mingled wilderness of flowers,  
Fair handed spring, unbosoms every grace ;  
Throws out the *snow drop*, and the *crocus* first ;  
The *daisy*, *primrose*, *violet* darkly blue,  
And *polyanthus* of unnumber'd dyes ;  
The yellow *wall-flower*, stain'd with iron brown ;  
And lavish *stock* that scents the garden round ;  
From the soft wing of vernal breezes shed,  
*Anemonies*, *auriculas* enrich'd  
With shining meal o'er all their velvet leaves ;  
And full *ranunculus* of glowing red.  
'Then comes the *tulip* race, where beauty plays  
Her idle freaks ; from family diffus'd  
To family, as flies the father dust,  
The varied colours run ; and, while they break  
On the charm'd eye, th' exulting florist marks,  
With secret pride the wonders of his hand.  
No gradual bloom is wanting : from the bud,  
First-born of spring, to summer's musky tribes :  
Nor *hyacinths*, of purest virgin white,  
Low bent, and blushing inward ; nor *jouquils*,  
Of potent fragrance ; nor *narcissus* fair,

As o'er the fabled fountain hanging still;  
Nor broad *carnations* ; nor gay spotted *finks* ;  
Nor, shower'd from every dust, the *damask rose*,  
Infinite numbers, delicacies, smells,  
With hues, on hues expression cannot paint,  
The breath of nature and her endless bloom."



TO PETER FRENEAU, ESQ.

AS A FRIEND OF SCIENCE AND LITERATURE,

THIS WORK, ENTITLED

FLORA CAROLINÆENSIS,

IS GRATEFULLY INSCRIBED,

AS A TESTIMONY OF THE HIGH ESTEEM,

GRATITUDE AND RESPECT

Of his Most Obliged Friend,

And very Humble Servant,

J. L. E. W. SHECUT.

CHARLESTON,  
January 1st, 1806.



Engraved for *Shoens. Flora Carolinensis.*

## EXPLANATION OF THE PLATE.

- Fig. 1 1 Seminal or Seed leaves, called also Dissimilar leaves. See page 38  
Cotyledones.
- 2 2 *Folium Caulini*, Stem leaves, leaves growing round the stem. See p. 50.
- 3 *Inflexum*, Inflexed, bent inwards. See page 51.
- 4 *Ramosa*, a branched leaf. See Glossary.
- 5 4 *Erecta*, an erect or upright leaf. See page 50.
- 6 *Patens*, a spreading leaf. See page 51.
- 7 *Horizontale*, a horizontal leaf. See page 51.
- 8 *Reclinatum*, a reclined leaf, bent downwards. See page 51.
- 9 *Revolutum*, a leaf rolled back. See page 51.
- 10 *Peltatum*, a shield-fashioned leaf. See page 50.
- 11 *Petiolatum*, a leaf with a petiole or footstalk. See p. 50. *a* the petiole or footstalk.
- 12 *Decurrens*, running down. See page 50.
- 13 *Amplexicaule*, embracing the stem. See p. 50.
- 14 *Perforiatum*, leaf seems perforated by the stem. See p. 50.
- 15 *Connatum*, growing together. See p. 50.
- 16 *Vaginans*, a sheathing leaf. See p. 50.
- 17 *Articulatum*, a jointed leaf, as in prickly Pear. See p. 48.
- 18 *Stellatum*, a starry or verticillate leaf. See page 50.
- 19 *Quaterna*, a fourfold leaf. See Stellate, page 50.
- 20 20 *Opposita*, opposite each other. See p. 50.
- 21 21 *Alterna*, Alternate, one higher than the other. See p. 50.
- 22 *Acerosa*, Chaffy. See page 43.
- 23 *Spatulatum*, resembling a Spatula. See page 48.
- 24 *Triangulare*, a triangular leaf. See p. 48.
- 25 *Cordatum*, heart-shaped. See page 46.
- 26 *Saggitatum*, arrow-shaped. See page 48.
- 27 *Quinangulare*, having five angles. See page 47.
- 28 *Palmed*, hand-shaped. See p. 47.
- 29 *Trifid*, composed of three lobes. See page 48.
- 30 *Pinnatum*, winged. See page 49.
- 31 *Laciniate*, jagged or cut. See page 46.
- 32 *Partite*, parted. See page 47.
- 33 *Dentatum*, toothed. See page 46.
- 34 *Serratum*, sawed.
- 35 *Cirrho*, a tendril or clasper—*a* the *Stipula*. Chapter 7.
- 36 *Folium Emarginatum*, the tip terminates in a notch. See page 46.
- 37 *Cuneiforme emarginatum*, wedge-shaped. See p. 46.
- 38 38 *Aculei Simplex*, a simple brier. See page 44.
- 39 *Spina triplex*, a triple or three pronged thorn. See p. 44.
- 40 *Aculea triplex*, a triple brier. See p. 44.
- 41 *Bractæ*, or floral leaves. See page 43.
- 42 The Corolla of the *Bignonia Radicans* or Trumpet flower, displayed to show the situation of the Stamens, Pistil, &c.
- a* The *Calix*, Empalement or flower cup. See page 28.
- bbbb* The *Corolla*, Blossom or flower leaf. See page 32.
- c* The *Germen*, *d* the *Stylus*, *e* the *Stigma* or *Apex*; these three parts constitute the Pistil or female part of fructification. See page 35.
- ffff* The *Filaments*, *gggg* the *Antheræ*, these two parts constitute the Stamen or male part of the fructification. See page 34.
- 43 *Frons*, or *Fronde*. See page 42.
- 44 The *Germen* advanced to a *Pericarp*, which is here a *Capsule*, *a* the *Stylus*, *b* the advanced *Germen*, *c* the *Calix* permanent, *d* the footstalk. See p. 36.



## INTRODUCTION.

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THE Linnæan or Sexual System of Botany, having been almost universally adopted throughout the civilized world, introductory remarks appear almost unnecessary: for though the Sexual Hypothesis, on its first appearance, was received with all that caution that becomes an enlightened age; and nature was treated experimentally, through all her variations, before it was universally assented to, yet the proofs which Doctor Linnæus has stated amongst the aphorisms of his *Fundamenta Botanica*, and farther explained and illustrated in his *Philosophia Botanica*, are so clear, that the birth of animals is not more evidently the consequence of an intercourse between the sexes, than that of vegetables; and it would be now as ridiculous for any one who has investigated the subject, to doubt of the one as of the other.

In order to give a clear idea of the present work, it becomes necessary to prefix a prospectus of the succeeding pages, which are in the strictest sense of the word, a faithful collection or compilation, and methodical arrangement of all the plants hitherto discovered and made known by the most approved authors on Natural History, and particularly that part coming under our immediate notice, viz. Botany.

And in order that every class of readers may be benefited, the following plan has been adopted, and the whole conducted, as far as was practicable, in the following order:

*First*—The Theory of Botany, consisting of Linnæus' scheme of the Sexual System, with examples; a Table of Orders, and the explanation thereof, including all the essential parts of plants necessary for investigating their species, &c. whereby students may arrive at a speedy and perfect knowledge of this most useful branch of natural history. Concluded by a short Glossary of the technical terms used by Botanists.

*Secondly*—A scheme and table of the Reduction of Plants, shewing their medicinal virtues, under their proper classes, considered in a medical point of view, systematically arranged, so that physicians, surgeons and others, may at one view have choice of variety, all possessed of the same or similar virtues.

*Thirdly*—An alphabetical arrangement of plants under the following heads :

1st.—Under the class, order and genus, will be described the Botanical characters of each *genus*, and the class and order to which it belongs; also the class in which it ranks, according to Linnæus' natural orders or method, except those lately discovered.

2d.—The *species* particularized, and their varieties, their places of nativity, manner of growth, soil, &c. &c.

3d.—The *parts used* in medicine, i. e. of such as are known to be used.

4.—The *sensible properties* of those parts.

5.—The *medical virtues* of which they may be possessed.

6.—The *domestic uses* to which any, or all the parts may be or are employed, &c. &c.

7.—*Notes* accompanying *poisonous*, or deleterious vegetables or plants, with their antidotes.

And lastly—An Index of *general reference*, containing a list of the diseases, to which the whole adverts in its various parts, as also the domestic uses of each particular species.

This work in its present form embraces as much as it is possible the nature of a *Vegetable Materia Medica* and complete *Botanic Dictionary*, and is adapted to every class of citizens. In 1794 I commenced the first part under the title of *Pabcosmography*, derived from the initials of Physic, Anatomy, Botany, Chemistry, Osteology, Surgery, Midwifery, and *graphy*, a description; which has led to the introduction of the present work. The undertaking, though an arduous one, and attended with seemingly insurmountable difficulties, perseverance has at length enabled the compiler to overcome the principal; and it is now submitted to a liberal public.

As the varieties in the vegetable kingdom are so numerous, and the utmost industry of Botanical investigation so inadequate to the undertaking, it cannot be expected, but that there may be many genera omitted, exclusive of non-descriptors, and probably some of those new genera and species, which within these few years, have poured in upon us like an inundation from the different quarters of the globe. However that may be, he assures his readers, that the most indefatigable labour and attention has

been paid, to render it as complete a compilation as is extant on the subject, omitting no one species, which has yet been made public, and come to his knowledge. So that in every point of view, it will be found a work worthy of public notice. Eminent writers, have observed, that besides the satisfaction which the study of the works of nature, and especially that of Botany, affords to an inquisitive mind, it counteracts the passion for more frivolous amusements, and always presents objects worthy of contemplation, which if rightly conducted, ends in the adoration of the *great Jehovah*, who created the heavens and the earth, and all things that are contained therein. Hence the late Doctor Withering, very justly remarks, that, independent of its immediate use, the study of Botany is as healthful as it is innocent, that it beguiles the tediousness of the road, furnishes amusement at every footstep of the solitary walk; and above all, that it leads to pleasing reflections on the *bounty*, the *wisdom* and *power*, and the *infinite goodness* of the *great Creator!* -

Can we read of the enormous size of the African calabash tree (*Adansonia Baobab*) which for nearly three centuries, has stood the wonder and admiration of travellers of all nations, whose trunk is nearly 26 yards in circumference, and whose branches extend 120 or 130 feet in diameter, and not acknowledge "the hand that made it is *divine*."

The Mexican Aloe (*Aloe Maguei*) affords every necessary article in life, *houses*, *clothing* of every description, *bread*, *wine*, *sugar*, *paper*, *thread*, *needles*, &c. &c.

The leaves of the Aloe mentioned by Dr. Sloane, form receptacles for holding water, and serve, instead of wells in those hot countries, where wells are scarce, whereby thirsty travellers may quench their thirst.

In the *Alsine* or Chickweed, we view a natural *Barometer*, and have also a notable instance of the sleep of plants in that admirable vegetable.

The diurnal motion of the sun-flower, and the amazing quantity of perspirable matter it passes out through its pores (as it is said to perspire nineteen times as much as a man in 24 hours) cannot fail to excite our admiration, and increase a desire to become acquainted with the vegetable world.

Many such extraordinary peculiarities occur in this work, founded on the best authorities: In short, nothing has been omitted that will tend either to increase a thirst after the attainment of this agreeable and beneficial study, or for conveying in a full, plain, and perspicuous manner, the virtues and uses of as many as have been discovered to possess either medical or useful properties.

## A VIEW OF THE AMERICAN FOREST IN AUTUMN,

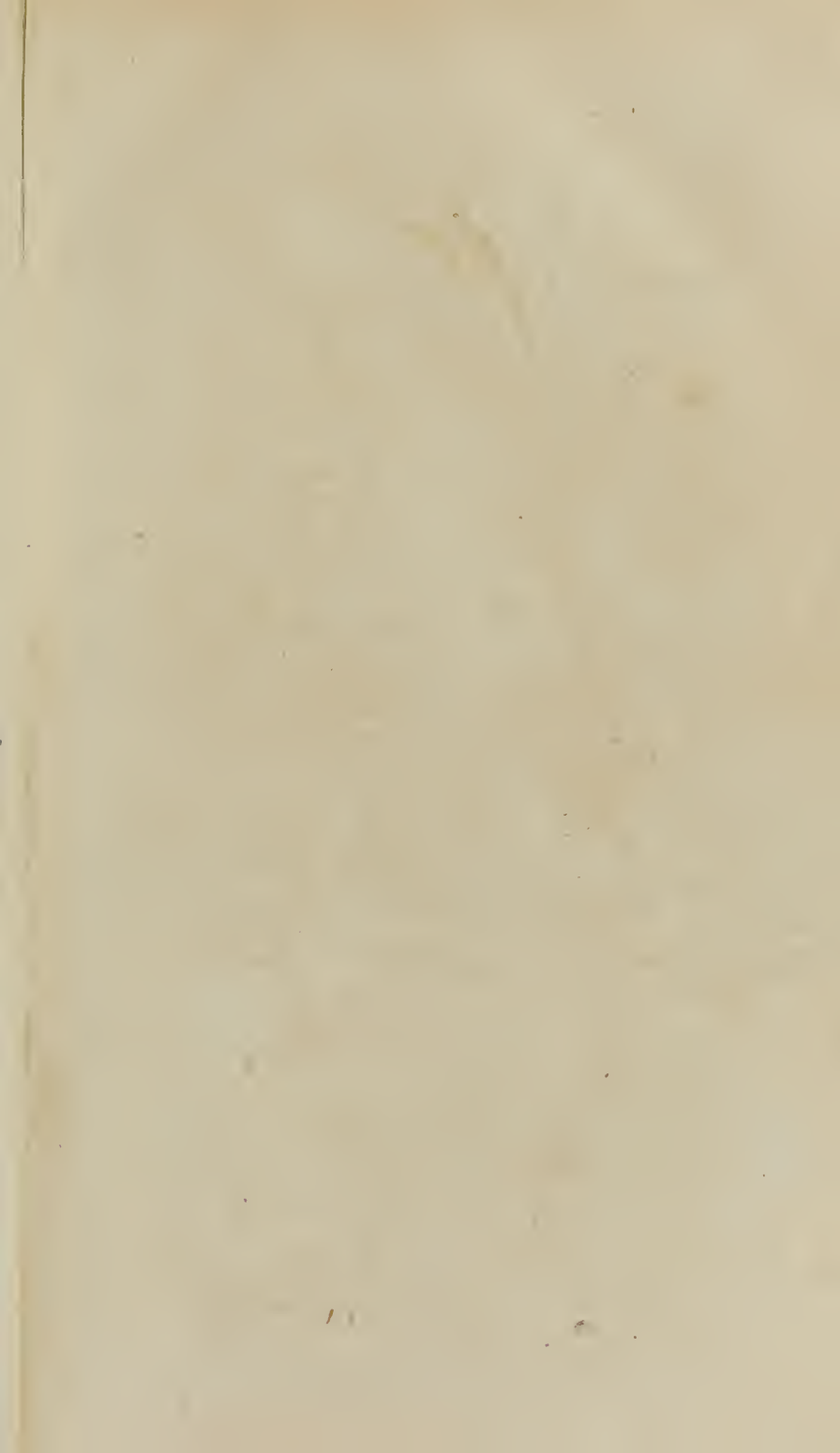
BY THE AUTHOR.

SUCH the gifts of heaven, to the sons of men  
 Heavens well belov'd, whose providential care  
 Each season variegates with variegated blessings,  
 Congenial to the hearts, of Carolina's grateful sons.  
 Unnumbered beauties grace the autumnal scene,  
 The spring and summer's labours at an end,  
 Smiling, retire, nature's sweet handmaid  
 Flora ever fair, and ever lavish of her gifts,  
 Leaves not the garden, or the forest bare  
 Or destitute of verdure, the foliage now assumes  
 Rich shades of yellow, crimson, white and red,\*  
 And thus combine to strike th' astonish'd eye, and  
 Call the attention thither, the *Laurus, Kalmia, Cypress,*  
 And others ever-green, now re-assume their beauties,  
 Retaining varied verdures, dark and lightly green.  
 Others deciduous, approaching winter warns,  
 Leaves, take the hint, and from their verdant hue,  
 Instantly change to white, to crimson, to yellow and to red.  
 Now *Nyssa, Laurus, Juglans, Acer,* all  
 Anew, unfold the secrets of their charms ;  
 Each striving most to attract the wand'ring eye,  
 Each yielding to the sons of men, a grand display, of  
 Nature's last bequest : Nor yet the last, for  
 Succeeding years, a fresh succession brings,  
*Jehovah* reigns, and nature again renew'd  
 Spring, summer, autumn, winter, owns the hand *Divine.*

*Charleston, August 6, 1805.*

\* Many leaves of our forest trees, on the approach of winter, undergo an essential change in their colour, the leaves of the Sweet Gum turn red, as does the Maple, Sycamore, &c. yellow.







Engraved for Doc.<sup>r</sup> Shucats Flora Carolinaensis.

### EXPLANATION OF PLATE III.

- Fig. 1 Describes a flower of the first Class, viz. *Monandria*, and of the first Order *Monogynia*, as having one Stamen and one Pistil. See Scheme of the Sexual System, page 10; also Chap. 2d, Class 1, and Chap. 3.
- 2 A flower of the 2d Class *Diandra*, and first Order *Monogynia*. See Scheme and Chap. 2d and 3d.
- 3 Class 3d, *Triandria*, or three Stamens. See Scheme and Chap. 2d & 3d.
- 4 Class 4th, *Tetrandria*, or four Stamens [all of one length.] ditto
- 5 Class 5th, *Pentandria*, or five Stamens [Anthers not united.] ditto
- 6 Class 6th, *Hexandria*, or six Stamens [all of one length.] ditto
- 7 Class 7th, *Heptandria*, or seven Stamens. ditto
- 8 Class 8th, *Octandria*, or eight Stamens. ditto
- 9 Class 9th, *Emmeandria*, or nine Stamens. ditto
- 10 Class 10th, *Decandria*, or 10 Stamens [threads not united] ditto
- 11 Class 11th, *Doceandria*, 12 Stamens or more [fixed to the receptacle.] See Scheme and Chap. 2d and 3d.
- 12 Class 12th, *Icosandria*, 20 or more Stamens, inserted into the Calix and not into the receptacle.



# FLORA CAROLINÆENSIS.

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## CHAPTER I:

**B**OTANY is defined to be that branch of Natural History, which treats of the characters, classes, orders, genera, species and uses of plants. For discovering the latter, it is necessary to be well acquainted with the former, whereby the science is not only rendered ornamental, but useful; the more a science is simplified, the more will it be diffused, and the certainty is, that the greater proportion of mankind will thereby be richly benefited, with the knowledge of those virtues, which reside in simples. We must give the tribute of praise to the worthy Professors and Naturalists, who have devoted so much time and labour to the classification of plants, and in exploring their virtues and uses. Hippocrates, Aristotle and Theophrastus were among the most antient. Rome will ever boast of Cato, Varra, Virgil, Columella, Dioscorides, Pliny-Secundus, &c. Arabia, her Mesue, Serapio, Razis, Avicenna and Averrhoea. England her Turner, Gerard, Tradescant. In short Europe her Gesner, Dodonaeus, Caesalpinus, Prosper-Alpinus. The Bauhines, Columna, Parkinson, Plukenet, Morison, Malphigi, Grew, Hermann, Ray, Magnol, Tournefort, Sloan, Sherrard, Linnaeus, Miller, &c.

America bids fair to rival Europe, and with the venerable Bartram, and successor, Walter, Barton and Drayton, shall we not add, though a native of France (co-citizen for some years) Micheaux, each of whose works have contributed to throw considerable light upon this most useful science, and have in a great measure removed those prejudices which formerly existed, and are now happily vanishing from our sight.

These Authors with a view to bring the numerous tribes of vegetables under certain classes or denominations, adopted various methods, some have chosen the Roots, some the Stalks, some the Calix, others the Corolla, and some the Fruit, while Linnaeus preferred the parts of fructification, because these are not only the most essential, but likewise the most universal; which he has classed in the following manner.

## SCHEME OF THE SEXUAL SYSTEM.

Plants celebrate their nuptials,	Either publicly, that is, have visible flowers	EXAMPLES.
	<p>MONOCLINIA, males and females in the same flower.</p> <p>DIFFINITAS, the Stamens unconnected with each other.</p> <p>INDIFFERENTISSIMUS, the Stamens, having no determinate proportion betwixt each other as to length.</p> <ol style="list-style-type: none"> <li>1. MONANDRIA, one Stamen, in a hermaphrodite flower.</li> <li>2. DIANDRIA, two Stamens.</li> <li>3. TRIANDRIA, three Stamens.</li> <li>4. TETRANDRIA, four Stamens (all of one length.)</li> <li>5. PENTANDRIA, five Stamens (anthers not united.)</li> <li>6. HEXANDRIA, six Stamens, (all of one length.)</li> <li>7. HEPTANDRIA, seven Stamens.</li> <li>8. OCTANDRIA, eight Stamens.</li> <li>9. ENNEANDRIA, nine Stamens.</li> <li>10. DECANDRIA, ten Stamens (threads not united.)</li> <li>11. DODECANDRIA, twelve Stamens or more (fixed to the receptacle.)</li> <li>12. ICOSANDRIA, 20 or more Stamens, inserted into the calix, and not into the receptacle.</li> <li>13. POLYANDRIA, all above twenty Stamens inserted into the receptacle.</li> </ol> <p>SUBORDINATIO, two of the Stamina, shorter than the rest.</p> <ol style="list-style-type: none"> <li>14. DIDYNAMIA, four Stamens, two of them uniformly shorter than the other two.</li> <li>15. TETRADYNAMIA, six Stamens, two of which are uniformly shorter than the rest.</li> </ol> <p>AFFINITAS, the Stamina, either connected to each other or the pistillum.</p> <ol style="list-style-type: none"> <li>16. MONADELPHIA, the Stamina united into one body, by the filaments.</li> <li>17. DIADELPHIA, the Stamens united into two bundles by the filaments.</li> <li>18. POLYADELPHIA, the Stamens united into three or more bundles by the filaments.</li> <li>19. SYNGENESIA, the Stamens united in a cylindrical form by the anthera. The Stamens five in number, one pointal, flowers compound.</li> <li>20. GYNANDRIA, the Stamina inserted into the pistillum.</li> </ol> <p>DICLINIA, males and females in separate flowers upon the same plant.</p> <ol style="list-style-type: none"> <li>21. MONOECIA, Stamens and pointals, in separate flowers on the same plant.</li> <li>22. DIOECIA, Stamens in one, and pointal in another plant of the same species.</li> <li>23. POLYGAMIA, male, female and hermaphrodite flowers, in the same species, i. e. various situations, Stamens only, pointals only, or perfect flowers.</li> </ol> <p>Or CLANDESTINELY, i. e. whose flowers or parts of fructification are invisible.</p> <ol style="list-style-type: none"> <li>24. CRYPTOGAMIA, flowers invisible, so that they cannot be ranked according to the parts of fructification, as the Ferns, Mosses, Liverworts and Mushrooms.</li> </ol>	<p>Mare's tail.</p> <p>Speedwell.</p> <p>Grasses.</p> <p>Teasel.</p> <p>Honey Suckle.</p> <p>Hyacinth</p> <p>Winter green.</p> <p>Mezereon.</p> <p>Gladiole.</p> <p>Pink.</p> <p>House leek.</p> <p>Strawberry.</p> <p>Poppy, Larkspur.</p> <p>Fox glove.</p> <p>Stock gilliflower.</p> <p>Rose Mallow.</p> <p>Everlasting Pea.</p> <p>St. John's Wort.</p> <p>Dandelion.</p> <p>Orchis.</p> <p>Cucumber.</p> <p>Hops.</p> <p>Ash, Fig, &amp;c.</p>

## APPENDIX.

25. PALMÆ. These though capable of being arranged in the several classes of the system, yet on account of their singular structure, have been placed in an appendix, containing such genera as have a *Spadix* and *Spatha*, i. e. whose flowers and fruit are produced on that particular receptacle or seat called a *Spadix*, protruded from a common calix in form of a sheath called *Spatha*. This order consists of Trees and Shrubs only, these have always a simple stem not branched, bearing leaves at the top, resembling those of Fern, being a composition of a leaf and branch, it is called *Frons*, and the corolla always three petal'd or three deep divisions; the known genera are 10 in number.

26. *Peloria* or Prodigies, a new genus of plants, described by Linnæus in the year 1744, and also in the third volume of the "*Amœnitates Academica*," in a dissertation entitled *Plantæ Hybride*, i. e. Vegetable Mules. This Genus is supposed by Linnæus, to have been produced by an unnatural commixture of two different genera, the root, leaves, caulis, &c. are similar to those of the *Antirrhinum Linaria*, but the flower and other parts of fructification are totally different. In the dissertation alluded to, there is a list of 47 Mules, with their supposed Fathers and Mothers.

TABLE OF ORDERS  
 INTO WHICH THE FOREGOING CLASSES ARE DIVIDED.

Classes, &c.	No. and Names of the Orders	The varieties are thence termed	No. of Genera	EXAMPLES.
1. <i>Monandria</i> , one Male, this class is subdivided into two orders, viz.	1 Monogynia, one female. 2 Digynia, two females.	Monandria, Monogynia. } Digynia. }	18	Ginger, Turmeric, &c. Strawberry Spinach.
2. <i>Diandria</i> , two Males, is also subdivided into three orders, viz.	1 Monogynia 2 Digynia 3 Trigynia	Diandria Monogynia } Digynia. } Trigynia }	35	Amethystus, Sage, &c. Vernal Grass. Pepper, the only genus.
3 <i>Triandria</i> , three males, is subdivided into three orders, viz.	1 Monogynia 2 Digynia 3 Trigynia	Triandria Monogynia } Digynia } Trigynia }	76	Saffron, Valerian, &c. Bent grass, Wheat, &c. Montia, Blinks, &c.
4. <i>Tetrandria</i> , four males, all of one length, by which it is distinguished from the fourteenth class.	1 Monogynia 2 Digynia 3 Trigynia	Tetrandria Monogynia } Digynia } Trigynia }	85	Ladies Mantle, Teasel, &c. Toad Grass, Dodder, &c. Holly, Pondweed, Purlwort.
5 <i>Pentandria</i> , five males, this class is subdivided into six orders.	1 Monogynia 2 Digynia 3 Trigynia 4 Tetragynia 5 Pentagynia 6 Polygynia	Pentandria Monogynia } Digynia } Trigynia } Tetragynia } Pentagynia } Polygynia }	264	Tobacco, James Town weed, &c. Gentian, Carrot, Angelica, &c. Elder, Sumach, Cassine, &c. Parnassia. Flax, Angelica tree, &c. Mouse tail, the only genus.
6. <i>Hexandria</i> , six males, all of an uniform length, by which it is distinguished from the fifteenth class, it is subdivided into five orders, viz.	1 Monogynia 2 Digynia 3 Trigynia 4 Tetragynia 5 Polygynia	Hexandria Monogynia } Digynia } Trigynia } Tetragynia } Polygynia }	82	Pine Apple, Calamus, &c. Rice, Falkia, &c. Meadow-Saffron, Sorrel, &c. Petiveria, the only genus. Water plantain, the only genus.
7 <i>Heptandria</i> , seven males, is also subdivided into four orders, viz.	1 Monogynia 2 Digynia 3 Tetragynia 4 Heptagynia	Heptandria Monogynia } Digynia } Tetragynia } Heptagynia }	7	Horse Chesnut. Limeum, the only genus. Aponogeton. Septas Capensis.



<p>8. <i>Octandria</i>, eight males, this class is also subdivided into four orders, viz.</p>	<p>1 Monogynia 2 Digynia 3 Trigynia 4 Tetragynia</p>	<p>Octandria Monogynia } Digynia } Trigynia } Tetragynia } 45</p>	<p>Willow-Herb, Leather-Wood, &amp;c. Litchi. Polygonum. Water Wort, Herb Paris, &amp;c.</p>
<p>9. <i>Enneandria</i>, nine males, is subdivided into three orders.</p>	<p>1 Monogynia 2 Trigynia 3 Hexagynia</p>	<p>Enneandria Monogynia } Trigynia } Hexagynia } 6</p>	<p>Bay tree, Cashew nut, &amp;c. Rhubarb, the only genus. Flowering Rush, the only genus.</p>
<p>10 <i>Decandria</i>, ten males, distinct, not united by their filaments below, or by their anthers above, this class is subdivided into six orders, viz.</p>	<p>1 Monogynia 2 Digynia 3 Trigynia 4 Tetragynia 5 Pentagynia 6 Decagynia</p>	<p>Decandria Monogynia } Digynia } Trigynia } Tetragynia } Pentagynia } Decagynia } 95</p>	<p>Bastard flower fence, Bead tree, &amp;c. Pink, Soap wort, &amp;c. Star wort, Spatling, Poppy, &amp;c. Navel Wort, &amp;c. Corn Cockle. Poke.</p>
<p>11 <i>Dodecandria</i>, twelve males, this is an uncertain class, the subjects having from twelve to nineteen Stamens, the essential character is however, that the Stamens (or in place of them the anthers) are inserted into the receptacle.</p>	<p>1 Monogynia 2 Digynia 3 Trigynia 4 Pentagynia 5 Dodecagynia</p>	<p>Dodecandria Monogynia } Digynia } Trigynia } Pentagynia } Dodecagynia } 33</p>	<p>Loose Strife, Wild Syrian Rue. Agrimony and Helicarpus. Base Rocket, Spurge, &amp;c. Glinus, the only genus. House Leek, the only genus.</p>
<p>12. <i>Icosandria</i>, twenty males or more, which are inserted into the calix, or into the inner side of the petals, the plants of this class have a concave calix, composed of one leaf, to the inner side of which the petals are fastened by their ungues or claws.</p>	<p>1 Monogynia 2 Digynia 3 Trigynia 4 Pentagynia 5 Polygynia</p>	<p>Icosandria Monogynia } Digynia } Trigynia } Pentagynia } Polygynia } 29</p>	<p>Peach, Almonds, Plums, &amp;c. Hawthorn or White Beam. Service Tree and Sesuvium. Aloes, Apple, &amp;c. Rose, Bramble, &amp;c.</p>
<p>13. <i>Polyandria</i>, many males, that is from twenty to a thousand, that are inserted into the receptacle of the flower, this circumstance distinguishes it from the 12th class, whose Stamens are inserted into the calix or flower cup.</p>	<p>1 Monogynia 2 Digynia 3 Trigynia 4 Tetragynia 5 Pentagynia 6 Hexagynia 7 Polygynia</p>	<p>Polyandria Monogynia } Digynia } Trigynia } Tetragynia } Pentagynia } Hexagynia } Polygynia } 77</p>	<p>Poppy, May Apple, &amp;c. Peony and Fothergilla. Larkspur, Wolf's Bane, &amp;c. Cimicifuga, Caryoca, &amp;c. Columbine, Fennel flower. Water Soldier, the only genus. Adonis flower, Magnolia, &amp;c.</p>
<p>14. <i>Didynamia</i>, or two powers, this class has also four Stamens, two long and two short.</p>	<p>1 Gynnosperma 2 Angiosperma</p>	<p>Didynamia Gynnosperma } Angiosperma } 102</p>	<p>Lavender, Bugle, Cat Mint, &amp;c. Bears Breech, Catalpana, &amp;c.</p>

15. <i>Tetradynamia</i> , four powers, has six Stamens, four long and two short.	1 Siliculosa 2 Siliquosa 1 Triandria 2 Pentandria 3 Heptandria 4 Octandria 5 Emneandria 6 Decandria 7 Endecandria 8 Dodecandria 9 Pol. andria	Tetradynamia Siliculosa } 32 Siliquosa } Monadelphica Triandria Pentandria Heptandria Octandria Emneandria Decandria Endecandria Dodecandria Polyandria	Whitlow Grass, Sea-Kale, &c. Radish, Mustard, &c. Galaxy, Heliotropa, &c. Geraniums. Alouia, the only genus. Dryandra, the only genus. Conarus, Hugonia, &c. Brownia, the only genus. Pentapetes, the only genus. Silk Cotton Tree, Sour Gourd, &c. Moumicia, the only genus. Fumitory and Saraca. Milk Wort, Snake Weed, &c. Liquorice, Trefoil, Peas, &c. Theobroma, or Chocolate Nut. Monsonia, the only genus. Citrons, Oranges, &c. St. John's Wort, St. Peter's Wort. Mauclin, Lettuce, &c. Yarrow, Tansy, Daisy, &c. Cen-aury, Sun flower, &c. Filago or Cotton weed, &c. Echinops, Gundelia, &c. Balsamine, or Touch me not, &c. Orchis, Stryion, &c. Ladies Slipper, Vanilla, &c. Salacia, Stilago, &c. Nepenthes, the only genus Passion Flower, &c. Birthwort, Pistia, &c. Scoppia, the oily genus. Helicteres, or Skrew tree. Citynus, the only genus. Dragons, African Arum, &c.
16. <i>Monadelphica</i> , one brotherhood, all the Stamens united below, by their filaments into one body, through which the pistil or female organ passes.	1 Pentandria 2 Hexandria 3 Octandria 4 Decandria	Diadelphica Pentandria } 56 Hexandria } Octandria } Decandria }	
17. <i>Diadelphica</i> , two brotherhoods, the Stamens united below, into two sets of cylindrical filaments.	1 Pentandria 2 Hexandria 3 Octandria 4 Decandria	Polyadelphica Pentandria } 12 Dodecandria } Icosandria } Polyandria }	
18. <i>Polyadelphica</i> , many brotherhoods, the Stamens united into three or more bundles by the filaments.	1 Polygamia aequalis 2 Superflua 3 Frustranea 4 Necessaria 5 Segregata	Syngenesia Polygamia aequalis } 116 Superflua } Frustranea } Necessaria } Segregata }	
19. <i>Syngenesia</i> , confederate males, the Stamens 2 or anthers united into a cylinder, whilst the filaments by which they are supported, are separate and distinct.	1 Monandria 2 Diandria 3 Triandria 4 Terrandria 5 Penandria 6 Hexandria 7 Octandria 8 Decandria 9 Dodecandria 10 Polyandria	Gynandria Monandria } 33 Diandria } Triandria } Tetrandria } Pentandria } Hexandria } Octandria } Decandria } Dodecandria } Polyandria }	
20. <i>Gynandria</i> , Feminine males, the Stamens placed upon the Stylus, Linnaeus has divided this class into nine orders, Professor Swartz, of Stockholm into ten.			

<p>21. <i>Monoclea</i>, or <i>One House</i>, essentially differs from all the preceding classes, in it the Stamens and Styles are placed apart, within distinct covers (calix or corolla or both) on the same root or individual, hence is the first class, whose flowers are not hermaphrodite, as are the preceding twenty classes, it is subdivided into eleven orders, viz.</p>	<p>1 Monandria 2 Diandria 3 Triandria 4 Tetrandria 5 Pentandria 6 Hexandria 7 Heptandria 8 Polyandria 9 Monadelphina 10 Syngenesia 11 Gynandria</p>	<p>80</p>	<p>Bread Fruit Tree, Wild Cucumber. Water Melon, Lucks Meat, &amp;c. Indian Corn, Great Bur Weed, &amp;c. Mulberry, Birch, Alder, Box, &amp;c. Burdock, Ground Pine, &amp;c. Water Zizany and Pharus. Guaiarda, the only Genus. Chestnut, Walnut, Sweet Gum, &amp;c. Pine, Cypress, Palma Christi, &amp;c. Cucumber, Gourd, Bryon, &amp;c. Bastard Orpine and Agyneta.</p>
<p>22. <i>Dioclea</i>, or <i>Two Houses</i>. The plants belonging to this class, produce male and female flowers on distinct individuals of the same species, so that the same individual does not support the two sexes, whereas in the first twenty classes the flowers are hermaphrodite; and in the twenty first class, the male and female were upon different parts of the same vegetable. It is subdivided into fifteen orders, viz.</p>	<p>1 Monandria 2 Diandria 3 Triandria 4 Tetrandria 5 Pentandria 6 Hexandria 7 Octandria 8 Enneandria 9 Decandria 10 Dodecandria 11 Icosandria 12 Polyandria 13 Monadelphina 14 Syngenesia 15 Gynandria</p>	<p>55</p>	<p>Najas and Pandanus Willow, Vallisneria, &amp;c. Crake Berries, Peets Cassia. Buck Thorn, Misselto, Gale, &amp;c. Hops, Spinage, Prickly yellow wood, &amp;c. Sarsaparilla, Black Bryony, &amp;c. Poplar, Rose Root, &amp;c. Herb Mercury and Frog's Bit. Rush Grass, Papaw, &amp;c. Moonseed, Eas and Hemp, &amp;c. Flacourtia, the only genus. Cliffortia and Hedyaria. Juniper, Ram Goat, Yew Tree, &amp;c. Knee Holly, or Burcher's Broom. Cluytia, the only genus.</p>
<p>23. <i>Polygamia</i>, many marriages, the different individuals bear hermaphrodite flowers, and likewise male and female flowers on both,</p>	<p>1 Monoclea 2 Dioclea 3 Trioclea</p>	<p>34</p>	<p>Maple, Sensitive plant, &amp;c. Asb, Ginseng, Persimmon, &amp;c. Figs, St. John's Bread.</p>
<p>24. <i>Cryptogamia</i>, clandestine marriages; for an explanation see chapter 24, this class is divided into four orders.</p>	<p>1 Filicis 2 Musci 3 Alge 4 Fungi</p>	<p>51</p>	<p>Ferns Maiden Hair, &amp;c. Mosses Thread Moss, &amp;c. Flags Leather Cup, &amp;c. Mushrooms Touchwood, &amp;c.</p>

## APPENDIX.

25. *Palmae*, Palms—The genera are ten, viz.—1. *Chamærophi*, Dwarf Palm or Palmetto.—2. *Borassus*, Malabar Palm or *Ampana*. 3. *Corypha*, or Saw Palmetto.—4. *Cocos*, or Cocoa Nut.—5. *Phoenix*, or Date Palm.—6. *Zamia*.—7. *Areca*, Arica Nut or Fausse Nut. 8.—*Elai*, Wild Malabar Palm.—9. *Caryota*, called by the natives *Schunda pana*.—10. *Cycas*, or *Todda Pana*.

26. *Peloria*, or *Plante Hybrida* } Of which the known species  
that is Vegetable Mules. } are 47.

## CHAPTER II.

## EXPLANATION OF THE CLASSES IN THE SCHEME TABLE I.

WITHOUT a thorough acquaintance with the Stamen and Pistil or sexual organs of plants, it is impossible to arrive at any degree of perfection in the study and application of Botany. Upon these organs, the great Linnæus has constructed, the most essential parts of the foregoing Scheme, his Classes or primary divisions, and many of the orders or secondary divisions. The twenty-four Classes of this celebrated and much admired System, are founded upon, the circumstances of the number, place of insertion, proportion, connection, disposition, or the absence of the Stamens, or male parts.

Upon this doctrine of the Sexes of the plants, great improvements have been made, so that according to it, all known plants have been distributed into different *Classes*, *Orders*, *Genera*, *Species* and *Varieties*, and from whence the fertile genius of a late celebrated writer has produced the following beautiful similitude—

“The Vegetables on the face of the earth may be considered as analogous to its Inhabitants—The *Classes* may be said to resemble *Nations*, the *Orders*, *Tribes*, the *Genera* the *familics*, the *Species* the *Individuals*, and the *Varieties* the same *individuals* in different circumstances.” And as in particular nations or tribes of men, there is a certain characteristic sameness or semblance, though not always in an equal degree, so in vegetables, it is found by experience, that plants which are distinguished by the same characters, in the flowers and fruit, have generally the same qualities, though not always in an equal degree of strength or weakness. Here then is a foundation for arranging them into a natural method—Linnæus determining to leave nothing undone, divides the whole into fifty-eight orders, which shall be the subject of the 11th Chapter.

We come now to the Explanation of Table I.—The names of all the classes, and most of the orders in the foregoing tables are derived from the Greek language, and are as follows—

Class I. *MONANDRIA*, this word is compounded from two Greek terms, the former meaning, one, and the latter, man or husband; thus the title *Monandria* signifies that those plants producing flowers of

this class, have but one man or husband, or more properly speaking one *stamen*: while at the same time it must be remembered, that the flowers are *hermaphrodite*, that is, the male and female organs are contained within the same *calix* or cup—*corolla* or flower leaves—or in Linnæus' own words, "male and female in the same bed." Examples of this class are to be found in Indian Arrow Root, Turmeric, Blite, Marestalk, &c.

2. DIANDRIA, or two males. Here also the flowers are *hermaphrodite* as in the foregoing, with this difference, that in this class, there are two stamens or male organs, within the same *calix* or *corolla*, examples of which are to be found, in Privet, Olive, Lilac, and Speedwell.

3. TRIANDRIA, or three males. In this class there is no difference from the two foregoing or seven following, except in the number of stamens, which in this class are three; examples are found in Valerian, Tamarinds, Flower de lys, and many of the grasses.

4. TETRANDRIA, four males, &c. Although in the first thirteen classes, the stamens or male parts are all of one uniform length or nearly so, yet it is absolutely necessary in this class, as also in the sixth, to be particular in our remarks; as the 14th class, *Didynamia*, also comprehends plants which have four stamens, as well as this present. But in this 4th class, the stamens are all of one uniform length, whereas in the 14th, two of them are long and two short; examples of this class are to be seen in Holly, Teasel, Madder, &c.

5. PENTANDRIA, five males. This class is formed upon the same principles with the foregoing, and has for examples, Honey-Suckle, Bell flower, Mullen, Jamestown weed, &c.

6. HEXANDRIA, or six males. Consists of those hermaphrodite flowers which have six stamens, and which are all of one uniform length or very nearly so. We have here a notable mark to distinguish between this and the 15th class, whose flowers have also six stamens. But fortunately for us, there they are unequal, that is, two are long and two short; while here they are uniform, as may be seen in the Hyacinth, Narcissus or Daffodil, Tulip, Snow drop, &c.

7. HEPTANDRIA, seven males. Examples of this class occur in Horse-Chesnut, Winter green, &c.

8. OCTANDRIA, eight males; comprises those hermaphrodite flowers which are furnished with eight stamens, such as Mezereon, Indian Cress, Heath, French Willow, &c.

9. ENNEANDRIA, nine males; such are, Bay, Malacca bean, Rhubarb, &c.

10. DECANDRIA, ten males, or stamens distinct from each other as in the foregoing, that is, not united together either by their anthers above or filaments below (of which more will be said in the 3d chapter under the articles, *Monadelphia*, *Diadelphia*, &c.) Examples of this class may be seen in *Fraxinella*, Rue, *Rhododendron*, &c.

11. DODECANDRIA or twelve males; this class contains plants with hermaphrodite flowers, which agreeably to the name ought to have twelve stamens. Professor Martyn in his language of botany, says, "All those plants which have hermaphrodite flowers with from 12 to 19 stamens inclusive," belong to the Dodecandria class. Some flowers in this class contain even less, and others more than the

specified number: in order therefore to avoid mistakes, observe, that all plants whose flowers contain from 11 to 19 stamens inclusive, and which are disunited, belong to this class. There is nevertheless one more invariable characteristic whereby we are to distinguish this class, viz. the stamens (or in place of them the Anthers) are inserted or fixed to the receptacle or base; examples of this class occur in Purslane, Houseleek, Asarabacca, &c.

12. ICOSANDRIA, twenty males. In this class there should be twenty stamens or about that number, standing upon the sides of the *calix* or cup, and sometimes partly on the blossom, whereas the former and the following classes, are marked by their standing on the receptacle or base, this class possesses also an additional distinction from the next, which is, that the cup consists of one concave leaf, and that the petals or flower leaves are likewise fixed by their unguis or claws to the sides of the cup. Examples of this class occur in, Peach, Medlar, Strawberry, Apple, Rose, Cinquefoil, &c.

13. POLYANDRIA, many males. It is said by Linnaeus, that the number of stamens in this class are generally from twenty to a thousand; the essential character of which is, that the stamens are inserted into the receptacle or base of the flower, such are the Poppies, Capers, Rock Rose, Lark-spur, Columbine, Crowfoot, Bane berries, &c.

*Note.*—In the preceding classes the stamens, have been supposed to be all nearly equal in length: but the distinctive marks of the two following classes depend chiefly on the circumstance of their lengths.

14. DIDYNAMIA, two powers, This class presents us with flowers, containing four males or stamens ranged in one row, the inner pair of which are shorter than the outer, there could not have been a more beautiful mark of distinction whereby to distinguish between this class and the fourth. The *labiate* or lip-shaped, as well as *personate* or masked flowers, are included in this class; the *labiate flowers* have two lips, the one projecting over the other, forming as it were, a shelter to the parts of fructification from rain, &c. The lips are generally closed in the *personate corollas*, and entirely conceal the stamen and pistil from sight; examples occur in Savory, Hysop, Ground-ivy, Balm, Fox-glove, Bears-Breech, &c.

15. TETRADYNAMIA, four powers, or the power of superiority of four. This class as well as the sixth, embraces, those hermaphrodite flowers which have six males or stamens. Its character is however nicely distinguished by the following circumstances; four of the stamens are long, the remaining two short: add to which it is composed chiefly of cross shaped flowers, commonly called *Cruciform*, that is, the petals generally stand wide from each other, and forming a figure something like the Cross of St. Louis, whence the corollas are called *Cruciform* or Cross Shaped; examples of this class occur in Stock-gilly flower, Candy tuft, Water-Cress, Scurvy grass, Woad, &c.

16. MONADELPHIA, or one brotherhood. This and the four following classes, are not distinguished by the number of the stamens, but by their situation. The union or adhesion, either of their anthers or filaments to each other, decides to which of them they belong.

Thus, plants belonging to the *Monadelphica* class, bear hermaphrodite flowers, which have all their stamens or male organs united below, that is, by their filaments, into one body or cylinder, through which the pistil (or as it is sometimes called the pointal) or female organ passes; whence Dr. Withering calls them, "threads united." Although all these filaments or threads are united at bottom, which is a distinguishing characteristic of this class; they are distinct or separate above, or at the top. Examples of this class vary considerably in size from the enormous *Bombax*, down to the humble Mallow, Geranium, &c.

17. **DIADELPHIA**, two brotherhoods, the filaments of whose flowers are also united at the bottom, into two bundles or sets; many of the flowers which have been ranked in this class, have however been found to have their Stamens all united into one set, yet there is a slit down the upper side of the tube, which gives it the appearance of a division of the filaments into two parts. Beginners would do well to be very particular in their examination of the plants of this class, otherwise they may be deceived, and consider them, as many do as belonging to the *Monadelphica* class; to this class belong the *Papilionaceus* or Butterfly shaped flowers. Examples are Fumitory, Milk Wort, Everlasting Pea, Seneca Snake Root, &c.

18. **POLYADELPHIA**, many brotherhoods, or at least three or more. This class consists of those flowers, whose Stamens are united by their filaments or threads, into three or more distinct sets or bundles, as may be seen in the Orange, Chocolate Nut, St. John's Wort, &c.

19. **SYGENESIA**, or Confederate Males, so called, because the anthers or summits of the Stamens are united, whilst the threads or filaments, by which the anthers are supported are separate, from which circumstance we are to place all those hermaphrodite flowers (*generally compound*) whose anthers are united, and threads distinct to the Syngenesia class. As examples of which you are referred to the flowers of Violet, Dandelion, Succory, Thistle, Cudweed, Tansey, Blue Bottle, &c.

20. **GYNANDRIA**, or Feminine Males, this is a very singular class, for here the *Stamens* are attached to, or growing upon the *pistil* itself, consequently it includes all those hermaphrodite flowers, in which the Stamens are placed upon the *pistil* or pointal, on examining the Orchis, Ladies Slipper, Arum, Birth Wort, Passion flower, &c. you will discover the peculiarity of this class.

*Note.*—Hitherto we have confined ourselves to the attention of such flowers only as are termed complete, that is, having both Stamens and Pistils on the same flower. But the three following classes, will furnish us with examples of flowers which have only the one or the other, viz.

21. **MONOECIA**, One House, in consequence of the *Stamen* and *Pistil* being found in different flowers on the same plant (in the following they are found on different plants) it has been styled *One House*, the flowers of this class are not hermaphrodite as the twenty classes preceding. The *essential* characters, are the *Stamen* and *Styles* or male and female parts, and are placed within distinct covers, *Calix* or *Corolla*, that is the cup or else blossom, or both, on the same root or individual. The plants of this class are termed in the Botanic lan-

guage *Androgynous*. Examples of which occur in Mulberry, Nettle, Oak, Cypress, some species of Cucumber, &c.

22. **DIOECIA**, Two Houses. The distinguishing marks between this class and the preceding are, that in this the male and female flowers are produced on distinct individuals of the same species, that is, we shall find one plant whose flowers bear all Stamens or Males, and another plant of the same species, whose produce is all female, (in the 21st they are on the same plant or individual.) Thus the character of this class is essentially different from any of the 21 preceding, the first 20 as has been before observed, are hermaphrodite; in the 21st the male and female are upon, or in different flowers of the same plant, which in the present, the same individual does not support the two sexes. Examples occur in Hops, Willow, Poplar, Juniper, Spinage, Herb Mercury, &c.

23. **POLYGAMIA**, *Polygamies* or many marriages. This class provides for the only remaining case that can possibly happen, as it includes all those plants which have Stamens and Pistils, not only in separate flowers, but also both in the same flower, thus some of the flowers are hermaphrodite, while the others are not. This class is susceptible of the following modes of *polygamy*, the particulars of which are best understood from the following arrangement.

1. Plants that are *Polygamous*, by male hermaphrodites and female hermaphrodites. By this mode of *Polygamy* we are to understand, that one or other of the sexes are sterile or abortive; in some the stamens or male, and in others the Pistils or female organs are barren, the former are thence termed female, and the latter male hermaphrodites, or as either of the two sexes predominate. This mode however is very solitary, as there is but one genus said to produce flowers of that kind, viz. the Musa or Plantain tree.

2. Plants that are *Polygamous*, by hermaphrodites and males, situated upon the same individual plants, and the hermaphrodites which belong to the *Monoecia* or one House order: such are the White Hellebore, Indian Millet, Crosswort, Pellitory, Orach, African Almond, &c. This mode of Polygamy includes 22 genera.

3. Plants that are *Polygamous*, by hermaphrodites and females on the same individual, the hermaphrodites of which belong to the *Monoecia* order also; of this mode the latest writers on Botany enumerate but one genus, viz. the Sensitive plant.

4. Plants having the Polygamy distinct, or *Polygamous* by hermaphrodites and females on distinct individuals; the hermaphrodites of which belong to the *Dioecia* Order. There are said to be only two genera, viz. Ash, and *Gleditsia*, in this latter the hermaphrodites and males are on the same plant, and the females on a distinct one.

5. Plants that are *Polygamous*, by hermaphrodites and males on distinct plants, whose hermaphrodite flowers belong to the *Dioecia* Order, of which there are three genera, viz. the Persimon or Indian Date-plumb, Tupelo Tree, and Fringrigo.

6. Plants that are *Polygamous* by *Androgynous* and males, that is, having such flowers as are described in the *Monoecia*, or 21st Class,



and male flowers on distinct plants. This mode contains five genera; Amber tree, Ginseng, &c. &c.

7. Plants that are *Polygamous* by *Androgynous*, male and female on three distinct plants; or hermaphrodite, male and female flowers upon two distinct plants, these form the third Order of *Polygamia*, viz. *Trioccia*, this mode includes two genera; Figs, and St. John's Bread.

24. **CRYPTOGAMIA**, or clandestine marriages: This class consists of such plants as conceal their fructification, having their flowers either within the fruit, or so small as not to be perceptible to the naked eye; there are many genera of this class, in which we are uncertain what the fructification is; many in which we can discern none at all, and those which are perceptible are of an uncommon structure, so that we are not guided by stamens or pistils any longer, for reducing them to orders (of which more in the next Chapter of Orders) This class comprehends Ferns, Mosses, Flags, and Mushrooms.

25. **PALMÆ**, Palms or *Princes of India*, as our Author styles them; these do not fall under the description of any of the Classes, but comprehends such plants as have a *Spadix* and *Spatha*: see the Appendix to the Scheme, Table 1.

26. **PELORIA**; See also Appendix to the Scheme, Table 1.

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### CHAPTER III.

OF THE ORDERS OR INFERIOR DIVISIONS, FROM WHICH THE TABLE OF ORDERS ARE DERIVED, &c.

THE subject of the foregoing chapter, having been principally confined to the primary, or superior division of the Classes; we come now, to consider and explain the orders, or secondary divisions, into which those classes are sub-divided. These are numerous, and in the first thirteen, are founded exclusively upon the number of *Pistils*, or *Styles*; or in other words, the female Organs, in the same manner as the Classes were founded on the circumstance of the number of *Stamens*, or *Male Organs*. The number is usually taken from the base of the *Stylis*, if there be any; but if the *Style* be wanting, the number is fixed from the *Stigmata*, or *apex*, of the *Pistillum*. The Greek word compounded with the numerical terms, in the titles of those orders, signifies a *Wife*, or *Woman*. So that Plants whose flowers have but one *Pistillum*, or female Organ; although it may also have any number (according to Linnæus, from one to a thousand) *Stamen's* or male Organs, it is ranked in the first inferior order, or division, viz. *Monogynia*, which signifies one *Wife*. In order to simplify as much as is practicable, the Theory of Botany, I shall produce an example or two, which will give an idea of the circumstances attending the remaining Orders, viz. On examining the flower of the Indian flowering reed, Ginger, Costmary, Arrow Root, Turmeric, &c. &c. we discover

one Stamen. This circumstance points out to us, that these plants belong to the first Class, *Monandria*, or one Husband; we find also but one Pistil in the same bed or flower, so that the flowers have one Stamen and one Pistil. The Stamen marks the superior, and the Pistil the inferior division; this places it in the first order, viz. *Monogynia*, or one Wife—Thus, these females are the Wives of one Husband, and the plants rank in the *Monandria* Class, *Monogynia* Order, See Table of Orders. Again on examining the Strawberry, Spinach, (*Blitum*) we discover two females, and one male, in one flower, or bed—We conclude this plant from its having one Stamen to belong to the first Superior Division, or Class *Monandria*, or one Husband; and from the two Pistils, as belonging to the second Inferior Division, or Order *Digynia*, or two Wives—Thus ranking in the first Superior, and second Inferior Division of Plants, viz. *Monandria Digynia*, and so of the remaining eleven; always remembering that if the Pistils have no stalks, or filaments like the Stamens, you are then to number them from the *Stigmata*, or tops of the Pistils; which in that case adhere to the capsules, or seed vessels, in form of small knobs, or protuberances, as may be observed in the Poppy.

The Orders of the 14th Class, *Didynamia*, are derived from a different source, and not on the form of the flower, or the number of the Pistils, as in the foregoing thirteen, because none of the flowers have more than one Pistil, and four Stamens, (as was observed in the second chapter) which are included within irregular monopetalous, or one leaved flowers, sometimes called ringent, or grinning—except one genus of Plants, viz. *Melianthus*, whose flowers have many petals—this circumstance has given rise to an additional Order, in some arrangements. (Tho' two only were acknowledged by Linnæus, viz. *Gymnospermia*, or naked seeds, and *Angiospermia*, or seeds covered) This new Order is called *Polyptetala*, or many petals; though not as yet regularly admitted into the Table of Orders. The circumstances then which we are to attend to in making our inferior division of this Class, are these; all those Plants which have four naked seed, bosomed in the *Calix*, and whose Stamens answer the description of this Class, belong to the Order *Gymnospermia*, which in its most simplified terms, will stand thus:

*Didynamia Gymnospermia*; or Plants whose flowers consists of one entire leaf, containing four Stamens or male parts, two of which are long, and two short—one Pistil, or female part, and four naked seeds, at the bottom of the calix, that is the cup or empalement.

Secondly, all those plants, though answering the other descriptions of this Class, yet have many seeds fixed to a receptacle, or base, in the middle of a *Pericarpis*, or seed-vessel, which covers or encloses them, belong to the second Order, *Angiospermia*, or covered seed.

Thirdly, (with respect to the new Order, *Polyptetala*,) in addition to the foregoing marks, except in the flower leaves—all those Plants whose flower leaves are divided into many petals, belong to this third Order, *Polyptetala*.

Another mark is also attached to this Class, and the two first Orders; the first includes what is called the Verticillate Plants, whose flowers grow in *Verticilli*, or Whorls, and produce their leaves by pairs,

and having square stalks ; such as Mint, Hyssop, Lavender, Bugle, Betony, Horehound, Savory, &c.

The second comprises those flowers which are called Personate, or such as have mostly a personate corolla ; but always a *pericarp*, or vessel inclosing the seed. Such are the plants, *Cow Wheat*, *Eye Bright*, *Lousewort*, *Snap Dragon*, *Fox Glove*, &c. There are also some peculiarities attached to these Orders, or Inferior Divisions, necessary to be explained, viz. In the first Order, *Gymnospermia*, the seeds are four, and naked, (except one or two instances) the *stigma* is *bipartite*, that is, has two divisions acute with the lower *Lacinia*, or Segment, reflexed or bent backwards, as in Lavender, Mint, &c. The second are such as have the *Calix bilabiate*, divided into two lips ; as in Baum, Thyme, Basil, &c.

In the second Order *Angiospermia*, there are four peculiarities ;

1. Flowers having a simple Stigma and personate, or Masqued Corolla, as in Eye bright, Elephant's head, Cow wheat, &c.

2. Flowers with a simple Stigma, and spreading Corolla, as in Figwort, Fox glove, Trumpet flower, Fiddle wood, &c.

3. Flowers with a double Stigma, as in Brown Rape, Monkey flower, &c.

4. Such as have many petals, of which there is but one genus, Honey flower.

The Orders of the 15th Class, *Tetradynamia*, are derived from the fruit, and includes those plants which are called *Cruciform*, or Cross Shaped. In this Class also, the flowers have but one pistil.—It is divided into the two following Orders, viz.

1. *Siliculosa*, comprehending those plants, whose *pericarpium*, or Seed vessel is a *Silicula*, or little pod, or pouch ; or in other words, a short Silicle, or pod, as Gold of Pleasure, Rose of Jericho, Spanish Cress, Scurvy Grass, Candy Tuft, Madwort, Treacle-Mustard, Moon wort, &c. &c.

2. *Siliquosa*, comprehending those plants, whose *pericarpium*, or seed-vessel is a *Siliqua*, Silique, or long slender pod, as Cabbage, Radish, Mustard, Toothwort, Whitlow Grass, Dittander, &c. &c.

The 16th Class, *Monadelphica* is sub-divided into nine Orders, which are derived from the number of Stamina, from three to a thousand. In this Class, the calix is of great moment for distinguishing the genera ; because it is always present, being persistent, or not falling off ; and in most of the genera, it is double : add to which, the receptacle stands up in the middle of the flower, like a column ; hence, the plants of this Class have been termed *Columniferous*. Examples of these Orders occur in the Table.

The 17th Class, *Diadelphica*, is sub-divided into four Orders, which are founded on the number of Stamens, (from five to ten) viz. *Pentandria* 5, *Hexandria* 6, *Octandria* 8, and *Decandria* 10. This latter is distinguished four ways :

1. Such plants as have *Monadelphous filaments* ; that is, their filaments united below, into one set or brother-hood, as the Kidney-Vetch, &c.

2. Such as have *Diadelphous filaments*, or filaments united below, into two sets, and a downy stigma, as in Kidney-Bean, Chick-Peas, Bitter-Vetch, &c.

3. Such as have *Diadelphous filaments, bilabiate calyces*, (that is, the calix divided into two lips) and the *Stigma* not downy, as Liquorice, &c.

4. Such as have *Diadelphous filaments, Stigmas* not downy, and *Calyces* not *bilabiate*, or divided, as Indigo, Goat's Rue, &c. &c.

The Orders of the 18th Class, *Polyadelphia*, is also founded upon the number of Stamens, and are four in number. [See Table of Orders.]

The Orders or secondary divisions, of the 19th, or *Syngenesia* Class, arise from the different modes of intercommunications of the *florets*, or lesser partial flowers, which are contained within a common calix.

The *Syngenesia* Class, as has already been observed, chapter 2d consists of those plants, whose flowers are compound—These compound flowers admit of a double description, viz. 1. Of the whole flower in its aggregate state; which is thence termed *Flosculose Flower*; and secondly, of the *Flosculi*, or Florets, of which it is composed. The *Flosculose Flower* concerns only the calix and receptacle. Those being the only parts that are in common. The characters are,

Calix is a *perianthium*, or Cup, which contains the florets and the receptacle; it is either simple, augmented, or imbricated: it contracts when the flowers are fallen, but expands, and turns back when the seeds are ripe.

Receptacle—The common receptacle of the fructification receives many sessile florets, on its disc, which is either *concave, plain, convex, pyramidal, or globose*. The surface of the disc is either naked, without any other inequality than that of being lightly dotted; *Villose*, covered with hairs, *Paleaceous*, covered with *Palæa*, *Chaffs*, or Straws, that are linear, *subulate*, or awl shaped, compressed and erect, and serve to part the florets. The characters of which are,

Calix, a small *Perianthium*, often *quinquepartite*, that is, consisting of five divisions, seated on the germen, permanent, and becoming the crown of the seed.

Corolla, *Monopetalous*, or one leaved, with a long and very narrow tube—seated on the germen.

Stamina, five capillary filaments, very short, inserted in the neck of the *Corollulæ*, or little Corolla. The anthers five, linear and erect, and by the union of their sides forming a cylinder, that is *tubulate*, and of the length of the limb.

Pistillum, the germen oblong, placed under the receptacle of the flower; the style *Filiform*, or threadlike; erect, and of the length of the Stamina, perforating the cylinder of the anthers; the stigma divided in two; the (*laciniæ*) segments, or divisions *revolute*; bent back and spreading asunder.

Pericarpium: It has no true seed vessel; though in some there is a *coriaceous* crust.

Seed: A single one, oblong; often *tetragonous*, four cornered, or square; but commonly narrower at the base. It is either crowned, or with the crown wanting: The crown is of two kinds; either a *pappus*; that is, down, or a *perianthium*. See those articles under their proper heads.

This latter mode is styled by Linnæus ; the Polygamy of flowers, and admits of four varieties, of which, those having hermaphrodite florets ; that is, Stamens and pistils, forms the first, and are said to be *perfect flowers*. The second are those florets which have stamens only, and are thence termed *Stameniferous*. The third, Pistils only, are thence *Pistiliferous* ; and the fourth without either stamen or Pistils, and are termed *Neuter floscules*. It is unnecessary to say that exact attention must be paid to each of these varieties ; whoever desires to become perfect, must be particular. Linnæus has founded the four first Orders of this Class on the form of these florets, viz.

Order 1. *Polygamia Æqualis*, equal Polygamy. This Order comprehends such plants as have compound flowers ; the florets of which are all hermaphrodite ; that is, perfect, these are of two kinds : 1st. Such as have *ligulate*, or strap shaped, compound flowers, such as Goat's-beard, Viper-grass, Sow-thistle, Lettuce, Dandelion, Hawk-weed, Nipple-wort, &c. 2. Such as have *tubulose*, tubular ; nearly equal compound flowers ; as Lavender-Cotton, Goldylocks, Artichoke, Burdock, &c. &c.

Order 2. *Polygamia Superflua*, Superfluous Polygamy. This Order comprehends such plants as have the florets of the disc, hermaphrodite, and those of the radius female.—These are also : 1. *Tubulose*, or tubular, as Tansey, Mugwort, Cudweed, Flea bane, &c. 2. *Radiate* ; that is, the florets of the disc are tubular, and those of the radius *ligulate*, or strap shaped ; or in other words, the florets of the disc or centre of the flower are perfect, and those of the radius, ray or circumference pistiliferous ; both of them produce seed, from which circumstance this species of Polygamy is termed superfluous. The Daisy is a familiar instance, which though small and delicate, is really composed of two or three hundred other flowers, all of them perfect, having each its *Corolla*, *Germ*, *Pistil*, *Stamens* and *Seed*, in a word as perfect in its species as a flower of the great *Magnolia*. O how marvellous are the works of the LORD ! Other instances of this mode of polygamy occur in Star-wort, Colt's-foot, Golden Rod, Elecampane, &c.

Order 3. *Polygamia Frustranea*, Frustraneous Polygamy, comprehending such plants, whose florets in the disc or centre are perfect, whilst those of the radius or ray are imperfect, consequently barren or frustrate, examples of which are Blue-bottle, Sun-flower, various kinds, Centaury, &c.

Order 4. *Polygamia Necessaria*, comprehending such plants, whose florets in the disc are males, and though apparently perfect, are not really so, and therefore produce no perfect seed, but the fertility of the female floscules in the ray, compensate for this deficiency ; it is therefore termed necessary. Examples occur in Bastard-Crysanthemum, Marygold, African Ragwort, Cotton-weed, &c.

Order 5. *Polygamia Segregata*. Separate Polygamy, has many floscules inclosed in one common calix, yet each of the floscules has one appropriated to itself, these are of four kinds, viz.

1.—Such as have four flosculi or little flowers, in each partial calix, as in *Elephantopus* and *Oedira*.

2.—Such as have many, more than four *flosculi* or little flowers in each partial calix as in *Spharanthus*.

3.—Such as have one *floscule* or little flower in each partial calix, as in *Ferula*, *Gundelia*, &c.

4.—Such as have three *flosculi* in each partial cup, as in *Jungia*.

Thus far we have traced the pedigree, by descent of the noble Syngenesia family of Plants, whose ancient family name for all its orders is *Polygamia*, but as it happens among mortals, so with this great tribe of vegetables, some little misunderstanding arising in the fifth generation, about the time of our illustrious author's existence; He having introduced himself into the family, soon decided the contest, and provided a place in court, for the nearly excommunicated family. These are now acknowledged to be the

6th order *Monogamia*, a single marriage. This order comprehends such plants as have simple flowers, in which respect it differs from all the preceding orders, such are the Sheep's-Scalions, Cardinal Flower, &c.

The orders of the 20th class *Gynandria*, being founded on the number of Stamens, require no farther explanation than what the names of each imply, we refer to the table of orders.

The orders of the 21st class *Monoecia*, are founded upon the circumstances of the number, union and situation of the Stamens. It is divided into eleven orders, the eight first of which occurring so often in other Classes needs no repetition. The ninth order is called *Monadelphica*, and comprehends such plants as have their male flowers furnished with one set of united Stamina. The tenth *Syngenesia*, comprehends such as have their male flowers furnished with Stamina, of which the antheræ are united; and the eleventh *Gynandria*, such as have their male flowers furnished with Stamina, that grow out of a kind of Style or imperfect Pistillum, the perfect one being in the female flower.

The orders of the 22d class *Dioecia*, are fifteen in number, and are founded upon the same principles as the foregoing, and are explained in the same manner, by referring to the Table of Orders, &c.

The orders of the 23d class *Polygamia*, which are three in number, are all taken from classical characters, similar to the two foregoing, and are sufficiently explained in the second chapter, under the article *Polygamia*.

The orders of the 24th or *Cryptogamia* Class, are founded on the following circumstances, viz.

1.—*Filicis*, Ferns, comprehending such plants as are *dorsiferous*, or by Greek writers *epiphyllouspermous*, which is of the same import, and means, that they bear their fruit on the back of the leaf. Though some of them are said to bear their fructification in a spike. This order contains 18 genera, including some of the Palms

2.—*Musci*, Mosses, the character of the plants comprehended under this title are, *antheræ* without filaments, the female flowers distinct, and without any *pistillum*, and the seeds consisting only of a naked *corculum*, without *Cotyledones* or *Tunic*. Mosses have leaves like the more perfect vegetables, distinct from the stalk, and in this they differ from the Ferns, whose stalk and leaf always, and the fructification often are blended to form the frond.

3.—*Alga* or Flags, the plants comprehended under this order, have their root, stem and leaf all in one, the characters of the fructification of this order are not yet fully known, except the few descriptions given by Michelius, there are 12 genera.

4.—*Fungi*, Mushrooms, which are universally known by their singular structure and appearance; without branches, leaves flowers, or any thing we can certainly call fructification, and scarcely any root. They are honoured with the title of the “Dwarfs of the Vegetable Kingdom.”

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## CHAPTER IV.

### LIST OF TERMS BELONGING TO THE FLOWERS AND PARTS OF FRUCTIFICATION OF PLANTS.

THE method of reducing plants to their Classes and Orders, having been laid down in the second and third sections, and the propriety and necessity of their investigation insisted on in the foregoing; we come now more fully to explain the manner of investigation, which it is impossible to do, without being well acquainted with a considerable number of terms, which are the subject of the present and following Chapters.

To render the Science of Botany attainable to common capacities, is an object of considerable importance; nine tenths of our fellow-creatures, are from peculiar circumstances, deprived of the advantages arising from a knowledge of Botany (probably as useful, and more important to society, than any other science considered abstractedly). The reasons are obvious, the science has been confined to the learned; the terms have been generally beyond the reach of the more numerous classes of mankind, when in reality, these are the very persons, who may be expected to be most profited from a knowledge of simples.

Let us view the extensive settlements of America! even of our favoured state; remote from cities; far from the assistance of physicians; their dependence centering in the uncertain dose. No skill but such as hard earned experience gives, or careful parents hand for ages down to their posterity. Many are the sad sufferers who annually groan under afflicting diseases, while simple remedies are around them, all vegetable nature seems to say, come hither and find relief. But such, I presume, having been the thirst for praise, and the desire of being esteemed learned, that the subject of Botany, except in a few instances, has been principally confined to the scientific professor.

I am, however, far from disapproving a scientific or systematic writer; I greatly esteem them, their works are essential, and were they simplified, would be invaluable. Hoping the period is not far distant, when this hitherto mysterious science, will be so far reduced, as to become intelligible and attainable with other scholastic studies, by the youths of our country settlements. I proceed to give the terms, on which depend the whole, or essential parts of Botany:

And first then of the **FRUCTIFICATIO**, it is derived (from *fructus* fruit and *facio* to make) is that temporary part of vegetables dedicated to the business of generation, terminating the existence of the old and beginning the era of the new vegetable, and consists of the flower and the fruit, which are connected together in the same manner, as generation and birth are connected together in animals, and when perfect, consist of seven parts, in the Botanic language thus termed, 1—The **CALIX**, 2—the **COROLLA**, 3—the **STAMEN**, 4—the **PISTILLUM**, 5—the **PERICARPIUM**, 6—the **SEMEN**, and 7—the **RECEPTACULUM**—the four first form a complete flower, the two next pertain to the fruit, and the latter is common to both, being the basis on which the parts of fructification are connected.

1.—The **CALIX**, Empalement or flower cup, is derived from the Greek word which means to cover, is said by Linnæus, to be the outer bark of the plant present in fructification, it is that outer commonly green, though sometimes yellow part of the flower, which is usually divided into five parts, or composed of five small leaves, sustaining and embracing the *Corolla* or blossom leaves at the bottom, enveloping it entirely before it opens or expands, as may be discovered in the Rose, on which account it is properly called *Calix*. It is absolutely necessary to retain this generic term *Calix* (or cover) as the term flower-cup, belongs especially to one particular species of *Calix* as we shall presently see.—Some flowers possess all the parts enumerated above, others are deficient in some of them, but the *Stamen* or the *Pistil* or both are essential and to be found in all, either in flowers on the same plant, or in different individual flowers of the same species on separate plants. In the Lily, Tulip, Hyacinth, Onion, and in the greater number of Liliaceous plants, the *Calix* is wanting, but it accompanies almost all other flowers, in one or other of the following manners, which are termed a *Perianthium*, b *Involucum*, c *Amentum*, d *Spatha*, e *Gluma*, f *Calyptra*, and g *Volva*.

These also from the number of leaves, of which they are composed, and their clefts or divisions, figure, proportion, margin, surface, situation, duration, composition, &c. are variously termed, and as these terms are common (with the exception only of the subject) to all the parts composing a plant, we shall confine ourselves to particulars only in the present instance, and thereby render a tedious recapitulation of names unnecessary. We have already observed, that the *Calix*, from the variety of its structure &c. is also termed seven different ways. The most common kind of *Calix*, viz.

a *Perianthium*, or the true empalement or flower cup, is always contiguous to the fructification, and contains the flower, of which it is also a part; Linnæus enumerates three kinds of *Perianthium*, the first he calls the

**PERIANTHIUM fructificationis**, or the Perianth of the fructification, from this circumstance, its including both Stamens and Pistils, or the male and female organs of generation. Such is the Perianth of the Tobacco Plant.

A second species he calls the *Perianthium floris*, or Perianth of the flower, in which only the Stamens are contained, as in Rose bay and Willow herb.



The third is the *Perianthium fructus*, or Perianth of the fruit, this contains only the sprout or germ, which is the base of the *Pistillum*, or the rudiment of the fruit yet in embryo.

Some plants are furnished with double perianths, in which case one of them will be found attached to the flower, properly so called, and the other to the fruit; these frequently occur in plants of the 16th class *Monadelpchia*.

In some plants the perianth is composed of only one leaf, &c. in others many, from which circumstance the following names have been attached to it.

1. *Perianthium Monophyllum* (a one leaf perianthium) a perianth, composed of only one leaf, as Tobacco, and the *Diadelphia* Plants.
2. *Perianthium diphyllum*, a perianth composed of 2 leaves as Poppy.
3.                   triphyllum,                   of 3 do. as May Apple.
4.                   tetraphyllum                   of 4 do. as Water Lily.
5.                   pentaphyllum                   of 5 do. as Flax.
6.                   hexaphyllum                   of 6 do. as Barberry.
7.                   heptaphyllum                   of 7 do. as Wintergreen
8.                   octophyllum                   of 8 do. as
9.                   decaphyllum                   of 10 do. as
10.                  polyphyllum                   many do. more than 10.

Other particular names from particular circumstances, are applied to the perianth, viz.

*Perianthium. Abbreviatum*, the perianth shorter than the tube of the flower.

*Aculeatum*, a prickly perianth.

*Acuminatum*, a pointed perianth.

*Acutum*, acute, more pointed than the foregoing.

*Biadum*, two cleft, divided or cloven in two parts.

*Caducum*, falling off, a term signifying the shortest time of duration; falling at the first opening of the flower.

*Caliculatus*, a little calix, or perianth, added to a larger one.

*Ciliatum*, the margin of the perianth, having hairs like the eye-lids.

*Clavatum*, club shaped.

*Communi*, common.

*Decemfidum*, ten cleft.

*Deciduum*, falls off with the flower; duration longer than the caducum.

*Dodecemfidum*, twelve cleft.

*Erectum*, erect or upright.

*Globosum*, globular; round like a ball.

*Imbricatum*, tiled, the scales lying one over another.

*Inferum*, inferior or situated below the germen.

*Inflatum*, puffed, blown like a bladder.

*Integrum*, entire, undivided.

*Integerrimum*, very entire, without serratures or incisions.

*Longum*, (opposed to *abbreviatum*,) longer than the tube of the flower.

Mediocre, the length of the tube of the flower, middle sized.

Obtusum, (opposed to acute.) blunt or rounded.

Octoidum, eight cleft.

Patens, spreading out, branching wide.

Persistens, permanent remaining till the fruit is perfect.

Proprium, proper, belonging to one flower.

Quinquefidum, five cleft.

Reflexum, reflex, the top bent back towards the base.

Scariosum, dry, thin, tough, and semi-transparent.

Serratum, sawed on the edge, (opposed to integerrimum.)

Sexfidum, six cleft.

Spinosa, thorny.

Superum, superior, when the germen is under the lower part of the perianth.

Squarrosus, (a species of imbricatus) in this, the scales are rough, scruffy and diffused, not being close and regular.

Tetrafidum, four cleft.

Trifidum, three cleft. Tubulosum, Tubular.

Turbinatum, top-shaped; narrow at the base, and broad at the apex.

The foregoing are the particular terms which occur, not only in *Perianths*, but as has been already observed (with a few exceptions) in most all the parts of a plant: so, that whenever any term occurs in any part of this work, or any other, by referring to the Glossary, you will have the meaning.

*The second species of CALIX, is called*

b. INVOLUCRUM, (from *involve*, to wrap up) is the calix or cover; or by some called the *fence* of the umbelliferous plants, standing at a distance from the flower. Linnæus confines it to the umbelliferous flowers: these are so numerous and natural, that it is difficult to distinguish the genera, they are so nearly alike; however he has given us a few marks to guide us: these are the involucre. One species he calls,

*Involucrum Universale*, an universal involucre; a species of calix in which the whole flowers are enclosed before their blowing. The focus of the rays, both in the larger or universal umbel, and in the smaller or partial umbel, is sometimes surrounded with small leaves; this set of small leaves or *folioles*, is called an involucre, when it is placed at the origin of the universal umbel; it is then called the universal involucre; and when placed at the origin of the partial umbel,

*Involucrum partiale*; a partial involucre, which encloses lesser parcels of flowers, or bundles, and which before their blowing is enclosed in the *Involucrum universale*. Examples of these are found in Hemlock, Carrot, &c. Almighty wisdom and goodness, has given us distinguishing marks to discover the difference between Chervil, Parsley, &c. and lesser Hemlock, or Fool's Parsley. This latter has under every partial umbel, or smaller bundle of flowers, an involucre of three narrow long pointed folioles, all placed on

the outer part of the umbel, and hanging down:—Whereas, in *Chervil*, the folioles or involucre of the partial umbels, surround it entirely, and grow equally on every side: and in *Parsley*, there are only a few short folioles, fine almost as hairs, and distributed indifferently at the base of both umbels. There is also a great difference in the smell; *Parsley* being pleasant, while the other is disagreeable and venomous. The involucre of *Fool's Parsley*, is called in the Botanic language, *Involucrum dimidiatum*, or half leaved involucre, and is deficient on one side.

The involucre is also one leaved, *Monophyllum*, two leaved, *Diphyllum*, three leaved, *Triphyllum*, &c. same as the perianth before described, which when occurring, is explained by referring to that article.

*The third species of CALIX, is termed*

c. **AMENTUM.** (In the Roman Antiquity, a thong tied about the middle of a javelin or dart.) In the English language it is called *Catkin*. *Linnæus* defines the ament to be a composition of a calix and a common receptacle, consisting of valves, and hanging down in different directions from the *Caulis*. *Common Oats* affords a good example of the amentum; as does the *Willow*, *Birch*, &c. This latter plant produces each kind of flower, viz. male and female, or in the Botanic language, *Stameniferous*, and *Pistiliferous*, in separate *Catkins*, which are composed of scales; those which are *Stameniferous* have three flowers in each scale; the flowers consist of three equal florets, with four small clefts, while the *Pistiliferous* *Catkins* have only two florets in each scale, without any perceptible *corolla*.

In the *Oak*, the barren flowers hang upon a loose *Catkin*, is destitute of blossoms; that is, petals or painted leaves.

The common *Beech* has barren *Catkins*, round like a ball, and in the *Hazel* the barren flowers are formed on a long cylindrical *Catkin*; while the fertile or female flowers at a distance set enclosed in a perianth. In general all flowers which are supported by an amentum are destitute of the petals or painted leaves, as has been observed of the *Oak*.

d. **SPATHA:** (A two handed or bastard sword, a spatula, &c.) A sheath is the fourth species of calix, which opens longitudinally, when the flower breaks through it. This species of calix occurs in the *Iris*, or flower de-luce, or indeed any of the flags, in these, whether the flowers are open or closed, each has its own sheath, separating it from the others; and where there is but one *Spatha* or sheath, as in the *Snow-Drop*, it is called a

*Spatha*. *Uniflora*, a one flowered *spatha* or sheath, where there are two.

*Biflora*, a two flowered sheath.

*Multiflora*, a many flowered sheath, as in *Jonquil*, &c.

*Univalvis*, is when the *spatha* consists of one piece, as in *Narcissus*.

*Bivalvis*, a two valved *spatha*, &c.

e. **GLUMA**, a *Glume*, *Husk* or *Chaff*: (from *Glubo*, to bark or peel) is the fifth species of calix, belonging chiefly to grasses and corns,

and consists of different valves, embraces the seed, and is in many species of corn, particularly Oats, Rye, Barley, &c, terminated by a stiff pointed prickle, in the Botanic language, called *Arista* or Awn; and hence among Agriculturalists, these are termed Bearded Oats, Rye, Barley, &c. Sometimes the glume or husk supports more flowers than one; in which case the terminology will be the same as in the foregoing, viz. *Uniflora*, *Biflora*, *Triflora*, to *Multiflora*: that is, one flowered, two flowered, three flowered, to many flowered, Husk, &c. And so with respect to the number of valves. The common colour of the glume is green, but sometimes it is of another colour; it is then *Gluma colorate*, or coloured Glume.

Husks are either *glabra*, smooth, or *hispid*, shaggy or rough, with hairs. Those which are destitute of the awn, are said to be *mutica*, awnless, beardless, blunt, without a point at the end; and those terminated by an awn are called *Aristata*.

The *Arista*, or Awn is a long needle like beard, which stands out from the husk of a grain of Corn, Grass, &c. sometimes from its apex, at others on the back or outside of the glume; in some species it is straight, in others twisted, recurved, or only simply bent.

f. CALYPTRA; (A veil, or cover.) the sixth species of calix, peculiar to Mosses, and covers the *Anthera*, or male organs of this family of vegetables, like a hood. Professor Barton objects to the Calyptrae being considered as a real calix, and observes that the part which Linnaeus calls the Anther of the Mosses, is now known to be the Capsule or Pericarp of these vegetables. Indeed Linnaeus himself suspected them to be Capsules after he had called them Anthers.

g. VOLVA; the membranaceous calix of the *Fungi*, or Mushrooms: Doctor Withering calls it the Ruffle. It appears to be of very little consequence, and by modern Botanists is said ought not to be considered as a species of calix. Sometimes it is placed upon the stem of the Mushroom; at others, it is placed remote, or at a distance from the cap.

*Corolla*, blossom or flower leaf, (a wreath or crown) is the second of the seven parts of fructification, defined by our author to be the *liber* or inner bark of the plant present in the fructification. It is that beautiful coloured part of a flower which first draws the attention, and is regarded by common eyes, as the flower itself; but it must be remembered that the *Corolla* is only a part, of which the flower is the whole. A *Corolla* consists sometimes of two parts, viz. the *Petalum*, or Petal; this is essential, and the *Nectarium*, Nectary or Honey-Cup; which is not always a part of the *Corolla*, being sometimes situated on the Calix, at others on the Stamen, Filaments, Pistillum, Receptacle, &c.

A *Corolla* has its segments or petals, disposed alternately with the Stamens; by this circumstance it is distinguished from the perianth, whose leaflets stand opposite to the Stamens. This rule, Linnaeus proposed, and Doctor Milne established; thus we may determine with precision in those flowers which want either the Calix or *Corolla*. As a proof, the Doctor adduces three plants, Pellitory, Wild Orach, and Nettle; one of the two covers is wanting. Applying to the rule of Linnaeus, we find the divisions of the only cover that is present, to stand opposite to the Stamina; we therefore conclude

that cover to be the calix, consequently the corolla in these plants is wanting, and so of others.

In the general, the corolla or blossom leaves are surrounded by the calix, and the Stamen and Pistillum are surround by the corolla. In Bell flower, Bindweed, &c. the corolla is composed of one leaf; in the Lily it is composed of six leaves or petals; the former is called, *Corolla Monopetalous*, a one leaved corolla, the latter *Corolla polypetalous*, a many leaved corolla: and so of the intermediate numbers. Before a Lily opens we see at the top of the stem an oblong greenish bud, which grows whiter the nearer it is to opening, and when it is open, the white cover takes on it the form of a basin, or vase, divided into several segments (six;) this then is a corolla.

*The different parts of the Corolla, are thus termed:*

1. Tubus, a tube is the lower part of a Monopetalous Corolla.
2. Ungues, a nail or claw, is that part of a petal joined to the receptacle.
3. Limbus, a border, the upper expanded part of a Monopetalous Corolla.
4. Lamina, a thin plate, the upper expanded part of a Polypetalous Flower.

The Corolla is also variously termed with respect to its divisions, equality, figure, margin, surface, proportion, situation, duration, composition, and colour; these are explained, when occurring, by a reference to the 6th Chapter, and the Glossary. We shall however add a few particulars. The corollas in *Mint*, are hardly *ringent*; that is, grinning or gaping; in *Lavender* they are turned topsy turvy; that which is upper part in most others, is the lower part in this. *Teucrium* has the corolla slit quite through, for the stamens to pass: *Bugle* has the upper lip of the corolla much shorter than the filaments; *Betony* has the upper lip of the corolla flattish, and rising with a cylindric tube; these plants, with others similar, comprise such as have mostly a personate or masqued corolla, &c.

**NECTARIUM.** The Nectary or Honey-cup, Linnaeus defines the Nectary to be the melliferous part of the vegetable peculiar to the flower. This term is applied to every glandular part of a flower which secerns a sweet juice, or the appendages with which some flowers are furnished; containing a small quantity of sweet honey, like juice, from which the Bees collect their rich treasures. It is very conspicuous in some flowers, as the *Nastertium*, Crown Imperial, Columbine, and Lark-Spur; but less visible in others, and in some appears to be entirely wanting. In the Dove-footed Cranesbill there are five yellowish glands, which serve as a nectary. The use is supposed to be that of a reservoir, for the nourishment of the seed bud; although the Nectary has not hitherto been discovered in many genera of plants, yet there is a certainty it does exist in all, if not as a distinct visible part, as a gland or pore however, or a set of glands or pores, exuding that sweet viscid juice, so useful secondarily for the nourishment of a great variety of insects, and

doubtless at the same time primarily necessary to the fructification of the plant itself.

As the Nectary puts on different appearances in the several genera in which it is found, the following appropriate terms are given:

*Nectarium, Tubulosum*, a Tubular Nectary, or a nectary, though not visible, there is yet a nectareous juice secreted into the tube of the corolla. These occur in most monopetalous tubular corollas, particularly in the Honey-suckle, Aloe, Jamestown-weed, &c.

The most common appearance of the nectary, is that of glands, scales, valves, and sometimes the exact form of petals. It also takes upon it the form of some well known utensil or other thing; whence they are said to be

*Nectarium, Urceolatum*, or pitcher shaped, as in Winter's Bark-tree, Nettle, &c.

*Cyathiformis*, or goblet shaped, as in Barren-wort, &c.

*Campanulatum*, or bell shaped, as in Chocolate tree.

*Rotatum*, wheel shaped, in Cissampelos, or Pariera, Brava, &c.

*Turbinatum*, top shaped, in Poplar, Honey-locust, &c.

*Nectaria Cornuta*, a horned nectary, as in Larkspur.

*Coronatum*, crown shaped, the most beautiful species of nectary. In the Passion flower it is a triple crown or glory, the outer one longest, surrounding the style, &c.

According to its situation, the Nectary is also variously termed, some being attached to the calix, others to the petals, stamens, filaments, &c. are thence called *Nectarium Calycinum, Petalium, Stamineus*, &c. The limits of this work will not admit of a full description of all the terms which are appropriated to the different parts of plants; as much however as is essential will be given to each part.

3. STAMEN. The third essential part of fructification, by some English writers, called the Chive, is defined by Linnaeus an organ for the preparation of the *Pollen*, or *Farina*. It is the male part of the flower, and by which the Sexual System has been formed. The Stamen or Chive is formed of two parts: 1st the filaments by which they are fastened to the bottom of the corolla, and 2d the Anthera, or Anther, which is placed at the top of the filament. A third part which is still, if possible more essential to the perfection of vegetables, is secreted, or contained in the Anthers, and is called *Pollen* or *Farina*.

1. FILAMENTUM, (From *filum*, a thread) is the long thin part of the Stamen, which resembles a hair or thread, which supports the Anther, or Box; in general the term filament is considered as equivalent to the term stamen.

The filament with respect to figure, insertion, proportion, surface, structure, direction, &c. is variously termed; as much however of the insertion, &c. as is necessary in the present instance, occurs in Table 1, where the mode of insertion is sufficiently explained.

2. ANTHERÆ, Anther or Apex. The Anther is defined by Linnaeus, to be a part of the flower big with *Pollen* or *Farina*, which it

emits or explodes, when ripe ; each Anther is a Box, which opens when it is ripe, and throws out a yellow dust, which has a strong smell, and is the *Pollen* or *Farina*, hereafter noticed. It has been observed already that the Anther is placed at the top of the filament ; there are some plants however, in which the Anthers exist, without any filaments to support it. The uses of the Antheræ occur from the nature of the

3. POLLEN, *Farina*, or *Genitura*, which is the prolific dust or powder, contained in the Anthers, and which (*Antheræ Dehiscenta*) bursts from the Anthers, is absorbed by the stigma of the pointal, and passing through the style, reaches the germ, and vivifies the seed, which without this process would be imperfect and barren. The Pollen is therefore very properly called the prolific dust of the plant. From a Microscopic view of an Antheræ, taken from a Sun-flower, the Pollen appears like a great number of small yellow balls in each side of the tip, and the surface appears almost covered with them ; those upon the concave, are spiculated all round, and are perfectly globular and of a fine yellow transparency ; when bruised, it emits a most subtle, pellucid, oleaginous fluid, or spirit, that fertilizes the seed.

4. PISTILLUM. the *Pistil* or Pointal ; Linnaeus defines it a *viscus*, or organ, adhering to the fruit, for the reception of the Pollen ; it is the female organ of the vegetable. In a Lily you will observe in the middle of the corolla, a sort of little column rising from the bottom, and pointing directly upwards. This taken in its whole, is called the *Pistil*, or Pointal ; it is composed of three parts : 1st the *Germ* or ovary, 2d the Thread or *Stylus*, and 3d the *Stigma* or Capital.

1. The GERMEN, Germ, Ovary, Seed bud or Base of the *Pistil* : It is the rudiment of the fruit yet in embryo ; it varies as to its form in different plants, but is always placed below the style ; its office is to contain the embryo seeds. With respect to number, it also varies, some plants having one, others many ; for if it be remembered, the *Pistillum* gave rise to many of the orders in the sub-division, as the *Stamens* did to the superior division of plants into classes. See the Tables, and Chapter 3d.

2. STYLUS, or Style is that part of the *Pistillum* which elevates the *Stigma* from the *Germen* ; when present, it is placed on the *Germen*, and is of a variety of figures and lengths. It is evident that it is not essentially necessary, as it is sometimes wholly wanting : thus, there is a striking similarity between the style and the filaments of the male. Its varieties are explained upon the same principles with the other parts.

3. STIGMA, the Apex of the *Pistillum* ; that is, the summit or top of the female part of the plant. It also appears of different forms, (varying in figure 32 ways) but always retains the same situation, being invariably placed at the top of the style ; or if that be wanting, it is fixed on the germen. The office of the stigma appears to be to receive the influence of the *Pollen* or *Farina*, by absorption, which passing through the style is received by the *Germen* or seed-bud, vivifies the seed, &c. In a Lily, we observe the *Stylus* crown-

ed by a kind of capital, with three *notches*, this capital then is the *Stigma* of the Lily.

5. PERICARPIUM, the Pericarp, seed-vessel, or Seed case, a species of Pod. Linnaeus defines it a *viscus*, or organ gravid, (big) with seeds, which it lets drop when they are ripe: in other words it is the germen of the Pistillum enlarged, as the seeds increase in size, and approach nearer perfection; this circumstance takes place in the following manner:—As the corolla fades and falls, the germen increases, and becomes a pericarpium, or cover of the seeds, of which there are eight different species. The pericarp is said to be an organ of great importance; though it cannot be said to be essential, as many plants are without it, particularly the extensive family of grasses, and in Turnsole, Mouse-ear, Scorpion grass, Gromwell, Alkanet, Hound's-tongue, Lungwort, Comfrey, and many others; the calix serves instead of a pericarp, as they have none; while in some others, the place of the pericarp is supplied by the receptacle or base of the flower. The different species of Pericarp are 1st *Capsulas*, 2d *Siliqua*, 3d *Legumen*, 4th *Folliculus*, 5th *Druſa*, 6th *Pomum*, 7th *Bacca*, and 8th *Strobilus*.

1. CAPSULA or Capsule, (a little coffer or casket) a species of pericarpium or seed-vessel, composed of several dry-elastic valves, which usually burst open at the points, when the seeds are ripe; it differs from a pod in being roundish and short, sometimes they contain only one cell or cavity, in which case it is termed an *Unilocular*, or one called Capsule; sometimes it has two cells, (*Biloculas*) or three cells (*Trilocular*) &c. The central columns by which the capsules are connected is called *Columella*, and the partition which separates the different seed capsules from one another, *Dissepimentum*. Examples of this species of pericarpium occur in Snap-Dragon, Toad-flax, &c. Several species of Poppies have smooth capsules, while others are rough, &c. The capsule with respect to its figure and substance, divisions and number of seeds, &c. are various, containing upwards of *forty terms*. These exceed the limits assigned to this work.

2. SILIQUA, Silique, or Pod, is a double valved pericarpium, with the seeds fixed to both sutures or margins; alternately to the right and left, by a short pedicle—each of the valves cover a small cell, and the cells are separated by a thin partition; when the seed is ripe, the valves open from the bottom upwards, to give them passage, and remain fast to the stigma at top. This species of pericarp most frequently occurs in those plants, whose flowers are *cruciform* or cross shaped; the numbers of which, are so great, as to induce Botanists to divide them into two sections: hence the division of the seed-vessels, &c. into

a. *Siliqua*, (*Siliquosa*) or Silique; that is, a long pod, or an oblong narrow bilocular perianth, or seed-vessel; such as occur in Wall-flowers, Cabbage, Turnip, Cole-seed, Mustard, Charlock, Radish, &c.

b. *Silicula*, (*Siliculosa*) or Silicle, or a small and very short pod, almost as wide as it is long, and differently divided within, as in Whitlow-grass, Mithridate-Mustard, Bastard cress, Scurvy-grass, Horse-radish, Candy-tuft, Honesty, &c. In the last mentioned spe-



cies, the seed-vessel is very large, it is nevertheless a silicle, because the length exceeds the breadth very little. The forms of both are various, some being jointed, others compressed, some triangular. The silicles or little pods are still more variable, some are flat and round, or oval, others are spherical, &c.

3. **LEGUMEN**, or Legume, is also a double valved pericarpium, but is distinguished from the silique of the cruciform tribe, by the seeds being fastened to one side only of the case, alternately indeed to each valve of it, but all of them to the same side as may be observed in the Pea. In the vulgar language, this species of pericarp is called the shell or ham.

4. **FOLLICULUS**, or Follicle, a husk, is a species of pericarpium consisting of only one valve, opening longitudinally, and in which the seeds do not adhere but lie loose in a kind of down, inclosed in a particular receptacle, which opens on one side to let them escape.

*Flumera*, or Red Jasmine, has two reflex follicles; Swallow-wort, or Tame poison, has two long jointed follicles; indeed there are 27 species of Swallow-wort (*asclepias*) agreeing all in this particular; that is, that each flower is succeeded by two follicles, enclosing many downy seeds.

5. **DRUPA**, or Drupe, a species of *Pericarpium*, containing a nut or stone, and having no valve. There are two varieties of Drupa. <sup>a</sup> The succulent or juicy—<sup>b</sup> The *sicca*, dry or juiceless. For instance, the genus *Amygdala*, or Almonds, which includes the Peach and Nectarine, is almost like the plum; but the germ has a down upon it. The fruit is succulent in the Peach, and dry in the Almond. It must however be observed, that the kernels included in their nuts, are nearly the same in both.

6. **POMUM**, Pome, or Apple, a pericarpium, without any valve, but made up of a pulpy substance, and containing a capsule, which is membranaceous, and generally divided into five cells or cavities, in which the seeds are enclosed, as may be seen in apples, pears, and many plants of the Syngenesia Class; such as the Pompion, Squash, Gourd, Spirting-Cucumber, &c. There is however a small distinction noticed by Rousseau, which is that the stalk of the apple enters into a hollow of the fruit, while that of the Pear is fastened to the narrow part of the fruit lengthened out.

7. **BAGGA**, or Berry, is a pulpy pericarpium, without valves, in which the seeds are naked; a familiar example of this species of pericarp occurs in the Strawberry, (*Fragaria vesca*) where the seeds are dispersed over the surface of a roundish, pulpy receptacle. This species of pericarp may properly be divided into two parts, simple and compound.

The simple consisting of the Currant, Rose, Gooseberry, Medlar, &c.

The compound such as Mulberry, Blackberry, Strawberry, &c. which have their seed in separate protuberances, forming a compound berry.

1. **STROBILUS**, (in the Latin language, signifies several things, as a wild Pine-Tree, a Pine-Apple, Artichoke, &c. it also signifies a whirlwind) Strobile, a pericarpium or capsule, formed from an

amentum, by the induration of the scales. This species of pericarp is seen in the Tulip tree, whose lance-shaped seeds lying over one another, forms a strobile; also the laurel tree, or *Magnolia Grandiflora*, &c. It also occurs in some herbs, particularly *Marjoram*, which is distinguished by an involucre, composed of imbricate *bractes*, forming all together a square kind of spike or strobile.

*Note.*—There are four other species of pericarp, noticed by some authors; these are called 1st *Theca*, 2d *Granatum*, 3d *Cysta*, and 4th *Scrinum*. The first of these have been noticed by Linnæus as the proper exterior coat or covering of the seed, which falls off spontaneously, and not considered by him as a pericarp; for the other species we refer you to those Elementary Works, whose province it is to explain all the terms peculiar to Botany. This work being principally intended to render the study of Botany accessible to common capacities; the controverted points are as much as possible avoided.

6. SEMINA, the Seed or Fruit, is the sixth part of the fructification, and is the ultimate produce, yet incipient principle of vegetable nature. It is said by Linnaeus to be the deciduous part of a plant containing the rudiments of a new, or other vegetable of the same species, and fertilized by the aspersion or sprinkling of the *Pollen* of the anthers, upon the *Apex* of the *Pistillum*. The formation of the seed is variously adapted to its purpose, and is composed of several parts, viz.

1. The CORCULUM or Heart, which is the principle of life in the future plant, contained within the lobes; it consists of two parts, the plume which ascends and forms the future stem, and the beak which descends and becomes the root. In the Botanic language, the plume is termed *Plumula*, a bud or germ, and the beak is called the Radicle.

2. COTYLEDONES, or Side Lobes, these supply the heart of the seed with nourishment, till it is capable of extracting support from the earth. In many plants the lobes ascend in the form of leaves, and are called seed, or radicle leaves, dissimilar leaves, &c. but in some they perish beneath the surface, without appearing above ground.

3. HILUM, the Eye or Scar, is an external mark, where the seed was fastened within the seed-vessel.

4. ARILLUS, the Seed coat, or *Tunic*, is a proper cover to some seeds, and is of various textures and consistence in different individuals, sometimes the seed is crowned with the cup of the flower, and sometimes it is winged with a feather, or with a thin expanded membrane, which assists the wind to waft or disperse it to a distance. These are termed *pappus* a *corona*, or crown, and are either

1. *Pappus Pilosus*, a hair like pappus or crown.

2. *Plumosis*, a feathered or penniform pappus, &c.

The seed contains the perfect plant in embryo, though in most instances too minute to be discerned by our organs of sight; but if the seed of a Bean, or an Acorn be sufficiently soaked in warm water, the form of the future plant may be plainly perceived. Mr. Baker in his Poem called the "Universe," speaking of the seed, says,





## EXPLANATION OF PLATE V.

OF THE MODES OF INFLORESCENCE, &c.

- Fig. 1 A *Papilionaceous*, or Butterfly-shaped Blossom. See Chap. 2, Fig. 17, and Chap. 11, Fig. 32.
- 2 A *Personate*, or Masked Blossom. See Chap. 2, Fig. 14, and Chap. 11, Fig. 40.
- 3 A *Ringent*, or Grinning Flower, also termed labiate, or lip-shaped. See Chap. 2, Fig. 14.
- 4 *Infundibuliforme*, or funnel-shaped.
- 5 *Campanuliforme*, or bell-shaped.
- 6 *Spica*, a spike of flowers. See Chap. 5, Fig. 3.
- 7 *Fasciculus*, a fascicle, or bundle. See Chap. 5, Fig. 8.
- 8 A *Compound Radiate Flower*. See Glossary.
- 9 A *Cruciforme*, or cross-shaped flower.
- 10 A *Verticillus*, or Whorl. See Chap. 5, Fig. 4.
- 11 A stalk rising directly from the root, and supporting the flower.
- 12 A *Corymbus*. See Chap. 5, Fig. 1.
- 13 A *Thyrus*. ditto 5, 7.
- 14 A *Racemus*, or bunch. 5, 2.
- 15 An *Aggregate Flower*. See Chap. 11, Fig. 48, and Glossary.
- 16 A *Paniculus*, or panicle. See Chap. 5, Fig. 5.



Each seed includes a plant, that plant again  
 Has other seeds, which other plants contain :—  
 Those other plants have all their seeds, and those  
 More plants again, successively inclose.  
 Thus, every single berry that we find,  
 Has, really in itself whole Forests of its kind—  
 Empire and wealth, one Acorn may dispense,  
 By Fleets to sail a thousand ages hence—  
 Each Myrtle-seed includes a thousand Groves,  
 Where future Bards may warble forth their loves.  
 So Adam's loins contain'd his large posterity,  
 All people that have been, and all that e'er shall be.  
 Amazing thought !

7. RECEPTACULUM (from recipio, to receive) a Receptacle is the seventh and last part of fructification, enumerated by Linnaeus, he defines it the Base, by which the other parts of fructification are connected, or by which the whole fructification is supported, in many flowers it is not very striking, but in others it is large and remarkable, as in Cotton Thistle. Two particular species of Receptacle are necessary to be noticed in this place. The one proper and the other common.

1.—*Receptaculum proprium*, or proper receptacle, is peculiar to one fructification only, and has also different terms applied to it, derived from the particular part to which it is attached, &c.

2.—*Receptaculum commune*, or common receptacle, is said to be the most essential part of a compound flower (for determining its character) for upon it is placed, first the florets and semi-florets, and then the seeds which succeed them. In Dandelion, the receptacle which forms a disc of some extent, makes the centre of the Calix; and in the Artichoke, after taking away the Calix, Petals and Stamens, &c. the part remaining, or in other words the part which is generally eaten, is the receptacle.

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## CHAPTER V.

### INFLORESCENTIA.

INFLORESCENCE, OR THE TERMS BELONGING TO THE VARIOUS MODES  
 IN WHICH FLOWERS ARE JOINED TO THE PLANT BY THE  
 PEDUNCULUS OR FOOTSTALK.

THE following modes of Inflorescence are most particular, viz-

1.—CORYMBUS, is a kind of Spike, the flowers of which have each its proper *pedicellus* or partial footstalk, raised to a proportionate height, as may be seen in Scurvy-Grass, Horse-Radish, &c.

2.—RACEMUS, or Raceme, is that species of Inflorescence which has a pedunculus or footstalk furnished with lateral branches, and in which the flowers appear in a bunch. This species derived its

name from a bunch of Grapes or Currants, and is to be found in all those plants that produce their fruit in bunches.

3.—*SPICA* or Spike, a species of Inflorescence, resembling an ear of Corn, i. e. Wheat, Rye, &c. Alternate Sessile flowers (that is flowers without any particular footstalk, but inserted directly into one common to the whole) upon a common footstalk, and is common to Wheat, Rye, Barley, Dog's-Tail Grass, Bog-rush, Darnel-grass, &c. There are two varieties, viz.

1.—*Spica Secunda*, when the flowers all turn to one side, as in Cocksfoot Grass.

2.—*Spica Disticha*, when the flowers are in two rows, and look two ways, as in Bog-rush, &c.

4.—*VERTICILLUS*, a species of Inflorescence, in which the flowers grow in Whorls, this term is applied to such plants as have clusters of flowers at different distances surrounding the Caulis or Stem, as may be observed in several species of Mint, Garden Thyme, Basil, &c.

5.—*PANICULA* or Panicle, a loose spike of grass. This species of Inflorescence is applied to those flowers which are placed sparsely upon separate footstalks, and is very common in different species of meadow grass, which all flower in a loose branching Panicle. Flote Fescue grass, has a loose panicle, of a considerable length, but little branching, growing on one side. The branches of the panicle are sometimes single, sometimes double. There are examples of simple unbranched panicles, particularly in the *Bromus* or Broom-grass. There are other species of Broom-grass, however, that have great branching, nodding panicles, to wit, the Barren, Giant and Wood Broom grasses, a more familiar example of this mode of Inflorescence occurs in the Yellow Oats, the panicles of which are extremely fine and yellow.

6.—*CYMA* or Cyme, a sprout, is a species of Inflorescence that runs into long fastigiate peduncles, proceeding from the same universal centre, but with irregular partial ones. Linnæus defines it to be an aggregate flower, composed of several florets sitting on a receptacle, producing all the primary peduncles from the same point, but having the partial peduncles scattered or irregular, all fastigiate or forming a flat surface at top. *Cymous* flowers have a near resemblance to the *Umbellate*, thus the arrangement of the flowers in the Elder, would induce young hands to rank it with the *Umbellate*, yet its mode of Inflorescence is called a Cyme.

There are several other modes of Inflorescence mentioned by Botanists, viz. *Spadix*, *Umbella*, *Ament*, and *Strobilus*, which have already been noticed in former chapters, when speaking of the fructification, &c.

7.—*THYRSUS* or Thyrses, a spike like a pine cone, this mode is properly a species of Panicle, and is the most beautiful species of Inflorescence. In the panicle the footstalks are irregularly loose, while the Thyrses is contracted into an oval, as in Butter Burr.

8.—*FASCICULUS*, or Fascicle, a bundle, a species of Inflorescence, in which the flowers are collected together, as in a bundle, all those flowers called *aggregate*, have this mode of Inflorescence, particu-



larly one species of the genus *Dianthus*, viz. the *Barbatus*, or Sweet William. In Martyn's Rousseau, it is observed, the leading feature in distinguishing the species of the genus *Dianthus*, is the inflorescence or manner of flowering.

9.—CAPITULUM, a little head, a species of Inflorescentia, in which the flowers are connected into close heads, on the tops of the peduncles, this mode occurs in the genus *Gomphrena*, or Bachelor's Buttons, &c.

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## CHAPTER VI.

### TERMS RELATING TO THE CULMUS AND CAULIS OF PLANTS.

IN defining these articles, it is necessary to premise, that in Plants or Herbs, there is a Truncus or Trunk properly so called, which is generally termed *Caulis*, when applied to Trees, Shrubs, and Herbs only. There are five species of Trunks, viz. 1. *Caulis*, 2. *Culmus*, 3. *Scapus*, 4. *Frons*, 5. *Stipes*.

1.—CAULIS, a Stem, a species of Trunk, which rises out of the root, and supports the flowers, leaves, branches, &c. These are either simple, branched, or compound; this species of Trunk is common to Trees, Shrubs and Herbs, which supports all the parts of the plant, and is itself supported by the root, from the variety of circumstances attending these, with regard to their surface, dependencies, form, &c. they have each of them been variously termed, viz.

*Caulis* Glaber, a smooth stem.

Scaber, a rough or rugged stem.

Nudus, a naked stem.

Villosus, covered with down or soft hairs.

Foliatus, covered with leaves.

Diffusus, furnished with spreading branches.

Articulatus, a jointed stem.

Dichotomous, forked, the divisions coming two by two.

Repens, a creeping stem.

Inanis, a hollow or empty stalk.

Procumbens, lying on the ground, &c.

These with many other significant terms, are used in Botanic works, but as similar terms occur in the Terminology of Leaves, and in the Glossary, we omit any farther enumeration, for the reasons already assigned.

2.—CULMUS, or Culm, a reed or straw, the proper stem or trunk of Grasses, these, and indeed all the species are so well known to every observing person, as scarce to be worth particularizing. In general, the most plants having this species of stem agree in a simple, unbranched straight hollow stem, strengthened with knots at certain intervals; there are however some which are branched, others smooth without knots, and others scaly; these have also

various terms applied to them, which are explained upon the same principles with the foregoing.

3. **SCAPUS** or Scape, is that species of stem which supports the parts of fructification, but not the leaves—that is, has no leaves; by some it is termed a naked flowering stalk, as in Great-plantain, Mandrake, Lily of the valley, &c. These have leaves it is true; but then the leaves proceed immediately from the root, and lie procumbent on the ground, while the scape also, rising from the root, shoots up like the shaft of a column, is naked, and produces its flowers. &c. independent of the leaves.

4. **FRONS**, Frond, (*Fronosus Caudex*) a species of trunk, composed of a branch and a leaf blended together; and is frequently united with the fructification; this species of trunk is peculiar to the ferns and palms. It is sometimes considered as a compound leaf. Thus in the common adder's tongue, it is called an *ovate*, frond, or leaf. In Moon-wort, a *pinnate*; in Osmund-royal, *bipinnate*; in Rough Spleenwort, *lanecolate pinnatifid*, frond or leaf, &c. Those plants in which the fructification is considered as forming a part of the frond, are called dorsiferous, from bearing their fructification on the back of the frond or leaf, as in Maiden-hair, *Acrostichum*, or Rusty back.

5. **STIPES** or Stipe. (*Stipitatus*) This term is considered two ways; it is defined 1—a species of trunk that elevates the down and connects it with the seed; but in this view it can only be considered as a partial stem or stalk; or more properly speaking a foot-stalk, and is conspicuous in many genera of the Syngenesia Class, particularly *Scorzonera*, Dandelion, Goat-beard, &c. and in all those compound flowers, which hath a stem or stipes interposed between it and the seed. These flowers are thence termed *Stipulate*. 2—Linnaeus considers it as the base of the frond last mentioned, and he confines it entirely to the ferns, palms, and fungous plants; the latter of which, viz. The stem of Mushrooms is called a pillar, by Doctor Withering.

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## CHAPTER VII.

### TERMS RELATING TO THE FULCRA, OR SUPPORTS OF LEAVES.

**FULCRA**, (*Fulcrum* a prop or support) in the Botanic language signifies the props, helps and supports of plants, &c. These are as follows:

1. **CIRRHUS**, or Cirrhi, a tendril or clasper. In many plants the stems are too weak to support themselves: these are therefore furnished with the necessary fibres, from the different articulations of the stem, with which they lay hold, climb up, and adhere to such contiguous bodies, as are capable of supporting them. These are evinced in most of the genera of vines; Jasmine, Gourd, and other climbing plants. Linnaeus enumerates 12 species of tendrils, which are termed according to the form and manner of growth, &c.

2. *STIPULÆ* or Stipule, is one of the kinds of fulcra or supports of plants generally growing on each side of the base of the foot-stalks of leaves or flowers, and are either in pairs, single, deciduous, abiding, adhering, loose, on the inside of the foot-stalk, or on the outside; in other words stipules are scales or small leaves, situated at the base of the petiole. The most familiar instances of this species of support occur in the Peach, Rose, and Poplar-tree.

3. *PETIOLUS* or Petiole, a little foot-stalk, that supports the leaves of the plant; in other words it is the stem of the leaf by which it adheres to the branches, the continuation of which forms the great or mid-rib, &c. of the leaf. This term has also been applied by some writers to the culmus and caulis of plants, being considered by them as a species of trunk. It is however evident that it cannot be considered in any other view than the present, especially those that are either *caducous* or *deciduous*; the most striking instance occurs in the *Bignonia Catalpa* or Catalpana-tree; the petioles of which are very large, and fall off from the main stem, or branch leaving them naked. By these foot-stalks the Citron and Lemon-trees are distinguished from the Orange and Shaddock; the two first having linear petioles, all of a size, like most other petioles: whereas the two latter, have their petioles winged in shape of a heart, so that the main leaf seems to grow out of a smaller one.

4. *PEDUNCULUS* or Peduncle, the foot-stalk of a flower. It is often called Pedicle, and is that little stalk which first supports particular kinds of flowers, and afterwards their fruit, as in the Pea, or more properly a Peach, Apple or Pear, whose stalk ends as they are called, is supported by this species of fulcra, which is also variously termed according to number, situation, &c.

5. *BRACTÆA*, or Bracte, a Floral Leaf, these are generally of a different shape and colour from the other leaves of the plant, and are always seated near the fructification, in other words, it is that little scale or leaf which adheres to the peduncle, immediately behind the Corolla or the Calix. The character of the genus *Cynosurus*, or Dog's tail grass, is taken from the circumstance of having a lateral leaf to each Calix, this is the bracte. A variety of the Bracte is called

*COMA*, a bush or head of hair, this is a species of fulcra, composed of large Bractes, which terminate the stalk, such as are to be seen in Sage, Lavender, &c. and are thence termed *Bractea Comosa*. Bractes are variously termed according to their length, colour, proportion, &c.

6. *SPINA*, Spine, Thorns or rigid prickles, i. e. those thorns which are protruded from the wood of the plant; they are also called weapons or arms of the plant for their defence, &c. familiar examples of thorns occur in the Locust, Plumb, Hawbush, &c. these are protruded from the stem and branches, others are protruded from the margins of the leaf, as in the *Ilex Aculeatum* or Holly; in others the leaves are terminated with a thorn, as in the Sword Palmetto or Spanish Bayonet. Instances of thorns surrounding the *pericarpium*, or seed vessel, are seen in Thorn-Apple or Jamestown-weed, Medicago, Cuckold-burr, &c.

*Thorns are simple, double, and triple, and are thence termed:*

1. *Spina simplex*, a simple or single thorn which is most common.
2. *duplex*, a double or forked thorn.
3. *triplex*, a triple or three pronged thorn, the base of which is however mostly single, branching a little from the base into three points.

7. *ACULEUS*, a prickle, fixed to the rind or bark of the plant; it differs from the foregoing only in this respect, the former being protruded from the wood itself, in other respects they are similar. Familiar examples of this species of armature occur in Rose, Raspberry, Bramble or Black-berry bushes, otherways called Brier, &c. when these are forked they are termed in the language of Botany, *Furca*, forks—

These are the principal species of *Fulcra*; there are, however, several appearances peculiar to particular plants, which it may be necessary to mention: these are,

1. *Glandulæ* or glands, or secretory vessels, which Linnaeus calls a *Papilla* excreting a fluid or humour. These glands are more or less visible in almost all cruciform flowers, particularly in Cabbage, Mustard, Radish, Charlock, &c. they are said to be one of those instruments destined by Nature to unite the vegetable to the animal kingdom, and to make them circulate from one to the other,—This observation no doubt alludes to such of the glands as become a repository, or if the expression is admissable, a vegetable ovary, producing innumerable insects; as a proof of this assertion, we refer the reader, especially to those glandules which are formed, on the petioles and frequently on the leaves of a species of *Populus*, called the Quaking Asp; these actually enclose, vivify, and hatch or produce annually, thousands of insects, which are termed Gnats. Many other plants produce them in like manner; this circumstance however only occurs in that species of glands commonly called, a bladder or blister. Glands are of various forms and originate on various parts of plants, and from which circumstance they receive their specific names, as—

*Glandulæ concava*, a small hollow gland for secreting a liquor.

*pedicillatæ*, glands supported by a pedunculus.

*capillaire*, capillary glands, small, hairlike, &c.

2. *FOLLICULI*, follicles, according to some authors, vessels distended with air, while others define it to be a dry seed vessel (of one cell and one valve; which contain many seeds, that lie loose in a down, the shell or follicle opening on one side to let them escape— See page 37. Article 4. *Folliculus*.) In the present sense then we are to confine this species to such vessels as are destitute of seed, and are peculiar only to leaves, roots, &c. being in fact a species of *glandulæ*: and 2nd, the

*Utricula* or *Utricle*, is another species of glandular, secretory vessels found on the surface of various plants.

3. *PUBESCENTIA*, Pubescence or Pubes, down or hair, is enumerated among the *Fulcra* of plants; this term is applied to the defensive parts of plants, such as *Pili*, or hairs; *Lana*, or wool; *Tomentum*, or a whitish down or wool; *Hama*, hooks; *Strigæ*, stiff hairs; *Barba*,

beards, and *Setæ*, bristles; add to which a particular clamminess or viscosity surrounds the stalks, &c. of some plants, particularly under the flowers of the Catch-fly, which prevents various insects from plundering the honey, or devouring the *Pollen* which fertilizes the seed. The uses of these different species of pubescence are various, some serving to exhale and absorb, lymph, &c. while others as already observed are for their preservation and defence.

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## CHAPTER VIII.

### LIST OF TERMS NECESSARY FOR THE INVESTIGATION OF THE SPECIES OF PLANTS BY THEIR LEAVES, &c.

THE History of Leaves is generally, in Botanical arrangements, divided into four parts; 1st, *Simple leaves*; 2nd, *Compound leaves*; 3d, *Leaves* according to their *determination*; and 4th, Their *Foliation*.

#### 1.—*Simple Leaves.*

FOLIUM SIMPLEX, or a Simple leaf, is that continuation and expansion of the vessels of the footstalks, that produce several ramifications, mutually intersecting each other, forming the cortical part or net of the leaf, the meshes of which are filled up with a tender, porous substance, which forms the leaf. These when so connected as to form one simple and entire expansion, or in other words, if the mid rib and its ramifications, continue uninterrupted, single and undivided, the leaf is said to be simple.

All leaves of whatever figure, have a marginal fibre, by which all the rest are bounded; the particular shape of this fibre determines the figure of the leaf, and are thence denominated,  
*Acerosa*, linear permanent as in the Pine.

*Acinaciform*, resembling a kernel, compressed fleshy, having one edge narrow and convex, and the other thicker and more straight.

*Aculeatum*, a prickly leaf, not so rigid as the thorn.

*Acuminatum*, sharp pointed.

*Obtusum Acunini*, having a short awl shaped point.

*Acutum*, more sharp or acute than the foregoing.

*Bifidum*, divided or cloven into two parts. See also *Fissum*.

*Canaliculatum*, having a deep channel running from the base to the apex.

*Carnosum*, a fleshy leaf, as the Houseleek.

*Cartilagineum*, a leaf whose brim is furnished with a margin of different substance from the disc.

*Carinatum*, when the back of a leaf resembles the keel of a ship.

*Ciliatum*, the margins guarded by parallel bristles, formed like the eye-lash.

*Cirrhosum*, a leaf that terminates in a tendril, as the Superb lily.

*Coloratum*, coloured, when the leaves which are generally green, are of a different colour.

*Compactum*, of a compact, solid substance.

- Concavum*, hollowed, the margin forming an arch with the disc.
- Convexum*, a leaf rising from the margin to the centre.
- Cordatum*, a heart-shaped leaf.
- Cordato sagittatum*, resembling both a heart and an arrow.
- Crenatum*, a notched leaf, whose margins are cut into angles, that point towards neither of the extremities—  
 Acute *Crenatum*, when the angles are pointed.  
 Obtuse *Crenatum*, when the angles are rounded.  
 Duplicato *Crenatum*, doubly crenate.
- Cristum*, a curled leaf, when the circumference becomes larger than the disc admits of.
- Cuneiform*, a wedge-shaped leaf.
- Cuspidatum*, a leaf whose apex resembles the point of a lance or spear.
- Dedaleum*, a leaf whose texture is remarkably beautiful and exquisitely wrought.
- Deltoides*, a leaf formed like the Greek delta, as in *Mesembryanthemum*, a species of Marigold.
- Dentatum*, toothed, having horizontal points of the same consistence of the leaf, at a little distance from each other.
- Defressum*, pressed down, when the sides rise higher than the disc.
- Dolabriforme*, resembling an ax, as in some species of *Mesembryanthemum*.
- Emarginatum*, when the apex of a leaf terminates in a notch.  
 Acutum, when the notches are pointed.  
 Obtusum, when the notches are blunt.
- Ensiforme*, shaped like a two edged sword, tapering to a point.
- Erosum*, gnawed, when the leaf is sinuate, and the margin appears as if it were gnawed or bitten.
- Fissum*, a leaf split or cloven half-way down—a cleft leaf—See also Bifidum, Trifidum, Quadrafidum, &c.
- Glabrum*, a smooth leaf, having an even surface.
- Gibbum*, bunching out, gouty, pulpy, &c.
- Hastatum*, resembling the head of a spear or halberd.
- Hispidum*, opposed to *Glabrum*, covered with strong, fragile bristles.
- Integrum*, an entire, undivided leaf.
- Integerrimum*, an entire leaf, whose margin is destitute of incisions or serratures.
- Lacerum*, a variety of *Fissum*, but in this the leaves, appear as if torn into segments, whereas the *Fissum*, appear natural, &c.
- Laciniatum*, cut into irregular incisions.
- Lacunosum*, deeply furrowed, by the veins being sunk below the surface.
- Lanatum*, a wooly leaf.
- Lanceolatum*, lance-shaped.
- Ligulatum*, a straight end turned downwards with three indentures, but not divided into segments.
- Lincare*, like a line of the same breadth and thickness throughout—See *Acerose*.
- Lingueforme* or *Lingulatum*, shaped like a tongue.
- Lobatum*, divided to the middle into parts that stand wide from each other, and have their margins convex.

- Lucidum*, clear, shining leaf.
- Lunatum*, moonshaped leaves, when they are round and hollowed at the base like a half moon.
- Lunulate*, shaped like a crescent.
- Lyratum*, like a harp or lyre.
- Margo*, the margin or edge of the leaf.
- Membranaceum*, when leaves have no distinguishable pulp between their surfaces.
- Multifidum*, a leaf divided into many linear fissures, segments or divisions, when into two, they are called Bifid, three Trifid, &c. and when into many they are called Multifid—See Fissum, Bifid, &c.
- Multipartitum*, divided into many parts—See Partitum.
- Natans*, swimming on the surface of the water.
- Nervosum*, a leaf whose surface is full of nerves or strings.
- Nividum*, a bright, shining, glossy leaf, more so than *Lucidum*.
- Oblongum*, oblong.
- Obtusum*, blunt or rounded at the apex.
- Orbiculatum*, round, globular leaves.
- Ovale*, oval.
- Ovatum*, egg-shaped.
- Palmatum*, shaped like an open hand.
- Panduræforme*, shaped like a guitar.
- Papillosum*, covered with dots or pointed like nipples.
- Papulosum*, the surface covered with pimples.
- Parabolicum*, a leaf in form of a parabola.
- Partitum*, a divided leaf, the divisions reaching near the base of the leaf, and according to the number of divisions is Bipartite, Tripartite, &c. to Multipartite.
- Pilosum*, a leaf whose surface is covered with long distinct hairs.
- Pinnatifidum*, a winged leaf, applied to simple leaves, whose lacinae (i. e. segments or divisions) are transverse to the ribs.
- Planum*, a plane, flat leaf.
- Plicatum*, a plaited or folded leaf, like a fan.
- Præmorsum*, as if a piece were bitten off of the fore part.
- Pulposum*, pulpy, fleshy, nearly the same as *Carnosum*.
- Pulveratum*, as if powdered with dust, as in *Prunrose*.
- Punctatum*, sprinkled with hollow dots or points.
- Quadrangulare*, having four prominent angles in the circumscription of its disc.
- Quinangulare*, having five prominent angles, as above.
- Quincupartitum*, having five divisions down to the base.
- Ramea*, those leaves which grow only on the branches and not on the trunk.
- Reniforme*, kidney-shaped.
- Repandum*, having a bending or waved margin without any angles.
- Resuspinatum*, when the lower disc of the leaf looks upwards.
- Retusum*, when the apex of the leaf is blunt, nearly same as *obtusum*.
- Rhombeum*, resembling a Rhombus.
- Rhomboideum*, the sides and angles unequal.
- Rotundum*, a round leaf.
- Rugosum*, a rough or wrinkled leaf.

*Sagittatum*, an arrow-shaped leaf.

*Scabrum*, scabby, rough, having tubercles.

*Scariosum*, when dry at the margin, that sound when touched.

*Serratum*, sawed, toothed at the edges like a saw.

*Duplicato*, *Serratum*, doubly serrated or sawed.

*Setaceum*, shaped like bristles.

*Sinuatum*, when the sides are hollowed or scolloped.

*Spatulatum*, in form of a spatula.

*Splendentia*, same as *Nitidum*, *Lucidum*, &c.

*Spinosum*, thorny, as Holly, Aloes, &c.

*Striatum*, streaked, running in parallel lines.

*Subrotundum*, nearly round.

*Subulatum*, awl shaped.

*Sulcatum*, grooved, furrowed.

*Teres*, cylindrical.

*Tessellatum*, chequered leaf, whose squares are of different colours.

*Tomentosum*, covered with a whitish wooly down.

*Triangulare*, a triangular leaf.

*Trifidum*, divided into three linear segments, having straight margins.

*Trilobum*, having three lobes.

*Triquetrum*, having three plain sides.

*Truncatum*, having its apex or tip, as it were cut off.

*Tubulosum*, tubular, hollow, as in Onions.

*Vaginans*, like a sheath, whose base infolds the stem.

*Venosum*, a leaf having veins running over its whole surface.

*Villosum*, covered with soft hairs.

*Viscidum*, a leaf whose surface is clammy.

*Umbilicatum*, a peltate leaf, shaped like a navel at the insertion of the footstalk.

*Undatum*, a waved leaf, whose surface rises and falls in waves towards the margin.

*Urens*, burning, stinging, as in nettles, &c.

## 2.—Of Compound Leaves.

When the petiole bears more than one leaf, the leaf is said to be compound, as in the simple leaves, the prolongation, continuation, or expansion of the vessels of the footstalk, commonly called *costa*, or ribs, and forming one simple and entire expansion, (except in cases of fissure, &c. described in the list of simple leaves) are termed simple leaves; so in the compound leaves, the petioles or *costa* forms two or more expansions or divisions, each partial footstalk, supporting a separate lobe, or lesser leaf, called *foliola*, when considered as distinct, but united, forms a compound leaf; which obtains in the following species, viz. 1 *Compositum*, 2 *Decompositum*, and 3 *Supra Decompositum*.

1. FOLIUM COMPOSITUM, or Compound leaves, are as follows:

*Articulatum*, jointed, as if one leaf grew out of another, from the apex or tip, as in the Indian Fig, or Prickly Pear.

*Binatum*, a digitate leaf, containing two *foliolas*.

*Digitatum*, fingered, when the apex of a petiole connects many *foliolas*, or in other words, when a simple footstalk connects at its





## EXPLANATION OF PLATE II.

- Fig. 1 *Sinuatum* (*Retrorso Sinuatum*) *Indented*, a leaf with sinuses at the sides; the lobes which divide them are pointed and turned towards the base like the beards of an arrow.
- 2 *Acuminatum*, the extremity sharp like the point of an awl. See p. 45.
- 3 *Rugose*, a rough or wrinkled leaf. See p. 47.
- 4 *Venosum*, having a great number of branched vessels like veins. See page 48.
- 5 *Lingueforme*, shaped like a tongue. See page 46.
- 6 *Acinaciforme*, scimitar-shaped, resembling a kernel, compressed, &c. See page 45.
- 7 *Dolabriforme*, hatchet-shaped. See page 46.
- 8 *Deltoid*, having four angles, of which those at the extremities are farther distant from the centre than those of the sides. See page 46.
- 9 *Triquetrum*, having three plain sides. See page 48.
- 10 *Canaliculate*, a channelled leaf. See page 45.
- 11 *Sulcatum*, furrowed or grooved lengthwise. See page 48.
- 12 *Teres*, cylindrical. See page 48.
- 13 *Binatum*, or finger-shaped of two. See page 48.
- 14 *Ternatum*, growing by threes. See page 49.
- 15 *Pinnatum cum impari*, the leaflets terminated by an odd one. See p. 49.
- 16 *Abruptum*, neither terminated by an odd leaf nor Cirrhi. do.
- 17 *Alternum*, the leaflets rise higher and higher alternately on the footstalk. See page 49.
- 18 *Cirrhosum*, the footstalk ends in a Cirrhi or tendril. See p. 49.
- 19 *Articulatum*, the footstalk jointed. See page 49.
- 20 *Lyratum*, like a Lyre. See page 47.
- 21 *Bipinnatum* or *Duplicato Pinnatum*, doubly winged. See page 49.
- 22 *Tergeminum*, a leaf three times double. See page 49.
- 23 *Triternatum* or *Triplicato ternatum*, triply three leaved. See page 49.
- 24 *Tripinnatum abruptum*, or *Triplicato pinnatum abruptum*, a leaf having a triple series of wings terminated by two folioles.
- 25 *Tripinnatum cum impari*, a leaf like the foregoing, only terminated with an odd one.
- 26 *Plicatum*, a plaited or folded leaf, as in Ladies Mantle.



*Engraved for Doctor Mead's Flora Carolina.*



tip, several distinct folioles or leaflets, so as to resemble the open hand.

*Pinnatum*, a winged leaf, a leaf formed from a number of folioles, or leaflets attached to both sides of the costa, or mid-rib, such as occur in our common Locust.

*Pinnatum Abruptum*, neither terminated by an odd leaf, nor a cirrhi.

*Alternum*, when the leaflets or folioles rise higher and higher, alternately upon the footstalk.

*Articulatum*, when the footstalk is jointed.

*Cirrhosum*, when the footstalk ends in a cirrhi, or tendril.

*Conjugatum*, when the footstalk has only two folioles or leaflets.

*Cum-impari*, when the leaflets are terminated by an odd one.

*Decursivum*, when the leaflets run into one another, along the footstalk.

*Quinatum*, when a digitate leaf has five folioles or leaflets, as Cinque-foil.

*Terna*, when the leaves are in whorls by threes.

*Ternatum*, when a digitate leaf has three folioles or leaflets, as Trefoil.

2. FOLIUM DECOMPOSITUM, or Decomposed leaves, are when a petiole or footstalk once divided connects many folioles, or leaflets.

The species of decomposed leaves are thence termed

*Bigeminatum*, a forked footstalk, with two folioles or leaflets on the apex, or tip of each division.

*Bipinnatum*, or *Duplicato Pinnatum*, doubly winged, is when the folioles or leaflets of a pinnate, or winged leaf, are also winged.

*Bijugum*, a pinnate or winged leaf, bearing two pair of leaflets.

*Biternatum*, where there are three folioles or leaflets on a petiole, or foot-stalk, and each foliole is ternate as in Barren-wort.

*Pedatum*, a species of compound leaf, whose divisions resemble the toes of a foot, as in Stinking Hellebore.

3. FOLIUM SUPRA-DECOMPOSITUM, or super-decomposed leaves, are composite leaves, which have folioles or little leaves growing on a sub-divided foot-stalk, these are termed

*Tergeminum*, a leaf three times double, when a dichotomous, or forked foot-stalk is sub-divided, having two folioles or leaflets on the extremity of each division of the foot-stalk.

*Triplinatum*, having a triple series of wings.

*Triternatum*, when the divisions of a triple petiole, or foot-stalk are divided into threes.

### 3. Terms respecting the determination of Leaves.

Leaves with regard to their determination, whether they be simple or compound, are as follows:—1 place; 2 situation; 3 insertion; 4 direction; 5 foliation, and 6 duration.

1. LOCUS FOLIORUM, the place of the leaf; the particular part of the plant, to which the leaf is affixed. Linnæus refers the following species to this head, viz.

*Folium Axillaria*, a leaf growing out of the angles formed by the branches and the stem.

Caulinum, leaves growing immediately on the stem.

Floralia, Floral leaves, that immediately attend the flower.

Radicalia, leaves proceeding immediately from the root.

Ramea, leaves growing on the branches, and not on the trunk.

Seminale, seed leaves. See Chapter 5 Semina.

2. SITUS FOLIORUM, the situation or disposition of leaves, on the stem and branches, and are either *stellate* or starry, by threes, opposite, alternate, scattered or crowded, &c. Linnæus enumerates the following.

*Alternata folia*, alternate leaves, when they come out singly, and follow in gradual order.

*Conferta*, crowded, when the leaves are crowded together around the stalk.

*Distichia*, leaves in two rows, when the leaves all respect two sides of the branches only.

*Fasciculate*, bundled, when leaves grow in bunches, as the Pine.

*Imbricata*, imbricate, tiled, leaves lying over one another like tiles upon the roof of a house.

*Opposita*, leaves growing by pairs opposite each other.

*Sparsi*, scattered without order.

*Stellate*, leaves surrounding a stem, like the rays of a circle and consists of the following species, viz. Terna, Quaterna, Quina, Sena, &c. That is, they consist of three, four, five or six leaves, around the stem in a kind of whorl.

3. INSERTUS FOLIA, the insertion of the leaves, or the manner of their attachment to the plant, are termed as follows :

*Amplexicaule*, a leaf embracing the stem, when the base of the leaf embraces the stem sideways.

*Semi-Amplexicaule*, embracing the stem half way.

*Connatum*, to grow together, when two opposite leaves unite at their base, so as to have the appearance of one leaf.

*Decurrens*, running down, when the base of a sessile leaf extends itself downwards along the stem; beyond the proper base, or termination of the leaf.

*Petiolum*, when the foot-stalk is inserted into the disc of the leaf, and not into its base.

*Perfoliatum*, when the base of the leaf entirely surrounds the stem, or when the stalk grows through the centre of the leaf, as if it perforated the leaf.

*Petiolum*, a petiolate leaf, or a leaf growing on a foot-stalk. This term is opposed to the following :

*Sessile*, a leaf growing immediately to the stem, without any foot-stalk, which is directly opposite to the foregoing.

*Vaginans*, a leaf like a sheath, whose base infolds the stem.

4. DIRECTIO FOLIORUM, the direction of leaves are termed

*Adpressum*, the disc of the leaf pressed towards the stem.

*Adversum*, when the sides of the leaf are turned towards the south.

*Demersum*, in aquatic plants, leaves sunk below the surface of the water.

*Dependens*, to hang down, leaves pointing towards the ground.

*Erectum*, upright, perpendicular, parallel with the stalk.

*Horizontale*, when the leaf forms a square with the stalk, with its disc parallel to the horizon.

*Inflexum*, bent inwards, towards the stem.

*Natans*, a leaf which swims on the surface of the water.

*Obliquum*, when the apex or tip of the leaf points obliquely towards the horizon.

*Patens*, spreading, making a more obtuse angle with the stem, than the erectum.

*Radicans*, a leaf putting forth roots, when it touches the ground.

*Reclinatum*, a leaf reclined, or bending downwards.

*Revolutum*, a leaf rolled back.

5. FOLIATIO or Foliation, this term embraces several of the foregoing species:—Nevertheless, as later Botanists have given a place to it, I conclude it proper to recapitulate them in the order they stand.

*Convoluta*, when the leaf is rolled up like a scroll of paper:

*Conduplicate*, doubled together, when the sides of the leaf are parallel, and approach each other:

*Equitant*, riding, when the sides of the leaves approach in such a manner, as the outer embrace the inner.

Ancipit, same as the foregoing, with two prominent angles.

Triquetrous, same, forming a triangle.

*Imbricate*, tiled as already explained.

*Involute*, rolled in leaves, when their lateral margins are rolled spirally inwards on both sides

Alternate, the same as the foregoing, only the margins are rolled alternately.

Opposite, the same, but the margins are rolled opposite.

*Obvolute*, rolled against each other, when their respective margins alternately embrace the straight margin of the opposite leaf.

*Plicate*, plaited as has been already noticed.

*Revolute*, opposite, oppositely revolute. See *Revolutum*.

6. DURATIO, Duration, leaves with respect to their duration, are

*Caducous*, falling sooner than the usual time.

*Deciduous*, falling the usual time in the winter.

*Semihervirens*, permanent, evergreen, remaining all the year, &c.

It may not be unnecessary to add, that the leaves of plants and trees, constitute the grand vegetable Laboratory of Nature, for the performing all her operations and processes, in the whole economy of vegetation; that when the leaves begin to appear, a circulation of the sap also through them, appears along with them; that this circulation encreases with the leaves, and continues vigourously whilst the leaves are in vigour; but declines, and at last ceases, when the leaves fade and fall off: Linnaeus defines the leaves to be the organs of motion, or muscles of a plant: and Doctor Darwin says they constitute the lungs of each individual bud:

## CHAPTER IX.

## OF THE ROOT.

THE RADIX or Root, is that part of a plant attached to, or inserted in the earth, the whole substance of which, is nothing but a congeries of tubes and fibres, adapted by nature for the absorption of nourishment, and of course, for the extension and augmentation of their parts, by conveying these nutritious juices to every part of the plant. Nor is this the only use of the root; it serves also the double purposes of counterpoising the extensive weight of the trunk, branches, and fruit, and preserving the embryo plants in its bosom during the severity of the winter, in form of bulbs or buds, as a proof of this latter assertion (the two former being visible to every one) I shall produce the following observation. Separate the coats of a Tulip root, about the beginning of September, you will find that the two innermost forms a kind of cell, in the centre of which stands the young flower, which is not to make its appearance, till the following April or May. If this young flower be viewed with a microscope, all doubts of the reality of its being compleat in all its parts will immediately vanish.

A root consists of two parts, which Linnaeus terms *Caudex*, and *Radicula*,—

CAUDEX, is properly applied to the main body or stock of the root, the continuation of which forms the trunk or stem of the tree, and hence the reason why, we find the term *Caudex* sometimes applied to the trunk, by some writers; this is the *Caudex ascendens* of Linnaeus. *Caudex descendens*, or descending Caudex, is the true parent root, which continuing its course downwards in the earth, shoots forth lesser roots, or fibres, which are termed *Radicula*, and are considered as so many mouths, for absorbing the nutritious juices, &c.

The Nomenclatural history of Roots, is properly divided into three parts. 1st, Figure. 2nd, Situation. 3rd, Duration.

1. Figure or Shape—with respect to these, roots are either,\*

BULBUS, a kind of large bud generally produced under ground, upon or near the root of certain herbaceous plants, hence denominated Bulbus. A bulb is defined by Linnaeus to be a species of *Hybernaculum*, produced upon the descending *Caudex* or Root; consisting of *Stipulae*, *petioli*, the rudiments of the former leaves, and scales or bark. See Chapter 10.

In Bulbous Roots, where the stalk and former leaves of the plant are sunk below, and formed into what is called the Bulb or Wintering of the future vegetable, the Radicles or small fibres that hang from the bulb, are to be considered as the root, that is, the part which receives, and furnishes nourishment to the plant. The several rinds and shells whereof the bulb chiefly consists, successively perish, and shrink up into so many dry skins, betwixt which, and in their centre, are formed other leaves and shells, and thus the bulb is perpetuated.



Thus, according to Dr. Grew; all bulbous roots, may be considered as herinaphrodite roots, or root and trunk both together; for the radicles or strings only are absolute roots. The bulb actually containing those parts, which springing up, make the body or leaves of the plants; so that it may be regarded as a large bud under ground. This is also the opinion of Linnaeus, who calls it the *Hybernaculum*, of which, more in the next Chapter.

Various kinds of Bulbs are described by Linnaeus and others, viz. *Bulbus Aggregatus*, an Aggregate Bulb, is where there is a congeries of such bulbs to each plant.

*Articulatus*, a jointed bulb.

*Comosae*, the fibres which put forth at the base of a bulbous root, resembling a head of hair.

*Duplicatus*, when there are only two bulbs to each plant.

*Solidus*, or Solid bulb, a bulb composed of one uniform lump of matter, as in the Tulip, Saffron, &c. The Batatas or Sweet Potatoe, appears to be one of the most appropriate examples.

*Squamosus*, a Scaly bulb, composed of, or covered with a number of flakes, *imbricatum*, like tiles, as in the Lily. This species of *Bulbus* is sometimes called *Imbricate*.

*Tunicatus*, when formed of a number of coats or *Tunics* surrounding one another, as the Onion, Squill, &c.

We come now to particularize the *Radices*, or Roots, properly so called. These are,

1. *Fibrosa*, or Fibrous roots, consists principally in a number of small radicles or fibres. Fibrous Roots occur in most species of grasses; in Virginia Snake-root, &c.

2. *Fusififormis*, a Spindle-shaped root, oblong, thick and tapering to a point below, as Carrot, Radish, Parsnip, &c.

3. *Granulata*, roots consisting of many little knobs, like seeds or grains, attached to one another by small strings, as in Saxifraga.

4. *Premorsa*, a bitten root; when the root ends abruptly, as if a piece had been bitten off; as in Scabious, and Rattle-snakes' Master.

5. *Tuberosa*, a tuberous or knobbed root, or a root consisting of a great many little knots, collected by means of small strings into a bunch, as in Dropwort, Sun-flower, &c. Some Botanists confound Tuberous roots with the *Bulbus*, by calling Potatoes, Tuberous; but it must be here observed, that in the Tuberous roots the radicles are dispersed over every part of it, while in the bulbous they are entirely confined to the bottom, as may be seen in Onions, Eschalot, Lily, &c.

2. *Situation*—Roots in regard to their situation, direction or manner of growth, are as follows:

1. *Horizontale*, roots growing under the earth in a horizontal direction, parallel to the surface of the earth, as the Flower de Iys. In the *Acorus* or *Calamus Aromaticus*, we have an instance of a horizontal, and perpendicular root at the same time; that is, the Caudex or main root runs parallel with the surface of the earth, whilst the radicula, or lesser roots, strike down perpendicular into the earth.

2. *Perpendicularis*, a Perpendicular Root, one that continues in a direct line downwards, as a Carrot, Parsnip, &c.

3. *Ramosa*, a branching root, one that divides into two or more parts.

4. *Ramosissima*, branching out into many parts.

5. *Repens*, a creeping root, a root which creeps horizontally, and sends off every way smaller roots at different distances.

Roots are also said to be *Dentatum*, Toothed, *Fasciculatum*, bundled, *Inflexum*, Inflected or yielding suckers, *Obliquum*, growing Oblique, *Zig zag*, &c.

3. With regard to duration. Roots are either,

a Annual, they vegetate and decay in one year.

b Biennial, they continue to vegetate two years. Both these occur in Herbaceous Vegetables with succulent stems.

c Perennial, They continue to vegetate several or more than two years, as in most herbs, and trees.

## CHAPTER X.

### OF THE HYBERNACULUM OR WINTER QUARTERS OF THE PLANT.

By the term Hybernaculum, we are to understand, that part of the plant, which encloses the embryo herb, and affording it lodgment and protection, from external injuries. during the winter &c.

Linnaeus divides the Hybernaculum into two general divisions, viz. *Bulbus*, and *Gemma*. Having in the preceding Chapter described the various species of bulbs, as peculiar to roots, (and which not only from appearances, but from the opinions of many Botanists, are considered as roots) Thence termed *Radix bulbosa* or Bulbous roots. It remains now to describe the remaining species. These are,

**BULBUS CAULINUS**, the stem bulbs, or *Bulbiferus Caulis*, a stalk bearing bulbs. This species according to the name, implies. that the bulb or *Hybernacle* is situated upon the stem or stalk, and not upon the root. This species of *Hybernaculum*, is most frequently on the *Axilla*, or place where the leaf is united to the stem.

There are those however, who properly enough define this to be a species of *Gemma* or bud, and confine the term bulbus, to those species of *Hybernaculum*, which are contiguous to, or upon the roots. The only instance which is produced, and that can militate against this latter opinion, is that of the Onion tribe; and this appears to be rather an *inversion* of the common law of Vegetation, than a *deviation* from it. In these we frequently find a cluster or bunch of bulbs on the tops of the stalks, which are in reality roots, as they consist of a skin and *Tunic*s or coats, as we find in the Onion itself; and these when planted produce Onions in the same manner as a common root does. Hence these are termed *Bulbus Umbellata*, or Umbel bulbs.

The second general division, as already observed, is termed

**GEMMA**, or bud; Linnaeus defines it to be a species of *Hybernacle*, sitting upon the *Caudex ascendens*, or ascending Caudex, or stem

and branches, and composed of Stipules or Petioles, or the rudiments of leaves or cortical scales, or in other words, the embryo or rudiment of a plant, growing on the stems and branches of trees, and covered with scales, or a resinous varnish to protect it from the winters' cold, &c.

This division is subdivided into three orders, viz. 1. Gemma Foliifera, 2. Gemma Florifera, 3. Gemma Foliifera-florifera.

1. GEMMA FOLIIFERA, or the Leafbud. This species contains the rudiments of several leaves, which are variously folded over each other, and surrounded by scales; these from the circumstance of their producing leaves only, are termed barren buds.

2. GEMMA FLORIFERA, or Flower bud, contains the rudiments of one or several flowers, folded and covered in a similar manner with the foregoing. This is termed by some *oculus gemmæ*, the eye of the bud, and is employed in inoculating trees. This species is generally shorter and more plump than the foregoing, and appears peculiar to particular short, rough branches of trees, these are called fertile.

3. GEMMA FOLIIFERA-FLORIFERA, the most common species of bud, which produces both leaves and flowers, and is smaller than either of the preceding; Linnæus terms this *Gemma Communis*, the Common bud.

I cannot close this subject without appropriating the following descriptive lines of a celebrated Poet—"GARTH."

Within the chambers of the (bud) we spy  
 The beds where sleeping vegetables lie;  
 Till the glad summons of a genial ray  
 Unbinds the (scale) and calls them out to day.  
 Hence Pancies trick themselves in various hue,  
 And Jonquils hence derive their fragrant dew:  
 Hence the Carnation and the bashful Rose,  
 Their virgin blushes, to the morn disclose:  
 Hence the chaste Lily rises to the light,  
 Unveils her snowy breast, and charms the sight:  
 Hence, arbors are with twining greens array'd,  
 T' oblige complaining lovers, with their shade, &c.

## CHAPTER XI.

OF THE NATURAL METHOD OF CLASSIFICATION, AND OF THE UTILITY  
 OF THE FOREGOING, WITH RESPECT TO THE FOLLOWING.

IN this chapter will be offered a few remarks or observations respecting the necessity of the investigation of each class, which greatly facilitates the discovery of each genus, and what is of infinite more advantage, the properties of each individual species; so that upon inspection of the flowers and fruit, a Botanist can determine *a priori*, the effects that will result from the plant when taken into the stomach. The Physician then has nothing further to do, than to

ascertain by a set of clear and unquestionable experiments, the virtues of any one plant belonging to a natural class, from whence he may reasonably conclude, that the virtues of most of the species belonging to such a class are alike, except in the degree of strength or weakness, as before observed in chapter 2. It was with such a view, the indefatigable attention of a Linnæus was called forth, and which has produced a classification, which does immortal honour to its founder, and has been attended with innumerable advantages to his followers. The nature of this work will not admit of the reception of that extensive arrangement which our author has given, but so much of it as will tend to familiarize the orders, to my readers, and explain to them the nature, use and intention thereof, will be here noticed; the particular plants comprising these orders, are specified in the Botanical characters of each genus, throughout the work in the succeeding numbers.

Notwithstanding the evident superiority of the Sexual System over all others, Linnæus, as well as most modern Botanists, are of opinion, that there is a natural method, or Nature's System, which we should diligently endeavour to find out. That this system is not chimerical as some imagine, will appear particularly from hence, that all plants of what order soever, show an affinity to some others, and thus as formerly observed, not only the virtues of a great number of species may be ascertained, but we may know with certainty, how to find a proper succedaneum for plants, which cannot easily be had. Linnæus divides vegetables into fifty eight natural methods, (to which we may add a fifty ninth, viz his *Dubii Ordinis*) which are numbered in the following way.

1. PALMÆ, these are perennial, that is their roots remain, if even the stalks, leaves, &c. decay. They are mostly of the Shrub kind; the stems are in height from 2 to 100 feet and upwards; and the roots form a mass of fibres, which are commonly simple and without any ramifications.

*Note.* The virtues of such as are known to have any, are specified with the article itself, in this as well as in the succeeding orders.

2. PIPERITÆ (from *Piper*, Pepper) these plants are mostly herbaceous and perennial, they consist of Pepper, and a few genera, which agree with it in habit, structure and sensible qualities, particularly the latter, the genera are, Cuckow pint or Wake robin, African Arum, Dragons, Grass-Wrack, Calamus, Pepper, Lizard's tail, &c.

3. CALAMARIÆ, (from *Calamus*, a reed.) In this class the base of the leaf which embraces the stalk like a glove, has no longitudinal aperture; the stalk is generally triangular and without knots, the flowers having no petals, by these three particulars this order is easily distinguished from the family of grasses, to which it is nearly allied, the genera belonging to this natural order are Cypress grass, Rush grass, Burr reed, Cat's tail, &c.

4. GRAMINA, (*Grasses.*) This natural order consists of the numerous and natural family of the grasses, Wheat, Rye, Oats, &c.

5. TRIPETALOIDEÆ, (from *Tres*, three, and *petalum*, a petal,) these plants have no very striking characters, and are nearly allied

to the grasses ; all the genera of this order, however are not *trifoliate*. The genera are Water Plantain, Arrow head, &c.

6. *ENSATÆ*, (from *ensis*, a sword,) the leaves of plants of this order being sword shaped, such are Saffron, Corn flag, Flower de lys, Flower of a day, &c.

7. *ORCHIDÆ*, (from *Orchis*,) the roots of many of these plants are composed of one or more fleshy tubercles or knobs attached to the lower part of the stem, and sending forth fibres from the top ; those of orchis bear an obvious resemblance to the scrotum in animals, from which circumstance, the genus has derived its name, Orchis ; Ladies Slipper, Vanillœ, Bee Flower, &c. are examples.

8. *SCITAMINÆ* (from *Scitamentum*, a Dainty,) this class consists of beautiful exotic plants, generally natives of warm countries, some of them furnish exquisite fruits, but though the plants rise very high, they are perennial only by their roots, those which have only one filament, have in all their parts an aromatic odour, and an acrid or poignant taste, qualities which are possessed in a much greater degree in their roots, which are hot, and resinous, such are Ginger, Indian flowering reed, Plantain tree, &c.

9. *SPATHACEÆ*, (from *Spatha* or Sheath,) so called because their flowers are protruded from a Spatha. They are nearly allied, in habit and structure, to the liliaceous plants, from which they are chiefly distinguished by the Spatha, out of which their flowers are protruded, such are Garlic, Onions, Daffodil, &c.

10. *CORONARIÆ*, (from *Corona*, a Crown,) these plants are herbaceous, perennial, and from one inch to fifteen feet high, with respect to the powers of the plants of this order, it may be affirmed in general, that such as have little taste or smell, as the roots of Tulip and Star of Bethlehem, are perfectly innocent, whilst those which have a heavy noxious smell, are at least suspicious, and frequently prove noxious, such are Hyacinths, Squill, Crown Imperial, Spider wort, &c.

11. *SARMENTOSÆ*, (from *Sarmentum*, a long shoot,) this order consists of plants which have climbing stems and branches like the Vine, these plants are far from being a natural assemblage ; in fact they scarce agree in a single circumstance, except that expressed in the title, which is far from being peculiar to this order. The genera are Birthwort, Sparrow grass, Lily of the Valley, Superb Lily, Moon Seed, Bryony, &c.

12. *HOLORACEÆ*, (from *holus*, pot herbs,) this order consists of plants which are used for the table, and enter into the economy of domestic affairs, it contains trees, shrubs, perennial and annual herbs, the genera are Beets, Spinach, Sweet-Gum, Cinnamon, Camphor, Sassafras, Bay, &c.

13. *SUCCULENTÆ*, (from *succus*, juice,) this order consists of flat, fleshy and juicy plants, most of them evergreens, they are accounted astringent, refreshing and very wholesome, the genera are Indian Fig or Prickly Pear, Houseleek, Purslane, Tamarisk, Lesser Orpine, Saxifrage, &c.

14. *GRUINALES*, (from *grus*, a Crane,) these consist of Geraniums, vulgarly called Crane's bill, and a few other genera, which Linnæus considers as allied to it in their habit and external structure ; this

order furnishes both herbaceous and woody plants, such as Sun Dew, Lignum Vitæ, Wood Sorrel, Flax, Quassia, Bean Caper, &c.

15. *INUNDATÆ*, growing naturally in the water, the plants of this order are aquatic, of low stature, herbaceous, and mostly perennial, the roots are fibrous. The stem is generally wanting, in its place are an assemblage of leaves, which wrapping or enfolding each other, mutually form a sheath, and from the middle of this sheath is produced the footstalk of the flower, the leaves are sometimes alternate, sometimes placed in whorls, round the stem, as in Mare's tail, Water Milfoil, Pond-weed, &c.

16. *CALYCIFLORÆ*, (from *Calyx*, the flower cup, and *flos*, the Latin word for flower) consisting of such plants as have the stamina (the flower) inserted into the Calix, all the plants of this order are of the shrub and tree kind, such as Wild Olive, Bastard Buck Thorn, Poets Cassia, &c.

17. *CALYCANTHEMÆ*, (from *Calix*, the flower cup, and *Anthos* the Greek term for flower,) consisting of plants, which among other characters, have the corolla and stamina inserted in the calix, this order furnishes trees, shrubs, annual, biennial, and perennial herbs, the herbaceous annuals are the most numerous; of this order are Willow-herb, Loose-strife, Tree Primrose, Milk-wort, American Gooseberry tree, Black Salt-wort, &c.

18. *BICORNES*, (from *bis*, twice or two, and *Cornu*, a horn,) plants whose anthers have the appearance of two horns, this appearance is not very conspicuous in all the plants, except the following, Whortle-berries, Heath, Strawberry-tree, Dwarf Rose-Bay, &c. The plants of this order are all of the shrub or tree kind.

19. *HESPERIDÆ*, (from the *Hesperides*, whose orchards are said to have produced Golden Apples,) the plants of this order are of the shrub and tree kind, and mostly evergreen. Such as Myrtle, Allspice, Cloves, Mock Orange, Guayava or Bay Plum, &c.

20. *ROTACÆ*, (from *rota*, a wheel,) consists of plants with one wheel-shaped petal or flower leaf without a tube, these resemble in quality those of the following order, to which they are in all respects very nearly allied; but very few of them can be said in strict propriety, to possess the character specified in the title; the genera are, *Impatiens*, *Gentian*, Winter-green, with Chickweed flowers, St. John's and St. Peter's Wort, &c.

21. *PRECIÆ*, (from *precivus*, early,) these consist of Primrose, an early flowering plant, and some others which agree with it in habit and structure, though not always in the character or circumstance expressed in the title, these plants which possess no striking uniform characters are in general innocent in their quality, yet the root of Sow-bread is dangerous, if taken internally, the genera are Sow bread, Primrose, Bog-Bean, Mar h-trefoil. c.

22. *CARTOPHYLLÆ*, (the Pink,) all the plants of this order are herbaceous and mostly annual, they are innocent in their quality, abound in a watery kind of phlegm, and have bitter seed. The genera are Clove July flowers, Campion, Soap Wort, Chickweed, Spurry, Spatling, Poppy, &c.

23. *TRIHILATÆ*, (from *tres* three, and *hilum*, the scar or eye of a seed,) consisting of plants with three seeds, which are marked dis-

tinctly with an external cicatrix or scar, where they were fastened within to the fruit, the genera are Bead tree, or Pride of India, Maple, Horse Chesnut, &c.

24. CORYDALES, (from *corus*, Greek, a helmet,) consists of plants, which have irregular flowers, somewhat resembling a helmet or hood, these plants are mostly herbaceous and perennial. The genera are Barren-Wort, Lion's-leaf, Honey-flower, Butter-Wort, Water Milfoil, Fumitory, &c.

25. PUTAMINEÆ, (from *putamen*, a shell) consist of a few genera of plants, allied in habit, whose fleshy seed vessel or fruit is frequently covered with a hard woody shell. most of these plants are acrid and penetrating, and yield, by burning a great quantity of fixed alkali, the genera are Caper-bush, Bastard-Mustard, Garlic-Pear, Calabash-tree, &c.

26. MULTISILIQUÆ, (from *multus* many, and *siliqua* a pod,) consist of plants which have more seed vessels than one. From the etymology of the term, one would naturally imagine that the seed vessels in question were of that kind called by Linnaeus, siliqua or pod, but the fact is, not a single plant of this order bears pods; the greater part having many dry capsules, and the remainder being furnished properly with no seed vessel, but bearing numerous distinct seeds. This order includes Monk's hood, Wolf's bane, Columbine, Larkspur, Pæony, Rue, Marsh-Marigold, Hellebore, Mouse tail, &c.

27. RHOEADÆ, (abounding in juice, or juices flowing,) consisting of Poppy, &c. these plants upon being cut, emit plentifully a juice which is white in Poppy, and yellow in the others; with respect to their virtues, the juice is narcotic, their seeds less so; the roots are aperient, applied externally they are slightly corrosive; the genera are Poppies, Celandine, Puccoon, Duck's foot or May Apple, &c. See also 30th order Contortæ.

28. LURIDÆ, (pale or wan,) consists of plants whose appearance seems to indicate something baneful and noxious in their natural quality, most of the plants of this order are herbaceous and perennial, as Deadly Night-Shadow, Guinea-Pepper, Thorn-Apple, or Jamestown weed, Fox-Glove, Henbane, Tobacco, Winter Cherry, &c.

29. CAMPANAGÆ, (from *Campana*, a bell,) plants with bell shaped flowers, the plants of this order are herbaceous and perennial, such as Bell flower, Bind weed, Rampion, Cardinal flower, Violet, &c.

30. CONTORTÆ, (from *con*, together, and *torqueo*, to twist,) consists of plants, which have a single petal that is twisted or bent towards one side. This order furnishes trees, shrubs and fat succulent plants, some of which are generally perennial, the genera are Oleander, Virginian Silk, Perri-winkle, Dog's bane, Swallow wort, Red Jessamine, &c. The plants of this class or order, abounding in a milky juice, are most of them deemed poisonous; repeated observations, having established this aphorism, that milky plants, except those of the plain compound flowers, are generally of a baneful or deleterious nature. See also the 27th order Rhoeadæ.

31. VEPRECULEÆ, (from *vepres*, a briar or bramble,) this order consists of plants resembling the Daphne, Dirca, &c. It is not

however a natural assemblage, the genera are Mezereon, Leather-wood, Sparrow wort, &c.

32. PAPILIONACEÆ, (plants that have papilionaceous flowers, i. e. somewhat resembling a butterfly in shape, of which number are all the leguminous plants,) the plants of this order are of very different duration, some of them being herbaceous, and those either annual or perennial, other woody vegetables of the shrub and tree kind, a few of which rise to the height of 70 feet and upwards; the genera are Trefoil, Liquorice, Chick Peas, Dogwood, Coral tree, Ebony, Ground Nut, Liquorice Vetch, &c.

33. LOMENTACEÆ, (from *lomentum*, a colour used by painters,) many of these plants furnish beautiful tinctures, and some of them are much used in dying, they very much resemble the last order, the genera are Bastard flower-fence, Brassileto, St. John's Bread, Logwood, Spanish Carnation, &c.

34. CUCURBITACEÆ, (from *Cucurbita*, a Gourd,) consist of plants which resemble a gourd in external figure, habit, virtues, and sensible qualities. The plants of this order which generally climb, and have long diffused branches are mostly herbaceous and perennial. The genera are Passion flower, small creeping Cucumber, Melons, Gourds, Pumpkin, &c.

35. SENTICOSÆ, (from *Sentis*, a briar or bramble, it must also be remembered that the 31st order Vepreculæ, is from *Vepres*, another term for a briar or bramble,) these plants consist of the Rose, Bramble, and other plants resembling them in port and external structure, and are nearly allied to the 36th order Pomaceæ.

36. POMACEÆ, (from *Pomum*, an Apple,) consists of those plants which have a pulpy esculent fruit, the plants of this order furnish many of our most esteemed fruits. The genera are Apples, Pears, Currants, Almonds, Peaches, Pomegranates, Plums, Cherries, Apricots, Cocoa-Plum, &c.

37. COLUMNIFERÆ, (from *Columna* a pillar, and *fero* to bear,) consists of plants whose stamina and pistil have the appearance of a column, or a pillar in the centre of the flower; this order furnishes a choice collection of herbs, both annual and perennial shrubs and trees. These are very different in size and height, as has already been observed, when treating of the 16th class Monadelphica, chapter II. The genera are Tea Tree, Lime or Linden tree, Æthiopian Sour-Gourd, Syrian-Mallow, Silk Cotton-tree, &c.

38. TRICOCCÆ, (from *tres* three, and *cocca*, a grain or berry,) consists of plants, with a single three cornered capsule, having three cells or internal divisions, each containing a single seed. The single seed vessel of these plants, is of a singular form, and resembles three capsules or covers, which adhere to one common footstalk as a centre, but are divided externally, into three pretty deep partitions. The genera are Bastard-Orpine, Papaw, Spurge, Manchineal tree, Cassava, Palma Christi, &c.

39. SILIQUOSÆ, (from *siliqua*, a pod,) consists of plants which have a pod for their seed vessels, this order chiefly furnishes biennial and perennial herbs of an irregular figure, the genera are, Cabbage, Turnip, Rape, &c.



40. *PERSONATÆ*, (from *persona* a Masque) consists of plants, whose flowers are furnished with an irregular, gaping or grinning petal or flower leaf, in figure, somewhat resembling the snout of an animal; this order furnishes both herbaceous and woody vegetables of the shrub and tree kind: The genera are, Fiddle-wood, Eyebright, Honeysuckle, Figwort, Speedwell, &c.

41. *ASPERIFOLIÆ*, (rough leaved;) the greater part of these are herbaceous and perennial. The genera are, Great-goose-grass, Bugloss, Hound's tongue, Turnsole, Gromwell, Lungwort, Honeywort, Comfrey, &c.

42. *VERTICILLATÆ*, (from *Verticilli* a whorl) consists of herbaceous vegetables having four naked seeds, and the flowers placed in whorls around the stalk; the plants of this order are fragrant, warm, and penetrating, and their chief virtue resides in their leaves. The genera are, Savory, Rosemary, Sage, Mint, Balm, Horehound, Betony, Bugle, &c.

43. *DUMOSÆ*, (from *dumus* a bush) consists of a number of shrubby plants which are thick set with irregular branches and bushy, are generally of the shrub and tree kind, rising from 6 to 40 feet high; the bark, flowers, and berries of many of these plants are purgative. The genera are, New-Jersey tea, Cassine, Damson tree, Star apple, Elder, &c.

44. *SEPIARIÆ*, (from *Sepes* a hedge) consist of a beautiful collection of woody plants, some of which from their size, elegance, and other circumstances, are very proper to form and also adorn hedges. The genera are, Snowdrop, Ash, Jessamine, Privet, Arabian Jessamine, Olive, Mock-Privet, Lilac, &c. I am of opinion, the Cassine, ranked in the 43. Order, from its beautiful scarlet berries and ever-green leaves, &c. would have been more suitably added to this order, as it does form an elegant and almost impenetrable hedge.

45. *UMBELLATÆ*, (from *Umbella* an Umbel) consist of plants whose flowers grow in Umbels, with five petals or flower leaves, that are often unequal, and two naked seeds that are joined at the top, and separated below; these plants are herbaceous and mostly perennial. The genera are, Goutwort, Lesser Hemlock, Bishops' weed, Dill, Fennel, Caraway, Carrot, Cummin, &c.

46. *HEDERACEÆ*, (from *Hedera*, Ivy) consists of Ivy, and a few other genera that seem nearly allied to it. The genera are, Wild Grape, Ginseng, Vines, &c.

47. *STELLATÆ*, (from *Stella* a star) consists of plants with two naked seeds, and leaves disposed round the stem in form of a star; it contains herbs, shrubs, and trees. The genera are, Aml.r-tree, Wood-roof, Petty Madder, Madder, Button-weed, Cross-wort, Worm grass or Indian Pink, Coffee tree, &c.

48. *AGGREGATÆ*, (from *Aggregare*, to assemble or collect) comprehends those plants which have aggregate flowers, consisting of a number of florets or small flowers, each of which have a proper and common calix; the genera are, Teasel, Scabious, Valerian, &c.

49. *COMPOSITÆ*, (*Compound*;) consists of plants with compound flowers; in this order Linnaeus has constructed his first or primary divisions, from the different sexes of the florets, which he terms polygamy. The subaltern divisions are constructed from the figures

of the petals, the disposition of the flowers, the pappus or crown of the seed, the common receptacle, and other circumstances which characterize them in other authors. The genera are, Blessed Thistles, Woolly Thistle, Artichoke, Centaury, Lettuce, &c.

50. AMENTACEAE, (from *amentum*, a catkin) plants bearing catkins, as the Willow, Poplar, Chesnut, Hazle, Chinquepin, &c. form this order.

51. CONIFERAE, (from *conus* a cone, and *fero* to bear) consists of plants whose female flowers, placed at a distance from the male, either on the same or distinct roots are formed into a cone. The plants of this order are mostly of the shrub or tree kind, and retain the leaves all the year. The genera are, Yew Tree, Pine, Cedar, Fir, Cypress, Juniper, &c.

52. COADUNATAE, (from *Coadunare*, to join or gather together) so termed from the general appearance of the seed vessels, which are numerous, and being slightly attached below, form altogether a single fruit in the shape of a sphere or cone, the parts of which, however, are easily separated from one another; the plants of this order have a strong, agreeable, and aromatic smell; the fruits and seeds have a pungent taste like pepper, the bark and wood are bitter. The genera are, Custard-Apple, Tulip-tree, Magnolia, &c.

53. SCABRIDAE, (from *Scaber*, rough, rugged, or bristly) consists of plants also with rough leaves. We must here again lament the impropriety of characterising these plants by a name expressive of the roughness of their leaves, a circumstance which furnishes the classic character of the 41. Natural order, viz. *Asperifoliae*. One observation is however necessary, the plants forming this order have their leaves, in a great degree rougher than that of the 41.—The plants of this order are generally of an astringent nature, and their taste bitter and styptic; the genera are, Golden-Rod tree, Hemp, Elm, Nettle, Dogs Cabbage, Mulberry, Fig, &c.

54. MISCELLANAE, Miscellaneous Plants; this order consists of such genera as are not connected together by very numerous relations: these are Bastard-Hemp, Duck-Meat, Flower-Gentle, Globe-Amaranth, Water-Lily, &c.

55. FILICIS, Ferns,

56. MUSCI, Mosses,

57. ALGAE, Flags,

58. FUNGI, Mushrooms,

} These are generally known.

59. DUBII ORDINIS, Doubtful Order. Under this name, Linnaeus classes all the genera which cannot be reduced to any of the above-mentioned orders, of which he enumerates 120 in his *Fragmenta Methodi Naturalis*.

I shall close this Chapter with the following *Aphorisms*.

1. Poisonous plants are generally distinguished by their taste and smell, e. g. whenever the senses are disagreeably affected by the smell or taste of plants, &c. we have reason to suspect them poisonous.
2. An agreeable taste or smell, is seldom accompanied with noxious qualities.
3. A sweet taste, generally indicates a nutritious plant.

4. A salt taste, points out the vegetable as warm and stimulant.
5. An acrid taste, indicates corrosive qualities, some of these, however, when deprived of their acrimony by drying or boiling, become fit for food, and others for medicine, &c.
6. Bitter plants are Alkaline, Stomachic, and sometimes of a suspicious nature.
7. Acid plants are cooling and allay thirst.
8. Plants which have their *Nectararia*, or honey cup, separate from the flowers, are generally poisonous.
9. Plants, of an austere taste, are astringent.
10. Those plants which are called Lactescent, from their oozing out a whitish juice, upon being wounded, are generally poisonous; these are, however, properly enough divided into two orders, viz. Acrid and mild, these are also particularly distinguished throughout the work.

The colour and aspect of plants throw some light upon the nature and properties, viz.

11. Flowers or fruit of a red colour are generally acid.
12. Yellow flowers, indicate a bitter taste.
13. Green flowers, the plants are generally crude.
14. Pale flowers, indicate an insipid plant.
15. White flowers, are generally attached to plants possessing a sweet taste.
16. Gloomy flowers, of a forbidding aspect, are generally poisonous.

O! How much are mankind indebted to the goodness of GOD! for these, and innumerable other distinguishing marks, in that most extensive part of his Creation, the Vegetable Kindom!

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## CHAPTER XII.

### REFLECTIONS ON THE WONDERFUL NATURE, SINGULAR PROPERTIES, AND LOCOMOTIVE POWER OF PARTICULAR VEGETABLES, &c.

WE discover many peculiarities and instances of the imitative nature of plants from a close attention, which are lost to superficial observers. If we ask any one who is superficially acquainted with *Misseltoe*, in what manner it is to be propagated? They, no doubt, would answer from analogy, By sowing the seeds—but how? in the earth? Why surely, who ever pretended to sow seeds any other way—Then I can answer with certainty, your labour will be in vain; for, from the days of Adam down to the present time, it has never been known to grow in the earth. This shrub or vegetable, (for it cannot be called with propriety a plant, as it was never planted by the hands of man.) is propagated, by Birds, who having eaten the berries, void the seeds, (unchanged in their excrements) upon the limbs and boughs of various trees, where they lye, till by their peculiar natural power, they penetrate the bark or rind of the tree, and begin to vegetate by means of its sap. After this it begins to show

itself in form of a bushy shrub, adhering as if by inoculation, to the wood or limb of the tree, growing into limbs, branches and leaves, in a manner, quite unusual to that of the tree which fosters it, and indeed of any other.

Another peculiarity in the Vegetable Kingdom, is that of a plant bearing roots at both extremities, top and bottom. In the preceding Chapter we had occasion to mention, under the article Bulbus; the Onion or Garlic as an example of this kind, nor do we recollect an instance of any other like it; there is yet this remarkable property to be observed of it, that from the bulbs or roots, at the top of the first blade, forty inches high, there grows out two more blades of fourteen inches height, on each of which there are five other bulbs or roots, and from these second blades, there grows out another or third blade, with bulbs upon that also. So that in this one instance you have no less than three generations of the plant, and four systems of Roots, all of one Summers produce.

The Orchis or Bee-Plant, is an admirable instance of the mimic or imitative nature of plants imitating animal forms and likenesses; the flower so nicely represents a Bee, in body, head, wings, colour, &c. that at a little distance, without thinking of it, it would be taken for the Bee itself; some of the species represent Drones, some a Wasp, and others, different sorts of flies.

In the genus of plants called *Trifolium*, *Medicago* or *Medick*, the seed cases of which resemble a snail, from which circumstance it has been called the snail plant—When the vegetable pod (or seeming shell) is uncoiled and extended, it is four or five inches long and contains several seeds, at certain intervals, through its length; these in an indirect view resemble the insect, within the shell. A second species of this genus, has a pod of a longish form, shrivelled and irregular, of a brown colour, which hanging to the creeping stems of the plant, look like a young army of Caterpillars—A third has its seed-case Globular and thick set with spines or prickles, resembles a Hedge-Hog when rolled up into its round form.

The Pericarpium of *Carduus Benedictus* or the Blessed-Thistle, represents a Tea-Pot with its lid or cover, and these pots not only hold the seed, and have lids to cover them close, but nature has provided them with a contrivance to keep the lid upon the pot, by the peculiar form of the cases or empalement which includes them, and which are contracted in the middle part, just over the lid to prevent its rising up by any accident, before the seed is ripe; if you pull open the case, you will discover a beautiful appearance of a pot and its lid.

The power of moving from one place to another, hath by many been thought to constitute the difference between animals and vegetables, and indeed, in most cases, it is the obvious mark by which we distinguish an animal from a vegetable. But Lord Kames hath given several very curious instances of the locomotive power of plants, some of which he says would do honour to an animal: “Upon the slightest touch, the Sensitive Plants shrinks back, and folds up its leaves similar to a Snail, which on the slightest touch retires within its shell. The *Dionæa*, Venus’ Fly-trap, a new spe-

cies of the Sensitive plant lately discovered, if a fly perch upon one of its flower leaves, it closes instantly and crushes the insect to death."

"There is not an article in Botany, more admirable than a contrivance visible in many plants, to take advantage of good weather, and to protect themselves against bad. They open and close their flowers and leaves in different circumstances. Some close before sun-set; some after; some open to receive rain; others close to avoid it. The petals of many flowers expand in the sun, but contract at night, or on the approach of rain. After the seeds are fecundated, the petals no longer contract: all the trefoils may serve as *Barometers* to the husbandman; they always contract their leaves on an impending storm. Some plants follow the sun, others turn from it; many plants on the sun's recess, vary the position of their leaves, which is stiled the sleep of plants. A single plant," (the *Hedisarum*, or Saintfoin) "was lately discovered in Bengal; Its leaves are in continual motion, all day long, but when night approaches, they fall down from an erect posture to rest." The Aspen Tree, a species of *Populus*, is another instance of the kind, a plant has a power of directing its roots for procuring food; the Red whortle-berry, a low evergreen, grows naturally on the tops of our highest hills, among stones and gravel; this shrub was planted in an edging to a rich border, under a fruit wall; in two or three years it overran the adjoining deep laid gravel walks, and seemed to fly from the border, in which not a single runner appeared. An effort to come at food in a bad situation, is extremely remarkable in the following instance:—Among the ruins of New-Abby, formerly a monastery, in Galloway, there grows on the top of a wall, a Plane-Tree, about 20 feet high, straightened for nourishment in that barren situation, it several years ago directed roots down the side of the wall, till they reached the ground, 10 feet below; and now the nourishment it affords to those roots during the time of their descending, is amply repaid; having every year since that time, made vigorous shoots from the top of the wall to the surface of the earth; these roots have not thrown out a single fibre, but are now united in a single root.

"Plants when forced from their natural position are endowed with a power to restore themselves. A Hop plant twisting round a stick, directs its course from south to west, as the sun does; untwist it, and tie it in the opposite direction—it dies. Leave it loose in the wrong direction—it recovers its natural direction in a single night. Twist a branch of a tree so as to invert its leaves, and fix it in that position; if left in any degree loose—it untwists itself gradually, till the leaves be restored to their natural position. What better can an animal do for its welfare? A root of a tree meeting with a ditch in its progress, is laid open to the air.—What follows? It alters its course like a rational being, dips into the ground, surrounds the ditch, rises on the opposite side, to its wonted distance from the surface, and then proceeds in its original direction. Lay a wet sponge near a root laid open to the air, the root will direct its course to the sponge. Change the place of the sponge, the root varies its direction. Thrust a pole into the ground at a moderate distance from a *Scandent*, (or climbing) plant; the plant directs its course

to the pole, lays hold of it, and rises on it to its natural height." (An example of this we have also in the *Bignonia Crucigera*, or Cross-vine.) "A Honey-suckle proceeds in its course, till it be too long for supporting its weight; and then strengthens itself by shooting into a spiral. If it meet with another plant of the same kind, they coalesce for mutual support; the one screwing to the right, the other to the left. If a Honey-suckle twig meets with a dead branch, it screws from the right to the left. The claspers of briony shoot into a spiral, and lay hold of whatever comes in their way, for support. If after completing a spiral of three rounds, they meet with nothing, they altar their course, and try again:"—And so of many others.

Thus does all Nature join, to shew the Glory of GOD! in an infinite variety of his handy Works. "For all his works speak of their Divine AUTHOR. The plain which gradually escapes from my eye, and the capacious vault of Heaven, which encompasses me on every side, convey to me an idea of his immensity. The fruits suspended on the bough, within the reach of my hand, announce his providential care; the voice of the tempest proclaims his power; the constant revolutions of the seasons displays his wisdom; the variety of provision which his bounty makes in every climate, for the wants of every thing that lives; the stately port of the forests; the soft verdure of the meadow; the grouping of plants; the perfume and enamel of flowers, an infinite multitude of harmonies, known and unknown, are the magnificent languages, which speak of HIM, to all men, in a thousand, and a thousand different dialects."

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## CHAPTER XIII.

### THE GLOSSARY;

OR, A RECAPITULATION, EXPLANATORY OF THE TERMS, &c. OCCURRING THROUGHOUT THE WORK, AS WELL AS THOSE NOT INCLUDED IN THE FOREGOING CHAPTERS.

**ABBREVIATION**, a term used to express the proportion of a perianth to the corolla. See Chapter 4th.

*Abortiens flos*, flowers that are barren. and produce no fruit.

*Acanaceous*, plants armed with briars, as the Rose-bud, Bramble, &c. called also *Aculeate*.

*Acantha*, the Briar of any plant.

*Acanthaceous*, plants, such as the Thistle and other briery plants.

*Acaulis*, those plants that have no caulis or stem; opposed to *caulis*.

*Acerosum*, crusty.

*Acetary*, applied to the pulpy substance of fruits, as the Apple, Pear, &c.

*Acicularis*, needle shaped,

*Acini*, the small berries which compose the fruit of a Mulberry, or Bramble.

- Acrifolium*, sharp, thorny leaves, as the Holly.
- Acotyledones*, plants whose seeds have no cotyledones or seminal leaves.
- Aclucate*, same as Acanaceous.
- Acuminatum*, pointed.
- Acutum*, acute, sharp, opposed to obtuse or blunt.
- Adnata*, hairy, woolly, applied to plants of the Mullen and Bugloss kind.
- Adpressum*, the disc of the leaf pressed towards the stem.
- Adversum folium*, the sides of the leaf turned towards the south.
- Aggregatus*, a term used by Botanists to express those flowers which are composed of parts or florets so united, by means either of the receptacle or calix; that no one of them can be taken away without destroying the form of the whole. They are opposed to simple flowers, which have no such common part, and are usually divided into seven parts—1 the aggregate properly so called, whose receptacle is dilated, and whose florets are supported by footstalks, such as the Daisy, Thrift or Sea Link—2 the compound—3 the umbellate—4 the cymose—5 the amentaceum—6 glumose—and 7 spadiceous. See Chapter 5.
- Aggregateæ*, the 48th natural order of Linnaeus. See Chapter 11.
- Ala*, a wing, the side petals of a Papilionaceous blossom, or a membrane added to a seed, stalk, &c.
- Alated Stalks*, stalks winged with membranes.
- Alated Leaves*, such as are composed of several pinnated ones.
- Alatus Petiolatum*, a winged petiole. See Chapter 7, article Pedunculus.
- Alabastra*, an obsolete name of the calix.
- Alburnum*, the white substance that lies between the inner bark, and the wood of trees.
- Algæ*, flags, the 3d order of the 24th, or Cryptogamia Class of plants, according to the sub-division of the Classes. See Chapter 3d, Class 24. It is also the 57th natural order of Linnaeus. See Chapter 11.
- Alternate*, and *Alterni*, when the leaves, branches, &c. of a plant arise higher on opposite sides alternately.
- Alveolus*, the name of the cells in which the seeds are ranged.
- Amentacæ*, the 50th natural order of Linnaeus in the *fragmenta methodi naturalis*. See Chapter 11.
- Amentaceous flowers*, the 5th species of aggregate flowers. See Chapter 5, Article 6.
- Amentaceous plants*, such plants as are furnished with an Amentum. See Chapter 4, c. and forms the 50th natural order of Linnaeus.
- Amentum*, a species of Calix, called also Catkin. See Chapter 4, c.
- Amphibious plants*, such as grow and flourish in water, same as Aquatic.
- Amplexicaule*. See Chapter 8, c. figure 5.
- Angiospermia*, covered seed. The 2d order of the 14th Class, Didynamia of Linnaeus' Sexual scheme. See Chapter 3d, Class 14th, Order 2d.
- Annual plants*, are such as flourish and decay annually, or that are raised from seed annually.

- Androgynous*, plants of the Monoecia, or 21st Class. The male and female flowers of which are upon different parts of the same plant. See Chapter 2d, Class 21.
- Anther* or *Antheræ*, same as the apex of the ray; it is that part of the flower big with pollen or farina, which it emits and explodes when ripe. See Chapters 4—3—b.
- Apetalous*, plants destitute of petals, or flower leaves.
- Approximate*, with regard to plants of the fungus family; is when the volva or ruffle is placed upon the stem, near the cap. See Chapter 4, g, 1.
- Apex* and *Apices*, same as *Antheræ*; it also means the tip or end of a leaf.
- Aquatic plants*, same as *Amphibious*.
- Arillus*, the proper exterior coat or covering of a seed, which falls off spontaneously, it is also called *Aril* or *Tunic*. See Chapter 4, v. 6. c.
- Arista*, a long needle like beard, which stands out from the husk of Barley, or other grain. See Chapter 4, Article *Gluma*.
- Armature*, the spines and briars of plants, which serve the double purposes of support and defence, &c. See Chapter 7, v. 6 and 7.
- Asperifoliolate*, such plants as are rough leaved, having their leaves placed alternately on their stalks, and a monopetalous, one leaved flower divided into five parts. These plants are referred by Linnæus to his 41st Natural order. See Chapter 11, Class 5.
- Atire*, same as *Antheræ*.
- Aun*, or *Awn*, same as *Arista*.
- Axilla*, [Arm Pit] that part of a plant which forms an angle with the branch and stem, or a leaf and branch.
- Bacca*, or *Berry*, signifies such fruit as consist of a pericarpium full of juice and seeds, without any valves. See article *Pericarpium*, Chapter 4, g.
- Eucciferous Plants*, such as produce berries.
- Barba*, a beard, a word often used in composition, with some other to form the trivial name of some plants, as *Barba Jovis*, *Barba Capræ*, &c.
- Bearded husk*, is a husk hairy on the edges, as *Bearded Barley*, *Rye*, &c.
- Belling*, applied particularly to Hops when opening and expanding.
- Bicornes*, two horns; the 18th Natural Order of Linnæus, comprising those plants, particularly of the *Octandria* Class; the anthers of which have the appearance of two horns.
- Biennial Plants* are those of only two year's duration; that is, being raised from seed, they generally attain to perfection the first year, and in the following spring, or summer, they produce their flowers and seeds, and soon after decay.
- Bifid*, trifold, &c. to quinquifid, having two, three, &c. to five fissures.
- Bifurcated*, forked. See Chapter 7, Articles *Spina* and *Aculeus*.
- Bigemous*, double twin leaves, a forked footstalk with two little leaves on the apex of each division.
- Bilabiated*, having double lips.
- Billinbi*, doubly bordered.



- Bilocular*, two celled. See article Pericarpium, Chapter 4.
- Binatum*. See Chapter 8, a.
- Bipartite*, having two divisions.
- Bivalves*, such pods or capsules, as consist of two valves, enclosing the seeds.
- Blea*, the inner bark or rind of trees.
- Blossoms*, denotes the flowers of plants, but more especially of fruit trees.
- Bloom*, *Blooming*, *Blow* and *Blowing*. Plants putting forth their flower leaves.
- Brachiatus*, branching out like two arms.
- Bractea*, the same as floral leaf. See Chapter 7, fig. 5.
- Bractea Comosa*, when the floral leaf resembles a bush of hair, as in Lavender.
- Branch*, an arm of a tree, or a part sprouting out from the trunk.
- Bulbous* roots. See Chapter 9.
- Burgeon*, a term formerly used in the same sense with bud, sprout, &c.
- Button*, similar to Bud or Burgeon.
- Bud*, the embryo or rudiment of a plant, called also Gemma. See Chapter 11.
- Caducous*, falling off, dying before the end of one season.
- Calycanthemæ*, the 17th natural order of Linnæus.
- Calamariæ*, the 3d natural order of Linnæus.
- Calix* or *Calyx*, the flower cup or empalement. See Chapter 4.
- Calycifloræ*, the 16th natural order of Linnæus.
- Calyptra* (a hood or extinguisher.) See Chapter 4, f.
- Campanacæ*, the 29th natural order of Linnæus.
- Campaniforme*, and *Campanullated*, an appellation given to those flowers &c. that are shaped like, or resembling a bell.
- Canaliculatum*, channelled, furrowed.
- Capillary*, resembling hair, an appellation given to those plants of the Adiantum or Maiden hair kind.
- Capitulum*, a little head.
- Capsule*, a species of Pericarpium. See Chapter 4, figure 5, a.
- Carnosum*, fleshy.
- Caryophillei*, the 22d natural order of Linnæus.
- Catkin*, a species of Amentum. See Chapter 4, c.
- Caudated*, applied to those seed, which have a thread or membrane at the end, like a tail.
- Caulis*, a stem. See Chapter 6.
- Chives*, same as Stamen. See Chapter 4, figure 3.
- Ciliated*, or *Ciliatum*, bristly.
- Cirri*, or *Cirrhus*, a Tendril or Clasper. See Chapter 7, figure 3.
- Coarctata*, squeezed together, pressed.
- Coadunatæ*, (to gather together) the 52d natural order of Linnæus.
- Cocciferous*, same as *Bacciferous*.
- Codia*, the head of any plant, but particularly Poppy heads.
- Columella*, see article Pericarpium, Chapter IV, figure 5.
- Columniferæ*, the plants comprising the 37th natural order of Linnæus.

- Compositæ*, the plants comprising the 49th natural order of Linnaeus.
- Compound* flowers, a species of aggregate flower, and which are referred by Linnaeus to the foregoing order.
- Coniferae*, the plants comprising the 51st natural order of Linnaeus.
- Coniferous* trees, such as bear hard dry seed vessels, of a conical figure, consisting of several woody parts, being mostly scaly, adhering closely together, and separating when ripe; such are the Pine, Cedar of Lebanon, &c. and are referred to the foregoing order.
- Congesta*, heaped flowers, collected into a spherical shape, as in Garlic.
- Connatum*, when two opposite leaves unite at their base, so as to appear like one leaf.
- Conjugatus*, joined or coupled together, a species of pinnate leaf, the folioles in pairs.
- Contorta*, those plants comprising the 30th natural order of Linnaeus.
- Contracta*, contracted.
- Corculum*, the heart or essence of a seed.
- Cordated*, or *Cordatum*, shaped like a heart.
- Corollula*, the little partial flowers, which together make a whole.
- Coronaria*, the plants comprising the 10th natural order of Linnaeus.
- Coronula*, a little sort of calix, adhering to the top of the seed, like a crown. See the article Pappus, Chapter IV. figure 6, e.
- Cortex*, the bark or cortical part of plants, trees, roots, fruit, &c.
- Corydales*, the 24th natural order of Linnaeus.
- Cotyledones*, the thick porous lobes of a seed. See Chapter 11th, figure 6, d.
- Crenated*, applied to those leaves having their edges cut with angular or circular incisions. See Chapter 8.
- Cristata*, crested.
- Cryptogamia*, the 24th class of Linnaeus' Sexual System. See Scheme, Chapter 1.
- Cucurbitæ*, those plants comprising the 34th natural order of Linnaeus.
- Culmiferous*, those plants which have a smooth jointed stalk, usually hollow, and at each joint wrapped about with single narrow sharp pointed leaves, in some species however, the culm is entirely naked, that is, destitute of leaves. See Chapter. 6, fig. 2.
- Culmus*, See Chapter 6, fig. 2.
- Cup*, the same as *Calix*.
- Cuspidated*, pointed like a spear.
- Cyma*, a sprout. See Chapter 5th, fig. 2.
- Cymose*, one of the species of Aggregate flowers. See Chapter 5th, fig. 2.
- Cysta* (a basket or chest) a species of triple involucre. See Chapter 4th, article Strobilus.
- Decagynia*, a flower containing ten Pistils or Pointals, and is the 6th order of the 10th class Decandria, in the Sexual Scheme, &c. See Table of Orders, &c.
- Decandria*, Linnæus' 10th class of plants. See Scheme Chapter 1 and 2.

- Decaphyllum*, containing ten leaves.
- Decemfidum*, ten cleft.
- Deciduous*, the Calix or cup of a flower, is said to be deciduous, when it falls along with the flower petals, and on the contrary it is said to be permanent, when it remains after they are fallen. Again the leaves of trees, plants, &c. are said to be deciduous, which fall in autumn, in contradistinction to those of the ever-greens which remain all winter.
- Decurrens*, a sessile leaf, with its base extending downwards, as in Comfrey, &c.
- Decussating*, the crossing of any two lines, rays or nerves, when they meet in a point, and then go on separately from one another.
- Defoliation*, the season of the year, when any plant sheds its leaves, but more properly applied to the plant itself, in the act of shedding its leaves.
- Deleterious* plants, those possessing poisonous qualities.
- Dentated* or *Dentatum*, toothed. See Chapter 8.
- Diadelphica*, Linnæus' 17th class of plants. See Scheme and Chapter 2.
- Diandria*, Linnæus' 2d class of plants. See as above.
- Dichotomous* or *Dichotomy*, a thing uniformly divided into branches.
- Didymous*, appearing double.
- Didynamia*, Linnæus' 14th class of plants. See Scheme and Chapter 2.
- Diffuse*, having small patent branches.
- Digitated* leaf. See Chapter 8, a, 2.
- Digynia*, the 2d order of the first 13 classes of plants.
- Dimidiated*, halved, hemispherical, half headed. See article Capitulum, Chapter 6.
- Dioecia*, Linnæus' 22d class of plants. See Scheme and Chapter 2.
- Diphyllum*, two leaved.
- Disc* or *Disk*, the middle part of a compound flower, consisting of regular florets.
- Discous* flowers. See Radiated flowers.
- Dissepimentum*, the partition which separates the different seed capsules from one another.
- Dissimilar* leaves, called also Radicle or Seed Leaves. See Chapter 4, figure 6, d.
- Disicha*, proceeding from two sides.
- Divaricata*, divaricate, spreading out.
- Dodecagynia*, the 5th order of the 11th class of plants. See Table of Orders, c.
- Dodecandria*, Linnæus' 11th class of plants. See Chapters 1 and 2.
- Dorsiferous* plants, such as are of the Capillary kind, without stalks, and bear their seeds on the back of their leaves.
- Druſa*, a species of Pericarpium, destitute of valves, and contains a nut or stone, within which there is a kernel. See Chapter 4, article Pericarpium, e.
- Duodecemfidum*, a leaf or flower, &c. twelve cleft.
- Dumosa*, the 43d natural order of Linnæus.
- Emarginatum*, a leaf notched at the end.
- Empulment* of a flower, same as Calix.

- Endecandria*, the 5th Order of the Monadelphia Class. See Table of Orders.
- Enneandria*, Linnæus' 9th Class of Plants. See Chapter 1 and 2.
- Ensata*, the 6th Natural Order of Linnæus. See Chapter 11.
- Esculent*, such plants as may be eaten.
- Etiolated*, with regard to roots, signifies, they are generally perfectly white in consequence of their seclusion from the light, notwithstanding their tinging properties.
- Evergreens*, those perennial plants, which continue their verdure all the year.
- Exotic*, an appellation denoting a plant or thing to be the produce of foreign countries, in contradistinction, to those indigenous or native plants growing at home.
- Farina*, flour, dust, meal, &c. in particular, the Pollen or genitura of plants; see article Pollen, Chapter 4. It is also called
- Farina foecundans*, and is the meal or dust in the Apices, or Antherae of flowers.
- Fasciculated*, bundled.
- Fastigiata*, all rising alike, i. e. trunk, branches, &c.
- Faux*, the throat or opening between the segments of a corolla where the tube terminates.
- Fibrous*, stringy, Roots consisting of Fibres. See Chapter 9.
- Filaments*, threads particularly used for the Stamina. See Chapter 4.
- Filiforme*, resembling threads or filaments.
- Filicis*, Ferns, the first order of the 24th class, Cryptogamia, and the 55th Natural Order of Linnaeus. See Chapters 1, 2, 3, and 11.
- Fimbra*, the appendages resembling fringe around the flowers, leaves or fruit of plants.
- Flexuose*, bent here and there.
- Florescules*, the Partial flowers, called also florets, of the Syngenesia or 19th class. See Chapter 3.
- Folia*, particularly signifies the leaves of plants, those of flowers being expressed by the word Petal
- Folioles*, or leaflets. See Chapter 8—2.
- Folliculi* or *Follicles*, vessels distended with air, such are seen on the roots of Water Milfoil, Sea-wreck, &c.
- Frons*, this term is applied to a species of trunk, which consists of branches and leaves, and sometimes the fructification all united together, and is peculiar to the Ferns, Palm trees, &c.
- FronDESCENTIA*, the time when any plant unfolds its first leaves.
- Fructiferous* plants, those bearing fruit.
- Fructification*, that part of plants, consisting of the flowers and fruit, with their several covers, &c. See Chapter 4.
- Frumentaceous*, such plants as have a conformity with Wheat in respect to their leaves, fruit and the like.
- Fucus* or *Fuci*, a genus of sub-marine plants (which though not expressed in either of the Tables) belongs to the Cryptogamia Class; it consists of a tough matter, formed into a kind of leaves, which are flat and variously divaricated, and which have some appearance of fructification, in punctated tubercles, covering oblong vesicles, supposed by Linnaeus to be the flowers, and smooth

- roundish vesicles, hollow and interwoven with filaments, which appear to him to be the female flowers.
- Fulcra* or *Fulcres*, the supports of plants. See Chapter 7.
- Fungi*, the 4th Order of the Cryptogamia Class, comprehending the Mushroom tribe, and are also referred to the 58th Natural Order of Linnaeus.
- Gemma* or *Bud*, a species of Hybernaculum or Winter-quarter. See Chapter 10.
- Geniculate* plants, such as consist of knots and joints.
- Geniculi*, the knots or joints, in the stalks of plants, which gives name to the foregoing.
- Genitura*, same as Pollen, Farina, &c.
- Genus*, a subdivision of a Class or Order of plants, agreeing in their common characters.
- Germ* or *Germen*, same as bud.
- Gibbous*, having both upper and under surface convex.
- Glabrous*, slippery.
- Gluma* or *Glume*, a species of Calix peculiar to grasses. See Chapter 4. *c.*
- Glumose*, husky, chaffy.
- Gramina*, grasses, those plants referred to the 4th Natural Order of Linnaeus.
- Granatum*, a species of double involucre, discovered by Professor Scopoli. See Chapter 4.
- Gruinales*, the 14th Natural Order of Linnaeus. See Chapter 11.
- Grumose* Roots, knotty, fastened to one head, like the Anemone, and Celandine.
- Gymnospermia*, naked seed, the first Order of the 14th Class Didynamia.
- Gynandria*, Linnaeus' 20th Class of Plants. See Scheme, and Chapter 2.
- Hailitus Elasticus*, the Elastic Aura, supposed to be necessary for impregnating the seed.
- Hastated*, shaped like the head of a Halbert.
- Hederacæ*, plants comprising the 46th Natural Order of Linnaeus.
- Heptagynia*, the 4th Subdivision or Order of the 7th Class of Plants.
- Heptandria*, Linnaeus' 7th Class of Plants.
- Herbal*, a book that treats of the Class, Order, Genus, Species, Varieties, and Virtues of Plants. The present Work in that view is a Herbal.
- Hermaphrodite* flowers, those flowers having both Stamens and Pistils.
- Hesperide*, the 19th Natural Order of Linnaeus, so called from Hesperides, the three daughters of Hesperus. See Chapter 11. Class 12.
- Hexagynia*, the 3d Order of the Enneandria or 9th Class of Plants, and 6th Order of the 13th Class. See Table of Orders.
- Hexandria*, Linnaeus' 6th Class of Plants.
- Hilum*, the eye of a bean, &c.
- Holoracæ*, the 12th Natural Order of Linnaeus. See Chapter 11.
- Husk*, the same which Botanists call the Calix or Cup of a flower.

- Hybernaculum*, the generic character for the Bulbus and Gemma, is that part of a plant which defends the embryo from external injuries, &c. and is said to be the Winter quarters. See Chapter 10.
- Icosandria*, the 12th Class of Plants.
- Imberbis*, beardless, a beardless Corolla.
- Imbricated*, tiled, like the roof of a house. See Chapter 8.
- Indigenous*, opposed to Exotic; those plants which are natives.
- Infundibuliforme*, those monopetalous, or one leaved flowers, consisting of a narrow tube at one end, and gradually widen towards the limb or mouth, and resemble a funnel in shape, as the Datura Stramonium, or Thorn Apple, commonly called Jamestown or Jinson-Weed.
- Integrum*, entire, undivided.
- Integerrimum*, very entire.
- Inundata*, growing naturally in the water, the plants of this kind are referred to Linnæus' 15th Natural Order.
- Involucrum*, a species of Calix remote from the flower. See Chapter 4.—6.
- Labiata* flowers, Lip-flowers, those Monopetalous flowers consisting of a narrow tube, and having the same characters as the Infundibuliforme, but are divided into two or more parts, resembling lips.
- Lacinia* or *Lacunæ*, Pitted, by the disc being depressed between the interspersed veins, or more properly segments or incisions.
- Lactescent* or *Lactiferous*, an appellation given to those plants which abound with a milky juice, as the Sow-thistle, some kinds of Lettuce, Poppies, &c.
- Lamina*, thin plates or scales.
- Lanated*, wooly, covered as it were with Cobweb.
- Lanceolated*, shaped like a dart, tapering to a point.
- Lapidea*, stony, applied to the seeds of plants, signifies their hardness. See the article Semina, Chapter 4.
- Legume*, a species of Pericarp with two valves. See the article Pericarp, Chapter 4.
- Leguminous*, those plants whose fruit is a Legume.
- Ligulated*, such floscules as have a straight end turned downwards, with three indentures, but not divided into segments.
- Ligneous*, woody.
- Liber*, denotes the inner rind or bark of trees.
- Liliadeous*, such flowers as resemble the Lily.
- Loculament*, denotes a cell or partition in a seed pod, for the seed of a plant.
- Lomentacea*, the 33d Natural Order of Linnæus.
- Lunulæted*, resembling a crescent or half-moon.
- Lurida*, the 28th Natural Order of Linnæus.
- Lyrated*, like a Harp or Lyre.
- Marecescens*, withering or shrivelled, a Marecescent Corolla, is a shrivelled Corolla, such as those of the Cucumber, Gourd, &c.
- Membranaceous*, consisting of dry and skinny matter.
- Miscellanea*, the 54th Natural Order of Linnæus.
- Monandria*, the first Class of Plants, in Linnæus' Sexual System.
- Monoclynia*, same as Hermaphrodite. See Scheme.

- Monadelpkia*, Linnæus' 16th Class of Plants.
- Monoecia*, the 21st Class of Plants.
- Monogamia*, the 6th Subdivision or Order of the 19th Class of Plants.
- Monogynia*, one Pistil, the first Order of the first 13 Classes of Plants.
- Monopetalous*, a term applied to flowers that have only one petal or flower leaf, same as Infundibuliforme.
- Monophyllous*, one leaved.
- Monospyrenous*, such fruit as contain only one seed or kernel.
- Mucronated*, terminated in a sharp point.
- Multisilique*, the 26th Natural Order of Linnæus.
- Musci*, the 2nd Order of the 24th Class of Plants, comprehending the numerous family of Mosses, and forms the 56th Natural Order of Linnæus.
- Naked Seed*, those described in the first Order of the 14th Class of plants, and are called Gymnospermia.
- Nectarium*, a Honey Cup. See Chapter 4.
- Neuter floscules*, those floscules or florets, which have neither stamen nor pistil. See Chapter 3. Syngenesia or 19th Class.
- Nidus*, nestling, seeds dispersed through a soft substance.
- Nuciferous*, such trees as bear nuts.
- Nut*, a species of Pericarpium, of extraordinary hardness, inclosing a kernel or seed.
- Nux*, same as nut.
- Octandria*, the 8th Class of Plants.
- Octaphyllum*, eight leaved.
- Octofidum*, eight cleft.
- Odorous* or *Odoriferous* plants, are those that smell strongly, whether they be fetid, or agreeable, but particularly the last.
- Offsets*, the young shoots that spring up from the roots of plants, which being carefully separated and planted in a proper soil serve to propagate the species.
- Orchidæ*, the 7th Natural Order of Linnæus.
- Ossea*, bony, with respect to seed, signifies their hardness, &c. See Chapter 5.
- Oviparous*, as plants are supposed to bear a striking analogy to animals, it is thought they may not improperly be reckoned both Viviparous and Oviparous, in which view seeds may be considered as vegetable eggs, and buds as living fetuses, or infant plants which renew the species, as certainly as the seed, as it is evident that each bud contains in itself the rudiments of a plant, and would if separated from its parent vegetable, become in all respects similar to it: Examples of the Viviparous plants are found in the Poa and other grasses, and also strikingly in the Agave Vivipari, which See.
- Paleaceous*, chaffy, covered with dry scales, resembling chaff.
- Palmæ*, Palms, one of the 7 families of the Vegetable Kingdom, and 1st of Linnæus' Natural Order.
- Palmated*, something resembling the shape of a hand, thus we say Palmated Leaves, Roots, &c. See Chapter 8.
- Panicle*, a soft woolly beard, on which the seeds of some plants hang, as the Millet, Reed, &c.

- Papilionaceous*, an appellation given to the flowers of plants, belonging principally to the 17th or Diadelphia Class, from their resembling the figure of a Butterfly: Plants of this kind are referred to the 32nd Natural Order of Linnæus.
- Pappus*, a kind of crown attached to seeds, Semina Chapter 4.
- Parasites*, or *Parasitical* plants, are those produced out of the trunks or branches of other plants, &c. from whence they receive their nourishment, and will not grow upon the ground, such is Mistletoe, Polypody, &c.
- Parenchyma* of Plants; Doctor Grew, applies this term to the pith or pulp, or that inner part of a fruit or plant, through which the juice is supposed to be distributed.
- Pedicle* or *Peduncle*, that part of a plant which immediately sustains the flower or fruit leaf. See Chapter 5. It is also called a footstalk.
- Pendulous*, those leaves, flowers or fruit that hang downwards.
- Pentagynia*, the 5th Order of the 5th and 10th Classes of Plants, as also of the 13th, and the 4th of the 11th and 12th Classes. See Table of Orders.
- Pentandria*, the 5th Class of Plants.
- Pentacocca*, five seeded or grained,
- Pentastetalous*, an appellation given to flowers that consist of five petals or flower leaves.
- Pentaphyllous*, plants, &c. having five leaves.
- Perdifols*, same as Deciduous, those plants which cast their leaves.
- Perennials*, those plants whose roots will abide many years, whether they retain their leaves or not; those which retain their leaves are called evergreens, such as cast their leaves are called deciduous or perdifols.
- Perianthium*, a species of Calix. See Chapter 4.
- Pericarpium*, a seed vessel. See Chapter 4.
- Persistent*, not dying but continuing after a season.
- Personate flowers*, masqued flowers, the corolla of which are said to resemble the head or snout of an animal, they are peculiar to the 2nd Order or division of the 14th Class Didynamia; the plants of this Class comprise part of the 40th Natural Order Personatæ of Linnæus.
- Petal*, a flower leaf. See Chapter 4.
- Petiole* or *Petiolus*, the slender stalk that supports the leaves of a plant.
- Pileus*, the hat or bonnet of a Mushroom.
- Pilosus*, hairy, covered with long distinct hairs.
- Pilus*, see Pubes.
- Pinnated leaves*, see Chapter 8.
- Piperitæ*, the 2nd Natural Order of Linnæus, from Piper, Pepper.
- Pistil*, the pointal or female parts of a flower.
- Pistilliferous*, the florets which are furnished with pistils or female parts alone. See Chapter 3. Class 19.
- Pith*, same as Parenchyma.
- Plume*, same as Bud or Germen.
- Plumula*, the scaly part of the corculum or heart of a seed,
- Pointal*, same as Pistil.



- Pollen*, the farina or prolific powder, which is contained in the Anthers of flowers &c. See Chapter 4.—3. c.
- Polyandria*, many males, the 13th Class of Plants.
- Polygamia*, many marriages, the 23d Class of Plants.
- Polyginia*, many females, one of the Orders derived from the Pistils or female parts of a flower, and is the 6th of the 5th Class, the 5th of the 6th Class, also of the 12th and 7th of the 13th Class. See Table of Orders.
- Polyadelphia*, many brotherhoods, the 18th Class of Plants.
- Polyptalous*, many petaled, a corolla or blossom consisting of many petals or flower leaves. See Chapter 4.
- Polyphyllum*, many leaves, more than nine.
- Pomacæ*, the 36th Natural Order of Linnæus.
- Preciæ*, the 21st Natural Order of Linnæus.
- Procumbent*, weak, leaning on the ground, &c.
- Prolifer* or *Proliferous*, when one flower, &c. grows out of another.
- Pubes*, the hair, down, wool, bristles, &c. on different plants, serving the double purposes of defence and vessels of secretion. See Chapter 7. Article 9.
- Pubescence*, same as the above.
- Putaminæ*, the 25th Natural Order of Linnæus.
- Quaternate*, a stalk, leaf or flower, divided into four segments or branches.
- Quinangulare*, consisting of five angles.
- Quinate*, a stalk leaf, &c. divided into five segments or branches.
- Quinquefide*, having five fissures.
- Quinquepartite*, five divisions.
- Radiate flowers*, are such as have several Semifloscules, set round a disc in form of a radiant star, those which have no such rays are called discous flowers.
- Radical*, Roots, or the basis or foundation of plants, flowers, &c.
- Radicle*, that part of the seeds of all plants, which upon vegetating becomes its root, and is discernible by the microscope.
- Raguled*, ragged, jagged or knotty, and differs from indented, in that the latter is regular, the former not.
- Ramosa*, branched.
- Ramosissimus*, very much branched.
- Repent*, creeping.
- Rhocadæa*, the 27th Natural Order of Linnæus.
- Ringent*, grinning, Linnæus calls the flowers of the 14th or Didynamia Class, Ringentes or the grinning flowers.
- Root*, See Chapter 9.
- Rosaceous*, an appellation given to such flowers, as are composed of several petals or leaves, disposed in a circular form like those of the Rose.
- Rostellum*, the plain or simple part of the coracium of seeds.
- Rotacæ*, the 20th Natural Order of Linnæus.
- Saft*, a juice furnished by the earth, absorbed by the roots, and conveyed to the trunk, branches, leaves, flowers, and fruits of plants.
- Sarmentacæ*, the 11th Natural Order of Linnæus.
- Sarmentosus*, a slender stem almost naked, or having leaves only at the joints or knots in bunches, where it strikes root.

- Scaber*, or Scabrous, rough, rugged.
- Scabridæ*, the 53d Natural Order of Linnæus.
- Scitamentum*, the 8th Natural Order of Linnæus.
- Scapus*, an universal stem or stalk. See Chapter 6, Article 5.
- Scrinium*, a species of triple involucre, or cover. See Chapter 4, Article 5, h. 4.
- Scariosum*, applied to that species of calix or cup, which is tough, thin, and semi-transparent, as in Centaury, &c.
- Scrotiforme*, purse or bag-shaped.
- Semi-flosculus*, a term used to express the flowers of the Syngenesia Class, and are petals hollow in their lower parts; but in their upper flat, and continued in the shape of a tongue.
- Seminal*, belonging to the semen or seed.
- Semihervirens*, evergreen, remaining fresh and green through all the seasons.
- Senticosa*, the 35th Natural Order of Linnæus.
- Sepiaria*, the 44th Natural Order of Linnæus.
- Sericious*, Silky.
- Serrated*, indented or notched on their edges, like the teeth of a saw.
- Sessile*, leaves connected immediately to the stem, having no petioles.
- Shrub* denotes a dwarf tree, or a woody plant, less than a tree, as Privet, &c.
- Silicle*. See Siliculosa.
- Siliculosa*, or Silicle, a little pod or pouch, a short roundish pod. Plants having this species of pod, comprise the 1st Order of the 15th, Tetradynamia Class of plants. See Chapter 3.
- Siliqua*, or Silique. See Siliquosa.
- Siliquosa*, Siliqua, or Silique, a long slender pod, the only essential difference between this species of pod, and the foregoing, is, that this is much longer than broad. This Order forms the 39th Natural Order, Siliquosæ of Linnæus.
- Simplex*, simple.
- Simplicissimus*, applied to any thing the most simple.
- Sinuated*, having wide sinuses or divisions, as a Fig-leaf, &c.
- Spadiceous*, one of the species of aggregate flowers.
- Spadix*, a species of receptacle peculiar to Palm trees.
- Sparsæ*, or sparsely, leaves, &c. placed without any Order.
- Spatha*, a sheath. See Chapter 4.
- Spathacæ*, the 9th Natural Order of Linnæus.
- Sperm*, same as seed.
- Spica*, a spike, one of the species of inflorescence, the flowers of which are arranged alternately around a simple peduncle.
- Spica Secunda*, when the flowers are all turned one way.
- Spica Distichia*, a double rowed spike, the flowers stand pointed two ways, as in Lolium, or Darnel.
- Spongiosa*, spongy.
- Squarrose*, scaly, the scales spread wide and diffuse.
- Stalk*, or *Caulis* See Chapter 6.
- Stamina*, or Chives, the male part of a flower, See Chapter 4.
- Stamineous* and *Stameniferous*, those flowers which have no petals, or flower leaves; but consist only of a number of stamina and pistils placed in a cup. See Chapter 3, Article 19.

- Stellate*, in form of a star.
- Stellatæ*, the 47th Natural Order of Linnæus.
- Stem*. See Chapter 6.
- Stigma*, a part of the pistil or pointal. See Chapter 4.
- Stile*, or *Stylus*, also a part of the pistil.
- Stipes*, a species of trunk or stalk. See Chapter 5, Article 7.
- Stipulæ*, a scale or small leaf.
- Striated*, when applied to leaves, are those which have a number of longitudinal furrows on its surface.
- Strobilus*, a species of pericarpium. See Chapter 4.
- Stylus*. See *Stile*.
- Suberosus*, resembling cork.
- Subdivisus*, divided into branches, irregularly, without order.
- Subulatus*, awl shaped.
- Subrotundum*, roundish.
- Succulent*, juicy, leaves thick and abound with juice.
- Succulentæ*, the 13th Natural Order of Linnæus.
- Suffrutex*, denotes an under shrub, or the lowest kind of woody plants, as Lavender, &c.
- Sulcatus*, furrowed, grooved, fluted.
- Surculus*, a word used in the Anatomy of plants, to express that part of the branching of the ribs of a leaf, which is of a middle kind, betwixt the great middle rib, and the smallest reticular ramifications.
- Syngenesia*, the 19th Class of Plants.
- Synonime*, a term having the same import or meaning with another term.
- Tendril*, or *Clasper*, a filiform spiral band, by which a plant fastens itself to another body.
- Tetradynamia*, the 15th Class of Plants.
- Tetragynia*, the 3d Order of the 4th and 7th Classes, and the 4th Order of the 5th—6th—8th—10th, and 13th Classes of Plants. See Table of Orders.
- Tetrandria*, the 4th Class of Plants.
- Tetrapetalous* those flowers that consist of four single petals or leaves.
- Tetraphyllum*, having four leaves.
- Theca*, a sheath or case, also a box or bag. See Chapter 4th.
- Tomentum*, the downy matter which grows on the leaves of some plants.
- Torose*, swelling into knobs.
- Torulosa*, swelled, puffed, in a smaller degree than the foregoing.
- Triandria*, the 3d Class of Plants.
- Triangulare*, having three angles.
- Tricocæ*, the 38th Natural Order of Linnæus.
- Trigonous*, three cornered.
- Trigynia*, the 3d Order of the 2d—3d—5th—6th—8th—10th—11th—12th, and 13th Classes; and the 2d Order of the 9th Class of Plants.
- Trihilatæ*, the 23d Natural Order of Linnæus.
- Trilocular*, having three cells or valves.
- Tripartite*, having three divisions.

- Tripetaloides*, the 5th Natural Order of Linnæus.
- Triphyllous*, three leaved.
- Triquetrous*, a leaf or fruit that has three sides or faces, all flat.
- Trivial*, the common name of a plant.
- Truncated*, such leaves as seem to have their points cut off; it is also applied to fruits, flowers, &c. The American Tulip tree leaf, is an example.
- Trunk*. See Chapter 6.
- Tubercle*, a kind of turgid root, in form of a knob or turnip; the plants producing such roots, are hence denominated Tuberoses. See Chapter 9.
- Tunica*, a coat or covering. See Chapter 9.
- Turbinated*, wreathed, spiral, conical, as the tendril or claspers of plants which wreath themselves around adjacent bodies.
- Turiones*, the first young tender shoots, which plants annually put forth.
- Valve*, a kind of lid or cover. See Chapter 4.
- Vasculiferous Plants*, such whose seeds are contained in vessels which are sometimes divided into cells. See Chapter 4.
- Vepreculæ*, the 31st Natural Order of Linnæus.
- Verticillate*. See Chapter 5, Article 12.
- Verticillatæ*, the 42d Natural Order of Linnæus.
- Villi*, or Villous, a kind of down, like coarse hair, found on trees, &c.
- Viviparous*, applied to those buds of plants, which vegetate into plants similar to the parent plant. See Chapter 10.
- Volva*, or Ruffe, the proper calix of fungusses.
- Volubilis*, twining, ascending spirally, as in Hops, Honey-Suckle, &c.
- Umbellate*, those flowers growing in the form of an Umbel.
- Umbellate*, one of the species of aggregate flowers, and forms the 45th Natural Order of Linnæus.
- Umbelliferous Plants*, such whose tops branch out like an Umbrella.
- Ungues*, claws.
- Utricle*, a small vessel full of secreted moisture. See Chapter 7.
- Weed*, a common name for all rank, and wild herbs that grow to the detriment of other useful herbs they grow among.

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## CHAPTER XIV.

### A SCHEME OF THE REDUCTION OF VEGETABLES, SHOWING THEIR MEDICINAL PROPERTIES, SYSTEMATICALLY.

THIS Scheme is also divided into Classes and Orders. The virtues of the respective simples, are added to the list of Orders, and by a reference to the plant itself, its peculiar qualities are particularly described. The utility of this method is obvious, as at one view, we discover a number of simples, all agreeing in virtues, and of which we can be at no loss for choice, &c.

CLASS I.	ORDER.	CLASS VII.	ORDERs
NERVINA, {	1. Cardiac and Cephalic.	EMETICA, {	id.
	2. Carminative.		
	3. Hysterica.	CLASS VIII.	ORDER.
CLASS II.	ORDER.	CATHARTICA, {	1. Laxantia.
CORROBORANTIA, {	1. Agglutinantia.		2. Drastic.
	2. Astringentia.	CLASS IX.	ORDERs
	3. Absorbentia.	STERNUTATORIA, {	id.
CLASS III.	ORDER.	CLASS X.	ORDER.
STOMACHICA, {	id.	HYPNOTICA, {	id.
CLASS IV.	ORDER.	CLASS XI.	ORDER.
BALSAMICA, {	1. Emollientia.	REFRIGERANTIA, {	id.
	2. Restorantia.	CLASS XII.	ORDER.
	3. Vulneraria.	TOPICA, {	1. Repellentia.
	4. Detergentia.		2. Suppuratoria.
CLASS V.	ORDER.		3. Detergentia.
DIURETICA, {	id.		4. Caustica.
CLASS VI.	ORDER.		
DIAPHORETICA, {	id.		

## CLASS I.—OF NERVOUS SIMPLS.

## ORDER I.

## CARDIAC AND CEPHALIC.

Cordial Simples, are those which tend to cheer the spirits, and give them a sudden strength; ancient authors appropriated this class to the heart, and Cephalics are those producing the same sensations and effects on the head. The following plants are said to be Cordial and Cephalic :

Aloes wood, Angelica, Anise, Balm, Betony, Birthwort, Burnet, Butter Bur, Basil, Bistort, Borage, Bugloss, Ciinnamon, Carduus, Carline-Thistle, Citrons, Costmary, Cowslips, Celandine, Chamomile, Cubebs, Coriander, Cloves, Cardamoms, Calamus, Clary, Dittany, Eye-bright, Feather-few, Fennel, Fluellin, German Leopard's Bane, Gentian, Goat's Rue, Juniper-Berries, Lavender, Laurel, Lovage, Lily of the Valley, Lemons, Marjoram, Maudlin, Melilot, Mint, Mace, Masterwort, Mustard, Marigold, Nutmegs, Oranges, Pimpernel, Penny-Royal, Primrose, Rosemary, Rue, Saffron, Sage, Scordium, Scurvy-Grass, Senna, Sneezewort, Southernwood, Scabious, Spikenard, Scorzonera, Virginian Snake root, Swallow-wort, Teucrium, Thyme, Vervain, Zedoary.

## ORDER II.

## CARMINATIVES.

Carminatives are those simples, &c. which expel wind, and are used in colics and flatulent disorders, such are

Angelica, Anniseed, Bay berries, Balm, Broom, Burnet, Calamus, Caraway, Cassia, Chamomile, Ciinnamon, Citron, Cubebs, Coriander, Cummin, Elecampane, Fennel, Galangal, Ginger, Grains of Paradise, Hyssop, Indian leaf, Juniper-Berries, Lemons, Mint, Mother-wort, Nutmegs, Nut-ben, Olives, Pepper, Radish, Parsley, Rosemary, Spikenard, Schoenanth, Sage, Sassafras, Smallage, Stoechas, Wormwood.

## ORDER III.

**HYSTERICs**, or rather Anti-Hysterics, are those articles which are appropriated to the uterus or womb.

Assafœtida, Angelica, Ash, Balm, Betony, Burdock, Birthwort, Bryony, Calamus, Cardamoms, Cinnamon, Cassia, Cloves, Elder, Featherfew, Galbanum, Guaiacum, Hyssop, John's Wort, Juniper, Indian Nut, Mother-wort, Mace, Marjoram, Mug-wort, Nutmegs, Orange Peel, Peony, Pimpernell, Rosemary, Rue, Saffron, Savin, Spikenard, Stoechas, Valerian.

*CLASS II—CORROBORANTS OR STRENGTHENERS.*

## ORDER I.

**AGGLUTINANTS**, are such medicine as are of a glutinous or viscid nature, and are given with a view to strengthen the solids, of this order are the following.

Agrimony, Aloes, Bugle, Bistort, Centaury, Cinque-foil, Crane's-bill, Comfrey, Daisy, Germander, Hound's-tongue, Mouse-ear, Maudlin, Mallows, Knot-grass, Plantain, Rupture-wort, Rosemary, Sage, Solomon's Seal, St. John's wort, Tansey, Tormentill, Wall-Sage, Willow, Woad, Yarrow.

## ORDER II.

**ASTRINGENTS**, are substances, distinguished by a rough austere taste, the medical effects of which are to constrict the fibres, and incassate or lightly thicken the juices, their more experienced use is in disorders, proceeding from a debility or flaccid state of the solids, in hæmorrhages from a thickness of the blood, laxity or ruptures of the vessels, in preternatural discharges of the other kind, after the offending matter has been duly evacuated or corrected, and in external applications.

Acacia, Acorns, Arabic Avens, Agnus Castus, Amomum, Barberries, Balaustines, bark of the Oak, Bay bark, Balm, Bistort, Calamus, Comfrey, Cudweed, Cypress, Cinque foil, Catechu, Cornel or Dogwood bark, Daisy, Drop-wort, Flea-wort, Galls, Geranium-Maculate, Horse-tail, Ivy, Knot-grass, Lentils, Lily the White, Loose-strife, Medlars, Mouse-ear, Mulberries, Myrtle, Myrrh, Oak, Perssimon bark and fruit, Peony, Plantain, Pomegranate, Pine-Nuts, Privet flowers, Purslane, Red Roses, Rhubarb, Rice, Quinces, Sumach, Shepherd's-purse, Solomon's Seal, Sloes, Schoenanth, Spikenard, Services, Trefoil, Tormentil, Yarrow.

## ORDER III.

**ABSORBENTS**, those medicine, which, either internally or externally applied, absorb acrid or redundant humours in the stomach and intestines, or ulcers and sores.

Betony, Box, Birthwort, Burnet, Centaury, greater and lesser Fænugreek, Guaiacum, Larch Lentils, Lupines, Mastich, Mouse-ear, Heath Pea, Orrice root, Scabious, Sassafras, Sander's-wood, Shepherd's Purse, Vervain.

*CLASS III.*

**STOMACHICS**, such medicine as is appropriated to the stomach and intestines, for strengthening the tone thereof, and promoting digestion, these include also Carminatives and Corroborants, which see.

Angelica, Anise, Alexander's Agrimony, Arum, Alkermes, Birthwort, Bistort, Bay-berries, Bugloss, Carline, Costus, Cypress, Carduous, Cat Mint, Centaury, Cardamoms, Caraway, Camphor, Citron, Contrayerva, Fennel, Garlic, Gentian, Germander, Horehound, Elecampane, Juniper, Ivy, Lemon Peel, Maiden hair, Mace, Galangals, Ginger, Orange Peel, Pepper, Penny-Royal, Peruvian Bark, Poly-mountain, Rosemary, Rue, Saffron, Sassafras, Sage, Smallage, Scordium, Snake root, Swallow-wort, Spikenard, Southernwood, Tormentil, Viper's Bugloss, Wormwood, Zedoary.

CLASS IV—OF BALSAMICS.

ORDER I.

EMOLLIENTS, are such medicine as sheath the acrimony, and soften the asperity of the humours, and relax and supple the solids at the same time.

Almonds, Arach, Bay leaves, Benny, Beans, Beets, Bryony, Barley, Chamomile, Chesnuts, Cucumbers, Cypress leaves, Dill, Elder, Flaxseed, Flea-wort, Florentine Orrice, Figs, Fanugreek, Groundnuts, Lily, Mallow, Mercury-Herb, Pellitory, Violets, Walnut kernels.

ORDER II.

RESTORATIVES, such medicine as are proper for relieving the strength and vigour of the body and animal spirits. Quincy is of opinion, that all under this order are rather nutrimental than medicinal, and are more administered, with a view to repair the wastes of the constitution, than to alter and rectify its disorders, for which purpose we refer to the second class Corroborants.

ORDER III.

VULNERARY, or Traumatic, such remedies as are accommodated to the more speedy healing and curing of wounds and ulcers, Traumatic are properly applied to those which are internally used, and Vulnerary to those used externally.

Agrimony, Alkanet, Aloes, Avens, Bear's breech, Bistort, Bugle, Balsaminum, Betony, Bursera, Birthwort, Blood-wort, Buck thorn, Balaustines, Borrage, Comfry, Cyperess, Cypress nuts, Cinquefoil, Elm, Fir, Fluellin, Galangal, Gentian, Golden rod, Cromwell, Hog's fennel, Horehound, Horsetail, Larkspur, Ladies Mantle, Larch, Liverwort, Lungwort, Juniper, Mastich, Mint, Misseltoe, Melilot, Mouse-ear, Flixweed, Pine, Prunella, Pyrola, Red Roses, Rosemary, Saracens, Tansey, Tormentil, Wood-Sorrel, Yarrow, Zedoary.

ORDER IV.

DETERGENTS, this order comprehends such internal remedies, as are softening and adhesive, and also by a peculiar activity, are apt to abrade and carry along with them such particles as they lay hold on in their passage.

Agrimony, Aloes, Almonds, Asphodel, Beets, Bryony, Broom, Betony, Birthwort, Celandine, Cresses, Centaury, Elecampane, Fumitory, Garlic, Gentian, Germander, Horehound, Hart's tongue, Hellebore, Horse Mint, Hyssop, Jerusalem Oak, Juniper, Leeks, Orrice, Pellitory, Pimpernell, Savory, Smallage, Solomon's Seal, Scurvy grass, Tamarisc, Tansey, Turpentine.

## CLASS V.

DIURETICS, are those medicines, which are said to make a separation of the serum from the blood, and to provoke urine, or such as provoke it by opening the urinary passages.

Almonds, Anise, Asparagus, Ashes of Broom, Beans, Broom, Brooklime, Burdock, Caraway, Chamomile, Chervil, Cresses, Cucumbers, Cummin, Cubebs, Dandelion, Dill, Elder, Endive, Fennel, Figs, Garlic, Germander, Grass, Grapes, Gromwell, Hog's fennel, St. John's wort, Jalap, Juniper-berries, Ivy-berries, Kneeholly, Lavender, Lettuce, Lily, Leeks, Mallows, Maiden hair, Master-wort, Marsh Wormwood, Melilot, Mustard, Melon Seeds, Nettles, Nephritic wood, Onions, Olives, Parsley, Purslane, Pimpernel, Peach, Pellitory, Poppies the white, Radish, and Horse Radish, Rest Harrow, Raisins, Rhodium, Rocket, Saxifrage, Smal-lage, Scabious, Squill, Sassafras, Spikenard, Strawberries, Turpen-tines, Uvæ Ursi, Water Cresses, Water-Lily, Winter Cherries, Wormwood, Yarrow, &c.

## CLASS VI.

DIAPHORETICS, such medicine as provoke sweat, and expel serous humours and morbid vapours, lying in the outward parts of the body, and near the surface of the skin, they are also called Sudorifics.

Angelica, Bay Berries, Butter Bur, Box, Carduus, Carline Thistle, China-root, Contrayerva, Dittany, Fumitory, Fanu-greek, Galangal, Gentian, Guaiacum, Juniper, Marjoram, Melilot, Marigold, Origanum, Penny Royal, Poppy, Pimpernel, Rosemary, Rue, Sage, Saffron, Snake root, Sarsaparilla, Sassafras, Swallow-wort, Southernwood, Scabious, Tormentil, Thistle.

## CLASS VII.

EMETICS, are such medicine as work upwards by vomit, ejecting, choler, phlegm, &c. which reside in the stomach, or are contained in the Spleen, Liver or Pancreas, as also such as of their own accord tend upwards, and are known by bitter belchings, pain, heaviness, sourness, &c.

Actea Alba, Asarum, Club Moss, Cucumber roots, Fox Glove, Hippo, Hellebore the white, Betonica, Gamboge, Peach leaves, Spear-wort, Squills, Thorough-wort, Tobacco.

## CLASS VIII—CATHARTICS.

## ORDER I.

LAXANTIA, such medicine as operate gently downwards, and are mild in their operation.

Alder, Aloes, Cassia fistularis, Castor Oil, Damask Roses, Elder, Jalap, Manna, Peach flowers, Roses, Sena, Ricinus, Tamarinds, Prunes.

## ORDER II.

DRASTIC, or Rougher Purges, such as operate powerfully by stool, bringing away the gross and offending matter, contained in the intestines.

Asarum, Briony, Buck thorn berries, Bitter Apple, Box, Carthamus, Elaterium, Ebulus, Epithimum, Esula, Gamboge, Hermo-



dactyls, Hellebore, Hedge Hyssop, Mezereon, Scammony, Sowbread, Spurge, Squills, Soldanella, Turpith.

*CLASS IX.*

**STERNUTATORY**, or Ptarmics, such medicine as purge the brain by the nostrils, either by discharging a flux of matter or by sneezing.

Anagallis, Asarum, Beet leaves, Bind weed, Betony, Elaterium, Euphorbium, Ginger, Hellebore the white, Hamech, Ivy, Marjoram, Nigella, Pellitory, Sage, Staves Acre, Sneeze-wort, Scammony, Paradise grains, Sneeze-wort Yarrow, Mustard, Tobacco, Yarrow.

*CLASS X.*

**HYPNOTICS**, Anodynes or Narcotics, those medicine that procure sleep, by easing pain, and stupefying and dulling the senses.

Arragon, Chickweed, Chamomile, Darnel, Dill, Eryngo, Flag, Hemlock, Henbane, Houseleek, Lettuce, Mandrake, Night Shade, Opium, Poppy, Purslane.

*CLASS XII.*

**REFRIGERANTS**, such medicine as respect the inward parts by cooling them.

Acacia, Apples, Asparagus, Arach, Barley, Bean flowers, Barberies, Bramble, Borrage, Bugloss' Buck thorn, Bistort, Birch, Clivers, Columbines, Crane's bill, Citrul seed, Chickweed, Currants, Citrons, Cherries, Comfrey, Dandelion, Dew-berries, Daisy, Dodder, Endive, Elder, Eglantine, Fumitory, Flea-wort, Fanugreek, Grapes, Gum Arabic, Goose-berries, Grass, Henbane, House-leek, Lily, Lamb's tongue, Lemon's, Lettuce, Loose-strife, Mandrake, Mallows, Mulberries, Myrtle, Melons, Myrobolans, Oak buds, Oranges, Orpine, Plantain, Pears, Plums, Peaches, Purslane, Polypodium, Prunes, Pomegranates, Poppies, Quinces, Roses, Rape, Raspberries, Sanders, Succory, Strawberries, Sorrel, Sebestins, Sloes, Sow-Thistles, Shepherd's purse, Tamarinds, Tansey, Vine leaves, Violets, Water-Lily, Venus Navel, White Roses, Wood Sorrel, Willow Roots.

*CLASS XII.—TOPICS.*

**ORDER I.**

**REPELLENTS**, are such remedies as drive back a morbid humour into the mass of blood from which it was unduly secreted.—They are also called Repercussives, and Repulsives.

Apples, Cinquefoil, Coriander, Citruls, Cucumbers, Comfry, Centaury, Ducksmeat, Endive, Fleawort, Horehound, Houseleek, Horsetail, Lentisc, Lyls, Lupines, Mandrake, Myrtle, Nightshade, Navelwort, Orobis, Purslain, Plantain, Pellitory, Pears, Plumbs, Poppy, Poplar, Pomegranates, Roses, Sumach, Shepherds Purse, Thistle, Trefoil, Quinces, Violets, Water-Lilies.

**ORDER II.**

**SUPPURATIVES**, Peptics or Maturatives, are such medicine as by a natural heat bring blood, raw, superfluous, and undigested humours to matter and ripeness; they differ from Emollients in making hard things soft, drawing and generating humours, and ripening them.

Barley, Briony, Birthwort, Currants, Chamomile, Cresses, Dates, Dittany, Figs, Fanugreek, Garlic, Galbanum, Gentian, Gum of Pine, Hellebore, Euphorbium, Lilies, Labdanum, Leeks, Linseed, Mallows, Marshmallows, Meal of Barley, Nettles, Onions, Pitch of Pine, Pellitory, Rosin, Raisins, Ranunculus, Turpentine, Wheat.

## ORDER III.

**DETERGENTS**, Incarnatives or Sarcotics, are such medicine externally applied as breed flesh, changing the blood thereinto, preventing the blood from corrupting while it is turning into flesh.

Aloes, Arabic, Betony, Burnet, Birthwood, Beans, Barley, Centaury, Lentils, Lupines, Larch Rosin, Mastich, Myrrh, Mouse-ear, Meal of Wheat, Barley, Malt and Beans, Orobus, Olibanum, Olives, Orrice, Peas, Scabious, Shepherds Purse, Sanicle, Sarcocolla, Tragacanth, Turpentine.

## ORDER IV.

**CAUSTICS**, these are also called Catheritics or Corrosive, Septics or Putrefactives, and Escharotics or Caustics, and are such medicine as by their exceeding heat and acrimony, burn, or scald the skin or flesh, or both.

Ashes of the Oak, of Cotton, Cowitch, Cress-seed, Euphorbium, Bindweed, Fig-tree, Gentian, Garlic, Hellebore, Indian-Turnip, Flamula, Crowfoot, Mezereon, Mustard, Pellitory, Savin, Squills, Spurge, Turbith, Thapsia, Tithymalus.

# FLORA CAROLINÆENSIS;

OR, A

HISTORICAL, MEDICAL, AND ECONOMICAL DISPLAY

OF THE

## VEGETABLE KINGDOM.

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- A**BAI, a Synonime of the *Calycanthus Præcox*.  
ABAVO, a Synonime of the *Adansonia*.  
ABCDARIA, a Synonime of the *Verbesina*.  
ABDELAVI, the Arabian name for a species of *Cucumis*.  
ABEL or ABELE tree, an obsolete name of a species of *Populus*.  
ABELMOSCH, see *Hibiscus*—in Hermann's Hortus it is referred to Althea.  
ABHEL, an obsolete name of the *Sabina*.  
ABIES, see *Pinus*.  
ABRAHAM'S BALM, see *Cannabis*.  
ABROTANUM, a synonime of several plants, viz. *Artemisa*, *Filago*, *Santolina*, &c.  
ABRUS, the trivial name of the *Glycine*, and also the *Phaseolus*.  
ABSINTHIUM, the trivial name of *Artemisa*, *Tanacetum*, &c.  
ABSUS, the trivial name of a species of *Cassia*, said by Herman to be Senna.  
ABUTILON, the trivial name of several species of *Sida*, and is also a synonime of the *Melochias*, *Lavatora*, *Mulva*, and *Hibiscus*.  
ACACIA, a synonime of the *Poincina*, *Genista*, *Mimosa*, *Robinia*, *Guaiacum*, &c. which see.  
ACAJA, a synonime of the *Spondias*.  
ACAJOU or ACAIBA, a synonime of the *Anarcadium*.  
ACALIS, an obsolete name of the *Ceratonia*.  
ACALYPHA, (*Urtica minor* of sir Hans Sloan) a genus of the Monoecia Monadelphia Class, ranking in the 38th Natural Order *Tricocæ* of Linnæus. The Calix of the male is a three or four leaved perianth, leaflets, roundish, concave and equal the corolla is wanting, the Calix of the female consists of three leaflets, concave, converging, small and persistent. No Corolla, male flowers are crowded above the female, the female flowers placed beneath in a large divided involucre. The pericarpium has a roundish, trisulcated, trilocular capsule; the seeds are solitary, roundish, and large. There are five species, all natives of the United States.  
1. A VIRGINICA, the *Virginian three seeded mercury*, 2. A VIRGATA. 3. A INDICA. 4. A AUSTRALIS.

**ACENA**, a genus of the Tetrandria Monogynia Class; the calix consists of four leaves, which are oval, concave, equal and persistent; there is no corolla; the Stamina consists of four equal middle sized filaments opposite the calix; the Antheræ are quadrangular, twin, erect; the Pistillum has an inversely ovate hispid germ; Stylus, small, inflected on one side; the Stigma is a small thickish coloured membrane divided into many segments; the Pericarpium is an inversely, ovated, dry, one celled berry, covered with briers bent backward, the seed is single; there is but one species a native of Mexico—as yet it has received no English name.

**ACANACAPHORA**, and obsolete name of the *Centaurea jacea*.

**ACANTHE**, an obsolete name of the *Cinaria*.

**ACANTHIUM**, the trivial name of a species of *Onopordum*. See also *Carduus*.

**ACANTHOIDES**, a synonyme of the *Carlina*.

**ACANTHUS**, *Bear's Breech*, or *Brank Ursine*, a genus of the Didynamia Angiospermia Class, ranking in the 4th Natural Order, *Personate* of Linnæus. The calix is a perianthium with leaflets of 3 alternate pairs, unequal and persistent; the Corolla is one petaled and unequal, the tubus very short, closed with a beard; no upper lip; the under one very large, flat, straight, very broad; three lobed, and obtuse. The Stamina have four subulated filaments, shorter than the Corolla; the two superior rather longer, recurvate, and incurved at the top. The Antheræ are oblong, compressed, obtuse, lateral, parallel, and villous before. The Pistillum has a conic germen, a filiform stylus, the length of the Stamina, and two acute lateral stigmata. The Perianthium is an acutely, ovated, bilocular capsule, with a lateral partition; the seeds one or two fleshy and gibbous. These plants are famous for having given rise to the capital of the Corinthian Order of Architecture. There are 5 species.

1. **A MOLLIS**. (*Sativa*) *Common Bear's Breech*, a native Italy, and is the sort used in Medicine.

*Part used*, the leaves.

*Sensible Properties*, all the parts have a soft sweetish taste, and abound with a mucilaginous juice.

*Medical Virtues*. It does not seem to differ from those of the *Althea*, and other mucilaginous plants.

2. **A SPINOSUS**, or *Prickly Bear's Breech*, the leaves of which are deeply jagged in very regular order, and each segment is terminated with a sharp spine; as are also the footstalks of the leaves, and the empaleme of the flowers, which render it troublesome to handle them.

3. **A ILICIFOLIUS**, or *Shrubby Bear's Breech*, a native of both the Indies; it is an evergreen shrub which rises about four feet high, and is divided into many branches, garnished with leaves like those of the common Holly, and armed with spines in the same manner: the flowers are white, and shaped like those of the common *Acanthus*, but smaller. This and the foregoing are propagated either by seeds, or offsets from the roots. The seed should be sown about the end of March, in a light soil; they require but little care, but to be kept clear from weeds.

4. A: NIGRA, or *Portugal Bear's Breech*, with smooth sinuated leaves, of a livid green colour.

5. A: MEDIA, *Middle Bear's Breech*, with entire leaves, having spines on their border, is supposed to be the Acanthus of Dioscorides. These last are propagated only by seeds, and require more care than the former. The seeds do not ripen in Europe.

ACANUS, a Synonime of the *Carduus Carbonæ*.

ACAPATLI, the Indian name of the *Piper longum*.

ACAPNON, an obsolete name of the *Origanum*.

ACARICOPA, a Synonime of the *Hydrocotyle Umbellata*.

ACATSIA VALLI, a Synonime of the *Cassitha Filiformis*.

ACCIPITRINA, an obsolete name of the *Hierachium*.

ACER, *Maple and Sycamore Tree*, a genus of the Polygamia Dioecia Class, ranking in the 23d Natural Order, Trihilatæ of Linnæus.

The calix of the female is quinquefide, the corolla pentapetalous, the stamina eight; one pistil and two seed capsules. The calix of the male is also quinquefide, the corolla pentapetalous; the pistillum has no germen nor stylus, the stigma is bifid; the seeds are solitary and roundish; there are 20 species.

1. A: CAMPESTRIS, *Common Maple*, a native of Britain, which grows in thickets and hedges, and flowers in the month of June.

*Domestic Uses.* The wood of this species is far superior to Beech, for all the uses of the Turner; the more knotty it is, the more highly it is esteemed by Joiners, for inlaying, on account of its lightness. Maple wood is also frequently employed for musical instruments, being remarkably white; it was formerly converted into tables, and other articles of furniture, particularly cups, which last may be turned so thin as to transmit light. It is however, in Britain principally planted for hedges and underwood, as it is of quick growth and affords excellent fuel. A decoction of Maple bark, imparts to wool, previously prepared in a solution of bismuth, a reddish brown colour. With Copperas it dyes a deep black or purple.

2. A: PENNSYLVANICA, *Dwarf Mountain Maple*, grows on mountains in the United States, and rises to the height of six feet; the leaves are three pointed, pretty much sawed on their edges, and placed opposite, on moderately long footstalks; it very much resembles the Sugar Maple, only its leaves are more pointed.

3. A: GLAUCUM, *Silver Leaved Maple*, a tall spreading forest tree, with leaves five lobed, deeply and irregularly sawed on their edges; they are of a lucid green on their upper side, and of a bright silver white on their under side; the flowers are produced in little umbels, at the foot of the leaves, are of a deep red colour, and exhibit a fine appearance.

4. A: NEGUNDO *Ash Leaved Maple*, rises to the height of 20 feet, the leaves resemble those of the Ash, but are three or five lobed; the flowers of the male are produced upon pendulous bundles of very long fine footstalks; each have a small flower cup at the extremity of the small branches, in long loose bunches.

5. A: CANADENSE, *Striped Maple*, is of a middling growth, the bark is beautifully variegated or striped; the leaves are divided into three very sharp pointed lobes, and finely serrated on their edges:

the flowers are produced in solitary bunches, with sharp footstalks, and are of a greenish yellow cast.

5. A: RUBRUM, *Scarlet Maple*, grows to a large size; the leaves are three, and sometimes nearly five lobed, and serrated on their edges: the flowers are produced in little umbels, closely surrounding the small branches and are of a scarlet colour, and exhibit a very fine appearance, early in the spring. There is a variety of this species, with yellowish flowers and seeds, and which is the most common kind in Pennsylvania. The A: Rubum grows plentifully in South-Carolina, in Creeks, Bays, and Swamps, delighting in a rich moist soil.

*Domestic Uses.* The wood of this species is much admired for gun stocks, cabinets, chairs, &c. the grain of some of it being curiously waved, and curled, which when polished or varnished, is highly ornamental.

6. A: SACCHARINUM, *Sugar Maple*, this is also a very large tree, and grows plentifully in the Northern and Western parts of the United States. The leaves resemble the Glaucum, or Silver leaved Maple, but are not so large, nor deeply lobed, nor of so fine a silvery white; the flowers are of an herbaceous colour.

*Domestic Uses.* This species yields a much greater quantity of Saccharine juice, when tapped in the spring, than any of the species of Maple; considerable quantities of sugar is manufactured from it annually, in the up country. Pure flake Manna, has been discovered on this species, and a species of Ash, in the up country, which we presume to have been the sap congealed by cold. The wood of this, as well as the other species of Maples is esteemed for many domestic uses, and mechanical purposes; particularly saddle trees.

7. A: PSEUDO PLATANUS, *Sycamore Maple*, or *Sycamore Tree*, a large and beautiful tree, supposed to be a native of Germany, but reared in Britain, principally for its elegant appearance in plantations. It is also a native of Carolina, growing to an enormous size, in creeks and river swamps; or on high land, where it may be propagated by cuttings; is of quick growth, though it increases in size till 200 years old, and attaining the respectable age of four or five centuries. The leaves are large and broad, having large keys, and the wood is soft and white.

*Domestic Uses.* Turners employ the wood for making wooden bowls, dishes, trenchers, &c. and the Highlanders convert the sap into an agreeable wine. The sap when clarified, evaporated, and inspissated, affords a fine white sugar in the proportion of 1lb. from 16 quarts of the sap. It is however too purgative for this use, and affords a good substitute for Manna.

8. A: OPALUS, or *Italian Maple*, is very common in most parts of Italy; where it is one of the largest species of trees, common in that country, and affords a great shade, by its numerous and large leaves, on which account it is planted on road sides, and near habitations. It is rarely to be met with in Britain, though hardy enough to bear the open air, and is propagated by seeds.

9. A: MONSPESULANUM, *Montpeleir Maple*, is common in the South of France, and in Italy; the leaves resemble those of the common Maple, but are of a much thicker substance; a shining green colour, and not so large; they continue in verdure very lat

in the autumn, which renders this species more valuable ; it is also propagated by seeds.

10. A: CRETICUM, *Cretan Maple*, grows naturally in the Levant ; it differs from the foregoing, in having thinner leaves, and their footstalks covered with a soft hairy down. These are also propagated by seeds.

11. A: MONTANUM CANDIDUM, *Mountain Maple of Candia*.

12. A: MONTANUM FLAVUM, *Yellow Mountain Maple*.

13. A: TRIFOLIA, *Three Leaved Maple*.

*Note*—All the species may likewise be propagated, by layers, cuttings, budding, grafting and enarching.

ACETABULUM, the trivial name of a species of *Peziza*.

ACETOSA. See *Rumex* (*Oxalis Vulgaris* of Herm.)

ACETOSELLA. See *Oxalis* (*Oxis* of Herm.)

ACHAOVA, an obsolete name of the *Narum*.

ACHILLÆ, a genus of the Syngenesia Polygamia Superflua Class; ranking in the 49th Natural Order, *composita discoides*; the receptacle is chaffy; the calix egg shaped, and tiled with sharp scales. There are 21 species, only two of which are natives.

1. A: MILLEFOLIUM, *Common Milfoil*, or *Yarrow*, is an indigenous perennial, growing in meadows and pastures, and is cultivated in gardens; the leaves are doubly winged, and without hairs; the stem is furrowed towards the top; it bears a white blossom, sometimes tinged with red or purple, and blows from June to August.

*Part Used.* The leaves, flowers, and sometimes the roots.

*Sensible Properties.* Rough, bitterish taste, subastringent, faint aromatic smell.

*Medical Virtues.* Their Medical Virtues are those of a very mild astringent, and as such, they stand recommended in hæmorrhages, both internal and external diarrhoeas, and in spasmodic, and hysterical affections. In these cases some of the German Physicians hold it high in their esteem, particularly Stahl, who esteemed it a very effectual astringent, and one of the most certain tonics and sedatives. A decoction of its leaves with Chamomile flowers is said to form a corroborant diet drink for children, who on account of their rapid growth are unable to retain their water during the night; but for this purpose a quart in the course of twenty-four hours ought to be drank. The flowers are considerably stronger in aromatic flavour than the leaves, and yield in distillation a small quantity of essential oil, of an elegant blue colour, the roots taken up in the spring, are by Dr. Grew resembled to contrayerva, of whose virtues the doctor thinks they partake in a less degree.

*Domestic Uses.* The Dalecarlians throw the leaves and flowers into beer, while in a state of fermentation, with a view to increase its intoxicating effects, which is at best but a beastly practice. It is eaten by sheep and hogs, but is not relished by horses, cows, nor goats.

2. A: PTARMICA, *Sneezewort Yarrow*, *Bastard Pellitory* or *Goose-tongue*, a native perennial plant, growing in moist meadows and shady places, producing its white flowers in July and August.

*Part Used.* The leaves and roots.

*Medical Virtues.* The leaves when powdered and snuffed, provoke sneezing, and the roots chewed, occasion a plentiful discharge of saliva; it may therefore be advantageously employed in bringing away superfluous humours from the brain, and for easing the tooth ach.

*Domestic Uses.* Its young tops afford a sharp, but pleasant ingredient in spring salads.

3. A: TANACETIFOLIA, or *Eastern Sneezewort*, with Tansey leaves, is a very humble plant, seldom rising above six inches in height, the flowers are nearly as large as those of the common Sneezewort, they are white and grow in flat umbels, it blows in June or July. The leaves of the plant have some likeness to those of the common Wormwood, are very hoary, grow close to the ground and decay in Autumn, so as to make little appearance in winter.

4. A: AGERATUM, *Sweet Maudlin*, was formerly much used in medicine, and for culinary purposes, but is now totally unused, the White Maudlin being substituted in its stead. It flowers in June and July, and the seeds are ripe in September.

5. A: SANTOLINA, *Eastern Sneezewort*, with leaves like Lavender-Cotton. The leaves when rubbed, emit a strong oily odour, it has large yellow flowers, upon pretty long footstalks, placed singly and not in bunches like the common kind. It is cultivated in gardens and flowers in June and July.

6. A: ABROTANIFOLIA, *Tall Eastern Yarrow*, has large umbels of yellow flowers on the top, the leaves resemble those of the common Wormwood, and are cut into long narrow segments.

7. A: CLAVENNA, *Umbelliferous Wormwood*, a native of the Alps.

8. A: EGYPTIACA, *Hoary Sneezewort*, a native of the Archipelago.

9. A: MACROPHYLLA, *Alpine Sneezewort*, also a native of the Alps.

10. A: NANA, *Hoary Alpine Milfoil*, likewise a native of the Alps.

11. A: NOBILIS, *Sweet Milfoil*, approaches near to the common Milfoil, but is paler, shorter, and the leaves less cut, when bruised emits a sweet smell.

12. A: ALPINA, or *White Maudlin*, resembles the common Sneezewort.

13. A: TOMENTOSA, or *Woolly Yarrow*, a native of France and Spain, the leaves are finely cut and very hoary, and the flowers of a bright yellow.

All the species of Yarrow are easily propagated by seeds.

ACHILLE, is also a name frequently given by the ancients to the gum called *Sanguis Draconis*, or Dragon's blood.

ACHIMENES, a synonyme of the *Columnnea Scandens*.

ACHIOTTE, a drug produced from the *Mytella*, which see.

ACHRAS, a genus of the Hexandria Monogynia class, ranking in the 43d natural order *Dumosa*, the calix has six leaves, and the corolla one petal, the height of the calix, the antheræ are acute, the stigma obtuse, the pericarpium is a twelve celled pomum with very soft flesh, the seeds are solitary, ovate and glossy. It bears fruit not unlike the Pear, there are four species.

1. A: MIMOSA, this tree attains a height of 35 or 40 feet, having a straight trunk covered with an ash coloured bark, the branches are produced on every side, forming a regular head, and are beset with leaves, near a foot long, and almost three inches broad in the



middle, the flowers are of a cream colour, and are succeeded by large oval fruit covered by a brownish skin inclosing a thick pulp of a russet colour, very luscious.

*Part used.* The pulp and kernel of the seeds.

*Sensible properties.* Grateful taste.

*Medical virtues.* An emulsion of the stones are reckoned in the West Indies, good against the gravel, and the pulp of the fruit is called natural Marmalade, from its resemblance to that of Quinces.

2. A: SAPOTA, this species attains the same height with the former, has oblong oval leaves and smooth turbinated fruit, it is common about Panama, and some places in the Spanish West Indies, but is not to be found in any of the British settlements there, the virtues are similar to the foregoing. These trees being natives of very hot climates, cannot be reared to perfection in Britain, except in the warmest hot-houses.

ACHYRANTHES, a genus of the Pentandria Monogynia class, ranking in the 54th natural order *Miscellanæ*, the calix is a double perianthium, the exterior one consisting of three lanced acute leaves, which are persistent, the interior of five leaves persistent, no corolla, the nectarium is five valved, surrounding the germen, bearded at the top, concave and deciduous, the antheræ are ovate and incumbent, the pistillum has a top-shaped germen, the stylus is filiform and the length of the stamina, the stigma is villous, and divided into two segments, the perianthium is a roundish one celled capsule, not gaping, the seed is single and oblong, there are eight species, but the characters of the genus does not agree in them all. They are all natives of the Indies, and only one of them is commonly cultivated in Botanical gardens, and that more for the sake of variety than beauty.

1. A: AMARANTHUS, grows to the height of three feet, with oblong pointed leaves, the flowers come out in long spikes, from the extremity of the branches, and appear in July, and the seeds ripen in September.

ACHYRANTHA, the trivial name of a species of the *Illecebrum*.

ACHYRONIA, an obsolete name of a genus of the Diadelphia Decandria class.

ACHYROPHOROUS, a synonyme of the *Seriola*.

ACIDOTON, is both a synonyme, and the trivial name of a species of *Adelia*.

ACINARIA, a synonyme of the *Fucus Acinaria*.

ACINI, a synonyme of the *Thymus Aljani*.

ACINODENDRION, a trivial name of a species of the *Melastoma*.

ACINOIDES, the trivial name of a species of *Ziziphora*.

ACINOS, a synonyme of a species of *Cunila* (*Cinopodium* of Herm.)

ACISONTIERA, both a synonyme, and the trivial name of a species of the *Rhexia* and *Alifanus*.

ACLOWA, a barbarous name of a species of *Colutea*, and is used by the natives of Guinea, to cure the itch.

ACMELLA, the trivial name of a species of *Verbesina*.

ACNIDA, a genus of the Dioecia Pentandria class, ranking in the 53d natural order *Scabridæ*, and commonly called Virginian Hemp. The calix of the male is a perianthium, consisting of five leaves,

ovate, concave, acute, and membranous on the margin, no corolla, the stamina consist of five very short capillary filaments, the antheræ are versatile, two cell'd. and forked at both ends, the female on a separate plant, the calix of which consist of a many-leaved involucre, linear and deciduous, and a perianthium, two-leaved very small and persistent. No corolla, the pistillum has an ovate germen, the styli are five, long, reflected and downy, the stigmata are simple, the pericarpium is an egg-shaped fruit, compressed, many angled, sulcated and covered with a succulent calix, the seed is solitary, round and compressed. There is only one species a native of Virginia.

A: CANNABINA, or *Virginian Hemp*, it has but little beauty, and is at present applied to no useful purpose whatever.

ACONCROBA, the indigenous name of a plant which grows wild in Guinea, the leaves are opaque and stiff as those of the Phylirea: they grow in pairs, and stand on short footstalks, they are small at each end and broad in the middle, the largest of them are about three inches in length, and one and one fourth of an inch in breadth in the middle, of a dusky colour on the upper side, and a pale green underneath.

*Medical virtues.* This plant is in great esteem among the natives for its virtues in the Small Pox, they give an infusion of it in wine.

ACONITUM, *Wolf's Bane* or *Monks-hood*, a genus of the Polyandria trigynia Class, ranking in the 26th Natural Order *Multisilique*: it has no calix, the corolla consists of five unequal petals opposite in pairs, the highest helmet-tubed, inverted and obtuse, the two lateral ones broad, roundish, opposite and converging, the two lowest oblong and looking downwards: the nectaria are two, piped and sitting on long subulated peduncles, concealed under the highest petal, the pericarp has three or five univalve capsules gaping inwards, seeds numerous, angular and wrinkled.

1. A: LYCTOCONUM, or *Yellow Wolf's Bane*, a native of Lapland, Switzerland and other hilly countries of Europe: It grows upwards of three feet high, and flowers about the middle of June, and if the season is not warm will continue in flower till August. It is a poisonous plant, though like the other species may be converted into medicinal use. See the 9th species, Napellus.

2. A: ALTISSIMUM, *Greatest yellow Wolf's Bane*, grows upwards of four feet high, and the spikes of its flowers are much longer than those of the foregoing.

3. A: PYRAMIDALE, *common blue Monks-hood*, bears a long spike of blue flowers which appears sooner than any of the other sorts, being so early as June or sometimes May, the spikes of flowers are upwards of two feet long, and make a handsome appearance.

4. A: VARIEGATUM, or *lesser Wolf's Bane*, seldom grows more than two feet high, it carries blue flowers, and the spikes of them are much shorter than the two first.

5. A: ALPINUM, or *large flowered Monks-hood*, attains the height of five feet in good ground, the flowers are very large of a deep blue colour, but not many upon each spike, and flowers in August.

6. A: PYRENAICUM, or *Pyrenean Monks-hood*, grows about four feet high and carries a long spike of yellow flowers which blow in July.

7. A: ORIENTALE, or *Eastern Monks-hood*, grows sometimes more than six feet high, and bears a white flower.

8. A: CAMMARUM grows about four feet high, and flowers in the beginning of July.

9. A: NAPELLUS, *large blue Wolf's Bane* or *Monks-hood*, with large blue flowers which appear in August and are very handsome, is an exotic perennial growing wild in the mountainous parts of Switzerland, France, and south of Germany.

*Parts used.* The Leaves.

*Sensible properties.* Acrid taste, disagreeable, ungrateful smell.

*Medical virtues.* Dr. Stoerk of Vienna was probably the first who ever employed it in medicine, and informs us that it is an effectual remedy in glandular swellings, venereal nodes, *Anchylosis*, *Spina ventosa*, itch, amaurosis, gouty and rheumatic pains, intermittent fevers and convulsive disorders; his mode of administering it was two grains of the inspissated juice rubbed down with two drachms of loaf sugar, he began with ten grains of this powder, (which contained two twelfths of a grain of the inspissated juice) night and morning, and increased it to six grains of the inspissated juice twice a day. Other physicians have employed a tincture prepared of one part of the dry leaves of this herb pulverised, and six parts of spirits of wine, in doses of forty drops: It does not however answer the high expectations formed of its virtues, though it is doubtless a very active, and useful medicinal plant, if duly prepared and regularly prescribed.

*Domestic uses.* A decoction of the roots affords an efficacious liquor for destroying bugs; reduced to powder and mixed with oatmeal and honey or any other palatable vehicle, and thus exposed to rats or mice, it will speedily destroy them; the juice expressed from this plant, and poured on flesh, is employed as a bait to allure, wolves, foxes, and other beasts of prey.

*Note.* It is accounted one of the most active poisons among vegetables, and when taken in large portions it excites sickness, vomiting, diarrhoea, giddiness, delirium, fainting, cold sweats, convulsions and death. It is asserted that the best antidote for the poison of Monks-hood or Wolf's Bane, is the following species of the same genus, (but brisk and active emetics are more to be depended on.)

10. A: ANTHORA, *Healthful* or *Wholesome Monks-hood*, flowers in the middle of August and often continues in beauty till the middle of September, its flowers are not large, but of a beautiful sulphur yellow colour.

*Parts used.* The Roots.

*Sensible properties.* Acrid, bitter taste.

*Medical virtues.* The root of this plant is regarded as efficacious against the bites of serpents and other venomous creatures, and are stomachic and promote perspiration: The peasants on the Alps and Pyrenees, are said to use it with success against the bite of mad dogs, and to cure the choleric; it is said to be a specific, against the poisonous sort.

*Note.* In general, all the species of Monks-hood are poisonous in a greater or less degree, those bearing blue flowers much more virulent than those with white or yellow: wherefore, it would be

adviseable not to plant them where children can have access, who are too apt to meddle with flowers.

ACOPA, an obsolete name of a species of *Trifolium*.

ACORN, the fruit of the various species of the *Quercus* or Oaks.

ACCRUM, a synonyme of the *Acorus*.

ACORUS, *Calamus* or *Sweet Rush*, a genus of the hexandria monogynia Class, ranking in the 2d Natural Order *Piperite*. The calix is a cylindric simple spadix covered with florets, there is no spatha nor perianthium; the corolla is composed of six obtuse, concave, loose petals; the stamina consist of six thickish filaments, somewhat longer than the corolla, the antheræ are thickish and didymous; the pistillum has a gibbous, oblong germen, the length of the stamina; no stylus, the stigma, a prominent point; the pericarpium is a short, triangular, obtuse, three celled capsule, attenuated at both ends: the seeds are numerous, and of an oblong egg shape; there are three varieties of this genus, and but one species.

1. A: CALAMUS, *Sweet Flag*; a native of the United States, grows in moist and marshy situations, this flag resembles as to its leaves the common *Iris*, but in other respects differs greatly from it, the stalk grows at a little distance from the leaves which are long and sword-shaped, resembling the flag, the lower half up to where the flowers come forth is roundish, the part above this is broad like the other leaves, its flowers are a whitish, small, oblong, cylindric spike, coming from the side of the stem at the edge of the leaf, and stand in a kind of a head about the size of a finger; the root is like that of the flag, long, cylindrical, tuberous, spongy, marked with rings, and putting out abundance of fibres, which are indeed the proper roots, though seldom used.

*Part used.* The large bulbous root.

*Sensible properties.* Strong aromatic smell: taste, warm, acrid and bitterish.

*Medical virtues.* This root is generally considered as a carminative and stomachic medicine, and as such is sometimes used in practice, though it oftner enters the common bitters of the tipling shops. In some country places subject to agues, a tincture of it is used as a preventive: It is doubtless an elegant aromatic, and carminative.

*Domestic uses.* The leaves placed among books or clothes, are said to expel noxious insects; hence they might prudently be placed among woolen cloths to preserve them from the depredations of moths, &c. It is said that the French snuff which is called a la *Violette*, probably receives its peculiar scent from this fragrant root. The whole plant has been used for tanning leather. Neither Hogs, Horses, Cows, Sheep, or Goats will eat any part of this vegetable. The varieties are:

A: VULGARIS, or Aromaticus, *Common Sweet Flag* or *Sweet Rush*.

A: VERUS, *True Calamus*.

ACORUS, is also a synonyme of the *Iris pseudacorus*, and is sometimes given to the great Galangal.

ACRIVIOLA, a synonyme of a species of *Troscolum*.

ACROCORION, an obsolete name of the *Crocus*.

**ACROSTICUM**, a genus of the cryptogamia filicis Class, ranking in the 55th Natural Order *Filicis*. The Botanical characters of which are, the whole under surface of the leaves are covered with the fructification. There are 30 species:

1. A: **SLEPTENTRIONALE**, *Horned Fern*, *Rusty back*, *Wall Rue*, or *Fork Fern*, which grows on the cliffs of rocks and walls.

2. A: **ILVENSE**, *Hairy Fern*, grows in clefts of rocks.

3. A: **THELYPTERIS**, *Marsh Fern*, grows in turfy bogs. These are not possessed of any particular properties, worth noticing.

**ACTEA**, (*Aconitum Racemosum*) *Herb Christopher* or *Bane berries*, a genus of the polyandria monogynia Class, ranking in the 26th Natural Order *Multisilique*; the calix consists of four roundish, obtuse, concave leaves which fall off; the corolla consists of four petals larger than the calix, pointed at both ends and falling off; the stamina consists of numerous capillary filaments; the antheræ are round, erect, and didymous; the pistillum has an ovate germen; no stylus; the stigma thickish, and obliquely depress'd; the pericarpium is an oval, smooth, one furrowed, one celled berry, the seeds are very numerous, semi-orbicular, and incumbent in a double order. There are 4 species:

1. A: **SPICATA**, *Common Fern Christopher*, or *Bane berries*, is a native of several parts of Britain, it grows to the height of  $2\frac{1}{2}$  feet, the footstalk of the leaves arise from the root, these divide into three smaller footstalks, each of which are again divided into three, and these have each their lobes, so that each leaf is composed of 27 lobes or smaller leaves; the flowers grow in ramous spikes and are of a pure white: they are borne upon a slender, jointed, and furrowed stem, appear in May, and are succeeded by black, shining, pulpy berries about the size of peas, which ripen in Autumn, and are highly poisonous.

*Parts used.* The Leaves and Root.

*Sensible properties.* Acrid.

*Medical virtues.* This plant is a powerful repellent, and the root has been used internally in some nervous cases, but must be administered with caution.

*Domestic uses.* The dried leaves are employed for polishing hard wood and ivory, the berries boiled with alum yield a deep black dye, on account of its fetid smell it is said to be frequented by toads; sheep and goats eat it, but is refused by cows, horses, and swine. It is propagated by seeds, or by parting the roots which are perennial.

2. A: **ALBA**, *American Herb Christopher* or *White Bane berries*, a native of the United States, the leaves of this species are somewhat like those of the former, but not so deeply indented in the edges, the flowers grow in a more compact spike, and the berries are very white and transparent when ripe, and the roots are composed of thick knobs.

*Medical virtues.* This species has been used as an emetic, and is sometimes called *Ipecacoanha* or *Hipפו*.

A variety of this species is the *Actea Rubra*, with red berries.

3. A: **RACEMOSA**, *American Black*, or *Wild Snake-root* or *Rich-Weed*, is a beautiful plant when in flower, it has large compound

leaves rising immediately from the root, and branched after the same manner as the first, which grow more than two feet high, the flower stem rises to the height of four or five feet and carries a long spike of white flowers reflexed at the top, these appear in June or the beginning of July.

*Part used.* The Root.

*Sensible properties.* Astringent taste.

*Medical virtues.* The root of this plant is greatly esteemed in America, as an antidote against poison or the bites of venomous snakes; it is an astringent, and Professor Barton says it was used in form of a decoction, as a gargle, with success in a putrid sore throat which prevailed in New-Jersey many years ago: a decoction of the root cures the itch, and in North-Carolina it has been found useful as a drench for cattle in the disease called Murrain.

4. A: CIMICIFUGA, *Siberian Herb Christopher*, the leaves resemble those of the feathered Columbine, the stalks rise little more than a foot high, supporting pannicles of white flowers which appear in May. This species is very rare in Britain.

*Remarks.* They are propagated by seeds and by parting the roots, and require a moist, loamy soil.

ADAM'S NEEDLE, See *Yucca*.

ADANSONIA, *Ethiopian Sour Gourd, Monkeys Bread, or African Calabash tree*, a genus of the monadelphia polyandria Class, ranking in the 37th Natural Order *Columnifera*, the calix is a perianthium, one leaved, half five cleft cup form (the divisions revolute) deciduous, the corolla consists of five petals, roundish, nerved, revolute, growing reciprocally with the claws and stamina; the stamina have numerous filaments coalesced beneath into a tube, and crowning it, expanding horizontally. The antheræ kidney form, incumbent, the pistillum has an egged germen, the stylus very long, tubular, variously intorted, the stigmata numerous (10) prismatic, villous, ray-expanded: the pericarpium is an oval capsule, woody not gaping, ten celled with farinaceous pulp, the partitions membranous, the seeds are numerous, kidney-shaped, rather bony, and involved in a friable pulp. There is at present but one known species, which is perhaps the largest production of the whole vegetable kingdom, and is a native of Africa.—viz.

A: BAOBAB, (A: Digitata) *Ethiopian Sour Gourd, Monkey bread or African Calabash tree*, the trunk is not above 12 or 15 feet high, but from 65 to 78 feet round, the lowest branches extend almost horizontally, and as they are about 60 feet in length, their own weight bends their extremities to the ground, and thus form an hemispherical mass of verdure of about 120 or 130 feet in diameter, the roots extend as far as the branches; that in the middle forms a pivot, which penetrates a great way into the earth, the rest spread near the surface; the flowers are in proportion to the size of the tree, and are followed by an oblong fruit pointed at both ends, about ten inches long, five or six broad, and covered with a kind of greenish down under which is a lignous rind, hard and almost black, marked with rays which divide it lengthwise into sides, the fruit hangs to the tree by a pedicle two feet long and an inch in diameter, it contains a whitish, spongy, juicy substance; with seeds of a brown colour, and shaped like a kidney-bean. The bark of this tree is nearly an inch thick,

of an ash coloured grey, greasy to the touch, bright and very smooth, the outside is covered with a kind of varnish, and the inside is green speckled with red, the wood is white and very soft; the first shoots of the ear are green and downy; the leaves of the young plants are entire, of an oblong form, about four or five inches long and almost three broad towards the top, having several veins running from the middle rib, they are of a lucid green colour. As the plants advance in height the leaves alter, and are divided into three parts, and afterwards into five lobes which spread out in the shape of an hand; the tree sheds its leaves in November and new ones begin to appear in June; it flowers in July, and the fruit ripens in October and November. It is very common in Senegal, and the Cape de Verde Islands, and is found 100 leagues up the country at Gulam, and upon the sea coast as far as Sierra Leona: The age of this tree is perhaps no less remarkable than its enormous size; Mr. Adanson relates that in a Botanical excursion to the Magdalene Islands in the neighbourhood of Greece, he discovered some Calabash trees from five to six feet diameter, on the bark of which were engraved or cut to a considerable depth, a number of European names, two of these names, which he was at the trouble to repair, were dated one the 14th, the other the 15th Century. These trees had been seen almost two centuries before by Thevet, in his voyage to Terra Antarctica or Australis, which was in the year 1555, and Mr. Andanson saw them in 1749. The Baobab is very distinct from the Calabash tree of America, with which it has been confounded by Father Labat. See Crescentia.

*Parts used.* The Bark, Leaves, and Fruit.

*Sensible properties.* The fruit has an agreeable acid taste.

*Medical virtues.* The Negroes of Senegal, dry the bark and leaves in the shaded air, and then reduce them to powder, which is of a pretty good green colour; this powder they preserve in bags of linnen or cotton, and call it Lillo; they use it every day, putting two or three pinches of it into a mess whatever it happens to be, as we do pepper and salt, but their view is not to give a relish to their food, but to preserve a perpetual and plentiful perspiration, and to attemper the too great heat of the blood, purposes which it certainly answers, as several Europeans have proved by repeated experiments, preserving themselves from the epidemic fever which in that country destroys Europeans like the plague, and generally rages through the months of September and October; Mr. Adanson in that critical situation, made a light ptisan of the leaves of the Baobab, which he had gathered in August of the preceding year, and had dried in the shade, and drank constantly about a pint of it every morning either before or after breakfast, and the same quantity of it every evening after the heat of the sun began to abate, he also sometimes took the same quantity in the middle of the day, but this was only when he felt some symptoms of an approaching fever; by this precaution he preserved himself during the five years he resided at Senegal, from the diarrhoea and fever, which are so fatal there.

This ptisan alone also prevents that heat of urine which is common in these parts from the month of July till November, provided the person abstains from wine.

The fruit is not less useful than the bark and leaves, the pulp that envelopes the seeds has an agreeable acid taste, and is eaten for pleasure, it is also dried and powdered, and thus used medicinally in pestilential fevers, the dysentry, &c. the dose is a drachm passed through a fine sieve, taken either in common water, or in an infusion of the Plantain, this powder is brought into Europe, under the name of Terra Sigillata Lemnia.

*Domestic uses.* The woody bark of the fruit, and the fruit itself when spoiled, helps to supply the negroes with an excellent soap, which they make by drawing a ley from the ashes, and boiling it with Palm Oil, that begins to be rancid. The decayed trunks are hollowed by the Negroes into burying places for their poets, musicians and buffoons, the bodies shut up in these trees become perfectly dry without rotting, and form a kind of mummies without the help of embalment. The tree is propagated from seeds, which are to be secured from the winter blasts while young. In Britain they do not thrive in the open air even in summer.

ADDERS-TONGUE, see *Ophioglossum*.

ADDER-WORT, see *Polygonum Bistorta*.

ADELODAGAM, a synonyme of the *Justicia*.

ADELIA, a genus of the Dioecia Monadelphica class, ranking in the 38th natural order *Tricocceæ*, the calix of the male is a perianthium, one leaved, three pointed, the florets sub-lanced and concave; no corolla, the stamina consists of many capillary filaments, the length of the calix conjoined at the base in a cylinder, the antheræ are roundish. The calix of the female is a five-leaved perianthium, the leaflets sub-lanced, concave persistent, no corolla, the pistillum has a roundish germen, the styli are three, short and divaricated; the stigmata lacerated, the perianthium is a three grained roundish three celled capsule, the seeds are solitary and roundish, there are three species, for which we have no proper names in English, they are natives of Jamaica, and are akin to the Ricinus or Croton i. e. the Palma Christi, and are propagated from seed.

1. A: BERNARDIA.

2. A: RICINELLA, *Ram Goat*, a native of the West Indies.

*Medical virtues.* Where it is employed as an emmenagogue, Dr. Barton says he has employed it in that intention, and found it a medicine of great powers, and that it was the bark that he used.

3. A: ACIDOTON.

ADENANTHERA, *Bastard Flower Fence*, a genus of the Decandria Monogynia class, ranking in the 33d Natural Order *Lomentaceæ*, the calix consists of one very small five toothed leaf; the corolla consists of five bell-shaped lanceolate scssile petals, convex within, and concave under, the stamina have ten erect subulated filaments, shorter than the corolla, the antheræ are roundish, incumbent, bearing a globular gland on the exterior top, the pistillum has a long gibbous germen, the stylus subulated, the length of the stamina, the stigma simple, the pericarpium is a long compressed membranous legumen, the seeds are very numerous, roundish and remote, there are two species.



1. A: PAVONIA, is a native of India, and rises to a considerable height, it is as large as the Tamarind tree, spreads its branches wide on every side, and makes a fine shade, for which reason it is frequently planted by the inhabitants in their gardens or near their habitations, the leaves are doubly winged, the flowers of a yellow colour and disposed in a long bunch, these are succeeded by long, twisted, membranaceous pods, inclosing several hard compressed seeds of a beautiful scarlet, or shining black colour; it is propagated by seeds, sown in a hot-bed, and kept during the Winter in a stove. There is a variety with scarlet seeds, which is however very rare, and grows very slowly.

*Parts used.* The leaves and flowers.

*Sensible properties.* Gently Anodyne.

*Medical Virtues.* In the West-Indies the leaves are used instead of Sena, and the flowers bruised and steeped in milk are a gentle Anodyne, and are given to quiet young children.

2. A: FALCATA.

ADHATODA, a synonyme of the *Ruellia*, *Acanthus*; &c.

ADIANTHUM, a genus of the cryptogamia filicis Class; the Botanical characters of which are, that the flowers are disposed in oval spots towards the ends of the leaves which are turned back upon them, the leaves are doubly compound, the little leaves alternate, the wings are wedge-shaped, divided into lobes and grow upon peduncles or foot stalks: There are said to be 19 species.

1. A: VERI, (Seu Capilli Veneris) *True Maiden-hair*; this is one of those plants which from the slenderness of its stalks is called Capillary, it is a native of Italy and the southern parts of France, as also some parts of the United States, and grows on walls and rocks.

*Part used.* The Leaves.

*Sensible properties.* Agreeable smell but weak, taste mucilaginous and somewhat roughish.

*Medical virtues.* It has been greatly celebrated in disorders of the breast, proceeding from a thinness and acrimony of the juices, and likewise for opening obstructions of the viscera, and promoting the expectoration of tough phlegm, but modern practice seems to pay little regard to it, the *Trichomanes* or English Maiden-hair, which is of the same quality, supplying its place.

2. A: PEDATUM, *American Maiden-hair*, a native of Canada.

3. A: TRAPEZIFORME, *Black American Maiden-hair*, native of Jamaica, has shining black stalks and leaves of an odd shape.

4. A: NIGRUM, *Black Maiden-hair*.

5. A: ALBUM, (*Murarium*, v. *Ruta Muraria*) *Rue-leaved Maiden-hair*.

6. A: ALBUM, (*filicis folio*) *Fern-leaved Maiden-hair*.

7. A: MINUS, *Least Maiden-hair*.

8. A: AUREUM, *Golden Maiden-hair*.

The Sensible properties or Medical virtues of each of these, partake more or less of those of the first sort.

See also *Asplenium*, *Polytrichum*, *Trichomanes*, &c.

ADMIRABILIS, a synonyme of the *Mirabilis*.

ADONIAS, an obsolete name of the *Anemone*.

ADONION, an obsolete name of a species of *Southernwood*.

ADONIS, *Pheasant's Eye*, a genus of the polyandria polyginia Class, ranking in the 26th Natural Order *Multisiliquæ*; the calix is pentaphyllous, the petals are five, and the seeds naked. There are five species.

1. A: AUTUMNALIS, *Autumnal Pheasant's Eye*, *Corn Adonis*, *Adonis flower*, *Red Maithes* or *Red Morocco*, an indigenous annual plant, growing in Corn-fields, producing beautiful scarlet blossoms, in the months of June and July—Incalculable quantities of the blossoms are sold annually in Philadelphia, &c. under the name of Red Morocco flowers; they may be easily propagated from seed. Hitherto they have only been cultivated on account of their beauty.

2. A: ÆSTIVALIS, *Annual Adonis*, with yellow flowers, grows much taller than the first, and has its leaves thinner set and of a lighter colour. These two species being annual plants must be propagated from seeds, sown in autumn, soon after they are ripe: they thrive best in a light soil.

3. A: VERNALIS, *Perennial Adonis*, grows naturally on the mountains of Bohemia, Prussia and other parts of Germany, it flowers in the latter end of March or beginning of April, the stalks rise about a foot and a half high, and when the roots are large and have stood unmoved for some years, they will put out a great number of stalks from each root, on the top of each of these grows one large yellow flower.

4. A: APENNINA, (*Buthalmum* of L. B.) *Appenine Adonis*, a native of Siberia and the Appenines, these two are also propagated by seeds as the former, and ought not to be removed till the second year.

5. A: CAPENSIS, *Cape Adonis*, of which we have no particular account.

ADOXA, *Tuberous Moschatel*, *Hollow Root*, *Inglorious*, or *Musk Crowfoot*, a genus of the octandria tetragynia Class, ranking in the 13th Natural Order *Succulentæ*; the calix is divided into two segments; the corolla is composed of one flat petal, divided into segments longer than the calix, the stamina consists of 8 subluted filaments, long as the calix, with roundish antheræ; the pericarpium is a globular four celled berry between the calix and corolla; the seeds are solitary and compressed. There is but one species.

A: MOSCHATELLINA, *Tuberous Moschatel*, an indigenous low perennial plant, growing in damp woods and shady places, where it produces its small herbaceous white coloured flowers, in the months of April and May. The ripe fruit of this low plant has the flavour of Strawberries.

*Part used.* The Root.

*Sensible properties.* The whole plant possesses the odour of musk.

*Medical virtues.* It was formerly in great repute as a vulnerary, though the present practice pays no regard to it, being succeeded by those which are more entitled to those virtues.

*Domestic uses.* It is used as a substitute for musk in chests of drawers among clothes, &c.

ADRACHNE, an obsolete name for a species of *Arbutus*.

ADRIUNE, an obsolete name of a species of *Cyclamen*.

ÆGILETHRON, an obsolete name of a species of *Mercurialis*.

**AEGILOPS**, *Wild Festuc*, a genus of the polygamia monoecia Class, ranking in the 4th Natural Order *Gramina*; the hermaphrodite calix is a two valved glume, triflorous, the corolla a two valved glume, the exterior valvalet, terminated by three aristæ or awns, the interior awnless, stamina, three capillary filaments, style two, seed one, oblong; male calix and corolla, each a glume as in the former the stamina, the same number, there are 7 species natives of Italy and other parts of Europe.

1. Æ: OVATA. 2. Æ: CAUDATA. 3. Æ: SQUARROSA. 4. Æ: TRIUNCIALIS.

5. Æ: INCURVATA, *Sea Hard-grass*, a native of Britain, and grows by the sea shore.

**AEGIPHILA**, *Goat-friend*, a genus of the tetrandria monogynia Class; the calix is a single-leaved perianthium, bell-shaped, four toothed, loose, very short and persistent; the corolla consists of one petal, the tubus cylindric, narrower and longer than the calix, the border divided into four segments, flat and unequal; the divisions oblong, the stamina consists of four erect capillary filaments, the antheræ are incumbent and squared, the pistillum has a germen above, a capillary two cleft, middle sized stylus and a simple stigma; the pericarpium is a roundish unilocular berry, the seeds are four. There is only one species a native of Martinique.

**AEGINETIA**, a synonyme of a species of *Orobanche*.

**AEGOCERAS**, an obsolete name of a species of *Ononis*.

**AEGOCERATUS**, a synonyme of the *Hugonia*.

**AEGOLETHRON**, an obsolete name of the *Rhododendron*.

**AEGONICHUS**, an obsolete name of the *Lithospermum*.

**AEGOPOGON**, an obsolete name of the *Tragopogon*.

**AEGOPIDIUM**, *Small Wild Angelica*, a genus of the pentandria digynia Class; the universal calix is a manifold convex umbel, the partial one consimilar and flat; no involucreum, and the proper perianthium is scarcely discernible; the universal corolla is uniform, the florets all fertile, the proper one has five inverse ovate, concave equal petals inflected at the top, the stamina consists of five simple filaments, twice the length of the corolla, the anthers roundish; the pistillum has a germen beneath, two purple erect styli the length of the corolla; the stigmata are headed, no pericarpium, the fruit is ovate striated and bipartite, and the seeds are two ovate on one side, and convex on the other: There is but one species.

1. Æ: PODAGRARIA, *Small Wild Angelica*, *Goutwort*, *Goats-foot*, *Gout-weed*, *Herb Gerhard*, *Ash-weed* or *Ground-ash*, an indigenous perennial plant, growing in orchards, gardens, hedges and pastures, and flowers in the months of May and June, it has received its name from its supposed efficacy in relieving the gout; its leaves are very tender, and may be eaten early in the Spring among other pot-herbs, being possessed of nutritive, rather than Medicinal virtues.

**AEGOPRICORN**, a genus of the monoecia diandria Class, the calix of both male and female is a tubular perianthium of one leaf, divided into three segments, the corolla is wanting in both; the stamina consists of a single erect filament longer than the calix, with an ovate anthera; the pistillum has an ovate germen, three

divaricated styli and simple persistent stigmata; the pericarpium is a globular berry, three grained within and three celled, the seeds are solitary and angular on one side: There is but one species a native of Surinam.

ÆONIAN, an obsolete name of the *Sedum Majus*.

ÆSCHYNOMENE, *Eastard Sensitive Plant*, a genus of the diadelphia decandria class; the calix is bilabiated, the lips equal, but the superior one, two cleft; the inferior tridentate, the corolla is papilionaceous, the banner cordated, and subringent, the alæ ovate, obtuse and shorter than the banner, and the carina lunated, pointed and the length of the alæ: the stamina consists of 10-9 cleft filaments, the antheræ small, the pistillum is an oblong villous columnar germen; the stylus subulated and ascending; the stigma simple and somewhat obtuse; the pericarpium is a long, compressed, unilocular, jointed pod; the seeds are kidney shaped and solitary within each joint: there are 7 species, all natives of the warm countries, and are propagated by seeds.

1. Æ: ASPERA. *Rough, Bastard Sensitive plant*. It rises to the height of four or five feet, having a single herbaceous stalk, which is rough in some parts; the leaves come out on every side towards the top, forming a sort of head; the flowers come out between the leaves two or three together upon long footstalks: they are yellow and shaped like those of peas; after the flower is past, the germen becomes a flat jointed pod, which when ripe, parts at the joints, and in each division is lodged a single kidney shaped seed.

2. Æ: AMERICANA, *American Sensitive plant*, a native of the United States; seldom rises more than two feet in height, the flowers come out from the leaves on branching footstalks, five or six together, these are much less than the former, and of a paler yellow colour, the seeds are lodged in pods like the foregoing.

3. Æ: ARBOREA, *Tree like Bastard Sensitive plant*, grows to the height of six or seven feet, with a single stem; the flowers come out two or three together, of a copper colour, and as large as those of the Aspera.

4. Æ: SESBAN, has woody stems and branches garnished with smooth leaves: the flowers are small, of a deep yellow colour, and come out on long spikes hanging downwards; the seed is contained in a smooth pod, not jointed.

5. Æ: PUMILA, rises to the height of about three feet, has flowers of a pale yellow colour, which come out sometimes single, at other times two or three upon each footstalk: the seeds are contained in a long falcated pod, having 13 or 14 divisions; each of which lodges a single seed.

6. Æ: GRANDIFLORA, *Great Flowering Bastard Sensitive plant*, rises 6 or 8 feet high, with a woody stem, sending out branches towards the top, garnished with obtuse leaves, the flowers are large, yellow, and succeeded by large pods, containing kidney shaped seeds.

ÆSCHYNOMENE, is also a synonyme of several species of *Mimosa*.

ÆSCULUS, *Horse Chesnut*, a genus of the heptandria monogynia class, ranking in the 23d natural Order, *Trihilata*; the calix is monophyllus, with five teeth, the corolla has five petals, (except

the Pavia, where it is four petaled and close) equally coloured and inserted into the calix. There are 6 species.

1. *Æ*: HIPPOCASTANUM, *Common Horse Chesnut*, an exotic plant growing in Asia, from whence it was introduced into Europe, in the year 1550, and is propagated from the nuts which are gathered in autumn, and set in drills about three inches asunder. It delights in rich fat land, but will also flourish in clayey or marley soils.

*Part Used.* The Bark.

*Sensible Properties.* Astringent bitter taste.

*Medical Virtues.* In Russia the bark of this species has been substituted for the Peruvian bark, and has been found of eminent service in Intermittents. It would be an object worthy the attention of our country practitioners, in Carolina, to ascertain the virtues of our native species, which are however confined to the northernmost and westernmost parts thereof; none growing higher than the mountains, except a few solitary trees, which have been cultivated on Santee and Beaver Creek.

*Domestic Uses.* The fruit furnishes a grateful food to horses and cattle; deer and poultry are also fond of them; though they are unwholesome for hogs, an excellent soap may be prepared from the nuts, by simply steeping and boiling them in water, it makes a good lather preparatory to that expensive article. Dr. Bohmer informs us that M. Spregel, an ingenious artisan of Gera, in Saxony, has discovered a method of preparing a paste or size from wild Chesnuts, which may be used preferably to that made of wheaten flour, by shoe-makers, book-binders, and paper-hangers, who consume or rather waste considerable quantities of grain in their respective branches of trade. The process is similar to the making of paste, with other grain, and possesses a great advantage over the common size, as no moths or vermin will breed in the articles cemented with it. Professor Beckmann states that the fruit yields by distillation a spirituous liquor, which though bitter, may frequently serve as a substitute for Alcohol; the wood affords excellent timber for building, and other utensils, particularly fence rails; the thorny husks of the fruit are employed in tanning, and when burnt to a coal produce an excellent black water colour. Various dyes are obtained from the different parts of the tree.

2. *Æ*: PAVIA, *Scarlet flowering Horse Chesnut, Fish Poison, or Buck Eye*, an indigenous perennial plant, growing in patches, on the best land of the kind; it is a small shrub, seldom exceeds six feet in height, commonly three or four, the stalks are generally single, and the leaves and branches deciduous. The fruit is pear shaped, containing two or more, semi-globular (where there are but two, and irregular where there are three) kernels, the pericarpium, is fleshy and of an olive colour, inclining to brown when ripe; the internal kernel is white and saponaceous; it abounds in South Carolina and Georgia, and is esteemed a mark of good lands.

*Domestic Uses.* The roots of it which are very large when washed and bruised, are used in preference to soap, for washing and whitening woollens, especially blankets, and coloured cottons, as it does

not injure the colours, but rather brightens them; sattins washed with them and carefully ironed, look almost as well as new. The fresh kernels macerated in water, mixed with wheat flower and formed into a stiff paste, will, if crumbled and thrown into ponds where there are small fish, make those which eat of it so drunk that they float on the surface, belly upwards, and are easily caught; but they soon recover if put into fresh water. Dr. Woodhouse, prepared half a pound of starch from these nuts, and kept it two years without its white colour being impaired; it is superior to the finest Poland starch, and has been used to starch various articles of dress without imparting any yellow colour to them. The process for starch making, is so generally known among our country housewives, as to need no description; whoever knows how to prepare Souins, has the secret of starch making.

A strong decoction of the root, has frequently relieved tooth ache, by washing the mouth and holding a little of it therein, a few minutes, which ought to be repeated several times. warm.—S.

3. *Æ: FLAVA*, *Yellow flowered Horse Chesnut*, or *Tall Buck Eye*, or *Deers Eye*, (the *Æ: Octandria* of Marshall) a native of the western parts of Pennsylvania, and Virginia; this often grows to a large size.

4. *Æ: ALBA*, *White flowering Horse Chesnut*, which grows in the Northwest parts of Georgia, and West Florida.

5. *Æ: SPICATA*, *White spike flowered Horse Chesnut*, this is a dwarf, and was first found by Mr. W. Bartram, in Creek County, and afterwards brought by Mr. Michaux, to Mr. B. from Flint River, in Georgia.

6. *Æ: VARIEGATA*, *Dwarf Variegated flowered Horse Chesnut*, found in the Cherokee County, by Mr. W. Bartram.

- *Note*.—The late Mr. Walter, has described a species of *Aesculus*, viz. *Æ: Parviflora*, a native of the Carolinas, and Georgia; from the Botanic characters of which, (i. e. the corolla consisting of four petals) we believe it to be the pavia before mentioned.—No. 2.

For the common Chesnut, see *Fagus* and *Castana*.

AETHIOPIAN, Sour Gourd. See *Adansonia*.

AETHIOPIS, a synonyme of a species of *Salvia*.

AETHUSA, a genus of the Pentandria Digynia Class, ranking in the 45 Natural Order, *Umbellata*. The calix, an universal umbel expanding, the interior rays shorter by degrees, with a partial umbel, small and expanding, no universal involucre; the partial one dimidiated with three or five leaflets and pendulous; the proper perianthium scarcely discernible, the universal corolla is uniform, with fertile florets; the partial one has five inflected unequal petals; the stamina consist of five simple filaments, with roundish anthers; the pistillum is a germen beneath, with two reflected styli; the stigmata, obtuse; there is no pericarpium, the fruit is ovate, striated, and tripartite; the seeds are two, roundish and striated; there is but one species, though it has been asserted that there are two.

1. *Æ: SYNAPIUM*, *Fools Parsley*, or *Lesser Hemlock*, and indigeous plant, growing in corn fields and kitchen gardens, and flower-

ing in the months of August and September; this noxious weed greatly resembles the common parsley, for which it is sometimes mistaken, but may be easily distinguished by its glossy surface, and its rank, disagreeable and forbidding smell.—Rousseau.

*Note.*—When accidentally eaten among other plants, it occasions vomiting, violent colic, and other painful symptoms. When this happens, it were best immediately to empty the stomach by a brisk emetic, and repeated oily or mucilaginous injections, for emptying the intestines, after which, diluted vinegar may be freely drank, as in most other cases of poisons from vegetables.

It is eaten by horses, cows, sheep and goats, though it is pernicious to geese. A second species is also enumerated by some authors, viz.

Æ: MEUM, *Spignel*, a native perennial, growing in mountainous pastures, where it flowers in the month of May; authors differ in the classification of this species, some giving it to the present, and others to the *Athamanta* genus; both quoting Linnæus, as having originally ranked it under each; the latter place however appears to be the right one. See *Athamanta*.

AFRICAN BOX-TREE. See *Myrsine*.

AFRICAN FLY-HONEY-SUCKLE. See *Halleria*.

AFRICAN FLEA BANE. See *Tarchonanthus*.

AFRICAN RAGWORT. See *Othonna*.

AFRICAN CALABASH TREE. See *Adansonia*.

AFRICAN BLADDER NUT. See *Royena*.

AGALLOCHUM. (Seu *Lignum Aloes*,) or *Aloes Wood*; there have been various conjectures concerning this exotic wood, but no very satisfactory accounts of it has hitherto appeared; authors distinguish several sorts of Agallochum. Taverner in his travels through Tonquin, in China, remarks there is so great a difference in the goodness and price of this wood, that it may be had from three crowns a pound, to a thousand. (See present state of Tonquin, by Salmon) that which comes to the shops, is in little hard ponderous pieces, of a yellowish brown colour, with several black or purplish veins.

*Sensible Properties.* If it be oily, a piece as big as a pea thrown into the fire, will perfume a room as much as a dry piece, as big as one's fist. It has a bitterish, aromatic taste; and a fragrant smell, especially if reduced to powder, or set on fire.

*Medical Virtues.* Hoffman greatly recommends it as a very useful Cordial, though it is at present very little used, and is rarely to be met with; a spirituous Tincture of the Agallochum, with Tincture of Steel forms an excellent corroborant Medicine; it affords by distillation with water a small quantity of very fragrant essential oil, and digested in rectified spirits, it yields an elegant Tincture, which looses nothing valuable in being evaporated to the consistence of an extract. See also *Xylo Aloes*.

AGARICUS, or *Mushrooms*, a genus of the Cryptogamia Fungi Class, of which there are upwards of 300 species, including the *Boletus*, *Lycoperdon*, &c. &c. 55 species are placed to this. We shall describe a few species of each under their proper heads.

1. A: SEMIGLOBATUS, or *Semiglobular Mushroom*, is one of the poisonous fungi, and is found in great abundance on grass plats, and pastures, chiefly between the months of July and October; the gills or under part of it are fixed, and when quite young of a whitish colour; the edges soon become entirely grey, or quite mottled, and when old acquires a chocolate tinge: the stem is hollow, growing two or three inches high, and about the size of a crow's quill; the inadvertent eating of these has proved fatal.

*Note.*—In order to ascertain with greater certainty, whether a collection of Mushrooms which are to undergo the culinary process be of an inoffensive nature; it will be proper to put a peeled onion in the vessel in which they are to be cooked, and if this root acquire a blueish or dark hue, we may conclude there are poisonous Mushrooms among them; should however in spite of every precaution, any noxious species have been inadvertently eaten, it will be requisite to take a brisk emetic; one of those to be found in the Scheme for reducing vegetables, &c. or Emetic Tartar, which ought to be immediately resorted to, in order to eject the poison as soon as possible: or if the accident be discovered only some hours after, copious draughts of vinegar and water will then form the most efficacious antidote.

From observations made by Professor Humboldt, it is determined that all the fungi form an Isthmus between the animal and vegetable kingdoms, when in a state of putrefaction, they emit a cadaverous smell; they are equally good conductors of the Galvanic Fluid, as real animal matter; they contain a remarkable portion of Azote and Phosphorous, and Morels may be converted into fat by means of the Sulphuric Acid, or Oil of Vitriol, diluted with water.

2. A: MUSCARI, (Musky) or rather *Fly Killing Mushroom*, *Reddish Mushroom*, also poisonous, has a large head which is nearly flat, being generally either white, reddish, or of a crimson hue, and covered with raised compact angular warts, that are sometimes thin, ragged, and flat, its stem is solid, but the internal substance or pith shrivels as it becomes old, having irregular cavities; it grows in pastures, from 3 to 5 inches in height, and is from  $\frac{3}{4}$ ths to an inch and a half in diameter. Among Fir trees its head is sometimes 12 inches broad, and the stem from 4 to 6 inches high.

*Domestic Uses.* Mixed with milk, it is said to destroy flies, and the expressed juice of the plant, when rubbed on walls and bedsteads has been employed to expel bugs.

*Note.* Gesenius a medical author of great repute, observes that the celebrated nostrum sold at Frankfort in Germany, under the name of Ragolos Antiepileptic powders, is supposed to consist of the Reddish Mushroom mixed with distilled oil and pulverized Valerian; this remedy is considered on the Continent as the only safe and certain specific for the cure of that dreadful malady.

3. A: CLYPEATUS, or *Long Stalked Mushroom*, another poisonous species which has a hollow, white, viscid, tender stem, that grows to the height of four inches, and is in general not thicker than a Crow's quill, it is found in the month of September on woodlands



and pastures, is highly deleterious, and if improvidently taken causes great swelling, sickness, looseness, and other fatal symptoms.

*Note.* These are the principal poisonous species, growing in this country that have hitherto been discovered as such; but there are doubtless, hundreds more of them equally pernicious, though not generally known. All Mushrooms are said to be indigestible, consequently hurtful to mankind; even the beasts by a natural instinct avoid them, yet such is the depravity of our appetites and fondness for variety, though conscious that they are no ways conducive to health, these vegeto-animal substances are still retained as dainties by the epicures—As fashions are apt to prevail, many persons may be led to follow the example, and having already pointed out the ill effects of some of the species, we will therefore describe a few of those which (by straining a sense) may be denominated esculent and harmless.

4. A: CAMPESTRIS, *Champignon* or *Common Mushroom*, an indigenous fungi, the stem of which is solid and white, usually three fourths of an inch high and of the thickness of a Swallows quill; its gills when first expanded are of a bright red colour, which gradually acquires a darker shade, till they become of a deep brown cast; this plant at first represents a small globular figure not unlike a hazel-nut, in which state it is free from worms, and eatable, as the skin in which it is enveloped may then be easily separated from its white juicy flesh; and by this circumstance it may be easily distinguished from the *Agaricus Vernus*, a similar plant which is said to be poisonous: The *Common Mushroom* or *Champignon* is found in woods and old pastures, and at the sides of roads, where it attains to perfection in the month of September.

5. A: ORCADES, (*v. Pratensis*) *Meadow Mushroom*, (by some also called *Champignon*) is very frequent on heaths and dry pastures, being generally found in circular clusters, the cap is of a pale brown, nearly flat, and from one to three inches in diameter, its stem is very tough, solid and white, grows generally to the height of an inch and an half, and as thick as a Crow's quill; this is also eatable.

6. A: CHANTHARELLUS, (*Merulius Chantharellus* of Withering) *Chantarelle Mushroom*, an indigenous fungi, and is wholly of a yellow cast, similar to that of the yolk of an egg, its stem is solid, tapering downwards, being from one to two inches high, and from one fourth to three fourths of an inch in diameter, it is found in woods and dry pastures from July to September, and is esteemed a great delicacy.

7. A: DELICIOSUS, *Delicious!* or *Orange-coloured Mushroom*, grows from one to two inches high, its stem the size of the foregoing, and is crowned with a flat cap from  $1\frac{1}{2}$  to 3 inches broad, and of a rich, reddish brown colour, but its flesh is of a pale orange cast; it is found in dry and elevated woods.

*Note.* There are two varieties greatly resembling the *Orange-coloured Mushroom*, which are in a high degree poisonous, especially the

8. A: TORMINOSUS, (*Piperatus* of Withering) which grows on the roots of Birch and other trees, and the

9. A: **NECATOR**, which is of a dirty, yellowish cast, and appears to be composed of wooly fibres filled with a glutinous dew; both these species or varieties are to be avoided.

10. A: **CINNAMOMEUS**, or *Brown Mushroom*, has a convex but flatted, clothly cap, often with a central rise, in colour resembling that of a Chesnut, or newly tanned leather, its long stem is yellowish and naked, and the gills tawny red; this plant is readily distinguished by its Cinnamon colour, and is in season in the months of September and October.

11. A: **VIOLACEOUS**, or *Violet-coloured Mushroom*, another indigenous fungi, which has numerous purple gills eight in a sett, the cap being of a purple or brown cast, convex and the edge turned down, the stem is also purple and cylindrical, from one fourth to an inch in diameter, and from one to four inches in height; this species remarkably varies both in its size and tints, when full grown the cap changes its lilac colour to a russet hue, but the gills continue nearly in the same state.

12. A: **VISCIDUS**. 13. A: **FIMETARIUS**. 14. A: **QUERCINUS**, and 15. A: **PLUMATUS**, are also natives of Carolina.

See also **BOLETUS**, **LYCOPERDON**, &c.

**AGATY**, a synonyme of *Æschynomene*.

**AGAVE**, the *American Aloe*, a genus of the Hexandria Monogynia class, ranking in the 10th natural order *Coronariæ*, it has no calix, the corolla is monopetalous and funnel-shaped; the border six parted, with lanced erect divisions, the stamina consists of six erect filaments longer than the corolla, the antheræ are linear shorter than the filaments and versatile, the pistillum is an oblong germen, the stylus is filiforme, the length of the stamina and triangular, the stigma headed and triangular, the pericarpium is an oblong triangular capsule, trilocular and three valved, the seeds are numerous, there are eight species. See *Aloe*.

1. A: **AMERICANA**, *Great American Aloe*, the stems generally rise upwards of 20 feet high, and branch out on every side towards the top, so as to form a kind of pyramid, the slender shoots being garnished with greenish yellow flowers, which stand erect and come out in thick clusters at every joint, these make a fine appearance and continue long in beauty, a succession of new flowers being produced for near three months, in favourable seasons, if the plant is protected from the autumnal colds; the seeds do not ripen in England. It has been generally thought that these plants do not flower till they are 100 years old, but this is a mistake, for the time of their flowering depends on their growth, so that in hot countries, where they grow fast and expand many leaves every season, they will flower in a few years, but in colder climates where their growth is slow, it will be much longer before they shoot up their stem. There is a variety of this species with striped leaves, which are pretty common in the English gardens; the other sorts are so tender that they must constantly remain in the hot-house.

2. A: **VIVIPARI** (*Sobolifera*, of Herm.) *Viviparous Aloe*, a native of East Florida, it is said of this tree, that after the flowers have fallen off, the seeds often vegetate, and even arrive to a pretty considerable size, their leaves being sometimes three or four inches long,

whilst the new offspring is still attached to the parent tree, the branches of the Agave frequently appear alive with the young plants, these falling to the ground, there take root and grow and flower, so that it may not unaptly be compared to that of a Polypus, with a numerous progeny sprouting from various parts of her body.

AGEM LILAC PERSARUM, vide *Syringa*.

AGERATUM, *Bastard Hemp Agrimony*, a genus of the Syngenesia Polygamia Æqualis class, ranking in the 49th natural order *Composita-Discoides*, the receptacle is naked, the pappus have five aristæ or awns, the calix is oblong, and the stylus a little longer than the flower, there are three species.

1. A: CONYZOIDES, an annual plant, and native of the warm climates.

2. A: HOUSTONIANUM.

3. A: ALTISSIMUM, there appear to be no particular virtues ascribed to them.

AGERATUM, or *Maudlin*. See *Achillea Ageratum*.

AGLAOPHOTIS, an obsolete name of the *Pæonis*.

AGNANTHUS, a synonyme of the *Cornutia*.

AGNUS CASTUS, the *Chaste Tree*, a genus of the Didynamia Angiospermia class, the corolla consists of six segments, and the calix of five teeth, and the berry contains four seeds (it is however presumed this is only a species of the *Vitex*; which see.

AGNUS SCYTHICUS, (*Polypodium Barometz* of Pink.) the name of a fictitious plant, said to grow in Tartary, resembling a Lamb.

AGRIFOLIUM, see *Aquifolium* and *Ilex*.

AGRIMONIA, *Agrimony*, a genus of the Dodecandria Digynia class, ranking in the 35th natural order *Senticosæ*, the calix is quinque-dentated, it has five petals, and two seeds in the bottom of the calix, there are five species.

1. A: EUPATORIUM, *Common Agrimony*, a native of the United States, grows on hedges, and borders of fields and in woods, there are some peculiarities in the Botanical characters of this species, which it may not be amiss to remark, as it will also serve as a farther elucidation of the 11th or Dodecandria class. The number of stamens in this species is uncertain, you sometimes find twelve, sometimes ten, and frequently only seven in a plant, it has a small calix cut into five segments, surrounded by another cup, a corolla of five petals, growing to the cup, and one of two roundish seeds in the bottom of the calix, the stem leaves are winged, the odd one at the end supported upon a leaf stalk, the seeds are covered with bristles, the yellow blossoms grow in spikes, and resemble an Apricot in smell.

*Part used.* The leaves and plant.

*Sensible properties.* Herbaceous, somewhat acrid, roughish taste, accompanied with an aromatic flavour.

*Medical virtues.* This vegetable is said to be useful in laxities of the intestines, in scorbutic and other disorders arising from debility, as an aperient and detergent, it is also said to strengthen the tone of the viscera. Digested in whey, it affords a diet drink, grateful to the palate and stomach. The inhabitants of Carolina, and Kalm says the Canadians also, use an infusion of the root (the plant) in fevers with great success.

*Domestic use.* The leaves and stalks, together with the closed flowers, imparts a beautiful and permanent gold colour to animal wool previously impregnated with a diluted solution of bismuth, and the blossoms have also been occasionally employed by tanners for curing soft and delicate skins.

2. A: MINOR, or *White Agrimony*.

3. A: ODORATA, *sweet scented Agrimony*, grows near four feet high, the leaves are more pinnated than the former, the serratures of the leaves are also sharper, and when handled they emit an agreeable odour. The leaves of this species makes an agreeable cooling drink in fevers.

4. A: REPENS, *Creeping Agrimony*.

5. A: PASSIFLORA.

AGRIOCINARA. See *Cinara*.

AGROSTEMMA, *Camfion* or *Wild Lychnis*, a genus of the Decandria Pentagynia class, ranking in the 22d natural order *Caryophyllei*. The calix is Monophyllous, the petals are five, and unguated, and the capsule one valved, there are four species.

1. A: GITHAGO, *Hairy Wild Lychnis*, *Common Camfion*, or *Corn Cockle*, an indigenous annual plant, which grows in corn fields, and bears purple flowers in the months of June and July, it is very prolific, and produces a great number of pods, each of which contains from twenty to thirty seeds, somewhat resembling those of the turnip; they impart a strong taste, and unwholesome quality to the bread baked of corn mixed with them, such grain therefore ought to be employed in distilleries or the manufacture of starch. There is a variety of this species which produces similar but smaller seeds than the former, and exhibits a peculiar mode of vegetation, being found within the wheat ear, one side of which is filled with good grain, and the other with a spurious one produced by this weed, hence husbandmen have given it the significant name of Ear Cockle. It is by no means so common as the former variety, but is generally attributed to bad husbandry, by which the land is exhausted of its nutritious qualities, and weakened to such a degree, as to be prevented from bringing the wheat to perfection, because this plant is never found on lands that are well cultivated, and properly managed. It is eaten by horses, goats and sheep.

2. A: COELIROSA.

3. A: CORONARIA, *single Rose-Camfion*, a perennial plant, there are four varieties of this species, one with deep red, another with flesh coloured, a third with white, and the fourth with double flowers, which has turned most of the others out of the gardens. Only the single kind produce seeds, and are propagated by seeds, but the double is to be propagated by parting the roots, in autumn, and paying the usual attention that is required with other plants.

4. A: FLOS, JOVIS, or *Umbelliferous Mountain Camfion*, grows naturally upon the Helvetian mountains, it is a low plant with woolly leaves, the flower stem rises near a foot high, the flowers grow in umbels on the top of the stalk, and are of a bright red colour, they appear in July and the seeds ripen in September. This is also an annual plant and is propagated from seeds.

**AGROSTIS.** *Bent-Grass*, a genus of the Triandria Digynia class, ranking in the 4th Natural Order *Gramina*, the calix has two valves, terminated by a beard or awn, the corolla is two valved and pointed, the pericarpium is the corolla growing to the seed, not gaping. This genus comprehends 41 species.

1. A : **SPICAVENTI**, or *Silky Bent-Grass*, grows on dry sandy fields, and attains a height of three or four feet, when young it affords a tolerable fodder for cattle, but should not be given them in its mature state, as its sharp leaves are apt to injure their gums.

*Domestic use.* A decoction of the brown flowers and stalks of this species, will dye linen of a pleasing yellow colour, merely by repeated dippings, with the simple addition of a little alum, which gives it a greenish shade. The stalks are used by the Russians and Tartars for manufacturing beautiful basket work.

2. A : **STOLONIFERA**, *Creeping Bent grass*, or *Blue Squitch grass*, grows in moist fields and meadows, this species deserves cultivation, as it produces a wholesome and nourishing fodder for cattle; and at the same time suppresses the growth of mosses and other weeds, by its quick and luxuriant vegetation.

3. A : **INDICA**, *Indian Bent grass*, a native of Carolina.

4. A : **VIRGINICA**, *Virginian Bent grass*.

5. A : **JUNCEA**. 6. **DISPAR**. 7. A : **ASPERA**. 8. **LATERIFLORA**.

9. A : **RACEMOSA**, these latter are indigenous in the United States.

**AGUARA-QUIYA**, a barbarous name of the *Solanum*.

**AGUARA-PONDA**, a barbarous name of the *Viola*.

**AGUE-TREE**. See *Sassafras*.

**AGUL**, a synonyme of the *Hedysarum*.

**AGUTI-GUEPA**. See *Sagittarum*.

**AGUTI-TREVA**, a barbarous name of the *Citrus*.

**AGUTI-GUEPA-OB**, a synonyme of the *Thalia*.

**AHALOTH**. See *Xylo Aloes*.

**AHMELLA**. See *Bidens*.

**AHOUI**, a synonyme, and also the trivial name of a species of the *Cerbera*.

**AIRA**, *Hair Grass*, a genus of the Triandria Digynia class, ranking in the 4th natural order *Gramina*, the calix is a two flowered double valved glume, the corolla is two valved, and no rudiment of a flower between the florets, the stamina consists of three capillary filaments, the length of the flower, the anthers are oblong and forked at both ends, the pistillum is an egg-shaped germen, the styli are two, bristly and expanding, the stigmata are pubescent; there is no pericarpium, the including corolla grows to the seed, the seed is egg-shaped and covered, there are 24 species. 14 only of which are indigenous in Britain, these are the most particular.

1. A : **CESPITOSA**, *Turfy Hair Grass*, growing in moist meadows and woods, and flowers from June to August. This plant is frequently found in tufts, and occasions irregularities in the surface of meadows, and being the roughest and coarsest of all the grasses in the pastures and meadow grounds, cattle seldom touch them unless impelled by hunger. It would therefore amply repay the trouble of eradicating it, and substituting better grasses. Cows, goats and swine eat it, but it is refused by horses.

2. A: FLEXUOSA, *Heath or Waved Mountain Hair Grass*, a perennial plant, growing on heaths, in woods, and barren pastures, and flowers from June to August.

3. A: CARYOPHILLEA, or *Silver Hair Grass*, is common in sandy pastures, and flowers in the month of July. Mr. Stillingfleet, in his excellent tracts, relating to natural history, recommends the culture of both these last species, as being particularly well adapted for sheep walks, for he has observed them always to abound in those counties which are celebrated for delicious mutton.

4. A: AQUATIGA, or *Water Hair Grass*, a perennial plant, is generally found on the edges of pools and standing waters, it flowers in the months of June and July. This plant is a wholesome food for cattle, and deserves to be more generally known, as it contributes much to the sweetness of the Cottenham cheese, and to the fine flavour of Cambridge butter.

5. A: PURPUREA, *Purple Hair Grass*, a native of Carolina.

6. A: AEGILOPSOIDES, a native of Carolina.

AJUGA, *Bugle*, a genus of the Didymia Gymnospermia class, ranking in the 42d natural order *Asperifolia*, the calix is a short perianthium, monophyllous and persistent, the corolla is monopetalous and grinning, the stamina consist of four neat subulated filaments, the antheræ are dimidiated, the pistillum has a four cleft germen, a filiform stylus and two slender stigmata, there is no pericarpium, the calix converging, and containing the seeds in its bosom, there are 4 species, the seeds are four and oblong.

1. A: REPTANS, *common or Pasture Bugle*, with creeping suckers, and blue, red, or white flowers, in long leafy spikes, is a native of the southern parts of Europe, and is met with in woods and moist places in many parts of Britain, the roots are astringent, and strike a black colour with copperas or vitriol of iron.

2. A: PYRAMIDALIS, *Steeple or Mountain Bugle*, a native of Sweden, Germany, Switzerland and the hilly parts of Britain, has a square pyramidal spike and blue flowers, sheep and goats eat it, cows do not relish it, and horses and swine refuse it.

3. A: GENEVENSIS, a native of Switzerland and the south of Europe, has woolly leaves and a hairy cup.

4. A: ORIENTALIS, a native of the East, and hath inverted flowers. The three first species are propagated from their side shoots, and succeed best in a moist situation, the last from the seeds sowed in autumn, and sheltered from frost.

AIZOON, *Bastard House-leek*, called by Mr. Miller, *Sempervive*, (by others the term *Aizoon*, has been applied to the *Sedum* or *House-leek*, and others to the *Aloes*;) is a genus of the Icosandria Pentagynia class, ranking in the 13th natural order *Succulentæ*, the cup is divided into five parts, the flowers consists of one leaf, the capsule or seed vessel has five cells, and the flower cup rests on the top of the fruit, and the seeds are many and globular, there are three species.

1. A: CANARIENSE, a native of the Canary Islands.

2. A: HISPANICUM, a native of Spain.

3. A: PANICULATUM, a native of Africa, and resembles the *Sedum*, or *House-leek*; they are neither of them remarkable, either for beauty or any other property.

AIZOON-PALUSTRE of I. Bauh. See *Siratiotes*.

ALA, an obsolete name of the *Helonium*.

ALATERNUS, the trivial name of a species of *Rhamnus*, and is the *Celastrus dicta* of *Theophrastus*; also called *Phylica elatior*, and *Humilior*.

ALBUCA, *Bastard Star of Bethlehem*, a genus of the Hexandria Monogynia Class, ranking in the 10th Natural Order, *Coronariæ*.

The calix is wanting, the corolla consists of six oval oblong petals, which are persistent; the stamina consist of six three sided filaments, the length of the corolla of these three are fertile, with versatile antheræ: three are barren, without antheræ; the pistillum has an oblong three sided germen; the stylus is three sided; the pericarpium is an oblong obtuse triangular capsule having three cells and three valves; the seeds are numerous, flat and incumbent; there are two species reckoned by Linnæus,  
1. A: MAJOR, *Star Flower*, or *Great Bastard Star of Bethlehem*, is a native of Canada, and some other parts of America; the root is bulbous: from whence shoot up eight or ten long, narrow, spear shaped leaves; in the centre of these arises a flower stem, a foot or more in height, garnished with a loose spike of greenish yellow flowers; after the flowers are past, the germen swells to a three cornered capsule, having three cells filled with flat seeds. This is a hardy plant, and may be propagated either from seeds or roots, planted about four inches deep, in a border of light earth, where they will thrive and produce their flowers late in summer; but as the seeds do not often ripen in Britain, and the bulbs put out few offsets, the plants are not common in that country.

2. A: MINOR, *African Star Flower*, is a native of the Cape of Good Hope, hath also a pretty large bulbous root, from which arise four or five narrow awl shaped leaves, of a deep green colour; the flower stem which comes from the centre of the root is naked, and rarely rises more than eight or nine inches high, having five or six greenish yellow flowers, growing almost in the form of an umbel at the top. These are rarely succeeded by seeds in Britain; it generally flowers twice a year, first in March or April, and again in July or August, and if its roots be kept in pots, filled with light earth, sheltered under a hot bed frame, they will flower even in winter.

For *Star of Bethlehem*, See *Ornithogalum*.

ALBUCUS, an obsolete name of a species of *Asphodellus*.

ALCANA VULGO. See *Phillyrea*.

ALCEA, *Holly-hock*, or *Vervain Mallow*, a genus of the Monadelphia Polyandria Class, ranking in the 37th Natural Order, *Columniferæ*. The calix is a double perianthium, monophyllous, and persistent; the exterior one, six cleft; the interior half, five cleft; the corolla consists of five petals, coalesced, at the base heart shaped inversely, and expanding; the stamina consists of numerous filaments, coalesced below into a five cornered cylinder, loose above and inserted into the corolla; the antheræ, are kidney shaped; the pistillum has a roundish germen, a short cylindric stylus, and numerous bristly stigmata, the length of the stylus; the pericarpium consists of many arilli, joined into a verticillum

about a columnar depressed receptacle; the seeds are solitary, uniform, and depressed. Although Linnæus mentions two distinct species of this genus, viz. the *Rosca* and *Sicifolia*; he thinks that the latter may perhaps be only a variety of the former, but Mr. Miller affirms them to be a distinct species, whose difference in the form of their leaves always continues. In Paul Hermann's Hortus, there are 13 species, or varieties enumerated, which are however referred to the article *Althea*.

1. A: *ROSCA*, *Holly-hock*, a beautiful exotic plant, and a native of China; though well known in America; in the gardens of the curious it attains a height of six or eight feet; the leaves are roundish, and cut at their extremities into angles. Cultivation produces almost an infinite variety of this plant, such as double flowered, single flowered, deep red, pale red, blackish red, white, purple, yellow, flesh coloured, and variegated flowers: They make a beautiful appearance, their spikes of flowers grow very tall, producing new flowers as the stalk advances; there will be a succession of them from July to September; generally two thirds of the stalk is garnished with flowers, beginning from below and progressing upwards. They are propagated by seeds, which should be saved from the best double flowered plants, and sown in drills, on a bed of light earth; and when transplanted care should be taken that there be no other kinds of less value in their vicinity, lest their farina should communicate with these, and the plants degenerate. There is a dwarf variety, with variegated flowers, much esteemed, and called *Chinese Holly-hock*.

*Domestic Uses.* Besides the ornamental appearance of this majestic plant, the woody and fibrous parts of its stalks, without any addition of rags, according to Dr. Bohmer, produces a white and fine paper.

2. A: *VULGARIS*, (v. *SICCIFOLIA*) *Vervain Mallow*: this is a native of Istrea, and grows in hedges, &c. the leaves of this species are deeply cut into six or seven segments, so as to resemble a hand, it is in bloom the greatest part of summer; it agrees in quality with the Garden and Marsh Mallows, but appears to be less mucilaginous than either; it is propagated as the former. See also *Althea*, and *Hibiscus*.

*ALCEA VESICCARIA*, an obsolete name of a species of *Ketmia*.

*ALCHEMILLA*, or *Ladies Mantle*, a genus of the Tetrandria Monogynia Class, ranking in the 35th Natural Order, *Senticosæ*; the calix is a single leaved perianthium, tubular and persistent; the mouth flat, and eight parted: There is no corolla, the stamina consist of four small, erect, subulated filaments, placed in the mouth of the calix; the antheræ are roundish, the pistillum has an egg shaped germen; the stylus is filiform, the length of the stamina, and inserted at the base of the germ; the stigma is globular; there is no pericarpium, but the neck of the calix closed; the seeds solitary, elliptical, and compressed. There are three species.

1. A: *VULGARIS*, or *Common Ladies Mantle*, grows wild in meadows, and pastures; the roots are perennial, and the stalks annual;



the leaves before they expand, are plaited or folded together, like a fan, nicely serrated about the edge, which hath given rise to the English name of the plant. It bears yellowish green blossoms, from June to September, which grow in bunches, and have no corolla.

*Part Used.* The leaves and roots.

*Sensible Properties.* Taste moderately astringent.

*Medical Virtues.* This plant was formerly esteemed in female weaknesses, and in fluxes of the belly; they are now rarely made use of, though both the leaves and roots might doubtless be of use where mild astringents are required. In Gothland, they make a tincture of the leaves, and give it in Spasmodic, or Convulsive diseases.

*Domestic Uses.* According to Gleditsch, and Bautsch, the whole plant may be advantageously employed in tanning. Horses, sheep, and goats eat it, but it is not relished by cows, and hogs totally refuse it.

2. A: ALPINA, or *Mountain Ladies Mantle*, is a native of the mountainous parts of Europe; the roots perennial, stalk annual, leaves finger shaped, shining, silky and sawed, the blossoms greenish.

3. A: PENTAPHYLLEA, (A: Minor) *five leaved*, or *Least Ladies Mantle*, is a native of Sweden, and Lapland, as also other countries; this species has five smooth leaves growing at a joint and cut into many segments; it is eaten by cows and goats, but refused by horses, sheep and swine. All three of the species are propagated by seeds, or by parting their roots. They should have a moist soil and shady situation, requiring no other care than to be kept clean from weeds.

ALCIBIUM, or *Alcibiadum*, an obsolete term of a species of *Echium*.

ALCOA ARBOR, the name of a tree in St. Helena, said to emulate *Ebony*.

ALDARU, an obsolete name of a species of *Pistuchia*.

ALDER TREE. See *Betula*.

ALDROVANDA, a genus of the Pentandria Pentagynia Class; the calix is divided into five parts, the petals are five, and the capsule has five valves, with ten seeds; there is but one species, a native of the Indies, and of Italy, it has no English name.

ALEHOOF. See *Glechoma Hederacea*.

ALETRIS, *Bastard Aloe*, a genus of the Hexandria Monogynia Class, ranking in the 10th Natural Order, *Coronariæ*; the corolla is funnel shaped, monopetalous, hexangular, much corrugated, semi-quinquefide, and persistent; the stamina consist of six subulated filaments, the length of the corolla, and inserted into the base of the divisions of the corolla; the antheræ are oblong and erect; the pistillum has an ovate germen; the stylus subulated, and the length of the stamina; the stigma is trifid, the pericarpium is an ovated capsule, triquetrous pointed, trilocular, and the seeds are numerous. There are five species.

1. A: FARINOSA, a native of Carolina, Virginia, and other parts of America; this is a hardy plant, its appearance however does not

merit notice; it bears flowers of a whitish green colour, which appear in June or July.

2. A: CAPENSIS, *Cape Aloe*, a native of the Cape of Good-Hope.

3. A: HYACINTHOIDES, or *Guinea Aloe*; this species produces fine spikes of white flowers in July. (See *Aloe*, No 9.)

4. A: ZEYLANICA, or *Ceylon Aloe*.

5. A: FRAGRANS, *Tree Aloe*, a native of Africa, attains a height of 12 or 14 feet, producing fine spikes of white flowers, in March, or April, which open wide in the evening, and perfume the air; they send out one or two heads, or tufts towards their tops, which may be cut off, and after they have lain a week in the stove, to heal their wounded parts, may be planted for increase.

*Note.*—Walter in his *Flora Caroliniana*, gives another species, viz. A: AUREA, or *Golden Aloe*.

ALEXANDERS. See *Smyrniium*.

ALEXITERIA. See *Antidesma*.

ALGA, the trivial name of the *Lichen fucus*, and several other plants of the Cryptogamia Class.

ALGOIDES. See *Zannichellia*.

ALGOSAREL, an obsolete name of the *Daucus*.

ALGUL of J. Bauhine. See *Genista*.

ALHAGI, the trivial name of a species of *Hedysarum*, and *Genista*.

ALHEAL, or ALLHEAL. See *Stachys Palustris*.

ALHENA, a synonyme of the *Lawsonia*.

ALJEMBU, an obsolete name of a species of *Mimosa*.

ALIFANUS, another synonyme of the *Rhexia*. See *Acisonthera*.

ALIMOS, an obsolete name of the *Glycyrrhiza*.

ALISMA, or *Water Plantain*, a genus of the Hexandria Polygamia Class, ranking in the 5th Natural Order, *Tetrapetaloides*; the calix consists of three pieces, or leaves; the corolla consists of three roundish, large flat, expanding petals; the stamina consist of six subulated filaments, shorter than the corolla; the antheræ are roundish; the pistillum consists of more than five germina; the stili are simple, the stigmata obtuse; the pericarpium consists of compressed capsule, the seeds are small and solitary. There are eight species.

1. A: PLANTAGO, or *Great Water Plantain*, or *Thrumwort*, a native perennial plant, growing in watery places, on the banks of pools and rivers, and flowers from July to August. This acrid and poisonous vegetable is extremely deleterious to sheep, and cattle, and hence it ought to be carefully eradicated in the spring or summer, before it can be farther propagated by its seeds. This species hath ovate sharp pointed leaves, and obtusely triangular fruit.

2. A: RANUNCULOIDES, or *Lesser Water Plantain*.

3. A: NATANS, *Creeping Water Plantain*.

4. A: DAMASONIUM, *Star Headed Water Plantain*, a native of Britain.

5. A: FLAVA, *Yellow Water Plantain*, a native of America, and is found growing in stagnated water, and other swampy places.

6. A: CORDIFOLIA, *Heart Leaved Water Plantain*.

7. A: SUBULATA, with awl shaped leaves. 8. A: PARNASSIFOLIA.

ALKANET. See *Anchusa*.

ALKEKENGI, the trivial name of a species of *Physalis* (Caspar Bauhine defines it *Halicacabi fructus, Solani Vesicarii.*) It is also a synonyme of several species of *Atropa*. See *Physalis*.

ALKENNA. See *Lawsonia*.

ALLGOOD. See *Chenopodium*.

ALLHEAL or ALHEAL. See *Heracleum* and *Stachys*.

ALLAMANDA, a genus of the Pentandria Monogynia class, the calix is a five-leaved perianthium; the corolla consists of one funnel-shaped petal, the tube cylindric, the border semiquinquifide and ventricose, the divisions expanding and obtuse, the stamina have scarce any filaments, the antheræ are five, arrow-shaped converging in the throat of the tube, the pistillum has an oval germen, girt at the base with an annular margin, the stylus is filiform, the length of the tube, the stigma is headed and contracted in the middle, the pericarpium, is an orbicular compressed bristly capsule, containing one cell with two valves, the seeds are imbricated, orbicular and flat, with a membranaceous wing on the margin, and are very numerous, there is but one species, a native of Surinam, viz.

A: CATHARTICA.

ALLIGATOR PEAR. See *Laurus* and *Pyrus*.

ALLIONIA, a genus of the Tetrandria Monogynia class, ranking in the 48th natural order *Aggregata*, the common calix is oblong, simple, and three flowered, the proper calix is above the fruit and obsolete, the corolla is irregular, and the receptacle without any covering. There are two species.

1. A: VIOLACEA, (A: *Nyctaginea* of *Michaux*,) a native of America.

2. A: INCARNATA, is also a native of America, as yet there have been no particular properties ascribed to them, nor any English name.

*Note.* Mr. Walter in his *Flora Caroliniana*, mentions a species of *Allionia Albida*, with opposite lanceolate leaves, as indigenous.

ALLIUM, *Garlic*, a genus of the Hexandria Monogynia class, ranking in the 9th natural order *Spathacea*, the calix is a common Spatha, roundish, withering and multiflorous, the corolla consists of six oblong petals, the stamina have six subulated filaments, often the length of the corolla, the antheræ are oblong and erect, the pistillum has a germen above, shorter, nearly three cornered, with angles engraved with a line, the styli are simple, the stigmata acute, the pericarpium is a very short, broad, three lobed capsule, with three cells and three valves, the seeds are many and roundish; there are 54 species, including onions and leeks.

1. A: SATIVUM, or *Garlic*, has a bulbous root, of an irregularly roundish shape, with several fibres at the bottom, each root is composed of a number of lesser bulbs, called cloves of *Garlic*, inclosed in one common membranous coat, and easily separated from one another.

*Part used.* The root.

*Sensible properties.* All the parts of this plant, but more especially the roots, have an acrimonious and almost caustic taste, with a strong offensive smell.

*Medical virtues.* This pungent root warms and stimulates the solids, and attenuates tenacious juices, for which it is well adapted,

on account of its being very penetrating, insomuch that when applied to the feet its scent is soon discovered in the breath, and when taken internally its smell is communicated to the urine, or the matter of an issue, and perspires through the pores of the skin, hence in cold leucophlegmatic habits, it proves a powerful, expectorant diuretic and emmenagogue; and if the patient is kept warm, sudorific. It is also of great service in humoral asthmas and catarrhus disorders of the breast, and in other disorders proceeding from a laxity of the solids, and cold sluggish indisposition of the fluids, it is also frequently of service in the dropsy, in the beginning of which it is particularly recommended by Sydenham, as a warm strengthening medicine. We have many examples, where it acts so powerfully as a diuretic, as to carry off all the water of dropsies, a dram or two in substance may be taken for a dose, there is a syrup and oxymel made with it, which may be employed for the same purposes as the garlic in substance, but they are mostly used in pulmonic disorders, such as pleurisics, peripneumonias, &c.

In Kamtschatka, the wild Garlic (*a. Ursinum*) is the principal remedy for the scurvy, as soon as this plant appears above the snow, they seem to put this dreadful disorder at defiance, and find a cure almost in its worst stages.

Externally applied, it inflames and ulcerates the skin, and is sometimes employed for this use in sinapisms, it has also been recommended as a most powerful revellent; for which purpose he was led to make use of it; in the confluent Small Pox, his method was to cut the root in pieces, and apply it tied in a linen cloth to the soles of the feet, about the eighth day of the disease, after the face began to swell, renewing it once a day till the danger was over, and this practice has also obtained, in fevers of the acute kind, particularly where the head seems most affected.

*Note.* The acrimonious qualities of this root however render it manifestly improper on many occasions, its liberal use is apt to occasion head aches, flatulencies, thirst, febrile heats, inflammatory distempers, and sometimes discharges of blood from the hæmorrhoidal vessels, in hot bilious constitutions, where there is already a degree of irritation, where the juices are too thin and acrimonious, or the viscera unsound, it never fails to aggravate the distemper.

*Domestic uses.* It enters many articles of food among the Russians, French, Spanish, &c. as a spice, it is also cut up with cabbage for soups, ragouts, and various other articles, which are so commonly known, as is their mode of cultivation, as to need no farther description.

2. A: ASCALONICUM, or *Eschalot*, grows wild in Palestine, the root is conglobate, consisting of many oblong roots, bound together by membranes, each of these small roots sends forth two or three fistulous, long awl-shaped leaves issuing from a sheath and are nearly like those of the common Onion, the flower stem shoots from a membranaceous sheath; is round, almost naked and terminated by a globular umbel of flowers, which have erect, purplish lance shaped petals of the length of the stamina.

*Domestic use.* The root of this species is very pungent, has a strong, but not unpleasant smell, and therefore is generally pre-

ferred to the Onion, for making high flavoured soups and gravies, it is also put into pickles.

3. A : SCORODOPRASUM, or *Rockambole*, grows naturally in Denmark and Sweden, it hath a heart shaped solid root, which stands sidewise of the stalk, the leaves are broad, and are a little crenated on their edges, the flowers are of a pale purple colour and collected into a globular head. It is used for the same purposes as the foregoing.

4. A : SCHOENOPRASUM, *Civis*, or *Chive Garlic*, is an inhabitant of Siberia, and a very small plant compared with the former, the leaves and stems seldom exceed six inches in length, and the roots never producing any bulbs, the leaves are awl-shaped, hollow, and the stem naked. It was formerly in great request for mixing with salads in the spring, but has been little regarded lately. The taste, smell and virtues are much the same as those of the common Onion.

5. A : CĒPA, or *common Onion*, differs from the Garlic only in the swelling pipy stalk, which is much longer in the middle than at either end; it is at length determined to be a native of Africa, as it is evident that Onions were eaten by the Egyptians, above 2000 years before our Blessed LORD's nativity, and they make a great part of their constant food to this day in Egypt. Dr. Hasselquist, says it is not to be wondered at, that the Israelites should long for them, after they had left the place; for whoever has tasted Onions in Egypt, must allow, that none can be had better in any part of the universe, For he observes they are sweet and soft in Egypt, while those of other countries are nauseous, strong, hard, and their coats so compact that they are difficult to digest.

*Domestic uses.* The domestic uses of Onions are known to almost every person, but in regard to wholesomeness, there is certainly no method equal to boiling them, as they are rendered mild, easy of digestion, and pass off without leaving those heats in the stomach and bowels, which they are apt to do any other way, their nature is similar to Garlic; many people shun them on account of the strong, disagreeable smell they communicate to the breath, this may be remedied by eating a few raw parsley leaves immediately after, which will effectually overcome the scent of the Onions, and cause them to sit more easy on the stomach.

Varieties of this species are, the *Strasburgh*, the *Spanish*, and the *Egyptian Onions*, which are propagated by seeds, sown the latter end of February or beginning of March, on good, light rich ground, well dug and levelled and cleared of weeds, &c.

Besides the above are *Scallions* or *Escallions* and *Welch Onions*, the former never forms any bulbs at the roots; it is easily propagated by the roots, particularly in autumn. The Welch Onions never make any bulbs, and are therefore fit only to be used green for salads.

6. A : PORRUM, or *Leek*, this plant has been so long cultivated that its native place of growth cannot be traced, it is undoubtedly the same as that mentioned in the 11th Chapter of Numbers, where it is said the Israelites longed for Leeks in conjunction with Onions. The leaves are much of the same nature with the latter, and are yet a constant dish at the tables of the Egyptians, who chop them small and then eat them with their meat. Their culture is the same as that of the Onion.

7. A: AMPELOPRASUM, *Great round-headed Garlic.*  
 8. A: ARENARIUM, *Broad leaved Mountain Garlic.*  
 9. A: VINEALE, *Crow Garlic.*  
 10. A: OLERACEUM, *Wild or Streak-field Garlic.*  
 11. A: URSINUM, *Wild Ram Son or Broad-leaved Garlic.*  
 ALLOPHYLLUS, a genus of the octandria monogynia Class; the calix is four leaved, the leaflets are globular, the corolla consists of four orbicular equal petals, less than the calix, the stigma is forked, the anthers roundish; there is only one species a native of Ceylon, viz. *Zeylanicus.*  
 ALLSPICE. See *Pimento.*  
 ALLSPICE, the Virginian. See *Calycanthus.*  
 ALMENE, an obsolete name of the *Lotus.*  
 ALMIGGIM WOOD, supposed to be the *Indian Pine.*  
 ALMOND TREE. See *Amygdalis.*  
 ALMOND THE EGYPTIAN. See *Brabejum.*  
 ALMUGIM, or *Almug tree*, mentioned in the first book of Kings, Ch. x. v. 11. which the Vulgate translate *Ligna thyina*, and the Septuagint, wrought wood; the Rabbins generally render it Coral, others Ebony, Brasil or Pine: But it is observed that the Almug tree can by no means be the Coral, because that wood is not fit for the purposes that the Scripture tells us the Almug tree was used, such as musical instruments, stair-cases, &c. The word *Thyinum* is a name for the Citron tree, known to the ancients, and very much esteemed for its sweet odour, and great beauty, it came from Mauritania. The *Almug tree*, or *Almugin*, *Algumim*, or simply *Gummin*, taking *al* for a kind of article, is therefore by the best commentators, understood to be an oily and gummy sort of wood; and particularly that sort of tree which produces the *Gum Ammoniac*, which is also thought to be the same as the Shittim wood, whereof there is such frequent mention made by Moses: there are others who suppose it to be the same with that which produces the Gum Arabic.  
 ALNABATI, an obsolete name of the *Siliquia.*  
 ALNAM, an obsolete name of the *Pulegii.*  
 ALNUS, a synonyme of a species of the *Detula.*  
 ALOE, or *Aloes*, a genus of the hexandria monogynia Class, ranking in the 10th Natural Order *Coronaria*; there is no calix; the corolla is erect, open at the top, six cleft and oblong, the tube gibbous, the border spreading and small, with a nectary bearing bottom; the stamina consist of six subulated filaments, rather surpassing the corolla in length, and inserted into the receptacles; the antheræ are oblong and incumbent; the pistillum has an ovate germen; the stylus is simple, the length of the stamina, the stigma is obtuse and trifid; the pericarpium is an oblong capsule, three furrowed, three celled, three valved, the seeds are many and angular; the leaves are thick, succulent, and for the most part beset with bristles. There are 10 species.  
 1. A: DISTICHA, by some called *Soft Aloes*, by others *Caballine Aloes*; this seldom rises above two feet high, the leaves are very broad at the base, where they closely embrace the stalk, and gradually decrease to a point, the edges are set with sharp spines, and the

under leaves spread open horizontally every way, these are of a dark green colour spotted with white, somewhat resembling the colour of soft soap, from whence it took the name of *Soap Aloe*. The flowers grow in umbels on the tops of the stalks, are of a beautiful red colour, and appear in August and September.

*Part used.* The inspissated juice of the plant, known in the shops by the name of (*Aloe Caballina*,) Fetid Caballine, or Horse Aloes.

*Sensible properties.* Smell offensive.

*Medical virtues.* Caballine Aloes agrees pretty much with the Hepatic, and is not unfrequently sold in its stead, it is sometimes prepared so bright as not to be distinguishable by the eye, but its smell immediately betrays it; for internal uses, the Socotorine Aloes is preferable, and as that is as easily obtained, we refer to it.

2. A: *PERFOLIATA*, *Socotorine Aloe*. The stalk grows two or four feet high, with long, narrow, succulent leaves, which come out without any order and form large heads, a stalk has sometimes two, three, or four of these heads branching out from it, the flowers grow in long spikes, each standing on a pretty long footstalk, they are of a bright red colour, tipped with green, and generally appear in the winter season. This species is said to afford the Socotorine Aloe, the purest of all the Aloes.—*Note.* The Hepatic Aloes is from one of the species.

*Part used.* The inspissated juice.

*Sensible properties.* It is of a glossy surface, clear, and in some degree pellucid; in the lump of a yellowish red colour with a purple cast, when reduced to powder of a bright golden colour, it is hard and friable in the winter, somewhat pliable in the summer and grows soft between the fingers, its taste is bitter accompanied with an aromatic flavour, but insufficient to prevent its being disagreeable. The smell is not very unpleasant and somewhat resembles that of Myrrh.

*Medical virtues.* Aloes is a stimulating, bitter Cathartic; if given in so large a dose as to purge effectually, it often occasions an irritation about the anus, and sometimes a discharge of blood; small doses frequently repeated not only cleanse the *prima viæ*, but likewise warm the habit, quicken the circulation, and promote the uterine and Hæmorrhoidal fluxes. This medicine is particularly serviceable in habitual costiveness, to persons of a phlegmatic temperament and sedentary life, and where the stomach is oppressed and weakened; in dry, bilious habits, Aloes proves injurious, immoderately heating the body and inflaming the bowels. The juice is likewise on account of its bitterness supposed to kill worms, either taken internally or applied in plaisters to the umbilical region, it is also celebrated for restraining external hæmorrhages, and cleansing and healing wounds and ulcers; the ancients gave much larger doses than is customary at present. Modern practitioners rarely exceed a scruple, and limit the greatest doses to two scruples; for common purposes 10 or 12 grains suffice: taken in these or less quantities it acts as a gentle stimulating eccoprotic, capable of removing, if duly continued, very obstinate obstructions. The purgative effects of Aloes seem chiefly to depend on their proving a stimulus to the rectum; it has a great tendency to induce and aug-

ment hæmorrhoidal, affections, or the piles. The Egyptians distil a water which is sold in Apothecaries Shops at Cairo, and recommended in coughs, hysterics and asthmias; an unexperienced French surgeon, says Hasselquist, gave a Coptite 40 years old afflicted with the jaundice, four tea cupsfull of the distilled water of this species of Aloe and cured him in four days. This remedy is not difficult to be obtained as the plant might easily be raised. The Arabians call it *Sabarra*.

This Aloe is a kind of Symbolic plant to the Mahometans, especially in Egypt, and in some measure dedicated to the offices of religion, for whoever returns from pilgrimage to Mecca, hangs it over his street door, as a token of his having performed that holy journey; the superstitious Egyptians, believe that this plant hinders evil spirits and apparitions from entering the house, and on this account, whoever walks the streets in Cairo, will find it over the doors both of Christians and Jews.

3. A: MARGARITIFERA, *Pearl Aloe*; this is a very beautiful plant and smaller than most of the Aloe kind, the leaves are short, very thick, sharp pointed, and turning down with a large thick end, appear there triangular; the colour of the leaves is a fine green, striped in an elegant manner with white, and frequently tipped with red at the point, the flower stalk which rises in the midst of the leaves is round, smooth, of a purple colour, and generally about eight inches high, when the plant has been properly cultivated, the flowers are striped with green and white, and sometimes they are entirely white; this Aloe is singular in not having the bitter resinous juice, with which the leaves of most others abound; when a leaf of this species is cut, what runs from it is watery, colourless, and perfectly insipid.

4. A: VARIEGATA, *Partridge breast Aloe*, is a low plant seldom rising above eight inches high; the leaves of this are triangular and curiously veined and spotted, somewhat like the feathers of a Partridge's breast, the flowers grow in very loose spikes, and are of a fine red colour tipped with green.

5. A: VISCOSA, *Viscous Aloe*, grows near a foot high with triangular leaves of a dark green colour, it has funnel-shaped flowers, which grow thinly upon very slender footstalks, and are of a herbaceous colour, and their upper part turns backward.

6. A: SPIRALIS, *Spike Aloe*, grows somewhat like the former, only the flowers grow upon taller stalks, and are oval and crenated, and which branch out and grow in very long, close spikes.

7. A: LINGUIFORME, or *Tongue Aloe*, has its leaves about six inches in length and shaped like a tongue, the flowers grow in slender, loose spikes, each hanging downward, of a red colour below and green at the top.

8. A: RETUSA, *Cushion Aloe*, hath very short, thick succulent leaves, compressed on the upper side like a cushion, this grows very close to the ground, the flowers grow in slender stalks and are of an herbaceous colour.

9. A: AFRICANA, *Guinea Aloe*, mentioned by Mr. Adanson in his voyage to Senegal, of which the negroes make very good ropes, not apt to rot in the water. (See Aletris No. 3.) J. H. B. De Saint Pierre in his Botanical Harmony, &c. says there is a species of Ser-



pentine Aloe in the King's Garden at Paris, without prickles, whose large and beautiful flower exhales a strong odour of the Vanilla, during the time of its expansion which is very short. It does not blow till the month of July, and about five o'clock in the evening; it gradually opens its petals, expands them, then fades and dies, by ten o'clock of the same night it is totally withered, to the astonishment of the spectators, who flock in crowds to the sight.

10. A: MAGUEI, *Mexico Aloe*; In México this species yields almost every thing necessary in life to the poor; besides making excellent hedges for their fields, its trunk serves as beams for the roofs of their houses, and its leaves instead of tiles; from these leaves they obtain paper, thread, needles, clothing, shoes, stockings and cordage; and from its copious juice, they make wine, honey, sugar and vinegar. Of the trunk, and thickest parts of the leaves, when well baked, they made a tolerable dish of food, lastly it was a very powerful medicine in several disorders, particularly those of the urine; it is also at present one of the plants most valued, and most profitable to the Spaniards—Happy Mexicans, who can obtain from a plant, luxury, raiment, habitations, and health!

*Note.* Dr. Sloane mentions two sorts of Aloes, one is used for fishing lines, bow strings, stockings and hammocks; the other has leaves which like those of the wild Pine and Bannana, hold rain water, and thereby afford a very necessary refreshment to travellers in those hot countries, where there is generally a scarcity of wells and water. Provident Nature, ruled, by Nature's God!

ALOE PALUSTRIS, of C. Bauhine. See *Stratiotes*.

ALOES WOOD. See *Agallochum* and *Xylo Aloes*.

ALOE AMERICAN. See *Agave*.

ALOIEDES, an obsolete name of the *Stratiotes*.

ALOPECURUS, or *Fox-tail grass*, a genus of the triandria digynia

Class, ranking in the 4th Natural Order *Gramina*; the calix is a single flowered bivalve glume, the corolla is one valved, with a long awn inserted near the base on the back part; the pistillum is a roundish germen, there are two styli, and the stigmata are simple; the pericarpium is a corolla clothing the seed, and the seed is single and roundish; late Botanists enumerate 18 species, of which only eight are natives of Britain.

1. A: PRATENSIS, *Meadow Foxtail Grass*, is an indigenous perennial plant growing in meadows and pastures, and flowers in the month of May or June; this plant thrives naturally in moist soils only, and affords the best grass that can be sown on low meadows or boggy places which have been newly drained, its seeds ripen early and are easily collected; although sheep pasturing on it are said to acquire a coarser fleece, yet it furnishes a grateful food to cattle. But as the larvae of a species of flies, devour the seeds to so great an extent that in many spikes scarcely one will be found perfect, its cultivation is rather precarious.

2. A: BULBOSUS, or *Bulbous Foxtail Grass*, is also a perennial, grows in moist, marshy situations, and flowers in the months of June and July, this species is particularly adapted for consolidating the surface of fenny lands; hence it deserves to be more generally culti-

vated in such soils, in order to prevent them from being poached by the feet of cattle.

3. A: AGRESTIS, or *Slender Fox-tail Grass*, likewise a perennial, and grows in corn fields, or on road sides, and flowers in the month of July; this species is particularly relished by cattle, in its green state, and Bechstein, asserts that cows fed with it give an unusual quantity of milk; this plant is provincially called Black-bent, and though a very troublesome weed, when growing among wheat, it might be sown to advantage as a meadow grass,

4. A: GENICULATUS, *Flote Fox-tail Grass*, grows wild in Britain.

5. A: MYOSUROIDES, or *Field Fox-tail Grass*, also grows wild in Britain.

6. A: MONSPELIENSIS, a native of France. 7. A: PANICEUS.

8. A: HORDEIFORMIS. 9. A: CAROLINIANUS.

ALPHERA, an obsolete name of a species of *Bryonia*.

ALPINIA, a genus of the Monandria Monogynia Class, ranking in the 8th Natural Order, *Scitamineæ*; the calix is a pericarpium above, small and trifid; the corolla is monopetalous unequal, and as if doubled; the stamina consists of one filament, with linear antheræ joining to the margin; the pistillum has a roundish germen beneath, the stylus simple, and the stigma obtusely trigonous; the pericarpium is a fleshy ovate trilocular capsule, with three valves; the seeds are ovate and very numerous, the receptaculum is pulpy and very large. There is but one species, a native of the West Indies. As yet there has been no mention, either of its properties or virtues.

It grows in moist places, the leaves decay every winter, and are pushed out from the roots in the spring, like the Ginger and Maranta, and is propagated like them, by parting the roots when the leaves decay.

ALPINE, *Colt's-foot*. See *Cacalia*.

ALSINA, a synonyme of the *Theligonum*.

ALSINE, or *Chick-weed*, a genus of the Pentandria Trigynia Class, ranking in the 22d Natural Order, *Caryophillei*; the calix is quinquephyllous; the corolla consists of five equal petals, longer than the calix, and divided in the middle; the stamina consist of five capillary filaments, the antheræ are roundish; the pistillum has an oval germen, three filiform styli, and obtuse stigmata; the pericarpium is an ovate unilocular capsule, with three valves; the seeds are roundish and numerous. There are five species of this genus, though some Botanic writers enumerate a great number, but none of them possess any remarkable properties, except the following:

1. A: MEDIA, (*Morsus Gallinæ*, J. B.) *Common Chick-weed*, an indigenous plant, which grows in almost every situation, whether damp or even boggy woods, or the driest gravel walks in gardens; in its wild state it frequently exceeds half a yard in height, and varies so much from the garden Chickweed, that if a person were only acquainted with the latter, it would be difficult for him to recognize it in the woods, though they are one species, and only differ in appearance, in consequence of a different situation. On account of its upright flowers, which are white, and which blow from March

till October; it may be considered as a natural Barometer; for if they are closed it is a certain sign of rain approaching—whereas, during dry weather, they are regularly open from nine o'clock in the morning, till noon: This species affords a notable instance of what is called the Sleep of Plants; for every night the leaves approach in pairs, so as to include within their upper surfaces, the tender rudiments of the new shoots, and the uppermost pair but one at the end of the stalk, are furnished with longer leaf stalks than the others; so that they can close upon the terminating pair, and protect the end of the branch.

*Part Used.* Its young shoots and leaves.

*Sensible Properties.* When boiled they can hardly be distinguished from Spring Spinach, and are in every respect as wholesome.

*Medical Virtues.* They are reputed to be refrigerating and nutritive, and excellent food for persons of a consumptive habit of body.

*Domestic Uses.* It furnishes a grateful food to small birds, and young chickens, and is eaten by cows and horses; hogs are extremely fond of it, sheep are indifferent to it, and goats refuse it.

2. A: *MUCRONATA*, a native of Switzerland.

3. A: *SEGETALIS*, a native of France.

*Note.*—In Paul Hermann's "*Hortus Academicus Lugduno-Bata-vus*," we find 26 species of Alsine enumerated, some of which are referred to the genus *Spergula*, some to the *Sedum Tridactylites*, some to the *Veronica*, some to the *Solanum* genus, and others to the *Auricala Ursi*, &c.

**ALSTONIA**, a genus of the Hexandria Monogynia Class; the calix is a perianthium beneath, imbricated; the corolla is monopetalous, and shorter than the calix, the border expanding eight or ten parted with alternate divisions; the stamina consist of numerous short filaments, the exterior ones longer; the antheræ are orbicular and furrowed, the pistillum has a small ovate germen above a simple stylus, the length of the corolla, filiform and erect; the stigma is inverse, egg-headed. There is but one species, viz.

A: *THEAFORMIS*, a native of America. M. L. Heretier, of the Academy of Sciences, at Paris, and foreign member of the Linnæan Society, refers this genus to that of *Symplocos*.

**ALSTROEMERIA**, a genus of the Hexandria Monogynia Class, ranking in the 11th Natural Order, *Sarmentacea*. It has no calix, the corolla is nearly bilabiated, and consists of six petals, the two inferior tubular at the base; the stamina consist of six subulated filaments, declining and unequal; the antheræ oblong; the pistillum has an hexangular germen beneath; the stylus declining filiform, the length of the stamina, and three oblong bifid stigmata; the pericarpium is a roundish hexangular capsule, with three cells and three valves; the seeds are globular and numerous, there are five species, all natives of Italy and Peru, of which we have no particular account, or English name.

**ALSTERCUM**, an obsolete name of the *Hyosciamus*.

**ALTHEA**, *Marsh Mallov*, a genus of the Monadelphia Polyandria Class, ranking in the 37th Natural Order, *Columnifera*; the calix is double and the outer one is divided into nine segments; the corolla consists of five petals coalesced at the base, and the capsules

are numerous, each containing but one seed; there are three species. (Hermann enumerates 19 species and several varieties.)

1. A: VULGARIS, *Common Marsh Mallow*, a native perennial plant, growing in salt marshes, on the banks of rivers; though frequently cultivated in gardens. The root is perennial, the stalk annual, and perishes every autumn. The stalk grows erect, to the height of four or five feet; these are garnished with leaves which are hoary, soft to the touch, and placed alternately on the branches, the flowers come out from under the wings of the leaves, like the Mallow, and are of a purplish white, and bloom in July or August.

*Part Used.* The leaves and root.

*Sensible Properties.* A slimy mucilaginous taste.

*Medical Virtues.* Marsh mallow, especially the root, has the general virtues of an emollient vegetable, and proves serviceable in a thin acrimonious state of the juices, and where the natural mucous of the intestines is abraded. It is chiefly recommended in sharp defluxions upon the lungs, hoarseness, dysenteries, and likewise in nephritic and calculous complaints; not as some have supposed, that this medicine has any peculiar power of dissolving or expelling the calculus; but as by lubricating, and relaxing the vessels, it procures a more free and easy passage. The root is sometimes employed externally for softening and maturing hard tumors; chewed it is said to give ease in difficult detention of children. Of all the formulæ formerly kept in the shops of this medicine, the syrup and ointment only is retained. This species is the only one used in medicine.

2. A: HIRSUTA, *Hairy Marsh-Mallow*, a native of Spain, Portugal, France, &c. It is a low plant whose branches trail on the ground, unless they are supported by stalks or stakes, the leaves and stalks are beset with strong hairs, the flowers come out like those of the common sort, but are smaller and have purplish bottoms. This is propagated by seed sown in April, and are not to be removed, as the roots shoot deep in the ground; the first sort will thrive when transplanted into any soil or situation, but a moist one suits it better than a dry.

3. A: CANNABINA, or *Shrubby Marsh-Mallow*, is a native of Hungary and Istria, it has a woody stem, which rises to the height of four or five feet, and puts out many side branches, the flowers come out in the same manner as the others, but are of a deeper red colour, this sort seldom flowers the first year, unless the summer proves warm, but when the plants live through the winter, they will flower early in the following summer, and produce good seeds. These are also propagated by seeds, which ought not to be removed, for the same reasons as have been assigned in the foregoing.

ALUMTA. See *Iuteola*.

ALUS or ALUM, an obsolete name of the *Symphitum*.

ALYSSUM, ALLYSON or ALLYSOIDES, *Madwort*, a genus of the Tetradymania Siliculosa class, ranking in the 39th natural order *Siliculosa*, the calix is an oblong four leaved perianthium, the corolla consists of four cruciform petals with claws the length of the calix, the petals shorter, the stamina consist of six filaments, the length of the calix, two of them rather shorter and

denticulated, the antheræ are erect and expanding, the pistillum has an ovate germen, the stylus is simple, and the length of the stamina, the stigma is obtuse, the pericarpium is a sub-globular emarginated silicle, furnished with a bilocular stylus, having an elliptic partition, the seeds are few, orbicular, and affixed to filiform receptacles, there are 19 species enumerated by Linnæus, but none of them are remarkable either for beauty or any other property, except the following :

1. A: SATIVUM, *v.* Moenchea Sativa, *Common Cameline* or *Gold of Pleasure*, grows in corn fields, frequently among Flax, and flowers in June.

*Domestic uses.* This species is cultivated in Germany, on account of its seeds, which afford an excellent oil by expression, and in great quantity, one bushel of seed yielding from 24 to 28 pounds of oil, which is equally useful for culinary and other economical purposes.

2. A: HALIMIFOLIUM, or *Mudwort* (so called because it was believed to have the property of curing madness.) This species spreads itself on the ground, and never rises to any height, it has whole spear shaped leaves, and produces at the extremity of its branches, very pretty small tufts of small white flowers, and of which it is seldom destitute, for six or seven months successively, for which reason it well deserves a place in the gardens of the curious. They are propagated either by seeds or cuttings, and will thrive on a dry, lean or rubbishy soil, and endure the severest winters in the open air, the plants will grow without any trouble, even from the falling of the seeds.

*Note.* This plant was formerly supposed to cure some kinds of madness, but the present practice has entirely rejected it for this or any other purpose

ALLYSSUM VERTICILLATUM, of C. B. See *Marrubium*.

ALZACHE, an obsolete name of the *Anguria*.

AMARACUS, a synonyme of the *Origanum*.

AMARA DULCIS. See *Solanum*.

AMARANTH. See *Amaranthus*.

AMARANTHOIDES, the trivial name of a species of *Illecebrum*.

AMARANTHUS, *Amaranth*, *Flower Gentle*, or *Prince's Feathers*, a genus of the Monoecia Pentandria class, ranking in the 54th natural order *Miscellanea*, it has no corolla, the calix is multifid, and the seeds are contained in membranaceous vessels and very numerous, of which there are 22 species, according to former Botanists, but according to later writers, there are but 19 species, the Botanic characters of which are now described as follows. The male calix is a five or three leaved perianthium, erect, coloured and persistent; there is no corolla, the stamina consist of five or three erect capillary filaments, the length of the calix, the antheræ are oblong and versatile, the female calix the same as the male, and no corolla, the pistillum has an ovate germen, the styli are three, short and subulated, the stigmata simple and persistent, the pericarpium is an ovate capsule, three beaked, unilocular and cut round, the seed is one, globular, compressed, and large.

1. A: TRICOLOR, (A: Variegatis of Moris) *three coloured Amaranthus*, or *Prince's Feathers*, this has long been cultivated in gardens on

account of the beauty of its variegated leaves, which are of three colours, green, yellow and red, and very elegantly mixed, when the plants are in full vigour, the leaves are broad and lance-shaped, closely set from the bottom to the top of the stalks, and the branches form a kind of pyramid, so that there is not a more beautiful plant than this when it is in full lustre.

2. A: MELANCHOLICUS, *Bicolor*, or *two coloured Amaranthus*, this greatly resembles the former in its manner of growth, but the leaves have only two colours, which are an obscure purple and a bright crimson, these are so blended as to set off each other and when the plants are vigorous, make a fine appearance.

3. A: CAUDATA, *Prince's Feather*, this species is a native of America, it hath an upright stem three feet high, the leaves and stalks are of a pale green colour, the spikes of flowers are produced from the wings of the stalks, and also at the extremities of the branches, they are of a bright purple colour, and hang downward, sometimes to the length of two feet and a half, so that many of them touch the ground.

4. A: MAXIMUS, (*Blitum Maximum* of J. B.) or *Tree Amaranth*, grows with a strong stem, to the height of seven or eight feet, towards the top it sends forth many horizontal branches garnished with oblong rough greenish leaves, at the extremity of every shoot, the cylindrical spikes of flowers are produced thicker than the foregoing, but not so long; it is also called *Greater Blite*.

5. A: SANGUINEUS, *Bloody Amaranth*, a native of the Bahama Islands, it grows to the height of three feet, and has purple stalks, and oblong oval purple leaves, the spikes are short and cylindrical, of a bright purple at first, but afterwards fade to a darker colour. They are frequently produced from the wings of the stalks, but at the extremity of the stalk, arises a large cluster of spikes, which are placed crosswise, with one upright stalk in the middle.

6. A: OLERACEOUS, *Cabbage Blite*, this species has obtuse indented leaves, are void of beauty, but is used by the Indians as a substitute for cabbage, as indeed are most of the species.

7. A: BLITUM, *Small Red or Lesser Blite*, is an indigenous species of the Amaranth, which is frequently found growing on rubbish, &c. it flowers in July and August.

*Domestic uses.* On the continent its seed is used as a substitute for Millet, and the leaves are dressed and eaten like Spinach.

8. INDICUS, (*Blitum Monospermum Indicum*, of Breyn.) *Indian Blite*, or *Yellow Indian Amaranth*; native of India.

9. A: PURPUREA, *Purple Blite*, or *Flower Gentle*; a native of Virginia.

10. A: HYBRIDES, of Walt. a native of Carolina:

11. A: SPINOSUS, *Prickly Amaranth*, or *Careless* a native of Carolina.

12. A: SPICATUS, SERICUS, *Silky Spiked Blite*.

*Note.* There are several other species, some of which are called *Careless*; they are however but of little note.

AMARYLLIS, *Lily Asphodel*, a genus of the Hexandria Monogynia class, ranking in the 9th natural order *Spathaceæ*, the calix is an oblong obtuse Spatha, emarginated and withering, the corolla

consists of six petals lanced, the stamina of six subulated filaments, the antheræ oblong, incumbent and ascending, the pistillum has a roundish sulcated germen beneath, a filiform stylus, nearly the length of the stamina, the stigma trifid, and slender; the pericarpium is an ovate trilocular capsule, with three valves, the seeds are many. There are 12 species.

1. A: LUTEA, or *Autumnal Narcissus*, this is usually sold by gardeners along with *Colchicums*, for autumnal ornaments to gardens; for this purpose it is very proper, as it will keep flowering from the beginning of September, till the middle of November, provided the frost is not so severe as to destroy the flowers. Although there is but one flower in each cover, yet there is a succession of flowers from the same root, especially when they are suffered to remain three or four years unremoved; the flowers seldom rise above three or four inches high, they are shaped somewhat like the flowers of the yellow Crocus, the green leaves come up at the same time like the Saffron, and after the flowers are past, the leaves increase all the winter, the roots are bulbous, and shaped like those of the *Narcissus*, so are proper ornaments for such borders as are planted with *Cyclamens*, Saffron, Autumnal Crocus, *Colchicums*, and such low Autumnal flowers. This species is very hardy, and will thrive in almost any soil or situation, but will succeed best in a fresh light dry soil; it increases very fast by offsets, by which all the other species are to be propagated; these roots may be planted any time from May, till the end of July.

2. A: FORMOSISSIMA, or *Jacobæa Lily*, an indigenous plant, produces its flowers two or three times a year without being regular to any season; the flowers are of a deep red, the under petals very large, and the whole flower stands nodding on one side of the stalk, making a beautiful appearance. The stem of these flowers are produced from the sides of the bulbs; so that when the flowers produced on one side are decayed, another stalk arises from the other side of the bulb; but there is no more than one flower produced on the same stalk. When the roots are in vigour, flowers will be produced from March, till the beginning of September; this plant does not stand cold; if kept in a moderate stove all winter, it will send forth plenty of offsets, that will produce vigorous plants. This is a native of the United States.

3. A: FARNIENSIS, or *Guernsey Lily*; it is supposed to have come originally from Japan, but has been cultivated many years in the gardens of Guernsey and Jersey, in both which places it seems to thrive as well as if it was its native country, and from these Islands, their roots are sent annually to the curious in most parts of Europe; the flowers of this species are admired for the richness of their colour, which is commonly red, though they have no scent; they appear towards the end of September, and if properly managed will continue a month in beauty. The roots of these plants do not flower again the succeeding year, as is the case with many other bulbs, but if their bulbs contain two buds in their centre, which is often the case, they frequently flower twice in three years; after which the same individual root does not flower again in several years, but only the offsets from it. The roots of this species ought to be taken

out of the ground as soon after the leaves decay, as possible, and planted in pots filled with fresh light sandy earth, mixed with a little very rotten dung, and placed in a warm situation, observing now and then to refresh the earth with water; they must not, however, be kept too wet, lest the roots should rot, especially before they come up. About the middle of September, such of the roots as are strong enough to flower will begin to shew the bud of their flower stem, they must then be removed into a situation where they may enjoy the benefit of the sun, and kept sheltered from strong winds, &c.

4. A: REGINE, *Mexican*, or *Belladonna Lily*, a native of Portugal, where it was formerly cultivated in great plenty, but of late it has been supplanted by the *Jacobæa Lily*, so that the roots which have been brought from that country, for some time past, for the *Belladonna* have generally proved the *Jacobæa Lily*; this kind sometimes puts out two or three stems, growing near three feet high, which produce many bright copper coloured flowers in each umbel, with red styles, which make a fine appearance during the month of October.

5. A: ZEYLANICA, or *Ceylon Lily*, a native of the West Indies, and usually flowers in June, sometimes the same root will flower again in autumn, but the flowers are of no long duration.

6. A: ORIENTALIS, *Lily Daffodil*, a native of the Cape of Good Hope, the bulbs of the root are large and almost round, the leaves long, broad, and rounded at their extremities; they spread two ways on the surface of the ground, and do not come up till after the flower stem appears, which is generally in November; after the flowers are past, the leaves increase till spring, and in May they begin to decay, so that from the middle of June till October, the roots are entirely destitute of leaves; these are easily raised, by taking care to shelter them from the winter's cold.

7. A: ATAMASCO, *Atamasco Lily*, this plant is indigenous in the United States; it is a large beautiful, and very fragrant white flower, which on its first appearance is streaked with a fine carnation colour on the outside; but fades till it is almost white; this flower is not found wild, north of the Chesapeake, yet is hardy enough to bear the cold of the winters of Europe.

1. A: VITTATA. (Curt. Magaz. 129.) 9. A: CRISPA. (Miller.)

10. A: UNDULATA. (Curt. Magaz. 369.) 11. A: EQUESTRIS. (Curt. Magaz. 305.) 12. AUREA. (Curt. Magaz. 409.)

AMASONIA, a genus of the Didynania Angiospermia Class, ranking in the 30th Natural Order, *Contorta*; the calix is a tripartite monophyllous perianthium, bell shaped, and persistent; the corolla is monopetalous and tubular, the border quinquefide, expanding, and small; the stamina consist of four filaments longer than the corolla; the anthera oval and incumbent; the pistillum has an ovate germen, the stylus the length of the stamina; the stigmata two, acute; there is no pericarpium, the seed is an ovate unilocular nut the length of the calix: There appears to be an error in classing this genus; Michaux ranks it in the Pentandria Monogynia Class. See *Terbernemontana*.

AMBARVALLIS, an obsolete name of the *Polygala*.

AMBER TREE, the English name of a species of *Anthospermum*.



**AMBETTUWAY**, a barbarous name of a tree, the leaves of which when boiled in wine, are said to create an appetite, and is used by the people in Guinea with that intention.

**AMBRETTE VULGO.** See *Cyanus*.

**AMBROSIA**, a genus of the Monoecia Pentandria Class, ranking in the 49th Natural Order, *Compositæ Nucamentacæ*; the male flowers are compound; the common calix is a single leaved perianthium, the length of the florets; the compound corolla is uniform tubular, flat and hemispherical; the proper is monopetalous funnel shaped, and quinquefide; the stamina consist of five very small filaments; the antheræ are erect, parallel and pointed, the pistillum has a filiform stylus the length of the stamina; the stigma orbicular, and membranous, the receptaculum is naked, female flowers below the male ones, on the same plant, doubled; the calix is a single leaved perianthium entire, (with the belly quinque-dentated) one flowered, and persistent; there is no corolla, the pistillum has an ovate germen in the bottom of the calix a filiform stylus, the length of the calix, and two long bristly stigmata; the pericarpium is an ovate unilocular nut; the seed is single and roundish. There are five species, none of which have any properties worthy of notice.

1. **A: MARITIMA**, *Common Sea Ambrosia*, grows naturally on the sandy coasts of Hetruria and Cappadocia; rises near a yard high, the leaves are large, strongly scented, and deeply cut into many parts, the stalk is upright firm, and sends out many side branches: The flowers are produced from these wings, and grow singly in long hairy spikes. The male flowers are placed at the end of the spikes, and the female lower; the latter are succeeded each by a single seed contained in a hard oval shell, with leaves like Wormwood, having a pleasant odour.

2. **A: ARTEMISIFOLIA**, (*A Paniculata* of Mich. *Iva. Monophylla* of Walt. *A. maritimi folies artemisiæ inodoris elatior* of Herm.) *Mugwort Leaved Scentless Ambrosia*, grows naturally in Virginia and Canada; the leaves are large and winged, and much resemble those of mugwort; they are altogether without scent, the stalk grows to the same height with the former, dividing into several branches towards the top, and the flowers terminate the ends of them in bunches; the spikes of flowers are smooth, and blow in July. There is a variety of this species, called *A: Gigantia Inodora*.

3. **A: ELATIOR**, (*A: Absynthifolia*, *A: Maxima Inodora*, &c. *Pluk. Moris. and Ray.*) *Water Horehound Leaved Ambrosia*, grows naturally in Virginia and Pennsylvania; the leaves of this species are of two figures, those which come out first are whole or entire, but those which occupy the upper part of the stalk are winged. They are very beautifully divided, and without scent; the stalk attains near the same height with the two former, and also divides into branches near the top; the mode of flowering is similar to the foregoing.

4. **A: TRIFIDIA**. (*A: Virginiana* of Moris.) *Plane Three Leaved Ambrosia*, grows naturally in Carolina, Virginia, Canada, &c. The stalk is thick, firm, hairy, and branching, grows to a large size, sometimes rising seven or eight feet, the leaves are composed of three

and five lobes, which are serrated, they are large and resemble those of the Eastern Plane Tree. The flowers are exceeding small as hardly to be noticed.

There is a variety of this species that will grow to twelve or fourteen feet high, the leaves of which are trifid, very rough, and without scent.

5. A: *SIMPLICIFOLIA* of Walter, a native of Carolina.

*Note.* Michaux mentions another, viz. A: *Bidentata*, growing on the Illinois.

**AMBROSIA CAMPESTRIS REPENS** of Casp. Bauh. See *Nasturtium*.

**AMBROSINIA**, a genus of the Gynandria Polyandria Class; the calix is a single leaved spatha, divided by a partition into two cells; there is no corolla, the stamina consist of a single filament in the interior cell; the antheræ are numerous, with two roundish concave nectaries at their base; the pistillum is in the interior cell, the germen roundish, the stylus cylindrical, and shorter than the spatha; the stigma obtuse, the pericarpium a capsule, roundish and unilocular. There is but one species, a native of Turkey; it has no English name.

**AMBUBEJA**, an obsolete name of the *Cichoreum*.

**AMELLUS**, *Starwort*, a genus of the Syngenesia Polygamia Superflua Class, ranking in the 49th Natural Order, *Compositæ Oppositifoliæ*; the common calix is imbricated, and roundish, the compound corolla is radiated; the hermaphrodite corollets numerous in the disc; the female numerous in the ray: proper corolla of the hermaphrodites, are tubular and quinquefid; of the females tongued and loose, and two or three toothed, the stamina in the hermaphrodites consist of five short capillary filaments; the antheræ cylindric and tubular, the pistillum has an ovate germen, a filiform stylus, the length of the stamina, and two filiform stigmata; there is no pericarpium, but the calix unchanged; the seeds are ovate and solitary, the pappus is hairy, the receptaculum chaffy. There are two species.

1. A: **LYCHNITIS**, a native of the Cape of Good Hope, a perennial plant, rising about three feet high, sending out many branches on each side, so as to form a bushy plant; the branches are furnished with obtuse spear shaped leaves placed opposite, and are terminated by single naked flower stalks, each supporting one violet coloured flower, having a yellow disc, which is succeeded by oblong seeds; this species is easily propagated either by cuttings planted in the summer months, or by seeds sown on a moderate hot bed in the spring; they require a slight shelter in winter.

2. A: **UMBELLATUS**, (A: *Caroliniana* of Walt.) a native of Jamaica, and Carolina, rises from two to three feet high, sending out many branches, clothed with opposite leaves, which are terminated by small flowers, in umbels. This plant is more tender than the foregoing, and therefore requires to be sheltered in a stove during the winter season.

**AMERICAN HOG-WEED.** See *Boerhaavia*.

**AMERICAN LARCH.** See *Pinus Pendula*.

AMERICAN VIBURNUM. See *Lantana*.

AMERICAN UPRIGHT HONEY-SUCKLE. See *Azalea*.

AMERICAN GOOSEBERRY. See *Melastoma*.

AMERICAN CRANBERRY. See *Vaccinium*.

AMERICAN NIGHT-SHADE. See *Phytolacca*.

AMERICAN GROUND NUT. See *Arrachis*.

AMET, or WATER TREE, a tree growing on the Manilla Islands, from whence the natives obtain water, by cutting a hole in it.

AMETHYSTEA, *Amethyst*, a genus of the Diandria Monogynia Class, ranking in the 42d Natural Order, *Verticillatæ*; the calix consists of a single leaved perianthium, bell shaped, angular, semiquinquefide, and persistent; the corolla is monopetalous, the border quinquepartite, the lowest division more expanding; the stamina consists of two slender filaments approximated; the antheræ are simple, and roundish; the pistillum has a four cleft germen, stylus the size of the stamina; stigmata two, acute, no corolla, the seeds four, gibbous and shorter than the calix. There is only one known species, viz.

A: CERULÆA, *Blue Amethyst*, a native of Siberia, from whence the seeds were sent to the Imperial Garden, at Petersburg, and thence carried to Britain. It is an annual plant, with an upright stalk which rises about a foot high, towards the top it puts forth two or three small lateral branches, garnished with small trifid leaves, sawed on their edges, of a very dark green colour; the flowers appear in June or July, and are produced in small umbels at the extremities of the branches; they are of a fine blue colour, as are also the upper parts of the branches, and the leaves immediately under the umbels, so that they make a fine appearance: They are cultivated by seed sown in autumn, in the spot where they are to remain, as they do not thrive when transplanted; when the plants come up, no more care is necessary than to keep them clear of weeds.

AMMANIA, a genus of the Tetrandria Monogynia Class, ranking in the 17th Natural Order, *Calycanthemæ*; the calix is an oblong erect bell shaped perianthium, with eight Striæ, quadrangulated, octodentated and persistent; the corolla is either wanting, or it consists of four ovate expanding petals, inserted in the calix, the stamina consist of four bristly filaments the length of the calix; the antheræ are didymous, the pistillum has a large ovate germen above, the stylus simple and very short; the stigma headed; the pericarpium is a roundish four celled capsule, covered by the calix; the seeds are numerous and small. There are three species, all them natives of warm climates, they have no beauty, neither are they possessed of any remarkable property.

1. A: LATIFOLIA, with broad leaves.

2. A: RAMOSIOR, *Virginian Ammannia*, a native of Carolina and Virginia, grows about a foot high, the leaves are long, narrow, and placed on short footstalks at the joints; the stalk is round, succulent branching, of a reddish colour, and the side branches near the bottom of the plant are produced opposite to each other; the flowers grow without any uniformity from the different parts of the plant; from the extremities they show themselves in clusters, and often in the form of spikes, from the lower part of the plants; they

are produced singly, rising from the wings of the stalks ; their colour is white, and each is composed of four oval patent petals : they blow in August.

3. A: BACCIFERA, *Berry Bearing*, or *China Ammannia*, a native of China ; it is a very small plant, seldom exceeding three inches in height, the stalk is tender, round, upright, and of a dusky brown colour ; the leaves spear shaped and narrow, edges entire, they grow opposite, on short footstalks, the flowers small and numerous, and grow in whorls around the stalks at the wings of the leaves, and are succeeded by roundish reddish capsules, containing the seeds.

*Note.*—Michaux in his *Flora Boreali-Americana*, mentions a native species, which he calls

A: HUMILIS, (*A: Ramosior* of Walt.) a native of Carolina ; this grows near ponds, and is a low trailing plant, with lance shaped leaves ; none of them have any remarkable beauty ; Hanbury describes the following :

A: TETRAGONA, (*Isnardia* of Brown) *Barbadoes Ammannia*, a native of the Carribbee Islands, attains a height of about a foot, with a four cornered succulent, tender stalk, the leaves are long, narrow, and of a thickish consistence, and pale green colour, and half surround the stalk with their base ; the flowers are produced in clustered whorls round the stalks, at the joints : Sometimes they have petals, they are then four in number, but sometimes none.

AMMEOS. See the following.

AMMI, *Bishops Weed*, a genus of the Pentandria Digynia Class, ranking in the 45th Natural Order, *Umbellatae* ; the universal umbel of the calix is manifold, the partial one short and crowded, the involucre are pinnatifid, with numerous leaflets ; the corolla are radiated, and all hermaphrodite, the stamina consist of five capillary filaments, the antheræ roundish ; the pistillum has a germen beneath ; the styli are two and reflected, and the stigmata are obtuse ; there is no pericarpium, the fruit is roundish, polished, striated, small and partible, the seeds are two, plano-convex, and striated. There are three species.

1. A. MAJUS, (*A: Vulgaris Majoris* J. Bauh.) *Common Bishops Weed*, a native of Britain, and according to Walter of Carolina, and is an annual plant, and very common, it grows naturally in Spain, Italy, and several parts of the East. The stalk rises from a foot to near a yard high, it is round, striated and jointed. The leaves are pinnated, large, and the radical ones are supported by long footstalks, the folioles are spear shaped, narrow, and serrated, the leaves on the stalks are finely cut into a multitude of linear segments, forming a leaf like that of fennel. The tops of the branches are ornamented with large umbels of flowers, and the general umbel consists of several smaller disposed in a radiated manner ; they are white, and blow in June : The root is oblong, slender and white, it is propagated by seeds sown in autumn, in the place where the plants are to remain ; they will flower in June, and the seeds will ripen in August. This plant will grow in any open situation, but thrives best in a light sandy soil.

*Part used.* The seed.

*Sensible properties.* Smell and taste much weaker than the following, and without any thing of the origanum flavour of the true Ammi.

*Medical virtues.* The seeds of this species have been substituted for the following. They are used as an ingredient in the Theriaca, but are much weaker, therefore the Edinburgh College has dropt them, and retained only the following:

2. A: COPTICUM, (A: VERI. A: ODORE ORIGANI, J. Bauh.) *Egyptian*, or *True Ammi* or *Bishop's-Weed*. This species is brought from Egypt, and is no otherwise known than by the figure of its seeds, which are small, striated and of a reddish brown colour.

*Part used.* The seed.

*Sensible Properties.* Taste, warm, pungent, and a pleasant smell like that of Origanum.

*Medical virtues.* They are recommended as stomachic, carminative and diuretic, but have long been strangers to the shops, and as has been observed, their place is frequently supplied by the seeds of the former.

3. A: GLAUCIFOLIUM, a perennial plant, with all its leaves cut in the shape of a spear, it is a very hardy plant, and thrives best in a moist soil, and may be propagated by seeds in the same manner as the first species.

AMOMI. See *Sison*.

AMOMI VERUM. See *Amomum Verum*.

AMOMUM, *Ginger*, a genus of the monandria monogynia Class, ranking in the 8th Natural Order *Scitameneæ*; the calix is an obscure, three toothed perianthium, above; the corolla is monopetalous, the tubus short, the limbus tripartite, the stamina is an oblong filament with the antheræ adjoining, the pistillum has a roundish germen beneath, the stylus is filiforme, the stigma obtuse, the pericarpium is leathery, sub-ovate, trigonous, trilocular and three valved; the seeds are numerous. There are four species.

1. A: ZINGIBER, *Common* or *Anomum Ginger*, is a native of the East-Indies, from whence it was transplanted into the West-Indies, and latterly into South-Carolina; it is a perennial shrub or flag, which attains a height of  $2\frac{1}{4}$  or 3 feet, it grows naturally in the Indies without culture; the roots are jointed and spread in the ground, they put out many green reed-like stalks in the Spring, the flower stems arise by the side of these, immediately from the root, are naked, ending with an oblong scaly spike, from each of these scales is produced a single blue flower, whose petals are but little lower than the squamous covering. This plant has been received into the gardens on Santee and Edisto in South-Carolina, and though requiring but little care, in comparison of its usefulness, has not met with even the common attention; this it is to be presumed is owing to that partiality for foreign articles: They had rather buy, than cultivate. They are easily propagated by parting the roots in the Spring; in Carolina they have been set in small beds similar to Potatoe beds, in a light, rich earth, and suffered to remain: hogs are remarkably fond of the roots, and if they obtain access will do considerable damage to a field of it in a short time.

*Part used.* The dried roots.

*Sensible properties.* Fragrant smell; a hot, biting, aromatic taste.

*Medical virtues.* It is a very useful spice in cold, flatulent cholics, and in laxity and debility of the intestines, it does not heat so much as those of the pepper kind, but its effects are more durable, and enters several compositions.

*Domestic uses.* The green roots preserved as a sweet meat are preferable to every other kind; the Indians mix them with their rice, which is their common food, to correct its natural insipidity: this spice mixed with others, gives the dishes seasoned with it a strong taste, which is extremely disagreeable to strangers; the Europeans however who come to Asia without fortunes are obliged to conform to it, the others adopt it out of complaisance to their wives, who are generally natives of the country: it is an elegant addition to some kind of cake.

2. A: ZERUMBET, or *Wild Ginger*, is also a native of India; the roots are larger than those of the first, but are jointed in the same manner, the stalks grow from three to nearly four feet high, with oblong leaves placed alternately, the flower stem arises immediately from the root; these are terminated by oblong, blunt, scaly heads; out of each scale is produced a single white flower, whose petals extend a great length beyond the scaly covering. This requires the same management in its culture as the foregoing.

3. A: CARDAMOMUM, or *Cardamom*; is likewise a native of India, though it is but little known in Europe except by its seeds, which are used in medicine, there is a variety with smaller fruit, which occasions the distinction into *Cardamomum Majus* and *Minus*, the *Cardamomum Majus*, or Greater Cardamoms, is a dried fruit or pod about an inch long, containing under a thick skin, two rows of small triangular seeds of a warm aromatic flavour, these however in consequence of the superiority of the following, are scarcely ordered in medicine. The *Cardamomum Minus*, or lesser Cardamoms, is a fruit scarce half the length of the foregoing, but considerably stronger both in smell and taste. If we may believe the Abbe Raynal, Cardamoms propagate themselves in those countries where they are natives, without either sowing or planting; nothing more is required than as soon as the rainy season is over to set fire to the herb which has produced the fruit.

*Part used.* The seed.

*Sensible properties.* Warm, grateful, pungent, aromatic taste.

*Medical virtues.* Cardamoms as an aromatic are said to have this advantage, that notwithstanding their pungency they do not like those of the pepper kind immoderately heat or inflame the bowels; these seeds are used in several officinal preparations in the shops, viz. spirituous tinctures simple and compound, they are employed also as a spicy ingredient in several of the officinal compositions.

4. A: GRANA-PARADISI, *Grains of Paradise*; the fruit known by this name is brought from the East-Indies, it is about the size of a Fig divided into three cells, in each of which are contained two rows of small seeds, like Cardamoms.

*Parts used.* The seeds and fruit.

*Sensible properties.* Somewhat more grateful and considerably more pungent than the common Cardamoms, approaching in this respect to pepper.

*Medical virtues.* These are similar to the foregoing, agreeing in its pharmaceutical properties with pepper, it is also employed for the same purposes that ginger is usually employed, viz. a spice.

AMOMUM VERUM, (*Amomi racemosi*, C. Bauhine) *True Amomum.* This fruit is also brought from the East-Indies, it is round and about the size of a middling grape, containing under a membranous cover, a number of small, rough, angular seeds, of a blackish brown colour on the outside and whitish within; the seeds are lodged in three distinct cells, those in each cell are joined closely together, so that the fruit upon being opened appears to contain only three seeds; ten or twelve of these fruits grow together in a cluster and adhere without any pedicle, to a woody stalk about an inch long; each single fruit is surrounded by six leaves in form of a cup; and the part of the stalk void of fruit is clothed with leafy scales.

*Part used.* The seeds.

*Sensible Properties.* The husks, leaves and stem, have a light, grateful smell, and a moderately warm aromatic taste; the seeds freed from the husks are in both respects much stronger, their smell is quick and penetrating, their taste pungent, approaching to that of Camphor.

*Medical virtues.* Notwithstanding Amomum is an elegant aromatic, it has long been a stranger to the shops; it is directed as an ingredient in the Theriaca: The College of Edinburgh has expunged that composition, and as the true Amomum is not at present to be procured in this country, they have dropt its name. The College of London allows the seeds of the *Amomi Vulgaris* (v. *Sisonis quod Amomum Officinis Nostris*, C. B.) or Bastard Stone Parsley to be substituted in its stead. See *Sison*.

AMORPHA, *False Indigo*, a genus of the Diadelphia Decandria Class, ranking in the 32d Natural Order *Papilionacea* of Linnæus; the calix is a single leaved perianthium, tubular and persistent; the corolla consists of an ovate, concave, erect petal, scarcely larger than, and placed on the upper side of the calix; the stamina consist of ten erect, unequal filaments, longer than the corolla, the antheræ are simple, the pistillum has a roundish germen, the stylus subulated, and the length of the stamina, the stigma simple, the pericarpium is a lunated unilocular legumen, reflected, larger than the calix, and tuberculated; the seeds are two and kidney shaped: By the corolla alone this genus may be distinguished from all the known plants in the universe, the petals are the banner, the wings and keel are wanting, which is very singular in a papilionaceous corolla. There is only one known species—Mr. Walter defines two, viz.

1. A: FRUTICOSA, (*Barba Jovis Americana*) *False Indigo*, an indigenous plant of South-Carolina, which rises with many irregular stems to the height of 12 or 14 feet, the leaves are late in the spring before their foliage is fully displayed, the ends of their branches are generally destroyed by the frost, or if they recover it, they have the appearance of being dead, whilst other plants testify their effects of the reviving months. But notwithstanding these defects this tree has some other good properties that in part make amends for them;

the leaves when out are admired by all; they are of a pleasant green colour, are very large, beautifully pinnated, the folioles being arranged along the stalks by pairs, and terminate by an odd one, the flowers are of a purple colour, they grow in spikes seven or eight inches long at the ends of the branches, and are of a singular structure. The *Amorpha* is most readily propagated by seeds, or by laying down the young branches which in one year will make good roots, and may then be taken off and planted either in a nursery or in the places where they are designed to remain; they do not thrive upon removal after having stood long in a place. In order to make this tree have its best effect, it should be planted among others of its own growth, in a well sheltered situation, by which means the ends will not be so liable to be destroyed by the winter's frost; the branches will not suffer by the violence of the winds, and as it is subject to put out many branches near the root these indelicacies and imperfections will be concealed, whilst the tree will show itself to the utmost advantage, when in bloom.

*Domestic uses.* Formerly a coarse kind of Indigo was prepared from this plant by the inhabitants of Carolina, and from which the plant has taken its English name; it is however at present scarce otherwise noticed, than as an ornament in shrubberies, &c.

2. A: HERBACEA, with annual woolly stalk and leaves.

AMPANA, an obsolete name of the *Borassus*.

AMPELIS, the Vine. See *Vitis*.

AMPELOPSIS of Michaux, the *Hedera* and *Vitis* of Linnæus, which see.

AMYGDALUS, *The Almond and Peach*, a genus of the icosandria monogynia Class, ranking in the 36th Natural Order *Pomaceæ* of Linnæus; the calix is a single leaved perianthium beneath, tubular and quinquefide; the corolla consists of five oblong petals, which are inserted into the calix; the stamina consist of 30 slender, erect filaments, half the length of the corolla, and inserted into the calix; the antheræ are simple; the pistillum has a round villous germen above, a simple stylus, the length of the stamina and the stigma headed; the pericarpium is a large, roundish, villous drupa, with a longitudinal furrow; the seed is an ovate, compressed nut, perforated in the pores. Botanists admit of but one real species of the common Almond tree: the Botanic characters of the flowers comprehends also the Peach and the Nectarine.

1. A: COMMUNIS, or *Common Almond*, called by the natives *Totoca*, a native of Africa, which will grow to near 20 feet high, and whether planted singly in an open place, or mixed with others in clumps, shrubbery quarters, &c. shows itself one of the finest flowering trees in nature. Those who never yet saw it, may easily conceive what a noble appearance this tree must make, when covered all over with a bloom of a delicate red, which will be in March, a time when very few trees are ornamented either with leaves or flowers—No ornamental plantations therefore of what sort or kind soever, should be without Almond trees; neither are the beauties of the flowers the only thing desirable in this tree, the fruit would render it worthy of planting, were there no other motive; it ripens well, and its goodness is well known. The White flowering Almond is



a variety of this species, and is cultivated for the sake of its flowers and fruit, though the flowers are inferior to the others. It is said in the London Dispensatory for 1770, page 85, that the eye distinguishes no difference betwixt the trees which produce the sweet and bitter, or betwixt the kernels themselves, and that the same tree has, by a difference in culture afforded both. Almonds are propagated by inoculating them into plum-stocks in August; the stocks should be first planted in the nursery when of the size of a straw, and the first or second summer after, they will be ready to receive the bud; the usual method of inoculation must be observed and there is no danger of success.

The parts used and their sensible properties being so well known, we omit any farther description.

*Medical virtues.* Sweet Almonds are said to afford but little nourishment, and when eaten in substance are not easy of digestion, unless thoroughly comminuted; peeled and eaten six or eight at a time, they sometimes give present relief in heart-burn; the use of a little salt is said to render them miscible with our fluids as a saponaceous mass, but if indulged in to excess they are productive of alarming and sometimes fatal disorders: The oleaginous part quickly becomes acrid on the stomach, hence they are particularly improper for persons of a bilious habit, but in medicine they are mostly used for making emulsions, and they abound not only with an oil, but likewise with a mucilage fit for incorporating oil and water together; the emulsion is commonly made as follows, beat an ounce of blanched Almonds in a marble mortar, into a fine pulp, and triturate them well with half an ounce (more or less) of fine sugar, then add by little at a time a quart of water, taking care to continue grinding them while the water is poured on, after which the white milky liquor is strained through a cloth, some add a dram of blanched bitter Almonds to an ounce of the sweet, which they think make the emulsions more agreeable. Such emulsions have been much used as a drink in acute diseases, for diluting and blunting acrimonious juices in the first passages, and acrid saline particles in the blood; and for softening and lubricating the fibres and membranes. It may not however be amiss here, to object to the absurdity of giving Almond milk, &c. as a common diet drink to febrile patients, for as it consists entirely of oily and insoluble parts, it not only heats and vitiates the stomach, but at the same time occasions an accumulation of bile. It has been a common practice to dissolve from half an ounce to an ounce or more of Gum Arabic, in the water; used for making the emulsions, and to make patients drink freely of them, while blisters are applied to the body in order to prevent strangury, as also in cases of gravel, and of inflammation of the bladder or urethra, and in heat of urine from virulent gonorrhoea, or other causes. Camphor, Resin of Jalap and other resinous substances, by being triturated with Almonds become miscible with water, and more mild and pleasant than they were before. The bitter Almonds are suspected as possessing deleterious qualities, as they have been found to destroy some sort of animals, but when eaten by men they appear to be innocent.

*Note.* The expressed oil of Bitter Almonds is in cases of poison recommended preferably to all others, but care must be taken not to use the chemical or distilled oil instead of the natural, as the chemical oil of almonds, is itself a poison.

2. A: NANA, *Dwarf Almond*, is a native of Asia Minor, of this Shrub there are two sorts, the single and the double, both grow to about four or five feet high, and are in the first esteem as flowering shrubs; the single sort has its beauties; but the double kind is matchless. In both, the flowers are arranged the whole length of last year's shoots, their colour is a delicate red, and they shew themselves early in the spring, which still enhances their value. Both these species are propagated by layers, or from the suckers, which they sometimes send forth in great plenty.

3. A: PERSICA, or *Peach*, is said to be a native of Europe, but of what place is not known. It is cultivated extensively in Carolina, Georgia and some others of the United States. Cultivation has produced many varieties of this fruit, the most esteemed of which shall be particularized.

*Parts used.* The flowers and fruit, also the leaves.

*Sensible properties.* The fruits of both the Peach and the Nectarine are sufficiently known as delicious: The flowers have an agreeable smell, and a bitterish taste.

*Medical Virtues.* An infusion in water of half an ounce of the fresh gathered flowers, or a drachm of them when dried, sweetened with sugar, proves for children an useful laxative, and anthelmenthic; The leaves of the tree are with this intention somewhat more efficacious, though less agreeable. The fruit has the same quality, with the other sweet fruits, that of abating heat, quenching thirst, and gently loosening the belly: The varieties are as follows, viz:

1. *The White Nutmeg* is the first peach in season, being often in perfection by the end of July. The leaves are doubly serrated, the flower large and of a pale colour, the fruit is white, small and round, the flesh too is white, parts from the stone, and has a sugary musky flavour.

2. *Red Nutmeg*, hath yellowish green leaves, with serpentine edges, which are slightly serrated, the flowers are large, open, and of a deep bluish colour, the fruit is larger and rounder than the former, and is of a bright vermilion next the sun, but more yellow on the other side. The flesh is white except next the stone, from which it separates, and has a rich musky flavour, it ripens just after the foregoing.

3. *Early Purple*, hath smooth leaves, terminated in a sharp point, the flowers are large, open, and of a lively red, the fruit is large, round and covered with a fine deep red coloured down, the flesh is white, red next the stone, and full of a rich vinous juice. Ripe about the middle of August.

4. *Small Mignon*, hath leaves slightly serrated, the flowers small and contracted, the peach is round, of a middling size, tinged with darkish red on the sun side, and is of a pale yellowish colour on the other, the flesh is white, parts from the stone, where it is red, and

contains plenty of a vinous sugary juice. Ripens rather before the former.

5. *White Magdalen*, hath long, shining, pale green leaves, deeply serrated on the edges, and the wood is mostly black at the pith, the flowers are large and open, appear early, and are of a pale red: The fruit is round, rather large, of a yellowish white colour, except on the sun side, where it is slightly streaked with red, the flesh is white to the stone, from which it separates, and the juice pretty well flavoured. Ripe at the end of August.

6. *Yellow Alberge*, hath deep red, middle sized flowers, the peach is smaller than the former, of a yellow colour on the shady side, and of a deep red on the other, the flesh is yellow, red at the stone, and the juice is sugary and vinous.

7. *Great French Mignon*, hath large finely serrated leaves, and beautiful red flowers, the fruit is large, quite round, covered with a fine satiny down, of a brownish red colour on the sunny side, and of a greenish yellow on the other. The flesh is white, easily parts from the skin, and is copiously stored with a sugary high flavoured juice. Ripe near the middle of August.

8. *Beautiful Chevreuse*, hath plain leaves and small contracted flowers, the fruit is rather oblong, of a middling size, of a fine red colour next the sun, but yellow on the other side, the flesh is yellowish, parts from the stone and is full of a rich sugary juice. Ripens a little after the former.

9. *Red Magdalen*, hath deeply serrated leaves and large open flowers, the fruit is large, round, and of a fine red next the sun, the flesh is firm white, separates from the stone, where it is very red, the juice is sugary and of an exquisite rich flavour. Ripe at the end of August.

10. *The Chancellor*, hath large, slightly serrated leaves, the peach is about the size of the beautiful Chevreuse, but rather rounder, the skin is very thin, of a fine red on the sunny side, the flesh is white and melting, parts from the stone, and the juice is very rich and sugary. Ripens with the former.

11. *Smith's Newington*. The leaves are serrated and the flowers are large and open, the fruit is of a middle size, of a fine red on the sunny side, the flesh white and firm, but very red at the stone, to which it sticks closely, and the juice has a pretty good flavour. Ripens with the former.

12. *The Montauban*, hath serrated leaves and the flowers are large and open, the fruit is about the size of the former, of a purplish red next the sun, but of a pale one on the shady side. The flesh is melting and white even to the stone, from which it separates, the juice is rich and well flavoured. Ripens a little before the former.

13. *The Malta*, hath deeply serrated leaves, and the flowers are large and open, the fruit is almost round, of a fine red next the sun, marbled with a deeper red, but the shade side is of a deep green, the flesh is a fine white, except at the stone, from which it parts, where it is of a deep red, the juice is a little musky and agreeable. Ripens at the end of August or beginning of September.

14. The *Vineuse*, hath large deep green leaves, and full bright red flowers, the fruit is round, of a middle size, the skin is thin, all over red, the flesh fine and white, except at the stone, where it is very red, and the juice is copious and vinous. Ripe in the middle of September.

15. The *Bellegarde*, hath smooth leaves, and small contracted flowers, the fruit is very large, round and of a deep purple colour next the sun, the flesh is white, parts from the stone, where it is of a deep red, and the juice is rich and excellent. Ripens early in September.

16. The *Bourdine*, hath large, fine, green plain leaves and small flesh-coloured contracted flowers, the fruit is round, of a dark red next the sun, the flesh white, except at the stone, where it is of a deep red, and the juice is rich and vinous. Ripens with the former.

17. The *Rosanna*, hath plain leaves and small contracted flowers, the fruit is rather longer than the *Alberge*, and some count it only a variety of the latter. The flesh is yellow, and parts from the stone, where it is red, the juice is rich and vinous. Ripe early in September.

18. The *Admirable*, hath plain leaves and small contracted flowers, which are of a pale red, the fruit is very large (and round, the flesh is firm, melting and white, parts from the stone, where it is red, and the juice has a sweet, sugary, high vinous flavour. Ripe early in September.

19. The *Old Newington*, hath serrated leaves, and large open flowers, the fruit is large, of a fine red next the sun, the flesh is white, sticks close to the stone, where it is of a deep red, and the juice has an excellent flavour. Ripens just after the former.

20. The *Royal*, hath plain leaves and small contracted flowers, the fruit is about the size of the *Admirable* and resembles it, except that it has sometimes a few knobs or warts, the flesh is white, melting and full of a rich juice, it parts from the stone, and is there of a deep red. Ripe about the middle of September.

21. The *Rambouillet*, hath leaves and flowers like the *Royal*, the fruit is rather round than long, of a middling size, and deeply divided by a furrow, it is of a bright yellow on the shady side, but of a fine red on the other, the flesh is melting yellow, parts from the stone, where it is of a deep red, and the juice is rich and vinous. Ripe with the former.

22. The *Portugal*, hath plain leaves and large open flowers, the fruit is large spotted, and of a beautiful red on the sunny side, the flesh is firm, white, sticks to the stone, and is there red, the stone is small, deeply furrowed, and the juice is rich and sugary. Ripe towards the end of September.

23. The *late Admirable*, hath serrated leaves, and brownish red, small contracted flowers, the fruit is rather large and round, of a bright red next the sun, marbled with a deeper, the flesh is of a greenish white, and sticks to the stone, where it hath several red veins, the juice is rich and vinous. Ripe about the middle of September.

24. The *Nivette*, hath serrated leaves, and small contracted flowers, the fruit is large and roundish, of a bright red colour next the sun, but of a pale yellow on the shady side, the flesh is of a greenish yellow, parts from the stone, where it is very red, and is copiously stored with rich juice. Ripens about the middle of September.

25. *Venus' Nipple* hath finely serrated leaves, and rose coloured, small contracted flowers, edged with carmine; the fruit is of a middling size, and has a rising like a breast; it is of a faint red on the sunny side, and on the shady one of a straw colour, the flesh is melting, white, separates from the stone, where it is red, and the juice is rich and sugary. Ripens about the middle of September.

26. The *Late Purple* hath large serrated leaves, which are variously contorted, and the flowers are small and contracted, the fruit is round, large, of a dark red on the sunny side, and yellowish on the other; the flesh is melting, white, parts from the stone, where it is red, and the juice is sweet, and high flavoured, ripens with the former.

27. The *Persique* hath large, very long indented leaves, and small contracted flowers; the fruit is large, oblong, of a fine red next the sun; the flesh firm, white, but red at the stone, juicy, and of a high pleasant flavour; the stalk has frequently a small knot upon it. Ripe late in September.

28. The *Catharine* hath plain leaves, and small flowers; the fruit is large, round, of a very dark red next the sun; the flesh white, firm, sticks close to the stone, and is there of a deep red, the juice is rich and pleasant. Ripens early in October.

29. The *Monstrous Pavy* hath large, very slightly serrated leaves, and large but rather contracted flowers; the fruit is round and very large, whence its name; it is a fine red on the sunny side, and of a greenish white on the other, the flesh is white, melting, sticks close to the stone, and is there of a deep red; it is pretty full of juice, which in dry seasons is sugary vinous, and agreeable. Ripe towards the end of October.

30. The *Bloody Peach* hath rather large serrated leaves, which turn red in autumn: the fruit is of a middling size, the skin all over of a dull red, and the flesh is red down to the stone; the fruit is but dry, and the juice rather sharp and bitterish; it is well worth cultivating, notwithstanding, for the fruit bake and preserve well.

31. The *Indian Peach* hath leaves like the former; the fruit is also of a middling size, the skin while growing of a dusky dark green, appears shrivelled, when half grown the flesh cuts red from the centre to the skin; when fully ripe the skin becomes a deep brown, the flesh next to it a deep yellow, towards the stone a beet red. It is a juicy peach, and looked upon a great rarity in South-Carolina, where it has just began to be cultivated: The seeds of this Peach were procured from the Indians of Georgia.

Peaches are propagated by seeds, grafting, inoculating, and by cuts; the mode of cultivating is so well known as to need no farther description.

The *Nectarine* is said by Linnæus to be only a variety of the Peach, its having a smooth coat being only an accident originally; there

are also many varieties cultivated ; the following are the most esteemed, viz.

1. The *Elruge* hath large serrated leaves, and small flowers, the fruit is of a middling size, of a dark purple colour next the sun, and of a greenish yellow on the shady side, the flesh parts from the stone, and has a soft melting, good flavoured juice. Ripe early in August.

2. The *Newington* hath serrated leaves, and large open flowers ; the fruit is pretty large, of a beautiful red on the sunny side, but of a bright yellow on the other ; the flesh sticks to the stone ; it is there of a deep red colour, and the juice has an excellent rich flavour. Ripe towards the end of August.

3. The *Scarlet* is rather less than the former, of a fine scarlet colour next the sun, but fades to a pale red on the shady side ; it ripens near the time of the former.

4. The *Roman*, or *Cluster Red Nectarine*, hath plain leaves, and large flowers ; the fruit is large, of a deep red towards the sun, but yellowish on the shady side ; the flesh is firm, sticks to the stone, and is there red, the juice is rich and has an excellent flavour. Ripe towards the end of August.

5. The *Murrey* is a middling sized fruit, of a dirty red colour on the sunny side, and yellowish on the shady one, the flesh is firm and tolerably flavoured. Ripens early in September.

6. The *Italian Nectarine* hath smooth leaves, and small flowers ; the fruit is red next the sun, but yellowish on the other side ; flesh firm, adheres to the stone where it is red, and when ripe, which is early in September, has an excellent flavour.

7. The *Golden Nectarine* has an agreeable red colour next the sun, bright yellow on the opposite side ; flesh very yellow ; sticks to the stone, where it is of a pale red ; has a rich flavour, and ripens in September.

8. *Temples Nectarine* is of a middling size, of a fair red next the sun, of a yellowish green on the other side, flesh white near the stone, and has a high poignant flavour.

*Note.* All the above species are propagated by inoculating them into Plum stocks in August ; the stocks must be treated in the same manner as has been directed for the propagation of Almonds.

AMYRBERIS. See *Berberis*.

AMYRIS, *Gum Elemi Tree*, a genus of the Decandria Monogynia Class, ranking in the 32d Natural Order, *Papilionacæa* ; the calix is a small single leaved perianthium, four toothed and persistent ; the corolla consists of four oblong petals, concave and expanding ; the stamina consists of eight erect subulated filaments, the antheræ are oblong, erect, and the length of the corolla ; the pistillum has an ovate germen above ; a thickish stylus, the length of the stamina, and a four cornered stigma, the pericarpium is a round drupaceous berry, the seed is a globular glossy nut. There are four species, viz.

1. A: ELEMIFERA, *Gum Elemi*, or *Gum Lemon Shrub*, is a native of Carolina, South America, and the Indies ; it grows to the height of about six feet, producing trifoliated stiff, shining leaves, growing opposite to one another, on footstalks, two inches long ; at the ends

of the branches grow four or five slender stalks, set with many very small white flowers. This Shrub is called by the natives *Icicariba*.

*Part used.* The Gum resin, commonly called Gum Elemi.

*Sensible properties.* This drug is brought from the Spanish West-Indies, and sometimes from the East Indies, in long roundish cakes, generally wrapped up in flag leaves; the best sort is softish, somewhat transparent, of a pale whitish yellow colour, inclining a little to green, of a strong, not unpleasant smell; it almost totally dissolves in pure spirit, and sends over some part of its fragrance along with this menstruum in distillation: Distilled with water, it yields a considerable quantity of pale coloured, thin fragrant essential oil.

*Medical virtues.* This resin gives name to one of the official ointments, and is scarce any otherwise made use of, though preferable to some others which are held in greater esteem.

*Note.* Authors seem to be divided respecting the class of this plant; some class it in the *Hexandria Monogynia*, others in the *Decandria Monogynia*; we therefore refer to the article *Eursera*, where a more full description is given.

2. A: GILEADENSIS, *Balm*, or *Balsam of Gilead*; it is also called *Oprobalsamum*; it is an evergreen shrub, growing spontaneously in Arabia, Felix, and Jericho; whence the Turks have transplanted the shrubs into their gardens, at Grand Cairo, where they are guarded by the Janisaries, or Soldiers, during the time the Balsam flows, and at which time it is very difficult to get a sight of them. The true Balsam tree is also found near to Mecca, which is situated about a days journey from the Red Sea, on the Asiatic side: The leaves of the tree are like the leaves of Rue, the flowers are white, and shaped like stars; in the middle of which, rises little kernels, or berries, which adheres to the branches by means of a very small stalk; it is green at first, but grows brown as it ripens; when the Balsam first runs, it is of the consistence of oil of Sweet Almonds, but by age becomes like Turpentine, loses much of its smell, and grows sometimes blackish. It is almost impossible to get any of the Balsam, unless it be by means of some Ambassador, to whom the Grand Seignor has made a present of it, or by the Soldiers who watch this precious liquor; otherwise it is rarely ever to be had genuine; the Turks themselves holding it in too great esteem, to suffer any of it to be exported.

*Part used.* The Balsam, commonly known under the various names of *Balsam*, *Judaicum*, *Syriacum*, *L' Mecha*, *Oprobalsamum*, and *Balm of Gilead*; also the fruit already described, and which is called *Carobalsamum*.

*Sensible properties.* The true Balm of Gilead, or *Oprobalsamum*, according to Alpinus, is at first turbid and white, of a very strong pungent smell, like that of Turpentine, but much sweeter, and of an acrid, bitter astringent taste: After some time it acquires a yellowish, or greenish yellow colour, a warm bitterish aromatic taste, and an acidulous, fragrant smell. Dr. Alston says the surest marks of this Balsam being pure and genuine, is spreading quickly on the surface of water when dropt into it, and that if a single drop of it is let

fall into a large saucer full of water, it immediately spreads all over its surface, and as it were dissolves and disappears; but in about half an hour it becomes a transparent pellicle, covering the whole surface, and may be taken up with a pin, having lost both its fluidity and colour, and become white and soft, cohering and communicating its smell and taste to the water. The *Carpobalsamum* is about the size of a Pea, of a whitish colour, inclosed in a dark brown wrinkled bark, has a pleasant, warm, glowing taste and a fragrant smell resembling that of the *Opobalsam*.

*Medical virtues.* Balm of Gilead, or the *Opobalsamum*, is in high esteem among the Eastern nations, both as a medicine, and as an odoriferous ointment and cosmetic; it has been recommended in a variety of complaints, but its great scarcity, and the almost impossibility of obtaining the genuine drug, has prevented it from coming into use, and it is now generally believed that the Canada and Copai-va Balsams, answer equally as good purposes as any that are to be expected from the Balm of Gilead; and though Solomons has boasted and imposed on many ignorant people, his Nostrum for the true Balm of Gilead, it has been asserted, and by good authority, to be no other "than a base compound," and from the circumstances before noted, conceive his Nostrum to be prepared either of the Canada Balsam, or of the Balsam of Juniper, trees common enough in America. The *Carpobalsam* likewise is rarely to be met with genuine, such as is commonly to be obtained, has lost almost all its smell and taste, having no doubt previously been divested of its good qualities before exportation; it had formerly a place in the Mithridate and Theriaca formulæ; when genuine its virtues are similar to the *Opobalsamum*.

3. A: *TOXIFERA*, or *Poison Wood*, it grows usually on rocks, in Providence, Ilathera, and others of the Bahama Islands, it is a small tree with a smooth, light coloured bark; its leaves are winged, the middle rib is 7 or 8 inches long with pairs of pinnæ one against another, on inch long footstalks, the fruit hangs in bunches, is shaped like a pear, and is of a purple colour, covering an oblong hard stone; from the trunk of this tree distils a liquid as black as ink. Birds feed on the fruit, particularly one called the "*Purple Cross-beak*," on the mucilage that covers the stone.

4. A: *BALSAMIFERA*, or *Rose Wood*, is found on gravelly hills in Jamaica, and others of the West-India Islands; it rises to a considerable height, and the trunks are remarkable for having large protuberances on them; the leaves are Laurel-shaped, the small blue flowers are on a branched spike, and the berries are small and black. The writers on Botany and the *Materia Medica* are much divided about this tree, some will have the Rose Wood to be a species of *Aspalathus*, other the *Rhodiola Rosea* of Linné, but the latest writers of the *Materia Medica*, have determined it to the *Genista Canariensis* of Linnæus (i. e. *Lignum Rhodium*, or *Rose Wood*). Be this as it may, *Rhodium* is at present in esteem only on account of its oil, which is employed as an high and agreeable perfume, in scenting pomatums and the like.

*Domestic uses.* The *Balsamifera* or *Rose Wood* affords an excellent timber, it is also replete with a fragrant balsam or oil, and



retains its flavour and solidity, though exposed to the weather, many years; and Dr. Wright, thinks a perfume equal to the *Oleum Rhodii* may probably be obtained from this species by distillation.

**ANABASIS**, *Berry-bearing Grasswort*. See *Salsola*.

**ANACAMPSEROS**, a synonyme of the *Portulaca* and several other plants.

**ANACARDIUM**, or *Cashew Nut tree*, (*Malacca Bean*, London Disp. for 1770) a genus of the decandria monogynia Class (Rousseau, *Polygamia Dioecia*) ranking in the 12th Natural Order *Holotraceæ* of Linnæus: the calix is divided into five parts, the divisions ovate and deciduous; the corolla consists of five reflected petals, twice the length of the calix; the stamina consist of ten capillary filaments, shorter than the calix, one of them without the antheræ; the antheræ are small and roundish; the pistillum has a roundish germen; the stylus is subulated, inflected, and the length of the corolla; the stigma oblique; there is no pericarpium, the receptaculum is very large and fleshy; the seed is a large kidney-shaped nut, placed above the receptaculum. There is only one known species, viz.

**A: OCCIDENTALE**, it grows naturally in the West-Indies, and arrives at the height of 20 feet in those places of which it is a native. One of these plants are to be seen in the Botanic Garden of South Carolina.—The fruit of the *Anacardium* is as large as an Orange, and is full of an acrid juice, which is frequently made use of in making punch. To the apex of this fruit grows a nut of the size and shape of a Hare's kidney, but much larger at the end which is next the fruit than at the other; the shell is very hard, and the kernel which is sweet and pleasant is covered with a thin film, between this and the shell is lodged a thick, blackish, inflamable liquor, of such a caustic nature in the fresh nuts, that if the lips chance to touch it, blisters will immediately follow—they are propagated easily from the nuts.

*Parts used.* The fruit and nut.

*Sensible properties.* The fruit, as was already observed, contains an acid juice; the nut growing to the apex, contains between the outer shell and a thin film covering the kernel, a very acrid juice; the kernel of a sweetish taste, not unlike Almonds.

*Medical virtues.* The Medical virtues of *Anacardium* have been greatly disputed, many have attributed to them the faculty of comforting the brain and nerves, and fortifying the memory, quickening the intellect, hence a confection made from them has been dignified with the title of *Confectio Sapientum*, others think it better deserves the name of *Confectio Stultorum*, i. e. confection of fools, and mention instances of its continued use having rendered people maniacal; the ill effects however attributed to this fruit belong only to the juice contained betwixt the kernels, the acrimony of which is so great as to be employed by the Indians as a Caustic, it is recommended externally for tetter, freckles, and other cutaneous disorders, and is esteemed an excellent cosmetic with the West-India young ladies, but they must certainly suffer a great deal of pain in its application, and fond as our young ladies are of a smooth, beautiful face, it is highly probable they would never submit, to be flayed alive to obtain one.

When any of the former fancy themselves too much tanned by the scorching rays of the sun, they gently scrape off the thin outside of the stone, and then rub their face all over with the stone; their faces immediately swell and grow black, and the skin being poisoned by the caustic oil above mentioned, will in the space of five or six days, come entirely off in large flakes, so that they cannot appear in public in less than a fortnight, by which time the new skin looks as fair as that of a new born child. The negroes in Brazil cure themselves effectually of disorders in the stomach, by eating of the yellow fruit of this tree, the juice of which being acid, cuts the thick and tough humours which obstructed the free circulation of the blood, and thus removes the complaint.

*Domestic uses.* The kernels freed from the outer parts are eaten raw, roasted, or pickled; the juice of the fruit is used by the natives for making punch; and the milky juice of the tree will stain linen a good black, which cannot be washed out.

**ANACYCLUS**, a genus of the Syngenesia Polygamia Superflua Class, ranking in the 49th Natural Order *Composita-discoides*; the calix is hemispheric and imbricated; the corolla is radiated; the stamina consist of five very short capillary filaments; the antheræ cylindric and tubular; the pistillum has an oval germen, a filiform stylus, a bifid stigma in the hermaphrodites, two slender reflected stigmata in the females; there is no pericarpium, but the calix unchanged, the receptaculum is chaffy, the seeds are solitary with membranous wings. There are three species all natives of the Indies.

1. **A: CRETICUS**, *Cretan Anacylus*; this is the *Cotula Cretica* of Tournefort, it grows naturally in Crete, it has small trailing stalks, and decompound leaves, finely divided into a multitude of narrow parts, the divisions are plane, and the whole leaf very much resembles Chamomile; the flowers are small and of a white colour, they grow singly, and their heads are inflected; they blow in June.

2. **A: ORIENTALIS**, (*Chamæmelum Orientale* of Tourne.) *Oriental Anacylus* a native of the East, has also short, weak and trailing stalks; the leaves of this species are only compound; they are pinnated and each is composed of several setaceous (bristly) acute lobes; the flowers are white and very much like Chamomile; they blow in July.

3. **A: VALENTINUS**, (*Chrysanthemum Valentinum* of Clusius, Buphalmo, &c. of J. Bauh.) *Valentinian Anacylus*, grows in Valentia; this species hath a slender branching stalk of about a foot long; the leaves resemble those of Chamomile and are hairy, the flowers are produced singly from the ends of the branches, are large, of a bright yellow colour, and are very handsome; they blow in July and August.

**ANAGALLIS**, *Pimpernel*; a genus of the Pentandria Monogynia Class, ranking in the 20th Natural Order *Rotacea*; the calix is a quinquepartite perianthium, which is persistent; the corolla consists of one rotated petal; the stamina consist of five erect filaments shorter than the corolla, the antheræ are simple, the pistillum has a globular germen, the stylus slightly declinated, the stigma headed, the pericarpium is a globular capsule, unilocular

and circumscribed; the seeds are numerous and angled; the receptaculum globular and very large. Of this there are four species.

1. A: ARVENSIS. *Common or Scarlet Pimpernel* an indigenous plant, growing in corn fields, and sandy places. Dr. Withering observes that, every part of this plant is singularly beautiful. They are also farther remarkable, that the flowers open regularly between eight and nine o'clock in the morning, and close their petals at four in the afternoon; from which circumstance they have also received the name of Four o'clock Flowers. (See *Mirabilis*)—Pimpernel has two strong varieties, viz. (*Flore Coeruleo* and *Flore Phoenicio*.) These have been distinguished by late Botanists as distinct species; the first, or blue flowered, as the female, and the latter as the male. It is a low plant, resembling Chickweed, but easily distinguishable by its leaves, being spotted underneath, and joined immediately to the stock; the male and female differ no otherwise than in the colour of their flowers; are both found wild in the fields, the male, or red flowered sort being most common.

*Part used.* The leaves and flowers.

*Sensible properties.* An herbaceous roughish taste, with little or no smell.

*Medical virtues.* Many extraordinary virtues have been attributed to them; they have been esteemed cephalic, sudorific, vulnerary, antimaniacal, antiepileptic, and alexiterial. Crowned heads and Republics have passed laws to preserve it from destruction, but unhappily this plant affords another instance, among many others, of having obtained a high character, without the smallest pretensions thereto. The flowers were formerly in great repute, for their supposed efficacy in curing the bite of a mad dog. It has, however, repeatedly failed, and the plant in a medicinal view, justly disregarded.

*Domestic uses.* This plant is not unfrequently taken as food, it makes no unpleasant salad, and in some parts of Great-Britain is a common pot herb. All the species are eaten by cows and goats, but refused by sheep. Small birds are greatly delighted with the seed. They are also all of them easily propagated by seeds, and if suffered to remain till their seeds scatter, they soon become troublesome weeds.

2. A: MONELLI, or *narrow leaved Pimpernel*, is a beautiful small perennial plant, and produces numbers of fine blue flowers—and is a native of Verona.

3. A: LATIFOLIA, *Spanish Pimpernel*, a native of Spain, and produces likewise blue flowers.

4. A: LINIFOLIA, *Flax leaved Pimpernel*. Is also a native of Spain.

ANAGALLIS AQUATICA. See *Becabunga* and *Veronica*.

ANAGYRIS, *Stinking Bean trefoil*, a genus of the decandria monogynia class, ranking in the 32nd. Natural Order, *Papilionaceae*. The calix is a bell shaped perianthium, the corolla is papilionaceous, the vexillum cordated, straight, emarginated, and twice as long as the calix, the alæ ovated, and longer than the

vexillum, the carina straight and very long, the stamina consist of ten filaments, the antheræ simple, the pistillum has an oblong germen, a simple stylus, and a villous stigma, the pericarpium is an oblong legumen, the seeds are six or more, and kidney shaped, there is but one species, viz.

Λ: FOETIDA, *Stinking Bean trefoil*, a native of Spain, Sicily, Italy and the southern parts of Europe. It is a shrub which usually rises to the height of eight or ten feet, and produces its flowers in April or May. These are of a bright yellow colour, growing in spikes somewhat like the Laburnum. It is propagated either by seeds or by laying down the tender branches in the spring; but the first method is preferable, the seeds should be sown towards the end of March, and the second spring be transplanted in a border, near a south wall, and sheltered from the winter—after which they may remain. The leaves are said to be laxative, and the seeds emetic.

ANANDRIA. See *Tussilago*.

ANANAS, the trivial name of a species of *Bromelia*.

ANANTHOCYCLUS. See *Colutea*.

ANAPODOPHYLLUM. See *Podophyllum*.

ANARHINON. See *Antirrhinum*.

ANASSA, a synonyme of a species of *Bromelia*.

ANASTATICA, *The Rose of Jericho*, a genus of the Tetradynamia Siliculosa class, ranking in the 39th Natural Order, *Siliquosa*. The calix is a perianthium consisting of four leaves and persistent, the corolla consists of four cruciform petals: The stamina consist of six subulated filaments the length of the calix, the antheræ are roundish, the pistillum has a small bifid germen, the stylus mucronated and oblique; the stigma headed, the pericarpium is a short bilocular silicle, retuse, and crowned on the margin, with valvulæ twice as long as the partition; the seeds are solitary and roundish. There are two species.

1. A: HIEROCMUNTICA, *Rose of Jericho*, or *Rosa Maria*, a native of the the sandy parts of Palestine and the Red Sea, it is a low annual plant, dividing into many irregular woody branches near the root, at each joint is placed a single oblong hairy leaf, and at the same places come out small single flowers of a whitish green colour, composed of four leaves placed in the form of a cross, these are succeeded by short wrinkled pods, having four small horns, these open into four cells, in each of which is lodged a single brown seed. When the seeds of this plant are ripe, the branches will draw up and contract so that the whole plant forms a kind of ball or globular body, which will expand on laying it a short time in warm water. This property it retains for many years, on which account it is preserved as a curiosity by some people, and from this property the Monks have given it the name of *Rosa Maria*, pretending that the flowers open on the night on which our Blessed Saviour was born.

This plant is propagated by seeds, sown in the beginning of March, in a moderate hot bed, in pots, in which the plants are designed to remain; when they come up, the plants should be thinned, leaving them about six inches assunder, and observing to keep them

clear from weeds which is all the care they require. If the season proves favorable, they will flower in August.

2. A: SYRIACA, *Syrian Rose of Jericho*, a native of Syria, is now cultivated in Britain. It is also a very low species, the branches are numerous, and the leaves are narrow and sharply pointed, the flowers are produced from the divisions of the branches in longer spikes than the foregoing, they are small whitish, and in their native country are succeeded by short oval rostrated or beaked pods, containing the seeds. It is propagated in the same manner as the other.

ANCHUSA, *Alkanet*, or *Bugloss*, a genus of the Pentandria Monogynia class, ranking in the 41st Natural Order, *Aperifolia*, the calix is a quinquepartite perianthium, oblong and persistent; the corolla is monopetalous and funnel shaped, the throat closed with scales; the stamina consist of five short filaments, the antheræ oblong and covered; the pistillum has four germina, a filiform stylus and obtuse stigma. There is no pericarpium; the calix containing the seed in its bosom; the seeds are four oblong gibbous, and engraven at the base. There are eight species.

1. A: OFFICINALIS, or *Greater Garden Bugloss*, is a native of France and the warmer parts of Europe, but will thrive also in other places, though the roots seldom continue longer than two years (in Britain) unless they happen to grow in rubbish, or out of an old wall, where they will live three or four years, and continue to blow through the whole summer.

*Part used.* The flowers.

*Sensible properties.* Agreeable, pleasant taste, without offending the palate or stomach.

*Medical virtues.* These have been called cordial flowers, to which however, they have no other title than that they moderately cool and soften the palate and stomach, and thus in warm climates, or in hot diseases, may in some measure refresh the patient.

*Domestic use.* The young leaves afford a good substitute for early garden vegetables, and the whole plant is an excellent fodder for cattle: The juice of the fresh flowers boiled with a solution of allum, yields a green colour, which is used for dyeing.

2. A: ANGUSTIFOLIA, *Italian Bugloss*, or *Perennial wild Borage*, grows to the height of two feet when cultivated in gardens, but in those places where it grows wild, is seldom more than a foot and a half high, the leaves of this sort are narrow; the spikes of flowers come out double, and have no leaves about them, the flowers are small and of a red colour—The roots will continue two years in a poor soil. It blossoms in June and July.

3. A: UNDULATA, or *Portugal Bugloss*, is a biennial plant, which grows to the height of two feet, and sends out many lateral branches, the flowers are of a bright blue colour, and grow in an imbricated spike.

4. A: ORIENTALIS, or *Eastern Bugloss*, is a native of the Levant. It is a perennial plant, with long trailing branches, which lie on the ground. The flowers are yellow, and about the size of the common Bugloss, there is a succession of these on the same plants great part of the year.

5. A: VIRGINIANA, *Virginian Bugloss*, or *Puccoon* (*Wild*, or *Bastard Turmeric*, *S.*) is a native of the United States, growing naturally in the woods. It is a perennial plant which seldom rises a foot high, in good ground, but not more than six inches in a poor soil. This plant sends forth seldom more than two leaves, which are irregular, some being orbicular, others half round, and some as if a piece were bitten out; while others are palmated. The leaves rise from the roots, with triangular peduncles, which divides immediately, so as to form two or three petioles (or as many as there are leaves) three or four inches long, terminated by the leaves, which are of the size of a crown piece. It is an early plant; generally flowers before the new leaves come out on the trees, so that in some woods where it abounds, the ground seems entirely covered with its yellow flowers.

*Part used.* The root.

*Sensible properties.* These very much resemble the *Curcuma* or *Turmeric* of the Shops, both in taste and appearance.

*Medical virtues.* Puccoon is at present rarely otherwise known than as a domestic medicine, in South-Carolina, Cataplasms, of the root applied above the wound in snake bites, is said to prevent the poison from ascending. Infusions in brandy are given in the Jaundice with some success, and is by some esteemed preferable to any other, in simple gonorrhœas, so that a small quantity of the root is chewed as tobacco, swallowing the saliva, which is said to check, and sometimes finally remove the disease. This plant certainly merits the attention of physicians.

*Domestic uses.* A yellow dye inclining to red, is obtained from the root, though it is not durable. It is, however, employed in the country as a pigment, and for this purpose the fresh juice of the plant is laid on with a pencil or brush.

6. A: SEMPERVIRENS, or *Ever-Green Borage*, *Alkanet*, or *Bugloss*. It grows naturally in some parts of Britain and Spain, and is a very hardy perennial plant, with weak trailing branches, the flowers are blue and come out between the leaves on the spikes, like the fourth sort; they appear during a great part of the year.

7. A: CRETICA, or *Warted Bugloss of Crete*, is a low, trailing, annual plant, whose branches seldom extend more than six inches; the flowers are small, of a bright blue colour, and are collected into small bunches at the extremity of the branches. The plants perish soon after the seeds are ripe.

8. A: TINCTORIA, or *True Alkanet*, grows naturally in the Levant, it is a rough hairy plant, much resembling the *Viper's Bugloss*, or *Echium vulgare*; its chief differences from the common Buglosses consists in the colour of its roots. The cortical part of which is of a dusky red, and imparts an elegant deep red, to oils, wax, and other unctuous and oily substances, but not to watery liquors, it is a native also of the warmer parts of Europe, and is cultivated in the gardens of the curious. Though it is much inferior in colour to that abroad.

*Part used.* The Root.

*Sensible properties.* Little or no smell, when recent it has a bit-terish astringent taste, but when dried, scarce any.

*Medical virtues.* As to its medical virtues the present practice expects not any from it; it is, however, used as a colouring ingredient for ointments, plasters, &c. and for lip salve—as the colour is confined to the cortical part, the small roots are preferred, as having proportionably more bark than the large ones.

There is another species, *Anchusa Lutea*, or *Onosma Echioides*, mentioned by late writers, which is a native of France, Italy, &c. the woody root being externally varnished as it were with a beautiful carmine colour, with which the Russian ladies vainly paint their faces, first steeping the root in oil.

All the species of *Anchusa* may be propagated by seeds, sown either in spring or autumn, upon beds of light sandy earth, & when strong enough to be removed, must be planted on beds at two feet distance, and watered, if the season require it, till they have taken root, after which they will require no other care, than to be kept clear from weeds.

ANDRACHNE, *Bastard Orfinc*, a genus of the Monoecia Gynandria class, ranking in the 38th Natural Order, *Tricocæ*: the male calix consists of five leaves, the corolla has five petals, and the stamina, which are also five in number, are inserted into the stylus: The female calix is divided into five leaves, there is no corolla, the styli are three; and the capsule is trilocular, containing three seeds. There are three species.

1. A: TELEPHOIDES, or *Herbaceous trailing Andrachne*, or *Bastard Orfinc*, is found wild in some parts of Italy and the Archipelago. This is a low plant, whose branches trail on the ground, the leaves are small, of an oval shape, smooth and of a sea-green colour; it produces its flowers in June, and the seeds ripen in August or September; it is a plant of no great beauty, and is therefore seldom cultivated. They are propagated from seeds sown in March, on a moderate hot bed.

2. A: FRUTICOSA, or *Shrubby Bastard Orfinc*, a native of China, and some parts of America, where it rises 12 or 14 feet high, the leaves are spear shaped, pointed and smooth, and under them are produced the footstalks of the flowers, which are small and of an herbaceous white colour; this as well as the remaining species are very tender, and therefore must be kept constantly in a bark stove. It is very difficult to get good seeds of these kinds; the covers often containing nothing, though they appear very good outwardly.

3. A: ARBOREA, *Tree Orfinc*, with a tree like stalk: this species was discovered by the late Dr. Wm. Houston, growing naturally at Campeachy, it has a strong woody stem, which rises more than 20 feet high, and sends out many branches on every side.

4. A: (Q. SPECIES.) This species was raised by Mr. Miller, from seeds sent from Jamaica; it agrees in general with the foregoing, but the leaves are somewhat like the Laurel, only much larger.

ANDROMEDA, *Marsh Cystus*, a genus of the Decandria Monogynia class, ranking in the 18th Natural Order, *Bicornes*; the calix is a quinquepartite perianthium, small, coloured, and persistent; the corolla is monopetalous, campanulated and quinquefide, with reflected divisions, the stamina consist of ten subulated filaments,

shorter than the corolla; the antheræ two horned and nodding; the pistillum has a roundish gemma, a cylindric stylus, larger than the stamina, and persistent, and an obtuse stigma; the pericarpium is a roundish five cornered capsule, with five cells and five valves; the seeds are very numerous, roundish and glossy, there are 15 species, several abounding in the United States. *He Whortle-Berry* is the most common trivial name for all the species. They are all handsome flowering shrubs.

1. A: MARIANA, *Broad Leaved Moorwort, Marsh Cystus, or He Whortle-Berry*, a native of South Carolina, it is a low shrub, sending out many woody stalks from the root, which are garnished with oval leaves, placed alternately; the flowers are collected in small bunches, are of an herbaceous colour, and shaped like those of the Strawberry Tree. They appear in June and July.

*Medical virtues.* A decoction of this plant is used as a wash in a disagreeable Ulceration of the feet, attended with an intolerable itching, common not only among the blacks, but also whites, in country places, where it is called Ground, or Toe-Itch. This species is called Wickie by the negroes, and is suspected to be poisonous.

2. A: POLIFOLIA, *Marsh Cystus, or Wild Rosemary*, a low plant growing naturally in bogs, in the Northern countries; it is difficultly preserved in gardens, and being a plant of no great beauty, is seldom cultivated; the stalks are tough and woody, and divide into many branches, the leaves are spear shaped, their edges reflexed, and grow alternate on the branches; the flowers are small, oval, and reddish, and come out in small clusters from the sides of the branches in June.

3. A: PANICULATA, (A: Racemosa of Walt.) *Maryland Andromeda*, is a native of Maryland, Virginia, and South Carolina, grows in moist places, the plants usually arrive at the height of ten feet, with their leaves set alternately, and having their edges finely serrated, the flowers are tubulous, small, and of a greenish white, closely set, horizontally on one side of the slender stalks; those flowers are succeeded by berries, which open when ripe, and divide into five sections inclosing many small seeds.

4. A: ARBOREA, (Frutex of Catesb.) *Sorrel Tree, Wickie, &c.* is a native of the same countries, where it is called the Sorrel Tree; it grows to the height of 20 feet, with a trunk usually five or six inches thick, with large acute oval oblong leaves, which are placed alternately on the branches; the flowers are produced from the sides of the branches in long naked spikes, and are of a greenish colour, and of a roundish oval figure. It is propagated by seeds.

5. A: CALYCVLATA, *Siberian Andromeda*, is a native of Siberia, and North America, grows in mossy lands, and is therefore very difficult to be kept in gardens; the leaves are shaped like those of the Box-Tree, and are of the same consistence, having several small punctures on them; the flowers grow in short spikes from the extremities of the branches; they are produced single, between two leaves, are of a white colour, and a cylindrical or pitcher like shape.

6. A: FORMOSISSIMA of Bartram, (Laurinus of Michaux, A: Reticulata of Walt. A: Populifolia of Lam. Diet. A: Acuminata of Aiton, A: Lucida of Jacq.) *Indian Pipe Stem*, which is the most



beautiful of all the species, and is an evergreen: The Creek Indians set a high value on the shoots, when two years old, for making their pipe stems, being very straight, and from 12 to 15 feet long. It grows naturally in Florida.

7. A: TETRAGONA, *Imbricated-leaved Andromeda*, a native perennial, the stalks are square, brownish, and divided into a few branches and grow about a foot and a half high; the leaves are short, obtuse, revolute, opposite, and grow imbricatum over one another in the range, the flowers come out from the sides of the stalks, on single slender footstalks; they are bell shaped, and flower in June or July.

8. A: CERULEA, *Blue Andromeda*, a native of the United States, and the Alps; this has rough stalks, branching, brown and woody, and hardly a foot in length, the leaves are narrow, plane, short and obtuse, the flowers come out in small clusters from the sides of the branches; they are oval, and resemble those of the Arbutus: It blossoms in June or July. The varieties of this species are the Deep Blue, the Red, the Purple, and the White Andromeda.

9. A: RACEMOSA, (A: Paniculata of Walt.) *Virginian Andromeda*, a native of Carolina, &c.

10. A: FERRUGINEA of Walt. a native of Georgia and Florida.

11. A: NITIDA of Bartram, *Shining Andromeda*, a native of Carolina, and Florida: It has oval entire leaves.

12. A: HIPNOIDES. There are three other species, some of which are called *Wild Rosemary*. All the species succeed best upon boggy and moist grounds, well cleared from weeds, and attempered with drift sand; the seeds may be sown as soon as ripe, or they may be propagated by layers, or suckers, also planted in a boggy situation; these produce many suckers, and increase very fast.

*Note.* Catesby refers several of the species to the genus *Frutex*. ANDROPOGON, or *Man's Beard*, a genus of the Polygamia Monococia class, (Michaux refers several of the species to the Triandria Digynia class) ranking in the 4th Natural Order, *Gramina*; the hermaphrodite calix is a one flowered bivalved glume; the corolla is a bivalved glume, awned at the base; the stamina consist of three capillary filaments, the antheræ are oblong and bifurcated; the pistillum has an oval germen, with two capillary stylicolesced, and villous stigmata; there is no pericarpium, the seed is one, solitary and covered; the male calix and stamina the same with the hermaphrodite, but the corolla without the awn. There are above 18 species, several of which are indigenous in the United States.

1. A: NARDUS, (Nardus Indica, &c.) *Indian Nard*, or *Spikenard*. The Spikenard as brought from the East Indies, is a congeries of small fibres issuing from one head, and matted close together, so as to form a bunch about the size of the finger, with some small strings at the opposite end of the head; the matted fibres (which are the parts chosen for medicinal purposes) are supposed by some to be the head or spike of the plant, by others the root: They seem rather to be the remains of the withered stalks, or the ribs of the leaves: sometimes entire leaves, and pieces of stalks are found among them: We likewise now and then meet with a number of the bunches issuing from one root. Sir William Jones, in his 2d and 4th Volumes of

Asiatic Researches, proves that the true *Nardus Indica* of *Dioscorides* and *Galen*, is a different plant from the *Andropogon*, and that it is called in India, *Jatamansi*, by the Arabs, *Sambulu 'l Hind*: Sir *William* terms it "*Valeriana Jatamansi*," and gives the following Botanic characters:

Calix, scarce any; margin hardly discernable; corolla one petal, tube somewhat gibbous; border five cleft, stamina three, anthers pistula; germ beneath, one styli erect, seed solitary, crowned with a pappus; roots fibrous; leaves hearted, fourfold; radical leaves petioled. It is a native of the most remote and hilly parts of India, grows erect above the surface of the ground, resembling an ear of green Wheat; the radical leaves rising from the ground, enfolding the young stem; are plucked up with a part of the root, and dried in the sun, or by artificial heat, and sold as a Drug, which from its appearance has been called *Spikenard*. While recent has a faint odour, which is greatly increased by the simple process of drying.

*Part used.* The matted fibres.

*Sensible properties.* Warm, pungent, bitterish taste, and a strong not very agreeable smell.

*Medical virtues.* Spikenard is esteemed stomachic, and carminative, and said to be alexipharmic, diuretic, and emmenagogue: It is however at present but little employed; the only use at present is an ingredient in the mithridate and theriaca.

2. A: MACRORURUM, (*Cinna Glomerata* of Walt.) grows naturally in the low grounds of Carolina, Florida, &c.

3. A: DISSITIFLORUM, (*Cinna Lateralis* of Walt.) grows in the same countries.

4. A: TERNARIUM, inhabits the mountains of Carolina.

5. A: SCOPARIUM, grows indifferently in the woods of Carolina.

6. A: AVENACEUM, inhabits the Illinois Country.

7. A: AMBIGUUM, grows in the stony grounds of Carolina.

*Note.* This seems to be a very doubtful genus, as almost all the different Botanists have their own manner of describing it. See *Cinna*, *Valeriana*, &c. These are also said to belong to the genus *Andropogon*.

The following are the trivial names of the remaining species, of which we find no further accounts.

8. A: CARICOSUM. 9. A: CONTORTUM. 10. A: DIVARICATUM. 11. A: NUTANS. 12. A: GRYLLUS. 13. A: INSULARE. 14. A: RAVENNÆ. 15. A: ALOPECUROIDES. 16. A: DISTACHYON. 17. A: SCHOENANTHUS. 18. A: VIRGINICUM. 19. A: BICORNE. 20. A: HIRTUM. 21. A: MUTICUM. 22. A: ISCHOEMUM. 23. A: FASCICULATUM. 24. A: POLYDACTYLON.

ANDROSACE, a genus of the Pentandria Monogynia class, ranked in the 21st Natural Order, *Preciæ*; the male calix is five leaved; the corolla is five petaled; the stamina are five, inserted in the rudiment of the stylus; the female calix is five leaved, the corolla is wanting; the styli are three, the capsule is trilocalar, the seeds are two. Dr. *Linnæus* reckons 6 species.

1. A: MAXIMA, *Austrian Androsace*, a perennial plant, &c. grows naturally in Austria, and Bohemia, among the corn; it hath broad leaves, which spread near the ground; from the centre of these the

footstalks arise, which are terminated by an umbel of white flowers like those of the *Auricula*. These appear in April and May and the seeds ripen in June, soon after which the plants perish. This and the remaining species are propagated by the seeds, which should be sown soon after they are ripe, otherwise they seldom come up the same year; if permitted to scatter, they will grow better than when sown.

2. A: SEPTENTRIONA IS, (*Sedum Alpinum* of C. B.) *Helvetian Androsace*, also perennial and a native of Lapland, Russia, the Alps, Helvetian mountains, and of Siberia; this as well as the three following are much smaller than the former, seldom growing more than three inches high; it has very narrow and smooth leaves, awl-shaped, the flowers are many in the umbel, and blow in April.

3. A: VILLOSA, (*Aretia Villosa* of Haller) *Pyrenean Androsace*, also perennial, and grows naturally on the Pyrenean Mountains; the stalk of this species hardly ever grows higher than three inches, and is upright and hairy as are the leaves; the flowers which are produced in umbels have hairy perianthiums, and bloom in April.

4. A: CARNEA, (*Alsine Affinis Androsace* of C. B.) *Common Annual Androsace*, a native of Switzerland, and grows naturally among the corn in Austria and Bohemia, it is a low plant and of but little beauty, the leaves are oval ribbed, hairy, spread upon the ground, have their edges a little indented and are of a pale green colour, the stalks hardly grow a foot high, are naked round and hairy, the flowers grow in an umbel at the top, they are small and white, have very large perianthiums, and blow in April or May.

5. A: LACTEA, (*Alsine Verna* of C. B.) *Northern Androsace*, is also annual and a native of Austria, Lapland, and Russia, growing naturally on the mountainous parts of these countries; the stalks are upright, naked and firm, and seldom grow higher than three or four inches, the leaves are smooth, spear-shaped, indented and spreading; the flowers are white and small, standing in umbels on the tops of the stalks; the perianthiums of this species are angular, and not so long as the flower: It blooms in April and May.

6. A: ELONGATA, *Elongated Androsace*; an annual plant, and is also a native of Austria; the stalks are round, naked, and about five inches high, it has many indented, ribbed, hairy, oval, spreading leaves of a pale green colour; the flowers stand on the top of the stalk on exceeding high pedicles; these are usually as long as the stalk itself, and each supports a large perianthium, containing a small white flower, which blows in April and May.

ANDROSEMUM, a synonyme of several species of *Hystericum*.

ANDRYALIA, *Downy Sow Thistle*, a genus of the Syngenesia Polygamia Æqualis Class, ranking in the 49th Natural Order *Composita Semiflo-culos*; the receptacle is villous, the calix is many parted, sub-equal and rounded, and the pappus is simple and sessile. There are four species.

1. A: INTEGRIFOLIA, *Entire-leaved Downy Sow Thistle*; is an annual plant growing wild in the south of France and Italy, it rises to the height of a foot and a half, with wooly branching stalks, the flowers are produced in small clusters at the top of the stalks, they

are yellow and like those of the Sow Thistle, so do not make any great appearance.

2. A: RAGUSINA, (Hierachium of Dill.) *Mountain Downy Sow-Thistle*, is a perennial native of the Cape of Good Hope; the leaves are extremely white and much indented on their edges, the flower stalks grow about a foot high, having small clusters of yellow flowers which appear in July; the seeds sometimes ripen in Britain, but not always.

3. A: LANATA, (Eriophorum of Vaill.) *Small Yellow Downy Sow-Thistle*, is a perennial native of Sicily and of the country round Montpelier; the lower leaves are indented and woolly, but those on the stalks are entire, it seldom rises more than a foot high, supporting a few yellow flowers at top.

4. A: SINUATA, *Portugal Downy Sow-Thistle*, is a perennial plant, grows in Spain and Portugal. the leaves are broader, longer, and more downy than either of the other sorts, the flower-stalks rising more than a foot high; they branch into several foot-stalks, each sustaining one large yellow flower, shaped like those of Hawk-weed, which are succeeded by oblong black seeds covered with down. All these plants are easily propagated by seed sown in Autumn, where they are to remain, they require no other culture than to thin them and keep them clear from weeds; the third sort requires a light dry soil.

ANEMONE, *Wind-flower*, a genus of the Polyandria Polyginia Class, ranking in the 26th Natural Order *Multisilique*; there is no calix, the corolla consists of petals of two or three orders, three in each series, oblongish; the stamina consists of numerous capillary filaments, the antheræ didymous and erect, the pistillum has numerous germina collected into a head; the styli are pointed, the stigma obtuse, there is no pericarpium, the receptaculum is globular, and the seeds are very numerous; Linnæus enumerates 21 species: It is however asserted that all the species are derived from the Broad Leaved, and Narrow Leaved Anemone, and are as follows:

1. A: FOLIIS RADICALIBUS TERNATO-DECOMPOSITUS, &c. (Pulsatilla) *Narrow-leaved Anemone* or *Wind-flower*; is a perennial plant and native of the East; it goes by the name of Narrow-leaved Anemone, though it has a very large, fair, decomposed leaf; it is distinguished by that name chiefly by the common gardeners, each leaf being cut into a multitude of narrow segments, (and also to distinguish it from the other species, whose segments are fewer and broader;) the leaves of this species are very much divided, and those again are subdivided into others, the division always being in the ternate way, or by threes, more or less regularly.

2. A: DIGITATA, *Broad-leaved Anemone* or *Wind-flower*, is also a native of the East. It is also with great impropriety called the Broad-leaved, which however is chiefly used for distinction sake, the segments being larger in this than the foregoing: this species has digitated leaves or of the finger shape; thus all of this sort go by the name of Broad-leaved Anemone, though improperly.

3. A: NEMOROSA, (Ranunculus Sylvarum of Clus. Ranunculus Nemorosa of Park.) *English Wood Anemone*. This species grows

naturally in the woods of Carolina, Virginia, and Canada, as well as Britain, bears only one white or sometimes purplish flower on a plant, sometimes single and sometimes double, so that they make a very pretty appearance. There are five varieties of this species, viz. 1. *Large flowered*; 2. *Flesh coloured*; 3. *White*; 4. *Purple*; and 5. *Rose-Coloured*. The double flowered variety of this latter, is truly a beautiful one; the leaves grow on long slender footstalks and are of a pale green, they are divided by threes, and each of these parts again have their edges deeply cut; the flower stalks rise single and undivided, to the height of about half a foot, near the top of which stand three leaves placed nearly horizontally, being at right angles with the stalk, on long reddish footstalks, whose edges turn in so as nearly to form a tube; above these is elevated the flower on so slender a stalk that it appears drooping. Wood Anemone has been of late employed as a medicinal herb.

*Part used.* The plant.

*Sensible properties.* Acrid, corroding.

*Medical virtues.* In medicine this plant may be usefully employed as a substitute for Cantharides or Spanish flies, for it produces not only a more speedy but less painful effect.

*Note.* Its juice is so extremely acrid, that it has been justly suspected to occasion the Dysentery among Cattle, and inflammation accompanied with a discharge of bloody urine in Sheep; hence the necessity of guarding these animals against the cause of distempers, which are frequently so formidable in their consequences, as to deprive the unwary husbandman of a great portion of his most valuable live stock.

4. A: GERANII, *Blue Wood*, or *Mountain Anemone*, a perennial plant growing naturally in the woods, and mountainous parts of Europe. The leaves grow on long slender footstalks, stand by threes and are hairy, each of them has a shorter separate hairy footstalk, these folioles also are cut into three principal divisions, and those also deeply again on their edges; the flower stalk rises single, and has ternate hairy leaves growing near the top, each have their incurved footstalks, and in the bosom of these stands the flower elevated upon a weaker stalk in a drooping posture; the stalk from the root to the leaves is green and moderately large, and for the immediate support of the flower; it is of a purplish colour and much smaller. The single flowers are composed of about fourteen oblong petals of a clear blue colour; the double is much handsomer and larger.

5. A: SYLVESTRIS, *German Wood Anemone*; a perennial and native of Germany, and is very ornamental to several of their woods; its leaves are divided into threes, standing on long slender footstalks, the flowers are large and white, and the seeds round and hairy.

6. A: VIRGINIANA, *Virginian Wood Anemone*; a perennial and native of Virginia, Carolina, and Canada. The main stalk branches out and is ornamented with leaves as well as flowers, the stalks for the immediate support of the latter are slender, naked and long; the leaves are divided by threes, and the flowers are small and of no figure.

*Note.* There are varieties of it, some with white, some with greenish petals, and which are succeeded by cylindrical spikes of hairy seeds.

7. A: PULSATILLA, or *Pasque flower*, so called because it generally blossoms about Easter, and produces beautiful bell-shaped purple or reddish coloured flowers in April; this is an exotic plant, and was formerly deemed to be a distinct genus, viz. *Pulsatilla*, but is now ascertained to be a species of the *Anemone*. The root of this species is long and thick, and sends forth many pale and hoary leaves, these are divided and subdivided into many small, narrow segments, in a most beautiful manner; the flower-stalk is thick and hairy, and has a leafy involucre, composed of many long, narrow segments; these are of a light green, spread every way from the base, are hairy, or possessed of a kind of down, which gives it a whitish colour; from this leafy involucre rises the flower, terminating the stalk; in its single state the petals are six in number, and large; three are placed outward and three within, form nearly a bell-shape, and hangs in a drooping manner; the petals are broad and thick, oblong with pointed ends, the inner ones of a deeper tinge than the outer ones, in the middle of these stand the numerous stamina forming a large tuft; there are also double, with white, yellow, and red flowers, but the natural original colour is a fine bright purple. It is a poisonous plant—The inhabitants of Kamtschatka use its leaves for staining their arrows, which unless the wound be immediately cleansed, and the communicated virus extracted by the mouth, are said to prove inevitably fatal; in like manner these untutored men destroy the Whales which frequent their coast.

*Part used.* The flowers.

*Medical Virtues.* Although this species may not be possessed of healing virtues similar to the *Pratensis*, yet it is asserted that its flowers are of great efficacy in curing inveterate ulcers in man and cattle.

*Domestic uses.* Both the leaves and flowers of this species, are employed by foreign dyers for green colours of various shades, from the expressed juice of the leaves a green ink may be prepared; and if the florets only be used, it will be a lighter shade, but from the whole flower the colour will be much deeper; and according to Dambournay, animal wool previously immersed in a solution of Bismuth, acquires a pleasant, light vigogne colour.

8. *Smaller Pasque flower*, (*Pulsatilla* Vulg. of Clus.)

9. *Siberian Pasque flower*, (*Anemone Pedunculo*.)

10. *Smallage-leaved Pasque flower*, (*Anemone Apii folia*.)

*Note.* These are not very conspicuous, and do not merit notice.

11. A: HEPATICA, *Hepatic Anemone*, a perennial plant and indigenous in Carolina and Canada, (*Michaux*); the roots are composed of numerous fibres clotted together so as with difficulty to be separated; the leaves are composed of three lobes, growing on long, slender, downy footstalks; their edges are entire, of a pale green, and their under surface is of a whitish gloss; the flowers which come out even before the leaves, stand upon slender footstalks about four inches long. Thirty, forty, or even sixty of them will issue from one root, and as these decay others will succeed them;

in general they continue blowing from February till April. The varieties of this species are, *Single Red Hepatica*, *Double Red Hepatica*, *Single Blue*, *Double Blue*, and *White Hepatica*.

12. A: RANUNCULOIDES, (A: Latifolia flava), *Yellow Anemone*, a perennial plant growing naturally in Lusitania; the root is tuberoso and oblong, and of a dark brown colour on the outside, but whitish within; the radical leaves are large, roundish, lobed, indented on the edges, of a deep green on their upper side, but purplish underneath, and grow on long footstalks; the stalk is thick, about six inches high, and adorned with about three leaves, which are fairly cut and divided on their edges; the flowers are yellow and come out singly from the tops of the stalks, and appear in May.

*Note.* This species on account of its acrimony, is also used by the inhabitants of Kamtschatka for a similar deleterious purpose, as is mentioned of the Pulsatilla or 7th species.

13. A: ALPINA, *Wild Alpine Anemone*, also a perennial, grows naturally on the Helvetian and Syrian Mountains; the stalks are slender, about six inches high, and adorned with three supradecomposed leaves, which are elegantly cut into a multitude of narrow segments; the radical leaves are large, divided into many parts, and grow on long footstalks; the flowers come out singly from the tops of the stalks, they are of a white colour, appear in the Spring, and are succeeded by hairy seeds. It is propagated from seeds or parting its roots.

14. A: DICHOTOMA, (A: Aconitifolia of Mich. A: Pennsylvanica of Linn.) *Canada Anemone*, an indigenous perennial plant, growing in Canada and New-England; the root is creeping, the stalk dichotomous and about a foot high, the leaves consist of three principal parts, which are cut or jagged at the edges; they have no footstalks, grow opposite and embrace the stalk with their base; the flowers come out singly from the divisions of the stalks, on slender footstalks; they are of a white colour and appear in May. It is propagated from the roots.

15. A: TRIFOLIA, (A: Parviflora of Michaux.) *Trifoliate Anemone*, an indigenous perennial, growing principally about Hudson River; the stalk is single, and four or five inches high; the leaves are oval, undivided, serrated, and grow three together on the stalk; the flowers come out singly from the tops of the stalk, and are of a white colour; they appear sometime in May.

16. A: QUINQUEFOLIA, (Ranunculus Nemorum of Pluke.) *Five-leaved Anemone*, is also an indigenous plant, growing naturally in Canada and Virginia; the leaves are quinate, oval, serrated, and very much resemble those of the common strawberry, the stalks are slender and each supports a single flower at the top, which blooms also in May.

17. A: SEMINIBUS ACUTIS, (Ranunculus Nemorosus of the Bauhines.) *Bastard Ranunculus*, grows naturally in forests, pastures and meadows in most of the Northern countries of Europe; the stalks are slender, weak, and about five inches high; the leaves are divided into many parts, which are beautifully cut at their edges; the flowers are one or two together at the tops of the stalks, they are of

a yellow colour, and bloom in April or May. It is propagated by parting the roots.

18. A: PRATENSIS, *Dark flowered* or *Meadow Anemone*; some Botanical writers confound this plant with the *Anemone Pulsatilla*, which is a distinct species. The *Pratensis* being a native of Germany, where it flowers in the beginning of May, producing beautiful dark violet, or almost black flowers, which never expand.

*Parts used.* The Leaves and Root.

*Sensible Properties.* In its recent state the *Meadow Anemone* is almost flavourless, though its taste when chewed is extremely pungent and corrodes the mouth and fauces, a property also manifested in a slight degree by the dried leaves; from which it is concluded that this plant possesses considerable Medicinal Virtues, a supposition amply confirmed, though often contested by various practitioners of great respectability. Chemists have proved however by experiments, that one of its constituent parts is Camphor, which has been obtained in form of crystals.

*Medical virtues.* It has been successfully employed in the cure of Chronic affections of the eyes, especially in *Gutta Serena*, *Cataract*, and *Opacity of the Cornea*, &c. The root when chewed in small quantity, imparts a juice which stimulates the salival glands, and frequently affords sudden relief in excruciating tooth-ache, if it proceeds from an acrimony or superfluity of humours, in phlegmatic habits. When boiled in rich wine, and applied as a *Cataplasm*, it not only abates inveterate inflammations of the eyes, but also cleanses indolent and foul ulcers: If credit be due to the antients, they also cure that frequent and destructive complaint of young females, called *Chlorosis*. And when beaten up with a mixture of *Bees-Wax* and *Turpentine*, so as to form a *Pessary*, tends to restore the *Catamenia*, or monthly courses; these and various other virtues are attributed to this plant, which we fear proceeds too much from the partiality of former writers; it however deserves a trial.

*Domestic uses.* The dark violet leaves of this species, when boiled together with those of the *Serratula Tinctoria* or *Common Saw-wort*, and a proper addition of alum, affords, according to Professor Pallas, an excellent water-colour for landscape and other paintings.

19. A: ÆTHIOPICA, (*Chrysanthemum* of the Breyn. Prod.) *Æthiopian Anemone*.

20. A: PEREGRINA, (*Ranunculus* of other Authors.) *Wild Anemone*.

21. A: OENANTHES FOLIIS, *Hemlock-leaved Anemone*.

*Note.* Besides these species, Paul Hermann mentions the A: BYZANTINA (A: *Latifolia* of J. B.)—and Linnæus mentions A: THALICTROIDES, (*Thalictrum Anemonoides* of Michaux,) which grows naturally in Canada, Virginia, and Pennsylvania. Michaux, refers this species to the genus *Thalictrum*.

ANETHUM, *Dill* and *Fennel*, a genus of the *Pentandria Digynia* class, ranking in the 45th Natural Order, *Umbellata*. The essential characters are, the fruit is oval, compressed, striated, and the petals, (five) are involute, entire, and very short. There are two species.



1. A: GRAVEOLENS, or *Dill*, is an annual Umbelliferous plant, cultivated in gardens, as well for culinary as medicinal uses. The root is long, slender and white, the leaves are divided into multitudes of fine long narrow segments, like those of fennel, but of a bluish green colour, and less strong smell, the stalk is round and firm, growing to the height of four feet, with yellow flowers in moderately large umbels.

*Parts used.* The seeds.

*Sensible properties.* They are of a pale yellowish colour, in shape nearly oval, convex on one side and flat on the other, their taste is moderately warm and pungent, their smell aromatic, but not of the most agreeable kind.

*Medical virtues.* They are recommended as a carminative in flatulent colics, the most efficacious preparations of them are the distilled oil, and a tincture or extract, made with rectified spirit, a simple distilled water prepared from these seeds, has a place both in the London and Edinburgh Pharmacopoeias.

*Domestic uses.* The seeds are sometimes employed in cakes and other kinds of confectionary.

2. A: FOENICULUM, or *Fennel*, of which there are two varieties, the Finochia, or *Common*, and the Dulce, or *Sweet*. Both sorts are cultivated in gardens. The Common is a perennial plant; the Sweet Fennel perishes after it has given seed. It is smaller in all its parts than the Common, except the seeds, which are considerably larger; the seeds of the two sorts likewise differ in shape and colour, those of the common are roundish, oblong, flattish on one side, and protuberant on the other, of a dark, almost blackish colour. Those of the Sweet are longer, narrower, not so flat, generally crooked, and of a whitish or pale yellowish colour.

*Parts used.* The seeds and roots.

*Sensible properties.* The seeds of both the Fennels have an aromatic smell, and a moderately warm pungent taste; those of the sweet Fennel are in flavour most agreeable, and also have a considerable degree of sweetness, hence the use of these only have been directed.

*Medical virtues.* They are ranked among the four greater hot seeds, and not undeservedly looked upon as good stomachics and carminatives. A simple water is prepared from them in the shops, they are ingredients also in the compound spirit of Juniper, and some other officinal compositions the root is far less warm, but has more of a sweetish taste than the seeds. It is one of the five opening roots, and has sometimes been directed in aperient apozems. The leaves are weaker than either the roots or seed, and have rarely been employed for any medicinal use. A decoction of the roots has been successfully given in Dysuria, or heat of Urine, Gravel, &c.

*Domestic uses.* It is said there is a variety called Anethum Azonicum, or *Italian Fennel*, this we take to be the true Finochia, the stalks of which are thick and pulpy, and from four to five inches broad, and are highly esteemed by the Italians, who blanch and eat them as salad, prepared with flour, vinegar and pepper.

The Sweet Fennel is also useful in salads, its leaves are boiled and used in sauces for several kinds of fish, and also eaten raw with pickled salmon. The seeds are used in cakes and confectionary, and its root is strong, pulpy and esculent.

ANGELICA, a genus of the Pentandria Digynia class, ranking in the 45th Natural Order, *Umbellate*. The essential characters are, the fruit is roundish, angled, solid, with reflected styli, the corolla are equal, and the petals incurvated. There are seven species.

1. A: ARCHANGELICA, *Garden Angelica*, a native of Hungary and Germany, it is a large umbelliferous plant, the stalks rising to the height of seven or eight feet, producing flowers of a greenish white colour, and sometimes yellow.

*Parts used.* The root, stalk, leaf and seed.

*Sensible properties.* All the parts of Angelica, especially the roots, have a fragrant aromatic smell, and a pleasant, warm bitterish taste, glowing upon the lips and palate for a long time after they have been chewed; the flavour of the leaves and seed is very perishable, particularly the latter, which on being barely dried, lose the greatest part of their taste and smell. The fresh root wounded early in the spring yields an odorous yellow juice, which slowly exsiccated, proves an excellent gummy resin, very rich in the virtues of the Angelica; on drying the root this juice concretes into distinct molecules, which on cutting it longitudinally, appear distributed in little veins; in this state they are extracted by pure spirit, but not by watery liquors. This is said to be one of the most spicy plants of European growth, and on account of its aromatic properties, the Germans denominate it Angel, or Breast Root.

*Medical virtues.* An extract of the root proves a gently stimulating medicine, serviceable for strengthening the solids, dispelling flatulencies, removing pectoral complaints, and affording effectual relief in hysterics. It is mild in its operation, and may therefore be usefully employed in flatulent colics, obstructions of the breast and womb, malignant fevers and the true scurvy, in doses of two drachms in substance, taken in tea or any mild wine. Externally it may be applied to scorbutic gums, and when boiled in water it affords a good gargle for swellings of the throat and fauces, as well as for cleansing ulcers, and in a bruised state it is a good ingredient in Cataplasms, to relieve the painful distentions in the bowels, &c.

2. A: SYLVESTRIS, *Wild Angelica*, a native of the United States, is a much smaller plant, of a thinner and less succulent stem than the former, it grows in marshy woods and hedges, flowers in June or July. This and the former species delight in a moist soil, the seeds should be sown immediately after they are perfectly ripe. As the leaves of the young plants spread wide and require much ground they should be transplanted at a considerable distance when they are about six inches in height.

*Part used.* The whole plant, particularly the root.

*Sensible properties.* Similar to the foregoing, only weaker in every respect.

*Medical virtues.* This species possesses, but in an inferior degree

the medical properties of the preceding, which may be always more readily procured.

*Domestic uses.* This plant ought to be encouraged wherever tanning materials are scarce, as it has lately been used with great success as a substitute for oak bark, in tanning leather, and particularly in preparing a kind of Morocco, from sheep, calf and goat skins—Dambourney asserts that, from the leaves of this species he produced a beautiful and permanent gold colour in dyeing wool, properly prepared in a solution of Bismuth—Cattle are exceedingly fond of eating the fresh spring leaves of the Wild Angelica, which to them are a good cleansing medicine; bees visit its white flowers and extract from them a more balsamic honey.

3. A: SATIVA, *Common Angelica*, which is cultivated in gardens for medicinal use, and likewise for a sweet-meat. It grows naturally in the northern countries. The root of this species is brown, oblong, an inch or two thick, fragrant and acrid, the leaves are very large, composed of pinnated folia, of an oblong oval figure, dentated at the edge, and the odd leaf at the end of the pinna lobated, the stalk is round striated, and as thick as a child's arm, the umbels are very large, and of a globose figure, the flowers very small and greenish. This species also delights in a moist soil, and must be managed as the preceding. Its virtues are similar to the foregoing. The roots are sometime preserved.

4. A: ATROPURPUREA CANADENSIS, *Purple Canada Angelica*, is also a native of the United States, grows to about four feet high, the stalk is very robust, and many of them grow from a strong root. The leaves are large and of a blackish green, are pinnated, and the extreme pair of lobes are joined. The ends of the stalks are terminated by small umbels of flowers, which have but little beauty, they bloom in June or July, and ripen their seeds in September.

5. A: SPINOSA, *Thorny Angelica*, (Quere, Aralia Spinosa?) a native of the United States, but of which we find no particular account. If I may be allowed to hazard an opinion, I should observe that this species has been probably misplaced, as it is well known that the English name of the Aralia Spinosa, is *Angelica Tree* or *Prickly Ash*. It also belongs to the Pentandria, class, though its order differs, being Pentagynia, however, many such errors have occurred; and it is left to the determination of succeeding writers.

6. A: LUCIDA CANADENSIS, *Shining Canada Angelica*, a native of the United States, but which, as well as all the indigenous species are said by the Editors of the American Edition of the Encyclopædia vol. 1 p. 797, to have neither beauty nor use. This may probably proceed from our partiality for foreign articles; for we find the more costly an exotic, and the more difficult its attainment, the more highly it is esteemed, when in all probability our native species, if equally tried, would produce as good effects as the foreign—this species is called *Nondo* in Virginia, and by the Creek and Cherokee Traders, *White Root*. It is a large growing plant. Its strong root sends forth many stalks, which grow upwards of a yard high, they are robust and smooth. The leaves are finely pinnated and of a polished green, the folioles are of an oval figure, they are all of an equal size, and their edges deeply serrated. The

flowers are produced in large compound umbels, in June and July, and the seeds ripen in September. They are propagated from seeds, sown soon after they are ripe.

7. A: TRIQUINATA OF MICHAUX, a native of Canada.

ANGELICA TREE, called also *Prickly-Ash Tooth-Ache Tree*, *Wild Liquorice*, &c. the English names of the genus *Aralia*, which see.

ANGOLA PEA, or PIGEON PEA. See *Cytissus*.

ANGUINA. See *Trichosanthis*.

ANGURIA. The *Water Melon*, a genus of the Monocelia Dianthria class, ranking in the 34th Natural Order, *Cucurbitacæ*. The male calix is quinquefide, and the corolla quinquepetalous. The female calix and corolla the same. The pericarpium is a pome beneath, with two cells, the seeds are numerous. Linnæus reckons three species, later writers four, viz. *Trilobata*, *Pedata*, *Trifoliata*, and *Citrulli*—which now rank in the *Cucumis* genus. See *Cucumis*.

ANGUSTURA, a bark brought from the Spanish West-Indies.

The natural history of this bark is hitherto unknown. It is said to be superior to the Peruvian Bark in the cure of fevers.

*Sensible properties.* Its appearance is various, owing to its having been taken from larger or smaller branches. The outer surface of it is more or less wrinkled, and covered with a greyish coat, below which it is of a yellowish brown. It breaks short and resinous, the taste is intensely bitter, and slightly aromatic, leaving a strong sense of heat and pungency in the throat and fauces—the odour is singular.

*Medical virtues.* As being an aromatic bitter, it has been found to be a strengthener and stimulant of the organs of digestion; it increases the appetite for food, removes the flatulencies and acidity in consequence of indigestion: It is found to have no astringent power, but by its strengthening quality, it is very effectual in diarrhoea from weakness of the bowels, and in dysenteries: It is found however ineffectual in intermittent fevers—however, it is to be hoped future observations, and further trials of this new bark, may lead to a more perfect knowledge of its medicinal powers.

ANHYDROS, an obsolete name of the *Solanum*.

ANIL, a synonyme of a species of *Indigofera*.

ANICTANGIUM, a genus of the Cryptogamia Musci class of plants, indigenous in the United States.

ANISE, ANISUM, or ANISEED. See *Pimpinella*.

ANNONA, (originally called *Guanabamus*) the *Custard Apple*, a genus of the Polyandria Polygynia class, ranking in the 52d Natural Order, *Coadunatæ*; the calix is a triphyllous perianthium; the corolla consists of six heart-shaped petals; the stamina have scarcely any filaments; the antheræ are numerous, sitting on the receptaculum; the pissillum has a roundish germen, no styli, the stigmata obtuse and numerous; the pericarpium is a large, roundish, unilocular berry, covered with a scaly bark; the seeds are numerous; There are 8 species.

1. A: RETICULATA, or *Custard Apple*, is a native of the West-Indies, where it grows to the height of 25 feet, and is well furnished

with branches on every side; the Bark is smooth and of an Ash colour, the leaves are of a light green, oblong, and have several deep transverse ribs, or veins, ending in acutè points; the fruit is of a conical form, as large as a tennis ball, of an orange colour when ripe, having a soft sweet yellowish pulp, of the consistence of a custard, from whence it has its name.

2. A: *MURICATA*, or *Sour Soft*, rarely rises above 20 feet high, and is not so well furnished with branches as the other, the leaves are broader, have a smooth surface without any furrows, and are of a shining green colour: the fruit is large, of an oval shape, irregular, and pointed at the top, of a greenish yellow colour, and full of small knobs on the outside, the pulp is soft, white, and of a sour and sweet taste intermixed, having many oblong dark coloured seeds.

3. A: *SQUAMOSA*, or *Sweet Soft*, seldom rises higher than 15 feet, and well furnished with branches on every side; the leaves have an agreeable scent when rubbed; the fruit is roundish and scaly, and when ripe turns of a purple colour, and hath a sweet pulp.

4. A: *PALUSTRIS*, or *Water Apple*, grows from the height of 30 to 40 feet, the leaves are oblong, pointed with some slender furrows, and have a strong scent when rubbed, the fruit is seldom eaten but by negroes. This tree is common in moist places in the West-India Islands.

5. A: *CHERIMOLA*, (or *Glabra*) *Smooth Seed Annona*, a native of Peru, where it is much cultivated for the fruit, and grows to be a very large tree, well furnished with branches; the leaves are of a bright green colour, and much larger than those of any of the other sorts, the fruit is oblong, and scaly on the outside, of a dark purple colour when ripe, and the flesh is soft and sweet, intermixed with many brown seeds, which are smooth and shining.

6. A: *GRANDIFLORA*, (*Orchidocarpum Grandiflorum* of Michaux) *Great Flowering Annona*, is a native of Georgia, and Florida, and grows four or five feet high, the leaves somewhat wedge shaped, or broad, lanceolate, attenuating down to the petiole, of a light green colour, covered with a fine down, the flowers very large, perfectly white, and sweet scented, many connected together on large loose panicles or spikes, the fruit of the size and form of a small cucumber, the skin or exterior surface, somewhat rimose or scabrous, containing a yellow pulp of the consistence of a hard custard, and very delicious, wholesome food.

7. A: *ASIATICA*, or *Purple Apple*, a native of Cuba, and the French Islands, the trees rise to the height of 30 feet or more, the fruit is esteemed by the inhabitants of those Islands, who give them to sick persons.

8. A: *TRILOBA*, (*Orchidocarpum Arietinum* of Michaux) *Paw-haw*, or *North-American Annona*, a native of the Bahama Islands, Virginia, and South-Carolina, where the trunks of the trees are seldom larger than a man's leg, and are about 10 or 12 feet high, (though it is said there are trees on a small Island in Susquehannah River, 30 or 40 feet high,) having a smooth greenish brown bark. In March, when the leaves begin to sprout, the blossoms appear, consisting of six greenish white petals; the fruit grows in clusters

of three, and sometimes four together; when ripe they are yellow, covered with a thin smooth skin, which contains a yellow pulp of a sweet luscious taste; in the middle of this pulp lie, in two rows, 12 seeds, divided by as many thin membranes: The seed very much resemble the Persimmon and Locust. All the parts of the tree have a rank, if not a fetid smell, nor is the fruit relished by many, except negroes. These trees grow in low shady swamps, and in a very fat soil.

*Note.* Mr. Bartram in his travels, mentions a dwarf species, &c. A: PYGMÆA, Michaux terms it *Orchidocarpum Pygmeum*, i. e. *Dwarf Annona*, which grows in moist places in Georgia, and Carolina; the stems seldom extend from the earth more than 18 inches, and are weak and almost decumbent; the leaves are long, extremely narrow, almost linear; they however retain the figure common to the species; the leaves are alternate, nearly erect, forming two series or wings on the arcuated stems, the flowers both in size and colour resemble those of the Anrilobe, and are single from the axillæ of the leaves, on incurved peduncles, nodding downwards. Mr. B. never saw the fruit. See *Carica* and *Orchidocarpum*.

They may be propagated by seeds, which should be sown in a fat rich soil, rather low; the seeds generally remain a year in the ground before they come up. They are also raised by transplanting the young stalks in the winter. The exotic species require considerable care and shelter from the winter cold.

ANONIS. See *Ononis*.

ANNOTTA. See *Bixa*. it is also called *Anotta*, or *Arnotta*, *Roucou*, and *Terra Orleanois*.

ANTANISOPHYLLUM, a synonyme of a species of *Boerhaavia*.

ANTHEMIS, *Camomile*, or *Chamomile*, a genus of the Syngenesia Polygamia Superflua class, ranking in the 49th Natural Order, *Compositæ Discoides*; the essential characters are these: The receptaculum is chaffy; there is no pappus; the calix is hemispheric and subequal, and the florets of the ray are more than five; of this genus Linnæus enumerates 17, and later writers 21 species: The most remarkable are the following:—

1. A: NOBILIS, *Common*, or *Sweet Scented*, or *Roman Chamomile*, growing in meadows and pastures, most plentifully in Cornwall, and other parts of England; its creeping stalks shoot forth branches, and these again take root, and progress considerably; it is a perennial plant, and hath its leaves admirably compounded, and are of a fine green colour; this species hath single flowers; of this kind there is a variety with double flowers.

*Part used.* The flowers and leaves.

*Sensible properties.* A strong, though not ungrateful aromatic smell; a bitter nauseous taste.

*Medical virtues.* They are accounted carminative, aperient, emollient, and in some measure anodyne, and stand recommended in flatulent colics; for promoting the uterine purgations, in spasmodic pains, and the pains of child-bed women; sometimes they have been employed in intermittent fevers, and the nephritis: They are also frequently used externally in discutient and antiseptic fomentations, and in emollient gylsters; the essential oil is also given in

doses of a few drops, as a carminative in Hysterical disorders, and as a vermifuge. A simple watery infusion of them taken in a tepid state, is frequently employed to promote the operation of emetics.

2. A: PYRETHRUM, or *Pellitory of Spain*, is a perennial plant, which grows naturally in Spain and Portugal, from whence the roots are brought to other countries; the branches trail upon the ground, and spread a foot or more each way, these are garnished with fine winged leaves, like those of the common Chamomile; at the extremity of each branch, is produced one large single flower like Chamomile, but much larger, the rays of which are of a pure white within, but purple on the outside; after the flowers are past, the receptacle swells to a large scaly cone, having the seeds lodged between its scales, but unless the season is dry, the seeds will not come to perfection in Britain.

*Part used.* The root only.

*Sensible properties.* It has no sensible smell, its taste is very hot and acrid, but less so than that of *Arum*, or *Dracunculus*; the juice expressed from it has scarce any acrimony, nor is the root itself so pungent when fresh, as after it has been dried.

*Medical virtues.* The principal use of Pyrethrum in the present practice is as a masticatory for promoting the salival flux, and evacuating viscid humours, from the head and neighbouring parts; by this means it often relieves the Tooth-Ache, some kinds of pains in the head, and Lethargic complaints.

3. A: TINCTORIA, (*Bupthalmum* of C. B. *Chrysanthemum* of Loes. *Bellis* of Pluke.) *Ox-Eye Chamomile*, a perennial plant which grows in high sunny pastures; it has doubly winged serrated leaves, cotyledons underneath, and its stem supports a corymbus, of flowers progressively standing each on a proper fruit stalk: It attains the height of about 18 inches, spreads out its branches, and bears flowers, some white, others of a sulphur, and some of a bright yellow colour, from June till November, and makes a very pretty appearance. It is not used in medicine.

4. A: COTULA, (*Cotula Fœtida* of J. B.) *Fetid Chamomile*, *Stinking May-Weed*, or *Mathen*, an annual plant, grows in corn fields, on road sides, and borders of dung hills; this is considered as a noxious weed, and is refused by almost all the species of brutes, the toad only excepted.

*Sensible properties.* Its acrimony is so great as frequently to blister the skin of the reapers.

*Medical virtues.* It is said that this plant is often used to advantage in diseases peculiar to females; and the Old Edition of the Dispensatory observes that the leaves were formerly used, but that the present practice pays no regard to it.

*Domestic uses.* A decoction of the whole plant, when in flower, prepared with a solution of bismuth, yields a permanent citron colour to wool.

5. A: ARIBACA, (*Astericus Annuus* of Sloane.) *Annual Astericus*. The seeds of this species were brought from Africa by the late Dr. Shaw, and distributed to many curious Botanists in Britain, and other countries of Europe; it grows near two feet high, with an upright stem, having a single flower at the top, from whose empalement

there are two or three footstalks put out horizontally, about two inches long, each having a single flower smaller than the first, like the Childing Marigold, or hen and chicken Daisy.

6. A: ARVENSIS, (*Chamemelum Inodorum* of C. B.) *Corn Chamomile*, or *Common May-Weed*, an annual plant, growing naturally among corn, almost all over Europe; it is considered as a weed in all countries, and is said to be not worthy of any description.

7. A: MARITIMI, (*Matricaria Maritima* of C. B. *Chamoemelum Maritimum* J. B.) or *Sea Chamomile*, a perennial plant, grows naturally at Montpellier, and in Italy; the stalks are of a purplish colour, and branching: the leaves are pinnated, finely divided, dotted, and of a fleshy substance: The flowers are white, and appear in July.

8. A: TOMENTOSA, *Hoary Sea Chamomile*, a perennial plant growing naturally on the Sea Coasts of Greece; the stalks branch, and are garnished with plane, obtuse, winged leaves, which are thickish and hoary, like Wormwood: The flowers are white, growing on hairy footstalks, and continue to blow from mid-summer till October.

9. A: ITALICA, (*Bellis Montana* of Pluke.) *Italian May-Weed*, an annual plant, growing naturally in corn-fields in Italy; It grows about a yard high, and resembles the stinking *May-Weed*, already described, except that the flowers are larger.

10. A: ERECTA, *Spanish May-Weed*, also an annual plant common among corn, rises with an upright, striated branching stalk, to near a yard high; the leaves are much divided, and consist of numerous sharp spines; the flowers are numerous, large, white, and blow in June or July.

11. A: SIMPLICIBUS, *Broad Leaved Portugal May-Weed*, an annual plant, grows naturally in Portugal, Italy and France; the stalk is branching, the leaves single, but deeply indented, or cut in a manner, so as to resemble a pinnated leaf; they are of a thickish consistence, and have a whitish look, the stalk contains many flowers mixed with white and yellow.

12. A: PINNATIFIDUS, *Chioan May-Weed*, an annual plant, and native of Chio; the stalk rises only about a foot high, and divides into many spreading branches; the leaves are much divided, and the flowers are produced on naked footstalks that are a little hairy, they are of a white colour and blow in July.

13. A: RAMOSA, *Ox-Eye May-Weed*, an annual plant, and native of France; the stalks are very branching, purplish, and grow near a yard high; the leaves are triply-pinnated, setaceous, and downy, the flowers are of great variety, as white, yellow, the white and red, white and purple. and the full double; they terminate the branches singly, on thickish footstalks, and blow from the middle to the end of summer.

14. A: DENTATO-PINNATIS, (*Chamoemelium Alpinum* of Tilli.) *Alpine Chamomile*, a perennial plant, growing naturally at Mount Baldus; the stalk is hairy and supports a single flower; the leaves are pinnated, and composed of several narrow entire segments; the flowers are white, and blow in July.

15. A: FOLIIS PINNATO-MULTIFIDIS PLANIS, *Italian Chamomile*, is a small bushy species; the leaves are plane, winged and much



divided, the segments are narrow, trifid and acute, and the whole is very beautiful; the flowers are large, and of a white colour, each supported by a very long footstalk. It blows in July and August, it is perennial.

16. A: OVATO-LANCEOLATUS, (*Chrysanthemum Lusitanicum* of Tourne.) *Portugal Chamomile*, grows naturally in Portugal and Spain. The stalk is erect and terminated by flowers, the leaves are single and of an oval lanceolated figure, their edges are crenated, a little hairy, obtuse, and placed alternately on the branches, the flowers are yellow, and blow in July or August. It is likewise a perennial.

17. A: BIPINNATIS. (*Achillea* of Miller, *Leucanthemum* of Boer, *Pyrethrum* of Gmel.) *Siberian Chamomile*, a perennial plant, growing naturally in Siberia. It rises with a branching stalk to the height of about two feet, the leaves are hoary, beautifully divided in the manner of Millfoil or Yarrow, but larger, the flowers are produced singly on long foot-stalks, they are white, and much resemble those of the Ox-Eye Daisy. They blow in June, and continue flowering all summer and autumn.

With regard to the culture of the Chamomile, the *Nobilis* may be easily propagated in the spring, by procuring a few slips and planting them about a foot distant from one another, where they will soon cover the ground; the other sorts may be propagated from seeds sown in the spring, and will require no other care than to be kept free from weeds, only the *Tinctoria* must be transplanted into borders near shrubs, when they come up from the seeds, where they may have room to grow, for they spread very wide, and therefore require to be placed three feet distant from other plants.

ANTHERICUM, or SPIDER WORT, a genus of the Hexandria Monogynia class, ranking in the 10th Natural Order, *Coronariæ*. It has no calix. The corolla consists of six oblong petals, which are expanding; the stamina consists of six subulated erect filaments; the antheræ are small and furrowed; the pistillum has a three cornered germen; a simple stylus, and obtuse stigma; the pericarpium is an ovate, trisulcated capsule, with three cells and three valves. The seeds are numerous and angular. Linnæus reckons 9, others 13 species, viz.

1. A: UNIFLORA, (*Bulbocodium Alpinum* of Ray) This species is referred by modern Botanists to the genus *Bulbocodium*, which see.

2. A: CORYMBOSA, (*Bulbocodium Græcum* of Tourne.) *Oriental Anthericum*, a perennial plant, growing naturally in the East. The root of this species is a small bulb, from which issue a few narrow smooth leaves, nearly the length of the stalk, which is single, and at the top of it is ornamented with a corymbus of flowers, their number is about five; the intermediate foot-stalk supports a single flower, but the lateral foot-stalks have each two flowers, their colour is white, the stamina are shorter than the corolla, and the styli than the stamina.

3. A: REVOLUTIS, (*Asphodelus* of Tourne) *Revolvate-flowered Anthericum*, a perennial plant, whose place of nativity is not certainly known. It attains a height of about two feet, the leaves are flat,

rough and compressed, and the stalk is very branching, the flowers are produced in loose spikes at the ends of the branches, they are white, and the petals are turned backward to the foot-stalk. They blow in June and July.

4. A: RAMOSUM, (Phalangium of C. Bauh.) *Ramose-stalked Plain-flowered Anthericum*, a perennial plant and a native of the southern parts of Europe. The stalk is branching, and attains a height of two feet, the leaves are plain, the flowers are produced from the ends of the branches in loose spikes. They are white, and blow in July.

5. A: SIMPLICISSIMO (Phalangium of Bauh. and Lobel.) *Single-stalk, plain-flowered Anthericum*, a perennial plant, growing naturally in Switzerland, France and Germany. The stalk rises about eighteen inches, is undivided, and hath plain leaves, the top of the stalk supports a loose spike of small white flowers, which are not reflexed. They blow in July.

6. A: CAMPANULATIS. (Phalangium Albobrogicum of Clus) *St. Bruno's Lily*, or *Liliastrum Anthericum*, a perennial, growing common on the Savoy and Helvetian mountains. The stalk is single, and rises a foot or more high, the leaves are plain, upright and firm. The top of the stalk is ornamented with white bell-shaped flowers, hanging on one side of it, and possessed of an agreeable odour. They blow in June.

7. A: CALYCVLATUM (Tofieldia Palustris) *Scottish Asphodel*, *Marsh March Tofieldia*, or *Spider-wort*. It is also called *Lancashire Asphodel*, because growing naturally in that country. Its situation is usually upon boggy ground. The stalk grows about six inches high, and is garnished with a few narrow sword-shaped leaves, the flowers ornament the top of the stalk in a loose spike, their colour is yellow and the stamina hairy. This plant, though useless in domestic economy, deserves some notice, because it may serve as a guide to dig for peat in situations destitute of sea-coal.

8. A: TRILOBIS (Pseudo-Asphodelus Alpinus of C. B.) *Marsh Alpine Asphodel*, a perennial plant, growing naturally on the mountains of Switzerland, Lapland and Siberia. The stalk rises about six inches high. The leaves are like the foregoing. The top of the stalk is garnished with the flowers, which are yellow, and have this singularity, the perianth is trilobate, the filaments are smooth, and the pistil is trigonous.

9. A: ACAULI, *Ethiopian Spider-wort*, is an annual plant, has a very low stalk, moderately long, narrow, taper-leaves, which are fleshy and a little flattened on the upper side. It has yellow flowers, which grow in loose spikes, and blow in July.

10. A: FRUTESCENS, *Onion-leaved Aloe*. This species was formerly known among the gardeners near London by the name of *Onion-leaved Aloe*, it produces many ligneous branches from the the root, each supporting a plant, with long taper-leaves, in shape like those of an onion, and full of yellow pulp very juicy. These plants send out roots which run down and fasten themselves into the earth, by which they multiply greatly. Its yellow flowers are produced on long loose spikes, and appear at different times, so that the plants are never long destitute of flowers. This species is a na-

tive of the Cape of Good Hope, and grows in a light, loose, sandy soil.

11. A: CARNOSIS, (*Phalangium Capense* of Dill.) *Mock Aloe*, a native of the Cape of Good Hope, hath long, fleshy, flat, subulated leaves, like some of the Aloes; they lie flat on the ground, and are very pulpy, the flowers grow from the root in loose spikes, and are yellow, blowing different times of the year. This and the following are very tender plants, and are therefore kept in the green-house in Britain.

12. A: STRICTIS, *Mock Asphodel*, is a very low plant with leaves that are narrow, subulated, half tapered, striated and pulpy, they grow close together, and among them rises a long, loose spike of yellow flowers.

13. A: HISPIDIS, *Cape Asphodel*, hath a branching stalk. The leaves are spear-shaped, moderately broad, compressed, striated, rather fleshy, and of a deep green colour. The stalk is garnished with a few very small narrow leaves. The branches are terminated with the long loose spikes of white flowers, which shew themselves different times of the year. They are propagated by seeds sown in autumn, in a warm situation, on a bed of light sandy earth. They are to be kept clear of weeds during the summer, and in autumn, when the leaves decay, they should be carefully taken up and transplanted into a bed of light earth, at a foot distance from one another, and secured from the severities of winter.

ANTHISTIRIA, a genus of the Triandria Trigynia class, ranking in the 4th Natural order, *Gramina*, the calix is a four valved glume, equally cleft to the base; the corolla is a two valved glume, the stamina consist of three short, slender filaments, the antheræ oblong and erect, the pistillum has an oblong germen, the styli are two, and the stigmata are clavated and hairy, there is no pericarpium except a closed calix. The seed is oblong and furrowed. There is only one species of this grass, viz.

A: CILIATA, or *Fringed Anthistiria*, a native of India, and of which I have not been able to obtain any particular account.

ANTHIOCEROS, or *Horn Flower*, a genus of the Cryptogamia Algæ class, ranking in the 57th Natural Order, *Algæ*; the essential characters are, the calix of the male is sessile, cylindric and entire the antheræ (one) is subulated, very long, and two valved; the calix of the female is monophyllus, divided into six parts, and expanding; the seeds are about three, naked and roundish; there are only three species; Michaux terms this genus *Cryptogamia Hepaticæ*.

1. A: PUNCTATUS, or *Spotted Anthoceros* a native of Britain, the leaves, each of which constitutes a distinct plant, are small, oblong, undivided, hollowed on the edges, thin, shining, and form a circular tuft about the same place; the fructifications arise from the surface of the leaves, surrounded by oblong cylindrical monophyllous sheaths. These are first slender and elegant, but thicken by degrees, and splitting longitudinally, discover the antheræ laden with yellow farina. The female parts appear in form of spots, or little warts on the surface of the leaves of the same plant, or on dis-

tinct plants, which when mature open in 6 parts, discover their sex and finally ripen their seeds.

2. A: *LÆVIS*, (*A. Carolinianus* of Mich.) *Smooth Anthoceros*, or *Horn Flower*, a native of Europe and America, the leaves are small, oblong, thin, transparent, sinuated, of a bright green colour, and arise without order about the spot; the fructifications arise from several parts of the leaves, having slender monophyllous cups, which are a little waved on their edges; from these arise extremely long awl-shaped antheræ, which when ripe open with two valves and discover a greenish farina. This flowers in May and June, and is perennial, as are all the species.

3. A: *MULTIFIDES*, *Multifid Anthoceros*, or *Horn Flower*, a native of Germany; it is found in moist shady places, and on heaths, the leaves are narrow, pinnatifid, glossy, of a thin consistence, and a deep green colour; the fructifications arise from the surface of the leaves, in monophyllous cups, they have long antheræ, and the farina is of a yellowish colour; they shew themselves in April and May, and the seeds ripen in July.

*ANTHOLYZA*, *Mad Flower*, a genus of the Triandria Monogynia class, and in the natural method, ranking under the 6th Order, *Ensate*; the essential characters are these: The calix is tubular, irregular, and bent back, and the capsule is beneath the flower; there are said to be four species, two only of which appear to have been particularly noticed, viz.

1. A: *RINGENS*, the *Grinning Mad Flower*, a native of Africa; this species hath red, round, bulbous roots, from which arise several rough furrowed leaves, near a foot long, and half an inch broad: between these comes out the flower stalks, immediately from the root, which rises two feet high, is hairy, and hath several red flowers coming out on each side, the lips of which spread asunder: These appear in June, and the seeds ripen in September. This as well as the following species may be propagated by offsets, which they send off in pretty great plenty, or by seeds; these should be sown soon after they are ripe, in pots of light earth, which if plunged in old beds of tan, which has lost its heat, and shaded in the middle of the day, in hot weather, they will come up the following winter; therefore they must be kept covered with glasses to screen them from the cold, otherwise the young plants will be destroyed. They may remain in the pots two years if the plants are not too close, when they will have acquired strength enough to bear transplanting; the proper time for which is in July and August, when their leaves are decayed: In summer the pots may be placed in the open air, but in winter under a hot bed frame, or in the green-house, where they are a great ornament when in flower.

2. A: *SPICATA*, (*v. Cunonia*) or *African Mad Flower*, is also a native of Africa, hath narrow furrowed leaves, is in shape and size like the Vernal Crocus, but the outer skin is thin and white; from this arises five or six narrow leaves which are deeply furrowed, between these arise the flower stem which is a foot and a half high, bending on one side towards the top, where the flowers come out on one side, standing erect; they are of a white colour, appear in May,

and the seeds ripen in August. This species is propagated like the former; the seeds were first procured from Africa by the Dutch, and reared in their gardens.

3. A: *ÆTHIOPICA*, *Æthiopian Antholyza*, a native of *Æthiopia*, very much resembles the Corn-flag; the leaves are long, narrow, pointed, and of a deep green colour; the stalk is round and a foot or more high, and its beautiful large crimson flowers are produced from the top of the stalk in May or June.

4. A: *MERIANA*, *Cape Mad Flower*, a native of the Cape of Good-Hope; the leaves of this are sword-shaped, long and narrow, the stalk is round, about a foot and a half high, the flowers are of a red colour, and appear about the same time with the former.

*ANTHORA*, the trivial name of a species of *Aconitum*.

*ANTHOS*, a Greek term properly signifying a flower, but used by some writers to denote *Rosemary*, by way of eminence.

*ANTHOSPERMUM*, the *Amber Tree*, a genus of the *Polygamia Dioecia* class, and in the natural method, ranking under the 47th Order, *Stellate*; the essential characters are, the calix of the hermaphrodite flower is divided into four parts; there is no corolla, the stamina are four, and the pistilli two, the germen is beneath the flower; male and female on the same, and separate plants. There are three species, one only of which appears to be generally known in the gardens of the curious, viz.

1. A: *ÆTHIOPICA*, *Æthiopian Amber Tree*, a native of *Æthiopia*, its beauty consists in its small evergreen leaves, which grow as close as heath. These being bruised between the fingers, emit a very fragrant odour, whence the name Amber Tree; the flowers come out from the ends and sides of the branches, and the females are succeeded by seeds. These plants are easily propagated by cuttings, during any of the summer months, in a border of light earth, where they will take root in six weeks time, provided they are watered or shaded, as the season may require; or if they are planted in pots, plunged in a moderate hot bed, they will take root the sooner, and there will be a greater certainty of their growing. They must be frequently renewed by cuttings, as the old plants are very subject to decay, and seldom last above three or four years.

2. A: *CILIARE*, (*Clinopodium Africana Procumbens* of Pluke.) *Ciliated Anthospermum*, a native of the Cape of Good-Hope; the stalks are woody, procumbent, and eight or ten inches long, the leaves are narrow, spear shaped, keeled, and ciliated; the flowers come out from the wings of the leaves, sitting close, having no footstalks; but they are seldom succeeded by seeds in England.

3. A: *HERBACEA*, *Herbaceous Anthospermum*. Of this species I have not been able to collect any further information.

*ANTHOXANTHUM*, or *Vernal Grass*, a genus of the *Diandria Digynia* Class, ranking in the 4th Natural Order, *Gramina*; the essential characters are, the calix a bivalved glume with one flower, the corolla bivalved, obtuse, and without any awn; there are three species—(Michaux refers this to the *Triandria Digynia* class).

1. A: ODORATUM, *Sweet Scented Spring Grass*, or *Vernal Grass*, an indigenous perennial, growing in meadows and pastures; the root is composed of a number of white fibres; the leaves are about half a foot long, a quarter of an inch broad, and of a good green colour; the stalks are slender, smooth, jointed, and eight or ten inches high, the flowers come out from the tops of the stalks, in oval, oblong, loose spikes, they are usually of a yellowish green colour, flowering in the months of May and June; it is one of the earliest British pasture grasses, and occasions the delicate flavour perceptible in new made hay; it is eagerly eaten by cows, horses, goats, and sheep, on account of its aromatic taste, and juicy nutritive nature.

*Domestic uses.* The root possesses a strong odour, resembling that of musk; the dried blossoms are, on the continent employed for imparting an agreeable flavour to snuff and Tobacco. The other species enumerated are:

2. A: INDICUM. 3. A: PANICULATUM, of which we have no farther description.

*Note.* Mr. Walter in his Flora mentions a native species which he calls ANTHOXANTHUM GIGANTEUM, *Tall Vernal or Spring Grass*. ANTHRISCUS, the trivial name of a species of *Tordylium*. ANTHUM. See *Epithimum*.

ANTHYLLIS, *Kidney Vetch* or *Ladies Finger*, a genus of the Diadelphia Decandria Class, ranking in the 32d Natural Order, *Papilionaceæ*; the calix is ventricose, and the legumen is roundish and covered. There are 10 species, the most particular of which are:

1. A: VULNERARIA, *Kidney Vetch* or *Ladies Finger*, a native of Spain, Portugal and Wales, is a biennial plant, having single leaves at bottom, which are oval and hairy, but those which grow out of the stalk are winged, each being composed of two or three pair of lobes terminated by an odd one; the flowers grow collected into heads at the top of the stalks, are of a bright scarlet colour, and make a pretty appearance. It is however to be observed of these flowers, that in a chalky or calcareous soil, they are yellow; on a reddish clay soil, they are red, but in white clayed land, they are uniformly white; they flower in June and July, and the seeds ripen in October.

*Domestic uses.* It may be usefully employed as a dying material as a substitute for Indigo; a fine yellow dye is obtained from it; it also affords excellent pasturage for sheep.

2. A: MONTANA, or *Herbaceous Woundwort*; grows naturally on the mountains in France and Italy; it is garnished with winged leaves, which have an equal number of hairy lobes at the extremity of the branches; the flowers are produced in heads, and are of a purple colour and globular form; they appear in June and July, and the seeds ripen in October. These two species require only the common mode of propagation, and to be kept clear of weeds.

3. A: BARVA JOVIS, *Jupiter's Beard*, or *Silver Bush*; has its name from the whiteness of its leaves; this is a shrub, which often grows to the height of ten or twelve feet, dividing into many lateral branches, garnished with winged leaves, composed of an equal number of narrow lobes, which are very white and hairy; the flowers

are produced at the extremities of the branches, collected into small heads; these are of a bright yellow colour, and appear in June, sometimes they are succeeded by short wooly pods, containing two or three kidney-shaped seeds.

4. A: CYTISOIDES, or *Shrubby Woundwort*, has long been known in the English Gardens; it is a low shrub, seldom rising above two feet high, but sends out many slender branches, garnished with hoary leaves, which are sometimes single, but generally have three oval lobes, the middle being longer than the other two; the flowers are yellow, and come out from the sides of the branches. three or four joined together, having wooly impalements. In England the seeds are rarely ever perfected; therefore these two latter are propagated by cuttings planted during any of the summer months, observing to shade and water them, till they have taken good root, and afterwards transplanted into pots, and housed in the winter.

5. A: SPINOSA, *Prickly Anthyllis*; this species is a native of Spain, and will grow to eight or ten feet high; the branches are numerous, and full of sharp spines, like some of the *Furze-bushes*; the leaves are single, downy, and of an oblong oval figure; the flowers are a kind of bluish purple colour.

6. A: TETRAPHYLLA, (Herbacea) *Bladder-Pea*, or *Italian Anthyllis*, has low procumbent branches about a foot long; the leaves grow by fours at each joint; the flowers come out from the sides of the stalk in small clusters, of a bright yellow colour, but they have so large a swelling calix, that the ends of them do but just appear above it.

7. A: HERBACEA, *Spanish Anthyllis*, is a low branching, annual plant; the leaves are pinnated, and each consists of five or seven oval, spear-shaped lobes, they are hoary, the end one is the largest, and they grow on long, hairy footstalks from the wings of the branches; the flowers are produced from the sides and ends of the branches in single heads, have large inflated calyces, and are of a yellow colour blowing in June.

8. A: TRIPARTITIS, *Trifoliate Anthyllis*, is an annual plant, the stalks are branching and hairy, and lie on the ground; the leaves are ternate, and each composed of three wedge-shaped lobes; the flowers are produced from the sides of the branches in small heads, they have long prismatic, hairy calyces; their colour is yellow, and they blow in July.

9. A: HERMANIA, *Mountain Anthyllis*, or *Purple Milk Vetch*, is a perennial plant; the branches are small, weak and trailing; they are garnished with pinnated leaves, which are composed of an equal number of lobes, are hairy, and of a whitish green colour, the flowers terminate the branches in globular heads, they are of a purple colour, very showy and beautiful, and blow in May or June.

10. A: ERINACEA, *Northern Anthyllis*, or *Ladies-Finger*; of this there are two remarkable varieties, called the Yellow, and Scarlet-flowering *Woundwort*; they are perennial, the stalks are small and slender, the leaves pinnated, and composed of an unequal number of narrow spear-shaped lobes, growing by pairs, and terminated by an odd one, which is longer than the others; the flowers terminate the branches; in the scarlet variety they are generally collected into

double heads, in the yellow they are mostly single; they blow in June and July. These latter are all natives of Spain, Italy, and the Southern parts of Europe, and are propagated from seeds sown in autumn.

**ANTICHORUS**, a genus of the Octandria Monogynia Class; the calix is a four leaved perianthium; the corolla consists of four expanding petals; the pericarpium is a capsule above, subulated, with four cells and four valves; the seeds are very numerous. There is but one species, viz.

A: **DEPRESSUS**, *Arabian Antichorus*, a native of Arabia, of which we have received no particular account.

**ANTIDESMA**, a genus of the Dioecia Pentandria Class; the calix of the male consists of five leaves, it has no corolla. The calix of the female is entire, gaping a little on one side, it has no corolla, but two styli, and a double valved capsule, enclosed in the calix. There is but one species, viz.

A: **ALEXITERIA**, a native of India, for which we have no English name, nor any particular description.

**ANTIOCHENUM**, a species of *Convolvulus*; which see.

**ANTIRRHINUM**, *Snag Dragon*, or *Calves Snout*, a genus of the Didynamia Angiospermia Class, ranking in the 40th Natural Order, *Personata*; the calix consists of five leaves; the basis of the corolla is bent backwards, and furnished with nectaria; the capsule is bilocular: there are 24 species, ten of which are natives of Britain.—*Note.* The *Asarina*, *Linaria*, and *Elatine* of old Botanists, are included now in this genus.

1. A: **ELATINE**, *Sharpi-pointed Fluellin*, *Toad-flax*, or *Female Speedwell*, an indigenous, low creeping annual plant, growing in Corn-fields; it has many slender, trailing, hairy branches, about a foot and a half long; the leaves are hastated, sharply pointed, and of a greyish colour, the flowers are produced from the sides of the stalks, the upper lip is yellow, and the under one purple, they blow in June and July.

*Part used.* The leaves.

*Sensible properties.* Taste roughish and very bitter.

*Medical virtues.* In the present practice, but little is expected from this plant, although it gives name to one of the officinal honeys, viz. (*Mel Elatines*)—The expressed juice of this plant is however strongly recommended as an aperient, resolvent, and vulnerary; an ointment prepared from it, has been in great repute, as a remedy in Scrophulous, Leprous and Cancerous cases, and the juice is said to be of service in Hydropic cases; the plant is seldom used, and the honey is in no great esteem.

2. A: **LINARIA**, or *Common Yellow Toad-flax*, in Pennsylvania it is called *Ransted*, is an indigenous perennial plant which grows in barren meadows, pastures and road sides, and is in flower from July to September. Cows, horses and swine refuse this noxious, and according to Bechstein, poisonous weed, nor is it relished by sheep or goats; this detestable weed is said by Botanists not to be a native of the United States. Did the importer of it know the injury done in its introduction (where he alive) he could not fail to regret the pains he took on the occasion, as it is highly injurious to our



grass lands, and is now said to have passed the mountains, verifying the old proverb, "ill weeds grow apace," and is extremely difficult to eradicate.

*Parts used.* The leaves and flowers.

*Sensible properties.* Acrid.

*Medical virtues.* Notwithstanding the disadvantages with which this weed is said to be attended, it has been advantageously employed as a medicine. An infusion of the leaves operate as a diuretic and cathartic. A decoction of the flowers is said to be efficacious in cutaneous disorders; and an ointment prepared from the leaves is reputed to afford considerable relief in that painful malady the Piles, and the distilled water or juice of the plant used as a cataplasm, is also said to be serviceable—The juice of the plant abounds in an acrid oil, which mixed with milk is used to poison flies.

3. A: MAJUS, or *Greater Snap-Dragon*, grows on old walls and chalky cliffs, flowering in the months of June and July; the leaves are spear-shaped, smooth, and grow on short footstalks; the flowers are large and spacious, and their varieties are very great, insomuch that of this species there are, The *Common Red Snap-Dragon*, *White*, *Yellow*, *Broad-leaved Pale-flowering*, *White-mouthed*, *Red*, *Yellow and Red*, *White and Red*, *Italian White*, *Purple*, and the *Variiegated Snap-Dragon*. There are many more varieties which differ in the tints or colour of their flowers, and size of their leaves; and indeed cultivation continues producing varieties of all kinds. The only virtues attributed to this species by modern writers is, that an excellent Lamp-Oil, is to be obtained from its seeds.

4. A: ORONTIUM, *Lesser Snap-Dragon*, or *Calves Snout*; this plant thrives in Corn and Turnip fields, bearing purplish flowers, covered with a yellow down, which blow in the months of July and August.

*Note.* This is a narcotic and poisonous plant, and ought to be carefully extirpated.

5. A: CYMBALARIA, or *Ivy-leaved Toad-grass*; this grows naturally in crevices of old walls and buildings, it is a perennial plant with round, weak stalks, and puts out roots from the joints, by which they fasten themselves to every thing they come near: the leaves are heart-shaped, of a dark green colour, divided into five parts, and placed alternately on the branches, the flowers are small, and produced from the wings of the leaves on short footstalks; their colour is purple, and they flower and produce seeds during the whole course of the summer months.

6. A: SPURIUM, (*Veronica fœmina* of Dodon.) or *Round-leaved Fluellin*, an annual plant growing indifferently in Europe, hath several trailing, slender, hairy stalks, about a foot and a half long, the leaves are oval, hairy, greyish, and placed alternately on the branches, the flowers grow from the sides of the stalks, their upper lip is yellow and their under purple; in this respect they very much resemble the first species; these also blow in June and July.

7. A: ARVENSE, or *Corn-blue Toad-flax*, is a perennial plant, grows about two feet high; the stalks are many, erect and branching; the leaves are narrow and grow in whorls round the bottoms of the stalks, but higher, they are placed by pairs or single; the flowers

adorn the ends of the branches in long, loose spikes; they will be in bloom from June to the end of summer; of this species there are several varieties, particularly one with yellow flowers—it grows in France and Italy.

8. A: *REPENS*, *Creeching Toad-flax*, or *Bastard Asarum*, is an annual plant, though of very little show or beauty; the stalks are weak, slender, trailing, and about a foot long; leaves heart-shaped, with the edges indented, and are placed opposite by pairs on the branches, the flowers are produced from the wings of the leaves, they have a long tube, and are of a very bad purple colour, with a greenish bottom: they flower in June and July—grows naturally in Geneva.

9. A: *MONOSPERMUM*, (*Linaria Odorato*, J. B.) or *Sweet-smelling Toad-flax*, a perennial plant, with numerous branching stalks, that will grow to near two feet high; the leaves are very narrow, whitish, and garnish the stalk in clusters; the flowers grow in loose spikes from the ends of the branches, they are of a pale blue colour, and sweetly scented; they continue flowering from June to the end of summer, and is a native of England and France.

10. A: *MINUS*, or *Least Toad-flax*, is an annual plant, growing naturally in many parts of Europe; the stalks are very branching and diffuse, the leaves are spear-shaped, obtuse, and for the most part placed alternately on the branches; the flowers are large and spacious, like those of the Snap-Dragon: they will blow in June and July.

11. A: *ECAUDATIS*, (A: *Sylvest phyteuma* of Dodon.) *Greater Field Snap-Dragon*, is an annual plant, and grows mostly in Europe; it has branching stalks, adorned with spear-shaped leaves, their edges entire, and they are placed on short footstalks on the branches; the flowers are of the Snap-Dragon kind, but the corolla is very short, and the cup long; they grow in kind of spikes from the end of the branches, and blow in June and July.

12. A: *ALBIS*, (*Linaria chalepensis* of Moris.) *White-flowered, erect Antirrhinum*, an annual plant and native of Italy; this rises with an erect stalk, to about a foot and a half high, the leaves are narrow, spear-shaped, and grow alternately on the branches; the flowers are produced singly from the sides of the branches, their colour is white, and they are sometimes sweetly variegated with purple or violet, and blow in July.

13. A: *OVATIS*, (*Linaria triphylla* &c. of C. B.) *Three-leaved Toad-Flax*, is an annual plant, and native of Spain and Italy. Of this there are two varieties, the Yellow and the Blue-flowering Toad-flax; the stalk is erect, branching, and will grow to near two feet high, the leaves are of an oval figure, smooth, of a greyish colour, and for the most part placed by threes at the joints, though there will be a few that grow by pairs only, the flowers terminate the tops of the branches in short spikes, and are either yellow or blue, and flower in July.

14. A: *CORYMBOSIS*, (*Linaria Annua* of Vaill.) *Corymbose-flowering Blue Toad-flax*; is an annual plant, and native of France and Italy; it has a slender, branching stalk, which will grow to about a foot in height; the leaves are very narrow, and grow alternately on

the stalks; the flowers terminate the branches in small heads, they have long spurs, are of a purple violet colour, and blow in July.

15. A: CAPITALIS, (*Linaria Multicaulis* of Bocc.) *Sicilian Toad-flax*, is an annual plant, and native of Sicily; it has many slender stalks about a foot long; the leaves are narrow, obtuse, and grow by fives at the joints, though higher they are sometimes by pairs and often single; the flowers terminate the branches in small heads; there are two varieties, the deep yellow and the cream-coloured sort; they blow in July.

16. A: CARNOSIS, (*Linaria Succulentis* of Buxb. L. Carnosis of C. B.) *Succulent Leaved Toad-flax*, an annual, and native of the southern parts of Europe; this rises with several erect, branching stalks, to about a foot and a half high; the leaves are narrow, subulated, fleshy, and grow usually by fours at the joints; the branches are terminated by its loose spikes of yellow flowers, which are sometimes striped with blue; they blow in July.

17. A: MAXIMA, *Rough Spanish Toad-flax*, is an annual, and native of Spain; the stalk is single, about a foot and a half high; the leaves are very hairy, sessile, spear-shaped, and alternate on the stalks; the branches are terminated with its close spikes of pale yellow flowers, streaked with a bright gold colour; they blow in July.

18. A: FLEXUOSA, (*Linaria genistæ* of P. Herin, &c.) *Broom-leaved Toad-flax*, is a biennial, and native of Siberia and Lower Austria; it rises with an upright, branching stalk, upwards of a yard high; the leaves are smooth, spear-shaped, acutely pointed, greyish, and placed alternately on the branches, which are terminated by pannicles of flowers of a bright yellow colour, which appear in June and July.

19. A: PATULIS, (*Linaria Bellidis folio* of C. B.) *Daisy-leaved Toad-flax*, is also a biennial, and native of France and Italy; it is about a foot high, with oblong leaves, narrow at the base, and serrated; they increase in width upwards, and are rounded at the extremity like those of Daisy; the stalks are garnished with leaves at the joints, they are small, and those that grow near the top have their edges entire; the flowers are produced at the ends of the stalk in spikes, are white, and have an agreeable odour; these also blow in June.

20. A: AMPLEXICAULIBUS, (*Linaria Dalmatica*, C. B.) *Dalmatia Toad-flax*, grows naturally in Crete and Armenia; it is a perennial plant, grows upwards of a yard high, and the stalk is strong and woody; the leaves are broad, spear-shaped, smooth, sessile, and placed alternately on the branches; the branches are terminated by its large, deep yellow coloured flowers, on short, separate footstalks; it blows in July, but rarely perfects its seeds in Britain: the mode of its cultivation is different from the other species, that is, it requires more care, for when it is to be transplanted great care must be taken that plenty of the earth be left adhering to its roots.

21. A: PURPUREA, (*Linaria purpurea* of the Bauhines) *Great Sweet-scented Purple Toad-flax*, a perennial plant, growing naturally near Mount Vesuvius, it attains the height of three feet; the stalks are many, and those which produce the flowers are erect, the others bend on every side; the leaves are spear-shaped, narrow and long,

they grow without order on the stalks, sometimes by fours, at others by pairs, the branches are terminated by long, loose spikes of purple flowers, finely scented, and blow in July.

22. A: HISPANICA, (Linaria Hispanica of Dille.) *Gibraltar Toad-Flax*, a perennial plant, growing naturally on the rocks of Gibraltar; the stalks are weak and slender, succulent, and seldom grow to a foot long, the leaves are also succulent, spear-shaped, long and narrow, their colour is greyish like the first species, they are placed at the bottoms of the stalks opposite, but higher, irregularly. The tops of the stalks are terminated by small tufts of yellow flowers, striped with purple, which sit close, and are in bloom in June or July.

23. A: CANADENSE, (Walter) *Canadian Toad Flax*, an indigenous species, growing naturally in Canada, and Florida, the stalks bend downwards, and then rise again, are garnished with irregular erect, narrow linear leaves, the flowers are produced in alternate spikes, the corolla is bluish.

24. A: MARGINATUM of M. Desfontaines, communicated by him to the Linnæan Society. This species of Toad Flax, has a resemblance to the A: Bipunctatum of Linnæus, from which it principally differs by its procumbent stalks, its much larger flowers and biennial roots; it was found in the mountains Tlemsen, in the clefts of Rocks.

*Note.* Many of these plants are very ornamental to flower gardens, and most of them will grow in any soil or situation; they are propagated from seeds or by parting the roots, and once you get a stock of them they will sow themselves without further trouble.

ANYCHIA, (of Michaux) a genus of the Pentandria Monogynia class of plants.

APARINE, a synonyme of the *Utricularia*, and several other plants.

APERBA, of the Brasilians. See *Sloanea*.

APHACA, a synonyme of the *Lathyrus*.

APHANES, *Parsley Piert*, a genus of the Pentandria Monogynia class, (Tetrandria Digynia of Hanb.) ranking in the 35th Natural Order, *Senticosæ*; the calix is divided into eight parts, there is no corolla, the seeds are two and naked. There is only one species, viz.

A: ARVENSIS, *Parsley Piert*, a native of Britain, and very common in Corn-fields; the stalks rise five or six together, they are three inches long, round, hairy, and procumbent, the leaves stand very thick upon them, and are roundish, but divided as it were, into two or three parts, and those deeply serrated at their edges, hairy, of a grey or a whitish green colour; the flower comes out in double series, arranged all along the branches, and are of a greenish white, and the whole plant is of a greyish or whitish green colour, and appear in June.

*Part used.* The whole plant.

*Medical virtues.* It is strongly diuretic, and the distilled water of the plant is supposed to be an effectual solvent for the stone in the urinary passages, or the gravel.

*Domestic uses.* It may be used as a Salad Herb. It is agreeably relished by sheep.

**APIHYLLANTHES**, *Leafless Flower*, or *Blue Montpellier Pink*, a genus of the Hexandria Monogynia class, ranking in the 5th Natural Order, *Tetrapetaloidæ*. Its character differs not from the *Juncus* or *Rush*, but in having a calix of six petals; whereas the *Juncus* has no calix. There is but one species, viz.

**A. MONSPELENSIS**, (*Caryophyllus Coeruleus* of C. B.) *Blue Montpellier Pink*, grows on the high grounds near Montpellier, in France; the root consists of a number of slender, hard, woody, long and contorted fibres, the radical leaves are very numerous, two inches long, extremely narrow, and wither very quickly: The stalk is round, smooth, without a joint or knot, naked, and tolerably firm; at its top stands a single and very beautiful blue flower, arising from a kind of compound imbricated cup. It is a perennial, and may be propagated from seeds, or by paring the roots. They should always have a light dry soil, rather sandy.

**APIASTELLUM**, or **APIASTRUM**. See *Melissa*.

**APIOS**. See *Glycine*.

**APIUM**, *Parsley*, a genus of the Pentandria Digynia class, ranking in the 45th Natural Order, *Umbellatæ*; the fruit is of an oval shape, and streaked, the involucre consists of one leaf, and the petals are inflected, there are only two species, though there are several varieties.

1. **A: PETROSELINUM**, or *Common Parsley*, is a native of Sardinia, and from thence introduced to other parts of the civilized world. Its culture and culinary uses are so well known as to need no description. The curled variety is most esteemed.

*Part used.* The seeds, leaves and root.

*Sensible properties.* The seeds possess an aromatic flavour, the root somewhat sweetish, with a light degree of warmth and flavour as the seeds.

*Medical virtues.* The seeds are occasionally made use of as carminatives, &c. The root of parsley is one of the five aperient roots, and in this intention is sometimes made an ingredient in apozems, and diet drinks: If liberally used it is apt to occasion flatulencies, and thus by distending the viscera, produces a contrary effect to that intended by it: The seeds are also an ingredient in the electuary of Bay-berries; the recent juice of the leaves are effectually employed in allaying the disagreeable sensations accompanying the Nettle Rash, or Prickly Heat, a complaint very prevalent in Carolina and Georgia; and its root forms an agreeable diet drink, in obstructions of the urinary passages.

*Domestic uses.* Besides its medicinal virtues above mentioned, the Parsley is reckoned an effectual cure for the rot in Sheep, provided they are fed with it at least twice a week, for two or three hours each time; in Europe whole fields are raised for no other purposes. Rabbits are excessively fond of Parsley.

2. **A: GRAVEOLENS**, *Celery*, is only a variety of that common weed, originally denominated *Smallage*, a native of Britain, and from thence introduced into America; there are two remarkable varieties of this vegetable, viz. 1. The *Shrubby Celery*, which is very common and well known, and 2d. The *Tulbous* or *French Ce-*

*leriac*, which is but seldom to be met with in this country. It produces a large knobby root, of a delicate flavour, from three to five inches in diameter. A third variety is also mentioned, viz. *A: Eleoseline*, or Smallage; as an article of food, Celery is well known, but it is said to be hurtful to persons subject to nervous complaints.

*Part used.* The roots and seeds.

*Sensible properties.* These are also aromatic, and somewhat sweet flavoured as the foregoing.

*Medical virtues.* The roots are also in the number of the aperient roots and are considered an excellent antiscorbutic.

APLUDA, a genus of the Polygamia Monoccia class, ranking under the 4th Natural Order, *Gramina*, or *Grasses*. The calix is a bivalved gluma; the floscules of the female are sessile, having no calix, the corolla has a double valve, there is but one stylus, and one covered seed, the male floscules are furnished with pedunculi, and has three stamina, there are three species, all natives of the Indies, viz.

1. *A: MUTICA*. 2. *A: ARISTATA*. 3. *A: ZEUGITES*. No particular account has been obtained of either species.

*Note.* Mr. Walter enumerates an indigenous species, viz. *A: SCIRPOIDES*.

APOCYNUM, *Dogs Bane*, a genus of the Pentandria Digynia class, and in the natural method, ranking under the 30th Order, *Contorta*; the corolla is campaniform, or shaped like a bell, the filaments are five, alternate with the stamina. Botanists enumerate eleven species, of which the following are the most particular:

1. *A: ANDROSÆMIFOLIUM*, *Tutsan-leaved Canada Dogs Bane*, an indigenous plant according to Walter and Michaux, growing naturally in Canada and Virginia; this hath a thick creeping root, from which arise several thick, upright, firm, smooth, brownish stalks, about three or four feet high, the leaves are large, smooth, nearly oval, and of a firm consistence: They are of a strong green, a little veined, and grow opposite by pairs at the joints; the stalks are terminated by large tufts or umbels of flowers; each flower is of one leaf divided into five parts at the brim, and the nectarium is singular and conspicuous; the real ground of the flower is white but the nectarium is purple, reddish, of a chocolate colour, or some tints of the like, numbers of these will be collected together into an head, so that they form a moderately large umbel, of proportionate size with the plant; they will be in bloom in July.

2. *A: VENETUM*, *Venetian Dog's bane*, with an upright herbaceous stalk; grows on a small island in the sea, near Venice, but is supposed to have been originally brought from some other country. There are two varieties of this species, one with a purple and the other with a white flower. The roots creep very much, and by them only it is propagated, for it seldom produces any seeds. The stalks rise about two feet high, and are garnished with smooth oval lanceolate leaves, placed opposite by pairs; the flowers grow at the top of the stalks, in small umbels and make a very pretty appearance, the colours being more distinct and brighter than the others. They flower in July and August.

3. A: SPECIOSSIMUM, or *Savannah Flower*, a native of Jamaica, growing in the Savannahs, whence its name. It rises three or four feet high, having woody stalks, which send out a few lateral branches garnished with smooth oval leaves, placed by pairs opposite, of a shining green colour on their upper sides, but pale and veined underneath. The flowers are produced from the sides of the branches, upon long footstalks; there are commonly four or five buds at the end of each, but there is seldom more than one of them which comes to the flower. The flower is very large, having a long tube, which spreads open wide at the top, of a bright yellow, and makes a fine appearance, especially in those places where the plants grow naturally, being most part of the year in flower.

4. A: CANADENSE (A: Canabina of Michaux) *Oblong-leaved Canada Dog's-bane*, an indigenous perennial plant, growing principally in Canada. It hath a thick creeping root from which arise several upright, firm, reddish stalks to the height of two or three feet, the leaves grow in pairs at the joints opposite. They are smooth, oblong, and when broken, emit a kind of milky juice, the flowers terminate the branches in small pannicles, they are of a greenish white colour, each individual flower is inconsiderable. They blow in July.

*Note.* This species grows also in the sandy lands of Carolina, and is known by the names of *Silk-Grass*, *Indian Hemp*, *Hipflo*, &c. These vulgar titles are also indifferently given to a species of the *Asclepias*, and are used for the same purposes, they both rank in the same class and order, viz. Pentandria Dyginia—See *Asclepias*.

5. A: FRUTESCENS, *Upright, Shrubby Apocynum*, or *Dog's-bane*, a native of Ceylon. It hath an upright, woody, branching stem, which attains a height of three or four feet, garnished with oval, sharp-pointed, smooth shining leaves, which are placed opposite by pairs on the branches, they are green on the upper surface, and paler underneath. The flowers grow from the wings of the leaves in small bunches, and generally blow in July. In Britain they are kept in stoves. There are several varieties of this species, the two principal of which are called, the *Purple*, and the *Yellow-flowering shrubby Dog's-bane*.

6. A: VOLUBILI, *Climbing Dog's-bane*, a native of India, and of which there are no less than four or five varieties. They are climbers, and twine themselves about trees to upwards of twenty or thirty feet high. The leaves are of an oval figure, very much veined and grow opposite by pairs on the branches in small clusters; some of them are of a purplish colour, others greenish, and some almost white. They flower in the stoves in Britain, but never afford good seeds.

7. A: CORDATUM, with heart-shaped leaves, and climbing stalks.

8. A: VILLOSUM, *Downy Apocynum*, with hairy flowers and a climbing stalk. These two last were discovered at La Vera Cruz, in New-Spain, by Dr. William Houston, who sent their seeds to England. They are both climbers, and mount to the tops of the tallest trees. The *Cordatium* has produced flowers several times, but the *Villosum* never shewed any appearance of any.

*Note.* All the species of this plant abound with a milky juice, which flows out from any part of their stalks and leaves when they are broken. This is generally supposed to be hurtful if taken inwardly, but doth not blister the skin when applied to it as the juice of Spurge, and other acrid plants. They are propagated by seeds procured from their native place, and sown on a good hot-bed, and after the plants are four or five inches high, they should have each a separate small pot, and be plunged into a bark bed, and the pots advanced from time to time. With care they may be increased by layers, which may be done at any time of the year.

*Domestic uses.* The pods of all the sorts are filled with seeds, which are for the most part compressed, and lie over one another, *Imbricatim*, like the tiles of a house; these have each a long plume of a cottony down (like Couhage) fastened to their crowns, by which when the pods are ripe and open, the seeds are wafted by the wind to a considerable distance, so that the plants become very troublesome weeds. This down however is in great esteem in France, for stuffing easy chairs, making quilts, &c. being exceedingly light and elastic, it is called the *Delawad*.

APOLLINARIS. See *Hyoscyamus*.

APONOGETON. See *Zanichellia*.

APPLE QUINCE. *Pyrus Maliformia*.

APPLE ROSE. See *Rosa Villosa*.

APPLE TREE. See *Pyrus Malus*.

APRICOT. See *Prunus Armeniaca*.

APSYRTUS. See *Marrubium*.

AQUARTIA, a genus of the Tetrandria Monogynia class, the calix is campanulated; the corolla rotated, with linear divisions and the berry four seeded. There is but one species, a native of America, viz.

A. ACULEATA, *Prickly-Aquartia*. Of which we have not found any farther description.

AQUIFOLIUM, the trivial name of a species of *Ilex*.

AQUILEGIA, *Columbine*, a genus of the Polyandria Pentagynia class, and in the natural method ranking in the 26th Order, *Multisiliqua*. It has no calix, the petals are five with a horn-like nectarium inserted between each, and has five separate capsules. There are three species.

1. A: VULGARIS, *Common Columbine*, a native of England, where it grows wild in the woods. It is a perennial plant, and has a large fibrous root, an upright, slender, branching, hairy stalk, two or three feet high, the leaves are large, composed of many parts, and usually disposed by threes, without any order or regularity. The flowers appear from the ends of the branches, are numerous, and their varieties are amazingly great, insomuch that from the same seed, there will be some with blue flowers, some with red, others with white, purple or chesnut, others variegated, some spotted, and others again on the same plant will have the flower, or one part of it self coloured, the other part will afford them tinged or spotted in the most elegant manner. The form also of the flowers will be different, some will be single, others double; some short, round and compact, others long and loose. In some the nectarium, which is a



conspicuous part of this flower, will be obliterated by the multiplicity of petals; in others the nectaria are predominant: Hence the names of *Hoary Columbine*, *Rosy Columbine*, &c. have been variously given to express the different sorts—neither is their variety all the excellence they consist of, for they are large flowers, and very showy.

2. A: ALPINA, *Mountain Columbine*, with large, long oval flowers, much larger than the garden Columbine. Is also a perennial plant and native of Europe. It hath slender branching stalks, the leaves are composed of many parts, that are also very much divided.—The Stalks are terminated by its large flowers, which blow in May or June.

3. A: CANADENSIS, *Dwarf Canada Columbine*, an indigenous species, which flowers almost a month before the the other sorts, and therefore is preserved in the gardens of the curious, though not at all remarkable for its beauty; yet it is a pretty little plant. It hath a slender branching stalk about a foot high, each branch of which is terminated by a single flower of a red colour; the stamina are longer than the petals, and the nectaria are straight. There is a variety of this species, with taller flower stems. These plants are all propagated from seeds, or parting the old roots. The former method is preferred, as by the latter the plants are apt to degenerate. The seeds should be sown in a nursery in August or September. Those kept till spring seldom grow well, or at least remain in the ground a whole year.

*Part used.* The leaves, flowers and seeds.

*Medical virtues.* Columbines have been looked upon as aperient; and was formerly in great esteem among the common people for throwing out small pox and measles, a distilled water, medicated vinegar, and conserve, were prepared from the the flowers, but they have long given place to medicines of greater efficacy.

ARABIS, *Bastard Tower Mustard*, *Gilliflower*, &c. a genus of the Tetradynamia Siliquosa class of plants, and in the natural method ranking under the 39th Order, *Siliquosa*. The generic mark is taken from four nectariferous glands which lie on the inside of each leaf of the calix. There are seven species, but none of them remarkable for beauty or other properties.

1. A: THALIANA, or *Poed Mouse-ear*, or *Wall Cress*, is a low plant, seldom rising more than four or five inches high, branching on every side, the leaves spear-shaped and entire, with footstalks on the branches, having small white flowers growing alternately which have each four petals in form of a cross, that are succeeded by long slender pods filled with small round seeds. It grows naturally on sandy ground or old walls, and flowers in May or June. Sheep are not fond it, and swine refuse it.

*Note.* Some Botanists confound a species of *Hierachium*, viz. *H. Pilosella*, with the Arabis, of which it is only a synonyme. See *Hierachium*.

2. A: AMPLEXICAULIBUS, (Draba of Clus. and Bauh.) *White erect Spring Gilliflower*, with a creeping root, the radical leaves are oval indented, and grow many together in a circular manner, forming themselves into a kind of head. From the centre of these heads

of leaves, the flower stalks arise to about a foot high, upright and are garnished with broad leaves placed alternately, and which surround the stalk with their base. The flowers grow in loose bunches on the ends of the stalk, and are white. They blow in March, and are succeeded by long flat pods.

3. A: AMPLEXICAULIBUS RAMOSO (*Draba Siliquosa* of C. B.) *Trailing Spring Gillyflower*. This by some authors hath been made a distinct species, though Linnæus makes it only a variety of the former. It differs from it in this: The stalks are large, diffuse, and branching. They trail on the ground, and are adorned with large indented leaves, that embrace the stalk with their base. The flowers are white like the other.

4. A: ALPINA, *Wild Tower Mustard*. This species is common in some gardens. The leaves embrace the stalk, and are toothed about the edges. It bears white flowers in loose corymbis.

5. A: GLABRIS (*Cheiranthus* of Gronov.) *Smooth Lyrate-Leaved Podd Mouse-ear*, an indigenous perennial, growing naturally in Canada. It is about five inches high. The radical leaves are lyre-shaped and smooth, those on the stalk are spear-shaped, narrow and smooth. The flowers grow alternately almost the length of the stalk, they are white, and larger than the other sorts.

6. A: LANCEOLATIS, (*Falcata* of Michaux) *Virginian Rocket*, an indigenous perennial plant, growing naturally in New-England, Virginia and Canada. The radical leaves are oblong and broad, resembling somewhat the Daisy leaves. The stalk is erect, about a foot high, garnished with spear-shaped, indented smooth leaves. Its naked spikes of white flowers ornament the upper parts of the stalks; the largest spikes always terminate the main branch, whilst two or three smaller from the upper wings adorn the sides a little lower. The blossoms are succeeded by compressed furrowed pods.

7. A: SUBRUGOSIS, (*Turritis* of Sauvages) *Dame's Violet-leaved Gillyflower*, a native of Switzerland, Hungary, &c. The stalk is about a foot high, and is garnished with long, spear-shaped, hairy leaves, that closely embrace it with their base. It is terminated by loose spikes of ill looking white or yellow flowers, in May. The radical leaves are broad, hairy, indented, and often waved at their edges. They are all propagated by seeds; the second and third increase very fast by their roots.

ARABIAN JASMINE. See *Nyctanthis*.

ARACHIS, *Ground-Nuts*, or *Pindars*, a genus of the Diadelphia Decandria class of plants, and in the natural method ranking under the 32d Order, *Papilionacæ*. The calix is divided into two parts, and the capsule or pod is cylindrical, and contains two seeds, sometimes, (though seldom) three; there is only one species, a native of Brasil and Peru, though it has been ranked by Mr. Walter among the indigenous plants of Carolina.

A: HYPOGÆA, (*A: Africa* of Walter) *Ground-Nuts*, &c. It is an annual plant, cultivated by negroes, particularly in Carolina and Georgia, and also in the West-Indies. The stalks are long, trail upon the ground, and are furnished with winged leaves, composed of four hairy lobes each, the flowers are produced singly on long peduncles: they are yellow, of the pea kind, and each contains ten awl-shaped stamina, nine of which are tied together, and the upper

one stands off. In the centre is an awl-shaped stylus, crowned with a simple stigma. The germen is oblong, and becomes an oval oblong pod, containing seed as before expressed. When in flower it inclines towards the earth, into which the point enters, and extends to a certain depth, where the seed vessel and fruit is formed, so that the latter attains to maturity under ground, whence the name *Ground Nuts*. The cultivators of this nut aid the operations of nature, and hasten the perfecting of the Nut, by covering the greater part of the plant with earth, (as in *Potatoe* vines for *Slips*) when in bloom.

*Domestic uses.* The nuts or seed when bruised and expressed through a canvass bag affords a pure, clear and savory oil, in the opinion of many equal to olive or almond oil, and enjoying an advantage above them, that it will not become rancid for a considerable time, even though no care should be taken of it. One bushel of seed is said to yield a gallon of oil, without heat and a much larger, though inferior quality with heat. They are certainly worthy of greater attention, as they may be prepared many ways to advantage, and particularly into an agreeable and wholesome Chocolate very little, if any, inferior to that obtained from the Cocoa. See also *Bunium*.

**ARALIA**, the *Angelica Tree*, a genus of the Pentandria Pentagynia class of plants, and in the natural method ranking under the 46th Order, *Hederaceæ*. The involucre is an umbella, the calix has five teeth, and is above the fruit, the corolla has five petals and the berry five seeds. There are five species of *Aralia*, natives of the Indies, four however, are indigenous in the United States.

1. **SPINOSA**. *Angelica-Tree*, or *Prickly-Ash*. This is an indigenous plant growing naturally in Carolina. The height to which it will grow, if the soil and situation wholly agree with it, is about twelve feet; and the stem, which is of a dark brown colour, is defended by spines which are sharp, and which fall off, even the leaves which are branching, and composed of many wings, and are of a pleasant green colour, have these defenders, which are crooked and strong, and stand as guards to them till the leaves fall off in Autumn. The flowers are produced in large umbels from the ends of their branches—they are of a greenish yellow colour, and their general characters indicate their structure, and are succeeded by round darkish red berries. They make their appearance the end of July, or beginning of August, but in Europe does not perfect its seeds.—They may be propagated from roots, but the best method is from the seeds, sown as soon as they are fully ripe, and the same process observed with them as with the other shrubs of Carolina.

*Medical virtues.* The Bark of the Root is used in decoction, in Rheumatism, Lues Venerea, &c. though principally confined to private practice.

2. **A: NUDICAULIS**, *Bastard Sarsaparilla*, a hardy herbaceous perennial, with a naked stalk; this grows three or four feet high, the leaves have two large trifoliate lobes, which are sawed on their edges; the flower stalks arise between these, immediately from the root, and are terminated by round umbels of small four leaved flowers, of a whitish colour, succeeded by small black berries.

*Medical virtues.* The roots are used by the inhabitants of Canada, &c. for Sarsaparilla, though it is very different from the true sort. A decoction is esteemed serviceable in the eruptive complaint called shingles, and is said to restore the tone of the stomach, &c.

3. A: RACEMOSA, *Spikenard, Wild Liquorice, or Berry bearing Aralia*, a native of Canada, where the berries are eaten, and the leaves and roots are used as pot-herbs by the natives; this hath a round thick jointed smooth branching stalk, three or four feet high, the leaves are large, grow alternately, and are composed of a great number of oval pointed lobes, serrated on their edges: The flowers are produced from the wings of the leaves, in roundish umbels, on smooth footstalks; they are of a greenish colour at first, but become whiter afterwards; they blow in June, and are succeeded by round channelled berries, which are red at first, but when ripe of a black colour and of a sweet taste.

4. A: HISPIDA, *Bristly Aralia*, an indigenous plant, growing naturally in Canada, and other parts of North America; it hath a low shrubby stalk, thickly set with rigid bristles, the leaves are doubly pinnate, and the leaflets serrated, the branches are terminated by small umbels of flowers upon longish footstalks.

*Note.* The root of this species is said to be highly emetic.

ARALIASTRUM. See *Panax*, or *Ginseng*.

ARAPABACA, a synonyme of the *Spigelia*, or *Indian Pink*.

ARBORESCENS. See *Atropa*, or *Night Shade*.

ARBOR-VITÆ. See *Thuya*.

ARBUTUS, the *Strawberry Tree*, a genus of the Decandria Monogynia class of plants, and in the natural method, ranking under the 18th Order, *Bicornes*; the calix is divided into five parts, the corolla is ovated, the fruit is a berry with five partitions or cells: There are 9 species.

1. A: UNEDO, or *Common Strawberry Tree*, is a native of Italy, Spain, and Ireland, and is a principal ornament of the Shrubberies in Europe, on account of its beautiful evergreen foliage, and fine yellow flowers, which appear in November, or December, and produces berries the succeeding year; so that blossoms and fruit appear at the same time, the latter however is not grateful to the taste, even though mellowed by the frost. In their wild state, they grow on barren limestone rocks, and stand the severest winters in any soil or situation. There are four varieties of this species, viz. The *oblong fruited*, the *round fruited*, the *red flowered*, and the *double blossomed*; one description is nearly common to them all; and their inconsiderable variations, is almost sufficiently shewn in their respective appellations.

The oblong fruited sort will grow to be a middling sized tree, for we read of its wood being converted into harrows, &c. The main stems are covered with a light brown bark, rough and falling; the younger branches are of a purplish colour, whilst the last years shoots are of a fine red, and a little hairy. The leaves grow alternately on the branches, and are of an oblong oval figure; they stand on short footstalks, and the oldest leaves make a contrast with the younger by having their footstalks and mid-rib of a fine scarlet colour; they are smooth and beautifully serrated, their upper surface

is of a stronger green than their under, and the young twigs are garnished with them in plenty. The fruit also gives it a very singular appearance, as they look like large red Strawberries, and the beauty is heightened by their appearing all over the tree, among the flowers, as that is the time of their being ripe, when the flowers for the succeeding crop are fully out, so that the flowers which blow in the present year do not perfect their fruit until 12 months after.

The *round fruited* sort has pitcher shaped flowers, which are succeeded by round scarlet fruit, as wide as they are long, and this is all the difference between these varieties.

The *red flowered*, sort differs in no respect from the common sort, except in the flowers, which are red, the fruit being nearly the same as the foregoing.

The *double flowered* sort differs in no respect, only that the flowers are double, and these are so inconsiderable, as scarce to be seen without looking into the flower narrowly.

All the above are propagated by layers and cuttings, except the species itself which may be raised from seed. The propagation by layers must be performed on the youngest twigs; they commonly remain two summers before they strike root. If by cuttings, they must be planted in pots and have the benefit of a good bark bed, in which being constantly shaded, and duly watered, many of them will grow. If from seed, the oblong, or round fruited sort should be preferred fully ripe, and placed for the present into a pot or jar with drift sand, and in the March following they may be sowed. The best soil for them being maiden earth, taken from a rich pasture; they must not be covered more than a quarter of an inch deep; they much be preserved from frost while young, after which the common care will suffice.

2. A: ANDRACHNE, or *Oriental Strawberry Tree*, a native of the Indies, and grows to a larger size than any of the foregoing; the leaves are smooth, and nearly of the same figure, as the preceding sort, though they are larger, and have their edges undivided. The flowers grow like the other sorts are of the same colour, and they are succeeded by large oval scarlet fruit, answering many useful purposes in life to the inhabitants.

3. A: ACADIENSIS, *Acadian Bilberry*, a native of Acadia, growing naturally in boggy ground. Its branches are ligneous trailing, and about two feet in length, the leaves are of an oval figure, and have their edges slightly serrated, they grow alternately on the branches, and the flowers are produced from the wings of the leaves in small loose bunches, succeeded by berries, which may be eaten.

4. A: ALPINA, (Vitis Idæa of C. B.) *Mountain Strawberry*, *Black Berried Alpine Arbutus*, or *Common Mountain Bilberry*, a native of Britain, Scotland, and the Western Isles; flourishing on the dry mountains of these countries, where it flowers in May, bearing round black berries, possessing a flavour slightly resembling black Currants, though greatly inferior. This species is an evergreen.

5. A: UVA URSI, *Bear berries*, *Bear Whortle Berries*, or *Bear berry Strawberry Tree*; in the Edinburgh Dispensatory, for 1801, it is simply termed "*Whortleberry*," is a native of Britain, growing

chiefly on dry heaths and woods, in the Highlands of Scotland, where it flowers in the months of May or June. It is a low evergreen shrub, trailing on the ground, and is found in many parts of the United States, particularly New-York, and New Jersey, where it grows abundantly. Hearne observed it as far north, as latitude 71, and speaks of it under the Indian name of *Jackaskeyfuch*; it somewhat resembles the Myrtle, the stalks are covered with a reddish bark, and the leaves are oval, thick, smooth and entire, of a strong green colour; the flowers come out in clusters from the ends of the branches, and are of a greenish white colour, succeeded by roundish black berries, which ripen in July. There is a variety with purple fruit, and another with red fruit.

*Part used.* The leaves.

*Sensible properties.* Astringent bitterish taste, and their astringency is so considerable, that in Russia they are used for tanning leather; a watery infusion of the leaves immediately strikes a very black colour with chalybeates.

*Medical virtues.* The Uva Ursi seems first to have been employed in medicine, with a view to its astringent power; with this intention it was used under the form of decoction, for restraining an immoderate flow of the menses, and other hæmorrhages, in cases of diarrhoea and dysentery, and for the cure of cutaneous eruptions: It was however falling into disrepute, till its employment was again revived by Dr. De Haen of Vienna, who bestowed very high encomiums on it against ulcerations of the kidneys, bladder and urinary passages, calculus, &c. patients after the use of it passing their water easily and without pain. It has in modern practice proved itself a remedy of some use in many affections of the urinary organs, and it has been particularly serviceable in alleviating dyspeptic symptoms in nephritic and calculous cases. It has also been serviceable in *Cystirrhœa*, or *Catarrhus vesicæ*, i. e. painful voiding of bloody urine, &c. and it has sometimes been productive of advantages in diabetes. By the experiments of Dr. J. S. Mitchell, related in his *Inaugural Dissertation*, Philadelphia, 1803, it appears that the Uva Ursi, has been found highly beneficial in old gonorrhœas and gleet, and in cases accompanied with the common symptoms of the stone in the bladder.

The late ingenious Mr. George Lee, of the Pennsylvania Hospital, cured a stricture of the Urethra after bougies, and other remedies had been used without effect, by giving the patient 15 grains of Uva Ursi three times a day. An infusion of the plant in water is the common mode of exhibition, two ounces, three, four, or five times a day may be taken.

We have not obtained any accounts of the remaining species.

ARCELL, *Archil*, *Archilla*, *Rocella*, or *Orsielle*, is a whitish moss, which grows upon rocks in the Canary, and Cape Verd-Isles, and yields a rich purple tincture, fugitive indeed, but extremely beautiful. Litmus is also said to be prepared from it. See Lichen.

ARCHANGEL. See *Lanium*.

ARCION, a synonyme of the Tussilago, or *Colt's-foot*.

ARCTIUM, *Burdock*, a genus of the Syngenesia Polygamia Æqualis class of plants, and in the Natural Method, ranking under the

49th Order, *Compositæ Capitatae*, the calix is globular, squamose and hooked at the tops. There are three species, viz.

1. A: LAPPA, *Common Burdock*, or *Clot-bur*, a well known weed, growing on road sides, rubbish and ditch banks. It is also called Bardana. It produces purplish blossoms in July or August, and are very troublesome weeds.

*Part used.* The Root and Seeds.

*Sensible properties.* The roots have a sweetish taste, with a slight austeriety and bitterishness. The seeds bitterish and subacid.

*Medical virtues.* The roots are esteemed aperient, diuretic and sudorific, acting without irritation, so as to be safely used in acute disorders. The seeds are esteemed diuretic in a high degree. The roots are given in decoction in Rheumatic, Gouty and Venereal disorders, in preference to Sarsaparilla. The seeds are usually administered in powder to the quantity of a drachm, or in emulsion.

*Domestic uses.* The tender stems deprived of the bark, may be boiled and eat like asparagus; when raw are good with oil and vinegar, and yolk of eggs rather than oil, in form of salad. The internal parts of the root may be advantageously used in washing as a substitute for soap on account of its saponaceous quality. A good starch is also to be obtained from the roots by the usual process, and paper has been made from the fibrous parts of the stalks. Cows, and Goats eat this herb, sheep and horses refuse it, and swine are not fond of it.

*Note.* There is a singular variety called the *Netted Burdock*, an exotic plant, growing naturally on the Appenine mountains. The leaves of which are large heart-shaped, and white on the under side. Its bright red flowers are collected into heads, which are covered with a very fine down in the form of net work, admirably wrought, from whence the English name has been given to it. The seeds ripen and sow themselves when the flowers are past, like the common kind.

2. A: TOMENTOSUM. *Downy Burdock*, A native of Europe.

3. A: PERSONATA. A native of the Alps. These plants are all exotics, and merit but little notice, being as already observed, very troublesome weeds. See Xanthium.

ARCTOPUS, a genus of the Polygamia Dioecia class, and in the natural method ranking under the 45th Order, *Umbellatæ*. The umbella of the male is compound, the involucreum consists of five leaves, the corolla has five petals; the stamina are five, and two pistilli. The umbella of the hermaphrodite is simple; the involucreum is divided into four parts, is spinous, large, and contains many male flowers in the disks. There is but one species, viz.

A: ECHINATUS, a native of Ethiopia, of which we have no farther account.

ARCTOTIS, a genus of the Syngenesia Polygamia Necessaria class of plants, and in the natural method ranking under the 49th Order, *Compositæ Discoides*. The receptacle is bristly. The corona of the pappus is pentaphyllous, and the calix is imbricated, with the scales loose at the top. It is commonly called *Auc-*

*monospermus*, from the resemblance of its seeds to those of *Anemone*. There are 11 species, all of them natives of Ethiopia, or the Cape of Good Hope, except one, which Mr. Walter discovered in Carolina, viz.

1. A: CAROLINIANA, *Carolinian Arctotis*, of which, however, Michaux has made no mention in his Flora.

2. A: VILLOSIS, *Golden Arctotis*, hath a thick tender, spongy, branching stalk, which attains a height of about four feet. The leaves are large, oblong and sinuated or jagged, so as to form a kind of winged leaf: The ends of the branches are terminated with a single flower each, which is large and radiated, their colour is a fine yellow, the rays paler. There is a variety of this species with crimson flowers, and another whose rays are purple on their outside. They will flower in summer, and in the Green-Houses in England they continue in blow all the winter.

3. A: ANGUSTIFOLIA, *Narrow leaved Arctotis*, with spear-shaped leaves, is also a native of Ethiopia. It hath a thick, tender branching stalk, which attains the same height with the former. Its leaves are very narrow, stiff, spear-shaped and indented on the edges; the flowers are large, the inside of the rays of a pale yellow, but the outside of a red colour.

4. A: AMPLEXICAULIBUS, *Plantain-leaved Arctotis*, a native of the Cape of Good-Hope. This species hath a thick, tender branching stalk. The leaves are of a lanceolate, oval figure, and very much ribbed like those of Plantain: they are indented and embrace the stalk with their base. The flowers are large, and their rays are of a golden yellow colour on the inside, but tawny without.—They frequently show themselves at all seasons of the year.

5. A: ASPERA, *Rough-leaved Arctotis*, with wing-shaped woolly leaves, which flower in May, having rays of a fine yellow, or deep gold colour. These as well as the other species, may be propagated by cuttings, planted in any of the summer months in a bed of light fresh earth, observing to shade them from the sun till they have taken root. They should be exposed to the open air until the end of October, or longer if the weather is favorable, when they must be removed into the green-house.

6. A: RAMOSA, *Sea Ragwort-leaved Arctotis*, or *African Jacobaea*, has a thick, tender branching stalk, which attains a height of five feet. The leaves are oval, indented, hoary, and somewhat resemble those of the *Sea Ragwort*. The flowers grow on very long footstalks, are of a sulphur colour, and blows in June or July. It is a native of Ethiopia.

7. A: FOLIIS, LYRATIS, *Dwarf Arctotis*, a native of the Cape of Good-Hope. Of this there are three or four varieties, they have no stalks except the footstalks of the flower, the leaves are ribbed, white on their underside, sinuated, have long footstalks and grow immediately from the root; among them the flowers arise on footstalks about four or five inches long, are large and handsome, the colours of which are pale yellow, golden yellow, and others of different tints, which blow in April or May. This species is propagated best by seeds sown in a rich border, the others by cuttings.



S. A. HERBACEA, (Anemonospermos of Breyn.) *Annual Arctotis*, is also a native of Ethiopia. It has a thick, tender, herbaceous stalk, adorned with large, hoary, winged leaves, the flower is radiated, and composed of several hermaphrodite and female flowers, the rays are finely disposed, and are deeply cut into three parts. They blow in August and produce seeds, which so much resemble those of *Anemone*, or the Wind-flower, that Breynius was induced to call this genus *Anemonospermos*.

*Note.* I have found no account of the remaining species.

ARCYRIA. See *Clathrus*.

ARECA, The *Fussel* or *Faussel nut*, or *Arica nut*, a genus of the order *Palme Pennatifolia*. The male has no calix; the corolla has three petals, and nine stamina; the female has no calix; the corolla has three petals and the calix is imbricated. Formerly there was but one species allowed this genus, viz. the *A: Catechu*. Latterly the *Oleracea* has been added to it, (viz. *Corypha Palma* of Walter, Bartram, &c.)

1. *A: CATECHU*, *Fassel-nut*, a native of India. This has no branches but its leaves are very beautiful; they form a round tuft at the top of the trunk, which is as strait as an arrow; it grows to the height of 25 or 35 feet, and is a great ornament in gardens. Its fruit is contained in a yellowish shell, externally smooth, but rough and hairy within, resembles that of a *Cocoa-Nut*, though in size not exceeding a large walnut. Its kernel is not unlike a nutmeg, and contains in its centre, while soft, a greyish and almost liquid substance, which grows hard in proportion as it ripens. The extract of this nut has been supposed to be the *Catechu*, or *Terra Japonica*, i. e. Japan earth of the shops: but according to later observations, the genuine drug seems to be obtained from a species of the Sensitive plant, viz. *Mimosa Catechu*.

*Domestic uses.* The ripe fruit is astringent, and its consumption in the East-Indies is perhaps more general than that of tobacco in Europe or America, as every person chews it, together with the leaves of *Betel*, after mixing with it lime made of sea-shells, this mastication occasions much spitting, cools the mouth and fastens the teeth and gums, it is likewise said to sweeten a fetid breath and to strengthen the stomach. For these conjoint purposes it may even in colder climates be advantageously employed, and as we possess no plant of similar efficacy, it might be easily imported, as the Dutch East-India company send a great deal of it in their ships into the kingdom of Bengal. The Malayans call the quid prepared for mastication *Pinang*. It is known by that name all over the East Indies. The Siamese call it *Plou* in their language. The best comes from Ceylon. A red kind grows in Malabar proper for dying that colour.

2. *A: OLERACEA*. *True Cabbage Palm*, an exotic plant, and perhaps the tallest and most beautiful of vegetable productions, growing generally to the height of 170 or 200 feet, and near the ground is about seven feet in circumference. Its branches when full grown are about 20 feet in length, and are thickly set on the trunk alternately, rising gradually superior to one another, their broad curved sockets so surround the trunk that the sight of it, whilst among

these, is lost, which again appears among the very uppermost branches, and is there enveloped in an upright green conic spire, which beautifully terminates its great height. The abovementioned branches are somewhat round underneath, and slightly grooved on the upper side, They are likewise decorated with a great number of green pinnated leaves, some of which are nearly three feet long, though only an inch and a half broad. The bark of the Cabbage Palma, which tapers as it ascends, is distinguished for a peculiarity that is not to be observed in any other tree: Till it reaches within 25 or 30 feet of the extremity it is of an ash colour, but then immediately changes into a deep sea green, and continues so to the top (as has been already observed) near which what is called the cabbage is found enveloped in several thin, snow white, brittle flakes of a taste similar to almonds, though somewhat sweeter. The Cabbage flower first appears like a small husky spatha or sheath, and grows to the height of twenty, and to the breadth of about four inches; on being opened when young, a farinaceous yellow seed in embryo, resembling saw-dust, is found abundantly dispersed among its filaments. These filaments being cleared of this dust are pickled, and esteemed among the best pickles either in the West-Indies, or in any part of the world! But if suffered to arrive at maturity, it then bursts, and the enclosed parts, in time, produces a great number of small oval, thin shelled nuts, about the bigness of unhusked Coffee berries. These being planted produce young Cabbage trees.

*Domestic uses.* Exclusively of the foregoing use, the other parts of the plant are employed for various purposes, particularly the inner side of the young footstalks, in which are tender pellicles, which when dried, it is said makes a good writing paper. The Pith is manufactured into a kind of sago, and the nuts yield an oil by decoction.

**ARENARIA**, *Sandwort*, or *Sea-Spurry*. Formerly called *Chick-weed*, a genus of the Decandria Trigynia class, and in the natural method ranking under the 22d Order, *Caryophyllæ*. The calix has five open leaves, the petals are five and entire; the capsule is unilocular, and contains, many seeds. Formerly there were but 17 species enumerated, but later Botanists enumerate 43. Dr. Smith remarks 10 of them as natives of Britain. Mr. Walter in his *Flora Caroliniensis* enumerates one as indigenous in Carolina, and Michaux six, in the United States.

1. A: **CARNOSIS**. (*Alsine Litoralis* of C. B.) *Sea Chick-weed*, or *Pimpernel*, a perennial and native of Europe, the stalks of which are slender, jointed and about five or six inches long, divided into several branches, and spread themselves on the ground; the leaves are oval, acute, fleshy and of a pale bluish green; the flowers blow in June or July, are small, starry, and of a yellowish green colour, they come out a few together from the tops of the stalks, having distinct footstalks.

2. A: **IMBRICATIS**. *Tetraquetrous Arenaria*, a perennial and native of the Pyrenees. The stalks of this also divides into several branches, weak and leaning, the leaves are oval, hollowed, recurved and lie over each other (imbricatum) four different ways. Its small,

starry, greenish coloured flowers blow about the same time with the former, and come out singly on footstalks, from the ends of the branches.

3. A: MAJORIBUS, (Alsine Majoribus of Haller,) *Many Stalked Arenaria*, a perennial, and native of the Helvetian and Pyrenean Mountains; the stalk are numerous from the roots, slender and trailing, the leaves are oval, and spear-shaped, nervose, sessile and acute; it blows in June or July, the flowers come out from the upper parts of the stalk, on short slender footstalks; their petals are undivided, and larger than the segments of the calix.

4. A: SAXIFRAGA, (Saxifraga Bavarica of Ray.) *Bavarian Saxifrage*, also a perennial and native of Bavaria; this species has thick succulent branching stalks, five or six inches long, the leaves are nearly cylindrical, taper, fleshy, and obtuse, the flowers are white, and come out one or two together from the ends of the branches, on footstalks; the petals are spear-shaped, they are in blow about the time of the former.

5. A: SUBULATIS, (Spergula of Sauvages, Alsine of Herm. Tourne. Pluke. Ray. Vaill. &c.) *Rock Chickweed*, a perennial, and native of Europe, the stalks are slender, divide into several branches and lie on the ground, the leaves are awl-shaped, smooth, slender, and of a bluish green, the flowers come out in panicles from the tops of the stalks, are whitish, and blow about the same time with the former. There is a variety with spotted flowers.

*Note.* This species seems to answer the description of an indigenous species mentioned by Michaux, growing in Carolina, viz A: Glabra.

6. A: SEXATILIS, *Mountain Sandwort*, or *Chickweed*, a perennial, and native of the mountainous parts of Gaul, the stalks are very long and procumbent, the leaves spear-shaped, narrow, and rough, the flowers moderately large, and of a whitish green colour. They also blow in July.

7. A: TENUIFOLIA, *Fine Leaved Sandwort*, or *Chickweed*, a perennial and native of most parts of Europe; the stalks are slender, branching and weak, the leaves are awl-shaped, narrow and very elegant, the flowers come out in panicles from the ends of the stalks, they have simple footstalks, and their petals are shorter than the segments of the calix. They blossom in June or July.

8. A: LARICIFOLIA, *Larch-leaved Sandwort*, a perennial and native of France, England, Germany, &c. The stalk is slender tough and almost naked on the upper parts, the leaves are narrow, bristly and come out in bunches like the larch leaves; the flowers are elegant of a blue colour, grow on simple footstalks, and have hairy cups; these blossom in August. There are varieties of this species with white, yellow, and whitish green flowers.

9. A: STRIATÆ, (A: Stricta of Mich. Auriculo Muris of C. B.) *Striated Chickweed*, or *Sandwort*, a perennial plant and native of Austria, and New-England, Canada, &c. the stalks divide into a few branches, and grow to about five or six inches high, the leaves are slender, narrow and erect, the flowers are very beautiful, resemble those of the *Mouse-Ear*, and have oblong striated cups. These also blow in August.

10. A: GRANDIFLORA, *Grand-flowered Chickweed*, is also a perennial, and native of the Alps; the stalk is slender, and about four or five inches high, and closely garnished with narrow awl-shaped leaves; the radical leaves are narrow pointed and form a cluster at the crown of the root, the flowers come out singly from the tops of the stalks, and are very large for flowers of this sort, are starry and of a beautiful appearance. These blow mostly in July and August.

11. A: RUBRA, *Purple flowered Sandwort*, or *Spurrey*, an annual plant, and native of Europe, Canada, &c. growing in sandy and gravelly places; the stalks are numerous, round, jointed and procumbent, the leaves are slender pointed, grow two at a joint, and at their base are situated membranaceous stipulæ, surrounding the stalk, its purple flowers come out from the ends and sides of the branches in July. The varieties of this species are the Sea Spurry, with a small blue flower, purple Sea Spurry, and Blue Spurry of the plains.

12. A: TRINERVIA, *Plantain leaved Sandwort*, or *Chickweed*, an annual plant, growing naturally in woods, and under hedges in England, &c. the stalks are slender, branching, and near a foot long, the leaves are oval, trinervous, acute and grow on short footstalks, the flowers are small, and come out in the same manner as the foregoing, but much earlier, blowing in May.

13. A: SERPILLIFOLIA, *Least Sandwort*, or *Chickweed*, is also an annual plant, growing naturally in gravelly, sandy and dry places, often on the tops of buildings, old walls, &c. in England, Pennsylvania, and Carolina; the stalks are numerous, slender, and about three or four inches long, the leaves are nearly oval, acute, sessile, and grow opposite by pairs at the joints; the flowers are white, very small, and are in blow in May, and sometimes in autumn.

14. A: MEMBRANACEIS, *Middle*, or *Small Vernal Arenaria*, is also an annual plant, growing naturally in France, and Germany; the stalks are many, round, jointed, downy and clammy to the touch, growing about five inches long, the leaves are narrow, taper, acute, succulent, depressed on the upper side, convex underneath, and have membranaceous stipulæ at the base, the flowers are white, and appear in April, May and June, and are succeeded by black seeds, which are surrounded by a white leafy border.

*Note.* All the species are propagated by seeds sown soon after they are ripe, they will grow in any soil or situation, though a dry light sandy soil suits them best. They require but little care in their cultivation.

ARETIA, a genus of the Pentandria Monogynia class, and in the natural method, ranking under the 21st Order, *Preciæ*; the corolla is divided into five parts, and the tube of the corolla is ovated; the capsule is globular, and consists of but one cell. There is only one species, viz.

A: ALPINA, (A: Villosa of Haller.) *Mountain Arctia*, a perennial plant, and native of Vallesia; the root is thick, fibrous and lasting, the stalks rise immediately from the root, and are about two or three inches high, the leaves are small, oblong, spear-shaped, and of a pale green, the flowers come out singly from the tops of the stalks, each stalk is terminated with a flower, they are salver-shaped, small,

whitish, and are in bloom in May. There are some varieties of this plant with brown, and others with whitish green flowers.

**ARETHUSA**, *Bastard Hellebore*, a genus of the Gynandria Dianthia class, (according to Michaux, Gynandria Monandria,) and in the Natural method, ranking under the 7th Order, *Archidie*; the generic character is taken from the nectarium, which is tubular, situated at the bottom of the corolla, and the inferior labium fixed to the stylus; there are five species, four of which are indigenous in Carolina, the fifth is only found at the Cape of Good Hope. The Generic name of this class of plants, appears to have been taken either from Arethusa in Fabulous Hist. the daughter of Nereus and Coris, and the companion of Diana, who changed her into a fountain, to deliver her from the pursuit of her lover Alpheus, or the fountain itself, which is near the city of Syracuse, in Sicily, &c.

1. A: **DIVARICATA**, *Divaricate Arethusa*, an indigenous perennial plant, growing naturally in the maritime parts of Carolina, and Florida; the roots are fibrous, the stalks hath but two leaves, which are oblong and obtuse, the flowers come out singly from the tops of the stalks; they are long, and of a reddish colour, and blow in May or June.

2. A: **BULBOSA**, *Bulbose Arethusa*, an indigenous perennial plant, growing naturally in the mountainous parts of Carolina, and Canada; the root consists of two roundish bulbs, the stalk is tender, round, succulent, and about four or five inches high, the leaves are smooth of a thickish substance, and form a sheath to the stalk with their base; the flowers come out singly from the tops of the stalks, arising from a two-leaved spatha, they are long, purplish, and shew themselves in April and May.

3. A: **OPHIOGLOSSOIDES**, *Adder-tongue-leaved*, or *Virginian Bastard Hellebore*, an indigenous perennial plant, and according to Michaux, grows naturally in the maritime parts of Carolina, and Canada; it also grows in the watery places of Virginia, the stalks are round, tender, upright, and adorned with two leaves only, one of the leaves belong to the stalk, the other stands at the top of it, and serves for a spatha, the stem leaf is oval and oblong, and the spathaceous leaf is flat and spear-shaped, at the top of this is situated the flower, which is of a reddish colour, and appears in May and June. The root of this species is fibrous.

4. A: **PARVIFLORA**, *Lily-leaved Bastard Hellebore*, an indigenous perennial plant, growing naturally in America, and particularly in Kentucky; the root is palmated and fibrous, the stalk single, upright, tender, and five or six inches high, the leaves are spear-shaped, smooth, thick, and the lower one surrounds the stalk with its base, at the top of the stalk is situated the spathaceous leaf, which is also spear-shaped, and out of it arises an irregular lily-like flower, consisting of six petals, three are long, narrow, and of a dull purple, the other three short and of a reddish colour. These appear in May.

5. A: CAPENSIS, *Cape Arethusa*, a native of the Cape of Good-Hope. These are all hardy plants, and may be propagated from the roots set in a moist, light and somewhat sandy soil.

ARESTÆ BOVIS. See *Ononidis*.

ARGEMONE, *Prickly Poppy*, a genus of the Polyandria Monogynia Class, and in the Natural Method ranking under the 27th Order *Rhæadæ*; the corolla consists of six petals, the calix of three leaves, and the capsule is semi-valved; of this genus there are three species, which are common in many parts of the West-Indies, and are called by the Spaniards, the Devil's Figs; they are said to be of no use. and to have very little beauty.

A: SPINOSIS, *Prickly Poppy*, an annual exotic plant, growing naturally in Mexico, Jamaica, and the Caribbee Islands; it rises with a thick, round crested, prickly stalk, to about a foot or eighteen inches high, the leaves are large, oblong, very much jagged and prickly at their edges, their colour is a light green, very much veined or streaked with white; the flowers are very large and of a fine yellow colour, each composed of five roundish spreading petals; they will be in bloom in July or August, and are succeeded by oval, angular capsules containing the seeds; they are easily propagated by the seeds in any situation. See Papaver, Argemone, &c.

ARGENTINE. See *Onopordon Acanthium*.

ARGOL. See *Lichen Rocella*.

ARICA NUT. See *Arca*.

ARISARUM. See *Arum*.

ARISI, the Indian name for the plant which produces Rice. See *Oryza*.

ARGOPHYLLUM, *White-Leaf*, (Forst. Nov. Gen.) a genus of the Pentandria Monogynia Class: the capsule is trilocular; the nectarium is pyramidal, pentagonous, and the length of the corolla. There is but one species, viz.

A: NITIDUM, *The Glossy White-Leaf*, a native of New Caledonia; this genus has great affinity with the Ivy, but differs in the nectarium, and perhaps in the fruit. We have not been able to obtain any farther accounts of this plant.

ARISTIDA, a genus of the Triandria Digynia Class, and in the Natural Method, ranking under the 4th Order, *Gramina*; the calix has a double valve; the corolla has one valve, and three awns at the points. There are three species, all indigenous in the United States.

1 A: DICHOTOMA, *Forked Aristida*, a native of Carolina, with stiff stalks, which are branched.

2. A: STRICTA, *Downy Aristida*, a native of Carolina; it has a straight, stiff, erect stem. with downy leaves.

3. A: OLIGANTHA, a native of America; this has also a straight, stiff, erect, stem, somewhat branching; the leaves are filiforme and rolled up: we have no English name for this genus of grasses.

ARISTOLOCHIA, *Birthwort*, a genus of the Gynandria Hexandria Class, and in the Natural Method, ranking under the 11th Order *Sarmentacæ*; it has no calix; the corolla consists of one entire petal, and the capsule which is below the flower, has six

cells: there are 21 species, but only five are said to merit description, viz.

1. A: *ROTUNDA*, or *Round Birthwort*, a native of the South of France, of Spain and Italy, from whence the roots are brought for medicinal use; the roots are roundish, grow to the size of small Turnips, being in shape and colour like the roots of Cyclamens, which are frequently sold instead of them; this species has three or four weak, trailing branches, which lie on the ground when they are not supported, and extend two feet in length; the leaves are heart-shaped, and rounded at their extremity; the flowers come out singly at every leaf, toward the upper part of the stalk; they are of a purplish black colour, and are frequently succeeded by oval seed vessels, having six cells full of flat seeds.

*Part used.* The roots.

*Sensible properties.* On being first chewed, they scarce discover any taste, but in a little time prove nauseously bitterish, with a degree of aromatic flavour.

*Medical virtues.* These are to heat, stimulate, and promote the fluid secretions in general; but they are principally celebrated in suppressions of female evacuations. The dose in substance is from a scruple to two drams; it is also given in infusion, and tincture.

2. A: *LONGA*, *Long Birthwort*, a native of the same countries with the foregoing; this species has long tap'roots like carrots, sometimes about the size of a finger, sometimes as thick as a man's arm, and a foot in length; it is nearly of an equal thickness all over, or a little thicker in the middle than at the ends; the outside is of a brownish colour, the inside yellowish; the branches are weak and trailing, extending little more than a foot, the leaves heart-shaped; the flowers come out from the wings of the leaves like the other, are of a pale purple colour, and are frequently succeeded by seed vessels like the other.

*Part used.* The root.

*Sensible properties.* The same as the foregoing, though less disagreeable.

*Medical virtues.* The same as the foregoing; also applied externally in cutaneous diseases, and for cleaning and healing wounds and ulcers.

3. A: *SERPENTARIA*, (*Serpentaria Virginiana*) *Virginian Snake-Root*, *Black Snake-Root*, or *Small Snake-Root*; a native of the United States, particularly Virginia where it was first discovered, and the Carolinas; the plant rises out of the ground in one, two, and sometimes three pliant stalks, which at very little distance are crooked or undulated; the leaves stand alternately, and are about three inches long, in form somewhat like the (*Smilax Aspera*) or *Chinese Hind-weed*; the leaves grow close to the ground on footstalks an inch long, of a singular shape, and of a dark purple colour: a round canulated capsule succeeds the flower, it is filled with seeds which are ripe in May. In their native situations they are but small plants, when cultivated, as they may be from seeds sown in autumn, they grow in two years so large, that the hand can scarcely grasp the stalks of a single one, they delight in woods, about the roots of trees, &c. The

roots of this species are small, light and bushy, and consists of a number of strings or fibres matted together, issuing from one common head; these fibres or small roots, when fresh dug, are of a whitish yellow colour, but on drying become darker, i. e. of a brownish colour on the outside, and paler or yellowish within.

*Part used.* The Plant, particularly the Root.

*Sensible Properties.* It has an aromatic smell, like that of Valerian, but more agreeable, and a warm bitterish pungent taste.

*Medical Virtues.* It is highly stimulant, and increases the force of the pulse very perceptibly; it is a powerful sudorific, but is improper whenever bleeding is necessary—Professor Barton (Collection for a Mat. Med. 2d Edit.) says it was used with great benefit in a malignant fever attended with carbuncles, which prevailed in Bristol, on the Delaware, in the State of Pennsylvania, in 1749 and 1753.—It is a common remedy in Low Fevers, and is considered as one of the principal remedies in malignant and epidemic ones: It is certainly a valuable diaphoretic, diuretic, and alexipharmic, in which intentions it is given in substance from 10 to 30 grains, and in infusion to a drachm or two; it frequently assists the powers of Peruvian Bark, in the cure of Agues, and of general weakness; it is usually combined with *Calamus Aromaticus*, infused in spirits or water, and forms the common morning dram in climates where the ague prevails. As water fully extracts the virtues of this plant, it should be preferred to spirits, in making those daily doses, else the pernicious habit of dram drinking may be so far acquired, as difficultly to be refrained from thereafter.

4. A: CLEMATITIS (Tenuis, Lond. and Edin.) *Slender Birthwort*, has heart-shaped leaves, an upright stem, with the flowers crowded in the axillæ, or arm-pits of the leaves and stem; the root is long and slender.

*Part used.* The root.

*Sensible properties.* This species on being chewed instantly imparts an aromatic bitterness not ungrateful to the palate.

*Medical virtues.* It is prescribed as an attenuant of viscid phlegm, and promoter of fluid secretions; the dose in substance is from a scruple to two drachms. This is the only species of Birthwort retained by the Edinburgh College; the London College has banished them all.

5. A: INDICA, *Indian Birthwort* or *Conrayerva of Jamaica*, is a native of that island, where its roots are used instead of the true *Conrayerva*; it has long trailing branches which climb upon the neighbouring plants, and sometimes rises to a considerable height; the flowers are produced in small clusters towards the upper parts of the stalks, and are of a dark purple colour.

6. A: SIPHO, or *Life Vine*, is a curious species of Birthwort, and abounds near the town of Pittsburgh in Pennsylvania; it is a climbing plant, and will rise to the height of fifty feet, attaching itself to trees: the flowers are large, and resemble in figure a German tobacco pipe.

*Part used.* The root.

*Sensible properties.* A pungent aromatic taste.



*Medical Virtues.* It is thought preferable to the *Serpentaria*, for many purposes, though experience does not justify the assertion absolutely, the plant not having been in general use hitherto.

7. A: FRUTESCENS ODORATISSIMA, *Sweet-Scented American Birthwort*, a native of Carolina and Georgia, and which like the foregoing is a rambler, climbing over the trees and shrubs. It was discovered by Mr. W. Bartram, in his Botanical excursion through the Southern parts of America; the stalks are large and woody; the leaves are heart-shaped, pointed, and grow alternately on the branches; the flowers grow from the upper parts of the branches on long footstalks, the colour is a dark purple, very long and finely scented, they are succeeded by large oblong seed vessels having heart-shaped seeds.

8. A: SUB-HIRSUTA, *Hairy Birthwort*, a perennial plant, and native of the Levant; it hath also a large long tap-root like a Carrot; the stalks are weak, hairy, and lie on the ground without support; the leaves are oblong and very hairy; the flowers are very large and are produced from the wings of the leaves, in June and July; they are succeeded by good seeds in Autumn.

9. A: VOLUBILIS, *Carthagea Birthwort*, a native of Carthage: This will climb thirty or forty feet high, it hath oblong pointed leaves of a thickish consistence, the flowers are produced from the tops of the branches in clusters; their footstalks are very long, and the seed vessels that succeed them are large, long, and have six ribs running lengthwise.

10. A: ERECTO, *Upright Creeping-rooted American Birthwort*; this species hath a creeping root, from which rises an upright stalk about a yard high, the leaves are spear-shaped, long, narrow, hairy, and sit close without any footstalks to the branches; the flowers are exceeding long, and are produced singly from the wings of the leaves on footstalks, they grow erect, are of a dark purple colour, and are succeeded by long, slender seed-vessels, full of flat, heart-shaped seeds.

11. A: INFIRMIS, *Evergreen Birthwort of Crete*; this species has many slender, weak, angular, trailing branches, about a foot and a half long; the leaves are heart-shaped, oblong, waved on their edges, and continue green all the winter; the flowers are long, crooked, grow singly from the wings of the leaves, and are of a dark purple colour.

12. A: PISTOLOCHIA, (*Pistolochia* of Clusius) *Pistolochia Birthwort*, a native of France, Italy, and Spain; the stalks are very weak-slender, trailing and branching, the leaves grow on footstalks, are heart-shaped, and their edges are a little indented, the flowers are also produced singly from the wings of the leaves.

13. A: VIRGINIANA, *Virginian Shrubby Birthwort*; this species is rather improperly named; for the branches can scarcely be said to be woody; however, they are firm, upright, and will grow to upwards of two feet high; the leaves are heart-shaped, but long, and are inclined to a lanceolate figure, the flowers are produced singly from the wings of the leaves. They are propagated from seeds and parting the roots.

ARISTOTELIA, (In honour of Aristotle) a genus of the Dodecandria Monogynia Class, of which I have not been able to obtain any particulars.

ARMENIAN APRICOT. See *Prunus*.

ARMORACIA MULTIS. See *Raphan Rustic*.

ARNICA, *Leopard's-Bane*, a genus of the Syngenesia Polygamia, Superflua Class, and in the Natural Method, ranking under the 49th Order *Composita discoides*; the receptacle is naked, the pappus is simple, and the filaments are five without any antheræ. There are 7 species all natives of Ethiopia, except the two following.

*Note.* It may not be amiss to observe here that there is another genus of Leopard's Bane distinct from the foregoing, having also several species, which come under the article *Doronicum*.

1. A: MONTANA, *Mountain Leopard's-Bane*; this plant grows naturally on the Alps, and many of the high mountains in Germany and other cold parts of Europe; the roots spread very far under the surface, and put out many entire oval leaves, from between which the flower stems arise, which grow about a foot and a half high, the top is terminated by a single yellow flower, composed of many florets, like those of the Dandelion, these are succeeded by oblong seeds, covered with down.

*Parts used.* Herb, flowers and Root.

*Sensible properties.* An acrid bitter taste, and when bruised emits a pungent odour, which excites sneezing.

*Medical virtues.* Although this plant has been classed among the deleterious vegetables, of late it has been considerably employed in paralytic affections, and in cases where a loss, or diminution of sense arises from an affection of the nerves, as in instances of (*Amaurosis*) a distemper of the eye, occasioned by an insensibility of the retina. In these it has been chiefly employed under the form of infusion, viz. from a drachm to half an ounce of the flowers, has been directed to be infused in a pint of boiling water, and taken in different doses in the course of the day, sometimes it produces vomiting, sometimes sweating, sometimes (diuresis) a flow of urine; but frequently its use is attended with no sensible operation, unless in some paralytic cases; the cure is said to be preceded by a peculiar prickling, and by shooting pains in the affected parts. It is also represented as a very powerful antispasmodic; and it is said to have been successfully employed in fevers, particularly those of the intermittent kind, and likewise in cases of gangrene; in those diseases, it has been said to prove as efficacious as the Peruvian Bark, when employed under the form of a pretty strong decoction, taken in small doses frequently repeated, or under the form of electuary with honey. It was formerly in repute as a remedy of great efficacy against infusions, and suffusions of blood from falls, bruises or the like; also in Jaundice, Gout, Nephritis, &c.—It is undoubtedly one of those active plants, from which, with due care, much may be expected; these advantages are however not to be fully experienced in this country, the plant being an exotic.

*Note.* Should too large a dose be swallowed by mistake, its most effectual antidote is vinegar taken in copious draughts without delay.

*Domestic uses.* The country people in some parts of Germany, use it in snuff, and smoke it like tobacco.

2. SCORPIOIDES, *Scorpion Leopard's Bane*, a native of Bohemia and Siberia, the roots of this sort are much jointed and divide into many irregular, fleshy outsets, which are variously contorted, from whence some superstitious persons have imagined that they would expel the poison of scorpions, and cure the wounds made by the sting of that animal; the stalk of this species is garnished with alternate leaves, finely serrated. Both these plants are propagated by parting their roots in autumn, when the stalks begin to decay: or by the seeds sown in autumn, soon after they are ripe, for those sown in the spring often fail. They are both very hardy plants and require no other care than to be kept free from weeds.

3. A: TOMENTOSIS, *Ethiopian Perennial Arnica*, of which there are two varieties, one has a fine yellow flower, and the other purple. The leaves are of an oval figure, smooth, stiff, and spring immediately from the roots, they are smooth on the upper surface, and of a fine green colour, underneath they are downy, and the edges indented, among these leaves the flower stalk arises, which is naked and terminated by one large radiate compound flower, succeeded by oblong light seeds crowned with down.

ARRHENOPTERUM, a genus of the Cryptogamia Musci class, of plants enumerated by Michaux, among the indigenous plants of Carolina, of which there is but one species.

A: HETEROSTICUM. It hath oval leaves loosely imbricate, they are large, concave and pellucid. It inhabits the muddy ponds of Carolina.

ARROW GRASS. See *Triglochin*.

ARROW ROOT. See *Maranta*.

ARSMART. See *Persicaria*.

ARTEDIA, a genus of the Pentandria Digynia class of plants, and 45th Natural Order, *Umbellata* of Linnæus. The involucre are pinnatifid; the floscules of the disc are masculine, and the fruit is bristly, or covered with fragile hairs. There is but one species, a native of the East, viz.

A: SQUAMATA. It is an annual plant, growing on Mount Libanos, the stalks of which attain the height of about two feet, is somewhat *Ramous* or branching; the leaves are narrow, and do not differ materially in appearance from the *Anethi* or Dill. It produces a large umbel of white flowers, the *petals*, or flower leaves are five in number, unequal. These are succeeded by a roundish compressed fruit, each having two seeds, the borders of which are scaly.

ARTEMISA, *Mugwort*, a genus of the Syngenesia Polygamia Superflua class, and 49th Natural Order *Composita*, of Linnæus. The receptacle is either naked or a little downy, it has no pappus, the calix is imbricated with roundish scales, and the corolla has no radii. There are 49 species, of which the following are the most particular. (Note, Southernwood and Wormwood are included.)

1. A: VULGARIS, (A: *Vulgaris Major* of C. Bauh.) *Common Mugwort*. This plant grows plentifully in fields, hedges and waste places throughout Great-Britain, and according to Michaux,

in Canada, and flowers in July. In appearance it somewhat resembles the common Wormwood; the difference most obvious to the eye is in the flowers, those of Wormwood hanging downwards, while those of Mugwort stand erect. There are two varieties of this species, the silver striped and the gold striped Mugwort; the first is pleasingly variegated with white, the latter with yellow.

*Part used.* The leaves.

*Sensible properties.* A light aromatic smell, and an herbaceous bitterish taste.

*Medical virtues.* They were formerly celebrated as Uterine, and anti-hysterical: an infusion of them is sometimes drunk either alone or in conjunction with other substances in suppression of the menstrual evacuations. It is certainly a very mild medicine, and considerably less hot than most others to which these virtues are attributed, though it is at present but little employed as a Medicine.

2. *A: ABSINTHIUM, Common Wormwood, or Wormwood Southernwood,* grows wild in several parts of Britain; though about London and the United States is cultivated in gardens for medical use. The leaves are divided into roundish segments, of a dull colour above, and whitish underneath; it flowers in June and July, and after having ripened its seeds dies down to the ground, except a tuft of lower leaves, which generally abides the winter.

*Part used.* The leaves and flowering tops.

*Sensible properties.* A strong bitter, with an ill relish and offensive smell. It is however freed from these qualities on drying, or by long coction.

*Medical virtues.* It was formerly much used against weakness of the stomach and the like, in medicated wines and ales, but on account of the properties already described, has been objected to. An extract made by boiling the leaves in a large quantity of water, and evaporating the liquor, proves a bitter sufficiently grateful, without any disgusting flavour.

3. *A: MARITIMA, Sea Wormwood, or Sea Southernwood,* an indigenous perennial, growing wild about salt marshes and several parts of the sea coast. It is a low shrub with hoary stalks and leaves: the leaves are much smaller than those of the foregoing, and are hoary above and below. There are several varieties which are supposed to be distinct species.

*Part used.* The tops.

*Sensible properties.* The taste and smell is much weaker and less unpleasant than the common Wormwood. In its wild state it smells like camphor.

*Medical virtues.* It formerly entered some of the compound distilled waters, but is now rejected, and very little employed in practice.

4. *A: ABROTANUM. (A: Tenuifolia Sive Leptophyllos of I. Bauh.) Southernwood,* a native of warm climates, though it readily bears the vicissitudes of colder, and is easily cultivated in gardens. It is a low shrubby plant, seldom rising more than three or four feet high, sending out lateral branches growing erect, and clothed with very finely divided leaves of a light green colour. The flowers are very

small and yellowish, hang downwards, several together, from the middle of the branches to the top. The leaves fall off every winter, but the roots and stalks continue many years.

*Part used.* The leaves (Lond.) and herb, (Edinb.)

*Sensible properties.* Smell fragrant, taste warm, bitterish, and somewhat nauseous.

*Medical virtues.* It has been employed, as well as some other species of this genus, particularly the *Absynthium* and *Santonicum*, as an anthelmintic against worms, also as a stimulant, detergent and sudorific. Its qualities are very completely extracted by rectified spirit, and the tincture thus formed is of a beautiful green colour. They are less perfectly extracted by watery liquors, the infusion being of a light brown colour. Externally it has been used under the form of lotion, and ointment for cutaneous eruptions, and for preventing the hair from falling off, and in discutient and antiseptic fomentations, &c.

5. A: DRACUNCULUS, *Tartarian Southernwood*, *Estragon*, or *Tarragon*, is a very hardy plant, and spreads considerably. It is a native of France. It has simple leaves, spear-shaped, smooth and entire; they are finely scented; the flowers grow from the upper parts of the stalk, composed of about half a dozen female florets, and twice that number of hermaphrodite.

*Domestic uses.* It is much used by the French for correcting the coldness of other salads, and for making a pickle, which they do of the leaves. They have a fragrant smell and aromatic taste. The use of it in Persia is so general that it is eaten with almost every meal, for the purpose of creating an appetite. The famous Vinegar of Maille in France is said to owe its superior flavour to this plant.

6. A: SANTONICA, *Santonicum*, a native of the East, and very much resembles the wild mugwort. It has erect, slender branches, clothed with linear winged leaves, and terminated with recurved slender spikes of flowers, the receptacles of which are naked. This plant produces the *Semen Santonicum* or worm seeds, so much celebrated for their anthelmintic virtues.

*Part used.* The seed.

*Sensible properties.* The seeds are small, light, chaffy, and composed as it were of a number of thin membranaceous coats, of a yellowish colour, an unpleasant smell, and very bitter taste.

*Medical virtues.* These are, as before observed, celebrated for their anthelmintic properties, which they have in common with other bitters, and are sometimes taken with this intention, either mixed with molasses or candied with sugar.

7. A: PONTICI, (*Tenuifolii Incana*, C. B. *Absynthium Romani*, E.) *Pontic or Roman Wormwood*. This is a native of the warmer countries, and is very different from the foregoing in appearance, being smaller in all its parts. The leaves are divided into fine filaments, and hoary on the under side; the stalks are either in part or entirely of a purplish hue, the upper parts of which are furnished with globular nodding flowers, and naked receptacles. It is a perennial.

*Part used.* The leaves and tops.

*Sensible properties.* Less ungrateful than either of the foregoing, its smell tolerably pleasant, the taste though manifestly bitter, is scarce disagreeable.

*Medical virtues.* It appears to be the most eligible of the species as a stomachic, and is likewise recommended by some in dropsics.

8. A. ARBORESCENS, or *Tree Wormwood*, a native of Italy and the Levant; this has a woody stalk, rising six or seven feet high, sending out many branches, clothed with leaves resembling the common species, but much finer, and of a whiter colour, varying in figure; the branches are also terminated by spikes of globular flowers in autumn.

9. A. CAMPESTRIS, or *Field Southernwood*, this is a distinct species from the Garden Southernwood, and has a disagreeable smell, the leaves are finely divided into a multitude of very narrow segments, not much unlike those of fennel; among these arise several small tough branches full of flowers; they are adorned with smaller leaves at the joints composed of many segments, and the flowers grow in spikes from almost every part, they are of a yellow colour, and blow in August: It is also a perennial. The foregoing are those principally used in medicine; we shall however add the following:—

10. A. NITIDA, *Tansey-leaved Mugwort*, a perennial, and native of Siberia; the leaves are divided like those of Tansey; their upper surface bright and shining, their under side downy, and the flowers grow in single spikes.

11. A. TOMENTOSA, *Siberian Narrow-leaved Mugwort*, with single spear-shaped leaves, of a stiffish substance, and their edges acutely serrated, the stalks grow about two feet high, garnished with small spear-shaped, serrated leaves, the flowers grow from the wings of the leaves, near the top are single, but lower, they are formed into small spikes and are yellow.

12. A. UMBELLATIS, *Helvetian Mugwort*, a perennial, and native of Helvetia, and Vallesia: It is a low plant, with small palmated or hand shaped leaves, divided into several beautiful segments, they are silky and of a silvery white, placed on footstalks on the branches, the flowers terminate the stalks in kind of umbels, their colour is yellow, and have downy cups, and are placed on very short footstalks.

13. A. LAVENDULA FOLIO, *Lavender-leaved Sea Wormwood*, a perennial, and native of Europe, growing on the Sea-shores; there are a great many sorts, though they are generally low-growing plants, the stalk-leaves are spear-shaped, hairy, and their edges entire, but the radical leaves are very much divided; some of the sorts have narrow, others moderately broad leaves, and some very much resemble those of Mugwort. The flowers grow alternately from the sides of the stalk, and droop, and are in bloom about the same time that the others are.

14. A. ALPINUM, *Alpine Wormwood*, a perennial plant, growing naturally among the rocks in Siberia; there is a great variety of this sort, which vary also very much in different situations, and their natural appearance is much altered by cultivation; the leaves are pin-nated, and very downy, some of them are of a silvery white, and

silky, whilst others are quite green; the stalks of some are prostrate, others rising, and the flowers differ in size; the varieties are, 1 the *Dwarf Alpine*, 2 the *Hoary*, 3 the *Creeching Roman*, 4 *Silvery leaved Oriental*, 5 *Narrow downy-leaved large flowering Oriental*, 6 *Scentless Oriental*, and 7 the *Green Wormwood*, &c. all of which were formerly considered as so many distinct species, but are now known to be only varieties.

15. A: GLABRIS, *Siberian Wormwood*, an annual plant, growing naturally in Siberia; the leaves are triply pinnate, smooth, of a fine green colour, and resemble those of Tansey, they are finely scented; the flowers grow from the wings of the leaves, towards the upper part of the stalk; they are collected into roundish heads, are small, hang downwards, and make but little show. There is a variety of this species with leaves divided into smaller segments.

16. A: LYRATUM, *Indian Wormwood*, an annual plant, and native of India; it hath a very weak stalk, that sends out a few taper, striated, downy side-branches, growing alternately, the leaves are simple but so deeply indented at the sides as to form a kind of lyre-shaped leaf, the flowers grow singly on naked, striated, hairy foot-stalks, they are yellow in the disc and large, being about the size of the common Chamomile.

17. A: CUNEIFORMIBUS, *China Wormwood*, is a very small annual plant, the stalk is weak and lies on the ground, the leaves are simple, wedge-shaped and smooth, the flowers are very small, and grow singly from the wings of the leaves, without any footstalks; they make little or no show in a garden.

*Note.* Michaux enumerates three species as indigenous in the United States, viz. the *Vulgaris*, already described, the *Canadensis*, and the *Caudata*.

ARTICHOKE. See *Cinaria*.

ARTICHOKE, the Jerusalem. See *Helianthus Tuberosus*.

ARTOCARPUS, the *Bread-fruit Tree*, a genus of the Monoecia Monandria class of plants; the calix of the male is bivalved, and the corolla absent; in the female the calix and corolla are wanting; the stylus is single, and the amentum is cylindric, covered with flowers, male and female in different aments; the fruit is a many celled drupa. There are two species, natives of the South Sea Islands.

1. A: INCISEUS, *Bread-fruit Tree with sinuated leaves*, attains the size of a middling Oak; its leaves are about a foot and a half in length of an oblong shape, deeply sinuated like those of the Fig-Tree, which they resemble in colour, and when broken exudes a milky juice, the fruit is shaped like a heart, and increases to the size of a child's head, (the rind is thick, green and covered with warts or excrescences of a quadragonal, or hexagonal figure) the internal part of which is composed of a fleshy substance, full of twisted fibres, resembling fine wool: This pulp or fleshy part becomes softer towards the middle, where there is a cavity without either kernels or seeds. It can therefore only be propagated by layers and cuttings.

*Domestic uses.* The inhabitants of those places where it is indigenous, use it in various forms, but particularly as bread, with other food; it furnishes them with bread eight months in the year, the fruit continuing that length of time in season: It affords much nou-

ishment, and being of an astringent quality, is beneficial to persons of a lax habit.

2. A: *INTEGRIFOLIA*, *Bread-fruit-tree with entire leaves*. This species has entire leaves, of which there is no particular description. It is however said there is another distinction into that which bears fruit with stones or seed, (which must be the present) and that in which the fruit are without.

**ARUM**, a genus of the Gynandria Polyandria class of plants, and 2d Natural Order, *Piperitæ* of Linnæus; the spathe is monophyllous, and cowl-shaped, the spadix is naked above, female below, and stamened in the middle. There are 22 species, the following are the most particular.

1. A: *MACULATUM*, *Wake Robin, Water Robin, Cuckow Point, or Lords and Ladies*, grows naturally in the woods, under hedges and by the sides of banks in most parts of England; it sends forth in March three or four triangular leaves which are followed by a naked stalk, bearing a purplish pistil inclosed in a long sheath; this is succeeded by a bunch of reddish berries. In some plants the leaves are spotted with black, some with white spots, and others not at all spotted; the flowers of this species has occasioned many disputes among Botanists; the receptacle is long and club-shaped, the seed buds surrounding its base, the stamina are fixed to the receptacle amongst the seed-buds, so there is no occasion for the tips to be supported upon threads, and therefore they have none; but they are fixed to the fruit-stalk, and placed between two rows of tendrils; the point in dispute is what is the use of those tendrils?

*Part used.* The root.

*Sensible properties.* All the parts, particularly the root have an extremely pungent acrimonious taste, on being slightly chewed, it continues to burn and vellicate the tongue for some hours, occasioning at the same time a considerable thirst; these symptoms are alleviated, by butter-milk, or oily liquors. On drying it loses its acrimony, and at length becomes an almost insipid farinaceous substance.

*Medical virtues.* It is a powerful stimulant, and is reckoned a medicine of great efficacy in some cachectic, and chlorotic cases, in weakness of the stomach, and in fixed rheumatic pains. In these cases from ten grains to a scruple of the fresh root may be given twice or thrice a day, made into a bolus with unctuous, and mucilaginous substances, which cover its pungency and prevents its making any painful impression on the tongue; if the patient indulges in bed, it generally produces a copious sweat. Externally applied, they form a good substitute for Spanish flies in blistering.

*Domestic uses.* A good starch is obtained from it, and when divested of its acrimony by drying in an oven, a good bread may be prepared from its roots. The French Manufacture, what they call the "*Cypress Powder*," from its roots properly dried, which is reckoned a harmless cosmetic.

2. A: *TRIPHYLLUM*, (*Dracunculus*, C. B.) *Indian Turnip, or Wampee*, an indigenous plant growing plentifully in moist rich places of Carolina, and Georgia. To particularize this species would be to



repeat the former. The varieties of this native species are A: Virens, and A: Atropurpuria.

*Medical virtues.* The medical virtues of this native species are said to be considerable. The fresh root boiled in milk, and taken for some time, has been found serviceable in Consumption. It certainly deserves a fair trial.

3. A: DRACUNCULUS, *Common Dragon*, a native of the Southern parts of Europe, and according to Michaux, of Carolina and Florida; they are large growing plants, but the silver and the gold striped varieties are most esteemed; the roots are large and fleshy, and the stalks will grow a yard high; these are spotted like a snake's belly; the leaves are pedated, large, smooth, and each composed of several spear-shaped lobes, having their edges entire, the spadix is very large and shaped like a club, it grows erect and is for the most part purple and large, and when in full blow have an august look, and flower in June and July. The flower smells like carrion, and is hence unfit for gardens. (This appears to be the Dracontium Focidium, Skunk Cabbage, or Polecat Weed of other authors, as the genus Dracontium has been referred by modern Botanists to this place.)

*Note.* Wampee, is the Indian name for the indigenous species.

*Medical virtues.* The medical virtues are similar to the two foregoing.

4. A: ESCULENTUM, *Eddos, Indian Kale, or Eatable Arum*, a native of the West Indies; the roots are large, from which arise the leaves, they are large, obtuse, heart-shaped, angular, and pointed.

*Domestic uses.* The roots are much esteemed in America, and particularly by negroes.

5. A: SAGGITIFOLIUM, *Saggitated-Leaved Arum*, also an esculent vegetable, and native of America; this species has triangular leaves, shaped like the top of an arrow, the lower angles acute, and spread from each other, they are of a dark or blackish green colour.

6. A: MAXIMUM, *Egyptian Arum, Colocasia, or Tanners*, an esculent plant which grows naturally in Egypt, Syria, &c. though cultivated in America; it has a very large root, from which spring a few large target-shaped oval leaves, that are cut into two parts at their base. They generally flower in May.

7. A: ZEYLANICUM, *Great Ceylon Arum*, a native of Ceylon, and hath target-shaped, cordated, waved leaves, which are divided into two parts at their base: They spring immediately from the root, and are very large.

8. A: SAGGITATIS, *Saggitated-leaved Tree Arum*, a native of America. It rises with a large upright jointed stalk, to the height of six or eight feet, the leaves are sagittated, and plentifully adorn the upper part of the stalk, the flowers grow from the sides of the stalks, each having a separate spatha, of a pale green colour, and sit close without any footstalks.

9. A: ITALICUM, *Italian Arum*, a native of Italy, Spain and Portugal. The leaves of this species, after rising a foot and a half high, terminate in a point; they are very large and finely veined, with white interspersed with black spots, these make a fine appear-

ance; the flowers are near a foot high, having very long erect spathas, of a pale green colour. Blooming in April or May.

10. A: TRILOBATUM, or *Arum of Ceylon*, a native of the East, is a low plant; the flower is fixed to a very short footstalk, which rises immediately from the root; it has a long erect spatha or sheath, which, together with the pistil, is of a very fine scarlet colour.

11. A: DIVARICATUM, *Branching Arum*, is also an esculent plant, with spreading leaves that are large and heart-shaped.

12. A: POLYPHYLLUM, (*Dracunculus* and *Serpentaria* C. B.) *many leaved Arum*, is cultivated in gardens. This species formerly had a place under the genus *Dracontium*, or *Dragons*. It differs from the common *Arum* in no other respect than in being more pungent and acrimonious. There is a variety of this species with smaller stalks.

13. A: ARBORESCENS, (*Arum Palustre Radice Arundinacæ* C. B. *Dracunculus Aquaticus* J. B.) *Lanceolated-leaved Tree Arum*, *Water Arum*, *Dumb* or *Poison Cane*, a native of the West-Indies. This species delights in low moist soils. It is more acrid than any of the foregoing, so much so that a very small proportion of its juice produces, when applied to the tongue, very painful sensations, and a great flow of saliva. The barbarous owners of slaves in order to punish them, apply the stalks sometimes to their mouths, which occasions the most disagreeable sensations. This plant attains a height of five or six feet, the stalk is large, upright, green and jointed, the leaves are spear-shaped, oval, and grow in clusters near the tops of the stalks; the flowers grow from the sides of the stalk, sit close and are contained in green spathas, sometimes spotted with white, part of the spadix adheres to the spatha, so that the flowers are perfect only on one side, which is a property to be observed in no other species.

14. A: HASTATIS, *Apennine Arum*. There are two or three sorts of this perennial plant, all of which are low, the leaves in general are hastated, and have very short footstalks; some have round leaves. The flowers rise immediately from the roots; they blow in April, but are scarce worth notice.

15. A: ANGUSTIFOLIUM, *Italian narrow-leaved Arum*; this is a small plant with narrow spear-shaped leaves; the flowers also grow immediately from the root, are also inconsiderable,

16. A: LATIFOLIUM, (*Arisarum* of C. B.) *Broad-leaved Italian Arum*, or *Frier's Hood*: this very much resembles the two foregoing, the leaves are heart-shaped, oblong and broad; the spatha is bifid, and the spadix is incurved; it flowers in April. This and the two foregoing have been called by the ancients *Arisarum*, or *Frier's Hood*, the generic term for these species.

ARUNDEL TREE, supposed to be the (*Palma Christi Indica* of Tournefort.) a tree growing in the East-Indies, bears a nut enclosed in an amentum or catkin, which resembles the Horse-Chesnut. This nut yields by expression an oil of a purgative nature, and is in great esteem in India, in cases of Dysentery. It is there called *Arundel Oil*.

ARUNDINARIA. See *Arundo Gigantia*.

ARUNDO, the *Reed*, a genus of the Triandria Digynia class, and 4th Natural Order, *Gramina*; the calix consists of two valves, and the floscules are thick and downy. There are 10 species.

1. A: PERAGMATIS, or *Common Reed*, grows by the sides of rivers, lakes, ditches, &c. and in fenny or marshy situations, in Carolina and Georgia; it attains the height of ten or twelve feet. It is so well known as to need no description.

*Domestic uses.* It is used for thatching and covering cottages; is manufactured into screens, and for bottoming chairs, into combs and sleighs for weavers, &c. From the dried roots, a very nutritious flour is easily obtained, which may be converted into very wholesome and palatable bread. Its pannicles afford a fine green colour, which it imparts to wool.

2. A: ARENARIA. (*Calamagrostis Arenaria*, Dr. With.) *Sea Reed*, *Sea-Red Grass*, *Mat-weed*, *Helme* or *Marram*, a perennial plant, growing on the driest sandy shores in England and America, flowering in June or July. This useful reed prevents the wind from scattering the sand over the contiguous fields, which otherways would be rendered useless.

*Domestic uses.* It is manufactured in the Isle of Anglesea into mats and ropes, and its fibrous roots are converted into whisk brushes and in Iceland the seeds are dried and formed into a palatable bread.

3. A: EPIGEOS. (*Calamagrostis Epigeos* of Dr. With.) *Wood Reed*, or *small Reed Grass*, is also a perennial plant, which grows in shady ditches and moist situations, flowering in June or July. In the Isle of Ely it is called Maiden hair.

*Domestic uses.* This reed is manufactured into hassocks, mats, &c. for churches.

4. A: CALAMAGROSTIS. (*Lanceolata* of Dr. With.) *Small Hedge Reed* or *Branched Red Grass*, is also perennial, grows in moist hedges and meadows, flowering with the former. This is a beautiful plant, and is an ornament to banks and hedges.

*Domestic uses.* The pannicles before the flower expands, imparts a beautiful green colour to wool, prepared with allum.

5. A: DEBAX, or *Manured Reed*, a native of Spain and Portugal; is also a perennial plant, the leaves and stalks of which attain a height of ten or twelve feet in one summer, which however dies down to the surface in winter.

*Domestic uses.* This species is also used in the same manner as the Phragmatis already described, and for making fishing rods.

A: VERSICOLOR, (*Arundo Indica variegata*, Seu, *Latonica Theophrasti*, C.) *Variegated* or *Indian Reed*. This is supposed by some to be a variety of the former, and differs from it only in having its leaves variegated.

6. A: ARBOREA, *Tree like Reed*, or *Ily Bamboo*. This species resembles the Bamboos hereafter to be mentioned, and is said to be a variety of it; the difference between them consist in the leaves, which in this species is much narrower than in that.

7. A: ORIENTALIS, *Oriental Reed*: this species is found in plenty in the valley near Mount Athos in Macedonia, and on the banks

of the river Jordan. The natives use them instead of quills for writing pens.

8. A: **BAMBOS**, or *Bamboo-Cane*, a native of the East-Indies and some parts of America, the body of which grows to such a bigness that it is often reckoned among trees. It delights in marshy ground, is naturally very straight and tall, attaining a height of sixty feet. It is hollow, and the shoots are separated by knots, it has branches and thorns at their joints, and are clothed with oblong oval leaves, of about eight or nine inches in length, fixed to a short footstalk. The flowers are produced in large panicles from the joints of the stalk, three in a parcel, close to their receptacles: They resemble those of the common reed, and are succeeded by seeds of the same form, surrounded with down. The stalk contains a sugary pith.

*Domestic uses.* The young shoots are covered with a dark green bark, which the natives of Siam pickle. This is greatly esteemed by them, as it is said to promote the appetite; from its extreme hardness when dry, they employ it for striking fire. In China they make canoes or wherries of the Bamboo, which being a light cane, they are rowed with incredible swiftness. It serves them also instead of timber in their houses and other buildings, they are also converted into water pipes, and various other domestic utensils.

9. A: **SACCHARIFERA**. *Common Sugar-Cane*. (Formerly this and the following were considered as a distinct genera, containing two species, under the title of *Saccharum*.) This plant rises to eight or nine feet, and sometimes more in height, the stalk or cane being round, jointed and two or three inches in diameter, at the bottom the joints are three or four inches asunder, and in a rich soil more; the leaves are three or four feet long and of a yellowish green colour, with a broad whitish mid-rib, the stalk itself is of a greenish yellow colour, the top of which is ornamented with large panicles, or clusters of arundinaceous flowers, two or three feet in length. The flowers separately are small, the corolla consisting only of two valves, they are wrapt up in long down, and each is succeeded by one oblong narrow pointed seed, surrounded by the valves which compose the corolla. This plant is a native of the Indies, and some parts of America. It was cultivated a year or two on Broughton Island, in the state of Georgia by the late capt. Fabian, where it grew luxuriantly, several of the canes being as large as a middling child's wrist. It is propagated by cuttings, and requires to be planted in furrows, and with the common care is soon fit to be cut for making sugar.

*Domestic uses.* The uses of sugar as a sweet are sufficiently well known. The impure sorts contain an unctuous or oily matter, in consequence of which they prove emollient and laxative.

*Note.* In the Hortus Malabricus, under the term *Tieriakuren-pul-ler*, we find another species of Sugar Cane, (*Saccharum Spicatus*) or *Spiked Sugar Cane*, which is said to inhabit the crags of India. It attains a height of six or eight feet, the root is thick, jointed and hung with many fibres; the stalks are upright, round and jointed; the leaves are two or three feet long, pointed, waved on their edges, grow singly at the joints, and surround the stalk with their base, the

flowers come out in spikes at the top of the stalks, they are of a purplish colour, soft and silky to the touch, and are succeeded by seeds in the manner of the former.

10. *A: GIGANTEA*, (*Arundinaria Macrospermia* of Michaux.) *Giant-Reed* or *Cane*, a native of South-Carolina; it is a perennial plant and attains a great height and size, the stalk is smooth, and the leaves lance-shaped and linear; these are well known in this country as forming the largest canes in America, and are converted into many uses, some of the joints holding a pint or more of any liquid. The *Arundo Tecta* of Walter, is a variety of this species.

*Note.* There are several other species of *Arundo* or *Reeds*, to be found in the different accounts of botanists, viz.

1. *A: Vulgaris*, C. B. the (*Arundo Vulgaris palustris* of J. Bauh.)

2. *A: Sativa* of Dios: and Theop. (*Arundo Maxima* and *Hortensis* of J. Bauh.)

*A: Indica Latifolia* of the Bauhines, referred to *Canna Indica*.

*ASA DULCIS*, the same as *Benzoin*. See *Laurus Benzoin*.

*ASA-FOETIDA*, the Gum or concrete juice of *Ferula*, which see.

*ASARABACCA*. See *Asarum*.

*ASARUM*, *Asarabacca* or *Wild Ginger*, a genus of the Dodecandria Monogynia Class; the calix is quinquefide and rests on the germen; it has no corolla. There are three species all natives of America.

1. *A: EUROPEUM* (*Arifolium* of Michaux.) *English Asarum*, grows naturally in some parts of England and the United States, delighting in moist shady places; it has thick fleshy roots that are jointed; the leaves put out immediately from the roots, are single, and stand on very short footstalks; it produces large bell-shaped flowers of a dusky purple colour, upon short footstalks near the ground; the calix is sometimes cut into threes, sometimes into five, at top where it turns back; it blooms early in May.

*Part used.* The Leaves.

*Sensible properties.* Both roots and leaves have a nauseous, bitter, acrimonious hot taste; their smell is strong and not very disagreeable.

*Medical virtues.* Linnæus proposed it as a substitute for *Ipecacuanha* or *Hippo*: Doctor Cullen says, "the root dried only so much as to be powdered, proves in a moderate dose a gentle emetic." Given in substance from half a drachm to a drachm, they evacuate powerfully both upwards and downwards—It is said that tinctures made in spirituous menstrua, possess both the emetic and cathartic virtues of the plant; an extract made by inspissating these tinctures, acts only by vomiting, and with great mildness: that an infusion in water proves cathartic, rarely emetic, that aqueous decoctions made by long boiling, and the watery extract have no purgative or emetic quality, but prove good diaphoretics, diuretics, and emmenagogues: But as the internal use of it is precarious, the London Coliege have rejected the root and directed the leaves only to be employed. The principal use of *Asarum* is as a sternutatory or medicine to provoke sneezing. The root is perhaps the strongest of all the vegetable errhines, white Hellebore itself not excepted (may we not except the *Euphorbium*?) snuffed up the nose in the quantity of a grain or two.

it occasions a large evacuation of mucus, and raises a plentiful spitting—The leaves are much milder, and may be used to the quantity of three, four, or five grains; a dose of this powder snuffed up at night sometimes produces a discharge from the nose for two or three days together; stubborn disorders of the head, palsies, and soporific distempers, have been removed, and a paralysis of the mouth and tongue has been cured by one dose of it snuffed as before observed.

2. A: CANADENSE (A: Americanum Majus of Catesby, Carolinianum of Walt.?) *Canadian Asarum* or *Wild Ginger*, sometimes improperly called *Colts-foot*, an indigenous perennial plant, growing naturally in Canada, and on Santee in South-Carolina; it sends forth its leaves and flowers from the root; the leaves are moderately large, and stand on pretty long footstalks, they are hairy and their figure is reniform or kidney-shaped, but instead of being bluntly rounded at the two extremities like the former, these are pointed, the flowers grow in the same manner as the former, and their outside is of a greenish tinge; they also blow in May.

*Part used.* The root and leaves.

*Medical virtues.* At present nothing more is generally known of it, except that the expressed juice of the fresh leaves are said to possess a powerful emetic property.

3. A: VIRGINICUM, *Sweet scented Asarum*, *Cats-foot*, *Heart Snake-Root* or *Heart-Leaves*, an indigenous low perennial plant, having from two to three heart-shaped leaves, upon middling long footstalks, rising direct from the root. The upper surface of the leaves are of a dark green, and smooth, the under surface rough, and of a paler green varnished with portions of a beautiful purple; they delight in low, rich, and moist places, on the edges of creeks and branches, it abounds about the Eight Mile Ponds, in the vicinity of Charleston.

*Part used.* The leaves and roots.

*Sensible properties.* When fresh, it has a strong, pleasant, aromatic smell, which loses somewhat by drying. Its taste somewhat acrimonious, though when dry of a spicy flavour; its fibrous roots, have a quick biting taste, which soon goes off and leaves a pleasing glow on the tongue.

*Medical virtues.* It is used in Carolina up-country by the inhabitants, as an emetic, in decoction and infusion; in this case both leaves and roots are used in their recent state; those who snuff, find it a valuable addition to Tobacco, that is the leaves, which are dried, powdered and mixed with Tobacco. It is certainly a very valuable herb, giving great relief in painful periodical head-achs, vertigoes, &c. which I have often experienced, during 12 years residence in the country. The fresh leaves applied to the nostrils, immediately on the attack of a slight cold in the head, removes it speedily, by inducing a discharge from the nostrils.

ASCLEPIAS, *Swallow-Wort*, a genus of the Pentandria Digynia Class of plants, ranking under the 30th Natural Order, *Contorta*. The generic character is taken from five oval, concave, horn-like nectaria, which are found in the flower. There are 19 species.

1. A: ALBA, (Ascl: Sive Vincetoxicum, J. B.) *Common Swallow-Wort* or *Tame Poison*, a hardly exotic, native of France, Spain and Italy. It has a root composed of many strong fibres connected at top like those of Asparagus, from whence arise many stalks, some of which attain a height of two feet, and are very slender at the top: the leaves are in pairs opposite, and of an oval lanceolate figure; the white flowers grow in umbels near the top of the stalk, from which are sent out smaller umbels, these are succeeded by long pointed pods, inclosing many compressed seeds lying imbricatum, and crowned with a soft white down. It flowers in June, and the seeds ripen in September.—It is reckoned by some a species of Dog's-Bane.

*Part used.* The root.

*Sensible Properties.* In a fresh state it has a strong smell resembling Valerian; its taste is at first sweetish and aromatic, but soon becomes bitterish, sub-acrid and nauseous.

*Medical virtues.* This plant ranks among the sudorific, diuretic, emmenagogueic, and alexipharmic simples, though it is thought to be inferior to the Valerian. The French and German Physicians, however, frequently use it as a succedaneum for Contrayerva, whence it has received the name of *Contrayerva Germanorum*: Valerian is used in preference to it.

*Domestic uses.* The stalk of this plant has been substituted for Flax.

2. A: SYRIACA, *Syrian Swallow-Wort*, *Silk Plant*, *Wild Cotton*, or *Greater Syrian Dog's-Bane*, an indigenous perennial plant, growing particularly in Virginia; it sends up several strong, upright stalks, from two to seven feet high, clothed with opposite oval leaves; its pale purplish flowers appear in June or July, in umbels at the tops of the stalks, and are succeeded by large, thick, and rough capsules; the seeds of which are furnished with a long glossy silk. It is said this species is used for the same purposes in medicine as the A: Decumbens. See species the 8th.

*Domestic uses.* The silk which adheres to the seeds, is used for stuffing pillows, spinning fine yarn, both by itself and mixed with cotton, animal wool, &c. It also affords a valuable material for manufacturing paper of a superior quality, and its stalks may be employed as a substitute for Hemp. In Canada a brown sugar is obtained, by evaporating the juice of its flowers; and in Germany the young tops are eaten as Asparagus. It has been said that the milky juice of this plant is poisonous; if so, it must lose this property by boiling; the poisonous volatile parts flying off in the different processes before mentioned. Its stalks dye a good olive colour, and answer for candle-wicks, or sluts.

3. A: VARIEGATA (A: Virginiana of C. B.) *Variegated flowered Dog's Bane*, *Wisank*, or *Old American Dog's-Bane*, a native of the United States, grows a yard high, has an upright, firm, unbranching stalk, with coarse green, rough oval leaves, growing opposite in pairs on short reddish footstalks, and having a reddish midrib; the flowers grow from the tops of the stalks in large umbels supported by short downy footstalks; the flowers separately are small.

but are finely variegated with red or crimson, on a whitish ground, are very handsome.

4. A: PURPUREI, *Purple, upright, horned Dog's-Bane*, also an indigenous perennial, hath single unbranching stalks about two feet high; the leaves are oval, opposite and hairy on their under side; the flowers are produced from the tops of the stalks in upright umbels, of a fine purple colour, and have erect nectaria called horns. It blows in July.

5. A: NIGRO, *Black Swallow Wort*, an exotic perennial, growing near Montpellier; it has several weak, slender, twining stalks, which will grow near four feet long; the leaves are oval, spear-shaped, smooth, and grow opposite by pairs; the flowers rise from the wings of the leaves in small clusters; their colour is black, and they blow in July.

6. A: VILLOSIS, *Carolina Purple Dog's Bane*, also an indigenous perennial, growing naturally in Carolina; the stalks are single and will grow a yard high; the leaves are oval, hairy on their under side, and grow opposite by pairs on the stalks; the flowers grow in upright umbels, but the nectaria are declining; they are of a bad purple colour, and blow with the former.

7. A: ERECTA, *Small, upright Canada Dog's-Bane*, an indigenous perennial, growing naturally in Canada; the stalks are erect, about a foot and a half high, branching a little near the top; the leaves are spear-shaped, smooth, opposite by pairs on the lower, but by threes where the division is made; the flowers terminate the stalks in umbels, and are purple; they blow in August.

8. A: DECUMBENS, *Hairy Virginian Dog's-Bane, Fleuris Root, and Flux Root, (Butterfly-Weed or Sprain Ancle?)* This species hath several weak decumbent hairy stalks, about a foot and a half long: the leaves also are hairy, oval, and grow opposite on very short footstalks; the flowers terminate the branches in close umbels; they are of an Orange colour, and will be in bloom in August.

*Note.* The plant called *Butterfly Weed*, and *Pleurisy Root*, in Carolina is generally known by the name of *Sprain Ancle*, the leaves of which are long, narrow, and spear-shaped; the stalk is decumbent, hairy, and seldom exceeds twelve inches in length, it is garnished with leaves as already observed, which are crowded and opposite. It produces orange-coloured flowers, on which innumerable quantities of butterflies are daily sipping. There are two or three varieties.

*Medical virtues.* The root of this species is considered as a valuable domestic remedy in pleurisies; an emetic and bleeding is usually prescribed previous to its use, after which as much of the powdered root as will lay on the point of a case-knife, is given morning and evening for five or six days, or as long as any of the symptoms remain. In some of our States we are informed that it is much esteemed as a remedy in dysentery, in doses of from 20 to 30 grains of the root in powder. It is also used as an escharotic for restraining fungous flesh in ulcers. In the system it manifests its cathartic and diaphoretic properties, by promoting perspiration, and opening the bowels; it is useful in typhus fever, and is usually prescribed in powder or in decoction. See also *Apocynum Canadense*.



9. A: TUBEROSA, (Apocynum Novæ. Angliæ hirsut of Amm.) *Hairy New England Dog's-Bane*, a perennial and native of the U. States; it hath a large tuberous root; the stalks are upright, hairy, and attain a height of about two feet; the leaves grow alternately on the branches; they are narrow, spear-shaped, and hairy; the flowers come out in simple umbels from the ends and upper parts of the stalks; these are also of an orange colour, and blow in August.

10. A: REVOLUTIS, *Siberian Mountain Swallow Wort*, a perennial plant, whose stalks are weak and decumbent, attaining about eighteen inches in length, with narrow, revolute, spear-shaped leaves; the flowers grow from the tops of the stalks in small tufts, and appear sometime in August.

11. A: ANGUSTIFOLIA, (Apocynum Marianum erectum of Pluke.) *Narrow-leaved Maryland Swallow-wort*, an indigenous perennial plant, growing naturally in Virginia, Maryland, &c. This species hath slender, erect stalks; the leaves grow in verticilli or whorls around the stalks, and are very narrow; its white flowers terminate the stalks in umbels, and appear in July.

12. A: FRUCTICOSA, (Apocynum Africanum of Herm.) *Shrub Swallow-wort*. In Europe this is confined to the green-house; it is an exotic and native of Æthiopia; it will grow to be six or eight feet high; it has a woody stem covered with a brown bark; the stems divides into numerous branches, of a fine green colour, tinged with a stain of red or purple. There are four varieties of this species, whose principal difference is in their leaves, hence the *Oblong Oval-leaved*, the *Smooth Willow-leaved*, the *Smooth Linear Spear-leaved*, and the *Hairy Broad-leaved Shrub Asclepias*. However the most common are long, smooth and narrow; they grow by pairs at the lower part of the branches, but towards the tops are single, the edges are frequently waved; the flowers grow in umbels on long footstalks from the wings of the leaves, their colour is white though sometimes tinged with yellow or a dusky green; each flower has its separate pedicle, and being loosely placed on the common footstalk, the umbel naturally droops a little; they are in bloom in June or July, and are succeeded by large swelling pods. This species is easily propagated by cuttings or seeds, as are all the others, but especially from the seeds.

13. A: AMPLEXICAULIBUS, (Apocynum Indicum of Pluke. Beidel Ossar of Alpinus, and Ericu of Rheede.) *Giant Swallow-wort*, an exotic and native of Egypt and India; this attains a height of about seven feet, with a firm upright woody stem; the leaves are large and grow by pairs at the joints; they are of an oblong oval figure, having no footstalks, and embrace the stem with their base; the flowers terminate the branches in umbels, and are of a deeper red colour in the middle than at the base, where they are usually tinged with green. It flowers in July or August, succeeded by large double inflated pods; this and the three following are tender plants, and are usually kept in stoves in England.

14. A: UNDULATA, (Apocynum Africanum of Comm.) *Waved-leaved African Swallow-wort*, an exotic and native of Africa, which attains a height of six feet, hath opposite leaves without footstalks; they are large, of an oblong lanceolate figure, waved on their edges,

sharp pointed, resembling the leaves of common Dock; the flowers are produced from the ends of the stalk in umbels, and what is singular have ciliated petals; that is, the petals are fine like the hair of the eye-lids; these are succeeded by pods like the foregoing.

15. A: CURASSAVICUM, (Apocynum Curassavicum Sive Americanum of Herm.) *American Scarlet Swallow Wort, Dog's Bane, or Bastard Ipecacuana.* This species is said to be a native of South-America, and also attains a height of five or six feet, the stalks are single, garnished with smooth spear-shaped leaves, having footstalks, the flowers are produced from the sides of the branches near the top, in single umbels, erect, and their position is in the alternate way: The petals of the flowers are scarlet, but the horns or nectaria are of a bright saffron colour, they flower from June to October, and are also succeeded by long taper pods, filled with seeds, crowned with soft down.

*Note.* This species is said to be poisonous, and is supposed to be the kind whose roots have been frequently mixed with Hippo from abroad, as is noticed in the London and Edinburgh Dispensatories, where it is said instances are known of the pernicious effects produced thereby.

16. A: GLABRIS, (Apocynum Americanum of Plum.) *White American Swallow Wort,* a native of the warmer parts of America. It attains a height of three or four feet, hath a single stalk, garnished with long smooth, spear-shaped leaves, somewhat like the Peach or Almond; the flowers grow alternate in single umbels, near the tops of the stalks, they are white, appear in July, and are succeeded by large double pods, like the former. This species is for the most part biennial, but like the Holly-Oaks, will nevertheless shoot out afresh from the bottom and frequently continues many years. They are propagated by seeds.

*Note.* The remaining species are, 17. A: Cordata, with heart-shaped leaves. 18. A: Cinerea, with ash coloured flowers, and 19. A: Viridis, with greenish flowers; of these however we have no particulars. Several of the indigenous species are called *Silk-Grass*, on account of the fine silky down, contained in the pods. Most all the species abound in a milky juice.

ASCYRUM, *St. Peter's Wort*, a genus of the Polyadelphia Polyandria class of plants, and ranking in the 20th Natural Order, *Rotacea*; the calix consists of four leaves; the corolla has four petals, the filaments are numerous, and divided into bundles, there are three species, though Michaux enumerates four which are indigenous.

1. A: CRUX ANDREÆ, (A: Multicaule of Mich.) *St. Andrew's Cross*, an indigenous perennial, growing naturally in Georgia, &c. it hath round slender stalks about half a foot high, and divide into two smaller near the top; the leaves are small, oval, and grow opposite by pairs, the flowers are produced in loose spikes from the division of the branches; they are of a yellow colour, but small, and of little beauty.

2. A: HYPERICOIDES, (Stans of Michaux.) *Bastard St. John's Wort*, a native of South-Carolina; it attains a height of about eighteen inches; the stalks are flat and woody, the leaves oblong, smooth

and narrow, they are glandulous at their base, and placed on branches without any footstalks; the flowers are yellow, and four or five of them growing together terminate the branches—each of them is composed of four hollow petals.

3. A: PUMILUM, (Michaux) *Dwarf St. Peter's Wort*, with small oval obtuse leaves; this is supposed to be only a variety of the former, the most particular of which is a dwarf sort which grows to little more than half a foot high, and is probably the same with the present.

4. A: VILLOSUM, *Hairy St. Peter's Wort*, a perennial and native of Virginia; it hath upright firm woody stalks, a yard high; the leaves are oblong and hairy, the flowers terminate the branches, each composed of four leaves, and their colour is yellow and much like the common St. John's Wort. These plants are said to possess no property worthy of notice.

ASH. See *Fraxinus*.

ASH-WEED. See *Aegopodium Podagraria*.

ASPALATHUS, *Rosewood*, or *African Broom*, a genus of the Didadelphia Decandria class of plants, and ranking in the 32d Natural Order, *Fapilionaceæ*; the calix consists of five divisions, the pod is oval and containing two seeds; there are 19 species, all natives of the warm climates. There is a great difference of opinions among Botanists on the subject of the present article; this confusion seems to have arisen from an opinion that the Rhodium and Aspalathus, (an article of considerable esteem among the ancients, but with regard to which the moderns are at considerable loss) are the same. It is said that the Rose-Wood, from which the Oil of Rhodium is obtained, is a species of Aspalathus, but of which species we can obtain no particular description; different woods brought into Europe for the unknown Aspalathus, were sold again by the name of Rhodium. See the Articles *Amyris Balsamifera*, *Genista Canariensis*, and *Cytisus*.

1. A: HIRSUTIS, (*Genista Africana Lutea* of Herm.) *Asparagus African Broom*, a native of Æthiopia. It has a woody stem, divided into many slender branches, and attains a height of three feet; the leaves are awl-shaped, sharp pointed, rough, and grow in clusters; the flowers come out in roundish clusters, and of a yellow colour, from the ends of the branches.

2. A: GLABRIS, (*Genista Juniperinus* of Pluke.) *Juniper African Broom*, a native of Æthiopia. The stalk attains the same height of the former, is woody and hairy, sending forth many side branches; the leaves are awl-shaped, smooth, prickly pointed, and grow in clusters; Its flowers are produced thinly from the ends and sides of the branches, and are of deep yellow colour.

3. A: ALTERNIS, (*Genista Minima Æthiopica* of Pluke.) *Thyme-leaved African Broom*, a native of Æthiopia. The stalk are nearly as high as the foregoing, and are woody and branching, the leaves are very short, smooth, awl-shaped, and of a splendid green colour, they also grow in clusters, the flowers grow alternately from the sides of the branches, and are yellow.

4. A: LINEARIBUS, (*Genista Æthiopica non Spinosa* of Pluke.) *Heath-leaved African Broom*, a low branching shrub, with awl-shaped

hairy leaves, growing in clusters; the flowers grow alternately along the sides of the branches, are small and yellow, they appear in July.

5. A: **TOMENTOSIS**, (*Cytissus Africanus* of Pluke.) *Sil ery-African Broom*. This attains a height of four feet, has a woody stem, divided into several slender hoary branches; the leaves are narrow, silky, white, and grow by threes on the branches; the flowers are produced but thinly along their sides, are downy and yellow.

6. A: **SOLITARIIS**, (*Genista flore Major lutea* of Pluke.) *One flowered African Broom*, hath also a woody stalk which sends forth branches alternately from the sides; the leaves are narrow, short, taper, and smooth, growing in clusters; the flowers come out singly from the ends of the branches, are large, downy, and of a yellow colour. They appear in August.

7. A: **QUINATIS**, (*Lotus Maderaspatanus* of Pluke.) *Indian Aspalathus*, a native of India, growing five or six feet high; the leaves grow by fives and set close to the sides of the branches, the flowers come out singly on long footstalks, are of a pale red colour, succeeded by pods in its native country.

8. A: **TRINIS**, (*Genista Arborea Cretica* of Zanoni.) *Cretan Aspalathus*, a native of Æthiopia, and attains the respectable height of ten or twelve feet, it hath smooth wedge-shaped leaves, growing by threes, the flowers come out in clusters from the ends and sides of the branches, are of a yellow colour, and appear about the same time with the former. The foregoing are considered as properly belonging to this genus, the others are referred as above; they are all propagated by seeds, but require protection from frost, &c.

**ASPARAGUS**, *Sparagus*, *Sperage*, or *Sparrow Grass*, a genus of the Hexandria Monogynia class of plants, ranking in the 11th Natural Order, *Sarmentaceæ*; the calix is quinquepartite and erect, the three inferior petals are bent outwards; the berry has three cells and contains two seeds. There are 14 species of *Asparagus*, only one of which are cultivated for the table, viz.

1. A: **SATIVA**, (A: *Domesticus* Moris. A: *Hortensis* J. B.) *Common*, or *Garden Asparagus*, has an upright herbaceous stalk, bristly leaves, and equal stipula; this is well known as an esculent vegetable, and much esteemed on account of its delicate flavour. The mode of its cultivation is so generally given in Almanacs, and other periodical publications, as to preclude the necessity of entering in to that subject here. The following are sometimes cultivated in the gardens of the curious more for the sake of variety than on account of their utility.

2. A: **ACULEATUS AFRICANUS**, *Bristly-leaved African Asparagus*. This species sends from the root several tough upright branches, which again send forth several slender side branches, which decline downwards; the leaves are bristly, and not much unlike those of the common garden *Asparagus*. It continues green all the year.

3. A: **FRUTESCENS**, *Larch-leaved African Asparagus*. This grows to eight or nine feet high, the stalks are shrubby, crooked, irregular, and put out several weak side branches; these are armed with sharp spines, which grow singly under the leaves; the leaves are produced in clusters like those of the Larch or Fine Pines, they are long, narrow, and spread themselves in a star-like manner, and continue green all winter.

4. A: ACULEIS ALTERNIS, *Asiatic Asparagus*, hath several erect stalks, armed with sharp thorns, growing singly under the leaves in the alternate way; the side branches are numerous, and exceeding narrow, the leaves grow in bunches and continue green all the year. This species is propagated either from seeds or parting the roots.

5. A: ACULEIS SOLITARIIS, (Cordubas Tertia of Clus.) *White Spanish Asparagus*. This species attains a height of four feet; it hath woody stalks, covered with a white bark, the leaves grow in bunches, and under each tuft is placed a single thorn very sharp.

6. A: ACUTI, *Acute-leaved Portugal Asparagus*. This attains the same height of the former, and hath white shrubby, crooked stalks; the leaves grow in small tufts, but have no spines like the others, yet are so exceeding sharp pointed of themselves, that they will fetch blood if incautiously handled.

7. A: CRETICUS, *Prickley Asparagus of Crete*, attains the same height, and hath tough ligneous stalks; there are no leaves, but instead thereof, there are small bunches of spines, sharp and unequal; three or four usually grow from the same point, and they diverge from each other; the flowers are like the common *Asparagus*, but the fruit is very large and black.

8. A: AGGREGATIS, *Cape Asparagus*, a native of the Cape of Good-Hope, hath upright tough woody stalks, and numerous lateral branches, terminated as well as guarded on the sides by sharp spines; the leaves grow in bunches, and are bristly, the flowers are inconsiderable.

9. A: ENSIFORMIBUS, *Hooked-leaved Asparagus*, a native of Ceylon, hath also tough woody stalks, guarded by thorns which grow singly under the leaves; the leaves are sword-shaped, and (falcated) hooked, or bent like a scythe. Its flowers are also inconsiderable.

10. A: MAXIMUS, *Great Prickly Asparagus*, (also a native of Ceylon. This species hath a weak flexuose stalk, yet attains a height of six or eight feet, the leaves are placed singly, are very narrow, and spear-shaped, and the spines very numerous, short, crooked, and very sharp, requiring caution in handling them.

11. A: INERMIS, (Terminalis of Rhump.) *Indian Asparagus*, a native of India; the stalks are free from spines, the leaves are spear-shaped, and placed alternately on footstalks; the flowers terminate the branches in loose spikes, they grow alternately on very short footstalks, and like the others are of very little figure.

12. A: CAUDIS SIMPLICI, (Draco Arbor of C. Bauh.) *Dragon Tree*, a native of the East Indies; it hath a large cylindrical trunk, about twelve feet high, at the top of which are a large quantity of leaves growing singly; these leaves have no footstalks, and as fresh ones are produced, the old ones fall off, leaving the marks of their base on the body of the trunk the whole length; they grow in a circular manner around the stalk, and hang downward; they are sword-shaped, and entire, and much resemble those of the common yellow *Iris*, but are longer and thicker in the middle, they are smooth, of a bright green colour, the flowers are small and of little account; each is composed of six oblong petals, reflexed at top, but join their claws,

and form an erect tube below, and are succeeded by roundish yellow berries, each containing three cells, in which are lodged two roundish smooth seeds.

*Note.* Formerly it was supposed that the drug called *Dragon's Blood* was obtained from this plant; however it has been latterly ascertained to be produced particularly by the *Palma juncus Draco*, the *Cuamus Kotang*, the *Dracæna Draco*, and from the *P. eriocarpus Draco*. We are yet apt to believe that this species affords it, and particularly as Boerhaave calls it *Palma foliis longissimis pendulis*. May not this be the *Palma juncus*, &c. of modern writers?

*Medical virtues.* The roots of *Asparagus* are supposed to be aperient diuretic and deobstruent, but according to Stahl, is entitled to but a small share of either.

ASPEN-TRILE. See *Populus*.

ASPERUGO, *Small Wild Bugloss*, *Catchweed*, or *German Madwort*, a genus of the Pentandria Monogynia class of plants, ranking in the 42th Natural Order. *Asperifolia*; the calix of the fruit is compressed with folds flatly parallel and sinuous. There are two species.

1. A: PROCUMBENS, *Wild Bugloss*, or *Trailing German Madwort*, grows near roads and amongst rubbish, it has an angular trailing stem, which is hollow and armed with spines, the leaves are very hairy, indented, rough, long, narrow, and somewhat oval, it produces blue or purple flowers in April and May; sheep are exceeding fond of it, and its tender leaves may be dressed and eaten as an excellent culinary vegetable. Dr. Withering gives the name of *Catchweed* to the *Callium Aparine*.

2. A: EGYPTIACA, (*Lycopsis*, Sp. Pl.) *Egyptian Bugloss*, an annual plant, and native of Egypt; it hath very diffuse stalks, the leaves are broad, spear-shaped, exceeding rough and full of warts, they are of a faint purple colour near the ends, and grow on footstalks on the branches, the flower has a white tube, the mouth is yellow, but being shorter than the calix, displays no figure; it blows in July. They are propagated from seeds sown in a warm border in the spring.

ASPERULA, *Wood-roof*. In the old edition of the *Encyclopædia Britannica*, and in Martyn's *Rousseau*, is said to be a genus of the Tetrandria Monogynia class of plants, in the New, Hexandria Monogynia, and ranking in the 47th Natural Order *Stellate*. The corolla is infundibuliforme, and the capsule contains two globular seeds. There are 6 species.

1. A: ODORATA, (*Rubeola Montana Odorata* of C. B.) *Sweet Wood-roof*, a perennial low plant, growing wild in woods and shady places, the root is slender, fibrous and creeping, the stalks are weak, square, jointed and grow about a foot and a half long; the leaves are spear-shaped, oblong, narrow, pointed, of a dark green colour, and eight of them grow at each joint, surrounding the stalks in a radiated manner, the flowers come out in clusters from the ends of the stalks and side branches, they are white, very fragrant, and flower in May. This possesses an exceeding grateful odour that increases on being moderately dried.

*Part used.* The Herb.

*Sensible properties.* Smell as already described, taste subsaline, somewhat austere, which it imparts together with its fine flavour to vinous spirits—according to Linnæus the smell of this herb keeps off ticks and other insects.

*Medical virtues.* It is said to attenuate viscid humours, and strengthen the bowels, to remove obstructions of the liver and bilious ducts, and was formerly esteemed a medicine of great efficacy in Epilepsies and Palsies. The plant is eaten by cows, horses, sheep and goats, having the remarkable property of increasing the milk of animals.

2. A: CYNANCHICA, (*Rubia Cynanchica* of C. B.) *Squinancy-wort*, a perennial plant, and native of Europe; the root is long, hard, black, woody and strikes deep into the ground, the stalks are like the former, though shorter, and for the most part procumbent, and strike root at the joints; the leaves are narrow, smooth, and grow four at a joint, except near the tops of the stalks where there are two only, placed opposite, the flowers come out in umbels from the ends of the stalks, they are of a pale red colour, and appear in June. There is a variety with white flowers.

*Medical virtues.* This plant is said to be admirable for the cure of squinancies, either taken inwardly or externally applied.

3. A: QUATERNIS (*Rubia Quadrifolia* of C. B.) *Italian Woodroof*, a perennial plant, and native of the Italian and Helvetian mountains; the stalks are weak, jointed and square, sending forth branches alternately, they are about eighteen inches high, the leaves are broad, oval, spear-shaped, smooth and grow four together at a joint, the flowers come out in bunches from the ends of the stalk and branches in May and June.

4. A: SENIS, (*Rubeola Quadrifolia* of Haller, *Gallium Album* of Moris.) *Sweedish Woodroof*, a perennial plant, growing naturally on the dry rocky parts of Sweden, Thuringia, Gaul and Siberia. It hath a weak flaccid, square jointed, branching stalk, which unless supported, lies on the ground; the leaves are narrow, and near the bottom of the plant grow six at a joint, higher up four only surround the stalk in a radiated manner at each joint, the flowers come out in bunches from the end of the main stalk and branches, they are of a white colour, and appear in May or June, succeeded by ripe seeds in July.

5. A: ERECTO, (*Rubia Cynanchia Saxatilis*, of C. Bauh.) *Rock Squinancy-wort*, a perennial and native of the Pyrennees. This species hath upright square jointed stalks, about eight or ten inches high, the leaves are spear-shaped, narrow, smooth and quaternate; the flowers are tubular, mostly trifid, and of a red colour, they appear in June and July, and the seeds ripen in September. These plants are propagated by seeds sown in the autumn or spring, they are extremely hardy, and will grow in any soil or situation; they may also be increased by parting the roots, especially in autumn.

6. A: CERULEA, *Blue Woodroof*, an annual plant, growing plentifully among the corn in Flanders, Germany, France, &c. It hath long, fibrous reddish coloured roots, and square jointed, upright, branching stalks, of about eighteen inches height; the leaves are ob-

long, pointed, of a dull green colour, and grow six together at a joint, surrounding the stalk in a radiated manner; the flowers come out in clusters from the ends of the stalks and branches, sitting close at their extremities, they are of a blue colour and appear in June and July. The culture of it is extremely easy by sowing the seeds soon after they are ripe, or in the spring in any common garden mould.

ASPHODEL LILY. See *Crinum*.

ASPHODELUS. *Asphodel*, or *King's Spear*, a genus of the Hexandria Monogynia class of plants, ranking in the 9th Natural Order *Spithaceæ*; the calix is divided into six parts, and the nectarium consists of six valves covering the germen, that is, the valves are inserted into the base of the corolla, and forms a complete arch over the germ; a filament springing from each of them. There are six species.

1. A: RAMOSUS. (A: Albus Ramosus Mas. C. B. A: Major Flor. Alb. Ramos, J. B.) *Branching Asphodel*, a native of Germany, growing in the meadows. This species has naked stalks, which attains a height of three feet; its roots are composed of many fleshy fibres, to each of which adheres an oblong bulb, of the size of a small Potatoe. Its leaves are sword-shaped, smooth, flexible and sharp at the edges, and between these the stalks arise, sending forth lateral branches; the summits of which are adorned with white star-shaped flowers, growing in long spikes, which tend upwards, these appear sometime early in June, and are succeeded by seeds which ripen in autumn.

*Domestic uses.* The pulpy roots of this plant were eaten by the ancients, with the addition of salt, while its stalks, roasted under hot wood ashes afforded them a delicious repast.

2. A: NON RAMOSUS. (A: Major Flore Albo. Non Ramosa, J. B.) *Unbranched Asphodel*, a perennial plant; this species differs from the foregoing in having a single unbranched stalk, longer and narrower leaves, the flowers of a purer white, growing in longer spikes. The roots are alike.

3. A: ALBUS. *White Asphodel*, a perennial; the stalks of this species seldom rise higher than two feet, and divide into several spreading branches, the leaves are keel-shaped, that is, long, almost triangular, and hollow like the keel of a boat. The stalks are terminated by loose spikes of white flowers, smaller than the foregoing. The roots are also composed of smaller fibres.

4. A: FISTULOSO, *Annual Fistular-leaved Asphodel*, or *Annual Branching Spiderwort*: The leaves of this species are spread out immediately from the root, in a large cluster, plain on their upper surface, but convex under. The flower stalks rise also immediately from the root, attain a height of about two feet, and are divided into three or four branches, which are adorned with white starry flowers, with purple lines on the outside. They blow in July or August, and about October perfect their seeds. The roots are composed of numerous yellow fleshy fibres.

5. A: LUTEUS. (A: Folio Fistuloso Striato Non Ramosus, Luteus, &c. Moris.) *Common Yellow Asphode*, a native of Sicily; this species hath roots composed of many thick, yellow fleshy fibres or knobs, so



disposed that they all adhere to a larger one, serving as the basis of the whole, and from which arises strong round single stalks, which rise nearly three feet and are adorned with yellow star-shaped flowers, which blow in June—it is also a perennial.

*Domestic uses.* The roots of this species are excellent, and abound in farinaceous particles, easily extracted in boiling water; this mealy decoction passed through a sieve and mixed with barley or rye flower, affords a palatable and most nourishing bread. Its stalks though naturally acrid, may be deprived of their acrimony by boiling, and converted to a similar use, and the seeds duly prepared answers the same purposes. Shoe-makers prepare an excellent paste from the roots for cementing inner soles, which is preferable to common paste.

6. A: **NARTHECIUM OSSIFRAGUM:** (Gramen Ossifragum of Paulli and Barth.) *Lancashire Asphodel*, a native of Britain, which delights in turfy marshes, and flowers in July or August. Its only excellence is that of ornamenting a garden. It is supposed to be very noxious to sheep, which though they thrive upon it at first, they afterwards die with symptoms of a diseased liver; cows however eat it without any apparent bad effect. Paulli and Bartholine say that this plant possesses the property of changing the bones of such animals as swallow it into Cartilage, and thus producing that singular disease in cattle, which in the human frame is called *Mollities Ossium* or softness of the bones.

In Hermannus's Hortus; the arrangement of this genus is different from the foregoing. It is much to be lamented that most Botanists have adopted their own method in classing of plants, &c. It is said there are but five species belonging to this genera, we however find six, to which are added the following, from different authors, viz.

*Asphodelus Allobrogicus*, (Phalangium Magno Flore of C. B. Phalangium Allobrogicum of Moris. and Phalangium Lillii flore of J. B.)

*Asphodelus Minimus*, (Pseudo Asphodelus of C. B.: *Asphodelus Luteus*—*Acori foliis Palustris*, *Anglicus Lobelii*, J. B.)

*Asphodelus Bulbosus Dodonæi*, J. B: v. *Ornithogalum*.

*Asphodelus foliis Fistulosis*, C. B. J. B. Moris. v. *Phalangium*.

For the Lily Asphodel see *Amaryllis*.

**ASPLENIUM**, a genus of the Cryptogamia Filicis class, ranking in the 55th Natural Order *Filicis*. The parts of fructification are situated in the small sparse line under the disc of the leaves. There are 24 species.

1. A: **PINNATIFIDUS**, (Ceterach Officinarum of C. B.) *Spleenwort*, a perennial plant, growing naturally from the fissures of moist rocks, old walls, &c. in England, Wales, France, Italy and the East. The root is composed of a multitude of black, slender fibres, much implicated or interwoven one with another. The leaves, which are all distinct plants, rise immediately from the roots, are about four inches long, and three fourths of an inch broad, they are pinnatifid, the segments join in one body at the base, and they are arranged alternately along the mid-rib, which is naked at the bottom, and terminated by an odd lobe or segment; the leaves, or rather the plants

are of a thickish substance, of a pale green colour on their upper side, and soft and downy underneath, where their fructifications are situated.

*Part used.* The leaves.

*Sensible properties.* Taste herbaceous, somewhat mucilaginous and roughish.

*Medical virtues.* This plant is deemed pectoral and diuretic, and is employed in Nephritic cases, and the cure of jaundice. The virtues which it has been most celebrated for by Dioscorides and other antient writers, is that which it has the least title to: diminishing the spleen.

2. A: SCOLOPENDRIUM. (*Lingua Cervina* Officinarum of C. B. *Phyllitis Crispa* of J. B.) *Hairs-Pig-tail*, a perennial plant, growing naturally in shady rocky situations in most parts of Europe. The roots are composed of long black slender fibres, platted together; the leaves, or rather plants, rise many together, standing on black hairy footstalks, they are simple, undivided, heart-shaped at their base, pointed at their extremity, eight or ten inches long, an inch and a half broad, of a fine glossy green colour on their upper side, and streaked and rough on the back by the fructification, where they are disposed in numerous short oblique lines.

*Part used.* The leaves.

*Sensible properties.* Taste mucilaginous, somewhat roughish like that of Maiden-hair, but more disagreeable.

*Medical virtues.* It is recommended in obstructions of the Viscera, and for strengthening their tone, in which intention they have been sometimes used alone, or in conjunction with Maiden-hair, or the other plants called Capillary. It is also highly praised for curing the Dysentery and the bites of venomous serpents, Hypochondriasis, Palpitation of the heart, &c. but modern practitioners will not allow it to possess so many virtues.

3. A: TRICHOMANES, (*Trichomanes* S: *Polytrichum* Officinarum of C. B. *Adiantum Maritimum* of Pluke.) *Common, or English Maiden-hair*, an indigenous perennial plant, growing naturally in the crevices of rocks, old walls and shady places of Europe, and in Canada, Pennsylvania and Carolina. The root is a cluster of slender black fibres, the leaves or rather plants, stand on round, slender, brittle, black, glossy stalks, they are pinnated and about half a foot long, the pinnulae are roundish, crenated, stand opposite, are smooth, of a bright, glossy, strong green colour, and are terminated by an odd foliole. It flowers from May to October.

*Part used.* The Herb.

*Sensible properties.* The leaves have a mucilaginous, sweetish, subastringent taste, without any particular flavour.

*Medical virtues.* It is esteemed useful in disorders of the breast, and is used in infusion or decoction, with an addition of Liquorice, for the expectoration of tough phlegm, and for opening obstructions of the Viscera. It is also substituted in room of the true Maiden-hair, (*Adiantum verum*) in preparing the famous syrup called *Cafu-laire*, for which it does very well, and if a small quantity of orange flower water is added, it is hardly distinguished from the true sort.

4. A: ALBUM, (Adiantum Album of J. B. Ruta Muraria of C. B. Paronychia of Camer.) *White Maiden-hair*, *Rue-leaved Maiden-hair*, or *Wail-Rue*, an indigenous perennial plant, according to Michaux, growing in the fissures of rocks, &c. in Carolina. He calls it *Asplenium Ruta Muraria*: We have before mentioned this species under the article *Adiantum Album*, we shall now give the description. The fibres of the roots are as fine as hairs, numerous and variously interwoven and clotted together, the leaves are small, elegant, decomposed, and grow on dark brown or blackish footstalks. These footstalks rise naked to two or three inches high, and then send forth several branches, each of which is terminated by partial leaves, finely divided in the manner of the true Maiden-hair, (or as some fancy) the Rue of our Kitchen Gardens; the folioles are of a thickish substance, rigid, wedge-shaped, of a pale green colour on their upper side, and brownish underneath.

*Medical virtues.* This species is said to be a fine pectoral, diuretic, &c. and is used in the same intentions as the first species, it is also said to be good for the cure of ruptures in young children.

5. A: VIRIDE, (Trichomanes Ramosum, &c. of C. and J. B. and Gerard.) *Green Maiden-hair*, a perennial plant, and native of England, France and Italy, growing naturally in shady places, and on old walls, &c. The fibres are as fine as any of the other sorts, and are clotted together in the same manner; the leaves are pinnated, and about four or five inches long, the pinnæ are roundish, truncated at their base, of a deep strong shining green colour, and terminated by an odd one, the lower ones are the smallest. There are several varieties of this species called the *Larger*, the *Small* and the *Branching Green Maiden-hair*.

*Note.* They are all possessed of the same qualities, which are nearly similar to those of the *Common Maiden-hair*.

6. A: HEMIONITIS, (Hemionitis Vulg. and Vera of C. Bauh. and Clus.) *Italian Hart's-tongue*, a perennial and native of Spain and Italy; the root is like the Common Hart's-tongue or Scolopendrum; the leaves are simple, heart-shaped, hastated, and composed of five undivided lobes, growing on long footstalks; the fructifications are arrayed in oblique lines on the back.

*Medical virtues.* These are the same as the A: Scolopendrium before mentioned.

7. A: FILICULA, (Chamæ filix Marina, &c. of J. B. Filicula Maritimi of C. B. and Filix Marina of Park.) *Sea Maiden-hair*, a perennial plant, growing naturally on the sea-rocks of England and America. The fibres of the roots are like black hairs, extremely numerous and much implicated and tangled one with another; the leaves stand on glossy, slender, brown or blackish footstalks; they are pinnated and the pinnæ are oboval, elegantly serrated or crenated, obtuse and wedge-shaped at their base; they are of a firm substance, terminated by an odd one, stand opposite (or nearly so) along the midrib; and the fructification on their back is of a rusty Iron colour.

8. A: SUBTRIPINNATIS, (Adiantum Nigrum &c. of Michaux, and other Authors) *Black Maiden-hair*, an indigenous perennial plant, growing naturally on the mountains in Carolina, and on old walls, &c. as well as in Europe; the fibres of the root of this species are

considerably thick, black, and interwoven one with another; the leaves are doubly and frequently triply-pinnated; the folioles are ranged alternately, and the pinnæ are spear-shaped, oval, cut and serrated on their edges; the whole leaf is almost triangular, the upper side is of a dark green colour, and the under is dusted over with a fine yellow or saffron-coloured farina belonging to the fructification; the stalk is rigid, black, glossy, and naked from four to six inches high, and then branches out for the support of the different parts which form the whole leaf. There are several varieties of this species.

*Note.* Michaux mentions four other species as indigenous, viz.

9. A: RHIZOPHYLLUM. 10. A: TRICHOMANOIDES. 11. A: ANGSTIFOLIUM, and 12. A: THELYPTEROIDES. The remaining 12 species are by different authors, referred to the Adiantum, Ceterach, Hemionitis, and Trichomanes, which see respectively.

ASTER. *Starwort*, a genus of the Syngenesia Polygamia Superflua class of plants, ranking in the 49th Natural Order, *Composite-discoides*; the receptacle is naked; the pappus is simple, the rays of the corolla are ten, and the calix is imbricated or tiled; there are 36 species, 28 of which are indigenous, according to Michaux.

1. A: ATTICUS, (*Aureus Virgilia* of some authors.) *Italian Starwort*, a perennial plant and native of Italy and the southern parts of Europe, grows about two feet high, with numerous, upright firm branching stalks, the leaves are rough, spear-shaped and obtuse, they have three conspicuous veins, and their edges are entire, the ends of the stalks are adorned with flowers, the florets in the centre are of a golden yellow, while the rays of the flowers are of a fine blue; they often blow in December, and make a lovely appearance.

2. A: TRIPOLIUM, (*Tripolium Majus Cœruleum* of C. Bauh.) *Sea Starwort*, grows naturally on the sea-shores and salt marshes in many parts of Europe. The leaves are spear-shaped, fleshy, smooth and entire; the stalks are terminated by a corymbus of blue flowers, which blow in autumn.

3. A: ALPINUS, (*A. Montanus Cœruleus* of C. B.) *Alpine Starwort*, or *Michaelmas Daisy*. Of this species there are many varieties, which differ so greatly in appearance that they have been taken for distinct species, and have been so titled by old Botanists accordingly. However, the parent of them all, which is the present, is a perennial plant and native of Austria, Helvetia, Vallesia and the Pyrennean mountains; it is a low plant, seldom rising a foot high, the radical leaves are moderately broad, spear-shaped and obtuse, the stalk is unbranched, and garnished with leaves of the same form, but narrower. the top is crowned by a single large blue flower, which will be in its full lustre in July.

4. A: STRIATIS, *Siberian Starwort*; the stalks of this plant are striated, the leaves are broad, spear-shaped, veiny, rough and serrated at the upper parts; the flowers grow in umbels; the footstalks are downy, and each supports a single flower, which will be in bloom in July or August.

5. A: LATIFOLIUS, *Broad-leaved American Starwort*, an indigenous perennial plant, growing naturally in Virginia, &c. The stalks

are very infirm, and send forth many side branches, spreading one from another; the leaves are broad, oval, and their edges serrated; the flowers grow on footstalks each supporting one flower; their colour is white, and they appear late in summer.

6. A: *BELLIDIS*, *Bushy Daisy Starwort*, an indigenous perennial, growing naturally in Canada, Virginia, and Florida; the stalks are divided into many narrow branches, which are again divided so as to form a very bushy plant; the leaves are very narrow, their edges entire; the flowers grow in loose panicles; the footstalks are narrow and striated, each supporting a flower, the rays of which are of a clear white, while the disc is yellow—they somewhat resemble the common Daisy, though smaller; it blows in October.

7. A: *AMERICANUS BELVEDERE*, *Belvedere-leaved Starwort*, an indigenous perennial plant, growing naturally in the United States. It hath stalks that are somewhat branching, slender and angular; rough narrow leaves with entire edges; the ends of the branches are ornamented with longish spikes of flowers of a whitish blue colour towards autumn.

8. A: *MARILANDICUS*, *Maryland Linaria-leaved Starwort*, an indigenous perennial, growing naturally in the United States, hath several purple-coloured stalks, with rough, narrow, green, carinated, acute leaves; the flowers are of a deep violet colour, with leafy footstalks, and terminate the branches: these also blow in October.

9. A: *LINFOLIUM*, *Flax-leaved Starwort*, an indigenous perennial plant of the United States, attains a height of about four feet, the stalks branching from the sides; the leaves are narrow, acute and entire, they grow alternately and embrace the stalk with their base; the flowers are blue, terminate the branches, and blow in August and September.

10. A: *NARBONENSIVM*, *Narbonne Starwort* or *Blue Cluster flowering Aster*, grows naturally in Hungary, Spain, and France; it hath erect branching stalks near two feet high; the leaves are numerous, long, narrow, entire, and of a dusky green; the flowers terminate the branches in clusters, and are of a blue colour, showing themselves in August.

11. A: *SIMPLICISSIVM*, *Virginian Single Stalked Starwort*, an indigenous perennial growing naturally in Virginia; it attains a height of about four feet, and hath a single unbranching stalk; the leaves are of an oval, oblong figure, entire, downy, and sit close to the stalk; it produces blue flowers at the top of the stalk in a kind of spike, and blooms about October.

12. A: *ALTERNIS*, *White Virginian Starwort*, an indigenous perennial, which grows near a yard high; the leaves are very narrow, and grow alternate; the stalks are each terminated by a single white flower in November. There are two or three varieties.

13. A: *VIRGINIVS COMOSVS*, *Waved-leaved Starwort*, an indigenous perennial; the stalks grow near a yard high, and are branching; the leaves are heart-shaped, waved, and downy underneath, surrounding the stalk with their base; the flowers grow in loose spikes, and are of a whitish blue colour, blowing in September.

14. A: *NOVAE ANGLIAE*, *New-England Starwort*, a perennial plant, growing naturally in New-England; this attains a height of four or

five feet, hath hairy stalks, and alternate, spear-shaped entire leaves, which half surround the stalk with their base; the flowers are very large, of a violet purple colour, placed at the tops of the stalks, and blow in September.

15. A: ERICOIDES, *Bushy heath-like Starwort*, a perennial, and native of Virginia; it attains a height of about three feet, branching, so as to form a very bushy plant; the leaves are very narrow and entire; the flowers are small, whitish, and very inconsiderable—it blows in October.

16. A: LATIFOLIA, (A: Cordifolius of Michaux.) *Broad-leaved Autumnal Starwort*, a perennial, growing naturally in Canada, Florida, and on the tract eastward of the Alleghany Mountains, and in Asia. It attains a height of about two feet, hath several slender branching stalks: the leaves are heart shaped, pointed, with their edges finely serrated. The ends of the branches are ornamented with panicles of white flowers in September.

17. A: MACROPHYLLUS, *Rough Lanceolate-leaved American Starwort*, a perennial, and native of Canada, grows about three feet high; the stalks are upright, firm and of a purple colour; the leaves are spear-shaped, rough, and half surround the stalk with their base, the flowers terminate the stalk in a kind of Corymbus, of a pale blue colour. They blow in October.

18. A: SUBRAMOSA, (A: Uniflorus of Mich.) *Marsh Virginian Starwort*, a perennial, growing naturally in marshy places in Virginia. It hath a very slender, erect, and almost naked stalk that sends forth a few side branches; the leaves are spear-shaped, obtuse, entire, and a little like those of the common Daisy; the flowers are whitish, and appear early in summer.

19. A: CÆRULEUS AMERICANUS, *Mutable Starwort*, an indigenous perennial plant, growing naturally in the United States; it attains a height of about 12 inches; it hath broad, spear-shaped, serrated leaves, and produces its flowers in panicles; the rays of which are of a deep purple, but the flowers of the disc have this mutable property, that being yellow on their opening, they die away, or alter to a purple colour. It flowers in November.

20. A: CAROLINIANA, (A: Virginianus of Moris. A: Tradescante of Michaux.) *Late White Carolina Starwort*, a perennial, growing naturally in Carolina; it is a tall growing plant, attaining a height of six feet, sending forth branches from the sides; it hath narrow spear-shaped, and somewhat serrated leaves; the flowers grow in spikes from the ends of the branches, are small, whitish, and blow in November.

*Note.* In future I shall take the liberty, where I find any species of plants peculiar to either state in particular, without being common to most or all the states, of naming it after the state to which it may be peculiar, notwithstanding its former specific name, which I shall, nevertheless add as in the preceding species.

21. A: NOVAE BELGIAE; *New Holand Starwort*, a perennial plant, growing naturally in Carolina and Virginia; the stalks grow about four feet high, are firm and upright; leaves spear-shaped, somewhat serrated, and grow close to the stalk with their base; the

flowers are of a pale violet colour, and grow in kinds of umbels, blowing in September.

22. A: *GRANDIFLORUS*, (A: *Virginianus pyramidalus* of Martin) *Large flowering*, or *Catesby's Virginian Starwort*, so called by the British gardeners, who, nevertheless observe that Catesby first brought the seeds from Carolina. It is a perennial—Michaux describes it as growing naturally in the mountainous parts of Virginia, and Carolina; it attains a height of about three feet, the stalks put forth many branches from the sides, the leaves are narrow, spear-shaped, rough and reflexed, the side branches are each terminated by a large blue flower, which will be in full perfection in November.

23. A: *DIVERSIFOLIUS*, (A: *Ericoides* of Dille.) *Oval flowered Aster*, a perennial plant, and native of Carolina: it attains a height of six feet; the stalk leaves are small, though entire, the branch leaves are spear-shaped and entire; the flowers grow from the sides of the branches on short footstalks; they are of an oval figure, the disc being very convex; the rays are white and very short; the florets in the disc are pale and have yellow styles: It flowers in November, and if the weather permits continues flowering till after Christmas.

The foregoing being perennials, are propagated by parting the roots, which may be done in autumn: Some of them may be also raised from seeds —The following, which are annuals, are propagated from seeds sown on a moderate hot-bed in the spring, where they are to remain until the plants are tolerably strong. The time for removing them is generally in September, and particularly in a moist day.

24. A: *CHINENSIS*, (A: *Chenopodii folio annuus* of Dille.) *China Aster*, or *Chinese Starwort*, an annual plant, growing naturally in China. There are eight beautiful varieties of this species, viz. the *single white*, *single red*, *blue* and *purple*, and *double* of the same colours which latter are amazingly grand. The single sorts are also large and elegantly surrounded by the ray, that some even prefer them to the double. The stalks are round, and run into several divisions; the leaves are oval, angular, indented and placed on footstalks on the branches; each branch is terminated by one large specious single or double flower, of one or other of the sorts above mentioned, either of these are well calculated to deck our gardens in the most showy grand and pleasing manner, and particularly as they can be had to be in blow from August till November, a time when most other flowers are gone.

25. A: *CANADENSIS*, (*Bellis Umbellifera* of Cornutus.) *Canada Aster*, growing naturally in Canada; it is much inferior to the other species; it attains a height of about two feet, having leaves of an oval figure, somewhat indented on their edges; the stalks are terminated in corymbs of whitish flowers on naked footstalks. They blow in August.

26. A: *PINNATIS*, *Pinnated-leaved Aster*, grows naturally at Vera Cruz, from whence Doctor Houston brought the seeds in 1731; it is a low plant, seldom rising higher than a foot; the stalk is beautifully adorned with pinnated leaves, each consisting of about three pair of heart-shaped serrated lobes, terminated by an odd one;

the flower crowns the top of the stalk, is large and of an orange colour. This blows in July or August.

27. A: FRUTICOSUS, (A: Africanus of Com.) *Hyssop-leaved, white Shrub Aster*, grows naturally at the Cape of Good-Hope. It attains the height of about a yard, hath a woody stem which sends out several side branches of a purplish colour, the leaves are numerous, narrow, and several of them arise from the same point, eight or ten of them are usually in a cluster, and are of a fresh green colour; the flowers are produced early in March among the leaves, on long naked footstalks, they grow singly and are white. There is however a variety of it with pale blue flowers, and another whose rays are of a fine purple.

28. A: SUFFRUCTICOSUS, (Asteropterus, Fruticosus of Vaill.) *Germander-leaved blue Shrub Aster*, a native of the same place with the former, attains the same height. Its branches are garnished with decurrent, oboval leaves, a little serrated on their edges, and downy on their under part, the flowers are produced from the ends of the branches, without any footstalks, and are of a sky-blue colour.

29. A: DECURRENS, *Yew-leaved Shrub Aster*, a native of the Cape of Good-Hope. The leaves are awl shaped, decurrent and have a rough border, the flowers are produced from the ends of the branches, and are small.

30. A: FRUTICULOSUS, *Oval-leaved Shrub Aster*, a low shrub, dividing as it rises into a few small branches. The leaves, are oval oblong, acute, downy underneath, and sit close the branches, having no footstalks; the flowers are produced from the ends of the branches, each footstalk supports a single flower, which is of a blue colour. This is also a native of the Cape.

31. A: TORTIFOLIUS, Michaux (*Conyza bifoliata* of Walt.) a native of Carolina, hath small wedge-shaped, oboval, entire leaves, somewhat twisted. It produces its white flowers in a kind of corymbus.

32. A: INFIRMUS, a native of Canada and Carolina, with sub-rhumboidal oval lanceolate leaves, pointed and entire; the flowers are small, and are produced in spreading panicles, on forked footstalks, they are of a white colour.

33. A: ACUMINATUS, a native of Canada, hath a simple, angular, though bending stem, the leaves are oval, lanceolate, long and pointed, and irregularly cut or serrated on their edges, the flowers are produced in wide spreading panicles on forked footstalks.

34. A: AMYGDALINUS, (A: Umbellatus, Hort. Kew:) a native of Canada and the hilly parts of Carolina; hath entire, lance-shaped leaves, and produces its white flowers in corymbus.

35. A: RIGIDUS, a native of Carolina, hath a low, simple, erect stem, with entire linear leaves, stiff, and have their margins ciliated. The stalks are terminated with small flowers without footstalks.

36. A: SPARSIFLORUS, a native of Carolina, hath a small branching stem, with linear reflexed leaves, edges entire. It produces its flowers irregularly.

There are several other species enumerated by Walter and Michaux, which are referred to the article *Conyza*.



**ASTRAGALUS**, *Liquorice Vetch*, or *Milk-Vetch*, a genus of the Diadelphia Decandria class of plants, ranking in the 32d Natural Order, *Papilionaceæ*; the calix is a tubular monophylous perianthium, divided at the top into five acute segments, the corolla is Papilionaceous, the vexillum is upright and longer than the other parts, obtuse, emarginated and reflexed on the sides; the alæ are oblong and shorter than the vexillum, the carina is emarginated, and the length of the alæ; the *stamina* are ten in number, nine of them join in a body, and one stands singly, their position is nearly upright, and their anther roundish. The *Pistillum* consists of a taper germen, a subulated ascendant style, and an obtuse stigma. The *Pericarpium* is a pod of two cells, gibbous. The *Seeds* are kidney-shaped—some authors have borrowed forty-one species of different genera and placed to the present; However, 39 are said to belong it, the remaining forty-one are to be found among the *Apios*, *Securidaca*, *Lunaria*, *Glycyrrhiza*, *Fœnum-Groecum*, *Cicer*, *Vicia*, *Orobrychis*, *Chamebuxus*, &c. &c. Such and so many are the various classifications of different authors, that there is nearly as great confusion in the collection and arrangement of the genera and species as there was said to be in the construction of Babel.

1. A: CAROLINIANUS, *Carolina Milk-Vetch*, an indigenous perennial, growing naturally in the hilly parts of Carolina; it hath several erect stalks that attain a height of about three feet, the leaves are large, being composed of near twenty pair of oval smooth lobes, besides the odd one that terminates the leaf, the flowers are produced from the wings of the leaves in spikes, they are of a yellowish green colour, and blossom in August, succeeded by smooth roundish, oblong, erect pods.

2. A: GEORGIAE, (A: Glaber of Michaux) *Smooth-stalked, Georgia Milk-Vetch*, grows naturally in Georgia, hath a smooth erect stem, though deeply furrowed lengthways, so as to become angular, the leaves are oblong and lance-shaped, the flowers are produced in loose spikes, which are succeeded by smooth, roundish, oblong, incurved, tumid and compressed pods.

3. A: VILLOSUS, *Hairy leaved Georgia Milk-Vetch*, a native of Georgia; the stalks will attain a height of about two feet; if supported they will grow erect, otherways they trail on the ground; the leaves are oval, hairy and a little downy; the flowers are produced in small spikes, and are of a pale colour, they are succeeded by oblong pods, assuring or bending up and down, covered with a whitish down.

4. A: CANADENSIS, *Canada Milk Vetch*, a perennial and native of Canada, the stalks are very irregular, attaining the same height with the former, the leaves are large; the pinnae are oval and hairy on the under side, the flowers are produced from the wings of the leaves, in spikes of a yellowish green colour. They blossom in July, and are succeeded by cylindrical pointed pods.

5. A: TRAGACANTHA, (Tragacantha of C. Bauh.) *Tragacanth Shrub*, or *Goat's Thorn*, is a plant from which the Gum Tragacanth of the shops is obtained; it grows naturally in the Levant, in Candia, on Mounts Olympus, Ida, Etna, and most of the Southern

countries of Europe. The stalks are numerous, thick, tough, woody, of a white colour, a foot or two in length, and lie on the ground, the leaves are pinnated, being formed of six or eight pair of folioles, terminated by an odd one: there are several varieties of this species, but the principal are, the white, the red, the crimson, and the purple flowered Goats-thorn, the leaves of some of these varieties are oval, in others oblong, others very narrow and spear-shaped, they are of a silvery white colour, and continue a long time on the plant, and after they are fallen, their footstalks still remain in the form of sharp thorns, guarding the plant on every side, the flowers are produced among the leaves and thorns, along the sides of the branches, and are one or other of the colours already mentioned, they blow in June or July,—they are propagated by seeds, sown in full ground beds, in the spring, great care must be taken of them until the stalks become woody, they may then be set abroad in a soil and situation naturally warm, they may also be propagated by slips or cuttings, taken in the spring from the old roots planted in pots, and assisted by a moderate degree of warmth in a hot-bed.

*Part used.* The gum obtained from the plant, by most artificers called *Gum Dragon*.

*Sensible Properties.* It is of a much stronger body than Gum Arabic, and does not so perfectly dissolve in water; a drachm will give to a pint of water the consistence of a syrup, which a whole ounce of Gum Arabic is scarcely sufficient to do.

*Medical virtues.* There has nothing been said of its medical virtues, farther than its use in forming troches and the like purposes, being preferable to the other gums. It however gives name to an official powder, and is an ingredient in the compound powder of Ceruss.

6. A: GLYCYPHYLLOS, (*Glycyrrhiza Sylvest* of C. B.) *Common or Sweet Milk-Vetch, Liquorice Vetch, Wild Liquorice, or Liquorice Cocks-head,* and by some called *English Milk-Vetch*. It is a perennial plant, and is found growing wild in great plenty in lanes and woods in many parts of England, and is seldom admitted into gardens; it hath a creeping root, and procumbent stalks, oval leaves, and pale yellow flowers, which appear in June or July. This plant will thrive with uncommon luxuriance in poor, barren soils, and yields an abundance of tender and succulent herbage, affording an excellent winter fodder for cattle; cows depastured on this plant are said to yield an abundance of rich milk, whence its proper English name, *Sweet Milk-Vetch*.

7. A: ORIENTALIS, (A: *Vulgo Christiana Radix* of Diosc:) *Yellow Oriental Milk-Vetch*, a perennial and native of the East; hath upright stalks three feet high, large pinnated leaves, the pinnæ numerous, though placed but thinly on the mid-rib, they are of an oval figure, and in each leaf they are terminated by an odd one; the flowers are produced in clusters from the wings of the leaves, almost the whole length of the stalks; they are large, of a bright yellow colour, and blow in July.

8. A: PURPUREIS, *Purple Oriental Milk-Vetch*, a perennial and native of the East; hath erect, hairy stalks, large pinnated leaves, the pinnæ are indented, the flowers grow in round heads from the

wings of the leaves, on very long footstalks, are of a purple colour, and blow in July.

9. A: THURINGIANA, (Cicer Montanum of C. B. A: Villosus, &c. of Amm:) *Thuringian Milk-Vetch*, a perennial, growing naturally in Thuringia and Siberia; it hath several erect, hairy stalks, growing about two feet high; the leaves are pinnated and very woolly. the pinnæ are of an oval figure, consist of several pair in each leaf, always terminated with an odd one; the flowers are produced from the wings of the leaves in close spikes, their colour is yellow; they blow in June, and are succeeded by awl-shaped, hairy pods.

10. A: GALEGAE: FOLIIS, (A: Sylvaticus of Amm:) *Goats-Fue-leaved Milk-Vetch*, a perennial and native of Siberia, hath several smooth, erect stalks; the leaves are pinnated and composed of above twenty pair of lobes, these are oval and always terminated by an odd one; the flowers are produced from the wings of the leaves in long spikes which hang downwards, they are of a whitish colour, having some tints of yellow; they blow in June and July, and are succeeded by triangular, sharp-pointed pods.

11. A: PROSTRATUS, (Cicer Sylvest: of C. B.) *Yellow Austrian Milk-Vetch*, a perennial and native of Austria and Italy; hath striated, prostrate stalks, lying flat on the ground; the leaves are pinnated, and grow alternately, the pinnæ are small, of an oval figure, and consist of about ten pair with an odd one; the flowers are produced from the wings of the leaves in small loose spikes, are yellow, blow in July, and are succeeded by roundish pointed pods.

12. A: PUMILA, (Cicer Hispidis of C. B.) *Dwarf Yellow Milk-Vetch*, a perennial and native of Siberia, Hercynia, and Thuringia; hath a few erect flexuose stalks scarce a foot high; the leaves are large in proportion, and often composed of thirteen or fifteen pair of oval, obtuse pinnæ; from the wings of the leaves are produced the footstalks that support the flowers, these are longer than the leaves, and the flowers grow horizontally at the top, they are yellow, blow in July, and are succeeded by roundish pods.

13. A: SYRIACUS, *Syrian Milk-Vetch*, a perennial and native of Siberia; hath tender stalks inclining to trail; the leaves are narrow, spear-shaped, hairy and somewhat downy; the flowers are large, and are produced in tufts at the end of long footstalks, which rise from the wings of the leaves; they blow in July, and are succeeded by oblong, erect, hairy, downy pods.

14. A: PROCUMBENS, (Glaux Montana of Ray.) *Small Hoary Purple Milk-Vetch*, a perennial and native of England; hath several weak procumbent stalks scarce four inches long; the leaves are pinnated, the lobes are narrow and downy, and sit close to the mid-rib; the flowers are large for so small a plant, they grow in loose spikes, are of a purple colour, and blow in June.

15. A: ALPINUM, *Alpine Milk-Vetch*, a perennial and native of the Alps, of Lapiand and Switzerland; the stalks of these scarce exceed those of the former, and lie on the ground; the leaves are pinnated, and resemble somewhat those of the Common Vetch; the flowers are produced in loose, pendulous spikes from the wings of the leaves, and are succeeded by acute hairy pods.

16. A: MONTANUS, (Onobrychis of Clusius and C. B.) *Mountain Milk-Vetch*, a perennial and native of Helvetia and Vallesia, the stalks are about two or three inches long; the leaves are pinnated, the pinnæ narrow and set close to the mid-rib, terminated by an odd one; the flowers are produced in loose, erect spikes, their colour is purple; they blow in June, and are succeeded by oblong crooked pods.

17. A: ACAULOS, *Round Podded Milk-Vetch*, a perennial and native of Siberia; this hath no stalk; the root is creeping, and from which the leaves immediately arise, they are pinnated, the pinnæ are oval, and arranged by pairs along the mid-rib, terminated by an odd one, among these the flower-stalks arise, and are about the length of the leaves; the flowers grow at the tops in cylindrical spikes, of a yellow colour; they blow in June, and are succeeded by roundish inflated pods, full of greenish seeds.

18. A: GERMANICA, (A: Acaulis, Linn. Phaca, &c. of Zinn.) *German Milk-Vetch*, a perennial and native of Siberia; this species is also without a stalk, the leaves come out in the same manner with the former, are pinnated, being composed of several pair of obtuse lobes, terminated with an odd one; its flowers are all produced in the same manner in spikes, and are blue; they appear in June, and are succeeded by erect, inflated, awl-shaped, hairy pods.

19. A: LUTEIS, *Lairy Yellow flowered Siberian Milk-Vetch*, a perennial and native of Siberia; this is also without stalks; the leaves are composed of several pair of oval, obtuse lobes, terminated by an odd one, and are hairy; its large yellow flowers are produced in close spikes, supported by a thick, hairy, upright footstalk from among the leaves: these blow in July.

20. A: HELVETIANA, (A: Acaulos, folios acutis.) *Helvetian Milk-Vetch*, a perennial and native of Helvetia, Oelandia, and Germany: this is also without a stalk, the leaves arise from the roots, and are composed of several pair of hairy, acute lobes, the flower-stalk seldom rises upright, the top of it is garnished with yellow flowers, having a stain of purple near the base, they flower in July, and are succeeded by very hairy pods.

*Note.* The *Ash-leaved Milk-Vetch*, (A: Tuberosa of Tourne and Morison) is referred to the article Glycyne.

21. A: MONSPELIACUS, (Securidaca lutea of C. B.) *Montpelier Milk-Vetch*, an annual and native of Montpellier in France, it hath several striated stalks or branches which lie flat on the ground, the leaves are pinnated, the pinnæ consist of about eight pair besides the odd one, their ends are crenated, or cut with circular incisions, the flowers are produced on footstalks about three inches long from the wings of the leaves, they are of a pale yellow colour, will be in bloom in June, and are succeeded by awl-shaped, smooth recurved pods.

22. A: MARITIMUS, (Securidaca Sicula of Boccone) *Trailing Maritime Annual Milk-Vetch*, grows naturally in Sicily, Portugal and Spain, the stalks are trailing and grow about two feet long, the leaves are pinnated, and the pinnæ consist of about ten pair besides the odd one, they are obtuse and thinly placed along the mid-rib, the flowers are produced from the wings of the leaves on footstalks about two inches long, four or five of them usually grow together, they are of a

yellow colour, blow in July, and are succeeded by upright, triangular prism-shaped pods.

23. A: ITALICA, (A: Annuus of Pluke: Ornithopodia of C. B. Vicia-Sesamea of Column:) *Italian Milk-Vetch*, an annual and native of Italy, France, &c. the stalks are weak and very diffuse, the leaves are pinnated and hairy, the pinnæ consist of about ten or twelve pair, which are not always terminated by an odd one, the flowers are produced from the sides of the branches, in small heads, are of a copper colour, will be in bloom in July, and are succeeded by erect, awl-shaped, reflex-pointed pods.

24. A: HISPANICUS, *Spanish Milk-Vetch*, an annual and native of Spain and the East, hath a few trailing hairy branches; the leaves are pinnated, the pinnæ are obtuse, they consist of about ten pair besides the odd one which terminates them; the flowers are produced in round heads, from the wings of the leaves on long foot-stalks, are of a fine purple colour, blow in July, and are succeeded by rough, short, heart-shaped, pointed pods.

25. A: AEGYPTIACA, (A: Subaculis of Linn. Phaca of Van: Roy) *Ægyptian Milk-Vetch*, an annual and native of Egypt; is a very low and tender plant, with hardly any stalk at all, the flowers grow immediately from the root on footstalks, two or three usually together, they are of a yellow colour, blow in July, and are succeeded by awl-shaped bi-carinated, or double keeled pods.

26. A: ALOPECUROIDES, *Fox-tail, Alpine Milk-Vetch*, a biennial and native of Siberia and Spain, the stalks are upright, firm, hairy, and attain a height of three feet, the leaves are large being composed of about twenty pair of oval pinnæ, besides the odd one which terminates them; the flowers are produced from the wings of the leaves, in thick, short, cylindrical spikes, on hardly any footstalks, the spikes are covered with a silvery down, out of which the flowers appear in a singular manner, they are of a pale yellow colour, blow in July, and are succeeded by oval, wooly pods.

*Note.* Of the remaining thirteen species (said properly to belong to this genus,) I have seen no account.

The perennials are easily propagated by seeds sown in the spring, and require no more than common care, as they delight in an open exposure.—The annuals are likewise propagated in the same manner.—The biennial is to be sown where it is to remain.

ASTRANTIA, *Masterwort*, a genus of the Pentandria Digynia Class of plants, ranking in the 45th Natural Order, *Unbel-lata*; the involucre is lanceolated, open, equal, and coloured; there are two species, both natives of the Alps, and possessing no remarkable properties; they are:

1. A: MAJOR, (*Helleborus Nigr* of C. B. *Veratrum Nigrum* of Dodon.) *Great Black Masterwort*, a perennial growing naturally on the Alps; it hath large spreading roots, black without and white within; the radicle leaves are large and divided into five broad, oblong, pointed lobes, deeply serrated on their edges, of a dark green colour on their upper surface but paler under, they grow from the roots on long, firm footstalks; the flower stalks arise from among the leaves, they are round, striated, upright, firm, and will grow to about two feet high, at each joint stands a single leaf composed of three

sharp-pointed sawed lobes, and the top of it is crowned by the flowers, which are produced in compound umbels of a white colour, at the end of every branch; the small umbels stand upon long footstalks, and the leaves that compose the involucre are spear-shaped, sharp-pointed, of a purplish colour, and extend beyond the rays of the flower. Though this is not a permanent property, for sometimes they are short and narrow, of a whitish, or green, and sometimes variegated with both. It flowers in summer.

2. A: MINOR, (*Helleborus Minimus* of C. B. and Boccone.) *Small Black Masterwort*, also a perennial, growing naturally on the Helvetian, Hetrurian, and Pyrenean mountains; it hath a large spreading root; the flower-stalk seldom exceeds a foot in height; the leaves are digitated or shaped like the hand, each leaf being composed of seven or eight deeply serrated lobes which spread out like the fingers; the flowers are produced at the extremities of the branches in compound umbels, the leaves that compose the involucre are very narrow and often of a whitish colour. They are propagated by dividing the roots at any time in autumn; they are also raised from seeds, and are very hardy plants.

*Note.* For the true Masterwort, see *Imperatoria*.

ATAMASCO LILY. See *Amaryllis*.

ASTRONIUM, a genus of the Dioecia Pentandria Class of plants; the male calix consists of five leaves, and the corolla is quinque-petalous; the female same as the male; the styli three, and the seed single; there is but one species, viz. The A: *Gravecolens*, a native of Jamaica.

ATHAMANTA, *Spignel* or *Candy Carrot*, a genus of the Pentandria Digynia Class of Plants, ranking in the 45th Natural Order *Umbellatæ*. The fruit is oblong and striated, and the petals are inflected and emarginated there are nine species, only one of which appears to be worthy of notice.

1. A: CRETENSIS, (*Daucus Cretici*) *Candy Carrot* or *Carrot of Crete*, an umbelliferous plant, growing wild in the Levant and the warmer parts of Europe. The flower-stalk rises about two feet high, sending out many branches, clothed with many irregular leaves, formed like those of Fennel, and are terminated with compound umbels of white flowers, with five petals or flower-leaves, succeeded by oblong, hairy, channelled fruit, divided into two parts, containing one oblong hairy seed.

*Part used.* The Seeds.

*Sensible properties.* Agreeable aromatic smell; warm, biting taste.

*Medical virtues.* The seeds of Candy Carrot are said to be carminative and diuretic, but are seldom used in practice.

2. A: LIBANOTIS, *Mountain Stone Parsley*, a perennial; and native of Europe; hath upright, round, striated stalks, with large bipinnated leaves, composed of a multitude of broad serrated lobes, very beautiful; the flowers terminate the stalks in large hemispherical umbels of a white colour. They blow in July.

3. A: MEUM, *Spignel*, *Mœu*, *Bald*, or *Bawd Money*, an umbelliferous plant, found wild in Italy and the warmer parts of Europe, and sometimes also in Britain. Here again we are led to turn to the article *Aethusa*, in consequence of the difference in classing

plants. Spignel is said by Linnæus, (according to some writers) to belong to the *Æthusa* genus, while the London College quote him also as referring it to this. This latter we take to be the best authority, and consequently adopt it here.

*Part used.* The roots.

*Sensible properties.* Pleasant aromatic smell, warm, pungent, bit-terish taste.

*Medical virtues.* It is an useful aromatic and carminative, expelling wind, and warming and comforting the stomach. It is however but seldom used in practice. Doctor Withering is of opinion that it will answer as a substitute for pepper.

4. A: *NITIDIS*, (*Daucus secundus* of Zanoni) *Sicilian Carrot*, a perennial and native of Sicily; the stalks grow a yard high, are round, upright, firm and branching, the leaves are divided into a multitude of narrow segments, and the radical ones are bright and shining, but those on the stalk are a little hairy, and grow alternately; the flowers terminate the stalks in compound umbels; on short hairy footstalks, they are white and blow in July.

5. A: *DIVARICATIS*, (*Apium Montanum* of C. B. *Selinum* of Haller; *Oreoselinum* of Clus.) *Broad leaved Mountain Parsley*, a perennial and native of Germany, rises upwards of three feet, the leaves are large, being composed of a multitude of oval, acute, serrated or jagged lobes, that spread themselves various ways. The flowers terminate the stalks like the others, and are also white.

5. A: *IMBRICATIM*, *Siberian Spignel*, a perennial and native of Siberia; this plant seldom exceeds a foot in height, hath a single slender, angular, furrowed stalk, the leaves are sub-bipinnated, glossy, and the pinnae lie over each other in the the imbricatim way (or like tiles one over another) the flowers are produced from the upper parts of the stalks in close umbels, and are of a white colour.

7. A: *MULTIPARTITIS*, (*Myrrhis Annua*, et *Tenuifolia* of Moris.) *Annual Spignel of Crete*; this plant attains a height two feet, the leaves are composed of numerous parts, which are very narrow, taper, sharp pointed and whitish: the flowers terminate the stalks in umbels, their colour is also white, they blow in July, and are succeeded by striated hairy seeds. There are two or three varieties of this species, which in all probability have been enumerated as so many species, for we find no farther account than mere terms for the remainder. They are all propagated from seeds, sown on a bed of any common mould, in the spring.

*ATHANASIA*, *Goldilocks*, (Referred by Michaux to the genus *Per-soonia*), a genus of the Syngenesia Polygamia *Æqualis* class of plants, ranking in the 49th Natural Order *Compositæ discoides*; the receptacle is chaffy, as is the pappus, and very short; the calix is imbricated. There are 20 species, neither of which possess either beauty or any remarkable property.

1. A: *AFRICANA*, (*Elichrysum* of Magnol. *Chrysanthemum* of Triumf. Bellis of Moris.) *Annual African Goldilocks*, hath an upright tender stalk of about eighteen inches height, divided into a few branches, the leaves are smooth pinnatifid, indented and hoary, the flowers terminate the stalk in round, simple, compact bunches, of a yellow colour, without fragrance, they appear in July, and the seeds, attended by a fine down, ripen in autumn.

2. A: *ÆTHIOPICA*, (Santolina. Spec: Plant: Coma of Comm. and Jacobæa of Pluke.) *Æthiopian Samphire-leaved Goldilocks*, hath a woody upright stem of about six feet high, firm and branching, the bark on the main stem is rough and of a palish brown, but that on the young shoots is green often tinged with red, the leaves are small, narrow, of a pale green colour, and irregularly divided into three or five principal segments, the flowers come out from the ends of the branches, in a simple corymbus of the composite kind, but being all hermaphrodites are destitute of rays, their colour is yellow, and continue in succession great part of the year.

3. A: *CUNEIFORMIBUS*, (Santolina of Van Røyen. Coma of Comm.) *Trifurcated Athanasia*, or *Goldilocks*, a native of *Æthiopia*, is a branching shrub, and of the same height with the former, the leaves are short, flat, wedge-shaped, sessile, of a greyish colour, and are cut at the ends into three principal parts, the flowers come out from the ends of the branches, in round, compact single bunches of a pale sulphur colour, and continue in blow great part of the summer and autumn.

4. A: *DENTATIS*, *Dentated Athanasia*, also a native of *Æthiopia*, hath a woody branching stalk three or four feet high, with numerous green branches, which afterwards become brown, the lower leaves are oblong, narrow, stiff and indented at the top, the upper ones are oval with their edges serrated, the flowers are produced in compound corymbus, they are of a pale yellow colour, and appear early in summer.

5. A: *AMPLEXICAULIBUS*, *Lævigated Athanasia*, a native of the Cape of Good-Hope, attains a height of about five feet, and is branching; the leaves are oval, slightly indented on their edges, recurved and embrace the stalk with their base, the flowers terminate the branches in a compound corymbus, they are yellow and appear great part of the summer.

6. A: *HIRSUTIS*, (*Chrysanthemum Conyzoides* of Breyn.) *Capitated Athanasia*, a native of *Æthiopia*, this attains a height of about four feet, the leaves are spear-shaped, hairy, resemble those of *Marjoram* and grow alternately; the flowers come out from the ends of the branches, two or three together on very short footstalks; they are yellow, and appear great part of the summer.

7. A: *CRENATIS*, (*Stachelina* of the Spec: Plant.) *Crenated Athanasia*, a native of *Æthiopia*; this attains a height of two or three feet, and is a branching shrub, the leaves are narrow, three cornered and grow alternately, the flowers grow singly at the tops of the branches, and have this singularity, the the scales of the calix are crenated; they are yellow and have no rays; they appear early in summer.

8. A: *UNIFLORIS*, *Squarrose Athanasia*, a native of the Cape of Good-Hope; it attains a height of about four or five feet, the stalk is woody and branching, they are of an oval figure and recurved, the flowers come out singly on footstalks from the sides of the branches, and appear in June or July.

9. A: *VILLOSIS*, *Downy Athanasia*, a native of *Æthiopia*, this attains a height of about eight feet, hath a woody branching stem, the leaves are spear-shaped, undivided, hairy, white and downy, the flowers come out from the ends and sides of the branches, in a sim-



ple corymbus, are of a yellow colour, and appear frequently throughout the summer and winter.

10. A: *TOMENTOSIS*, (Filago of the old Spec. Plant. Santolina of the Hort. Cliff. Gnaphalium of C. B. Chrysanthemum of Moris.) *Sea Cudweed*, a perennial and native of the southern parts of Europe; the stalks are about ten inches high, upright, soft and woolly, the leaves are spear-shaped, obtuse, short, white, downy and soft to the touch, the flowers come out in roundish bunches from the tops of the stalks, are yellow and appear in June and July.

*Note.* The *Athanasia* of Walter is referred by Michaux to the genus *Persoonia*—which see. These are all propagated with the utmost facility by planting the slips or cuttings, or by sowing the seeds on a slight hot-bed, but the former method is preferable; common mould that is light and in good heart, is the kind usually made choice of for setting the slips in, where they must be duly watered and shaded till they have taken root.

**ATRACTYLIS**, *Distaff Thistle*, a genus of the Syngenesia Polygamia *Æqualis* class of plants, ranking in the 49th Natural Order *Compositæ Capitatae*; the corolla is radiated, and each of the little corollæ has five teeth. There are three species enumerated by some writers, one of which, the *Gummifera*, is said to belong to the genus *Carlina*.

1. A: **CANCELLATA**, *Small Cnicus*, or *Annual Distaff Thistle*, is an annual exotic plant, growing in the south of France, which attains a height of about eight or nine inches; the stem is slender, clothed with hoary leaves, guarded with spines on their margins; the stem sends out several tender branches towards the top, which are crowned with a head of flowers like those of the Thistle. The empalement is curiously netted over, is narrow at the top but swelling below, and contains many florets of a purplish colour; which are succeeded by a single downy seed.

2. A: **HUMILIS**, *Purple Prickly Cnicus* or *Biennial Distaff Thistle*, a native of Spain, Sicily, &c. rises about a foot high, garnished with indented leaves, having small spines on their edges: the upper part of the stalk is divided into two or three slender branches, each supporting a head of purple flowers, having rays inclosed in a scaly empalement.

3. A: **GUMMIFERA**, (*Carlina* of C. B.) *Prickly Gum Bearing Cnicus*, or *Carlina Thistle*, common in Algiers, it delights in uncultivated and sandy places. It has no stem, the leaves are pinnate and unequally dentated. It is frequently found on dry hills, and at the roots of mountains exposed to the sun. The flowers are numerous and of the compound radiated kind, the calix that contains them is prickly, the rays are white, but the florets in the disc are of a yellowish colour. It flowers in autumn, its leaves being then withered, which spring again at the commencement of winter, and continue green till May.

*Domestic uses.* From the receptacle and collar of the roots, flows an inodorous, tasteless gum, of a yellowish white, appearing in little irregular globules of the bulk of a pea. The Moors and Arabs use it for bird-lime; The root and receptacle boiled and seasoned with butter or oil, afford an agreeable and nutritious food, of great use in times of scarcity.

**ATRAGENE**, a genus of the Polyandria Polygynia class of plants, the calix has four leaves; the petals are twelve, and the seeds are cordated. There are three species, all natives of the East.

**A:** **CAPENSIS**, (*Pulsatilla*, of Burm. and Herm.) *Cape Atragene*, grows naturally at the Cape of Good-Hope; the stalk is somewhat woody towards the base, but upwards is herbaceous and tender, the leaves are trifoliate, the folioles being wedge-shaped, trifid, acute-pointed, and often finely jagged on their edges, the flowers are produced singly on hairy footstalks, are of a fine flesh colour, and very double. There is a variety of this species with white, and another with purplish flowers. They are increased by parting the roots in the spring—they should be set in pots and plunged in a moderate degree of warmth, in any common hot-bed, to set them growing speedily they must be watered, but require very little shade, unless the weather is very hot.

**ATRAPHAXIS**, a genus of the Hexandria Digynia class of plants, ranking in the 12th Natural Order, *Holoraceæ*; the calix has two leaves; the petals are two, and sinuated; and there is but one seed.

There are two species, viz.

1. **A:** **SPINOSIS**, (*Atriplex Orientalis* of Tourne.) *Thorny Atriphaxis*, a native of Media; it attains a height of about five feet, with a woody stalk, which sends off slender side branches, armed with spines, the leaves are spear-shaped small, smooth and of an ash colour; the flowers come out in clusters from the ends of the branches, and of a white colour tinged with purple, having whitish green cups, which appear in August.

2. **A:** **UNDULATIS**, (*Arbuscula Africana Repens* of Dille.) *Curled-leaved Atriphaxis*, a native of Africa, hath slender, ligneous, trailing stalks, the leaves are oval, small, curled on their edges, grow alternately and embrace the stalk with their base; the flowers are produced from the wings of the leaves, are of a greenish colour, and appear in June or July. These are propagated by cuttings in the spring, but are said not to merit notice.

**ATRIPLEX**, *Orach*, or the *Purslain Tree*, a genus of the Polygamia Monoecia class of plants, ranking in the 12th Natural Order, *Holoraceæ*; the calix of the hermaphrodite flower has five leaves; there is no corolla, the stamina are five, and the stylus is divided into two parts. There is but one depressed seed. There are 17 species.

1. **A:** **PORTULACOIDES**, (**A:** **Maritimi** **C. B.**) *Shrubby Orache*, or *Sea Purslain*, a native of Britain, is a low under shrub, growing wild by the sea side; it seldom rises above two, or two and a half feet high, but becomes very bushy, and flowers in the months of July or August. This species is possessed of no very peculiar properties, though it is said to contain a large proportion of alkaline salt when reduced to ashes, it may therefore be usefully employed in making soap.

2. **A:** **HASTATA**, *Shear-leaved Orach*, *Wild Orach*, *Fat Hen*, or *Lamb's-Quarter*, an indigenous plant, growing on rubbish, dung-hills, kitchen gardens, and in waste places near all cultivated farms, throughout the lower parts of South-Carolina, &c. it flowers in the month of August and September. (This appears to be the *Atriplex*

Fœtida, or Stinking Orach, of the London and Edinburgh Dispensatories.)

*Part used.* The leaves.

*Sensible properties.* When fresh and lightly bruised, it emits a smell peculiar to itself as a vegetable.

*Medical virtue.* It was formerly held in esteem as an antihysterical, though the present practice pays no regard to it.

*Domestic uses.* This plant is relished by many, and is sometimes used as a substitute for Spinach, Greens, &c.

3. A: LACINATA, (A: Maritima Lacinata, C. B. A: Maritima, J. B.) *Jagged Sea Orach* or *Frosted Orach*, an annual plant, which grows on the sea-shores, and flowers in July or August, and are succeeded by fruit.

*Part used.* The juice of the fruit.

*Sensible properties.* These are similar to the exotic drug called Gamboge.

*Medical virtues.* The expressed juice of the fruit of this plant, in doses of from four to eight grains, is said to be a powerful purgative, and as its properties (according to *Schoeffer*, a respectable German Pharmaceutical writer) are similar to Gamboge, it might be substituted for that article in cases where aqueous humours are to be evacuated, viz. Quartan Agues, Humid Asthmas, Melancholy, and especially Dropsies. It may be given either in form of pills, powder or conserve to the quantity beforementioned.

4. A: HORTENSIS, (A: Alba, J. B.) *Garden Orach*, of which there are several varieties, whose only difference is in their colour, one is deep green, another dark purple, and a third with green leaves and purple borders; they were formerly cultivated in gardens, and used as a substitute for spinach, to which it is still preferred by some, particularly the French.

5. A: HALIMUS, (Halimus Clusii, J. B.) *Broad-Leaved Orach* or *Purslain Tree*; this species was formerly cultivated in gardens as an evergreen shrub. By some formed into hedges, and constantly sheared to keep them thick; however as they send out vigorous shoots, which are difficultly kept in regular order, and are injured by frost in severe winters, they have been abandoned and others supply their place. Its branches are exceeding brittle, as their inside is green to the very pith, of which there is very little; the leaves are soft, white and silvery, and nearly of the shape of the Greek letter Delta, their edges are entire, and they look well especially in winter. Mr. Hanbury thinks this species might more properly be called the *Ever Silvery Tree*, than the Evergreen, as its leaves are always of a white silvery colour.

*Note.* The foregoing are such of the genera as have been supposed worthy of notice. The remaining are:

6. A: MORIFRACTU MAJOR, (Spinachia fragifera, Alden.) *Great Mulberry-fruited Orach*.

7. A: MORIFRACTU MINOR, (A: Sylvest, Mori fructu, J. B.) *Lesser Mulberry-fruited Orach*.

8. A: MORIFRACTU MINIMA, (A: Sylvest lapulas ferens, C. B.) *Least Mulberry-fruited Orach*.

9. A: SYLVESTRIS ANNUA, *Triangular Leaved Orach*.

10. A: OBLONGO, (A: Vulgaris, J. B.) *Oblong Leaved Orach.*  
 11. A: LACINIATA MINOR, *Lesser Jagged Leaved Orach.*  
 12. A: LATIFOLIA, (*Halimus fruticosus latifolius* Moris.) *Broad-leaved Orach.*  
 13. A: ERECTA, or *Wild Orach.*  
 14. A: PATULA, or *Narrow-leaved Orach.*  
 15. A: SERRATA, or *Indented Sea Orach.*  
 16. A: LITTORALIS, or *Grass-leaved Orach.*  
 17. A: PEDUNCULATA, or *Stalked Sea Orach.* See also *Chenopodium.*

ATRIPLICI. See *Linaria Scoparia.*

ATROPA, *Deadly Night Shade, Mandrake, &c.* a genus of the Pentandria Monogynia Class of plants, ranking in the 25th Natural Order, *Luridæ*: the corolla is shaped like a bell, the stamina are distant; the berry is globular, and consists of two cells or apartments. There are five species.

1. A: BELLADONNA, (*Solani Lethalis* of the Antients, *Solani Melanocerasi* of C. B.) *Deadly Night-Shade, Dway Berries, or Deadly Dwayne*, [How this plant came to be called thus contrarily, by the gentle appellation of *Belladonna*, and the tremendous name of *Atropa*, from *Atropos* the name of one of the fates, will naturally at first view cause astonishment; but when it is understood, that the plant was formerly used by the Italian ladies to take off pimples, &c. from the skin externally applied, whence *Belladonna*; and that internally its effects as a poison is most dreadful. (thus it is called *Atropa*) our astonishment ceases. Linnæus has made *Atropa*, the generic, and *Belladonna*, the specific or trivial title]. It is an indigenous perennial plant, growing wild in many parts of Carolina, &c. It has strong herbaceous stalks of a purplish colour, which rise to the height of four or five feet, in rich lands, clothed with entire oblong leaves, which towards autumn, change to a purplish colour. The flowers are large and come out singly between the leaves, upon long footstalks, bell-shaped, and of a dusky colour on the outside, but purplish within. After the flower is past, the germen turns to a large round berry a little flattened at the top. It is first green; but when ripe turns to a shining black, sets close upon the empalement, and contains a purplish juice of a nauseous sweet taste, and full of small kidney-shaped seeds.

*Note.* Although it has long been considered, as may be inferred from the name, one of the most deleterious of the vegetable narcotic poisons; it has however for a number of years been employed in the practice of Medicine, both externally and internally; it is an article of great activity, and with prudent management may be used with safety. Nevertheless many instances are on record of its fatal effects, when either ignorantly or imprudently taken; adults have been thrown into convulsions, delirium, &c. children have been killed by eating the berries; these accidents may if timely discovered, be prevented by drinking a glass of warm vinegar, and repeating it occasionally. Active emetics have also their use if immediately administered; after which, the prudent use of purgatives, or injections, will complete the cure.

*Part used.* The Leaves.

*Sensible properties.* Of these there have been no other particular remarks made by authors, than the following.

*Medicæ virtus.* Doctors Lambergen and Munch, recommends the Belladonna highly in cancerous cases. Besides a very remarkable narcotic power, this vegetable possesses considerable influence in promoting all the excretions, particularly sweat, urine, and saliva: for these purposes; a scruple of the dried leaves, infused in a considerable quantity of cold water, have been administered in the course of a day; it is thought that heat injures the medicine. Some practitioners prefer the dry leaves in powder, to the decoction or infusion: and thus employed, the dose is limited to a few grains; it has also been employed with success in melancholy, mania, and epilepsy. Externally, it has been applied to open cancers, under the form of an infusion of the dried leaves, and to occult ones, the fresh leaves have been applied in substance; and there are well authenticated cases on record of good effects being obtained from it in both these ways, as also in schirrus and other obstinate tumors.—It is asserted that sheep, rabbits, and hogs eat the leaves of the Deadly Night-Shade without the least injury, nay experience hath evinced, that hogs have, by the use of this herb alone, been entirely cured of the inflammatory distemper, to which they are subject in dry seasons.

2. A: MANDRAGORA, or *Mandrake*, an exotic plant growing naturally in Spain, Portugal, Italy, and the Levant; it is divided into male and female; the male Mandrake has a very large, long and thick root, it is largest at the top or head, and from thence grows gradually smaller. Sometimes it is single and undivided to the bottom, but more frequently it is divided into two or more parts, from which circumstance it has been said to resemble the legs and thighs of a man, many impositions have been made upon the credulous concerning these roots and their pretended virtues, and there are those who have been base enough to enclose the young and tender roots of this and other plants in moulds formed like the human figure, and which growing to the mould, and strained for space, have actually received impressions so strongly resembling the human figure as to be easily imposed on mankind, as possessing extraordinary virtues, and particularly that of rendering barren women fruitful. From the roots there arises a number of very long leaves, broadest in the middle, narrow towards the base, and obtusely pointed to the end. They are a foot or more in length, and about five inches in breadth, of a dusky disagreeable green colour, and of a very fetid smell. The female Mandrake perfectly resembles the other in its manner of growth, but the leaves are longer and narrower and of a darker colour, as are also the seeds and roots.

*Part used.* The Root.

*Sensible properties.* Strong disagreeable smell resembling other narcotic herbs.

*Medical virtues.* The fresh root of the Mandrake is a powerful purgative and may be taken in doses of from ten to twenty grains in substance, or from half a drachm to a drachm in infusion; it has been found serviceable in hysterical cases, but ought to be cautiously used, for if administered in too large doses, it occasions convulsions, and even proves deleterious. It possesses narcotic pro-

perties, and is sometimes employed in emollient cataplasms and fomentations, for discussing hard tumors and swellings; the ancients used it when they wanted a narcotic of the most powerful kind. Bechstein asserts that the root remains sound in the earth for fifty years.

3. A: FRUTESCENS, *Shrubby Night-Shade*, is a native of Spain, and rises with a shrubby stem to the height of six or eight feet, dividing into many branches, garnished with heart-shaped, oval, obtuse leaves; these are placed alternately on the branches; the flowers come out between the leaves on short footstalks, shaped like those of the *Belladonna*, but much less; of a dirty yellowish colour, with a few brown stripes, but are not succeeded by berries in Britain.

4. A: HERBACEA, (Alkekengi Violaceo of Fewill) *Herbaceous Night-Shade*, a native of Campeachy and Peru, is an annual plant, which puts forth several channelled, herbaceous, angular stalks, rising about two feet; and towards the top, they divide into two or three small branches, garnished with smooth, oblong, angular, sinuated leaves, placed alternately on the branches; the flowers are of one leaf, large, of a fine purple or violet colour, they blow in July or August, and are succeeded by roundish berries.

5. A: AMERICANA, (*Belladonna frutescens* of Plum.) *American Shrubby Atropa*, grows naturally in America; it attains a height of eight feet, the stem is woody and branching, the leaves are large, of an oblong figure, resembling those of tobacco, the flowers grow many together from the wings of the leaves on short footstalks, are of a white colour, and blow in July or August.

*Note.* The A: Physaloides, *Ground Cherry*, or *Pepi Berry*, is referred to Physalis. See also Solanum.

AVA AVA, a plant so called by the inhabitants of Otahcite in the South-Sea; from the leaves of which they express an intoxicating juice; it is drank very freely by the chiefs and other considerable persons, who vie with each other in drinking the greatest number of draughts, of a pint each; but it is carefully kept from their women.

AVELLANA. See *Corylus*.

AVENA, *Oats*, a genus of the Triandria Digynia Class of plants, ranking in the 4th Natural Order, *Gramina*. The calix has a double valve, and the awn on the back is contorted; according to some authors there are but eight, others thirteen, and there are those who enumerate thirty-three species: Michaux enumerates four as indigenous—The following are most particular.

1. A: NUDA, *Naked Oat*, *Pilcorn*, or *Pills*, an annual plant, which grows wild in some parts of Staffordshire; though cultivated in many parts of Europe and America, and flowers in the month of July. It is reputed to be nearly as good as the common Oat; for it yields excellent meal; it is objected to by some on account of its being easily beaten out by hard winds or rain, so that much of it is lost in gathering. It thrives on the poorest lands, and is excellent for feeding cattle.

2. A: FATUA, *Bearded Oats*, *Hover* or *Haver*; this is looked upon as a pernicious weed, as it is principally found in Wheat-fields, and

among barley, &c. where it is sometimes so prevalent that it almost entirely prevents the growth of those more useful grains.

3. A: PUBESCENS, *Hairy Oat Grass*, *Rough Oats*, or *Downy Oat Grass*, grows on dry meadows, in chalky situations; it is not fit for cultivation on account of its roughness; indeed every species of cattle refuse it.

4. A: ELATIOR, (*Holcus Avenaceous* of Dr. Smith,) *Tall Oat-Grass*, or *Knotty Dog's Grass*, a perennial and native of most countries of Europe; the root is a cluster of small tubes clotted together, and sending forth long slender fibres from their base; the leaves are long, moderately broad pinnated, and of a deep green colour; the stalk is round, hollow, jointed in two or three places, at each of which is situated a single leaf, sheathing the stalk a great way up with its base; the flowers come out in long spikes from the top of the stalks, they are of a green colour, and being long and slender naturally bend with their own weight. They appear chiefly in July and August. This becomes sometimes very troublesome in arable lands, as its roots spread extensively, and the plant thrives with uncommon luxuriance in meadows or wet damp places; it is somewhat coarse, though it makes a tolerable hay.

5. A: FLAVESCENS, *Yellow Oat*, or *Oat Grass*, thrives in meadows and pastures, and on hills in a calcareous soil, and flowers in the month of July; its characters are the same as those of other grasses. Mr. Swayne is of opinion that this is the best species of the genus for farmers, while Dr. Withering observes that cattle do not relish it: It is a tolerable sweet grass, but inferior to the meadow and fescue grasses.

6. A: PRATENSIS, (A: *Glumosa* of Michaux,) *Meadow Oat*, or *Narrow-leaved Oat Grass*, a native of Britain, Pennsylvania, and Carolina, which grows on heaths, and high calcareous lands, flowering in the month of July. The leaves are long, flat, and pointed; the stalk is jointed and hollow, and a single leaf surrounds it a good way up from every joint; the flowers are produced from the top in nodding panicles. This species, is a tolerably good pasture grass, well calculated for poor stony soils, as it thrives where the meadow grasses will not vegetate.

7. A: SATIVA, including (*Avena Vulgaris seu alba*, and A: *Nigra* of C. and J. Bauhines, which are said to be only varieties of the *Sativa*), or *Common Oat*, thrives in almost any soil, is extremely productive on lands newly broken up; it is also well adapted to cold mountains, or marshy grounds. The common Oat is divided into three varieties, the white, (*Avena Alba*) black, (*Avena Nigra*) and brown or red Oats. The white are the most valuable, and most frequently cultivated for culinary purposes, and from which there has arisen a variety called *Angus Oat*, from the country where it is raised. The other two varieties are raised principally for feeding cattle, though the red is sometimes converted to food, as it yields a tolerable meal. There is also a variety of the red Oat, called *Peebles Oat*, also used for culinary purposes.

8. A: STIPIFORMIS, or *Stegs*, an exotic grain that flourishes on the poorest soils; this species produces double the quantity of grain that other Oats do, while at the same time the weight is only

equal. It is said to afford a remarkably sweet and wholesome food for horses and cattle, especially when given to them with the straw.

9. A: TARTARUS, *Tartarian* or *Red Oat*, is said to have been unnoticed by Linnæus; its grain is however much inferior to the generality of Oats, and ripens much later, its straw is very luxuriant; and the grain is not easily scattered by the wind.

10. A: CAROLINIANA, (A: *Palustris* of Mich.?) *Carolinian Oat*, a native of South Carolina and Georgia, rises to seven or eight feet, with large, plain, linear leaves. This species abounds on the edges of the Alatomaha River, in Georgia, near Broughton Island, New-Hope, Butler's Island, Darien, &c. It is sometimes called Wild Oats, and while tender affords a strong food for cattle.

11. A: MOLLIS of Michaux, *Soft Oat Grass*, a native of Canada, with fine soft downy leaves; the flowers are produced in spikes, closely pressed, forms a raceme; the husk is two flowered and bearded.

12. A: STRIATA of Michaux, *Striated Oat Grass*, grows naturally from Hudson River, along the hilly country to Canada, produces its flowers in narrow scanty panicles; the husk is five flowered, the exterior valve is streaked, guarded on the back with long beards or awns; the seed are naked.

There are several species of Oats enumerated, particularly

13. The FRIESLAND, and

14. The POLAND OATS, which have received their names from their respective places of nativity; these however thrive only on the richest soils, and shed their grain when ripe; they afford but an indifferent meal, though they sometimes yield an astonishing increase; they are chiefly consumed in feeding horses. A variety of the Poland Oat, first raised in Scotland, called Church's Oat, is highly esteemed; the grains are remarkably short, round, plump, and well filled, yields an excellent meal, and is easily converted into flour.

*Domestic uses.* All the species of Oats are hardy plants, flourishing in almost any soil; the grain duly prepared, is converted into an excellent dish for the infirm and diseased, when ground into meal and boiled in water, they afford a thick and nourishing mucilage, which with the addition of a few currants is very wholesome and produces a mildly laxative effect. The gruels made from them have a soft kind of mucilaginous quality, by which they obtund acrimonious humours, and prove useful in inflammatory diseases, coughs, Hoarseness, and excruciations of the fauces.

AVENS. See *Caryophyllus*, *Dryas*, and *Geum*.

AVERRHOA, *Camruna*, a genus of the Decandria Pentagynia class of plants, ranking in the 14th Natural Order, *Gruinalis*; the calix has five leaves, the petals are five, opening at the top, and the apple or fruit pentagonal and divided into five cells; this genus was named in honour of Averrhoa, the Arabian Naturalist, and consists of three species.

1. A: CARAMBOLA, in Bengal called *Camruc*, or *Camruna*, a remarkable and singular exotic tree, or plant, possessing a power similar to those of the *Mimosa*, or sensitive plant: The leaves are alternately pinnated with an odd one, and in their most common position in the day time, are horizontal, or in the same plane with



the branch from which they come out. After sun set the leaves go to sleep, first moving down so as to touch one another by their under sides; they therefore perform rather more extensive motion at night of themselves than they can be made to do in the day time by external impressions. In the mimosa or sensitive plant, the moving faculty extends to the branches, but from the hardness of the wood of the Camrunga; this cannot be excepted. The leaves on being touched move themselves in the manner described, when going to sleep. By striking a branch with the nail of the finger, or any hard substance, the whole of the leaves of one pinna will move, or each leaf will move singly by making an impression that shall not extend beyond that leaf. In this way the leaves of one side of the pinna, may be made to move one after another, whilst the opposite continue as they were; or they may be made to move alternately, or in any order one pleases, by touching in a proper manner the leaf we wish to put in motion.

In the Mimosa the motion is almost immediate, but in the Camrunga, whether the impression be made by puncture, percussion, or compression, several minutes generally intervene, when the pinna begins to move regularly and gradually; after which the leaves return to their former situation, (so slowly as to be almost imperceptible) in the course of a quarter of an hour; many experiments have been made of the locomotive powers of this plant, which are unavoidably omitted, for want of room, but may be seen by referring to the 75th vol. of the Philos. Trans. Lond.

2. A: BILIMBI. 3. A: ACIDA. These are also natives of the Indies, though do not appear to be possessed of such properties as the foregoing.

AVICENIA, *Eastern Anacardium*, a genus of the Didynamia Angiospermia class of plants, ranking in the 40th Natural Order, *Personate*; the calix is quinquepartite, the corolla is bilabiated, the upper lip squared, the capsule is leathery, rhomb like and monospermous. This genus was named in honor of Avicenna, the Prince of the Arabian Philosophers and Physicians, and consists of two species.

1. A: TOMENTOSA, (Bontia of Brown, Anacardium of C. B.) Downy Anacardium, or as it is called by some Malacca Bean. This last name is however said to be improperly applied here, or at least that it is rather doubtful, and supposed to belong to the "Bontia Germinans." See Bontia.

It is a large branching tree forty or fifty feet high, the leaves are as large as those of the Laurel, oblong, firm, of a strong green colour on their upper side, but whitish underneath, they grow in pairs on short footstalks; the flowers are produced from the ends of the branches in large clusters, they are of a white colour, appear in September but do not ripen their seeds in England.

2. A: NITIDA *Shining-leaved Avicennia*, or *Shining Anacardium*, grows naturally in America; the stem is woody, firm and branching, the leaves are of a glossy green colour on both sides, the flowers are produced in clusters from the branches: they are propagated from seeds sown in pots, in a rich loamy earth, and plunged up to the rims in a hot-bed of tanner's bark, they are to be hardened by

degrees to the open air, when strong they may be set abroad in summer, but in winter they must be removed to the green-house.

AVIGATO PEAR. See *Laurus*. It is sometimes called *Avocado-Pear*.

AVIGNON BERRY. See *Lycium*.

AURANTIUM. See *Citrus*.

AURELIANA. See *Linax*.

AURICULA, a synonyme of several plants, viz. *Dodecatheon*, *Primula*, &c.

AURICULA LEPORIS. See *Bupleurum*.

AURICULA MURIS. See *Hierachium*, *Pilosella* and *Lychnis*.

AURICULA JUDÆA, *Jew's Ear*. This is enumerated in J. Bauhine's list of Funguses, and is said to grow on old Elder trees.

It was formerly considered as being possessed of Cathartic properties, by others as astringent. It is however declared to be dangerous, given internally, and is rejected.

AURICULA URSI. See *Sanicula*, *Androsace*, *Verbascum*, &c.

AUSTRIAN SNEEZEWORD, or ETERNAL FLOWER. See *Xeranthemum*.

AX-VETCH. See *Securidaca*.

AXYRIS, a genus of the Monoecia Triandria class of plants, ranking in the 12th Natural Order, *Holoraceæ*; the calix of the male is tripartite, it has no corolla. The calix of the female consists of two leaves, it has two styli and one seed. There are four species, but of what part of the world they are natives is not mentioned.

AYA PANA, a plant highly esteemed, and which is said to be an antidote for the bite of serpents, and is supposed to be a species of *Eupatorium*: which see.

AYENIA, a genus of the Gynandria Pentandria class of plants, ranking in the 37th Natural Order, *Columniferæ*; the calix has two leaves; the petals are in form of a star with long unguis, and the capsule has five cells. There are three species all natives of the West-Indies.

1. A: INERMIS, *Peruvian Ayenia*, an annual plant and native of Jamaica, Cuba and Peru, hath a slender, ligneous weak branching stalk of about a foot long, the leaves are heart-shaped, pointed, smooth, slightly indented on the edges, of a bright green colour, and grow alternately on longish footstalks; the flowers come out three or four together from the wings of the leaves along the sides of the branches, each having its own separate footstalk; they are of a purple colour, appear in July and August, and the seeds ripen in autumn—These are propagated by seeds sown in a hot-bed in the same manner as other natives of warm climates.

AYTONIA, (which I rather suppose to be *Aitonia*, in honor of Dr. Aiton) a genus of the Monadelphia Pentandria class of plants; the characters of which are, the calix is quinquepartite, the corolla consists of four petals, the berry is dry, quadrangular, unilocular and many seeded. There is but one species, a native of the Cape of Good-Hope.

A: CAPENSIS—of which we have not been able to find any particular description.

AZALEA, *American Upright Honey-Suckle*, a genus of the Pentandria Monogynia class of plants, ranking in the 18th Natural Order, *Bicornes*; the corolla is bell-shaped, the stamina is inserted into the receptacle, and the capsule has five cells, there are six species, of which the following are the most particular.

1. A: VISCOSA, or *White American Honey-Suckle*, a native of Carolina, is a low shrub, arising with several stems to the height of two or three feet; the leaves come out in clusters without any order at the end of the shoots, they are spear-shaped and narrow at their base, and their edges are set with very short teeth, which are rough; the flowers come out in clusters between the leaves, have much the appearance of the true Honey-Suckle, (*Lonicera*) and are as well scented. This as well as the following species are most beautiful plants, and delight in a moist soil and sandy situation; they are propagated from slips or seeds.

2. A: NUDIFLORA, *Red American Upright Honey-Suckle*, (to be seen in the Botanic Garden of South-Carolina) sometimes attains a height of 12 feet, hath several stems with oblong, smooth, alternate leaves, the flower stalks arise from the division of the branches which are long and naked, supporting a cluster of red flowers, of an agreeable scent, these are divided at the top into five equal segments, which spread open. They blow in July.

3. A Third Species, with bright red flowers, was found by Mr. Lightfoot upon the tops of many mountains in the Highlands of Scotland.

4. A: PROCUMBENTIBUS, *Procumbent Alpine Honey-Suckle*, a perennial, growing naturally on the Alps of Europe, the stalks are woody, about a foot long, divided into a multitude of branches, and lie flat on the ground, the leaves are small, grow by pairs, and resemble those of the common Thyme; the flowers are produced from the wings of the leaves, in June or July, and are of a flesh colour, succeeded by seeds.

5. A: ADSPERSA, *Lapland Honey-Suckle*, a perennial and native of the Alps of Lapland. It also hath a low woody stem, of the same length with the foregoing, though nearly erect, the leaves are small, oval, spotted, hollowed and terminate the branches in clusters, ten or a dozen of them usually growing together, the flowers come out from among the leaves on short reddish footstalks, are long and of a purplish colour, appearing about the same time with the former—they are propagated by seeds sown in a moist shady place in the spring, and require no trouble but to be kept clean.

AZAROLUS. See *Cratægus*.

AZEDARACH. (*Azadaracheni Arbor J. B.*) See *Melia*.

## B.

BACCHARIS, *Ploughman's Spikenard*, a genus of the Syngenesia Polygamia Superflua class, ranking in the 49th Natural Order, *Compositæ Discoides*; the calix is imbricated and cylindrical, the hermaphrodite floscules are intermixed with the female ones. There are seven species—two only merit notice.

1. B: *IVÆFOLIA*, *Iva-leaved Baccharis*, or *African Tree Groundsel*, an indigenous plant, and a native of the Cape of Good-Hope, Peru, &c. It grows to the height of five or six feet with trifid leaves, resembling those of the Ground Pine—though there is but little beauty in the flowers, which come out from the ends and sides of the branches, they are of a white colour, and appear in July and August. It has long been admitted into the gardens of the curious—it is pretty hardy, and will live in the open air of Britain, but is usually kept in green-houses, and placed abroad only in summer.

2. B: *HALIMIFOLIA*, *Virginian*, or *Cotton Groundsel*, or *Sea Purslane*, a native ever-green of the United States, particularly the Seashores of Virginia. It grows about seven or eight feet high, with a crooked shrubby stem, the leaves are oboval, indented and of a glaucous colour; it produces its white flowers in October, and makes a handsome appearance in autumn when clothed in silky down, white as snow. The bark of the last year's twigs, early in the spring when the sap begins to flow, expands suddenly and opens longitudinally, from which springs a limpid juice of the consistence of pure honey and as sweet and pleasant to the taste. At this season the bees visit these shrubs, and sip the honey entirely before the sun rises. This species is propagated by cuttings. See also *Conyza*.

*BAECKEA*, a genus of the Octandria Monogynia class; the calix is a permanent perianthium, consisting of a single funnel-shaped leaf, cut into five segments at the brim; the corolla consists of five roundish spreading petals inserted into the calix; the pericarpium is a globose capsule made up of four valves, and containing four cells, in which are a few roundish angular seeds—We have no particular account of the number of species.

*BALAM PULLI*. See *Tamarindus*.

*BALAUSTINES*. See *Punica*.

*BALLOTA*, *Black and White Horchound*, a genus of the Didymia Gymnospermia class of plants, ranking in the 42d Natural Order, *Verticillata*; the calix has four teeth, the superior lip of the corolla is concave and crenated. There are four species.

1. B: *ALBA*, *White Stinking Horchound*, is a common weed, growing on the sides of banks in most parts of England, as also in footways near towns and villages in Scotland. It being so common precludes the necessity of its admission into gardens—the stalks and leaves are covered with a white nap, the stalks are square jointed, hairy and two or three feet high; the leaves are heart-shaped, serrated, undivided, and grow opposite to each other at the joints; the flowers grow in *Verticilli* or whorls from the wings of the leaves, upon branched peduncles, and leaf on one side of the stalk, are commonly of a dull red colour, but sometimes white, having truncated caps.

2. B: *NIGRA*, *Black fetid*, or *Stinking common black Horchound*, a perennial, growing on rubbish and in hedges, flowering in the months of July and August. This species has whole heart-shaped leaves, serrated on their edges; the flowers come out in clusters, and are red. No species of cattle will touch this vegetable.

*Part used.* The Herb.

*Sensible properties.* These agree with the other genera of Horehound, but more nauseously bitter.

*Medical virtues.* Both this and the foregoing hath been recommended in hysterical and hypochondriacal cases in a strong decoction, and an infusion made with equal parts of this plant, Betony, and the White Horehound abovementioned, is said both to prevent the gout, and mitigate the attacks of that painful disorder, if three or four tea-cupsful of it be regularly drank every day.

*Note.* The Swedes highly prize these plants, and consider them as an almost universal remedy in the diseases of cattle.

3. B: LANATA, *Woolly Stinking Horehound*, hath square jointed stalks covered with a white woolly matter; the leaves are composed of three or five obtuse lobes, are smooth on their upper side, hairy underneath, and grow opposite at the joints; the flowers are produced in whorls round the upper parts of the stalks; they are large, of a white colour, and appear in July and August; it is also a perennial.

4. B: SUAVEOLENS. We have met with no particular description of this last species.

BALLOTE DIOSCORIDES, See *Marrubium*.

BALM. See *Melissa*.

BALM OF GILEAD, See *Amyris*.

BALSAM APPLE *Male*, See *Momordica*.

BALSAM APPLE *Female*, See *Impatiens*.

BALSAMINA, the trivial name of a species of *Impatiens*.

BALSAMITA, a synonyme of a species of *Xeranthium*. Although Linnæus along with other modern Botanists, rejected the genus Balsamita of Vaillant; M. Desfontaines thinks it founded on such distinct and easy characters, that it ought to be restored, with a few changes—he describes it thus:

BALSAMITA, Vail. Acad. 1719. *Char. Gen.* Calix com: imbricate, flowers all flosculose quinque-dentated, no pappus, and the receptacle naked. It differs from *Chrysanthemum* in having no Semiflosculous flowers: from *Tanacetum* in having them all hermaphrodite—He gives the following species:

1. B: GRANDIFLORA, *Large flowering Balsamita*, grows near Algiers in the corn-fields, it has a simple stem, the radical leaves, are oblong, the stem leaves lance-shaped, and dentated; flowers single.

2. B: VIRGATA, (*Cotula grandis* of Linn.) a native of Nice.

3. B: AGERATI-FOLIA, (*Chrysanthemum flosculosum* of Linn.) a native of Crete.

4. B: MAJOR, (*Tanacetum Balsamita* of Linn.)

BALSAMITA MAS. *Costmary*. See *Costus* and *Tanacetum*.

BALSAM CANADENSE. See *Pinus Balsamea*.

BALSAM COPAIBA, or Capivi, See *Copaifera Balsamum*.

BALSAM GILEADENSIS. See *Amyris*.

BALSAM PERUVIANUM. See *Myroxylon Peruvianum*.

BALSAM RAKASIRA; The tree producing this Balsam is a native of America, but unknown, except to the Indians; it is said to be one of the most powerful and useful Balsams yet discovered; it possesses all the virtues of Balsam Copaiba, but in a much greater degree; it is a most useful application in cases of recent

wounds and old ulcers; it is held forth as an infallible remedy in gonorrhœa in men, and fluor albus in women. These accounts however are solely founded on the representation of the Indians, who are alone in the habit of using it.

**BALSAM TOLU.** See *Toluifera Balsamum*.

**BALSAM TREE.** See *Clusia*.

*Note.* The following Balsams are also lately discovered.

**HUNGARIAN BALSAM,** is a species of oil or liquid resin that oozes from a Coniferous Tree, growing on the Carpathian Mountains, to which the Hungarians attribute many virtues.

**BALSAM OF LIQUID AMBER,** produced from a tree in New-Spain, called by the inhabitants, *Ososol*; (probably same as our Sweet Gum.)

**NEW BALSAM,** resembles Balsam of Tolu in smell and colour, is obtained in the same manner as the oil of Bays, from a red fruit in the island of St. Domingo; it is found excellent for wounds and ulcers, and especially for Fistula in Ano.

**BALTIMORA,** a genus of the Syngenesia Polygamia Necessaria Class; the receptaculum is chaffy, there is no pappus, the calix is cylindrical and polyphyllous; and the ray of the corolla is quinqueflorous: There is but one species, a native of the U. States, viz.

**B: RECTA,** which is said to grow in Maryland, and of which we have seen no particular accounts.

**BAMBOE,** The trivial name of a species of *Arundo*.

*Note.* The American Bamboe or China Brier will be treated of under the genus *Smilax*, of which it is a species.

**BAMIER,** the name of a plant common in Egypt; it produces a pyramidal husk with several compartments, of the colour of a Lemon and filled with musky seeds, this husk dressed with meat is a wholesome food, and has a very agreeable flavour, the Egyptians make great use of it in their ragouts. This is probably the *Bamia* of J. B. a species of *Althea*.

**BANANA TREE.** See *Musa Sapientum*.

**BANE BERRIES.** See *Actea Spicata*.

**BANIAN TREE.** See *Ficus Religiosa*.

**BANK CRESSES.** See *Erysimum Officinale*.

**BANNISTERIA,** a genus of the Decandria Trigynia Class of plants, ranking in the 23d Natural Order, *Trihilatae*. The calix is divided into five parts, with a nectarium at the base of each, the petals are roundish and unguiculated, the capsule contains three membranaceous alated seeds: There are seven species all natives of America, but possessed of no remarkable properties.

1. **B: OVATIS,** (*Acer Scandens* of Plum:) *Purple Banisteria* or *Climbing Maple*, a native of the West-Indies, some say of the U. States. It hath a woody, climbing stalk, which divides into many slender branches, and is covered with an ash-coloured bark; the leaves are pinnated, the pinnæ are five or six pair, of an oval figure, and whitish underneath, the flowers come out from the wings of the leaves in slender branches, of a purplish colour, and are succeeded by broad-winged seeds, which stand erect.

2. **B: BENGHALENSIS,** (*Acer Benghalensis* of Pluke.) *Bengal Banisteria*, hath a strong, woody, branching stalk, which twines about

trees or poles to the height of twenty feet, the leaves are oval, oblong, pointed, and grow opposite by pairs; the flowers are produced from the wings of the leaves in loose spikes, they are of a blue colour, and are succeeded by slender winged seeds.

3. B: LAURIFOLIA, *Bay-leaved Banisteria*, a Native of Jamaica, hath a woody, branching stalk, twisting about any thing near for support; the leaves are oval, oblong, rigid, resemble much those of the Bay-Tree, and grow opposite to each other; the flowers come out from the ends of the branches, in long branching loose spikes of a yellow colour, succeeded by winged seeds like those of Sycamore.

4. B: ANGULOSIS, (*Acer Scand: folio Anguloso of Plum: Clematis Anguloso of Ray*) *Angular-leaved Lanisteria*: The stalk is woody, branching, and like the foregoing twines about contiguous trees for support; the leaves are nearly angular, and hollowed on the sides; the flowers are produced in slender bunches from the wings of the leaves, and are succeeded by seeds, much like those of the common Maple tree.

5. B: DICHOTOMIS, *Dichotomous or Forked Banisteria*, a native of the warmer parts of America; the stalk is woody, climbing, with the branches forked and divided by pairs, the leaves are oval, and opposite; the flowers are produced in branching spikes, from the sides of the branches, and are yellow, succeeded by slender-winged seeds.

6. B: TOMENTOSIS, (*Triopteris Americana of Pluke:*) *Shining-seed'd Banisteria*, a native of the West-indies; the stalk is similar to the others; the leaves are oval, smooth, and downy underneath; the flowers come out in roundish bunches, from the wings of the branches, they are of a yellow colour, and are succeeded by large shining gold-coloured seeds.

7. B: BRACHIATIS, *Brachiated Banisteria*, a native of America, the stalk of which is woody, and divided into many branches, which are again divided into others, and are possessed of tendrils, by which they lay hold on trees and arrive to a considerable height: the leaves are nearly oval, pointed, and of a firm substance; the flowers are produced from the ends of the branches in loose spikes, first of a golden yellow colour, but die to a scarlet, and are succeeded by thin, slender seeds.

*Note.* These are all propagated in stoves from the seeds, first sown in pots as soon as they are ripe, and in the spring, plunged into a good hot-bed to bring them up; when about four inches high, they must be put in separate pots and again plunged into a hot-bed, where they must be kept shaded and watered till they have taken root; air must then be introduced to them by degrees, and more frequently watered, especially in hot weather; in the autumn they must be removed to the stove, and plunged up to the rims in the bark bed.

BANKSIA, (in honor of Sir Charles Banks) a genus of the Tetrandria Monogynia class; the amentum is scaly; the corolla consists of four petals; the anthers are in the cavity of the foids, and the capsule is bivalvular; the seed is solitary, and bipartite. There are four species.

1. B: SERRATA. 2. B: ERIDAEFOLIA. 3. B: DENTATA.  
4. B: INTEGRIFOLIA, all natives of New Holland.

BARBADOES CHERRY. See *Malphigia*.

BARBADOES FLOWER FENCE, or *Spanish Carnation*. See *Poinciana*.

BARBALIA, a genus of the Didynamia Angiospermia class; the calix consists of four divisions; the capsule is quadrangular, with two elastic valves, and two seeds. There are six species, of which we have no particular accounts.

BARBERRY. See *Berberis*.

BARDANA, or *Burdock*. See *Arctium*.

BARILLA, a plant cultivated in Spain, for the sake of the salt produced by its ashes, from which the purest kinds of alkali are obtained; there are four plants, which in the early part of their growth bear so strong a resemblance to each other as would deceive a common observer: These are termed, 1 *Larilla*, 2 *Guazul* or *Alguazul*, 3 *Soza*, 4 *Salicor* or *Salicornia*. They are all burnt to ashes but applied to different uses, as their qualities are somewhat different. See *Kali* and *Salicornia*.

BARK JESUITS, or *Peruvian*, called also *Cinchona*, *Kina Kina*, *Quinquina*, &c. See *Cinchona*.

BARK CASCARILLA, called also *Eleutheria*. See *Croton*.

BARLERIA, *Snaph Dragon*, a genus of the Didynamia Angiospermia class, ranking in the 40th Natural Order, *Personata*; the calix is divided into four parts; two of the stamina are much less than the rest. The capsule is quadrangular, bilocular, bivalved, elastic, and without claws, and the seeds are two. There are ten species, all natives of the warm parts of America, but possess no great beauty nor any remarkable property, though kept in some gardens. Named in honour of Jacobus Barlier, of Paris.

1. B: ENSIFORMIS, (*Anchusa Angustifolia* of Pluke.) *Long leaved Barleria*, by some writers termed *Snaph Dragon*, an exotic plant, and native of the Indies; the stalk is upright, square jointed, and about three or four feet high, the leaves are long, narrow, sword-shaped, and rough; the flowers come out in whorls round the stalks, having six sharp spines under each whorl; they are of a blue colour, and blow in July.

2. B: ACULEATA, *Solanum leaved Barleria*, a native of America, it hath a stalk about a yard high, upright, square and thorny; the leaves are oblong, entire and grow two at a joint; the flowers come out in whorls round the stalks, and are also blue.

3. B: AMERICANA, *Box-leaved Barleria*, hath an upright ligneous stalk, armed with single spines growing opposite each other; the leaves are small, oblong, entire, and resemble those of *Box*; the flowers are produced from the tops of the stalks in July.

4. B: COCCINEO, *Scarlet Barleria*, a native of America, hath an upright stalk, without thorns, the leaves are oval, indented and grow on footstalks; the flowers are of a beautiful scarlet colour and blow with the former.

5. B: INTEGERRIMUM, *Crested Barleria*, a native of India, hath a round, taper woody stalk, a yard or more high; the leaves are oval, oblong, acute at both ends, and entire at their edges; the blue flow-



ers come out about the same time with the others from the wings of the leaves, sitting close to the stalks.

5. B: QUATERNIS, (Melampyro of Pluke. Prionitis of the Hort. Cliff.) *Prionitis*, also a native of India; the stalks attain a height of four or five feet, are upright and slender, the leaves are oval, pointed, and opposite, attended by four long spines placed crosswise; the flowers are produced from the tops of the stalks, but they rarely show themselves.

These are stove plants, the latter is propagated by parting the roots, planting them in pots, and plunging them into the bark bed in the stove; the others are propagated from seeds sown in a hot bed, and treated in the same manner as the *Banisteria* and other stove plants.

BARLEY. See *Hordeum*.

BARLEY BIG. See *Bere*.

BARNADESIA, a genus of the Syngenesia Polygamia *Æqualis* class; the calix is naked, imbricated and pungent; the corolla is radiated, the pappus of the rays feathery, of the disc bristly and retrofracted. There is but one species a native of America.

B: SPINOSA, *Thorny Barnadesia*, of which I have seen no other account.

BARRERIA, a genus of the Pentandria Pentagynia class; the calix has five divisions, and the petals five, with long filiform claws; there is but one species.

B: CAPENSIS, (Erica Capitala of Pluke.) *Barreria*, or *Æthiopian Heath*, a native of *Æthiopia*; it hath a woody stalk, which sends out several erect, hairy branches from the sides, and grows to two or three feet high; the leaves are oval, spear-shaped, undivided, possessed of white hairs, especially near the edges, and grow alternately: the flowers are produced in small heads from the ends of the branches, but generally fall off without being succeeded by fruit in England. It is a green-house plant, and is propagated from slips or cuttings, set in good garden mould, covered with mats, and duly watered. They are to be gradually hardened to the open air.

BARRINGTONIA, a genus of the Monadelphia Polyandria class; the characters of which are, the calix diphyllous above, with a drupa, which it crowns, and the seed is a quadrilocular nut; there is but one species known: The B: SPECIOSA, a native of China, and Otaheite.

BARTRAMIA, (so named in honor of our venerable Bartram, by Hedw.) a genus of the Cryptogamia Musci class of plants; the peristomium is double, the exterior is wedge-shaped, and indented, the interior membranaceous, plaited and keeled, the lips are jagged; of this genus of Mosses, Michaux enumerates two species, both natives of Carolina, viz.

1. B: VULGARIS, *Common Bartramia*, a native of Carolina; it is decumbent, bending, and lightly branched, the leaves are bristly, awl-shaped, sawed, and variously bent. The other—2. B: LONGISETA.

BARITSEA, *Painted Cup*, a genus of the Didynamia Angiosperma class, ranking in the 40th Natural Order, *Personata*; the

calix is bulbous, that is, has two coloured emarginated lobes; the corolla is less coloured than the calix, with its upper lip longer than the under one, and the capsule has two cells. There are four species.

1. B: *VISCOSA*, *Yellow*, or *Marshy-eyebright Cow-wheat*, or *Painted Cup*, an annual, and native of Britain. It attains the height of ten or twelve inches, has an erect stalk, downy and unbranched, the leaves are sessile, spear-shaped, or moderately broad; serrated and a little viscous; the flowers are small, yellow, and come out from the sides of the branches almost the whole length, they blow in July. The plant dries black:

2. B: *ALPINA*, *Mountain eyebright Cow-wheat* is a perennial and native of Britain, hath heart-shaped leaves, placed opposite, and bluntly serrated. It produces red or purple blossoms, in leafy spikes. Sheep and goats eat it.

3. B: *COCCINEA*, *Virginian Bartsia*, a perennial and native of New-England, Florida, and according to others, of Carolina; the stalks are slender, herbaceous, and about eighteen inches high, the leaves are narrow, have two indentures on each side, and grow alternately; the flowers come out in spikes from the tops of the stalks, and are of a pale red colour—a variety of this species is called B. Pallens.

4. B: *PALLIDA*, *Pale Flowered Bartsia*, a native of Canada, hath alternate linear leaves undivided; the flowers terminate the stalks in spikes, and are of a pale colour. These are not admitted into Gardens.

BASE ROCKET. See *Reseda Lutea*.

BASE TREE TREFOIL. See *Cytissus*:

*BASELLA*, *Climbing Nightshade*, from Malabar, a genus of the Pentandria Trigynia class, ranking in the 12th Natural Order, *Holoraceæ*; it has no calix; the corolla has six (some say seven) divisions, with the two opposite divisions broader. There is but one seed in the capsule. There are three species.

1. B: *RUBRA*, *Red-leaved climbing Nightshade*, a native of Malabar; this plant will climb to the height of ten or twelve feet, provided it is kept in a stove: It has roundish heart-shaped leaves, and simple footstalks; the stalks and leaves are thick, strong and succulent; the flowers have no great beauty, but it is cultivated on account of the odd appearance of its stalks and leaves.

*Domestic uses.* In India the berries are used for staining calicoes, as a pigment, they are however not durable. Mr. Miller is of opinion that a method of fixing the colour might be invented, which would render it an useful plant. And it is apprehended this might be accomplished by means of a solution of tin in Aqua Regia, which is known to have a surprizing effect in brightening and giving durability to other vegetable dyes. There is a variety of this species with green stalks and leaves and the flowers of a whitish green colour, tipped with purple.

2. B: *ALBA*, *White climbing*, or *White Malabar Nightshade*; this plant climbs to a considerable height, and sends forth a great number of branches; it has oval, flaccid and waved leaves, and white flowers; the flowers and fruit smaller than the foregoing.

5. B: LUCIDA, *Shining Malabar Nightshade*, of which we have no particular description—they are easily propagated from cuttings, or from seeds, and attended as other stove plants.

BASIL-SWEET. See *Ocimum*.

BASSAD, or BESH, the Arabian name for the *Fucus Purpurea*.

BASSIA, a genus of the Dodecandria Monogynia class of plants, the calix has four leaves, the corolla eight divisions, with the tube inflated, the stamina are 16, and the drupa contains five seed.—

There is but one species; the B: Longifoli, a native of Malabar.

Of this genus I have not discovered any farther accounts.

BASTARD ALOE. See *Aletris*.

BASTARD AMERICAN SANICLE. See *Metilla*.

BASTARD BAUM. See *Mitris*

BASTARD CHICKWEED. See *Bufonia*.

BASTARD CHRYSANTHEMUM. See *Silphium*.

BASTARD CRESS. See *Thlaspi*.

BASTARD CUDWEED. See *Micropus*.

BASTARD CYPRESS. See *Schoenus*.

BASTARD FEVERFEW. See *Parthenium*.

BASTARD FLOWER FENCE. See *Adenanthera*.

BASTARD GENTIAN. See *Sarothra*.

BASTARD GUAIACUM, or *Carolina Blue Trumpet Flower*. See *Bignonia Caroliniana*.

BASTARD HARES EAR. See *Phyllis*.

BASTARD HAWKWEED. See *Crepis*.

BASTARD HEMP. See *Datisca*.

BASTARD HEMP AGRIMONY. See *Ageratum*.

BASTARD HOUSE LEEK. See *Aizoon*.

BASTARD JASMINE. See *Cestrum*.

BASTARD INDIGO. See *Amorpha*.

BASTARD LYCHNIS. See *Phlox Lichnidea*.

BASTARD MALLOW. See *Malope*.

BASTARD MILK VETCH. See *Phaca*.

BASTARD MUSFARD. See *Cleome*.

BASTARD ORPINE. See *Andrachne*.

BASTARD PARSLEY. See *Caucalis*.

BASTARD RICINUS, or *Tallow Tree*. See *Croton*.

BASTARD ROCKET *Dyer's Weed*, or *Wild Wood*. See *Résca*.

BASTARD STAR OF BETHLEHEM. See *Abuca*.

BASTARD STONE PARSLEY. See *Sison*.

BASTARD SUN FLOWER. See *Helentium*.

BASTARD TOAD FLAX. See *Thesium*.

BASTARD TOWER MUSTARD. See *Arabis*.

BATCHELOR'S BUTTONS. See *Lychnis* and *Gomphrena*.

BATIS, a genus of the Dioecia Tetrandria class of plants; the calix and corolla are both wanting; the amentum, or catkin of the male is imbricated, or tiled four ways, and the amentum of the female is ovate, or egg-shaped; the involucreum or cover consists of two leaves, calix and corolla also wanting; the stigma is bilobate, or consists of two lobes, and is sessile; that is, without filaments; the berries are coadunate, growing together, and are four

seeded. There is but one species. The B: MANTIMA, a native of Jamaica.

BATTATAS, the Indian name of the Potatoe. See *Convolvulus*.

BATSCHIA, a genus of the Pentandria Monogynia class of plants; the calix is divided into five parts, the segments linear, erect, and pointed; the corolla is salver-shaped erect, and longer than the calix. There are two species enumerated by Michaux, as indigenous, and which it appears he has separated from the genus of *Lithospermum*, or *Gromwell*.

1. B: CAROLINIANA, (Gmelini of Mich.) *Carolinian Batschia*, the stalk is firm and upright, the stem leaves are oblong, those toward the extremity are smaller, and somewhat hairy; the flowers come out from the ends of the stalk, are white, and the borders are five cleft and orbicular. It grows in the open woods of Carolina.

2. B: CANESCENS, *Hoary Batschia*, grows naturally in Tennessee, hath a small upright stalk, with oblong leaves; the upper part of the stalk and leaves are soft, whitish, and hairy, the flowers terminate the branches in the same manner with the foregoing. See *Lithospermum*.

BAUHINIA, *Mountain Ebony*, a genus of the Decandria Monogynia class, ranking in the 33d Natural Order, *Lomentaceæ*; the calix has five divisions, and is deciduous; the petals are open, oblong, and inserted by claws into the calix; the capsule is a legume. There are eight species—named in honor of the Bauhines.

1. B: ACULEATA, *Prickly Stalked Mountain Ebony*, called in America the *Savin Tree*. This tree is very common in Jamaica, where it rises to the height of 16 or 18 feet, it has a crooked stalk, prickly, and divides into many irregular branches, armed with strong short spines, garnished with compound winged leaves, each having two or three pair of lobes, ending with an odd one, which are oblique, blunt, and indented at the top; the stalks are terminated by several long spikes of yellow flowers, which are succeeded by bordered pods, about three inches long, containing two or three swelling seeds.

*Sensible properties.* The pods are glutinous, and have a strong balsamic scent, as hath the leaves when bruised; it is called in America the *Savin Tree*, from its strong odour, somewhat resembling *Savin*. I know nothing of its Medical virtues.

2. B: TOMENTOSA, *Downy Mountain Ebony*, is a native of Campeachy, and rises to the height of 12 or 14 feet, with a smooth stem dividing into many branches, garnished with heart shaped leaves, having two smooth pointed lobes; the extremity of every branch is terminated by a long spike of yellow flowers, mixed with white, so that when these trees are in flower they make a handsome appearance.

3. B: ACUMINATA, *Acuminated Mountain Ebony*, is a native of both the Indies, and rises with several pretty strong upright smooth stems, sending out many slender branches, garnished with oval leaves, deeply divided into two lobes; the flowers come out at the extremity of the branches, three or four in a loose bunch, some of the petals are red, or striped with white, but others are plain upon the same branch; the stamina and style are white, and stand out beyond

the petals; these flowers are succeeded by long pods of a dark brown colour, each containing five or six roundish compressed seeds; the wood of this tree is very hard, and veined with black, whence its name, Mountain Ebony.

4. B: VARIEGATA, *Variiegated Mountain Ebony*, is also a native of both the Indies; it rises with a strong stem, upwards of 20 feet high, dividing into many strong branches, garnished with heart-shaped leaves, having obtuse lobes, which close together; the flowers are large and grow in loose panicles at the extremity of the branches; they are of a purplish red colour, marked with white and have a yellow bottom; the flowers have a very agreeable scent, and are succeeded by compressed pods, about six inches long, and three quarters of an inch broad, containing three or four compressed seeds in each.

5. B: DIVARICATA, *Branching Mountain Ebony*, is a native of Jamaica; it is a low shrub, seldom rising more than five or six feet high, but divides into several branches, garnished with oval leaves, dividing into two lobes that spread out from each other, the flowers grow in loose panicles at the end of the branches, are of a white colour, and agreeable scent; the flowers appear the greatest part of the summer, and are succeeded by taper pods about four inches long, each containing four or five roundish, compressed seeds of a dark colour.

6. B: CIRRHIFERO, *Climbing Mountain Ebony*, a native of Malabar, Amboyna, and Cumana; the stalks are slender, and possessed of tendrils, to assist them to climb to great height; the leaves are heart-shaped, deeply cut into two pointed lobes, and grow alternately on long footstalks. The flowers very rarely show themselves in England.

7. B: PARALLELIS, *Unguiculated Bauhinia*, grows naturally in America, hath a robust, woody stem, which divides irregularly into many branches; the leaves are oval, oblong, and divided into two lobes that run parallel to each other; the flowers come out from the ends of the branches, are very numerous and appear great part of summer.

8. B: SUBCORDATIS, *Purple Bauhinia*, grows naturally in the sandy parts of India: This hath a firm, woody, branching stem; the leaves are nearly heart-shaped, divided into two rounded lobes, and are downy on their under side; the flowers are of a reddish purple colour. All the species are propagated by seeds sown on hot-beds.

BAUM. See *Melissa*.

BAY PLUM. See *Psidium Guajaca*.

BAY TREE. See *Laurus*.

BEAD TREE. See *Melia Azadirachta*.

BEAN, the Case Knife. See *Dalichium*.

BEAN. See *Vicia*.

BEAN CAPER. See *Zigophyllum*.

BEAN, THE KIDNEY. See *Phaseolus*.

BEACH SUMACH. See *Rhus Corallina*.

BEAR'S BREECH. See *Acanthus*.

BEAR'S FOOT, SETTERWORT, FOETID HELLEBORE  
or OXHEEL. See *Helliborus*.

BEAR'S WHORTLE BERRIES. See *Arbutus*.

BECCABUNGA, the trivial name of a species of *Veronica*.

BEECH TREE. See *Fagus*.

BEE FLOWER. See *Ophrys*.

BEEF. See *Beta*.

BEFARIA, (of Michaux) a genus of the Dodecandria Monogynia class of plants; the calix is divided into seven parts, the petals are seven, the stamina are fourteen in number, the capsule hath seven cells, and the seeds are many. There is but one species.

B: PANICULATA, grows naturally in the sandy lands of Florida; it is a handsome shrub that attains a height of three or four feet, hath an erect stalk, somewhat branching towards the top; the stalk is very bristly and clammy to the touch; the leaves are lance-shaped, oval, and smooth; the flowers terminate the stalks in panicles of a dilute azure colour, and of a smell approaching the rose, are succeeded by globular depressed seed vessels containing many seeds.

BEGONIA, a genus of the Polygamia Monoecia class, ranking in the 12th Natural Order, *Holoraceæ*; the hermaphrodite flower has no calix; the corolla has five petals, it has many stamina, and three styli; the male has likewise no calix, the corolla has four petals, and has likewise a great many stamina. There is but one species.

*Note.* This genus was established by Plumier, and published in 1700, by Tournefort; it has been since ranged differently by other Botanists—Jussieu terms it "*Genus nulli vera affine*;" its species have likewise been very imperfectly established; but from remarks offered to the Linnæan Society by Mr. Dryander, one of the fellows thereof, there appears to be 21 species, to some of which he gives the specific characters, synonyms; and in several instances the description to which he has added a list of eight obscure or mistaken species. They grow in Asia and America; but with respect to other particulars we are at a loss.

BEHEN. See *Cucubalis*.

BELL FLOWER. See *Campanula*.

BELL WEED. See *Jucea*.

BELLADONA LILY. See *Amaryllis*.

BELLADONA, the trivial name of a species of *Atropa*.

BELLIS, the *Daisy*, a genus of the Syngenesia Polygamia Superflua class, ranking in the 49th Natural Order, *Compositæ Discoides*; the receptacle is naked and conical, it has no pappus; the calix is hemispherical, with squamæ of an equal size, and the seeds are oval; there are three species, and several varieties, Michaux enumerates one as indigenous in America.

1. B: PERENNIS, *Common Daisy*, a perennial plant, which abounds in meadows and pastures, and is in flower from March to September; this species has a naked stalk, with one flower.

The Rev. Mr. Hanbury, in writing of the *Daisy*, observes "What sheets of these flowers are presented to our view, the beginning of May! How enchanting the sight which Nature displays at that season! Amazing as it is, it is too often disregarded by the toiling

Peasant, and the admirer of Nature's works is principally exhilarated by such a scene : He, at once sees in it the dignity of appearance, and the greatness and goodness of the Author, in so pleasing, as well as wonderful manner, thus clothing the fields, and is naturally led to thanksgiving and praise, as in the Hymn of Eve :

How chearful along the gay mead,  
The Daisy and Cowslip appear ;  
The flocks, as they carelessly feed,  
Rejoice in the spring of the year.

The Myrtles that shade the gay bowers,  
The herbage that springs from the sod ;  
Trees, plants, cooling fruits and sweet flowers,  
All rise to the praise of my God.

Shall man, the great master of all,  
The only insensible prove ?  
Forbid it, fair Gratitude's call—  
Forbid it, devotion and love.

The LORD, who such wonders can raise,  
And still can destroy with a nod ;  
My lips shall incessantly praise,  
My soul shall be wrapt in my God.

*Part used.* The leaves and flower buds, and sometimes the roots.  
*Sensible properties.* Subtle, acrid taste.—Roots pungent.

*Medical virtues.* The Medical virtues of this plant, according to Bechstein, and other celebrated writers, entitle it to rank among the first medicinal simples, as according to the former, several consumptive persons have been completely cured with the flower buds, by stuffing young chickens with these buds, without any other ingredients, then stewing them in unsalted beef tea, or broth, adding a little fresh butter, allowing the patient for three weeks no other food, but the medicated dish thus prepared ; it affords at first a delicious repast, it is certainly well worth the trial, as consumptive cases so frequently occur. It is also recommended as a vulnerary, and in asthmas and hectic fevers. The roots are in high repute abroad, as a vulnerary, attenuant, cooling and astringent medicine :—Nevertheless, but little attention has as yet been paid to it in this country, except on account of its flowers, it has been introduced into some gardens.

2. B: *ANNUA*, *Annual Daisy*, a native of the Alps, and the hilly parts of Italy ; it seldom rises more than three inches high, has an upright stalk, garnished with leaves on the lower part, the upper part is naked, and supports a single flower like that of the common Daisy, but smaller.

3. B: *HORTENSIS*, *Garden Daisy*. This species bears a large double flower, which blooms in April and May, and forms a beautiful border in gardens :—The varieties are the Red and White Garden Daisy, the Double Variegated Garden Daisy, the Childing, or Hen and Chicken Garden Daisy, by some called Proliferous Daisy, and the Coxcomb Daisy, with red and white flowers. They are propagated by parting the roots.

**BELLIS MAJORIS.** See *Chrysanthemum*.

**BELLONIA**, (in honor of Petrus Bellonius) a genus of the Pentandria Monogynia class; the calix is a monophyllous permanent perianthium cut into five spear-shaped segments; the corolla is rotated, the capsule is oval, turbinated, and consists of one cell, inclosing many seeds. There is only one species known, viz.

**B:** **FRUTESCENS**, *Shrubby Bellonia*, a native of the warm Islands of America, having a woody stem, which sends forth several branches from the sides, and attains a height of ten or twelve feet; the leaves are oval, rough, serrated, and grow opposite each other on short footstalks; the flowers come out in roundish bunches from the ends and sides of the branches. It is a stove plant, and is propagated by cuttings planted in rich light earth, or by seeds; either way they require the hot-bed to facilitate their growth.

**BELVIDERE.** See *Chenopodium*.

**BENE**, or *Benny Bush*. See *Sesamum*.

**BENJAMIN.** See *Benzoin* and *Styrax*.

**BENT GRASS.** See *Agrostis*.

**BENZOIN**, a concrete resinous juice obtained from a species of *Styrax*.

**BERBERIS**, the *Barberry* or *Piperidge Bush*, a genus of the Hexandria Monogynia class; the calix consists of six leaves, the petals are six, with two glands at the unguis, it has no stylus, and the berry contains two seeds: There are three species.

1. **B:** **VULGARIS**, (*Spina acida* of Gerard) *Common Barberry* an indigenous plant which grows spontaneously in woods and hedges on the Congaree, Wateree, and other Rivers of South Carolina. In England it is cultivated in gardens for its fruit, which makes a good pickle, and is used for garnishing dishes; it rises to the height of eight or ten feet, with many stalks, which have externally a white or ash coloured bark, but of a deep yellow inside, the stalk and branches are thorny, which commonly grow by threes, the leaves are oval and obtuse, with slightly serrated edges; the blossoms grow at the wings of the leaves in small bunches like those of the Currant Bush; these are succeeded by oval fruit which are first green, but when ripe turn to a fine red colour; the flowers, which are yellow appear in May and June, and the fruit ripens in September. There are two or three varieties of this species, which by some have been mistaken for a distinct species:—One is the Barberry, without stone, another the Barberry, with white fruit, and the third is called by Tournefort, *Faller Eastern Barberry*, with a black sweet fruit.

*Part used.* The bark and fruit.

*Sensible properties.* The outer bark of the branches and leaves have an astringent acid taste, the inner yellow bark a bitter taste; the berries acid and moderately astringent; the flowers are offensive to the smell when near, but at a distance their odour is extremely fine.

*Medical virtues.* Barberries, on account of their astringent properties, have occasionally been prescribed in bilious diarrhoeas, and



diseases proceeding from heat, acrimony or thinness of the juices, in malignant fevers for abating heat, quenching thirst, raising the strength and resisting putrefaction, and when employed for these purposes the fruit is macerated for a day and night in about twelve times its quantity of water, with the addition of a little fennel seed or the like, to prevent offence to the stomach. The liquor strained off and sweetened with sugar or syrup of Citron is given the patient liberally to drink. An infusion of the bark in white wine is purgative—in Carolina an infusion of the bark in brandy is used by the Farmers for Jaundice, Levers, &c. with very good success.

*Domestic uses.* In distillation the berries previously bruised and mixed with the gream is said to increase the quantity of spirituous liquors. The roots boiled in ley imparts a yellow colour to wool, and in Poland leather is tanned of a beautiful yellow with the bark of the root; the inner bark also with the addition of alum has been employed for dying linen yellow—The effect of this shrub upon wheat land is truly singular, when growing in hedges near the wheat fields it changes the ears to a dark brown colour and prevents them from filling, nay, its influence in this respect has often extended across a field to the distance of three or four hundred yards. It is eaten by cows, sheep and goats, but rejected by swine.

2. B: CANADENSIS, *Canadian Barberry*, a native of Canada, the leaves are much larger, i. e. broader and shorter than the common sort, and the fruit is black when ripe; this species was formerly more common in British gardens than the foregoing.

3. B: CRETICA, (*Lycium Creticum* of Alpinus) *Box-leaved*, or *Cretan Barberry*; this species is very rare in Britain, the plants being very tender while young are soon killed by frost; it seldom rises more than three or four feet high, but sends out many stalks from the root, which are strongly armed with spines at every joint; the leaves are produced without order, and are shaped like those of the narrow leaf box tree; the flowers come out from between the leaves each having a slender footstalk, but are not succeeded by fruit in Britain.

BERE, *Barley big*, or *Square Parley*. See *Hordeum*.

BERMUDIANA, a synonyme of the *Ixia*.

BERMUDIAN MULBERRY. See *Callicarpa Americana*.

BERNARDIA, a synonyme of the *Adelia*—named in honour of Dr. Bernard de Jussieu. See *Adelia*.

BERRY BEARING CHICKWEED. See *Cucubalus*.

BESLERIA, (in honor of Basilius Besler of Nuremberg) a genus of the Didynamia Angiosperma class, ranking in the 40th Natural Order *Personata*; the calix is divided into five parts, and the berry globular and contains many seeds. There are three species, natives of America.

8. B: MELLITIFOLIA. *Baulm-leaved Besleria*, hath a ligneous smooth jointed stalk, the leaves are oval, nervose, crenated and grow opposite to each other at the joints, the flowers come out from the wings of the leaves on branching footstalks, and blow in July and August.

2. B: *LUTEA*, *Yellow Besteria*, this species has footstalks growing in clusters, and spear-shaped leaves, veined on their under side and serrated on the edges, the flowers are produced singly from the wings of the leaves, (though as before observed the footstalks grow in clusters) they are small and yellow, and are succeeded by soft round berries enclosing the seeds; the stalks of this species attains a height of seven feet, is ligneous, branching, and towards the top irregular.

3. B: *CRISTATA*, *Cristed Besteria*; the stalks of this species lie on the ground and strike root at the joints, the leaves are oval, serrated, veined, and grow opposite to each other on short footstalks, the flowers come out on single footstalks from the wings of the leaves, they are of an irregular shape, hairy on their outside, and have a large five leaved involucre, the berries that succeed them are of a black colour when ripe—they are stove plants, and are raised from seeds sown in light rich earth, &c.

**BETA**, the *Beet*, a genus of the Pentandria Digynia class, ranking in the 12th Natural Order *Holoracea*; the calix has four leaves, it has no corolla, the seeds are kidney-shaped, and are situated within the base of the calix. There are four species.

1. B: *MARITIMA*, or *Sea-Beet*, which grows spontaneously by the sea-side, and in salt marshes in many parts of England.

2. B. *HORTENSIS*, or *Common White Beet*, is cultivated in gardens for its leaves, which are frequently used in soups, the root of this sort seldom grows larger than a man's thumb, the spikes of flowers come out from the wings of the leaves, which are long and have narrow leaves placed between the flowers, the lower leaves are thick and succulent, and their footstalks broad—This species has several varieties—the *White Beet*, the *Green Beet*, and the *Swiss*, or *Chard Beet*, these will vary from one to the other, but have never been found to change to the first or third sort.

3. B: *VULGARIS*, or *Red Beet*, this species is well known and often used in pickling; it has a pyramidal root, large, thick, succulent leaves, which are for the most part of a dark green or purple colour, the roots of this species are large and of a deep red colour—the larger they grow the tenderer they are, and the deeper their colour the more they are esteemed. The varieties of this species are the common *Red Beet*, the *Turnip-rooted Beet*, and the *green-leaved Red Beet*.

4. B: *CICLA*, or *Root of Scarcity*, grows wild on the banks of the Tagus in Portugal, it is originally a small white root, but there is a variety of it called by the Germans *Runkelrube*, (or the *Beta Albissima* of Botanists.) The culture of which cannot be too strongly recommended—the stalk of the latter grows to the height of seven or eight feet, and the root weighs from 8 to 12 pounds; this variety of the *Root of Scarcity* is the true *Mangel Wurzel*, which some years since excited so much attention in Britain, though there is reason to suppose that other species of the *Beet* have been mistaken for the *Beta Albissima*, the root of which is white and juicy, and streaked with red fibres.

*Parts used.* The root and leaves.

*Medical virtues.* Decoctions of Beets gently loosen the belly, hence they have been ranked among the emollient herbs, and the juice ex-

pressed from the roots is a powerful emine—the plants after boiling are said to produce costiveness.

*Domestic uses.* From the first and third species some German chemists have extracted sugar, but the difficulty and expence attending the process will not justify the attempt. The root of the red Beet is sometimes employed to improve the colour of Claret wine. The roots of all the species affords excellent food for cows, whose milk and cream receives a delicious flavour therefrom, it produces abundance of leaves which are greatly relished by horses, sheep, cows and hogs—for the two last animals however it is necessary to cut them off the plant, as they are said to refuse eating the herbage from the plants—they are dressed on the continent and eaten as spinage, and the roots are used for pickling.

**BETEL**, or **BETLE**, a species of pepper, an Indian plant of great esteem and use in the East, where it makes a considerable article of commerce. See *Piper*.

**BETONICA**, *Betony*; a genus of the Didymia Gymnospermia class, ranking in the 42d Natural Order *Verticillata*, the calix is awned; the upper lip of the corolla is ascending and flattish, and the tube is cylindric. There are five species enumerated, though only three are said to belong to it.

1. B: **OFFICINALIS** *Purple or wood Betony*, is a low perennial plant, growing in woods and shady places, where it is found in abundance, the stalk is four square, the leaves large, broad and hairy, the purplish flowers come forth in June and July, and stand in spikes on the top of the stalks—the varieties of this species are, the Purple, the Red and the White flowered Betony:

*Part used.* The leaves and flowers.

*Sensible properties.* An herbaceous, roughish, somewhat bitterish taste, accompanied with a very weak aromatic flavour.

*Medical virtues.* Experience does not discover any other virtues than that of a mild corroborant; as such, an infusion, or a light decoction of it may be drank as a tea, or a saturated tincture in rectified spirits given in suitable doses, in laxity and debility of the viscera, and disorders proceeding from thence—it is remarkable that the root of this plant differs in quality from the other parts, their taste is bitter and and very nauseous, taken in a small dose, they vomit, and purge violently, and are supposed to have somewhat in common with the roots of Hellebore—the powder of the leaves snuffed up the nose provoke sneezing, and it is said by Paulli and Bartholinus that Betony affects those who gather any quantities of its leaves and flowers with a disorder resembling drunkenness.

*Domestic uses.* The plant has been substituted for oak bark in tanning, and the leaves and branches when in blossom may be used for dyeing wool of a permanent dark colour, when previously dipped in a weak solution of Bismuth.

*Note.* Neither Walter nor Michaux mention any thing of the Betony. I have been repeatedly informed it was a native of the United States, and particularly the foregoing, which in the Northern States, is considered as a valuable domestic medicine among the Farmers.

2. B: **ALPINA**, *Least Alpine, or Mountain Betony*, grows naturally on the mountainous parts of Italy, France and Austria; there are

several varieties, some of low growth, others with leaves nearly triangular, and shorter spikes of flowers. the colour of the flowers also is different—the most common is yellow, but there are also those with white and red flowers, which blow generally in June and July.

3. B: *ORIENTALIS*, *Eastern Betony*, with very long narrow leaves and a thick spike of flowers, the stalk is thick, square, of a pale green, and attains a height of about 18 inches, the leaves grow opposite by pairs, and from the bosom of these leaves arise a few flowers; growing in a large spike very close together, of a light purple colour, and blow in June.

4. B: *INCANA*, *Hoary Italian Betony*, with a flesh coloured flower.

5. B: *DANICA*, *Greater Danish Betony*—These two latter are probably only varieties of the others. They are all easily raised from seeds or dividing the roots, they love shade and a moist soil, in which they flourish finely. There are no peculiar properties attending the four last.

BETONICA AQUATICA. See *Scrofularia*.

BETONICA PAULLI. See *Veronica mas*.

BETONY. See *Betonica*.

BETULA, or *Birch Tree*, a genus of the Monoecia Tetrandria class ranking in the 50th Natural Order, *Amentaceæ*; the calix of the male flowers has but one trifid leaf, and encloses three flowers, the corolla consists likewise of one leaf cut into four segments; the calix of the female is trifid and incloses two flowers, and the seed is membranous and alated on each side, there are five species, of which several are natives of the United States, Michaux enumerates seven.

1. B: *ALBA*, *Common Birch Tree*, an indigenous tree, growing spontaneously in river swamps, creeks, and on the edges of mill-dams in South-Carolina and other parts; this species is not of large growth when spontaneous, but cultivated rises to a considerable height—there is a degree of elegance in its general appearance in summer, and the bark in winter is frequently variegated with red and white, it appears naturally to delight in a poor soil, and in bleak inhospitable situations, and is propagated either from seeds or layers, flourishing in almost any soil or situation.

*Medical virtues.* Of these but little is known with certainty farther than the juice or sap of the tree is esteemed an antiscorbutic. It is given in scurvy and other foulness of the blood, its most sensible effect is to promote the urinary discharge. Birch wine was formerly recommended as a remedy for nephritic disorders, consumptions and scurvy, but modern practice pays no attention to it.

*Domestic uses.* The flower catkins of this tree when boiled in water affords a good substitute for soap, a sugar is also prepared from the juice of the black Birch, though not equal in any respect to that obtained from the sugar Maple; a wine is also prepared from the sap, about the time the buds begin to swell, which is greatly esteemed by some persons.

The wood is converted into various uses in Europe, such as making carriage wheels, wooden shoes, and shoe heels, also, packing-

boxes, brooms, hoops, &c. being a hard and durable wood; it makes good fuel, and produces excellent coal for forges. The bark seems incorruptible, and is very inflammable, and when twisted serves as a torch, it is also converted into ropes, baskets and other utensils.

2. B: NANA, *Dwarf Birch tree*, a native of the United States, grows on moist heaths and rarely exceeds 3 feet in height, it has roundish leaves, tender branches, a smooth bark, and its flower catkins are uncommonly small, and is more common in the marshy parts of Russia, Sweden and on the mountains of Lapland and Norway, than in Britain.

*Domestic uses.* The Norwegians and Laplanders manufacture very beautiful carpets from its fibrous roots, and its leaves are said to produce a more delicate yellow colour than those of the common Birch.

3. B: LENTA, or *Canada Birch*, this grows to a timber tree, and attains a height of upwards of 60 feet, the leaves are heart-shaped, oblong, smooth, of a thin consistence, pointed and very sharply serrated, they differ in colour, and the varieties of this species go by the names of 1. Dusky Canada Birch. 2. White paper Birch. 3. Poplar-leaved Canada Birch. 4. low growing Canada Birch, &c.

*Domestic uses.* The inhabitants of Canada use the bark of these species, which is very light, tough and durable, for canoes, &c.

4. B: NIGRA, (*Alnus Nigra* baccif J. Baub.) *Black Virginia Birch*, or *Black berry bearing Alder*, will also attain a height of upwards of 60 feet, the branches are spotted and more sparingly set in the trees than the common sorts: the leaves are broader, grow on long footstalks, and add a dignity to the appearance of the tree—There are several varieties of this species also, as, 1. The broad-leaved Virginian Birch. 2. The Poplar-leaved Virginian Birch. 3. The Paper Birch. 4. The Brown Birch, &c.

5. B: ALNUS, or *Alder tree*, is properly speaking another species of the Canada Birch—This tree thrives, and is peculiar to swampy grounds—Its suckers and seedlings poison the herbage, and it is a well known fact that the roots of Alder have a peculiar property of rendering the soil they grow in more moist and rotten than it would be if not occupied by this aqueous plant.

*Part used.* The bark and catkins.

*Sensible properties.* Taste bitter, styptic.

*Medical virtues.* Alder is esteemed a highly useful medicine, and a well authenticated instance is on record of a boy having sore eyes, which apparently proceeded from a scrophulous cause, being effectually cured by drinking an infusion of the catkins or candles (called in Carolina Alder Tags) of the Alder tree; it is certainly a great purifier of the blood, a decoction of the bark of black Alder and Dogwood (*Cornus Florida*) is a common and successful remedy in the United States for intermittents—the roots of the (*Liriodendron Tulipifera*) or Tulip Poplar tree, and of the Sassafras are sometimes joined with the Alder and Dogwood—the internal bark of the black berry-bearing Alder root given to the quantity of a drachm purges violently, occasioning gripes, nausea and vomiting; these may be in a good measure prevented by the addition of aromatics—it is affirmed to be the most certain purge for horned cattle.

*Domestic uses.* The wood of this species is in great esteem in Europe, for machinery: the cogs for mill wheels, formed of it are said to be superior to any other, as it resists water powerfully, and hence is of great value for pump-trees, pipes, drains, conduits to reservoirs, piles under water, and all kinds of work kept constantly wet: In Flanders and Holland it is raised for that purpose; the bark is used by tanners and dyers; the shoots cut in March will dye a Cinnamon colour, and a fine tawney if they be dried and powdered; the fresh wood yields a dye the colour of rappee snuff—the catkins dye green, and the bark is also used as a basis for blacks. The varieties of this species are 1. the Long Leaved Alder—2. the White Alder—3. the Black Alder—4. the Hoary Leaved Alder—and 5. the Dwarf Alder.

BEXOQUILLO, a name sometimes given to the *White Hippo*.

BIBLUS, an aquatic plant in Egypt, called also papyrus; of the skin whereof the ancient Egyptians made their paper. See *Papyrus*.

BIDENS, *Water Hemp Agrimony*, a genus of the Syngenesia Polygamia Æqualis class, ranking in the 49th Natural Order, *Composita Oppositifolia*; the receptacle is paleaceous, the pappus has erect, scabrous awns, and the calix is imbricated. There are 13 species, of which none appear to be worth particular notice except the Tripartita.

1. B. TRIPARTITA, *Trifid Water Hemp Agrimony, Trifid Burr Marggold, Trifid Double Tooth Water Hemp, or Corn Agrimony*. (This species is the *Eupatorium Cannabina* of C. B.) This is an annual plant, growing in moist and watery places, and by the sides of ditches and lakes, in Europe, it grows to the height of two feet, and hath its leaves divided into three, or often five lanceolate, serrated, lobes, with yellow flowers, which are succeeded by flattish angular seeds, having two beards arising from the angles, which are hooked or hooked downwards; and generally they have another shorter beard arising from the middle of the back of the seed. It produces its flowers in the months of August and September.

*Part used.* The leaves.

*Sensible properties.* Acrid smell, a very bitter taste, with a considerable share of pungency.

*Medical virtues.* The leaves are recommended for strengthening the tone of the viscera, and as an aperient, and is said to have excellent effects in the Dropsy, Jaundice, Cachexies, and Scorbutic disorders—Boerhaave says that this is the common medicine of the turf diggers in Holland, against Scurvies, Foul Ulcers, and Swellings of the feet, which they are subject to. Mr. Lightfoot, in his *Flora Scotia*, says “As this plant is found by a Chemical Analysis to possess much the same qualities as the celebrated *Verbena*. *Acnella*, a plant belonging to a genus very nearly related to this, it is probable it would have the same good effect in expelling the stone and gravel.” The root is said to operate as a strong cathartic.

*Domestic uses.* The fresh and dried Herb with the addition of Alum, imparts a very bright yellow colour to wool; the yarn—or

cloth however should be washed and dried before it is immersed in the drying liquor, in which it ought to be boiled for two hours.

2. B: *BIDENS CORNUA*, *Who e-leaved Water Hemf Agrimony*, or *Niddling Marygold*, is possessed of similar properties with the foregoing; the leaves are whole, spear-shaped, and embrace the stalk with their base; the flowers are of a yellow colour and hang drooping,—this species attains a height of two or three feet, and blows in July or August.

3. B: *MINIMA*, *Least Water Hemf Agrimony*, grows naturally in ponds in Europe, it is a very small plant, with spear-shaped narrow leaves, which sit close to the stalks, without any footstalks; the flowers grow erect, and bloom with the others.

4. B: *NUDIFLORA*, *Indian Bidens*, a native of India, hath a very branching stalk, taper, and about a foot high; the leaves are oval, angularly indented, obtuse, smooth on the upper surface, hairy underneath, and placed in broadish footstalks on the branches; the flowers are yellow, and blow in June.

5. B: *CAPENSIS*, *Cape Bidens*, a native of the Cape of Good Hope, it is a small tender plant, with very narrow leaves; the flowers have four leaved cups, exceeding narrow footstalks, and are succeeded by seeds standing erect.

6. B: *CANADENSIS*, (*Froncosa* of Mich.) *Canada smooth leaved Bidens*, a native of the United States; the stalk is upright, firm and of a reddish colour, the leaves are pinnated, and composed of three or five smooth striated, serrated lobes; the flowers are yellow, have very leafy cups, and are succeeded by erect distant seeds.

7. B: *BARBATA*, *American Hairy Bidens*; this species hath a jointed, barbated, or bearded stalk; the leaves are pinnated, broad, and hairy; the flowers grow in a conical form in the disc, they have simple cups, and the seeds naturally diverge from each other.

8. B: *BIPINNATA*, *Bipinnated Bidens*, grows naturally in Virginia, Pennsylvania, and Carolina; there are several varieties of this species, the leaves of some are doubly pinnated, and those of others cut in greater multitudes of narrow segments; the flowers are connivent, and very often destitute of that great ornament, the rays; the seeds are very long and diverge from each other.

9. B: *NIVEO CAROLINIANA*, (*Ceratocephalus* of Vail.) *Snowy Flowered Carolina Bidens*, grows naturally in Carolina; it hath an upright, branching stalk, which attains a height of three feet; the leaves are of an oval, triangular figure, serrated, pointed, and grow opposite by pairs, on slender footstalks; the flowers are of a snowy white colour, they are formed into globular heads, growing on long slender footstalks, and are succeeded by smooth seeds.

10. B: *AMERICANA*, (B: *Polis Ovatis Serratis*, *Bulleted American Bidens*, rises with an upright stalk that sends forth many side branches to the height of about two feet; the lower leaves are of an oval figure, thick, bullated, i. e. blistered as it were, hairy, serrated and grow opposite by pairs at the joints; but those on the upper part are trifoliate, the middle lobe being very large, and the two side ones very small, the flowers grow singly from the wings of the leaves on very short footstalks, they are of a yellow colour, very small, and ap-

pear in July. The foregoing are all annuals, propagation of the first is never attempted in gardens, the others are best effected by sowing the seeds in a moderate hot-bed in spring.

11. B: *SCANDENS*, *Climbing Bidens*, a native of Vera Cruz, it hath a shrubby slender climbing stalk, that will grow to the height of ten feet; the leaves are of an oval figure, sharp pointed, and entire, grow opposite by pairs at the joints, the flowers are produced in panicles from the sides and ends of the branches; they are of a yellow colour, and blow in June or July.—This is a stove plant.

12. B: *CHRYSANTHEMOIDES* of Mich. (*Coreopsis Perfoliata* of Walt.) a native of Pennsylvania, and Carolina with smooth lance-shaped leaves, growing two and two, so closely, that they appear to be joined at the base; they are slightly serrated, the flowers are erect, of a gold yellow colour, with many rays.

*Note.*—I have not been able to trace the 13th species, unless the B: *Froncosa* of Michaux, is a distinct species from the 6, or B: *Canadensis*—which I however apprehend it is not.

**BIGNONIA**, (in honour of the abbe Bignon, Librarian to Louis XIV.) *Trumpet Flower*, or *Scarlet Jasmine*, a genus of the Didynamia

Angiosperma class, ranking in the 40th Natural Order, *Personata*; the calix consists of five segments and is shaped like a cup; the faux of the corolla is bell-shaped, and divided into five segments; the pod has two cells and the seeds are membranaceous. There are 17 species.

1. B: *CATALPA*, *Catalpa*, or *Catalpa Tree*, a native deciduous tree of the United States, Catesby says of Carolina, covered with a smooth brown bark, it hath a strong woody stem, and branches rising 20 feet high, and ornamented with large heart-shaped leaves, five or six inches long, and almost as broad, placed by threes; the flowers are produced in large branching panicles towards the ends of the branches; they are of a dark white, with a few purple spots, and faint stripes of yellow on their inside; the flowers are succeeded by long taper pods, from 9 to 14 inches in length, and of the size of a goose quill, containing many seeds, they are of a quick growth, and in summer afford a fine shade: many of them have been set in the vicinity of Charleston, by Radcliffe's Garden, on the road side, as far as the Ten Mile House, &c.

*Part used.* The leaves and pods.

*Medical virtues.* The Japanese, when affected with pains in any part of the body, lay the fresh leaves which are very large on the pained parts, and a decoction of the pods is esteemed serviceable in the Asthma, "Thunberg."

*Domestic uses.* Poultry are said to thrive on, and are fond of the seeds. The timber of the Catalpa tree, makes very durable fence posts, and alternated with the (*Pastigata*) or Lombardy Poplar, makes a handsome summer avenue, they are propagated from seeds.

2. B: *RADICANS*, *Scarlet Trumpet Flower*, or *Climbing Ash leaved Bignonia*, is a native of the United States, it rises 30 or 40 feet high, having pinnated opposite leaves, of four pair of serrated lobes, and an odd one; all the shoots and branches being terminated by beautiful clusters of large trumpet-shaped, scarlet flowers. The hum-



ning birds delight to feed on these flowers, and by thrusting themselves too far into them are sometimes caught. There is a variety of this species with smaller leaves and flowers, called the *Smaller Trumpet Flower*.

3. B: *SEMPERVIRENS*, *Evergreen Climbing Virginian Bignonia*, or *Carolina Yellow Jessamine*, a native of the United States, and the Bahama Islands; it is a beautiful vine rising with slender stalks, which twist themselves round the neighbouring plants and mount to a considerable height; the leaves grow from the joints, are single, and of a lanceolate figure, (though there is a variety with lanceolate leaves, growing from the joints, often four opposite) the flowers are trumpet shaped, erect, and of a yellow colour, proceeding from the sides and ends of the stalks and branches. It perfumes the air to a considerable distance when in bloom, which is commonly early in the spring. These are propagated from shoots.

*Note*.—It has been observed that the celebrated Jussieu, ranks this as a distinct genera, viz. *Gelsemium Nitidum*, and of the Pentandria Monogynia class: I do not however find any reference; Michaux only quoting the term on the authority of Jussieu, without any remarks of its having been heretofore considered under the present arrangement, which he generally does in such cases:—he, however does not enumerate this species in the Bignonia Genera, which should seem that he has referred it to *Gelsemium*.

4. B: *UNGUIS*, (*Gelsemium Indicum* of Sicone,) or *Clawed Bignonia*, a deciduous climber, is a native of Barbadoes, and the other West-India Islands, it rises by the help of claw-like tendrils, the branches being very slender and weak, and by these it will overtop bushes, trees, &c. 20 or 30 feet high, the branches however show their natural tendency to aspire, for they wind about every thing that is near them; so that, together with the assistance nature has given them of tendrils, it is no wonder they arrive at so great a height: these branches or rather stalks, have a smooth surface, are often of a reddish colour, particularly next the sun, and are very tough, the tendrils grow from the joints, they are bowed and are divided into three parts, the leaves grow in pairs at the joints, and are four in number at each; these are of an oblong figure, have their edges entire, and are very ornamental to the plant, for they are of an elegant green colour, their under surface is much paler than their upper; and their footstalks, midrib, and veins alter to a fine purple: the flowers are monopetalous and bell shaped, the tube is very large, and the rim is divided and spreads open; they grow from the wings of the leaves in August, usually at each joint, and are succeeded in their native climates by long pods. These are propagated by seeds, shoots, or settings.

5. B: *CAPREOLA*, or *Tendrill Bignonia*, a native of the United States, is another fine climber which rises by the assistance of tendrils or claspers; the leaves grow at the joints opposite by pairs, though those which appear at the bottom frequently come out singly, they are of an oblong figure, and continue in the plant all winter, the flowers are produced in August from the wings of the leaves,

they are of the same nature and shape as the former; are large, of a yellow colour, and are succeeded by pods, which are short.

*Note.* These are propagated by shoots, by cuttings, and by seeds.

6. B: CRUCIGERA, *Cross-vine*, so called from the pith dividing the stem longitudinally into four equal portions, so that when cut through transversely it exhibits the appearance of a cross. This species is also a native of the United States, and is by some called Carolina Sarsaparilla; the stalk grows very high and straight; the tendrils or claspers are very small, and are at the joints, these joints are scarcely perceptible, and were it not for the claspers, we should scarce suspect it to be jointed; this species affords a striking display of infinite wisdom, and cannot fail to excite admiration in man. These vines will attain the tops of the loftiest trees which our swamps afford, and though the root of the vine is 20 feet from the supporting tree, it ascends as it were, supported by the air, in a direct line to the summit of the tree where it clasps, and then branches out its young foliage; a vine will sometimes be fifty or sixty feet without a branch, but as soon as it comes into contact with a support, it protrudes its branches; the roots are similar to the bark, the cross continuing from the beginning of the root to the end of the stalk or vine, the vine is smooth and of a pale hazle colour, interspersed with brown and white shades, the root is of a darker colour, more cortical and scaly; the largest vine scarce exceeds the thickness of a thumb, and the leaves are of a deep green, oblong and pointed.

*Parts used.* The whole plant.

*Sensible properties.* These are no ways peculiar, being principally farinaceous to the taste, with a slight degree of bitter.

*Medical virtues.* The roots, vine, and tops in infusion or decoction, answers all the purposes of Spanish Sarsaparilla; it is aperient, diuretic and sudorific, and has been given either alone or with the other sudorific woods, in decoction, ad libitum, in syphillis, chronic rheumatism, scurvy, and in other cases proceeding from impurities of the blood, &c.

7. B: CAROLINIANA, (B: Bipinnatis, Arbor Guaiaci, &c. of Castesby,) *Carolina Blue Trumpet-flower*, or *Hastard Guaiacum*: This plant grows naturally in Carolina, and rises to fifteen or twenty feet high, sending forth many branches from the sides; the leaves are bipinnated, the folioles are spear-shaped, entire, and placed alternately; the flowers come out from the ends of the branches in loose panicles, of a blue colour, and are succeeded by hard, oval pods, containing the seeds, and opening in two parts.

8. B: PUBESCENTIUS, *Downy Trumpet-flower*, grows naturally in Campeachy, is also a climber, the leaves are heart-shaped, oval, downy, yellowish underneath, and grow by fours at the joints; the flowers come out in loose panicles from the ends of the branches, they are large and of a pale yellow colour, succeeded by flat pods about a foot in length.

9. B: TERNATIS, *Trifolious Trumpet-flower*, a native of New-Spain; the stem of this species is upright, woody, covered with an ash-coloured bark, sends out many branches from the sides and rises about two feet high; the leaves are trifoliate, oval, smooth, sharp-pointed, and grow opposite each other at the joints; the flowers are

produced in loose panicles at the ends of the branches, of a white colour, and are succeeded by long, narrow pods.

10. B: PENTAPHYLLA, *Pentaphyllous Trumpet-flower*, grows naturally in the West-Indies, hath an upright stem, and many branches, covered with a whitish bark, the leaves are digitated, each being composed of five oval, stiff, entire folioles, which join at their base, they are of a pale green colour, whitish underneath, grow opposite on long footstalks at the joints; the flowers come out four or five together from the ends of the branches on short footstalks, they are of a whitish blue colour, very fragrant, and are succeeded by crooked pods, containing the seeds. There is a variety with white, and another with rose coloured flowers.

11. B: DIGITATIS, (*Leucoxylon* of Pluke.) *Leucoxylon*, or *Digitated Trumpet flower*, grows naturally in America—It rises upwards of thirty or forty feet high, with an upright woody branching stem, the leaves are digitated, the folioles are oval pointed, entire, and on some are four in number, on others five, and at the extremities of the branches they are simple, and grow opposite by pairs, on long footstalks; the flowers come out singly from the wings of the leaves, their tubes are very long, and their borders are fringed, they are of a white colour; finely scented, and are succeeded by longish pods, containing the seed.

12. B: PINNATIFIDIS, vel RADIATIS, *Radiated Trumpet flower*, grows naturally in Peru; the stalk attains a height of fourteen or fifteen feet, woody and branching, the leaves are digitated, radiated and beautifully cut into several narrow segments, the flowers come out from the wings of the leaves towards the ends of the branches, their colour is yellow, and they are succeeded by two valved pods, containing the seeds.

13. B: FRUTICOSA, (*Apposino Affine Gelseminum* of Sloane.) *Upright Yellow Trumpet Flower*, grows naturally in the warmer parts of America, attains a height of ten or twelve feet, and hath a robust, upright, woody stem, with many branches, the leaves are pinnated, each being composed of six pair of long spear-shaped, pointed, serrated folioles, terminated by an odd one, and they grow opposite by pairs at the joints, the flowers come out in loose panicles from the ends of the branches, their colour is yellow, and are succeeded by pods, near half a foot long, containing the seeds.

14. B: VIOLACEA, *Paniculated Trumpet flower*, grows in the same parts with the foregoing, hath ligneous, weak, slender stalks, which climb by their tendrils upon whatever is near them; the leaves are conjugate, two growing at each joint opposite, they have pretty long footstalks, and the folioles are heart-shaped, and downy on their under side, the flowers grow in panicles from the ends of the branches, they are of a fine violet colour, highly scented, and are succeeded by a hard, oval, ligneous pod, containing the seeds.

15. B: CONJUGATIS, (*Pseudo Apocynum* of Moris.) *Bastard Dog's Bane*, grows naturally in South America; it rises with a rough winding stalk, which twines itself about whatever comes in its way, the leaves come out by pairs on each side of the stalk opposite, attended by tendrils, they are heart-shaped, smooth, and grow on short footstalks, the flowers come out in clusters from the wings

of the leaves, they are of a pale yellow colour and are succeeded by flat pods nearly a foot long.

They are all propagated from seeds, sown in pots, in light fresh earth, and then plunged into a hot bed.

BILIMBI, a synonyme of the *Averrhoa*.

BINDWEED. See *Convolvulus*.

BIRCH TREE. See *Betula*.

BIRD CHERRY. See *Prunus*.

BIADS EYE. See *Primula*.

BIRDS FOOT. See *Ornithopus*.

BIRDS FOOT TREFOIL. See *Lotus*.

BIRTHWORT. See *Aristolochia*.

BISCUCELLA, *Tuckler Mustard*, or *Bastard mithridate Mustard*, a genus of the *Tetradynamia Siliculosa* class, ranking in the 39th Natural Order, *Siliyose*: the pod is plain, compressed, roundish and bilobate above and below, and the calix is a small leaf gibbous at the base. There are two species, some say three.

1. B: AURICULATA, *Auriculated Biscutella*, grows naturally in France and Italy—It attains a height of about two feet, and has a hairy branching stalk, the leaves are of an oblong figure, broad and obtuse, but the upper are narrower; they grow singly at the joints, and are a little indented, the flowers terminate the branches in loose panicles, each is composed of four obtuse, spreading, yellow petals, placed crossways: They blow in July or August, and are succeeded by small pods joined to the style, containing the seeds. There is a variety of this species with narrow leaves, and flowers growing closer together.

2. B: DIDYMA, *Didymous*, or *double-podded Biscutella*, grows naturally on the hilly grounds of Spain, Italy and Germany; this species attains the same height with the former, the radical leaves are very hairy, long, narrow, indented, and much resemble those of Hawkweed, the stalk is destitute of leaves, and divides into several small branches, each of which is terminated by a panicle of yellow flowers, each flower is composed of four yellow petals placed crossways, and is succeeded by a double roundish pod containing the seeds. There are two or three varieties of this sort; the flowers of one terminate the stalks in close spikes, those of another are formed in clusters. They flower in July and August.

3. B: APULA, (Jon *Draba Alyssoides*, *Apula Spicata* of Columna.) with flowers growing in spikes, and a shorter style. This is evidently one of the varieties above mentioned. They are all annuals, and are propagated from seeds, sown in common mould.

*Note.* Mr. Walter gives a B: *Apetala*, a native of Carolina, with a procumbent, branching stem, and pinnate leaves, &c.

BISERULLA, a genus of the *Diadelphia Decandria* class, ranking in the 32d Natural Order *Papilionacea*; the calix is a monophyllous, tubulous, erect perianthium, divided at the top into five equal subulated parts, the two upper being at a greater distance, the corolla is papilionacéous, the vexillum is large, rising, roundish and reflexed at the sides, the alæ are oval, oblong, free, and shorter than the vexillum; the carina is obtuse, and bends up-

wards; the pod is plain and has two cells, the partition contrary. There is only one known species, viz.

**B:** PELEGINUS, (*Astragalus Purpureus* of Moris. *Securidaca* of C. Bauh. and Clusius.) an annual plant, and a native of Italy, Sicily, Spain and the south of France, the stalks are numerous, angular, slender, branching, and trail on the ground, the leaves are pinnated, being composed of a number of heart-shaped lobes, placed opposite on the mid rib, and terminated by an odd one; the flowers are produced in clusters from the sides of the branches near the ends, on long footstalks, they are small, reddish, and of the butterfly kind—they blow in June or July, and are succeeded by large, plain, narrow pods, containing kidney-shaped seeds, from which it is propagated.

**BISHOPSWEEED.** See *Ammeos*.

**BISTORT**, or **KNOT GRASS**, the trivial name of a species of *Polygonum*.

**BITTER APPLE.** See *Colocynthus*.

**BITTER SWEET.** See *Solanum*.

**BITTER VETCH,** See *Orobi*.

**BIXA**, the *Roucou*, or *Arnotta Tree*, a genus of the Polyandria Monogynia class, ranking in the 37th Natural Order *Columnifera*; the corolla consists of ten petals, the calix has five teeth, and the capsule is rough and double valved, of this genus there is but one species, viz.

**B:** ORLEANA seu ORELLANA, (*Arbor Mexicana fructu, Castanea coccifera* of C. B.) *Arnotta tree*, a native of the warm parts of America, one of these are to be seen in the Botanic Garden of S. Carolina, it rises with an upright stem to the height of 8 or 10 feet, sending out many branches at the top forming a regular head, garnished with heart-shaped leaves, ending in a point, and having long footstalks, the flowers are produced in loose panicles at the end of the branches, these are of a pale green colour, having large petals, and a great number of bristly stamina of the same colour in the centre; after the flower is past the germen becomes a heart-shaped, or rather a mitre shaped vessel, covered on the outside with bristles, opening with two valves, and filled with angular seeds, these seeds are covered with a red waxen pulp or pellicle, from which the colour called ANNOTTA is prepared. These plants in the countries where they grow thrive best in a cool rich soil, and shoot most luxuriently near springs and rivulets—they are propagated by seeds—It is a stove plant.

*Domestic uses.* Annotta is chiefly used for imparting to wool or silk a deep, though not permanent orange hue—the Spaniards prepare a cool, agreeably rich cordial from the pulp, which they mix with their chocolate—the roots possess the same properties only in a less degree, but operate more powerfully by the urinary passages; they also mix them with their broths.

**BLACK BERRY.** See *Rubus*.

**BLACK STONIA.** See *Chlora*.

**BLACK SNAKE ROOT.** See *Aristo'ochia*.

**BLACK JACK,** a dwarf species of Oak. See *Quercus*.

**BLACK MASTERWORT.** See *Asirantia*.

**BLADDER CAMPION.** See *Cucubitis Benen*.

**BLADDER LOCKS.** See *Fucus Esculentus*.

BLADDER NUT TREE. See *Staphylea*.

BLADDER PEA. See *Anthyllis*.

BLADDER SENNA. See *Cobuea*.

BLARIA, a genus of the Tetrandria Monogynia class, ranking in the 18th Natural Order, *Bicornes*; the calix is divided into four segments, as also the corolla, the stamina are inserted into the receptacle and the capsule has four cells, containing many seeds. There is but one known species, a native of the Cape of Good Hope, viz.

B: CRICOIDES—of this plant I have not been able to obtain any farther account.

BLAURIA. See *Verbena*.

BLAKEA, a genus of the Dodecandria Monogynia class; the calix has five leaves, the petals are six, the antheræ are connected, and the capsule has six cells. There is only one species, a native of Jamaica, viz.

B: TRINERVIA, *Shining Blakea*, hath a woody stalk, divided into many branches near the top, the leaves are oblong, oval, entire, trinervous, shining, and grow opposite to each other on footstalks; the flowers are produced singly on footstalks opposite to each other along the sides of the branches, and are succeeded by oval capsules containing the seeds. It is propagated by planting the cuttings in pots in the spring, and plunging them into a hot bed, they must be watered and kept shaded at first and introduced to the air by degrees; they are also propagated by seeds, sown in rich light earth, and treated in the same manner as the cuttings.

BLASIA, *Leather Cup*, a genus of the Cryptogamia Algæ class, ranking in the 57th Natural Order, *Algæ*; the calix of what is called the male is cylindrical and full of grains; the female calix is naked, and inclosing a roundish seed, sunk in the leaves. There is but one species known, viz.

B: PESILLA, *Dwarf Blasia*, or *Leather Cup*, grows naturally on the banks of rivers and ditches in a gravelly or sandy soil, both in England and Scotland, it grows flat on the ground in a circle or patch, composed of numerous, thin, green, pellucid leaves, marked with a few whitish veins near the base, divided and subdivided into obtuse segments, obscurely crenated on the edges, the margins of the leaves are a little elevated, but the interior parts adhere close to the ground by a line down which serves the purpose of roots; the seeds are so small as to be almost imperceptible.

BLATTARI E. See *Verbascum* and *Lysimachia*.

BLECHNUM, a genus of the Cryptogamia Filices class, ranking in the 55th Natural Order, *Filices*; the seeds and parts of fructification of this fern lie in small lines under the plants of the leaves. There are two species, natives of China and America.

1. B: CAROLINIANA, *Carolina Blechnum*.

2. B: OCCIDENTALI, (B: *Serrulatum* of Michaux?) Is also a native of South-Carolina, hath a close, erect pinnated frond: the pinne are long, lance-shaped and acute, not in the least spreading at the base, and are stiff and closely serrated.

BLESSED THISTLE. See *Carduus Benedictus*.

BLITUM, *Bate* or *Strawberry Spinach*, a genus of the Monop-

tria Digynia class, ranking in the 12th Natural Order, *Holoracè*; the calix consists of three segments, there are no petals, and the seed, which is single, is enclosed in the calix, and becomes a berry. There are three species.

1. B: CAPITATUM, *Headed, or Strawberry fruited Blitum*, a native of Canada, (Michaux). It is an annual plant, with leaves somewhat like that of Spinach, the stalk rises two feet and a half high, the upper part of the stalk hath flowers coming out in small heads at every joint, and is terminated by a little cluster of the same, after the flowers are past, the heads swell to the size of wood strawberries, and when ripe have the same appearance—but are not eatable; they are full of a purple juice, which stains the hands of those who bruise them of a deep purple colour. It is also a native of Spain and Portugal.

2. B: VIRGATUM, *Mulberry Spinach*, a native of France and Italy: this plant seldom grows more than a foot high, the leaves are smaller than the first, but of the same shape; the flowers are produced at the wings of the leaves almost the length of the stalk; they are smaller, and not so deeply coloured as the first.

3. B: TARTARICUM, *Small-fruited Strawberry Blitum*, a native of Tartary, rises to very near three feet high, it has triangular and acutely indented leaves; the flowers come out from the sides of the stalks, but are smaller than those of the first, as is also the fruit. This was formerly considered only a variety of the first species—it is also an annual plant, and is propagated as are the others by seeds sown in March or April, they are all very hardy plants but require props, on account of the overbearing weight of their numerous berries.

BLITUM PERENNE of Moris. (*Lapathum unctuosum* Seu Bonus Henricus C. B.)

BLITUM MONOSPERMUM INDICUM of Breyn Pr. See *Amaranthus*.

BLITUM SPINOSUM of Sutherl. See *Amaranthus*.

BLITUM MAXIMUM of J. B. See *Amaranthus*.

BLOOD FLOWER. See *Hemanthus*.

BLOODWORT. See *Rumex*, and *Sanguinaria*.

BLUE BOTTLE. See *Centaurea Cyanus*.

BLUE DAISY. See *Globularia*.

BLUE GRASS. See *Poa Compressa*.

BOBARTIA, a genus of the Triandria Digynia class, ranking in the 4th Natural Order, *Gramina*; the calix is imbricated, and the corolla consists of a double valved gluma. There is but one species known, which is a native of the Indies, viz.

B: INDICA, *Indian Bobartia*; this plant is possessed of no remarkable properties, the root is composed of many brownish, tough, crooked fibres, the stalk is round, hollow, jointed and adorned with leaves, the radical leaves are long, broad at the base, but diminish gradually to a point, ribbed and of a dusky green colour, the stem leaves grow singly at each joint, surrounding it a great way up with their base, the flowers are numerous at the tops of the stalks, they are small and of a pale green or greyish colour, and blow in August or September; it is propagated from seeds, and with the same care as other green-house plants have.

**BOCCONIA**—The *Greater Tree Celandine*, a genus of the Dodecandria Monogynia class, ranking in the 27th Natural Order, *Rhoeada*; the calix is diphyllous; there is no corolla, the stylus is bifid, the berry is dry and monospermous. There is but one species known, a native of Jamaica and other warm parts of America.

B: **FRUCTESCENS**, (*Chelidonium majus*, of Sloane) The *Greater Tree Celandine*; is very common in Jamaica and the warm parts of America, where it grows to the height of 10 or 12 feet, having a strait trunk as large as a man's arm, and covered with a smooth, white bark. at the top it divides into several branches, on which the leaves are placed alternately, these leaves are eight or nine inches long and five or six broad, and are deeply sinuated, sometimes almost to the midrib, and are of a fine glaucous colour, and full of a yellow acid juice, the flowers are produced in loose spikes, from the ends of the branches.

*Part used.* The expressed juice, externally.

*Sensible properties.* Acid, biting.

*Medical virtues.* It is a domestic remedy used by the inhabitants of America to take off warts, and specks from the eyes.

*Note.* The singular beauty of this plant renders it worthy of a place in every curious collection, and it seems the Indians are very fond of it, for Hernandez informs us, their kings used to plant it in their gardens. It is propagated by seeds sown in the spring—in a south prospect.

**BOERHAAVIA** *Hogweed*, a genus of the Monandria Monogynia class; it has no calix, the corolla consists of one bell-shaped plaited petal, and there is but one naked seed. There are six species, all natives of the Indies. This genus was named in honor of the great Boerhaave.

1. B: **ERECTA**, *Erect Hogweed*, a native of Vera Cruz, hath an upright, smooth jointed stalk, two feet high, with several branches, the leaves are oval, pointed, whitish underneath, and are opposite on long footstalks, the flowers are produced from the ends of the main stalk and side branches in panicles, they are of a reddish purple colour, though there is a variety with greenish flowers. They blow in July.

2. B: **DIFFUSO**, *Diffuse Hogweed*, a native of India, the stalks are many jointed, diffused, spreading, and about eighteen inches long, the leaves are oval, pointed, thickish and of a smooth, glossy surface, the flowers come out from the wings of the leaves on long footstalks, are of a pale red colour, and blow in July.

3. B: **DIANDRIS**, *Diandrous Hogweed*, hath round, jointed, smooth, diffuse, spreading stalks, oval, pointed, smooth, glossy leaves, from the wings of which the flowers come out on short footstalks, they are of a white colour, and blow in July.

4. B: **SCANDENS**, *Climbing Hogweed*, the stalks are numerous, branching, climbing, and if supported will rise to the height of six feet, the leaves are heart-shaped, opposite at the joints on footstalks, the flowers come out in umbels from the ends of the branches, are of a yellow colour, and appear in July.

I have seen no account of the others.



BOG BEAN, or *Marsh Trefoil*. See *Menianthes*.

BOG MOSS. See *Sphagnum*.

BOG RUSH. See *Schoenus*.

BOHEA TEA. See *Thea*.

BOLETUS, or *Spunk*, a genus of the Cryptogamia Fungi class, ranking in the 58th Natural Order, *Fungi*; these mushrooms are horizontal, spongy, and porous below; there are 17 species, of which the following are most particular:—

1. B: SUBEROSUS, *Cork Boletus*, or *White Cork Spunk*, grows commonly in the trunks of Birch and Willow Trees; it grows sessile and horizontal, its figure is semi-circular, the upper side convex, the under nearly plain, of various sizes, from a horse's hoof, to a peck measure; the upper surface is quite white, generally covered with a short strong down, but sometimes smooth; the flesh or internal substance is thick, white, tough, light, and spongy, like cork. They are sometimes used as substitutes for cork, but must not be suffered to touch the liquid, for moisture soon renders them soft and useless.

2. B: IGNIARIUS, *Hard Boletus*, *Touchwood*, or *Spunk*, is frequent on the trunks of old trees of all kinds, especially Ash; it consists of a very hard woody substance, in shape like a horse's hoof, and is of various sizes, from that of a man's fist, to that of a head, and larger; the upper side is smooth but uneven, distinguished near the rim by elevated zones of different colours, brown, grey, tawny, &c. the flesh is of a tawny brown colour, extremely hard and tough.

*Note.*—There is a variety of this species which grows within the decayed parts of the trees before alluded to; the shape and size of which appear to depend on the shape of the decayed wood.

*Medical virtues.* It has been used to stop the bleeding of vessels after amputations; for this purpose the hard part is cut off, and the soft inner substance, is beat with a hammer to make it still softer.

*Domestic uses.* In Germany, some parts of England, and in America, it is made use of for tinder; the Germans boil it in strong ley, dry it, and boil it again in solution of Salt Petre; and the Laplanders burn it about their habitations, in order to keep off a species of the Gadfly, which is fatal to the young Rein Deer.

3. B: BOVINUS, *Brown Boletus*, or *Cow Spunk*, is frequent in woods and pastures; it is generally of a brown colour, though sometimes it is tawny, yellowish brown, reddish brown, deep red, purple, or greenish brown; the flesh is yellow, white, or reddish.

*Note.* The young plants are eaten in Italy, and esteemed a great delicacy; the Germans also account them a dainty, calling them Gombas; at Brat-Butz, cows, deer, sheep, and swine, will feed upon this and other Boleti, but are sometimes greatly disordered by them; in cows, and other cattle, they have been known to create bloody urine, nauseous milk, swellings of the abdomen, inflammations of the bowels, stoppages, diarrhoeas, and death. In sheep they bring on a scirrhus liver, cough, a general wasting and dropsy. Scarabs, dermetes, and many other insects feed upon, and breed in them in abundance.

4. B: PINI-LARICIS, (*Agaricus Laricis* of the shops) *White Boletus*, or *Pine Spunk*, (*Boletus Alb*) This fungous is an irregular

spongy substance, extremely light, and of an uniform snow whiteness. it cuts freely with a knife, without discovering any hardness, or grittiness, and readily crumbles betwixt the fingers into a powder.

*Part used.* The internal parts divested of its cortex.

*Sensible properties.* Smell not remarkable, taste at first sweetish, but on chewing for a little while proves acrid, bitter and nauseous.

*Medical virtues.* Agaric was formerly in great esteem, as a cathartic, but operates exceedingly slow, insomuch that some have denied it to have any purgative virtues at all: given in substance it almost always occasions a nausea, not unfrequently vomiting, and sometimes excessive tormina of the bowels; these effects are attributed to its light farinaceous matter, adhering to the coats of the intestines, and producing a constant irritation. The best preparation of Agaric, seems to be an extract made with water, in which fixed alkaline salt has been dissolved, or with vinegar, or wine. The first is said by Bouldoc, and the two latter by Newmann to prove an effectual and safe purgative—nevertheless, it is a precarious medicine, of which we stand in no manner of need.

There is a species of *Boletus*, growing on the stalks of the shrubs of White Oak, which are generally called White Oak Runners, which has become of late a successful domestic remedy, in diarrhoeas. It is an irregular congeries of globular and angular tubercles, surrounding the stem, and sometimes extending the whole length; it is of a bright cinnamon colour externally, consists of a cortical part, which is smooth and thin, the internal parts are of a deep cinnamon colour, and readily crumbles to powder between the fingers, and in other respects similar to the foregoing.

*Part used.* The whole substance.

*Sensible properties.* No particular smell, taste astringent.

*Medical virtues.* In diarrhoeas, it is esteemed equal to rhubarb, and is frequently boiled with new milk, and given at pleasure in laxatives of the intestines, uterine fluors, &c. with good success.

5. B: FOMENTARIA, or *Spongy Boletus*.

6. B: VERSICOLOR, or *Striped Boletus*.

7. B: LUTEUS, or *Yellow Boletus*.

**BOLTONIA**, of Schreber and Michaux; a genus of the Syngenesia Polygamia Superflua class of plants; the calix is convex and imbricated: the receptacle is naked, the corolla is radiated, the seeds are plane, compressed, with a membranaceous margin; the pappus is composed of many small minute bristles. There are two species natives of the Illinois.

1. B: GLASTIFOLIA, *Wood-leaved Boltonia*, with flowers growing on short footstalks; seed somewhat heart-shaped.

2. B: ASTEROIDES, *Sax-flower Boltonia*; the flowers grow on long footstalks; the seeds are oval, smooth, and beardless.

**BOMBAX**, or *Silk Cotton-tree*, a genus of the Monadelphia Polyandria class, ranking in the 5th Natural Order, *Columnifera*; it has but one stylus, the stigma consists of five lobes, the capsule has five cells, the seeds are downy, and the receptacle pentagonal. There are but three species.

1. B: CEIBA, *Prickly Cotton tree*. All the trees of this genus grow naturally in the Indies where they arrive at great magnitude, being some of the largest trees in these parts, insomuch that Bosman says he has seen in Guinea trees of this kind so widely diffused that 200 armed men might stand under the branches of one; they generally grow with very strait stems; this species is armed with short, strong spines.

2. B: FENTANDRUM, *Smooth Cotton tree*. This species has a small, smooth stalk, which while young is of a bright green, but after a few years they are covered with a grey or ash-coloured bark which turns brown as they grow older. The branches towards the top are garnished with leaves composed of five, seven, or nine oblong, smooth little leaves, which are spear-shaped, and join to one common centre at their base, where they adhere to the long footstalks; the flower-buds appear at the ends of the branches, and soon after the flowers expand, which are composed of five oblong, purple petals, with a great number of stamina in the centre, when these fall off, they are succeeded by oval fruit as large as a Swan's egg, having a thick ligneous cover, which when ripe opens in five parts, and is full of a dark, short Cotton, inclosing many roundish seeds as large as small peas. Both these species are raised from seeds procured in the capsules, and sown in the spring.

*Domestic uses.* The dark, short Cotton of these two species, is used by the poorer inhabitants of those places where these trees grow, to stuff pillows and chairs, but is generally deemed unwholesome to lie upon. Large Periaugars or Canoes fit to carry a sail, are made both at Senegal and in America of the trunk of the Silk Cotton tree, the wood of which is very light, and found unfit for any other purpose. In Columbus' first voyage, says Miller, it was reported that a Canoe was seen at Cuba, made of the hollowed trunk of one of these trees, which was 95 palms long, of a proportional width, and capable of containing 150 men.

3. B: HEPTAPHYLLUM, *Pectuphyllous Silk Cotton tree*. The characters of this tree are not particularly mentioned by Botanical writers, but is said to have leaves cut in seven parts; however the Cotton produced by this species is of a fine purple colour, and much superior to the other two. These are also raised from seeds as the former.

*Domestic uses.* The beautiful purple down of this species is spun, wrought, and wore without being dyed any other colour, by the inhabitants of the Spanish West-Indies.

Besides these species, Mr. Miller mentions another which he saw in the gardens of the late Duke of Richmond, at Goodwood, and was raised from seeds which came from the East-Indies; the stem was very straight and smooth; the leaves were produced round the tops upon very long footstalks, each being composed of seven or nine narrow, silky, small lobes, joined at their base to the footstalks, in the same manner as the two first; but they were much longer and reflected backward, so that at first sight it appeared very different from either of them.

There is a species of Bombax in the United States (*Populus Deltoidea* of Bartram) and particularly on the Congaree, Santee, and

Edisto Rivers of South-Carolina, and the Savanna, Ogechee, Alata-maha, and other Rivers of Georgia. It is called Cotton Tree in Carolina.—It will be described with the article *Populus*.

BONANO, or *Banana*, a species of the Plantain tree. See *Musa*.

BONDUC, the trivial name of a species of *Guttandina*.

BONUS HENRICUS. See *Chenopodium*.

BONTIA, the *Wild Olive of Barbadoes*, a genus of the Didymia Angiospermia class, ranking in the 40th Natural Order, *Personatae*; the calix is divided into five pieces; the corolla is bilabiate, with the superior labium emarginated, and the inferior consists of three deep cut segments; the berry which is of the drupa kind is oval, oblique at the apex, and contains but one plaited seed. There are two species both natives of the Indies.

1. B: DAPHNOIDES. This species attains the height of 8 or 10 feet, has a woody stem and branches, with narrow, smooth, thickish leaves, crenated at the edges; and flowers from the sides of the branches, succeeded by large oval fruit, that sometimes ripen in England.

*Domestic uses.* This species is greatly cultivated in the gardens at Barbadoes for making of hedges; for which purpose it is exceedingly proper, being an evergreen and of very quick growth. It is said that from cuttings planted there in the rainy season, when they have immediately taken root; there has been a complete hedge, four or five feet high, in 18 months.

2. B: GERMINANS, attains the height of 14 or 16 feet, sending out several small branches which incline downward toward the water, (as it grows in swamps,) and as soon as they reach that, put out roots into the mud, whereby they propagate very fast; these branches are garnished with leaves placed opposite, they are of a thick substance like those of the Bay-tree, about two inches long and one broad, very smooth on their surface. The flowers are white and come out in spikes from the upper branches.

*Note.* Some Botanic writers have reckoned this to be a species of the Mangrove tree, (*Candela Americana*) as it grows also in swampy situations—others suppose it to be the plant that produces the Malacca Bean (*Anacardium*). These plants are easily propagated by seeds or cuttings sown or planted on a hot-bed. See *Avicennia*.

BORAGO, a synonyme of the *Anchusa*, and *Euglossum*.

BORASSUS, *Malabar Palm*, a genus belonging to the Order of *Palmae flabellifoliae*, and ranks in the 5th Natural Order, *Palmae*; of which there is but this one species known, it has palmated and plaited leaves, and is a native of India; it is called by the natives *Ashpanu* and *Carim Pana*.

BORBONIA, (in honour of the house of Bourbon) a genus of the Diadelphia Decandria class, ranking in the 32d Natural Order, *Caryophyllia*; the calix has pointed spines, the stigma is emarginated and the legumen is pointed. There are six species of this vegetable which is a kind of broom, they are natives of warm countries; and in the places where they grow naturally, rise to the height of 10 or 12 feet, but in Europe seldom rise more than four or five; they may be propagated by laying down the young shoots, but the most eligible method is by seeds. They are all greenhouse plants.

1. B: VILLOSIS (Genista Africana Ericæ folio of Ray,) *Feath-leaved Borbonia*, will grow to about five feet in height, the stalks are woody, slender and branching; the leaves are narrow, acute-pointed and hairy underneath; the flowers are produced in roundish bunches from the ends and sides of the branches; they are small and of a yellow colour, they appear in August and September.

2. B: TRINERVIS, (Frutex Aethiopicus of Pluke.) *Trinervous Borbonia* will grow to ten feet high; the stalks are woody, firm and branching; the leaves are spear-shaped, pointed, entire, stiff, and have three strong nerves running from the base to the point; the flowers are produced singly on the footstalks from the upper parts of the branches, they are of a yellow colour, and appear in September.

3. B: LANCEOLATIS, (Genista Africana frutescens of Tourne. Spartium of Commel. and Frutex of Pluke.) *Lanceolated Borbonia*, will grow about six feet high, the stalks are ligneous, smooth, slender, and branching; the leaves are spear-shaped, acute pointed, stiff, entire, have many longitudinal nerves, and grow alternately, the flowers are produced in clusters from the upper parts of the branches, and are of a brownish yellow colour; these blow in August or September.

4. B: CORDATIS, (Planta Leguminosa of Breyn) *Cordated Borbonia*; the stalks are woody, slender, branching, and covered with a white bark; the leaves are heart-shaped, acute pointed, entire, have many longitudinal nerves, and embrace the stalks with their base; the flowers are produced in clusters from the ends of the branches, they are of a yellow colour, and appear in September.

5. B: OBOVATIS-VILLOSIS, *Tomentose Borbonia*, will grow twelve feet high, hath a woody, firm, branching stalk; the leaves are oboval, and covered with a white silvery down; the flowers are produced in umbellated bunches from the ends of the branches, they are also yellow, and appear in August or September.

6. B: CRENATIS, *Crenated Borbonia*, will grow six feet high; it is a shrub; the leaves are heart-shaped, smooth, prickly-pointed, crenated, have many longitudinal nerves, and embrace the stalks with their base. The flowers are produced in clusters from the ends of the branches, and appear the same time with the former.

BORRACHIO. See *Caoutchouc*.

BOSEA, the *Golden Rod Tree*, a genus of the Pentandria, Digynia class, and 53d Natural Order, *Scabride* of Linnæus; the calix consists of five leaves, it has no corolla, and the berry is monospermous, or one seeded. There is but one species a native of the Canary and Caribbee Islands, viz.

B: YERVAMORA, *Golden Rod Tree*; it is a pretty strong, woody shrub, growing with a stem as large as a middling person's leg; the branches come out very irregular, and make considerable shoots every summer; the leaves are long, whitish underneath, and have purple coloured veins; the flowers come out in clusters from the ends of the branches, they are of a purple colour, and are succeeded by globular berries. It is to be remarked that the branches retain their leaves till towards the Spring, when they fall away, and new leaves are produced in their place; they may be propagated by cut-

tings planted in the spring, but are too tender to bear the open air of Britain; it has long been an inhabitant of the British Botanic Gardens, but hath never been observed to flower in that country. It is also a green-house plant.

**BOTRYOS.** See *Chenopodium*.

**BOTRYPUS**, a genus of the Cryptogamia Filicis class, ranking under the 55th Natural Order, *Filicis*.

**BOX TREE.** See *Buxus*.

**BOX THORN.** See *Lycium*.

**BRABEJUM**, *The African Almond*, a genus of the Tetrandria Monogynia class, others say of the Polygamia Monoecia class; the corolla is below the fruit and consists of four petals, it has no calix, the fruit is an hairy drupe of an oval figure: There is only one species a native of Ethiopia, viz.

**B:** **STELLATIFOLIUM**, *Star-leaved African Almond*; it seldom grows above 8 or 9 feet high, but in its native soil is a tree of a middling growth; it rises with an upright stem, which is soft and full of pith within, and covered with a brown bark; the leaves come out all round the branches at each joint, so that the shape of the tree is nearly a pyramid; they are indented at their edges, standing on very short footstalks; the flowers are produced from among the leaves toward the end of their shoots, which are of a pale or whitish red colour: it is propagated by layers made in April, but they are often two years before they produce roots strong enough to be taken from the plants; when the branches are laid down it will be proper to slit them at the point, (as is practised in laying Carnations,) which will promote their taking root. It is a green-house plant.

**BRACHYSTEMUM**, a genus of the Didynamia Gymnospermia class of plants, enumerated by Michaux; the calix is tubular, five toothed, short, subequal, erect, and acute, and the faux or mouth naked; the corolla is the length of the calix, the tube small, the upper lip short, extended and emarginated; the lower lip is longer, patent, obtuse and cut into three segments, of which the middle one is longest, subligulate and oblong; the seeds are roundish and oblong. There are three species.

1. **B:** **VERTICILLATUM**, grows naturally in the upper parts of Pennsylvania, and Carolina, hath entire oval lance-shaped opposite leaves, the flowers are produced in compact whorls.

2. **B:** **CAROLINIANA**, (**B:** *Muticum* of Mich.) grows naturally in Carolina, up country, hath leaves like the former and toothed, the flowers terminate the stalks in bunches, or heads.

3. **B:** **VIRGINICUM**, (*Thymus Virginicum* of Linn.) grows naturally in the United States, and hath a stiff, erect stem, having sharp hairs; the leaves are spear-shaped, or linear, smooth and entire, the flowers are produced in little bundles or heads. These plants differ very little from Thyme.

**BRAMBLE**, or *Bramble Bush*, the English name of the *Rubus*.

**BRANKS.** See *Polygonum Fagopyrum*.

**BRANK URSINE.** See *Acanthus*.

**BRASIL TREE.** See *Casalpinia*.

**BRASILETTO WOOD**, same as *Brasil*.

**BRASSICA**, *Cabbage*, a genus of the *Tetradinamia Siliquosa* class, ranking in the 39th Natural Order, *Siliquosa*; the calix is erect, and connivent, the seeds are globular, and there is a nectariferous gland between the pistillum and the short stamina; and between the calix and the long stamina there are said to be 16 species; tho' it is probable that at least 13 of these are only varieties, as their varieties are almost numberless.

1. **B: ORIENTALE**, *Oriental Cabbage*, a native of the East, and some parts of France, and England; it has heart-shaped, smooth leaves, embracing the stem, and four cornered capsules; it attains a height of two feet, the stalk is branching and brittle; the flowers of this species are white.

2. **B: CAMPESTRIS**, (**B. Caulifloro** of C. B. and **B: Multiflora** of J. B.) *Field Cabbage*, has a slender root and stem, the leaves being uniform, heart-shaped, and sessile; this species is more generally known by the name of Cauliflower. It never varies, and grows naturally on the sea shore, near Dover, in England; it has a perennial branching stalk, in which respect it differs from all the other species. It stands the severest frost; the flower stalks grow from the end of the branches, and spread out horizontally, but those which arise from the centre of the plants grow erect, and seldom put out branches.

3. **B: ARVENSIS**, (*Crambe Dicta* of Moris.) *Kale*, has scolloped leaves, embracing the stem; the highest heart-shaped, and most entire.

4. **B: ALPINA**, or *Savoy Cabbage*, an exotic species, with the radical leaves, egg-shaped, and erect petals; these are propagated from seed for winter use, being generally esteemed better for being pinched with frost; they require an open situation, otherwise are apt to be infested with caterpillars, and other insects, especially in a dry autumn—the varieties are common, large green, brown and dwarf savoy.

5. **B: NAPUS**, *Rape*, or *Cole Seed Cabbage*, (*Chinensis* of later writers) is principally cultivated in the Isle of Ely, and some other parts of England for its seed from which rape oil is drawn, it has very entire oval leaves; the floral leaves, lanceolated and embracing the stem, the calix is longer than the claw of the petals. With these also cattle are fed in winter.

6. **B: RAPA**, or **RASSA**, *Turnips*, or *Turnip Cabbage*; these are a well known and deservedly admired plant, and consist of the following sorts—Early Dutch, Russia Purple, Yellow Russia, French, Large Yellow, Blank, Long Rooted, Red, and Green Topped Turnips, &c. the first is the most valuable, the others are inferior—this species hath the radical stem growing orbicular, depressed, and fleshy; these plants were formerly more extensively cultivated than they are at present, though their importance and value for the fattening cattle, has not been generally known, or properly ascertained till within these few years; they also furnish an agreeable and wholesome food for sailors on long voyages, being easily preserved. The same process as is observed for the cultivation of the common Turnip, is to be observed in the raising of these, which are eaten either boiled, roasted, or raw, with the addition of pepper.

7. B: OLERACEA, (*Crambe Maritim*,<sup>1</sup> Linn.) *Sea Colewort*, *Sea Cabbage*, or *Common Cabbage*, grows principally on cliffs near the sea coast; the radical stem of this species grows columnar, and fleshy; early in spring this species is preferred to those that are cultivated, but when gathered on the sea coast, it is necessary to boil it in two waters, to deprive it of its saline taste; the roots may be eaten like those of the preceding species, but are not high so tender. All the various kinds of Garden Cabbage in use at our tables originate from this.

To this species belong the several varieties of Brassica following: Red Cabbage, White Cabbage, Turnip Rooted Cabbage, Drum Headed, &c. See also Crambe.

8. B: VIOLACEA, with lanceolated, egg-shaped, smooth, undivided, and dentated leaves.

9. B: ERUCA, *Rocket*, or *Rocket Cabbage*, with lyrated leaves, shaggy stem, smooth capsules, and ensiform styles; this species is only fit as a variety for a Botanic Garden; it is an annual plant, has not been found to be of any use, and perishes when it has perfected its seeds.

10. B: VESICARIA, with runcinate leaves, hispid capsules, covered with a tumid calix; the style is obtuse; this species like the foregoing, is of no farther use than as a variety in gardens, and perishes like it, on perfecting its seeds.

11. B: MURALIS, or *Wall Cabbage*, is usually found on old walls, and rubbish, all its parts are considerably acrid, and have a rank disagreeable smell: This species is never cultivated.

12. B: ERUCASTRUM, hath runcinate leaves, a hispid stem, polished capsules, and ensiform style.

13. B: MONENSIS, *Iste of Man Cabbage*, of this kind I have seen no farther account.

14. B: ALBA, et B: RUBRA, (*Glomerosa*, J. B.) *Broccoli*. There are several kinds of this vegetable, particularly the Purple, the White, Black, and the Cauliflower Broccoli; but the Purple, or Roman Broccoli is preferable to all others. The seeds should be sown about the latter end of May, or beginning of June, and when the young plants having germinated eight leaves, they should be transplanted into beds; these may be so managed as to supply the table with a delicious and salutary vegetable, during seven months of the year, that is, from the beginning of November, till the end of May: For this purpose prime Roman, or Purple, or Naples White Seed should be procured both for early and late sowing. Sow at the cessation of the vernal snows, and repeat it once a month, till the end of May, or longer; when the leaves appear transplant them a second time, afterwards in June, July, and August, transplant them again two or three feet asunder, and let them remain, after which, nothing more than the common care will be requisite.

15. B: QUINENSIS, *Oval leaved China Cabbage*. This plant branches like the Colewort; the leaves are oval, and nearly entire, but the floral leaves are spear-shaped, and embrace the stalk with their base. There is also a China spear-leaved Cabbage, retained in gardens; the edges of the leaves are indented, in other respects scarce differs from the foregoing.



16. B: PERFOLIATA, *Yellow Perfoliate Cabbage*, grows naturally in most parts of Europe; it hath a slender smooth branching stalk, the leaves are heart-shaped, and the stalk appears as if thrust through them at the base; the flowers are yellow and blow in June.

17. B: FIMBRIATA, *Borecole*. This is a Cabbage in another form, and consists of many varieties; but the Green Curled, and Red Curled, are the principal; the leaves of both these sorts are remarkably fringed and curled, and beautifully adorn the stalks from the top to the bottom; they are extremely hardy, and bid defiance to all weathers, flourishing when most other plants appear to be past and gone, these are in full health and vigour.

*Remarks.* The domestic uses of Cabbages, and Coleworts are well known to most persons; it is, nevertheless, necessary to state a few particulars with regard to them as constituting a part of the daily food of many of our farmers, in South Carolina. Every species of Cabbage, with the exception of the Turnip, is considered to be of difficult digestion, affording but little nourishment, and producing flatulency, and acid eructations; they have a strong tendency to putrefaction, becoming putrid much sooner than any other vegetable, especially when frost bitten. The Cauliflower is considered the easiest to be digested of all the various species of Cabbages, when pickled or made into Saur Kraut; they are rendered servicable for sea voyages.

*Medical virtues.* A decoction of the Red Cabbage is recommended for softening acrimonious humors in the breast, and in hoarseness, and is considered the most emollient and laxative. The leaves are employed for dressing blisters.

BREAD CASSADA. See *Jatropha*.

BREAD FRUIT TREE. See *Artocarpus*.

BREAK STONE, (Chickweed.) See *Sagina procumbens*.

BRIAR: See *Rosa*.

BREYNIA, a synonyme of the *Cupharis*.

BRISTOL FLOWER, a name sometimes given to *Lichnis*.

BRITANNICA, the trivial name of a species of *Rumex*.

BRIZA, or *Quaking grass*, a genus of the Triandria Digynia class, ranking in the 4th Natural Order, *Gramina*; the calix is two valved and multiflorous, the spicula bifarous or spread to the two sides, with the small valves heart-shape and blunt, and the inner one small in proportion to the rest. There are 7 species, the principal of which is the following:

1. B: MEDEA, *Gramen Tremulum Majus* of C. B.) *Common Quaking Grass*, *Middle Quake grass*, *Cow Quakes*, or *Ladies Hair*, grows in fields and pastures, where its stalks seldom exceeds 12 inches in height; the leaves form a cluster at the crown of the root, are grassy, and four or five inches long, the stalk is slender, jointed, bent and garnished with one or two leaves, which surround it with their base, the flowers are numerous at the tops of the stalks, and are collected in form of small oval spikes, each spike having a very slender footstalk, the least wind sets them to trembling; they are of a fine brown or purple colour, it flowers in May or June.

*Domestic uses.* It makes tolerable good hay, and as it thrives on poor wet lands where other grasses will not vegetate, it deserves

to be cultivated in marshy situations—it is eaten by cows, sheep and goats.

2. B: *MINOR*, *Small Quaking Grass*, the stalk is slender, jointed in or three two places, and attains a height of six or eight inches, and has leaves growing singly at the joint, surrounding it with their base, the radical leaves are small and grassy, and form a tuft at the crown of the root, the flowers are produced in panicles at the tops of the stalks, and are collected in small triangular spikes, each of which is supported by a very weak, slender footstalk, which occasions the like tremulous motion with the former on the least gust of wind; it blows in July.

3. B: *CAROLINIANA*, (B: *Eragrostis* of Mich.) *Carolinian Love Grass*, a native of Carolina and Virginia, the stalk is jointed in two or three places, is surrounded with leaves growing singly at the joints like the radical ones, but narrower, and grows to about a foot high, the radical leaves are of a whitish green colour, and five or six inches long, the flowers terminate the stalks in panicles, the spikes are spear-shaped, moderately long, of a bright white colour, and each contains about twenty florets, but being supported by strong footstalks, they are destitute of that tremulous property peculiar to the other species.

4. B: *VIRENS*, *Green Quaking Grass*, a native of Carolina—of this I find no farther account.

5. B: *CANADENSE*, *Canadian Quake Grass*, grows naturally in Canada, the leaves are long and erect, and the flowers are produced in loose panicles: the spikes are erect, and contains about ten florets.

6. B: *MAXIMUM*, *Great Quaking Grass*, grows naturally in Italy and Portugal, the leaves are numerous at the root, and near a foot long, the stalks are slender, jointed; and about two feet long, the flowers are produced in panicles at the tops of the stalks, the little spikes of which the panicles are composed are heart-shaped, and contain about 17 floscules, they grow on slender weak footstalks, and being large have a better effect than the two first by their tremulous property.

*BROCCOLI*, a species of the Cabbage. See *Brassica*.

*BROMELIA*, the *Pine Apple*, a genus of the Hexandria Monogynia class, ranking in the 16th Natural Order, *Coronarie*: the calix is divided into three segments, it has three petals, and there is a scaly nectarium at the base of each petal; the berry has three cells —There are seven species.

1. B: *ANANAS*, *Common Pine Apple*, grows naturally in Surinam, New-Spain and Africa; it is a strong robust perennial; the root is thick, and sends forth many fibres from the sides of the bottom, the leaves are long and sharp pointed, and more or less prickly, and for the most part of a bluish tinge, the stalk is robust, round and thick, and rises from the centre of the leaves, is of a pale green colour and is usually garnished with a few small leaves; at the top of it stands an oval, roundish, pyramidal substance, composed of many clustered tubercles, which support the flowers, and has a crown of clustered leaves on its head, the flowers are of a bluish-purple

colour, and grow singly on each tubercle; each flower has a small three cornered cup, cut at the top into three oval segments, the petals of the flowers are three, oval, spear-shaped, and larger than the segments of the cup, among these is a nectarium of three parts; the filaments are six in number, short, have yellow anthers, and the style is single—as the flowers fade, the fruit swells, and advances towards perfection, heightening its fragrance as it ripens.

It admits of several varieties, which have all been accidentally obtained from sowing the seeds, the most valuable are—1st. The oval Pine Apple with whitish flesh—2. The sugar loaf Pine with yellow flesh—3. The smooth-leaved pine—4. The shining-leaved Pine—5. The deep green leaved Pine—6. The King Pine—7. The Queen Pine—8. Olive coloured Pine, with yellow flesh—9. The green Pine—10. The black Pine. All of which are propagated by the proper management of the crowns and suckers.

2. B: PYRAMIDALIS, *Pyramidal Bromelia*, has leaves very like some sorts of Aloes; but not so thick and succulent, which are strongly armed with black spines, from the centre of the plant arises the flower stalk, which is near three feet high, the lower part of which is garnished with entire leaves, placed alternately at each joint, the upper part of the stalk is garnished with flowers set in a loose spike or thyse, quite round, these are succeeded by oval seed vessels, having a longitudinal partition, in the centre of which are fastened smooth cylindrical seeds.

3. B: LINGULATA, *Lingulated Bromelia*, hath shorter leaves than the first, which are sharply sawed on their edges, and of a deep green colour, the flower stem arises from the centre of the plant, which divides upwards into several branches; the upper part of these are garnished with spikes, of flowers, which come out alternately from the branches, and each having a narrow entire leaf just below it, which is longer than the spike; the flowers are placed very close on the spikes, and when they decay the empalement turns to an oval pointed seed vessel, inclosing seeds of the same shape with the other.

4. B: PINGVIN, *Wild Pine Apple, or Pinguin*. This is not so robust a plant as the former, the leaves are long, prickly and sharp pointed, in the centre of these rises the stalk, which is upright, and usually terminated by a cluster of fruit of an acid flavour; the juice is sometimes used to mix in punch in the room of Lemon—The plant is otherwise of little value, and is preserved in gardens only as a curiosity.

5. B: KARATOS. *Karatas*, another wild Pine Apple—The leaves of this plant are very long, narrow, and strongly armed with very sharp crooked thorns, which catch hold of every thing that comes near them, there is hardly any stalk, and the fruit is among the leaves near the ground; the flowers are produced in clusters.

*Domestic uses.* Several of these species are accounted delicious fruit, and are esteemed for their cordial and exhilarating properties. its acid juice, however, generally disagrees with females during gestation, as well as with persons who are subject to flatulency—among the different sorts raised in hot houses, Bechstein observes, the white and red Pine Apples are most esteemed.

**BROMUS**, *Broom Grass*, a genus of the Triandria Digynia class, ranking in the 4th Natural Order, *Gramina* the calix is double valved, the sp ca is oblong and cylindrical, the awn is below the apex. There are forty-six species—eight of which are natives of Britain.

1. B: **SECALINUS**, (Polymorthus of Dr. Withering.) *Field Brome Grass*, or *Smooth Rye Broom Grass*, an annual plant, and is very prevalent in rye growing among it in considerable proportions, and flowers in July. The seeds when ground with rye, not only renders it blackish, but produces a narcotic, or stupifying effect.

*Domestic uses.* From the flower bundles a good green dye is extracted, and cattle are very fond of this species of grass.

2. B: **MOLLIS**, or *soft Brome Grass*, *Lob Grass*, or *Oat Grass*, an annual plant, is mostly found growing in corn fields, though sometimes in meadows, pastures, hedge-banks, and even on walls; it flowers in May and June. Bechstein affirms that this plant affords a very agreeable fodder to cattle of all kinds, and that it deserves to be cultivated on sandy lands, as being well adapted to consolidate the soil—according to Mr. Swayne it is a troublesome weed in corn fields, and therefore much disliked by farmers, while it is of little value in pastures or mowing grounds, where it generally sheds its seeds before the time of mowing, and produces very few root leaves.

3. B: **PINNATUS**, (*Festuca Pinnata* Lin.) *Spiked heath Brome Grass*, is found growing on heaths and fields of a calcareous soil, the stalks are undivided, the flowers are produced in taper spikes, from their sides, and flowers in July. This grass is much relished by cattle of every description, but especially by sheep and goats.

4. B: **STERILIS**. *Barren Broom Grass*, or *Wild Oats*, which grows principally in fields that are waste, and on the edges of cultivated ones, it is not relished by cattle, except when very young, when old it becomes stiff and dry, and is used generally by the Housewives in the country parts of Carolina and Georgia for Brooms, which are very appropriate to that use.

5. B: **GIGANTEUS**, *Tall Broom Grass*, grows naturally in woods and hedges in England, the stalks are thick, smooth, hollow jointed and four or five feet high; the leaves are very long, near an inch broad, and diminish gradually to a point; the flowers come out in loose nodding panicles from the ends of the stalks—they appear chiefly in July and August.

6. B: **CRISTATUM**, *Cristed Broom Grass*, a perennial and grows naturally in Siberia and Tartary; the stalks of this species are seldom more than eight or ten inches high, the flowers are situated at the top, in broad, oval, depressed, imbricated spikes. They appear in July.

7. B: **CATHARTICUM**, (B: *Canadensis* of Mich.?) *Purging Broom Grass*, a perennial, grows naturally in Canada; the stalk is upright, thick, firm, and attains a height of six or eight feet, the leaves are very long, near an inch broad, diminish gradually to a point, and are of a good green. the flowers are collected in loose, flexuose, nodding spikes. They appear in July and August.

- 8. B: ARVENSIS, *Common Broom Grass.*
- 9. B: CILIATUS, *Wall Wild Oats.*
- 10. B: RAMOSA, *Wood Broom Grass.*
- 11. B: RACEMOSA, *Racemose Broom grass.*
- 12. B: AVENACEUM, *Oat grass, or Corn Broom Grass.*
- 13. B: MAJOR, *Greater barren broom grass.*
- 14. B: RUBENTE, *Red broom grass, a native of Spain.*

These seven latter are annual, as are some of the foregoing; they are all very insignificant grasses, many of them are too common in cultivated fields, rising among the grain, whilst others are to be found under hedges, in woods, &c. some on the tops of houses, old walls, &c.

BROOM. See *Genista*.

BROOM BUTCHERS. See *Ruscus*.

BROOM RAPE. See *Grobanche*.

BROOM, (Spanish.) See *Spartium*.

BROWALLIA, a genus of the Didynamia, Angiospermia class, ranking in the 28th Natural Order, *Luride*; the calix has five teeth, the limbs of the corolla are divided into five equal and open segments; and the capsule is unilocular. For this plant there is no English name. There are two species, viz.

1. B: DEMISSA, (B: Pedunculis trifloris) *Panma Browallia*—

The seeds of this plant were sent to Mr. Miller from Panama, it usually grows about two feet high, and spreads out into lateral branches on every side of the stalk, garnished with oval leaves, which are entire, and have short footstalks, towards the end of the branches, the flowers are produced singly upon pretty long footstalks, arising from the wing of the leaf, these are of a light blue colour, sometimes inclining to a purple or red, and there are often three colours of flowers, on the same plant—the plant flowers in Britain in July, August and September, and the seeds ripen in five or six weeks after.

2. B: ELATA, (B: Pedunculis Unifloris Multiflorisque.) *Browallia of Peru*, a native of Peru; the stalk of this plant is twice the size of the former, and appears somewhat shrubby, the leaves upon the flower branches are smooth, the footstalks have some with one flower, others with three, and others with five, which are of a deep violet colour. Both species are annual plants, and are raised from seeds sown in a hot-bed, and may be transplanted in June, into the borders of the flower garden, where if the weather proves warm, they will flower and perfect seeds.

BROWNIA, a genus of the Monadelphia Endecandria class; the calix is bifid, the corolla double, the exterior quinquefid, and the interior pentapetalous; there is but one species a native of the West Indies, viz.

B: COCCINEA, of which I have seen no farther account.

BRUISEWORT. See *Saponaria*.

BRUNELLA of Michaux, and others. See *Prunella*.

BRUNIA, a genus of the Pentandria Monogynia class, ranking in the 48th Natural Order, *Aggregated*: the flowers are aggregated or clustered, the filaments inserted into the heels of the petals, the

stigma is bifid, and the seeds are single there are 5 species, all natives of Ethiopia.

1. B: IMBRICATIS, (Cupresso-Pinules, etc. of Breyn. Erica Capitata of Pluke. Scabiose affinis Arbuscula etc. of Ray.) *Cyprus Brunia*, grows naturally in Ethiopia; the stalk is woody, of a brown colour, divides into many branches, and attains a height of three or four feet; the leaves are narrow, of a strong green colour, and are imbricated in four directions; the flowers are collected in globular heads, but are very inconsiderable.

2. B: CALLOSIS, (Tamariscus Monomopatensis of Pluke.) *Wooly Brunia*, attains a height of three or four feet; hath a woody stalk, and sends out many wooly branches from the sides, the leaves are narrow, slender, and spreading, the flowers are collected in small heads like the former.

3. B: CILIATIS, *Ciliated Brunia*, attains a height of six or eight feet, the stalk is woody and branching, the leaves are oval, ciliated, and sharp pointed, the flowers are in globular heads, but are small, and have little beauty.

4. B: ABROTANOIDES, (Levisanus Africanus of Ray. Erica Capitata of Pluke.) *Abrotanoide Brunia*, attains a height of four or five feet, and has a woody branching stalk; the leaves are narrow, spear-shaped, triquetrous, and spreading; the heads of the flowers are larger than the others, and are of a white colour.

5. B: CARNOSIS, (B: Protea of the Sp: Pl: &c. Conocarpodendron of Bauh. Chrysanthemum of Pluke.) *Protea Brunia*, hath a rough woody stem, of a brown colour; the young branches are soft and downy; the leaves are oval, oblong, soft, and hoary; the flowers are produced in globular heads at the ends of the branches—they appear in August and September.

6. B: FLOEBIBUS, SOLITARIIS, *One Flowered Brunia*. This is a low branching shrub, also covered with a brown bark; the leaves are small, compressed, and of a dusky green colour; the flowers stand singly at the joints, they appear only in the summer, and continue in succession till the end of autumn.

I find no accounts of the other two species—these are all green house plants, and are propagated by cuttings, introducing them by degrees to the open air; they are also raised by seeds sown in light rich earth, plunged into a hot-bed, and managed as the cuttings.

BRUNNICHIA, (of Michaux) a genus of the Decandria Trigynia class of plants; the calix is quinquefide; it has no corolla, the seed are single, and enveloped in the calix.

*Note.*—The number of stamens constitute the only difference between this genus, and that of the Polygonum, i. e. *Knot Grass*, or *Snakeweed*, which latter has eight Stamens. Michaux enumerates but one species, viz.

B: CIRRHOSA, *Climbing Brunnichia*, grows naturally in the United States; it hath a smooth climbing stem, the leaves are oblong, heart-shaped, and pointed; the flowers are numerous, and come out in bunches, forming a raceme. See *Polygonum*.

BRUNSFELSIA, (in honour of the great Dr. Brunfelsius) a genus of the Pentandria Monogynia class; the corolla is funnel-

shaped, and very long, and the fruit an unilocular polyspermous berry; there is but one species, viz.

B: AMERICANA, *American Brunfelsia*; it rises with a woody branching rough stem. 6 or 8 feet high, garnished with oblong entire leaves, on footstalks, and large whitish flowers by threes or fours at the ends of the branches, succeeded by round saffron coloured soft berries.

This plant may be raised from seeds sown in pots, in the spring, and plunged in a bark-bed, it may also be propagated by cuttings planted in pots in the same season, plunging them also into a bark or other hot-bed, under glasses.

BRYONIA, *Bryony*, a genus of the Monoecia Syngenesia class, ranking in the 34th Natural Order, *Cucurbitacea*; the calix of the male is five toothed, the corolla is divided into five segments, there are three filaments, and five antheræ; the calix of the female is likewise teathed, the corolla has five divisions, the stylus is trifid, and the berry is roundish, contains many seeds—There are 6 species.

1. B: ALBA *Rough White Bryony, Red Berried Bryony, or Wild Vine*, a native of Britain; it is a rough plant, growing on dry banks, under hedges, and climbing upon the bushes; the roots are perennial, large, often a foot in circumference; the stem is several yards in length, the leaves nearly hand-shaped, the flowers are produced in small clusters, and are of a white colour, appearing in May and June, and the fruit when ripe is a smooth red berry containing five or six seeds.

*Part used.* The roots.

*Sensible properties.* Smell ungrateful, taste nauseous, acrid, and bitter.

*Medical virtues.* Bryony Root is a strong irritating cathartic, and as such has been successfully exhibited in maniacal cases, in some kind of dropsies, and in several chronical disorders, where a quick solution of viscid juices, and a sudden stimulus on the solids were required; an extract prepared by water acts more mildly and with greater safety than the root in substance, given from half a drachm to a drachm; it is said to prove a gentle purgative, and likewise to operate powerfully by urine. Externally applied it is said to be a powerful discutient, a cold infusion of the root in water is also externally used in rheumatic pains, and sciatica.

*Domestic uses.* Bryony root in its fresh state is generally considered as one of the poisonous vegetables, but when freed from its acrid bitter juice, it may be converted into bread and starch: two or three of the berries have been eaten without any sensible effect; and by long steeping and cleansing in several waters, the roots may be ultimately deprived of all their acrimony and bitterness so as to afford a tolerable flour.

*Note.* The roots of this plant have by impostors been brought into a human shape, and shown for *Mandrakes*; the method practised by these people, was to find a young, thriving plant of Bryony, they then opened the earth all around, being careful not to disturb the lower fibres; and being provided with such a mould as is used for making plaister figures, they fix the mould close to the root, fasten-

ing it with wire to keep it in its proper situation; they then filled the earth about the root, leaving it to grow to the shape of the mould, which it will do in one summer. The leaves of this plant are also imposed on people for *Mandrake* leaves, although there is neither resemblance in figure, or agreement in qualities between them.

2. B: AFRICANA, *African Tuberous-rooted Bryony*, hath a large tuberous root, from which issue several slender stalks in the spring, and which constantly die to the root in autumn; the leaves are palmated and smooth on both sides, each of them is divided into five parts, which are cut in such a manner as to resemble a winged leaf; the flowers are of an herbaceous colour, appear in July, and are sometimes succeeded by ripe seeds in the autumn.

3. B: CORDATIS, (*Vitis Alba Indica* of Rhump:) *Heart-leaved Bryony of Ceylon*; the leaves of this species are heart-shaped, oblong, five-cornered, indented, and very rough; it flowers at the same time with the others, but requires a warm season to bring the seeds to perfection.

4. B: CRETICA, *Spotted Bryony of Crete*; this is an annual plant, there are several varieties, which all rise with weak, rambling stalks, laying hold of every thing that is near them; this kind hath palmated leaves, the upper surface of which has many callous spots; the flowers appear in July or August; but the principal beauty of this plant consists in its berries, some being of a deep red colour, some white, and others variegated; some are oval and others round. Some authors mention the following as a separate species, under the title of.

B: VARIEGATA, *American Bryony*, with variegated fruit; it is also an annual plant, we however take it to be only one of the varieties already hinted at above.

5. B: ZEBLANICA, *Smooth Palmated-leaved Bryony of Ceylon*, hath several slender, rambling stalks, which are garnished with smooth palmated leaves, each of which are divided into five parts; the segments are spear-shaped, serrated, and bend backwards: It flowers about July, and produces ripe seeds about autumn.

6. B: BONARIENSIS, *Rough Palmated-leaved Bryony of Ceylon*; this is also an annual plant, with exceedingly rough, hairy leaves, divided into five parts, which are very much jagged, or cut into several spear-shaped, serrated segments; the flowers are of a yellow colour, appear in July, and are succeeded by red fruit in the Autumn. They are all propagated from seeds sown in a moderate hot bed, in the spring.

BRYONY the BLACK. See *Tamus*.

BRYUM, *Thread Moss*, a genus of the Cryptogamia Musci class, ranking in the 56th Natural Order, *Musci*; the anther is covered with an operculum; the calyptra is smooth, polished, and there is a filament arising from the terminal tubercle. There are 41 species, most of them natives of Britain.

1. B: RURALE, *Hairy Bryum* or *Thread Moss*, grows on roofs, both thatched and tiled walls, and trunks of trees; it is perennial, has a naked stalk and a tubercle at the base of it, it flowers from April to December. Thatched buildings, overgrown with this Moss, will



remain sound for a century. The capsules of this species stand erect, and the leaves end in a hair, and are recurved.

2. B: POMIFORME, *Apple-form Bryum*, with large spherical heads.

3. B: PYRIFORME, *Pear-form Bryum*, with obovate capsules, covered with an awl-shaped calyptra, the shoots stemless, and the leaves are ovate and awnless.

4. B: TRUNCULATUM, *Brown Bryum*, with erect, roundish capsules, and pointed lid; this is a very small Moss, growing close to the ground in thick tufts; the filaments are three or four lines high, and when the capsules have lost their lids, they have a truncated appearance, whence their name. The remaining species are not noticed.

**BUBBY BLOSSOMS**, *Sweet-Scented Shrub*, or *Carolina Allspice*.  
See *Calycanthus*.

**BUBON**, *Macedonian Parsley*, a genus of the Pentandria Digynia class, ranking in the 45th Natural Order, *Umbellatae*; the fruit is oval, striated, and villous, i. e. hairy. There are four species.

1. B: MACEDONICUM, *Macedonian Parsley*. This plant in warm countries is biennial, i. e. the plants which rise from seeds one year, produce flowers and seeds the next, and then perish: In Britain they seldom flower till the third or fourth year from the seeds, but whenever the plant flowers it always dies. This species sends out many leaves from the root, the lowest of which grow almost horizontally, spreading near the surface of the ground; the footstalk of each leaf divides into several smaller, which are garnished with smooth, rhomb-shaped leaves, which are of a pale, bright green colour, and sawed on their edges; in the centre of the plant arises the flower stem which is a little more than a foot high, dividing into many branches, each being terminated by an umbel of white flowers, which are succeeded by oblong, hairy seeds.

2. B: RIGIDUS, *Hard*, or *Rigid Ferula*, a native of Sicily, it is a low perennial plant, having short, stiff, and very narrow leaves; the flower-stalk rises a foot high, and is terminated by an umbel of small white flowers, which are succeeded by small, oblong, channelled seeds; it is a plant of little beauty or use, and is only cultivated for variety.

3. B: GALBANUM, *African Galbaniferous Mountain Parsley* or *African Ferula*, rises with an upright stalk, to the height of eight or ten feet, which at bottom is woody, having a purplish bark covered with a whitish powder, that comes off when handled; the upper part of the stalk is garnished with leaves at every joint, the footstalks half embracing them at their base, and are set with leaves like those of Lovage, but smaller and of a grey colour; the top of the stalk is terminated by an umbel of yellow flowers, which are succeeded by oblong, channelled seeds, which have a thin membrane or wing on their border. When any part of the plant is broken there issues out a little thin milk of a cream colour, which hath a strong scent of Galbanum. This and the following species are reputed to be the plants from which the concrete juice called Gum Galbanum is procured.

*Part used.* The Gum, which exudes in form of a semi-pellucid, soft, tenacious Gumresin.

*Sensible propretic.* Unpleasant smell, bitterish, warm taste.

*Medical virtues.* Galbanum agrees in virtue with Gum Ammoniac, but is generally accounted less efficacious in asthmas, and more so in hysterical complaints; it is said to be nervous and antispasmodic in doses of from 5 to 20 grains; is an ingredient in the Gum-pills, Gum-plaster, and some other officinal compositions. The best solvent for Gum Galbanum is two parts Spirit of Wine, and one part water—Spirit alone appears to be but a partial menstrua.

4. B: GUMMIFERUM, *African Gummiferous Mountain Parsley*; this plant rises with a ligneous stalk, about the same height of the foregoing, and is garnished with mock Chervil leaves at each joint, which branch out like the former, but the small leaves or lobes are narrow and indented like those of Bastard Hemlock; the stalk is terminated by an umbel of small, yellow flowers, which are succeeded by seeds like those of the former sort. This species as well as the former three may be propagated from seed, and require the common culture of other exotic vegetables.

BUCHNERA, a genus of the Didynamia Angiospermia class, ranking in the 40th Natural Order, *Personata*; the calix has five teeth, the corolla is divided into five equal, heart-shaped segments, and the capsule is bilocular. There are three species.

1. B: AMERICANA, *American Buchnera*; it is a native of the United States; hath an upright, undivided stalk; the leaves are rough, pointed, indented on their edges, and placed opposite to each other; the flowers adorn the tops of the stalks a great way down, and are of a fine violet colour, appear in August, and ripen their seeds in Autumn.

2. B: ASIATICA, *Asiatic Buchnera*, a native of Ceylon and China; the stalk is tender, somewhat square, sends out a few branches alternately from the sides, and attains a height of about two feet; the leaves are narrow, spear shaped, rough, entire, and placed alternately; the flowers come out from the tops of the stalks in long spikes, and are of a purple colour; they appear in August and September.

3. B: AFRICANA, *African Buchnera*, a native of Ethiopia; this grows to the same height as the foregoing, hath a square stalk, and sends out alternate branches from the sides; the leaves are spear-shaped, rough, and slightly indented on their edges; the flowers come out in spikes at the top of the stalks, are of a white colour, and appear about the same time with the former.

BUCK-BEAN. See *Menyanthes*.

BUCK-EYE. See *Aesculus*.

BUCK-THORN. See *Rhamnus*.

BUCK-WHEAT. See *Polygonum*.

BUCKLER-MUSTARD. See *Eiscutella*.

BUDDLEIA, a genus of the Tetrandria Monogynia class; the calix and corolla are each divided into four parts; the stamina are inserted into the receptacle; the capsule has four cells and contains many seeds. There are but two species, viz.

1. B: AMERICANA, *American Buddleia*, a native of Jamaica and other American Islands, where it rises to the height of ten or twelve

feet, with a thick, woody stem, covered with a grey bark, and sends out many branches towards the top, which come out opposite; the flowers are produced at the ends of the branches, in long, close spikes, branching out into clusters, and which are yellow, consisting of one leaf cut into four segments, these are succeeded by oblong capsules, filled with small seeds. It is propagated by seeds lightly sowed, for if covered too deep, they are apt to perish.

2. B: OCCIDENTALE, *Occidental Buddleia*, a native of Carthage, and rises much higher than the other, dividing into a great number of slender branches, covered with a russet, hairy bark, garnished with long, spear-shaped leaves, ending in sharp points: at the ends of the branches are produced branching spikes of white flowers, growing in whorls round the stalks with small spaces between each: both these plants grow in gullies or other low sheltered spots, being too tender to resist the force of strong winds. This species may be propagated as the former. They are both stove plants.

BUFONIA, *Toad Grass*, a genus of the Tetrandria Digynia class of plants, ranking in the 22d Natural Order, *Caryophyllææ*; the calix is erect, and consists of four awl-shaped, permanent leaves, having carinated membranaceous edges; the corolla has four oval emarginated, erect, equal leaves, shorter than the calix: the stamina are four equal filaments the length of the germen, having didymous antheræ; the pistillum consists of an oval, compressed germen, two styles, with simple stigmata; the capsule is unilocular, and contains two seeds. There is but one species.

B: TENUIFOLIA, (*Alsinoïdes* of Ray, *Herniaria* of Magnol,) *Toad-grass*, or *Bastard Chickweed*, grows naturally in England, France, and Spain; it is a perennial plant, with slender, flexible, white and fibrous roots; the stalk is slender, round, upright, jointed, branching, and six or eight inches high; the leaves are long, narrow, grassy, pointed, of a pale green colour, and grow by pairs at the joints; the flowers come out from the wings of the leaves, almost the whole length of the branches; they are small and of a whitish colour, blow in May or June, and are succeeded by small, black seeds, which ripen by August.—In propagating this plant, nothing more is necessary than to sow the seeds, as they will grow in almost any soil or situation.

BUGLE. See *Ajuga*.

BUGLOSS. See *Anchusa*.

BUGLOSS, the *Vipers*. See *Echium*.

BULBOCASTANUM. See *Bunium*.

BULBOCODIUM, *Mountain Saffron*, a genus of the Hexandria Monogynia class, ranking in the 9th Natural Order, *Spathacææ*; the corolla is funnel-shaped and consists of six petals, the claws of the petals are narrow, supporting the stamina. There are two species.

1. B: ALPINUM, (*Anthericum* of Linn: *Colchicum* of C. B.) *Bulbine Mountain Saffron*, a native of the Alps, and is found on Snowden in Wales; it has a small bulbous root, which sends forth a few

long, narrow leaves, somewhat like those of Saffron but narrower; in the middle of these the flower comes out, which stands on the top of the footstalk, growing erect, and is shaped like those of the Crocus, or Saffron, but smaller; the footstalk rises about three inches high, and hath four or five short, narrow leaves, placed alternately upon it below the flower, which blooms in March, and ripens its seed in May. It is propagated by offsets at the decay of the flower and leaf, every second or third year, also by sowing the seed in autumn, and sheltering them from frost.

2. B: VERNUM, *Spanish Meadow Saffron*, a perennial and native of Spain; it has a bulbous root, shaped like those of the Snow-drop, which sends out three or four spear-shaped, concave leaves, between which comes out the flower, standing on a very short footstalk; the flowers appear about the same time with the foregoing, at first they are of a pale colour, but afterwards change to a whitish purple; it is propagated in the same manner as the foregoing.

BULLACE PLUM. See *Prunus Invidiosa*.

BULLACES, or *Bolus Grapes*. See *Vine*.

BULL RUSH, or *Club Grass*. See *Scirpus Lacustris*.

BULLY TREE. See *Chrysophyllum*.

BUNIAS, *Sea Rocket*, a genus of the Tetradymania Siliquosa class, ranking in the 39th Natural Order, *Siliquosa*; the pod is deciduous, four sided, and the angles are unequal, and terminate in sharp points; there are 8 species, all of them annual plants, except the first, but none of them possessed of any remarkable property.

1. B: CAFILE, *Sea Rocket*, a native of Britain, of which I can discover no farther account.

2. B: MONSPELIENSIS, (*Eruca Monspeiaca* of C. B.) *Montpelier Sea Rocket*, grows naturally in moist places, near Montpellier; it has many weak branches that naturally incline towards the ground; the leaves are deeply sinuated, or divided into many parts, and their colour is bluish, the flowers grow singly from the wings of the leaves, towards the tops of the branches, they are of a pale colour, blow in July, and are succeeded by short, four cornered, double crested pods, containing one or two seeds.

3. B: ITALICA, (*Crambe Suec.* of Sauv. *Eruca Maritima Italica* of C. B.) *Italian Sea Rocket*; the leaves of this species are oblong, hairy, deeply sinuated, and the radical ones spread themselves on the ground, among these there arise a few branching stalks, to the height of about a foot and a half, which are garnished with oblong rough indented leaves near the bottom; the flowers grow from the sides of the branches, towards the top; have short footstalks, and are placed alternately; they are of purple colour, blow in July or August, and are succeeded by smooth, oval, pointed pods, containing one or two roundish seeds.

4. B: VERRUCOSIS, (*Crambe erucae* of Tourne, and Van Royen.) *Oriental Bunias*, a native of Russia, and the East; it is a perennial plant, the radical leaves of which are of an oblong figure, numerous and spreading, with their edges deeply cut, or indented, not much unlike those of Dandelion; the stalks arise from among them to the height of two feet or more; they are very branching,

and at the joints are garnished with oblong, sharp pointed leaves, that are eared at the base, and sit close without any footstalks; the flowers are produced in loose spikes from the ends of the branches, are yellow, and resemble those of the common Cabbage; they blow in June, and in September are succeeded by seeds, contained singly in oval, gibbous, warted pods. This species is very easily propagated by seeds sown where they are to remain. The annuals are raised in the same manner, but delight in a moist soil.

**BUNIUM**, *Pig Nut*, or *Earth Nut*, a genus of the Pentandria Digynia class, ranking in the 45th Natural Order, *Umbellata*; the corolla is uniform, the umbella is thick, and the fruit is oval. There are two species.

1. B: **BULBOCASTANUM**, *Great Earth Nut*, *Pig Nut*, *Earth Chestnut*, *Kipper Nut*, or *Hawk-Nut*, a native of Britain, grows in dry pastures; it hath a tuberous solid root, which lies deep in the ground, the leaves are finely cut, and lie near the ground, the stalk rises a foot and half high, is round, channelled and solid; the lower part being naked, but above where it branches out, there is one leaf placed below every branch; the flowers are white, all fertile with heart-shaped petals, and are like those of other umbelliferous plants; the seeds are small, oblong, and when ripe are channelled, and flowers in May or June.

*Medical virtues.* These are said to possess pectoral and diuretic virtues, on which account they are esteemed wholesome and beneficial in the gravel, &c.

*Domestic uses.* The roots of these plants being little inferior to Chestnuts, would form an agreeable addition to our winter desserts, and may be eaten either raw, boiled, or roasted; it is said to afford great nourishment to the human body.

2. B: **FLEXUOSUM**, *Common Earth Nut*, or *Pig Nut*, a perennial plant, (as is the other) growing in sandy, or gravelly meadows pastures, orchards, and woods, and flowers in the month of May or June. According to Mr. Curtis, this is only a variety or smaller sort of the former. They are easily propagated by planting the roots when the stalks decay, or the seeds may be sown at the same time, they require a light, dry, and undunged earth, well broken up.

**BUMPHTHALMUM**, *Ox Eye*, a genus of the Syngenesia Polygamia Superflua class, ranking in the 49th Natural Order, *Composita*; the receptacle is paleaceous, the margin of the pappus is obsolete, or an indifferent rim; the sides of the seed are margined, and the stigmata of the hermaphrodite, floscules, are undivided; the species are ten, the most remarkable of which are the two following:

1. B: **HELIANTHOIDES**, (*Chrysanthemum Americanum* of Pluke.) *American Ox-Eye*, a native of South Carolina; it has a perennial root, and an annual stalk, which rises six or eight feet high, garnished at each joint, with two oblong heart-shaped leaves, which have three longitudinal veins, and the base on one side shorter than the other, the flowers come out at the extremity of the branches, and are of a bright yellow colour, resembling a small Sun Flower.

2. B: **FRUTESCENS**, *Shrubby Carolina Ox-Eye*, *The Shrubby Jamaica Ox-Eye*, of British gardeners, attains a height of eight or ten

feet, and is found in Carolina, and Florida; the leaves are silvery, hoary, soft to the touch, and of different sizes, though in general they are spear-shaped, and placed opposite on the branches; they grow on footstalks, and what is remarkable near their base, there is the appearance of two teeth standing upwards; the flowers are produced from the ends of the branches in scaly cups, and are of a pale yellow colour, blow in July, and often continue in bloom until October.

*Note.* There is a variety of this species, that hath very thick, oblong leaves, and no teeth to their footstalks, and also another with bright, deep yellow flowers, and others of different tints.

3. B: TOMENTOSIS, *Bahama Ox-Eye*; the stalks of this plant are shrubby near the bottom, but higher they are rather succulent; several of them arise from the same root, and usually grow about a yard high; the leaves are spear-shaped, succulent, hoary on both sides, and grow opposite on the branches; the flowers are produced from the ends of the branches on moderately long footstalks, they are large and of a bright yellow colour, blow in July, and often continue till October.

*Note.* There is a variety with shining green leaves, and another with very narrow leaves, and flowers placed on short footstalks.

4. B: SUFFRUTICOSA, *Cape Ox-Eye*, grows naturally at the Cape of Good-Hope. The stalks of this species are of a shrubby nature, and attains the same height with the former; the leaves are very narrow, spear-shaped, recurved, slightly indented, and opposite, the flowers are produced from the tops of the branches in leafy cups, blow in July, and continue in succession two or three months.

5. B: AFRICANUM, *African Ox-Eye*; the stalks of this plant are also shrubby, and attain the same height of the two foregoing; the leaves are spear-shaped and entire, they are placed alternately on the branches; the flowers are produced from the tops in July, and like the others continue some months in bloom.

6. B: MARITIMUM, (Aster of other Authors,) *Maritime Ox-Eye*, a perennial, grows naturally on the Mediterranean shores, and attains a height of about a foot; the stalk is very branching and woody; the leaves are narrow, hairy, and wedge-shaped; the flowers are produced from the ends of the branches, they are radiated and of a yellow colour, they blow early in summer, and continue great part of the winter.

7. B: AUSTRIACUS, *Hairy Willow-leaved Ox-Eye*, a perennial, and grows naturally on the Alpine parts of Austria, Helvetia, &c. the stalks are hairy, slender, branching, and grow about two feet high; the leaves are spear-shaped, hairy, and their edges slightly serrated; the flowers are produced from the ends of the branches in June and July, they are of a bright yellow colour, radiated, and are succeeded by seeds in the autumn.

8. B: GLABRIS, (Asteroides Alpina of Tourne. Aster Luteus of C. B. and Chrysanthemum perenne minus of Moiss.) *Smooth Willow-leaved Ox-Eye*, a perennial, and grows naturally on the Alps of Italy and Austria; it hath several slender, branching stalks, about two feet high the leaves are spear-shaped, narrow, smooth, and their edges indented slightly, the flowers are radiated, and their

colour is a bright yellow; they are produced from the ends of the branches, in June and July.

9. B: AMPLEXICAULIBUS, (Asteriscus of old Botanists.) *Annual Spanish Asteriscus*, of which there are several varieties, differing in size, leaves and flowers, some grow to little better than a foot high, whilst others grow to upwards of a yard; the stalk sends forth branches in the alternate way, which usually exceed the main stem in height; the leaves also grow alternately, are spear-shaped, hairy, entire, and embrace the stalk with their base; the flowers are produced from the extremities of the branches on short footstalks, the calix of each consists of about seven rigid, acute leaves, which spread themselves beyond the flower; the flower itself is radiated, of a bright yellow colour, and blows in June or July.

10. B: ODORATUS, *Sweet-Scented Portugal Asteriscus*; this is a small annual plant, seldom exceeding a foot in height, though it sends forth many branches near the bottom, in the alternate way; the leaves are also placed alternately, they are oblong, hairy, obtuse, and having no footstalks sit close to the branches; the flowers are radiated, yellow, and finely scented, they appear in June or July. There are two or three varieties of this species, one of which has fine cream-coloured flowers, the others are of different tints of yellow, &c. The annuals are propagated from seeds, and the perennials either by parting the roots, or sowing the seeds.

BUPLEURUM, *Hare's Ear*, or *Thorough Wax*, a genus of the Pentandria Digynia class, ranking in the 45th Natural Order, *Umbellatæ*; the involucre of the partial umbels, are large in proportion, and pentaphyllous; the petals involuted or rolled inwards, the fruit roundish, compressed, and striated. There are 17 species.

*Note.* This genus is very different from the *Eupatorium*, or *Thoroughwort*; we mention this because some call the present, through mistake, *Thoroughwort*.

1. B: FRUTICOSUM, *Shrubby Ethiopian Hartwort*, or *Thorough Wax*, a native of Ethiopia, and rises with a shrubby stem dividing into numerous branches, forming a bushy head five or six feet high, adorned with oblong, oval, entire, smooth leaves of a pale green colour, placed alternately with yellow flowers in umbels at the ends of the branches, which appear in July and August, and are sometimes succeeded by ripe seeds. It may be propagated from seeds or cuttings.

2. B: AMPLEXICAULIBUS, *Shrubby Hairy Ethiopian Hare's Ear*; this attains the same height with the former; the leaves are oblong, indented, hairy, downy underneath, and embrace the stalk with their base; the flowers are small, and are produced from the extremities of the branches in umbels; they blow in July or August, and are succeeded by oblong channelled seeds.

3. B: PINNATO, *Shrubby Cape Hare's Ear*, or *Thoroughwax*, grows naturally at the Cape of Good-Hope; attains the same height with the two foregoing, and hath a woody, branching stalk; the leaves are of different forms, those in the spring are decomposed, being composed of many plane lobes, that are finely divided, these fall away and are succeeded in the summer by long, narrow, angu-

lar, trifid, rush-like leaves, which are produced in clusters from the joints; the flowers grow from the ends of the branches in spreading umbels, they are small and of an herbaceous colour, blow in July and ripen their seeds in autumn. These two species are propagated by planting the cuttings in April, in light, fresh earth, and plunging the pots in a moderate hot-bed, or from seeds.

4. B: TENUISSIMUM, *Least Hare's Ear*, a low, annual plant, and native of England, Italy, and Germany; the leaves are very narrow, sharp-pointed, and sit close without any footstalks; the flowers grow in alternate umbels, and blow in July.

5. B: PERFOLIATIS, (*Perfoliata Arvensis* of C. B.) *Common Thoroughwax*, grows naturally among corn in England, &c. the stalk is slender, round, brittle and branching; the leaves are oval, and surround the stalk at their base, so that the branches appear to be thrust through them; the flowers terminate the branches in umbels, are of a pale yellow colour, and blow in May or June.

*Note.* There are several varieties, such as the *Curled-leaved*, the *Double-flowered*, &c.

6. B: DIVARICATIS, *Italian Hare's Ear*, grows naturally in the vineyards, and other parts of Italy; it is also an annual plant, the stalk is angular and very branching; the leaves are narrow and spear-shaped; the flowers are produced in compound umbels, in June or July.

7. B: HISPANICUM, *Spanish Hare's Ear*; the stalk and leaves of this species are scarce to be distinguished from the foregoing; but the flowers grow both in simple and compound umbels, in June and July.

8. B: ANGUSTIFOLIUM, (B: *Monspeliense* of Ray,) *French Hare's Ear*, rises with an upright, branching stalk, to the height of four or five feet; the leaves are narrow, grassy and smooth; the flowers are produced in compound umbels in June and July, and are of a yellow colour.

*Note.* Those are the principal species admitted into gardens, the others growing naturally wild in uncultivated parts of the world, have not been particularised; they are easily propagated from seeds, and require no more than common care.

BURDOCK. See *Arctium* and *Xanthium*.

BURMANNIA, a genus of the Hexandria Monogynia class, ranking in the 10th Natural Order, *Coronaria*; the calix is shaped like a prism, coloured, and divided into three segments, with membranaceous angles; the petals are three, the capsule is three-celled, and the seeds are very small; there are only two species known, but of which I have seen no farther account.

BURNET. See *Poterium*.

BURNET SAXIFRAGE. See *Pimpinella*.

BURNET ROSE. See *Rosa*.

BURNING THORNY PLANT. See *Euphorbium*.

BUR REED. See *Sparganium*.

BUR WEED, the greater, same as above.

BURSA PASTORIS. See *Thlaspi*.

BURSERIA, *Gum Elemi Tree*, a genus of the Hexandria Monogynia class; the calix is three-leaved; the corolla has three petals;



the capsule fleshy with three valves and monospermous; there is but one species, viz.

**B: GUMMIFERA**, (*Terebinthus Major* of Brown and Sloane,) *Gum Elemi*, or *Jamaica Birch Tree*; this is frequent in woods in most of the Bahama Islands, and grows speedily to a great height and thickness; the bark is brown, and very like the Birch of Britain; the wood is soft and useless, except when peices of the limbs are put into the ground as fences, when it grows readily, and becomes a durable barrier; the leaves are pinnate, the middle rib five or six inches long, with the pinnæ set opposite to one another on footstalks half an inch long, it has yellow flowers, male and female on different trees, these are succeeded by purple-coloured berries, bigger than large peas, hanging in clusters on a stalk of about five inches long, to which each berry is joined by a footstalk of half an inch long; the seed is hard, white, and of a triangular figure, inclosed within a thin capsule, which divides in three parts, and discharges the seed.

*Note.* Under the article *Amyris*, we mentioned the *Gum Elemi Tree*, observing at the same time, the differences which existed among authors, we can only add in this place, that there is a probability, the Gum Elemi, is extracted from both species; there are also other mistakes concerning this tree, for some Botanists, according to Dr. Wright, have mistaken the bark of the roots for the *Simarouba*, which is a species of *Quassia*.

**BUSH VETCH.** See *Vicia Sepium*.

**BUTCHER'S BROOM**, or *Knee Holly*. See *Ruscus*.

**BUTOMUS**, *Flowering Rush*, or *Water Gladiole*, a genus of the *Enneandria Hexagynia* class, ranking in the 5th Natural Order *Tripetaloideæ*; it has no calix, the corolla consists of six petals, and the capsules are six, containing many seeds. There is but one species.

**B: UMBELLATUS**; (*Juncus floridus. major* of C. B.) *Gladiolus aquaticus* of Dodon.) *Flowering Rush*, a native of Europe, and is a perennial plant, of which there are two varieties, the one with a white, the other with a red or rose-coloured flower—they grow in slow streams and muddy ditches, has a round, smooth, naked stalk, which rises from one to six feet high, according to its situation, the leaves are long and flaggy, at the top or head of the flower stalk, is an umbel of bright white, yellow, or red flowers, sometimes not less than thirty, surrounded at the bottom of the umbel by an involucre of withered sheaths.

*Domestic uses.* This plant so stately from its height and its beautiful tuft of flowers, would make a charming appearance in canals and other waters, if introduced and cultured by art, it is so hardy as to defy the cold of Lapland: in its natural state it is a great ornament to the banks of rivers and ditches. The Dutch manufacture a kind of carpets and tapestry from its strong leaves, that are highly prized—they may also be converted into baskets for packing fruit and other commodities. It is refused by every species of cattle. It is propagated by roots or seeds, sown in a boggy situation, where they may have water.

**BUTTER BUR.** See *Tussilago*.

**BUTTER CUP.** See *Ranunculus acris*.

**BUTTER JAGGS.** See *Medicago*.

**BUTTER TREE,** a valuable plant, growing spontaneously in Africa, where it is called *Shea Toulou* or *Tree Butter*—the tree according to Mr. Park, very much resembles our American Oak. It produces a nut resembling the Spanish olive, the kernel from which the butter is prepared by boiling it in water, is enveloped in a sweet pulp, under a thin green rind—the butter produced from it, besides the advantages of its keeping without salt the whole year, is whiter, firmer and of a richer flavour than the best butter he ever tasted, made from cows milk—the growth and preparation of this commodity seems to be among the first objects of African industry, constituting a main article of their inland commerce.

**BUTTER WORT.** See *Pinguicula*.

**BUTTON TREE.** See *Conocarpus*.

**BUTTON SNAKE-ROOT,** an indigenous plant, whose character as a domestic medicine ranks high in Carolina. To what genus of plants it belongs, I have not been able, with the most unremitting attention, to discover, and its not being in bloom at this time its characters cannot be ascertained; as soon as they are, it will be given under its appropriate head. It is known to some persons by the name, *Contrayerva*, with which it agrees in its medicinal properties. Button Snake-Root grows plentifully in this state, several plants of which are to be seen in the Botanic Garden. It hath a knotty root about an inch or two long, and nearly the same thickness; it is externally of a dark brown, internally of an ash colour, many long, tough, slender fibres shoot out from all sides of it, which are however of the same colour with the tuberous part of the root—from the root there immediately rises a number of radical leaves, which are twelve or fourteen inches long, and one, or one and a half broad, pointed, and elegantly ciliated, or set with soft hairs or bristles, at equal distances; in the midst of these rise the flower-stalk, which is herbaceous and jointed, similar leaves put out from these joints; and the plant, according to the soil in which it grows, attains a height of one to three or four feet—the stalk is terminated with one, or more if branched, heads of flowers, which very much resemble those called Bachelor's buttons, (*Gomphrena Globosa*.) and are of a whitish colour.  
*Part used.* The tuberous root.

*Sensible properties.* Smell unctuous; on being first chewed it has an earthy and insipid taste, but in a short time makes an impression on the tongue somewhat warm, bitterish and astringent.

*Medical virtues.* The House-wives of Carolina, up country, use the root in decoction, as a sweat in Pleurisies, and other inflammatory disorders, requiring a determination to the surface; also in Colics—among some it is esteemed serviceable to persons bit with snakes, however, since the discovery of the *Rattle-snake's master*, it has been superceded by the latter—Button Snake-Root powdered is said to act as an escharotic, keeping down fungus flesh, and preventing mortifications. How far it is to be depended on in these cases, our industrious practitioners will, no doubt, ascertain, as the

plant is to be had in great plenty, and I doubt not, it will be found; at least, to answer all the intentions for which the *Contrainerva* of the shops (*Dorstenia Contrainerva* of Lin.) is exhibited.

**BUTTON WEED.** See *Spermacoce*.

**BUTTON WOOD.** See *Cephalanthus*.

**BUXBAUMIA**, a genus of the *Cryptogamia Musci* class of plants—the peristomium is double, the exterior is truncated, the interior membranaceous, and lying in folds. There is but one species, a native of Carolina. **B:** *FOLIOSA*.

**BUXUS**, the *Box-tree*, a genus of the *Monoecia Tetrandria* class, ranking in the 38th Natural Order, *Tricoccia*; the calix of the male consists of three leaves, and the corolla has two petals; the calix of the female has 4 leaves, the petals are three, it has three styli, and the capsule has three cells, containing two or three seeds. There are three species, though some say that there is but one, all the rest being varieties.

1. **B:** *ARBORESCENS*, (or *Sempervirens*) *Common oval-leaved Box*, an exotic plant, growing in great plenty on Box hill, near Dorking in Surry in England—here were formerly large trees of that kind, but now they are much fewer in number. There are two or three varieties of this species, which are propagated in gardens, one with yellow, called gold striped, and the other with white, called silver striped, and another hath the tips of the leaves only marked with yellow, and is called gold edged. and another with curled leaves. They are propagated by seeds or from cuttings, which are to be planted in autumn, in a shady border, the best season for removing the trees is in October, though if care be taken, they may be transplanted almost at any time, except the middle of summer.

*Part used.* The leaves and wood.

*Sensible properties.* The leaves have a strong nauseous taste, and when fresh a fetid smell.

*Medical virtues.* A drachm of the leaves are said to purge violently, and a decoction of the wood is recommended as a powerful sudorific preferable even to *Guaicum*; they are however neither of them at present used in medicine—although it is said that hair lost or decayed in consequence of malignant fevers, or other diseases, may be restored by rubbing the head with a decoction of the *Box wood*; care however must be taken in applying it, that the skin of the face is not touched with it, lest it also becomes hairy. There is an account given in the *Ephemerides* of the curious, of a young woman of *Gunbeye* in lower *Silesia*, who having had a malignant dysentery, which occasioned the falling off of all her hair, was advised to wash her head with a decoction of *Boxwood*, which she readily did, but having used no precaution to secure her face and neck from the lotion, her head again produced hair of a chesnut colour, but sad to relate, her face and neck became covered with red hair, to such a degree, that she seemed little different from an *Ape* or *Monkey*.

*Domestic uses.* *Box wood* being extremely hard and smooth, is well adapted to most articles of turnery. German flutes, and other musical instruments are manufactured from this and the following species of *box*: in *Paris* combs are made of no other material than

this wood, as also several articles of household furniture, and in gardening it adds much to the variety and elegance of them, being a great ornament to cold and barren soils where few other things will grow.

2. B: *ANGUSTIFOLIA*, *Narrow-leaved Box*. We do not learn that there is any material difference in this and the foregoing, except in its having narrower leaves—they are both propagated alike and their uses are said to be the same.

3. B: *SUFFRUTICOSA*, *Dutch, or Dwarf Box*—This species is altogether used for bordering flower-beds, or other purposes of that nature, and for this it far excels any other plant, being subject to no injuries either from heat or cold, and is of long duration, is easily kept handsome, and by the firmness of its rooting keeps the mould in the borders from washing into the gravel walks more effectually than any plant whatever. This species is increased by parting the roots, or planting the slips, but as it makes so great an increase of itself, and so easily parts, it is hardly worth while to plant the slips that have no roots.

*BYSSUS*, a genus of Mosses, belonging to the Cryptogamia Algae class, ranking in the 57th Natural Order, *Algae*, the character is taken from this circumstance, that they are covered with a simple capillary filament or down, resembling soft dust. There are 15 species natives of the known parts of the world, and grows upon rotten wood, old walls, fence-rails, &c. of this genus the most particular is the following:

B: *CANDELARIS*, *Yellow Powder Wort*, (and is the *Lichen flavus* of Withering) is an annual, vegetable dust, generated on old pales, the cracked bark of old trees and antique walls, and appears from September to June. The remaining species are not particularized.

### C.

*CAACHIRA PISON*. See *Colutea*.

*CAAMINI*, *Paraguayan Tea*, the shrub which produces this tea is a native of the mountains of Maracaya, far from the inhabited parts of Paragua. The inhabitants have planted several of the trees near Paragua, but cultivation seems to lessen its value, the wild sort having by far the best flavour; the former is called the finest Paraguayan tea, and the latter *Pabos*. They are in considerable use in Chili and Peru as tea is with us. Mr. Miller says it is a species of the Cassine, to which we refer.

*CAAPEBA*. This is the Indian name for this plant; at present we have no English name for it. Its characters are—It hath a rose flower, consisting of four leaves, which are placed orbicularly but are sterile, from the middle arises, the pointal, which is plain round and umbilicated, the embryos grow at a separate distance on the same plants, which afterwards become small spherical berries, including rough seeds. There are three species, viz.

1. C: *ORBICULARI*, *Caapeba*, with a round umbilicated leaf—it is a native of the warmer parts of America, and is a climber, as

are the remaining species, they twist themselves round whatever trees or shrubs grow near them, and sometimes attain a height of six or seven feet.

2. C: *TOMENTOSA*, *Woolly Caepeba*, this species hath a round woolly, umbilicated leaf.

3. C: *NON UMBILICATO*, *Caepeba*, with a round leaf not umbilicated—All the species are propagated by seeds sown in pots, filled with fresh light earth early in the spring, plunged into a moderate hot bed, and require the same treatment as other tender plants.

CABBAGE. See *Brassica*.

CABBAGE LETTUCE. See *Lactuca*.

CABBAGE TREE, or Tree Cabbage Palm. See *Areca Oleraca*, and *Corypha*.

CABBAGE BARK TREE. See *Geoffraea*.

CABBAGE the Anjou, is a shrub and native of France; its stalk generally grows to the height of seven feet, on the most indifferent soils, and endures the severest winters; it produces a constant succession of sprouts during the spring, and yields abundance of seeds, though the young shoots be ever so frequently gathered. It is said that a minutes boiling is sufficient to dress it, and that it does not occasion flatulency when eaten. Cattle are exceeding found of it, as it increases their milk; the dried stalks serve as fuel.

CABOMBA, a genus of the Hexandria Digynia class of plants, enumerated by Michaux in his *Flora Boreali-Americana*; the calix consists of six nearly equal leaves.

CACALIA, *Alpine Coltsfoot*, a genus of the Syngenesia Polygamia Æqualis class of plants, ranking in the 49th Natural Order *Compositæ*; the receptacle is naked, the pappus is hairy, the calix is cylindrical, oblong and *calculated*, or having a small calix of very short scales only at the base. There are 12 species.

1. C: *SUAVEOLENS*, *Canada sweet-scented Coltsfoot*, a native of the United States. It hath a perennial creeping root, which sends out many stalks, garnished with triangular, spear-shaped leaves, sharply sawed on their edges, of a pale green on their under side, but of a deep shining green above, placed alternately. The stalks attain a height of seven or eight feet, and are terminated by umbels of white flowers, which are succeeded by oblong seeds, covered with down. It flowers in August, and the seeds ripen in October. The stalks decay in autumn, and new ones arise in the spring.

2. C: *FICOIDES*, *African tree Groundsel*—it is a native of the Cape of Good-Hope, has strong round stalks, which attain the same height with the foregoing, is woody at the bottom, but soft and succulent upward, sending out many irregular branches, garnished more than half their length with thick, taper, succulent leaves, a little compressed on two sides, ending in points covered with a whitish, glaucous farina, which comes off when handled—these when broken emit a strong odour of turpentine, and are full of a viscous juice; the flowers are produced at the extremity of the branches, in small umbels, they are white, tubulous, and cut into five parts at the top.

*Domestic uses.* The French pickle the leaves of this plant, and have a method of preserving the farina or dust upon them, which adds greatly to their beauty. They are highly esteemed among them.

3. C: KLEINIA, *Cabbage or Carnation Tree*, is a native of the Canary islands, it rises with a thick fleshy stem, divided at certain distances as it were into so many joints, each of these divisions swell much larger in the middle than they do at each end, and the stalks divide into many irregular branches of the same form, which toward their extremities, are garnished with long, narrow, spear-shaped leaves, of a *glaucous*, or bluish colour, standing all round the stalks without order; as they fall off they leave a scar at the place, which always remains on the branches—the flowers are produced in large clusters at the extremity of the branches, which are tubulous, and of a faint carnation colour—they appear in August, and sometimes continue till October. It is called Cabbage tree from the resemblance its stalk bears to the Cabbage, and Carnation tree from the colour of its flowers.

4. C: HETEROPHYLLA, a native of South-Carolina, attaining the same height with the two foregoing. It is an evergreen, with leaves somewhat wedge-shaped, fleshy, and of a pale whitish green, both surfaces being covered with a hoary pubescence and vesiculae, or little bladders, that when pressed feels clammy and emits an agreeable scent; the ascendant branches are crowned with large tufts or corymbs of rose coloured flowers, of the same agreeable scent.

5. C: PAPPILLARIS, *Papillary Cacaclia*, an exotic, growing naturally in Æthiopia; the stalk is large, thick, fleshy, and divides irregularly into a few branches, the leaves come out all round the stalks, and possess the remarkable property of falling off from their footstalks, leaving them still fastened to the main stem, which appears guarded by them all round; they are long, narrow, and very succulent, and the footstalks being thick and strong, and remaining on the plant after the leaves are fallen cause a singular look.

6. C: ANT-EUPHORBIVM, (C: Ovata of Walt.) *Anti-Euphorbium*, grows naturally in Æthiopia, and according to Mr. Walter, in South Carolina; this plant receives its name from the quality it possesses, which is supposed to be contrary to the *Euphorbium*. It sends forth many succulent stalks from the root, which divide without order into others that are smaller; the leaves are oval, oblong, flat, succulent, and grow alternately on footstalks, under each of which is a tripple line drawn and continued along the branches—with regard to its flowers, we are at a loss, having seen no accounts of them.

7. C: DENTICULATIS, (*Tussilago Ramoso* of Van Roy.) *Alpine Coltsfoot*, a perennial plant, which grows naturally on the Helvetian and Austrian Mountains; there are several varieties of this species, known by the names of the *Hoary*, the *Green Smooth-Leaved*, the *Thick Hairy-Leaved*, and the *Narrow Leaved Alpine Coltsfoot*. All these varieties have thickish spreading roots, from which arise the leaves standing on single footstalks; they are generally reniform, or heart-shaped, and are of the different properties already expressed; among these arise the stalks which are about one and a half, or two feet high according to the sorts; the flowers are produced in small um-

bels, they are of a purple colour in its different tints, blow in July, and are succeeded by oblong, downy seeds.

8. C: ATRIPLICIFOLIA, (*Porophyllum Deltoides* of Gronov. *Nardus Americana* of Pluke.) *Virginian Coltsfoot*, grows naturally in Virginia, and Canada; this hath a thick fleshy root of tubers which spreads itself under the ground all around; the stalks are strong and grow to be four or five feet high; the leaves are roundish, heart-shaped, smooth, sinuated, indented, and placed alternately on the stalks; the flowers grow in umbels at the ends of the stalks, they are of a greenish yellow colour, blow in July, are succeeded by seeds in October, soon after which; the stalks die to the ground, and fresh ones appear the spring after.

9. C: DECURRENS, (*Solidago Decurrens* of Monier. *Virgæ Aures* of Moris.) *Perennial Groundsel*, grows naturally in the Southern Gaul; it hath creeping roots which extend themselves a great distance, the stalks are angular, herbaceous and attain a height of six or seven feet; the leaves are spear-shaped, moderately broad, serrated, and decurrent, the flowers are of a whitish, yellow or sulphur colour, they appear in July, and after ripening their seeds the stalks also die as the foregoing.

10. C: PERFOLIATUM, (*Chrysanthemum Americanum* of Pluke.) *Perfoliate Cacalia*, grows naturally in America, the stalk is upright, and undivided, the leaves are elliptical, smooth, crenated, and in some varieties are marked with numerous black spots, the flowers are produced from the ends of the stalks in September.

11. C: SONCHIFOLIA, *Sow Thistle Leaved Cacalia*, grows naturally in Ceylon and China; this and the foregoing are annuals; the stalk of this species is herbaceous, the leaves are lyre-shaped, indented and embrace the stalk with their base; the flowers are produced from the ends of the branches, in August. The varieties of this species are the *Dwarf Sow Thistle-Leaved*, the *Larger Purple-Flowered*, and the *Small Yellow Flowered Cacalia*.

12. C: HASTATA. This is another evergreen, and native of South Carolina, does not attain the same size of the four first mentioned, and the leaves are smaller, and of a duller green colour; and the flowers of a paler rose colour than the *Heterophylla*. They are all very easily propagated from seeds sown in any common mould.

CACALIANthemum, a synonyme of the *Cacalia*.

CACAO, or *Cocuo*, the *Chocolate Nut*. See *Theobroma*.

CACHRYS, a genus of the Pentandria Dygynia class of plants, ranking in the 45th Natural Order, *Umbellatæ*; the fruit is subovate, angled, and spongy: Formerly there were but two species enumerated, there are now five.

1. C: LIBANOTIS, *French Cachrys* a native of France, hath a large thick fleshy root, the stalk is round, hollow, striated, jointed, and about a yard high, the leaves are bipinnated, being composed of a multitude of beautiful narrow segments, the radical leaves are exceeding large, those on the stalks are composed of the like parts, but are smaller, the flowers terminate the stalks in very large umbels of yellow flowers in June, which are succeeded by small smooth furrowed seeds.

2. C. SICULA, *Spanish Cachrys*, with double winged leaves, a native of Spain and Sicily; it scarce differs from the foregoing, except that its roots have an agreeable odour.

3. C: TRIFIDA, with leaves same as the foregoing.

4. C: LINEARIA, with plain channeled fruit.

5. C: HUNGARACA, *Hungarian Cachrys*, with a plain fungous channelled seed, is a native of Hungary, Transylvania, &c. This as well as the foregoing are perennial plants, rising pretty high, and bearing large umbels of yellow flowers; this latter species has long tap roots, and the inhabitants in times of scarcity, collect and eat them for want of other bread. They are a kind of carrot.

CACTUS, *Indian Fig, Prickly Pear, Nopal, Melon Thistle, Torch Thistle* and is also called the *Nopalleca, Cochineal Tree, Cereus*, &c. a genus of the Icosandria Monogynia class of plants, ranking in the 13th Natural Order, *Succulentæ*; the calix consists of one leaf imbricated or tiled, and above the fruit; the corolla has many petals, the fruit is a one celled, many seeded berry. There are 24 species, natives of the United States, West Indies, and Mexico. This genus is divided into eight classes—1st. *Melon Thistle*—2d. *Torch Thistles*—3d. *Cochineal Fig*—4th. *Indian Fig*—5th. *Great Indian Fig*—6th. *Indian Fig of Curassoa*—7th. *Sword Leaved Indian Fig*—8th. *Pereskia, American Gooseberry, or Blad Asphle*.

1. C: SUBROTUNDUS, (*Melocactus India Occidentale* of C. L.) *hedge Hog Melon Thistle, or Turk's Head*, grows naturally in Jamaica, and the warmer parts of America; it is a plant in the shape of a melon, its figure is nearly round, but inclining to oblong, and its height a foot or more; its inside is fleshy, soft and full of juice, its surface possesses fourteen high longitudinal ridges, each of which is beset with about nine tubercles, from every one of which about ten very sharp thorns an inch in length arise; the top of the plant is possessed of a fine downy matter, forming a tuft of about four inches diameter, among which still longer spines and the flowers are produced; there are many varieties of this species, differing in size of the plant, length and colour of the thorns, size of the tuft or cap, and the disposition of the flowers. The standing characteristic of this species is that its figure is nearly round, and its surface as already observed, is raised into fourteen longitudinal ridges; in some varieties however, they are spirally twisted, in others contorted, &c.

2. C: MAMILLIS, (*Ficoides S. Melocactus Mamellaris, Pluke.*) *Mamillary Melon Thistle*, grows naturally from the sides of craggy rocks and mountains, in the warmest parts of America, as does the foregoing, and seem to flourish best where there appears to be the least earth for their support. This species is also shaped like a melon, though its figure is usually more oblong and flatted at the top, its height is about eight or ten inches, its inside tender, fleshy, and of an acid taste, the surface is covered with oval, smooth tubercles, which are armed with glossy brown coloured thorns, disposed in a radiated manner at the crown of each tubercle; the flowers come out among the tubercles, and are of a white colour, they blow in July, and are succeeded by oblong crimson fruit of an agreeable acid flavour, which will ripen in winter. The fruit of all the species are frequently eaten by the inhabitants of the West Indies.



3. C: ERECTUS, (Cereus Erectus of Herm. Melocactus Monoclonos of Plum.) *Common Great Upright Torch Thistle of Surinam.* This plant consists of a single hexangular stem. body or column, five or six inches in diameter, and thirty or forty feet in height; the angles or ridges raised on the surface, are at a considerable distance from each other, and usually six in number, though they are frequently more at the upper part of the plant, and sometimes fewer near the base. These ridges are armed with sharp spines which come out in radiated clusters along the ribs at certain distances from each other; the flowers come out from the sides of the stems at the ribs, on thick, scaly, round channelled, hairy footstalks; the petals are white and the caps, which are very prickly, are green striped, with purple; they are as large as a rose, and open chiefly in the evenings; they blow in July, but are rarely succeeded by fruit in England.

4. C: QUADRANGULARIS, *Smaller Quadrangular Torch Thistle,* grows naturally in the warmer parts of America, the stem is upright, sends forth many side branches, and grows only five or six feet high; the ribs or angles are only four in number, are compressed, and stand at a considerable distance from each other.

5. C: SEPTANGULARIS, *Septangular Torch Thistle,* the figure of this species is oblong, its position upright, and the angles or ribs usually seven in number, it is armed with spines along the ribs, and flowers in July.

6. C: SUBQUINQUANGULARIS, *Pentangular Torch Thistle,* this plant rises with an upright column to fifteen or twenty feet high, it is articulated, the joints being placed at a considerable distance from each other; the number of angles is about five, though in some varieties more are found, in others hardly four near the base.

7. C: OCTANGULARIS, (Cereus Altissimus of Sloane,) *Octangular Torch Thistle:* The stem is rather slender, but upright, the angles obtuse, and eight or nine in number, and the spines are in clusters, which are placed at a considerable distance from each other; the flowers come out from the angles, they are of a greenish colour, appear in June, and are succeeded by fruit that are large, of a yellow colour on the outside, but white within; it is full of pulp and contains a great number of black seeds.

8. C: SUBNOVEMANGULARIS, (Cereus Curassavicus of Herm.) *Downy Torch Thistle of Curassou,* the stem is upright, thick, and fifteen or twenty feet high; the angles are about nine in number, obtuse, and the channels not deep; they are possessed of short spines, and a long yellow coloured downy matter; they flower in June and July, succeeded by large red coloured smooth fruit of an agreeable acid flavour.

9. C: SUBOCTANGULARIS, (Cereus Peruvianus of C. B.) *Peruvian Torch Thistle,* hath an erect stem twenty or thirty feet high, the angles are about eight in number, obtuse, and the channels not deep; they are armed with spines, produce their flowers in July, and afford a middling sized red coloured smooth fruit of an agreeable flavour.

10. C: SUBDECANGULARIS, *Royens Torch Thistle:* The stalk is upright, and articulated, the angles or ridges are about ten in number, and the joints are nearly of an oval figure; they are possessed of

spines, and of a woolly matter about the same length; the flowers are produced in July, and are succeeded by a middle sized agreeable fruit.

11. C: GRANDIFLORA, (*Cereus Repens*,) *Grand Flowered Climbing Torch Thistle*: The stalks are climbing, jointed, possessed of five or more angles, and strike root at the joints. The flowers of this species is said to be as grand and beautiful as any in the vegetable system; it begins to open in the evening about seven o'clock, is in perfection about eleven, and fades about four in the morning, so that the same flower only continues in perfection about six hours. The calix when expanded is about a foot in diameter, of a splendid yellow within, and dark brown without; the petals are many, and of a pure white, and the great number of recurved stamina surrounding the style in the centre of the flower, make a grand appearance: to which may be added the fine scent which perfumes the air to a considerable distance—it flowers in the month of July.

12. C: FLAGILLIFORMIS, *Common Creeping Cereus*, or *Purple flowered Torch Thistle*, hath a long stem without leaves, which in many species is strong enough to support itself; but in some trails along the ground, or is supported by trees: this species is scarcely less admirable for the beauty of its purple, as also the variety with pink-coloured flowers, which these plants produce in greater quantities than the foregoing; they are of longer duration, for they not only open in the day-time, but continue open three or four days; when it is not in flower, it is distinguished by its very slender branches covered with spines, and marked with ten prominences; one of these are to be seen in the Botanic Garden of South-Carolina. They grow indifferently on the sea-coasts.

13. C: TRIANGULARIS, *Triangular Climbing Torch Thistle*; the stalks of this species are slender jointed, triangular, very prickly, strike roots at the joints and extend themselves to a considerable distance; the flowers are large and of exquisite beauty, and the fruit which succeeds them is nearly round, large, and of a delicate flavour; the two first species are propagated from seeds, and the remainder by cuttings taken in June or July, and laid in a dry, airy place, for a fortnight, that the parts may heal before they are planted, to prevent their rotting.

14. C: COCHINELLIFER, (C: Articulato: prolif: Lin: *Ficus Indica* Major of Pluke: *Opuntia Maxim* of Sloane:) *Indian Fig*, *Prickly Pear*, or the *True Cochineal Fig*, is a native of Carolina, Georgia, and Mexico, at which latter place it is cultivated in great abundance, on account of the insects which derive their nourishment and valuable dying properties therefrom, and which forms a most extensive part of their trade. This plant seldom exceeds nine feet in height, has oblong leaves, with several eminences and few or no spines, and those few very soft and inoffensive; it has a fine, smooth membrane of a permanent and lively green (which particularly distinguishes it from the *Tunos* of Andalusia, which it much resembles in other parts, the leaves of the *Tunos* being broad, flat, and prickly.) The whole plant seems to be formed of oval compressed leaves or articulations; those near the earth continually increase, magnify, and indurate, as the tree advances in years, and at length lose the

bright green colour and glossy surface of their youth, acquiring a lignous or woody quality, with a whitish scabrous cortex or bark; every part of the plant is nearly destitute of *Aculea* or those fascicles of barbed bristles, which are in such plenty on the common species; the Mexican species has a small, bright, red blossom, in the shape of a bud; the Carolinian has large, many petaled, splendid, yellow flowers, which are produced on the last year's leaves; from the centre of these flowers proceeds the *Tuna*, a name given to the fruit which is large and pear or fig-shaped, of a dark livid purple when ripe; its pulp is charged with juice of a fine transparent colour, and has a cool, pleasant taste, somewhat like that of a Pomegranate.

*Note.* We are indebted to the industry of the late Dr. Garden of South-Carolina, and the venerable and indefatigable Bartram of Pennsylvania, for these native discoveries, and indeed for many others, which else might have remained in obscurity to the present time.

It is from the juice of the fruit of this plant, the Cochineal Insect (for many years considered as vegetable seed) is bred and nourished, and from which it is presumed they derive their beautiful scarlet and crimson colour; affording the druggist and dyer the most valuable and most elegant basis for colouring either drugs or clothing.

Q. Would not the juice of this fruit, properly, that is, Chymically prepared with animal matter, viz. urine, produce a similar dye?

*Parts used.* The fleshy leaves and fruit.

*Sensible properties.* The fruit tinges the urine of those who eat them of a blood-red colour, a circumstance attended with no small uneasiness to those who are unacquainted with the fruit, few fruits however are either more wholesome or pleasant.

*Medical virtues.* These are principally confined to the leaves, which by the Spaniards are slightly roasted in ashes, being first divested of their aculei; (it is to be observed, all the species have the same properties) they are then split flatwise, greased with hog's lard, and applied to inflamed parts: It is asserted that, beginning mortifications have been happily suppressed by this application alone, duly persisted in; surely in such cases, as a topic, it merits particular attention, as it does not prevent other applications.

*Domestic uses.* The fruit is pickled in Georgia like Beets, after being cleared of their *Aculei*, and have an agreeable relish.

15. C: OPUNTIA, (C: Compressus of Van Roy:) *Indian Fig* or *Prickly Pear*, grows on and near the sea-coast of Carolina, Georgia, and indeed on the sea-board of most of the United States, as far north as New-York; this is composed of many joints or branches, which are erect, of an oblong and somewhat oval figure, they are compressed, and armed with radiated clusters of bristly spines; the flowers are produced from the edges of the branches. sitting on the embryo fruit, they are of a yellow colour, appear in July and August, and are succeeded by a large, purple-coloured, prickly fruit, which affords food for a wild sort of cochineal insects, called *Sylvesters*.

16. C: RAMOSISSIMUS, (*Opuntia vulgo Herbariorum* of J. B.) *Common Indian Fig*, grows naturally in the United States, and in Peru, Italy, Spain, &c. it is composed of a multitude of articulations,

joints, or branches, which are loosely disposed, and in old plants spread every way; they are of an oval figure, compressed, fleshy, knotty on the surface, where there are situated a few short bristly spines which soon fall off; the flowers are produced from the sides and upper parts of these articulations, or branches, sitting on the germen, they are of a pale yellow colour, appear in July and August, and are succeeded by oblong, prickly, purplish fruit.

17. C: ARTICULATO, (Tuna Major of Dille: Opuntia Major of Sloane,) *Great Indian Fig*, or *Prickly Pear*; this plant is composed of a multitude of large articulations, and grows to be twelve or fifteen feet high; the joints or branches are of an oval, oblong figure, and armed with numerous clusters of long, awl-shaped, yellowish coloured spines; the flowers are large and of a bright yellow colour; the fruit is a large umbilicated berry full of juice.

18. C: CURASSAVICA, (Opuntia Minor of Pluke:) *Pin Pillow*, or *Indian Fig of Curassoa*; this is a low plant, formed of many cylindrical, swelling, and compressed branches or articulations which spread every way, often lie on the ground, and falling off strike root and become fresh plants; the branches or joints are closely beset with whitish spines, and being cylindrical, bellied and compressed, assume the appearance of a Pin-Cushion set with pins, hence the name Pin Pillow.

19. C: ENSIFORMIS, (Cereus Scolopendri of Dille, Phyllanthos Americana of Pluke,) *Sword-leaved Indian Fig*; this plant is formed of several long, slender articulations, which are sword-shaped, compressed, have no spines, are of a light green colour, and indented on their edges; the flowers are produced from the indentures of the leaves, sitting on the embryo fruit; they are of a pale yellow colour, and are succeeded by a moderately large, oblong, succulent fruit.

20. C: ARBOREA, (Pereskia Aculeata of Plum: Malus Americana of Comm: Grossularia Sc. of Sloane,) *Pereskia*, *American Gooseberry*, or *Blad Apple*, grows naturally in Jamaica and other warm parts of America; the stem is woody, taper, spinous, and sends forth several slender branches, which spread on every side, and are armed with clusters of long, whitish spines; the leaves are oblong, thick, succulent, and green; the flowers are white; the fruit is the size of a very large Gooseberry, succulent, and possessed of tufts of small leaves of a yellowish colour on the outside, but white within.

CADE OIL, (Oleum Cada,) an oil extracted from the fruit of a species of the oxycedrus, called by the French and Germans, with which it is in considerable use, *Cada*.

CAESALPINIA. *Brasiletto*, or *Erasil-Wood*, a genus of the Decandria Monogynia class of plants, ranking in the 33d Natural Order *Lomentaceæ*; the calix has five segments or divisions, the lowest of which is largest; there are also five petals, the lowest of which is more beautiful than the rest; the capsule is of the pod kind.

There are four species, all natives of the Indies and the warmer parts of America—this genera was named in honor of Cæsalpinus, Physician to Pope Clement the VIII. and one of the first rate writers on Botany in his time.

1. C: BRASILIENSIS, *Saffron-coloured bastard Saunders*, or *Brasiletto*—The great demand for this tree among dyers has deprived

modern Botanists of the opportunity of particularizing their dimensions. This circumstance has occasioned different descriptions—former Botanists, say that the Brasil tree ordinarily grows in dry, barren places, and even in the cliffs of rocks, that it is very thick and large, usually crooked and knotty. Its flowers, which are of a beautiful red (others say white) exhale a very agreeable smell.—The stem is covered with a very thick bark, so that a tree of the thickness of a man's body on being deprived of its bark, is hardly left equal to the size of his leg. It is supposed by many to be the (*Pterocarpus Santolinus* of *Lin.*) or red Sanders of the shops, and has a saccharine taste on being chewed. This however is only conjectural. Mr. Catesby owns himself ignorant of the dimensions to which they grow. The largest remaining in any of the British plantations are not above two inches thick, and eight or nine feet in height, the branches are slender and full of *aculei* or prickles; the leaves are pinnated, the lobes growing opposite to one another, broad at their ends, without one notch; the flowers are white, *papilionaceous*, or butterfly-shaped, with many stamina, and yellow apices, growing in a pyramidal spike, at the end of a long slender stalk, the pods inclose several small round seeds.

*Domestic uses.* The principal use hitherto made of this tree, has been for colouring and dying, the natural colour of which is greatly improved by a solution of tin in Aqua Regia.

2 C: OVATIS, *Oval-leaved Caesalpinia*, a native of Jamaica—This species is of a larger size than the foregoing, and sends out many weak, irregular branches, armed with strong, short, upright thorns; the leaves branch out the same manner as the former, but the lobes or small leaves are oval and entire; the flowers are produced in long spikes like the other, but are variegated with red.

3. C: ACULEATO, *Bladder Caesalpinia*, attains a height of about twenty feet and is armed with thorns; the leaves branch out into many divisions the folioles being heart-shaped, roundish, and very strongly scented, the flowers are produced from the ends and sides of the branches; they are of a black colour, and are succeeded by short sulcated pods.

4. C: OBLONGIS, *Oblong-leaved Caesalpinia*, the stem is robust, branching and armed with thorns; the leaves are composed of many oblong, unequal, indented folioles, the flowers are of a white or yellow colour, and the pods oblong and pointed. They are propagated by sowing the seeds, in pots of rich light earth and plunging them up to the rims in a hot-bed of tanner's bark—after they come up the usual mode of proceeding must be attended to, and air and water introduced by degrees.

CÆSALPIOIDES, a synonyme of the *Gleditsia*.

CALABA of Miller; *Indian Mastich tree*, referred by modern Botanists to *Schinus*.

CALABASH TREE. See *Crescentia*.

CALABASH TREE, the African. See *Adansonia Baobab*.

CALAGULA. The name of a root lately imported from South-America, and which is universally preferred to Seneka Snake-root, Dr. Unzer recommends it in all obstinate Catarrhs, stagnations and accumulations of humours in the breast, dry coughs,

and severe bruises near the pectoral vessels, from which suppurations and ulcers may be apprehended: two drachms of the root boiled in a quart of water, till the fourth part is evaporated, and to drink several cups of the strained decoction instead of tea, it evidently acts on the skin and kidneys, by determining the humours to those outlets.

**CALAMBA-TREE**, a tree of Cochin-China, supposed to be the *Lignum Aloes*, while this tree is young it is called the Aquila-tree, and has a fine scent; but the wood of the old trees has much the most fragrant smell. This is called Calamba, which the king reserves to himself. In China and Japan, they use a block of it for a pillow, &c.

**CALAMINT**. See *Mentha* and *Melissa*.

**CALAMUS**, *True Indian Cane*, *Rotang*, or as it is generally called *Rattan*, a genus of the Hexandria Monogynia class of plants, ranking in the 5th Natural Order, *Tripetaloideæ*; the calix has six leaves; there is no corolla; the fruit is a one seeded berry, imbricated backwards. There is but one species.

C: **ROTANG**, *Rattan*, or *Indian Cane*, a native of the Dutch Indies —the stem is without branches, has a crown at top, and is every where beset with spines. This is the true Indian Cane, which is not visible while the bark is on with the spines, but these being taken off discovers the smooth cane or stick, which has no marks of the spine on the bark. The Dutch keep this matter very secret, lest travellers going by should take as many canes as they please.

*Note*. This is one of the several plants from which the Drug, improperly called Dragon's Blood is obtained, the other plants from which it is obtained are, *Dracana*, *Draco*, *Palmijuncus*, *Pterocarpus Draco*. See these articles, particularly *Sanguis Draconis*.

**CALAMUS AROMATICUS**, or sweet scented Flag. See *Acorus*.

**CALCEOLARIA**, a genus of the Diandria Monogynia class of plants; the calix is four parted and equal; the corolla is ringent or grinning, and inflated; the capsule has two cells and two valves —Of this genus I have not been able to obtain any farther account.

**CALCEOLUS**, (*Ladies Slipper*.) See *Cypripedium*.

**CALEA**, a genus of the Syngenesia Polygamia Æqualis class, ranking in the 49th Natural Order *Compositæ*; the receptacle is paleaceous or chaffy, the pappus ~~is~~ hairy, and the calix is imbricated or tiled. There is but one species hitherto enumerated, viz.

C: **CAROLINÆ**, a native of South-Carolina.

**CALENDULA**, the *Marigold*, a genus of the Syngenesia Polygamia Necessaria class of plants, ranking under the 49th Natural Order *Compositæ*; the calix consists of many equal leaves, the receptacle is naked, there is no pappus, the seeds of the disc are membranaceous. There are eight species, none of which are natives of America. The common kinds are so well known as to need no description, and none of the others merit any, except the *Fruticosa*, which has lately been introduced from the Cape.

1. C: **FRUTICOSA**, *Shrubby Marigold*, a native of the Cape of Good Hope, has a slender, shrubby, perennial stalk, which rises to the height of 7 or 8 feet, but requires support, they are garnished with

oval leaves, having short flat footstalks—they are of a shining green colour on their upper surface, but paler underneath: the flowers come out at the end of the branches, on short, naked footstalks, the rays are purple on the outside, white within, and the centre of the flower is purple, they blow early in summer and continue long in succession.

2. C: AFRICANA, *Grass-leaved Marigold*, is a perennial and native of Ethiopia, which puts forth several tufted heads near the root; from these heads grow numerous long, narrow, grass-like leaves, some of which are slightly indented, but the greatest part of them are entire; from among these leaves the flower-stalks arise, they are naked, six or eight inches long, and the top is terminated by a fair flower, of the size of the common Marigold, the rays on the outside are purple, but of a pure white within, and the centre of the flower is of a purple colour; they come out in April and May, and close in the evening, and in rainy weather. This kind is propagated by dividing the heads and planting them in pots, in a rich, light earth: The first sort by cuttings.

3. C: OFFICINALIS, (*Caltha Vulgaris* of C. B.) *Common*, or *Pot Marigold*; this species in its common state is very little regarded, otherwise than as it is an excellent pot-herb; but there are varieties of it that are cultivated for the beauty of their flowers, as well as for kitchen and medicinal uses. The varieties are, the Common Double flowered, the Giant or Monstrous, the Single Lemon, the Double Lemon, the Small Proliferous, and the Large Proliferous Marigolds. These are pretty well known, and are common in gardens.

*Parts used.* The leaves and flowers.

*Sensible properties.* Scarce any taste, and the smell inconsiderable; the leaves of the plant discover a viscid sweetness, accompanied with a more durable saponaceous pungency, and warmth.

*Medical virtues.* Marigold flowers are supposed to be aperient and attenuating, as also cordial, alexipharmic, and sudorific; they are principally celebrated in uterine obstructions, Jaundice, and for throwing out the Small Pox. Their sensible qualities give little foundation for these virtues; the leaves seem capable of answering some useful purposes as a stimulating aperient, antiscorbutic medicine.

4. C: PRATENSIS, (*Caltha Arvensis* of C. B.) *Field Marigold*, is a low plant, that divides into many branches which grow near the ground; the leaves are narrow, spear-shaped, hairy, and embrace the stalk with their base; the flowers are small and of a pale yellow colour, they grow from the ends of the branches on long, naked footstalks, and blow in June.

5. C: SUBMURICATIS, *Jerusalem Marigold*, is also a low, branching plant; the leaves are like the former, but free from hairs, and have a rough border; the flowers terminate the branches, and blow in June.

6. C: HUMILIS AFRICANA, (*Caltha Africana* of Moris.) *Cape leafy-stalked*, or *Dwarf African Marigold*, hath stalks about half a foot long, very leafy, and decline towards the ground; the leaves are spear-shaped, sinuated, indented, and of a pale green colour; the flowers are very beautiful, and grow singly from the ends of the

branches, the rays are of a violet colour on the outside, but whitish within, and the bottom of the flower is purple, they also flower in June and continue long in succession.

7. C: CARDISPERMUM, (*Cardispermum Africanum* of Vaill.) *African Heart-Seeded Marigold*; the stalks are moderately thick, very full of leaves, and about a foot long; the leaves are spear-shaped and indented, the flowers are small, grow on very slender footstalks, and are of the same colour with the former, and continue in like manner.

8. C: CAULE-SUBNUDO, (*Bellis Inciscus* of Comm.) *Ethiopian Naked Stalked Marigold*, hath weak stalks of about six or eight inches long, having few or no leaves on them; the leaves are spear-shaped and deeply indented, the flowers grow on slender footstalks, the outside of the rays are of a pale purple colour, but white within, and the centre of the flower is of a dark colour, they blow in June and continue like the foregoing. These two latter species have flat, heart-shaped seeds. They are very easily propagated from seeds.

CALICO TREE. See *Kalmia*.

CALLA, *African Arum*, a genus of the Gynandria Polyandria class of plants, ranking in the 2nd Natural Order, *Piperitæ*; the spathe is plain; the spadix covered with florets, there is no calix, no petals, and the berries have several seeds. There is but one species. Michaux enumerates three species, and classes them, "Monœcia Polyandria."

1. C: AFRICANA, (C: *Sagittifolia* of Mich.) *African*, or *Ethiopian Arum*, *Sweet Calla*, or *Wake Robin*, a native of Guinea and the Cape of Good-Hope. It hath thick, fleshy, tuberous roots, which are covered with a thin, brown skin, and strike down many strong, fleshy fibres into the ground; the leaves have footstalks more than a foot long, which are green and succulent; the leaves are shaped like the point of an arrow, they are eight or nine inches in length, ending in a sharp point, which turns backward; between the leaves arises the footstalk of the flower, which is thick, smooth, of the same colour as the leaves, rises above them, and is terminated by a single flower, shaped like those of the common Arum, the hood or spathe being twisted at the bottom, but spreads open at the top, and is of a pure white colour, and of a musky fragrance. When the flowers fade they are succeeded by roundish, fleshy berries, compressed on two sides, each containing two or three seeds; it is propagated by offsets, in the latter end of August, at which time the old leaves decay, and the roots are in their most inactive state.

2. C: PALUSTRIS, *Canadian Calla*, hath leaves nearly round and heart-shaped, the spathe or hood is short and oval.

3. C: VIRGINICA, (*Arum Virginicum* of Linn.) *Virginian Calla*; this species hath leaves very much like the first.

CALLICARPA, *Bermudian Mulberry*, a genus of the Tetrandria Monogynia class of plants, ranking in the 43rd Natural Order, *Dumosæ*; the calix is a monophyllous bell-shaped perianthium, divided at the edge into four short, erect segments; the corolla is monopetalous and tubular, having the limb cut into four obtuse patent parts; the stamina are four filiforme filaments, twice the



length of the corolla, with oval incumbent anthera; the pistillum consists of a roundish germen, a filiforme styli, thicker upwards, and of a thick, obtuse stigma; the pericarpium is a smooth, globular berry; the seeds are four, oblong, hard and compressed. There is but one species, which Michaux describes growing in the lower parts of Carolina.

C: AMERICANA, *American Callicarpha*, or *Bermudian Mulberry*, (Dr. Mitchel calls it *Sphondylococcus*; Du Hamel, *Burchardi*; Pluke. *Anonymos Baccifera*; Catesby, *Frutex Baccifer*; and Miller, *Johnsonia*;) it is a shrub of low growth, seldom rising more than five feet high; the branches are numerous, and are produced irregularly, the oldest are of a brown colour, others that are younger of a pale green, while the youngest are hoary, soft, slender, and very tough; the leaves are roundish, acute, pointed, and near three inches in length, they are of a hoary cast, being like the youngest shoots covered with a kind of woolly matter, they stand opposite by pairs on moderate footstalks, and their edges are made delicate by beautiful, small serratures; the flowers are produced in whorls round the twigs, at the setting on of the leaves, and are of a reddish purple colour, the flowers separately are small, and inconsiderable, but as they are in whorls, they form together with the leaves a singular and pleasing aspect. They appear in July, and are succeeded by succulent berries, which are at first red, but afterwards of a deep purple. It is propagated by cuttings, layers and seed; they require a moist, sandy soil.

CALLIGONUM, a genus of the Polyandria Dygynia class of plants, ranking in the 12th Natural Order, *Holoracca*; the calix has five leaves, the petals are four, the styles two, (moderns say it has neither petals or styles) the capsule is divided into two partitions each containing two seeds; (some say one) there is but one species.

C: POLYGONOIDES, (*Polygonoides* of Tourne. *Prococus* of Pallas, and *Pallasia* of the younger Linnæus,) a native of Mount Ararat.

*Note.* Monsieur. L. Heretier, of the Academy of Sciences, at Paris, gives the following account of this genus. Tournefort, in his travels in America, had discovered a new Shrub, to which he gave the name of *Polygonoides Orientale Ephedra facia*: From this Linnæus established the present genus *Calligonum*. Another plant of this genus was discovered in the neighbourhood of the Caspian Sea, by Pallas, who not attending to preceding Botanists, made it a species of a new genus, under the name of *Pterococcus Aphyllus*. In a subsequent volume he asserts it to be the same with the *Polygonoides* of Tournefort; to this plant Linnæus, the younger, gave the name of its discoverer, calling it *Pallasia Caspica*. But M. L. Heretier, has restored it to the genus *Calligonum*, and gives the following species in addition to the one mentioned above:—

2. C: COMOSUM. 3. C: PALLASIA. But of which I can make no farther discoveries.

CALLISIA, a genus of the Triandria Monogynia class of plants, ranking in the 6th Natural Order, *Ensatæ*; the calix consists of

three leaves, the petals are three, the antheræ are double, and the capsule is bilocular—there is but one species, a native of America. **CALLITRICHE**, *Star Grass*, a genus of the Monandria Digenia class of plants; ranking in the 12th Natural Order, *Holoraceæ*; it has no calix, and but two petals; the capsule is bilocular, or two celled, and contains four seeds—there are four species.

1. C: **AUTUMNALIS**, *Autumnal Star Grass*. abounds in ditches and still waters, principally near Lake Champlain, where it flowers in August. This as well as the following grows so thick matted together as to enable a person to walk over them without sinking; the leaves are all linear, emarginated, and grow near each other.

2. C: **VERNA**, *Vernal Star Grass*, a native of South Carolina, and Canada, called also *Water Starwort*, *Water Fennel*, or *Star-headed Water Chickweed*, grows in ditches, ponds, and slow streams, flowering from April till August. The superior leaves are of an oval spatula-shaped, inclining to oblong; the inferior leaves linear, the flowers are all hermaphrodite.

*Note.*—Star Grass is considered by the farmers of Carolina as a valuable domestic remedy in dropsies, cachexia, &c. I have, however, not had any experience of its virtues. The common mode of using it is a tincture of the whole plant in spirits.—A decoction is frequently given to horses.

**CALLOPHYLLUM**, a genus of the Polygamia Monoecia class of plants, ranking in the *Dubii Ordinis*, or Doubtful Order of Linnæus. (which we shall hereafter call the 59th Natural Order) the corolla consists of five petals; the calix of five teeth, and coloured (later writers divide the calix and the corolla into four parts) the fruit is a drupa, or plum, and globular—there are two species both natives of India.

1. C: **INOPHYLLUM**. 2. C: **CALLABA**.

**CALTHA**, *Marsh Marigold*, a genus of the Polyandria Monogynia class of plants, ranking in the 26th Natural Order, *Multi-siliquæ*. It has no calix; there are five petals, no nectaria; the capsules are many, containing a great number of seeds—there is but one species known, viz.

C: **PALUSTRIS**, *Marsh Marigold*, *Mare Blobs*, or *Meadow Bouts*. It is a perennial plant, which grows naturally in moist boggy lands, and banks of rivers, in many parts of England, Scotland, Pennsylvania, and Virginia, and flowers in the month of April: There is a variety with very double yellow flowers, which for its beauty is preserved in gardens; it is a hardy plant, preserving its verdure through the winter, and is propagated by parting the roots in autumn, in a moist soil, and shady situation, though it will grow in a dry soil, and flourish very well.

*Domestic uses.* The flowers gathered before they expand and preserved in salted vinegar, are a good substitute for capers; the juice of the flower leaves boiled with a little alum, stains paper yellow, and the remarkable yellowness of butter in the spring is supposed to be caused by the cattle eating this plant. Boerhaave says that it occasions an inflammation in those cattle who eat it, inso-much that they generally die; they have however been known to eat it instinctively, though others say that horses, cows and swine

reject it, and that none but goats and sheep eat it. Upon May day the country people strew the flowers upon the pavements before their doors.

**CALY TROPS**, the English name of the *Tribulus*.

**CALYCANTHUS**, *Virginian*, and *Carolinian Allspice Tree*, a genus of the Icosandria Polyginia class, ranking in the 59th Natural Order, viz. *Dubii Ordinis*, or Doubtful Order of Linnæus; the calix is monophyllous, or one leaved, urceolate, pitcher-shaped, or blown up, squarrose, or frizzled, with small coloured leaves; the corolla consisting of the leaves on the calix, the styles are numerous, each with a glandular stigma; the seeds are many, each with a train within a succulent calix—there are two species.

1. C: **FLORIDUS**, *Carolina Allspice Tree*, *Sweet Scented Shrub*, or as they are generally called in the country *Bubby Blossoms*, a native of Carolina: (It is denominated by Mr. Walter, C: *Fertilis*, or *Flowing Calycanthus*.) It seldom exceeds five or six feet in height, divides into many branches irregularly near the ground; they are of a brown colour, and being bruised emit a most agreeable odour; the leaves that garnish this delightful aromatic, are of an oval figure, pointed, they are near four inches long, and are at least two and a half broad, and are placed opposite by pairs on the branches, at the end of these stand the flowers, which are of a chocolate purple colour, which grow singly on short peduncles; they have two series of narrow thick petals which spread open and turn inward at the top, (and which before they are expanded, are of a globular form) and of a most delightful smell, composed as it were of the Pine Apple, and Strawberry fragrance; the pericarps are also highly aromatic. This species flowers in May, and is a great addition to shrubberies; they require but little care to preserve them, and are propagated either from their seeds, or shoots. There is a variety with round leaves.

2. C: **PRÆCOX**, (C: *Ferax* of Mich. C: *Sterilis* of Walt.) there appears to be a mistake in the arrangement, for Michæx observes the present to be the C: *Fertilis* of Walter, others that it is the foregoing; this is also a native of Carolina. It is said the difference between them is that one is fertile, the other barren.

**CALVES SNOOT**. See *Antirrhinum*.

**CAMBOGIA**, or *Gamboge*, a genus of the Polyandria Monogynia class of plants, ranking in the 38th Natural Order, *Tricocea*; the calix has four leaves; the corolla four, the fruit is a *stone*, or *apple*, with eight cells, and solitary seeds—there is but one species.

C: **GUTTA**, *Gamboge*, a native of Gambia, in the East Indies.

*Part used*. The concrete vegetable juice, which is of a gummy resinous nature, and is imported in large cakes or rolls.

*Sensible properties*. It is of a deep yellow, of a peculiar smell, and but little taste; a drop of water falling on a cake of it, immediately assumes a bright yellow, although turbid; with spirits of wine it is said a very small quantity forms a beautiful transparent gold colour.

*Medicōl virtues*. It operates violently up and down, sometimes occasions dangerous *hypercatharsis*, that is a violent species of diarrhoea, or looseness, but Geoffroy, and others are of a different opinion, and assert that it has been given from two to four grains, without its proving at all emetic; that from four to eight grains both vomits and purges, without violence; that its operation is soon over, and

if given in a liquid form and sufficiently diluted, it does not need any corrector. In the form of a bolus or pill it is most apt to vomit, but very rarely has this effect if joined with calomel. He, nevertheless cautions against its use, where the patient cannot easily bear vomiting. It has been used in dropsy, with cream of Tartar, or jalap, or both, to quicken their operation—it is also recommended by some to the extent of fifteen grains, with an equal quantity of vegetable alkali, (i. e. salt of wormwood, or salt of tartar,) in cases of the tape-worm, this dose is ordered in the morning, and if the worm is not voided in two or three hours, it is repeated even to the third time, with safety and efficacy: It is asserted that it has been given to this extent even in delicate habits. Baron Van Swieten, is supposed to allude to this medicine, when he mentions the remedy employed by Dr. Herrensward, so successfully in the removal of *Tenia Lata*.

*Note.* As it is a precarious, and generally very active medicine, great care and precaution is necessary; should too large a dose of it be actually taken, the most effectual antidote will be copious draughts of a solution of Pearl Ashes in water.

**CAMELLIA**, (according to Petiver, a species of the *Thea*, or *Tea Tree*,) a genus of the Monadelphia Polyandria class of plants, ranking in the 37th Natural Order, *Columnifera*; the calix is imbricated with many leaves, the interior larger than the exterior ones; there is but one species, a native of China and Japan. Thunberg in his *Flora Japonica*, describes it as growing every where in the groves and gardens of Japan, where it becomes a prodigiously large and tall tree, highly esteemed by the natives for the elegance of its large and very variable blossoms, and its evergreen leaves: It is there found with single and double flowers, which also are white, red, and purple, and produced from April till October; the blossoms are of a firm texture, but apt to fall off long before they lose their brilliance; it is therefore a practice with some to stick such deciduous blossoms on some fresh bud, where they continue to look well for a considerable time. It is presumed that future observations will confirm this plant to be a species of the *Tea Tree*.

**CAMERARIA**, (in honor of Joachim Camerarius, a Physician and Botanist of Nuremberg,) a genus of the Pentandria Monogynia class of plants, ranking in the 30th Natural Order, *Contorta*; the flower of which is of a funnel form, with a cylindrical long tube, *ventricose*, that is, narrowing in the middle, and bellying out at the base and top, and a plane limb or border, divided into five lanceolated segments; the fruit is composed of two oblong follicles, bent horizontally, obtuse at both ends, and sending out a lobe on each side near the base; they have one cell, with one valve containing numerous oval and imbricated seeds, inserted in a large oval membrane at the base—there are two species, viz.

1. **C. LATIFOLIA**, *Broad Leaved Cameraria*, a native of the Island of Cuba, and rises to the height of 10 or 12 feet, having a very shrubby stalk dividing into several branches, garnished with several roundish pointed leaves placed opposite; the flowers are of a yellowish white colour, produced at the ends of the branches in loose clusters,

which have long tubes enlarging gradually upwards, and are cut into five segments, as already observed.

2. C: *ANGUSTIFOLIA*, *Narrow Leaved Cameraria*, a native of Jamaica, attains a height of about eight feet, having an irregular shrubby stalk, sending out many branches which are garnished with very narrow thin leaves, placed opposite at each joint; the flowers are produced *sparsely*, that is, irregularly at the end of the branches, are shaped like those of the former sort, but smaller. They are propagated by seeds and cuttings.

*Remarks.* Both these plants abound with an acrid milky juice, like the spurge, and consequently may possess some remarkable medical properties, which are however not yet ascertained.

CAMLIN. See *Alyssum*.

CAM HOA TEA. See *Thea*.

CAMOMILE, or CHAMOMILE. See *Anthemis*.

CAMOTES, a kind of Potatoe growing in the Manilla Islands, the roots of which resemble great radishes.

CAMPANULLA, or *Bell Flower*, a genus of the Pentandria Monogynia class of plants, ranking in the 29th Natural Order, *Campanaceæ*; the corolla is *campaniform* or bell-shaped, with its *fundus* or bottom closed up by the valves that support the stamina; the stigma is *trifid*, and the capsule is inferior, or below the receptacle of the flower, and opens at the sides to emit the seeds. Of this genus there are 80 species enumerated by Botanical Writers, of which the following are the most particular.

1. C: *PYRAMIDALIS*, (*Rapunculus Hortensis* of C. B.) *Pyramidal* or *Steeple Bell-flower*, a perennial and native of Britain, hath thick, tuberous roots, filled with a milky juice, (whence Morison termed it *Lobellii lactescens*;) it sends out strong, smooth, upright stalks, which rise to the height of four feet, garnished with smooth, oblong, heart-shaped leaves, indented or serrated about the edge, those on the stem lance-shaped; the stems are simple and rush-like; the flowers come out in sessile umbels from the side of the stem, and are regularly set on for more than half their length, forming a sort of pyramid; these are large, open, and shaped like a bell, the most common colour of the flowers is blue, though some are white, but the former are most esteemed.

*Remarks.* This species is propagated either by dividing the roots, or by seeds; the latter produces the most vigorous and best flowering plants; they are sown in pots, for the purpose of adorning halls, and to place before chimnies in the summer, when it is in flower, for which purpose there is no plant more proper; for when the roots are strong, they will send out four or five stalks which will rise as many feet high, and are adorned with flowers a great part of their length; when the flowers begin to open, the pots are removed into the rooms, where being shaded from the sun and rain, the flowers will continue long in beauty.

2. C: *PERSICIFOLIA*, (*Rapunculus Persicifolius* of C. B. *Campanula Angustifolia* of J. B. and C: *Decurrens* of later writers.) *Deech-Leaved Bell-flower*, is a perennial and native of the northern parts of Europe; the leaves are ovate near the root, on the stalk narrow and lance-shaped, approaching to linear, slightly serrated, and sit

close to the stem, and are remote from each other: of this there are some with white and some with blue flowers, and some with double flowers of both colours; these last have been of late propagated in such abundance as to have almost banished those with single flowers from the gardens: these are easily propagated either by seeds or parting the roots.

3. C: MEDIUM, *Canterbury Bell-flower*, a native of Austria and Italy, though cultivated in the British gardens for the beauty of its flowers which are blue, purple, white, and striped, with double flowers of all the colours; it is a biennial plant, and perishes soon after the seeds are ripe; it has oblong, rough, hairy seeds, serrated on their edges; from the centre of these rises a stiff, hairy, furrowed stalk, about two feet high, sending out several lateral branches, garnished with long, narrow, hairy leaves, sawed on their edges; from the setting on of these leaves proceed the footstalks of the flower, those which are on the lower part of the stalk and branches, diminishing gradually in their length upwards, and thereby forming a sort of pyramid; the flowers of this kind are very large and make a fine appearance. These are propagated in the same manner as the foregoing.

4. C: TRACHELIUM, *Great Throatwort*, *Great Bell-flower*, or *Canterbury Bells*, hath a perennial root which sends up several stiff, hairy stalks, having two ribs or angles; these put out a few short side branches, garnished with oblong, hairy leaves, deeply sawed on their edges, towards the upper part of the stalks; the flowers come out alternately, upon short, trifid footstalks, having hairy empalements; the colours of the flowers are a deep and a pale blue and white, with double flowers of the same: the double flowered kind only merit a place in gardens, and is propagated as the two foregoing.

5. C: GLOMERATA, (*Trachelium Minus Americanum* of Dodart and Catesby,) *Clustered Bell-flower*, *Lesser Throatwort*, or *Small Canterbury Bells*, is a perennial common in pastures, especially in a chalky soil; in dry places it is very small, and in a moist soil will grow to the height of two feet; the stalk is hairy, angular and unbranched; the lower leaves are broad, and pedunculate, those on the stalk long, narrow, sitting close to the stalk, and even embracing it: towards the top of the stalk, from the axils of the leaves, two or three flowers come out together, and a larger bunch terminates it: the flowers are sessile, the colour blue in some, in others white.

6. C: LATIFOLIA, (C: *Maxima* of C. B.) *Giant Throatwort*, or *Giant Bell-flower*, and sometimes called *Greatest Bell-flower*, grows in thickets under hedges, hath a perennial root composed of many fleshy fibres, that abound with a milky juice: from these arise several strong, round, single stalks, which never put out branches, but are garnished with oval, spear-shaped leaves, slightly indented on their edges, towards the upper part of the stalk; the flowers come out singly upon short footstalks: they blow in July or August, and are blue, purple, and white; the seeds are pendant. When the flowers fade, the seed-vessel turns downwards till the seeds are ripe, and then rise up again.

*Domestic uses.* The roots of this species are esculent, and are a fine addition to sallads.

7. C: RAPUNCULUS, (*Rapunculus Esculentus* of C. B. *Rapunculus Vulgaris Campanulatus* of J. B.) *Rampion*, or *Rampion Bell-flower*, a native of Britain. hath roundish, fleshy roots, from which proceed straight stalks about two feet high; the leaves are undulating, those next to the root short, lance-shaped, inclined to oval: towards the upper part of the stem, and close to it, small flowers are produced in July or August, and are blue or white.

*Domestic uses.* This plant formerly had a place in kitchen gardens, or account of its roots, which were used in sallads, but it is now neglected, and in its wild state it is not common.

8. C: SPECULUM, (*Campanula Pentagonia perfoliat* of Moris. and *Orobrychis peregrina*, &c. of Catesby.) *Venus's Looking Glass*, (*viola pentagonia*) or *Five-cornered Violet*; is an annual plant with slender stalks rising a foot high, branching out on every side, and garnished with oblong leaves a little curled on their edges; from the wings of the leaves come out the flowers sitting close to the stalks, which are of a beautiful purple, inclining to a violet colour; in the evening they contract, and fold into a pentagonal figure, whence the name as above.

9. C: HYBRIDI, *Common*, or *Lesser Venus's Looking-Glass*, *Corn Bell-flower*, or *Colded Corn Violet*; this is a common weed among corn, though it was formerly cultivated in gardens, the foregoing however supercedes it. This species seldom rises more than six inches high, with a stalk branching from the bottom upwards, and has oval leaves more deeply notched and waving than the former, and sitting close to the stalks; the branches are terminated by flowers very like the former sort; the flowers come out in parcels and the calix is longer than the corolla. The flowers of this and the foregoing are not strictly bell-shaped.

10. C: ROTUNDIFOLIA, (*Campanula vulgaris minor*, &c. Moris. C. B.) *Lesser Round-leaved Bell-flower*, grows naturally in Canada, and is a perennial: This will require close examination to discover the characteristic marks, for the leaves upon the stem are linear, or very long, narrow lance-shaped; if however you search down towards the roots you will discover those leaves, which are not however so properly round, as heart or kidney-shaped. It produces its blue or white flowers towards the latter end of summer, and all the autumn till frost puts an end to it. Cattle and sheep brouze upon this plant with avidity.

*Domestic uses.* The milky juice of the white flowered species is said to impart a beautiful green colour, by the addition of alum; and the juice of the blue alone has been used for painting landscapes and for writing.

11. C: CANARIENSIS, *Canary Bell-flower*, a native of the Canary Islands; it has a thick fleshy root of an irregular form, sometimes running down like a parsnip, at other times dividing into several knobs near the top; and when any part of the root is broken, there issues out a milky juice at the wound; from the head or crown of the root, arise one, two, three, or more stalks in proportion to the size of the root, but that in the centre is generally larger, and rises higher than the others; the stalks are very tender, round, and of a pale green; their joints are far distant from each other; and when

the roots are strong, the stalks will rise to ten feet high, sending out several lateral branches; at each joint they are garnished with two, three, or four spear-shaped leaves, with a sharp-pointed beard on each side; they are of a sea green, and when they first come out, are covered slightly with an ash-coloured pounce. From the joints of the stalks the flowers are produced, which are of the perfect Bell-shape, and hang downward; they are of a flame-colour marked with stripes of a brownish red: the flower is divided into five parts; at the bottom of each is seated a nectarium, covered with a white transparent skin, much resembling those of the Crown Imperial but smaller: the flowers begin to open in the beginning of October and there is often a succession of them till March; the stalks decay to the root in June, and new ones spring up in August; it is propagated by parting the roots, which must be done with caution, for if they are broken or wounded, the milky juice will flow out plentifully, which endangers their rotting in the ground; they must not be planted in rich earth, which causes it to overtop, a light sandy loam, mixed with a fourth part of screened lime rubbish, seems to be the most proper soil for them.

12. C: *HISPIDUM*, *Hispid Bell-flower*, is also perennial, and grows naturally on the Alps of Hyrcenia; the stalks of this plant are hispid, or covered with fragile bristles, and unbranching; the leaves are spear-shaped and narrow; the flowers terminate the stalks in oblong bunches about July.

13. C: *SAXATILIS*, *Oriental Bell-flower*, a perennial and native of the East, the stalks are very diffuse, the lower leaves are nearly oval, smooth and entire, the flowers are produced from the wings of the leaves and ends of the branches in July.

14. C: *UNIFLORIS*, *Mountain, or Creeping Bell-flower*, a perennial and native of the Alps. The root of this plant creeps along the ground; the stalks are but a few inches long, slender and unbranching, the leaves are oval, smooth, obtuse, entire, and a little ciliated on their edges, each stalk is terminated by one considerably large flower, growing in a very rough cup.

15. C: *PYRAMIDALIS MINOR*, *Dwarf Pyramidical Bell-flower*, a perennial, and native of Italy; this grows only about a foot and a half high, the leaves are spear-shaped, smooth, sharp pointed and serrated, the flowers grow in bunches from the upper parts of the stalks; they hang drooping; the pistil of each is longer than the corolla, and the calycinal leaves are serrated and very sharp pointed.

16. C: *PUMILA*, *Small Alpine Bell-flower*, a perennial, growing naturally on the Alps of Schneeberg; the stalks are single, and seldom rise higher than a foot, the leaves are narrow, oblong, obtuse, entire, hairy and whitish on their upper side, the flowers grow singly from the wings of the leaves, on long footstalks, and blow in June or July.

17. C: *hederæ-folio*, *Ivy-leaved Bell-flower*, a perennial, and native of England, &c. the stalks are loose and slender, the leaves are heart-shaped, smooth, five lobed, grow on footstalks, and most resemble those of Ivy, the flowers are small, and of a blue colour; they grow from the tops of the branches in June and July.



18. C: AMPLEXICAULIBŪS, *Perfoliate Virginian Bell-flower*, is an annual plant, and native of Carolina, Pennsylvania and Virginia; the stalk branches very little, and will grow from six to twelve inches high, the leaves are heart-shaped smooth, indented, and embrace the stalk with their base; the flowers grow many together from the wings of the leaves almost the whole length of the stalk, they are small, of a blue or purple colour, and sit close, without any footstalk.

19. C: AFRICANA, *Cape Bell-flower*, an annual plant, growing naturally at the Cape of Good-Hope, the stalk is hairy, rounded, and divides into a number of branches, so as to form a tolerable bushy plant, the leaves are spear-shaped, rough, indented, of a lively green colour, and have no footstalks, the flowers grow singly from the ends of the branches, or rather on long footstalks, all over the plant, they are large, of a violet colour, and have small hairy cups.

20. C: DICHOTOMO, (*Rapunculus minor* C. B. *Alsine Cærulea* of J. B.) *Spanish Bell-flower*, an annual, and grows naturally in Spain, Italy and France. It hath a quadrangular, rough, spreading, forked stalk, the leaves are oblong, ragged or indented, and grow opposite without any footstalks; the flowers are produced opposite from the joints or divisions of the branches, they are large and of a fine blue colour, and blow in July.

21. C: URTICAFOLIIS, *Tartarean Bell-flower*, a biennial, and native of Tartary and Siberia, the stalks are weak and slender, the lower leaves are moderately broad, and spear-shaped, those higher up the stalks are narrow and acutely serrated, the flowers are small and hang drooping in kind of panicles, and blow in May or June.

22. C: HORTENSIS, *Coventry Bells*. This species is also a biennial, and grows naturally in Germany and Italy. These plants make a great show in gardens, the stalk is robust, hairy, furrowed, branching, and will grow to about the height of two feet, the radical leaves are oblong, rough, hairy, serrated and pointed, those on the stalks are narrower and grow alternately; the flowers are large, ventricose, numerous, and form themselves in a kind of pyramid, of this species there are the following handsome varieties—the blue, purple, white, variegated and double-flowered, all of them noble showing plants, particularly the two latter—of the annuals the four first are propagated from seeds sown in autumn, the two succeeding by seeds sown in the spring, in a moderate hot-bed, and the biennials in April in the places they are to remain.

*Domestic uses.* The roots are esculent, and much admired by some for their pleasant taste, they are frequently boiled and eat like Rampions, to which they are related.

23. C: PENNSYLVANICA, (*Americana*) *American, or Pennsylvania Bell-flower*; this is a biennial, and grows naturally in Pennsylvania; it hath branching stalks that will attain a height of about 18 inches, the leaves are heart and spear-shaped, rigid, crenated, grow on ciliated footstalks, and have a membranaceous border, the flowers are produced from the wings of the leaves on long footstalks, they are bell-shaped, and composed of five parts, and at the bottom of each is a conspicuous nectarium; of this species there are the follow-

ing varieties—the single white, the single, and the double blue.— These are very easily raised from seeds.

24. C: FRUTICOSA, *Shrubby African Bell-flower*, it grows naturally at the Cape of Good-Hope, the stalks are woody and branching, the leaves are very narrow, oval-shaped, and not much unlike those of Heath, the flowers are blue, and produced from the wings of the branches on long footstalks, they are succeeded by capsules of five cells.

25. C: ACUMINATA, (C: Nitida of Dodo:) *Upright Bell-flower*, an indigenous plant, growing naturally in the remote parts of Pennsylvania and Virginia; it has a straight erect stem about three feet high, the leaves are spear-shaped, pointed and serrated; the flowers are produced in spikes, and fascicled or bundled many together.

26. C: CAROLINIANA, (C: Flexuosa of Mich.) *Carolina Bell-flower*, grows naturally on the high mountainous parts of Carolina; the stem is irregularly upright, and somewhat branching towards the top, the leaves are spear-shaped, and slightly serrated; the flowers are produced all along the branches upon short footstalks and are very small.

27. C: DIVARICATA, *Divaricate Bell-flower*, grows in the same place with the former, the stem is smooth, erect, and somewhat shining, the leaves are wide, membranaceous, spear-shaped, and slightly serrated, the flowers are produced in branching panicles, are small and spreading.

CAMPEACHY WOOD. See *Hematoxilum*.

CAMPHOR TREE. See *Laurus Camphora*.

CANARY-GRASS. See *Phalaris*.

CANDELA AMERICANA, the *Mangrove Tree*; by the French called *Arbre des Banianes*. See *Ficus Religiosa*.

CANDLEBERRY-TREE, the English name of the *Myrica*.

CANDLE of the Indians. See *Rizofhora*.

CANE. See *Arundo* and *Calamus*.

CANELLA, *White Cinnamon*, a genus of the Dodecandria Monogynia class of plants, ranking in the 12th Natural Order *Holoraceæ*; the calix is three lobed, the petals are five, the antheræ are 16 growing to a bladder-shaped or pitcher-like nectarium, the fruit is a three cell'd berry, with 2 seeds. From a communication of Dr. Swartz, Foreign member of the Linnean Society, we have collected the following Botanical History of the *Canella Alba*.— After tracing the different notices of this tree, as distinguished from, or confounded with, the Winter's Bark, from the time of Clusius to that of Solander, the Doctor gives the following particular description of it, taken from a number of perfect specimens: "*Canella Alba*, is a plant whose stem rises from ten to fifty feet in height, very straight and upright, and branched only at the top. The bark is whitish, by which it is commonly known at first sight in the woods. The branches are erect and not spreading. The leaves are petiolated, and grow in an alternate order, but not regularly—they are oblong, pointed at the end, entire in the margin, and without any distinct nerves or veins, of a dark green hue, a thick consistence like those of Laurel, and shining. The flowers grow at the tops of the branches in clusters, but upon

divided footstalks; they are small, and seldom open, and of a violet colour." He then proceeds to give the character of the flowers, the essentials of which I shall subjoin. "*Calix*, trilobus—*Corolla*, pentapetala—*Antheræ* 21, Adnatæ nectario urcolato—*Bacca* unilocularis—2—4 Sperma." Except in the number of antheræ and cells of the fruit, these descriptions correspond with the foregoing, from the Encyclopædia Britannica. The Doctor further observes that notwithstanding its flowers bear some similarity to those of the 16th class, it cannot be removed from Dodecandria, where it has formerly been. That the whole tree is very aromatic, and when in blossom perfumes the whole neighbourhood, the flowers dried, and softened again in warm water, have a fragrant odour, nearly approaching that of Musk. The leaves have a strong smell of laurel—The berries, after having been some time green, turn blue, and become at last of a black glossy colour, and have a faint aromatic taste and smell—The bark, together with the fruit of *Capsicum*, Guinea Pepper, were formerly common ingredients in the food and drink of the Carraibs, the antient natives of the Antilles; and even at present, it makes a necessary addition to the meagre pot of the negroes.—There is but one species. *Philos: Trans: Ab: Vol. 1. Art. LX.*

C: ALBA, or *White Cinnamon*, a native of America, which grows usually about 20 feet high, and eight or ten inches in thickness, in the thick woods of the Bahama Islands; the leaves are narrow at the stalk, growing wider at their ends, which are broad and rounding, having a middle rib only; they are very smooth, and of a light shining green: in May or June its *pentapetalous*, or five-leaved flowers, come forth in clusters at the ends of the branches, they are red and very fragrant, and are succeeded by round berries of the size of large peas. which are green at first, but in February the fruit ripens, and is then purple, containing two shining black seeds, flat on one side, otherwise not unlike in shape to a kidney-bean, these seeds in the berry are enveloped in a slimy mucilage. This bark has been confounded with that called Winter's Bark; in the last edition of Lewis's Dispensatory, it is entitled *Winterania Canella of Linn.* The old London Dispensatory entitles it *Cinnamomum sive Canella*, &c. of J. B. It is, however, a different tree from the Winterania.

*Part used.* The Bark.

*Sensible properties.* It is brought to us rolled up in long quills, thicker than Cinnamon, and both outwardly and inwardly of a whitish colour lightly inclining to yellow: It is a warm pungent aromatic, though not of the most agreeable kind, nor are any of its preparations very grateful: It imparts a yellow colour to watery infusions, together with its smell, but the taste is rather bitterish than aromatic; tinctures of it in rectified spirit, have the warmth of the bark, but little of its smell. Proof spirits dissolves the aromatic as well as the bitter matter of the Canella, and is therefore the best menstruum.

*Medical virtues.* Canella Alba is often employed as a warm stimulant to the stomach, and as a corrigent of other articles. It is now, however but little used in composition by the London College:

The only officinal formula which it enters, being the *Pulvis Aioeticus*, formerly called *Hiera Picra*: It is in the Edinburgh Pharmacopœa, more frequently noticed: It is not only a good and cheap aromatic, but very suitable for covering the taste of some other articles.

*Note.* The shops distinguish two sorts of Canella, differing from each other in the length and thickness of the quills; they are both the bark of the same tree, the thicker being taken from the trunk and the thinner from the branches.

CANNA, *Flowering Cane*, or *Indian Shot*, so called by the inhabitants of America, from the roundness and hardness of its seeds, a genus of the Monandria Monogynia class of plants, ranking in the 8th Natural Order, *Scitamineæ*; the calix has three leaves, the corolla is erect and divided into six parts, with a distinct lip, *bipartite*, that is, divided into two segments and rolled back, the styli is lanceolate and growing to the corolla. There are five species.

1. C: INDICA, (*Arundo Indica* of C. B.) *Common Broad leaved flowering Cane*, a native of both the Indies, has a thick fleshy tuberous root, which divides into many irregular knobs; the stalks are herbaceous, arising four feet high, and are encompassed by the broad leafy footstalks of the leaves; it sends out many large oval leaves, without order; at their first appearance the leaves are like a twisted horn, but afterwards expand and are near a foot long, and five inches broad in the middle, lessening gradually to both ends; and terminated in a point: At the upper part of the stalk the flowers are produced in loose spikes, each being at first covered with a leafy hood, and turns to a brown colour; the flowers are succeeded by a fruit or capsule, oblong, rough and crowned with the three cornered emblement of the flower which remains; when the fruit is ripe, the capsule opens lengthwise into three cells, filled with round shining, hard, and black seeds. There are several handsome varieties of this species, viz. scarlet, red, yellow and spotted flowering Reeds, some of which are to be seen in the Botanic, and several private gardens in this city.

2. C: LATIFOLIA, (*Arundo Indica Latifolia* of C. B.) *Broad-Leaved Indian Shot* is a native of South Carolina, and other parts of the United States; this species has a pale red flower, in other respects it does not differ from the foregoing.

3. C: GLAUCA, (C: *Angustifolia*, C. B.) *Sea Green Indian Shot*, called also "*Narrow Leaved*," a native of the United States, has lance-shaped petiolate leaves, smooth, or without nerves: This species is said to have very large spikes, yellow flowers, and attains a height of seven or eight feet.

4. C: ANGUSTIFOLIA, *Narrow Leaved Indian Shot*, is less common in America than the other sorts, the leaves are spear-shaped, nervose, and grow on footstalks; the stalks are round, succulent, and tender, and grow about a foot high; the flowers are produced in spikes from the tops, and appear in June or July. There is a variety with red, and another with yellow flowers.

5. C: COCCINEA, (*Canna Juncea* of Wildenow, C: *Latifolia Maxima*, C. B.) *Great Broad Leaved Indian Shot*: This is a native of China; the stalks rise much higher, and the leaves are larger than

any of the other species ; the flowers are produced in large spikes, and are of a bright crimson, or rather scarlet colour. These plants are propagated by seeds, and are very ornamental.

*Note.*—Michaux makes no mention of them in his Flora.

CANNABIS AQUATICA of C. B. See *Chrysanthemum*.

CANNABIS, *Hemp*, or *Abraham's Balm*, a genus of the Diœcia Pentandria class of plants, ranking in the 53d Natural Order, *Scabridæ*; the calix of the male, is divided into five segments, and it has no corolla ; the calix of the female, consists of one leaf, open at the side, there is no corolla ; but two styles, the fruit is a nut or capsule, with two valves, and is within the closed calix ; there is but one species known.

C: SATIVA, (C: Mas. of J. B.) *Common Hemp*, or *Abraham's Balm*, a native of the Indies, though cultivated in most civilized countries, and extensively in the rich up country lands of Carolina, &c. Here it attains a height of seven or eight feet, when cultivated with a view to manufacture, but when for seed it is suffered to run up to ten or twelve feet ; it rises with an erect stalk, without branches (except some solitary plants) the stalks are pithy within, without they are composed of a very tough rind or cover, which is the hemp : It is garnished at the top with lance-shaped leaves, somewhat indented on the upper surface, and slightly serrated on their edges, and are of a very dark green colour—it flowers in August or September. It thrives most favourably on a sandy moist loam, or in old meadows and low bottoms near rivers ; it is propagated from seed. Hemp is divided into male and female ; the former is called *finble hemp*, and the latter *harle* or *karle hemp*, and is the seed hemp.

*Part used.* The seed and leaves.

*Sensible properties.* The plant when fresh has a rank narcotic smell, the seeds also have some smell of the plant, and their taste is unctuous and sweetish. The water in which the plants are soaked in order to facilitate the separation of the tough rind for mechanic uses, is said to be violently poisonous, and to produce its effects almost as soon as drank.

*Medical virtues.* The seeds on expression yield a considerable quantity of insipid oil, which is recommended, (boiled in milk, or triturated with water into an emulsion) against coughs, heat of urine and the like ; it is also said to be useful in incontinence of urine ; the leaves are used in the Eastern climates like opium, and possess similar intoxicating properties, although the seeds only have hitherto been principally in use, yet other parts of the plant seem to be more active, and may be considered as deserving further attention.

*Domestic uses.* The domestic uses of hemp are well known in the manufacturing of coarse bagging, cordage, cables, &c. The Russians and Poles, even of the higher class, bruise or roast the seeds of hemp, mix them with salt and eat them on bread. From the leaves pounded and boiled in water, the natives of the East-Indies prepare an intoxicating liquor, of which they are very fond.

*Note.*—Another species of hemp has been discovered in India, called Chinese Hemp, which is worthy of attention. See *Crotalaria*.

CANNABIS SYLVESTRIS. See *Sideritis*.

CANTERBURY BELL, the English name of the *Campanula*.

CAOUTCHOUC, *Elastic Gum*, or *Indian Rubber*. See *Jatropha*.

CAOUTCHOUC VINE. See *Urceola Elastica*.

CAPER BUSH. See *Capparis*.

CAPILLUS VENERIS of J. B. See *Adiantum*.

CAPPARIS, *Capers*, a genus of the Polyandria Monogynia class of plants, ranking in the 25th Natural Order, *Putaminea*; the calix consists of four coriaceous leaves; the corolla has four petals, the stamina are long, the fruit is a berry, fleshy within, consisting of one cell, and supported by a *peduncula*, or footstalk: There are eleven species, one only however is cultivated and with great difficulty in Britain.

1. C: SPINOSA. (Fructu minore, folio rotundo, C. B.) *Common Capser*, a native of Italy, and the warm parts of Europe, is a low shrub generally growing out of the joints of old walls, the fissures of rocks, and among rubbish; it hath woody stalks which send out many lateral slender branches; under each of those are placed two short crooked spines, between which and the branches come out the footstalk of the leaves, which are single, short, and sustain a round smooth entire leaf; at the intermediate joints between the branches come out the flowers on long footstalks; before these expand, the bud with the empalement is gathered for pickling: Those which are last, expand in form of a single rose, having four or five large petals, which are white, roundish and concave: In the middle are placed a great number of long stamina, surrounding a style which rises above them, and crowned with an oval germen, which afterwards becomes a capsule filled with kidney-shaped seeds. This plant thrives best in a horizontal posture, so that when planted either in pots, or in the full ground, they seldom thrive, though they may be kept alive for some years. They are propagated by seeds sown upon old brick walls, they take root between the bricks.

*Part used.* The bark of the root and buds of the flowers.

*Sensible properties.* The bark has a bitterish acrid taste.

*Medical virtues.* The bark of the root is reckoned aperient and diuretic, and is recommended in several chronic disorders, for opening obstructions of the viscera: The buds pickled are supposed to excite appetite, and promote digestion; and to be particularly useful as detergents and aperients in obstructions of the liver and spleen.

*Domestic uses.* The buds of this plant pickled with vinegar, are much used in cookery, and are annually brought from Italy, and the Mediterranean.

*Note.* The Committee of Correspondence of the Agricultural Society of South Carolina, were addressed by our present president, Thomas Jefferson, then at Paris, in July 1787, recommending the introduction of the Capser Plants, into the Southern States, in which communication it appears that the climate of Carolina and Georgia is favorable to its culture, and that little more than common care would be necessary to perpetuate it, and probably naturalize it to our country.

2. C: ARBORESCENS, (Babucca of Rheede.) *Indian Caper Tree*, or *Boducca*, *Babucca*, grows naturally in the Indies, the stem is woody, covered with a russet-coloured bark, sends out many branches from the sides, and attains a height of fifteen or sixteen feet, the leaves are oval, oblong, perennial, and grow on long footstalks; the flowers come out one or two together, from the sides of the branches on long footstalks, are of a white colour, and are succeeded by oblong oval berries.

3. C: MULTIFLORIS, (Breynia Fruticosa of Brown.) *Long fruited American Caper*, grows naturally in America; the stem is robust, sends out many slender branches from the sides, and grows to be twenty feet high, the leaves are oval, obtuse, rigid, ever-green, ribbed underneath, and grow alternately on longish footstalks, the flowers come out many together, on footstalks from the ends of the branches, they are large, of a white colour, and are succeeded by fruit near three inches in length.

4. C: ZEYLANICA, *Ceylon Caper*, hath a woody stem three or four feet high, and branching; it is armed with short double spines, the leaves are oblong and acute at both ends, the flowers come out singly on footstalks from the sides of the branches; they are like those of the common Caper Shrub, and is said, if gathered before they expand, to afford a pickle equally useful in sauces.

5. C: SILIQUA, (Breynia Arborescens, &c. of Brown) *Siliquose Caper Tree*, grows naturally in Jamaica, and attains a height of about 16 or 18 feet; the stem is robust, and covered with a brown bark, and sends out several slender branches from the sides, the leaves are oblong, spear-shaped, sharp pointed, of a splendid green colour on their upper sides, but spotted, or covered with a ferruginous matter underneath, and remain all the year; the flowers are produced singly on footstalks from the wings of the leaves, and are succeeded by very long pods.

6. C: BREYNIA, (Breynia Elvagni of Plum:) *Breynia*; or *Eleagnus-leaved Caper*, grows naturally in America, and attains a height of twenty or thirty feet; the stem is robust, and divides near the top into many branches, which are covered with an ash-coloured bark, the leaves are oblong, oval, pointed, smooth, and green on their upper side, but whitish underneath, and continue all the year; the flowers are produced in panicles from the ends of the branches, having downy footstalks; they have also downy cups, but the petals are of a purple colour, and are succeeded by long fleshy berries containing the seeds.

7. C: TOMENTOSIS, (Cratæva Fruticosa of Brown.) *Ferruginous Caper Tree*, grows naturally in Jamaica, attaining a height of about eight feet, the stalks are shrubby and branching, the leaves spear-shaped, perennial, ferruginous, and downy underneath; the flowers are produced in umbels from the wings of the leaves, which in their native place are succeeded by berries.

8. C: FLEXUOSIS, (Morisona Flexuosa of the Amæ: Acad:) *Flexuose Caper Tree*, a native of Jamaica; the stem is woody, and sends forth several flexuose branches from the sides, the leaves are oblong, obtuse, smooth, and continue all the year, the flowers are

produced in bunches from the ends of the branches, succeeded by berries.

9. C: NITIDIS, *Hastated Casper Tree*, the stem is woody, and divides into many branches, the leaves are hastated, spear-shaped, and of a glossy surface, the flowers come out many together on footstalks from the ends and sides of the branches, and are succeeded by fruit in their native soil.

10. C: LINEARIBUS, *Narrow-leaved Casper Tree*, a native of America, hath a low, shrubby and branching stalk, the leaves are narrow and come out without order, the flowers are produced in small clusters from the ends and sides of the branches.

11. C: BACCATIS, *The Fair, or Beautiful Casper Tree*, grows naturally in America; it is a beautiful shrub, and attains a height of eight or ten feet, the leaves are oblong and obtuse, the flowers come out in clusters from the ends and sides of the branches, they are large and beautiful, and are succeeded by roundish berries; they are propagated from seeds, sown in pots in a light sandy earth, and plunged into a hot-bed, and treated as other stove plants generally are.

CAPRARIA, *Sweet Weed*, a genus of the Didymia Angiospermia class of plants, ranking in the 40th Natural Order, *Personeata*; the calix is divided into five narrow, erect permanent segments, the corolla is bell-shaped, and divided into five oblong segments, the capsule has two valves, and two cells, and contains many seeds. There are said to be three species.

1. C: BIFLORA, *Two-flowered Sweet-weed*, a native of the warm parts of America, has two flowers to each footstalk, it is accounted a troublesome weed, and without beauty, it is never cultivated except in Botanic Gardens for the sake of variety.

2. C: CURASSAVICA; (*Gratiola Americana* of Comm: *Lysimachia Peruvia* of Pluke.) *Curassoa Sweet-Weed*; the stalk of this weed is ligneous, angular, and grows to about two feet high, the leaves are shaped like those of the upright speedwell, are smooth, and grow alternately on the branches, the flowers are produced from the wings of the leaves in August, two only growing together, their colour is white, and are succeeded by seeds.

3. C: TERNIS-DENTALIS, (*Phalypea erecta* of Brown, *Veronica Hexangulari* of Sloane,) *Jamaica Sweet Weed*, hath erect stalks that are hexangular, and send forth branches alternately; the leaves are narrow, eared, serrated, and grow by threes round the branches, the flowers grow singly from the wings of the leaves in August and are succeeded by oblong, conical capsules, full of very small seeds.

The C: MULTIFIDA of Michaux, answers nearly the description of the foregoing, the stem is erect, hairy and viscid, sending forth opposite lateral branches, the leaves are divided into many segments, and grow by threes round the branches, the flowers grow singly from the wings of the leaves, on single footstalks. It is an annual plant, and grows in the low grounds of Tennessee, Illinois, &c.

CAPRIFICUS, the wild Fig Tree. See *Ficus*.



CAPRIFOLIUM. See *Lonicera*. (Hermannus refers to the *Periclymenum*.)

CAPSICUM, *Guinea Pepper*, a genus of the Pentandria Monogynia class of plants, ranking under the 38th Natural Order, *Luride*, the corolla is wheel-shaped, the fruit is a sapless berry, others call it a capsule or pod, there are two real species, and several varieties, which are however considered as distinct species by several authors.

1. C: ANNUM, *Common long-podded Capsicum*, is a native of the Indies, though cultivated in our gardens. This species only hath an herbaceous stem; there are two varieties of this plant, one with red, and another with yellow fruit: and of these again there are several varieties differing only in the size and figure of the fruit. These are so well known as to need no description: The taste of all the species except the *Tetragonum* is extremely pungent and acrimonious, setting the mouth as it were on fire; it is rarely made use of in medicine, being chiefly employed for culinary purposes. Tho' there can be but little doubt, that it furnishes us with one of the purest and strongest stimulants which can be introduced into the stomach, while at the same time it has nothing of the narcotic effect of ardent spirits.

*Part used.* The fruit.

*Sensible properties.* Extremely pungent and acrimonious to the taste, as already observed.

*Medical virtues.* Doctor Adair has found it useful in a variety of cases, particularly in that morbid disposition which he calls the *Cachexia Africana*, and which he considers as a most frequent and fatal predisposition to disease among the slaves—It has also been successfully employed in a species of *Cynanche Maligna*, or Malignant Quincy, which proved very fatal in the West Indies, resisting the use of Peruvian Bark, wine, and the other remedies commonly employed: Its dose is six or eight grains, in the form of pills, or from one to three drachms of tincture, made by infusing half an ounce of it in a pint or pound of rectified spirit. This latter has become a substitute for the tincture of Spanish flies in external applications, as a stimulant in Palsies, Rheumatisms, &c. and is attended with extraordinary benefit.

2. C: TETRAGONUM, *Bell-pepper*; this is an annual plant, the fruit when ripe is red, and is the only kind proper for pickling, the skin being tender, whereas the skin of the other sorts are thin and tough, the pods are from an inch to an inch and a half or 2 inches long, are very large, swelling and wrinkled, flatted at the top, where they are angular, and sometimes stand erect, at others growing downwards.

3. C: CERASSIFORME, *Round, smooth-fruited, or Cherry-Pepper*, is also an annual plant, does not grow so tall as the other sorts, but spreads near the ground; the leaves come out in clusters, are of a shining green colour, and stand on long footstalks; the fruit is of a beautiful red, and of the size of a cherry.

4. C: PYRAMIDALE, *Egyptian Steeple Pepper*, is a perennial plant, and native of Egypt, hath much narrower leaves than either of the other sorts, the pods always grow erect, and are produced

in great plenty; these plants continue to flourish three months in the winter season, and make a handsome appearance at that time.

5. C: MINIMUM, *Cayenne*, or *Bird Pepper*, a native of the West Indies, rises with a shrubby stalk four or five feet high; the leaves are of a lucid green, the fruit grows at the division of the branches, standing erect; these are small, oval, and of a bright red; they are more sharp and biting than the other sorts.

*Domestic uses.* This species is the basis of the powder brought from the West-Indies under the name of Cayenne pepper.

6. C: CORDIFORME, *Heart-shaped Pepper*.

7. C: ANGULOSUM, with angular, heart-shaped fruit.

8. C: OLIVIFORME, *Olive-shaped Pepper*.

9. C: CONOIDE, *Hen Pepper*.

10. C: FRUTESCENS, *Barbary Pepper*, hath a small, erect, pyramidal fruit. These have no remarkable properties differing from the foregoing. With regard to culture, and domestic utility, the modes are generally known.

CAPSICUM VULGO. See *Solanum*.

CARAWAY. See *Carum*.

CARDAMINE, *Ladies' Smock*, a genus of the Tetradynamia Siliquosa class of plants, ranking in the 39th Natural Order, *Siliquosæ*. The *siliqua* or pod opens with a spring, and the valves roll spirally backward; the stigma is entire, and the calix gapes a little, there are 16 species.

1. C: PRATENSIS, *Cuckoo-flower*, *Ladies' Smock*, or *Impatient Herb*, a perennial plant, and native of many parts of Britain, growing in moist meadows, and on the banks of brooks, delighting in a soft, loamy soil, it has pinnated leaves; the folicles on the radical leaves roundish, on the stem leaves lance-shaped; the pod as was already observed is elastic, the valves roll back with force when the seeds are mature, and thus throws them off to some distance, thereby propagating as it were its own species, without the aid of man. There are four varieties of this species, viz. the single with purple, and white flowers, and the double of both colours; the double deserve a place in a shady situation in gardens.

*Part used.* The flower.

*Sensible properties.* When rubbed, they have a quick, pungent smell, and acrid taste.

*Medical virtues.* This plant has for a long time been employed as a diuretic, and latterly in nervous diseases, as epilepsy, hysterics, St. Vitus' Dance, asthma, &c. a drachm or two of the powder of the purple flowers, is given twice or thrice a day. It has little sensible operation, except that it sometimes promotes sweat.

2. C: BELLIDIFOLIA, *Daisy-leaved Cuckoo flower*, or *Ladies' Smock*, a perennial and native of Europe, it is a low plant, scarce exceeding six inches in height; the leaves are simple, oval, entire, and a little resemble those of the common Daisy, and spread upon the ground; among these the flower-stalk rises, it is weak, slender, and garnished with a few leaves sitting close without any footstalks; the flowers are produced on the upper parts of the stalks, they are small, white, come out in May, and are succeeded by very large, long pods, full of reddish seeds.

3. C: SIMPLICIBUS, *Asarum-leaved Ladies' Smock*, a perennial, and grows naturally on the Alps of Italy: It hath a creeping root which sends forth many roundish, heart-shaped leaves, that spread themselves on the ground; from among these the flower-stalk rises to about a foot in height; the flowers are produced at the top, come out in May, and are succeeded by long pods full of seeds.

4. C: PETRÆA, (*Nasturtium Petræum* of Pluke.) *Rock Ladies' Smock*, a perennial, grows naturally on the sides of rocks in England, Wales, and Sweden: The stalks are very slender and weak; the leaves are oblong, simple, and their edges indented; the stalks supports a few flowers which blow in May.

5. C: RESEDÆ-FOLIO, *Reseda-leaved Ladies' Smock*, a perennial, and grows naturally on the Helvetian and Pyrenean Mountains; the stalk rises about a foot and a half high; the lower leaves are oval and undivided, the upper leaves are composed of three lobes; the stalk supports a few small flowers.

6. C: ALPINA, (*Nasturtium Alpina* of C. B.) *Alpine Three-leaved Ladies' Smock*; this species is also perennial, and grows naturally in woods, by the sides of hills and in shady places, in Lapland and Switzerland, spreading itself by its small creeping stalks which strike root into the ground as they extend in length; the leaves are trifoliate, the folioles are obtuse, and placed on longish footstalks, in the manner of common field clover; among these the flower-stalks arise; they are weak, almost naked, and grow but to little more than a foot high; the flowers ornament the tops of the stalks in great plenty; they are white, and blow in May, succeeded by long pods containing the seeds.

7. C: PINNATIS, (*Nasturtium Amarum* of C. B.) *Bitter Cresses*, or *Ladies' Smock*, a perennial and native of England, growing in meadows and moist places; the leaves are pinnated, and the folioles angular and of a roundish figure; the flower-stalks support a few flowers at the top, they are moderately large, and are succeeded by long pods full of seeds. There is a variety of this with double flowers, which is much sought after.

8. C: VIRGINIANUM, (C: *Foliis pinnatis: foliolis lanceolatis basi unidentatis. Alyssum* of Gronov. *Nasturtium bursa: pastoris*, &c. of Pluke. C: *Virginica* of Mich.) *Virginian Ladies' Smock*, an indigenous perennial, growing naturally in Canada, New-England, Virginia, Pennsylvania, &c. the leaves are pinnated and lie flat on the ground; the folioles are numerous along the middle rib, and have an indenture near the base; the stalks are almost bare of leaves, but the few with which they are sometimes garnished are spear-shaped and entire; the flowers are white and entire, and are succeeded by compressed pods. These are all propagated by parting the roots, or sowing the seeds. They will grow in any soil or situation.

9. C: IMPATIENS, (*Sisymbrii. Cardamines* of J. B.) *Impatient Lady-Smock*, is an annual plant, growing naturally in moist, shady places in Europe; it attains a height of about a foot; the leaves are pinnated, and the folioles jagged, or divided on each side into three or four segments; the flowers have frequently no petals, but when they have, they are very small, of a whitish colour, and are suc-

ceeded by long, elastic pods, which on being touched discharge the seed; with great violence.

*Note.* On the foregoing account, this plant is frequently called *Noli-me-tangere*.

10. C: PALMATIS, (*Nasturtium Montanum* of Bocc.) *Sicilian Ladies' Smock*, an annual plant, growing, naturally in Sicily, Corsica, the Greek Islands, and Germany: It is a low plant of little beauty; the leaves are pinnated, the folioles are equal, palmated, and grow on footstalks along the midrib; the flowers consist of four small petals placed crosswise, and they are succeeded by long, narrow pods, containing the seeds.

11. C: PARVIFLORA, *Small-flowered Ladies' Smock*, an annual plant, growing naturally in fields, meadows, and pastures in Europe; the stalks attain a height of about eight inches; the leaves are pinnated; the folioles are spear-shaped, obtuse, and very slightly indented, the flowers are exceeding small, and are succeeded by short pods standing erect on horizontal pedicles.

12. C: HIRSENTA, *Hairy Lady-Smock*, is also an annual, growing in similar places with the foregoing, it is of low growth, the leaves are pinnated, and both leaves and stalks are very hairy; the flowers have four petals placed crosswise, and are succeeded by longish, twisted pods, containing the seeds.

*Note.* These are also easily propagated by seeds; indeed once they get footing they generally keep up the succession themselves.

13. C: TERES, *Round-Podded Ladies' Smock*, an indigenous species, growing naturally in New-England; it hath a weak, erect stem, somewhat branching; the leaves are pinnated, the pinnæ nearly lyre-shaped; the pods are short, roundish, and pointed.

14. C: UNIFLORA, *One-flowered Cardamine*, grows naturally about Knoxville; it hath obtuse, lyre-shaped, pinnated leaves, from among which the flower-stalk arises, and supports a single flower, being very weak.

15. C: CAROLINIANA, (C: *Spathulata* of Michaux,) *Carolina Lady-Smock*, an indigenous plant, growing naturally on the lofty mountains of Carolina: the radicle leaves are spatula-shaped and downy; from among these rises the stem which is decumbent, and garnished with ob-linear, or oblong wedge-shaped entire leaves, though some are toothed; the pods are loose and spreading.

16. C: ROTUNDIFOLIA, *Round-leaved Cardamine*, is also a native of the mountainous parts of Carolina; it hath a very simple, weak, procumbent stem, and the leaves are simple, entire, and sub-orbicular.

CARDAMOMI. See *Amomum*.

CARDIACA, (Motherwort). See *Leonurus*.

CARDINAL-FLOWER. See *Lobelia*.

CARDIOSPERMUM, *Heart-Pea*, a genus of the Octandria Trigynia class of plants, ranking in the 39th Natural Order, *Trihittata*; the calix has four leaves; the petals four, an unequal four leaved nectaria, and three inflated capsules growing together; there are three species, natives of the East and West Indies, but have no great beauty or any other remarkable property.

1. **C. CORINDUM**, (*Pisum Vesicarium* of C. B. *Corindum* Maximo of Tourne. *Halicacabus* of Rhump. and Dodon.) *Indian Heart-seed*, is an annual plant, the stalks are slender, channelled, climbing, and by the assistance of their tendrils, which come out under the divisions of the footstalks of the flowers, will arrive at the height of four or five feet, the leaves sometimes consist of three, and sometimes of five lobes, which are smooth, oblong, deeply cut on the edges, and sharp pointed; the leaves have long footstalks, and the stalks which support the flowers are long, but they divide into three shorter, each supporting a single flower, of a white colour; each of them has four petals, which are alternately larger, and are succeeded by a large inflated capsule containing the seeds, which are marked with the shape of a heart at the base. There are two or three varieties of this species, but their difference consists chiefly in the size of the stalks, leaves, and fruit, some of them being larger than the others.

2. **C. TOMENTOSUS**, (*Corindum Pubescens* of Houst.) *Brasilian Heart-pea*, is also an annual plant; the stalks are hairy, and by the help of the tendrils will grow to seven or eight feet high; the leaves are divided into five parts, which are usually divided again into three others, they are obtuse, indented, downy underneath, and grow on short footstalks; the flowers are produced in the same manner as the former, but often more of them grow together on a footstalk, each consist of four petals, which when fallen are succeeded by inflated, downy capsules, containing the seeds, which are stamped with the figure of a heart at the base.

*Note.* These are propagated with difficulty, requiring much care and nicety; the seeds must be sown in pots filled with light sandy fresh earth, and plunged in a hot-bed that has been previously covered with five inches depth of any common garden mould, into which the pots are to be plunged, and the glasses let down; all the laws relating to the management of a hot-bed must be observed until the plants come up, at which time great care is required in the due admission of air; too much is apt to kill them, and too little renders them weak, yellow, and unhealthy—they must be shaded in the heat of the day, and now and then a sprinkle of water must be afforded them in the morning.

**CARDUUS**, *Thistle*, a genus of the Syngenesia Polygamia *Æqualis* class of plants, ranking in the 49th Natural Order, *Compositæ*; the calix is oval and imbricate, tiled with spinous scales, and the receptacle is hairy; there are 33 species, several of which are troublesome weeds. The following are those to which any attention has been paid.

1. **C. BENEDICTUS**, (*Centaurea Benedicta* of Linnæus, *Cnicus sylvest hirsutior* sive *Carduus Benedictus* of the Baubines,) *Blessed Thistle*. This is an annual plant, cultivated in gardens, its leaves are semi-decurrent, indented, and spiny; it produces its yellow flowers in June or July, and perfects its seeds in the autumn. See *Centaurea Benedicta*.

*Part used.* The herb should be gathered when in flower, suddenly dried, and kept in a very dry place to prevent its rotting, or growing mouldy, which it is very apt to do.

*Sensible properties.* The leaves have a penetrating bitter taste, not very strong or very durable, accompanied with an ungrateful flavour, which they are in a great measure freed from by keeping.

*Medical virtues.* The virtues of this plant seem to be but little known in the present practice; the nauseating decoction is sometimes used to provoke vomiting, and a strong infusion to promote the operation of other emetics. But this elegant bitter, when freed from the offensive parts of the herb, may be advantageously applied to other purposes: We have frequently experienced happy effects from a slight infusion of *Carduus*, in loss of appetite, where the stomach was injured by irregularities, a stronger infusion made in cold or warm water, if drank freely, and the patient kept warm, occasions a plentiful sweat, and promotes the secretions in general. The seeds are also considerably bitter, and have been sometimes used with the same intention as the leaves.

2. C: PALUSTRIS, *Marsh Thistle*, a perennial plant, growing naturally in shady and marshy places, in England; the leaves are narrow, decurrent, indented, and prickly on their edges; the flowers are reddish, erect, and grow in bunches on footstalks that have no prickles.

3. C: DISSECTUS, (*Cirsium Majus*, C. B.) *English Soft*, or *Gentle Thistle*, a perennial, growing naturally in moist places in England, the stalk is slender, stiff, downy, and attains a height of about 14 inches, the leaves are spear-shaped, indented and without briars; the flowers are collected into moderately large heads, and have prickly cups. There are three or four varieties of this species differing in one respect or another.

4. C: AMPLEXICAULIBUS, *Melancholy Thistle*, a perennial and native of England; it inhabits mountains and heathy grounds; the stalk is erect, and without prickles, somewhat branching towards the top; the leaves are spear-shaped, downy underneath, indented, and embrace the stalk with their base; the prickles are unequal and ciliated, the flowers terminate the plant in the usual way, and are succeeded by large wooly, or downy heads containing the seeds.

5. C: ACAULIS, (*Carlina Acaulis*, C. B. *Cameleon Exiguus* of J. B.) *Dwarf Carlina Thistle*, a perennial plant, and native of many parts of Europe; it is a plant of great singularity and beauty; the root is large, dividing into branches near the top, producing tufts of leaves from each head; the leaves are green, deeply cut, very prickly and spread themselves on the ground. In the midst of these rises the flower without any stalk, or at furthest with an exceeding short one; its colour is purple, growing in a large scaly cup, it blows in July or August, and is succeeded by a large downy head containing the seeds. There is a variety with white flowers.

6. C: ITALICUS, (*C. Nemorosus Italicus*.) *Italian Thistle*, a perennial plant growing naturally in the South of Europe. This plant attains the height of about eighteen inches; the radical leaves are serrated; those on the stalk are decurrent, pinnatifid, downy, and prickly; the flowers grow on short naked downy footstalks, they are of a purple colour, have oblong, imbricated cups, and blow in July.

7. C: SUB-TOMENTOSUS. *Tartarian Thistle*, also perennial, and attains a height of about two feet; the leaves are decurrent, pinnate,

tid, unarmed with prickles, and very downy on both sides, especially the under, where they are white; the flowers are moderately large, grow in scaly cups, and are succeeded by downy heads. There are many varieties of this species, some having simple undivided stalks, others branching, some small purple, others larger and paler purple flowers, which generally blow in July.

8. C: *ANGUSTIFOLIUS*, *Narrow-leaved Austrian Thistle*, a perennial which hath branching stalks, about a yard high; the leaves are decurrent, spear-shaped, narrow, and possessed of soft spines; the flowers are produced on very long wooly footstalks; each footstalk supports one flower, which is moderately large, having a long, narrow, imbricated cup.

9. C: *CAROLINIANA*, (C: *Ramosissimo*.) *Carolina Thistle*, a perennial and native of South-Carolina; it attains a very great height, and hath an upright branching stalk, the leaves are pinnatifid, serrated, have no prickles, are downy underneath, and set close without any footstalk: The flowers terminate the branches in July or August, and are succeeded by wooly heads containing the seeds.

10. C: *BULBOSUS*, (C: *Pratensis Asphodeli radice*, C. B.) *Tuberose Thistle*, a perennial and native of Southern Europe; the root of this species hath many fleshy knots or tubes, like those of *Asphodel*; the stalk is free from prickles, the leaves moderately broad, finely divided, nearly decurrent, and prickly; the flowers are produced singly in cups that have no prickles, and appear sometime in July or August.

11. C: *CILIATIS*, (*Cirsium Maximum* of C. B.) *Lapland Thistle*, a perennial plant, growing in Lapland, and other cold parts of Europe; it hath a creeping knotty root, from which rises a stalk to the height of four or five feet; the leaves are spear-shaped, ciliated, jagged, and embrace the stalk with their base; the top of it is terminated by one or two flowers which are succeeded by downy heads containing the seeds.

12. C: *SUB-AMPLEXICAULIBUS*, (*Cirsium Angustifolium*, C. B.) *Melancholy Thistle of Montpelier*, a perennial and native of France, Switzerland, &c. It attains a height of about two feet; the stalk is upright, the leaves are green on both sides, of a firm substance whole, ciliated, spear-shaped, and embrace the stalk with their base; the upper part of the plant is ornamented with the flowers which grow singly on footstalks, and are succeeded by downy heads.

13. C: *TRIPHYLLIS*, *Siberian Thistle*, is also a perennial, growing to about the same height with the former, and to which it seems nearly allied; the leaves are spear-shaped, downy underneath, broad, indented, prickly, and embrace the stalk with their base; the flowers grow singly on long footstalks, they are white, have cylindrical cups, and are succeeded by a feathery down, among which are the seeds.

14. C: *MARIANUS*, *Milk Thistle*, or *Ladies Thistle*, is said to be an annual plant, growing naturally by the sides of roads and ditches, in England, Gaul, and Italy. It hath very large leaves, finely serrated, prickly, and beautifully variegated, with milk like veins running irregularly over the whole surface; the stalk is round, striated, branching and grows to be six feet high; the flowers terminate the

branches in plenty, their colour is purple, and they grow in scaly, prickly cups. The greatest beauty of this plant consists in the radical leaves, before the stalks shoot up for flowering.

*Domestic uses.* This plant may be eaten in the spring as a salad. The scales of the flower cup are used as a substitute for artichokes. If the tender stalks are peeled, and soaked in water, a sufficient time to extract their bitterness, they afford a nice dish; and the roots while young, as well as the leaves are said to be wholesome food.

15. C: ACANTHOIDES, (C: *Polyanthos* of Moris.) *Purple flowered Welshed Thistle*, an annual plant of which there are two or three varieties, growing naturally in England by the sides of roads and ditches: the leaves are beautifully sinuated, decurrent and very prickly, the flowers grow singly on long footstalks, they stand erect, the heads are of different sizes in the different sorts, and the calyces are very hairy, notwithstanding they are very handsome plants; they are denied a place in gardens, being considered troublesome weeds.

16. C: CRISPUS, (C: *Spinosissimus* of C. B. and Walt.?) *Thistle upon Thistle*, an annual plant, growing naturally by way sides in England and America; it is sometimes called *Polyanthos Thistle*. The stalks are possessed of thin skins, they are branching and very prickly, the leaves are sinuated, and exceedingly full of prickles, the flowers are of a purple colour, and grow in very prickly, scaly cups: there is a variety of this species with white flowers, which is one of the most prickly sorts we have.

17. C: STELLATUS, *Starry Thistle*, an annual plant, the place of whose nativity is not certainly known; it is a low plant, having branching, lateral, prickles; the leaves are moderately long, entire, and downy underneath, the flowers are of a reddish purple colour, and terminate the stalks in roundish heads.

18. C: SYRIACUS, *Syrian Thistle*, an annual, growing naturally in Syria, Crete and Spain, the stalks are robust and branching, the leaves are large, angular, spotted with white, have each angle terminated by a strong spine, and embrace the stalks with their base, the flowers grow singly on very short footstalks, but they are small and concealed among the leaves.

19. C: LANCEOLATIS, *Spear-Thistle*, is a common biennial plant, growing almost every where about towns and villages; the stalk is upright, branching, hairy and closely set with the sharpest prickles; the leaves are very long, have spear-shaped points, are decurrent, almost pinnated, and the segments are very sharp and spreading, the flowers are purple and terminate the branches in very prickly scaly heads.

*Note.* The flowers of this species possesses, like those of the artichoke, the property of curdling milk. There are 3 or 4 varieties.

20. C: NUTANS, *Musk Thistle*, a biennial plant, growing about towns and villages in most parts of Europe, it hath upright, robust stalks, which divide at top into several branches, the leaves are large, almost decurrent, and very prickly, the flowers are large, purple, hang drooping, and have a sweet, musky fragrance; on which account it is much esteemed by many.

21. C: SPINIS-TERNATIS, (*Polyacanthus Casabonæ* of J.'B. Aca-  
na Theophrasti of Læbel:) *Fish Thistle of Theophrastus*, is a biennial



growing naturally in the South of Europe; it is a tall, upright plant, attaining a height of about six feet: the leaves are large, spear-shaped, sessile, downy underneath, and have spines growing by threes on the margins; the flowers terminate the stalks in clusters, are of a purple colour, and are succeeded by smooth, oval, black seeds. There is a variety of this species with yellow flowers.

22. C: *VILLOSIS* *Woolly-headed Thistle*, a biennial, growing naturally in England, Gaul, Portugal and Spain: the stalk is very thick, long, upright and branching, the leaves are pinnatifid, prickly, sessile, spread different ways, are downy underneath, and the segments are alternately erect; the flowers are collected into round heads which are covered with a soft down, are of a purple colour, succeeded by long bright seeds.

23. C: *HISPANICA*, (C: *Foliis lanceolatis integris, &c.*) *Yellow Spanish Thistle*, a biennial and native of Spain, the stalks are smooth; the leaves spear-shaped, smooth, whole, indented on the edges, and entirely free from prickles; the flowers are of a whitish yellow colour, terminating the stalks in cylindrical oval cups.

The perennials are propagated by parting the roots or from seeds—the annuals from seeds sown in autumn—the biennials in spring, where they are to remain—for the other genera of Thistles see *Carlina*, *Centaurea*, *Cirsium*, &c.

**CAREX**, *The Sedge*, or *Cytheroide Grass*, a genus of the Monocotyledon class of plants, ranking in the 3d Natural Order, *Calamaria*; the amentum of the male is imbricated, it has no corolla, and the calix consists of one leaf; the amentum of the female is likewise imbricated, the corolla is wanting, and the calix also consists of one leaf; the nectarium is inflated and three toothed; there are three stigmata, and the seeds are triangular, and contained within the nectarium. There are 117 species enumerated, of which 22 are said to be common to most countries in Europe, and the same number are enumerated by Michaux as indigenous to America—they are principally uncultivated plants, the greater part of which grow naturally in ditches, bogs, moist woods, by the sides of rivers and watery places, in different parts of the world. We shall subjoin a proportion, in order to convey an idea of the Genus.

1. C: *MARITIMA*, (C: *Spica composita, Spiculis androgynis. Gramen Cyperoides* of Pluke. and Loes.) *Sea Carex, Sea Sedge, or Sedge*, a perennial plant, growing in loose and moveable sands on the shores of Europe, and flowers in June.

*Domestic uses.* Its creeping roots contain a large proportion of farinaceous particles, from which, in times of scarcity, wholesome bread has been prepared; early in the spring they are said to possess medicinal properties not inferior to those of Sarsaparilla.

2. C: *DIOICA*, (*Cyperoides parvum* of Michel. *Gramen Cyperoides* of Moris; Ray, &c.) *Dioiceous Carex, or Bastard Cyperoid Grass*, a perennial, growing naturally on the tops of bogs and moist places in England and most countries of Europe.

3. C: *OVATA*, (C: *Spica simplicis androgyna ovata, Gramen Cyperoides minimum* of Moris.) *Small Capitated Carex, or Bastard*

*Cyress Grass*, grows naturally on turfey bogs, and moist places in England and Lapland; it is a perennial plant.

4. C: PULICIFORMIBUS, *Flea Carex*, a perennial, growing naturally in marshy places in England, and most parts of Europe.

5. C: PANICULATA, *Panicled Carex*, a perennial growing naturally in wet woods, rotten turfs, and uliginous, or wet, moist, alpine places in England, &c.

6. C: NUDIS, *Naked Carex*, grows also in wet places of Europe.

7. C: VULPINA, *Great Sedge*, a perennial, grows naturally in marshes and on the banks of rivers, and flowers in May or June; it is common to most countries of Europe. Michaux gives a species which seems nearly allied to this, viz. C: Vulpinoidea, which he says grows naturally in New-England and Canada. It is accounted a pernicious grass in meadows, yet the whole plant may be usefully employed as a substitute for straw in the packing of goods, liable to be injured by carriage, &c.

8. C: ACUTA, *Slender spiked Sedge*. There are two varieties of this species, namely, the Nigra, or *Black Sedge*, and the Rubra, or *Red Sedge*, so called from the colour of their flowers. They are perennial, and grow naturally by the sides of ponds, ditches, rivers and meadows, flowering in May. They are both noxious weeds, as numerous insects breed on them, whereby diseases are produced in the cattle which graze on them. There are also the *Rough Carex*, *Prickly Carex*, *Grey Carex*, *Long-leaved Carex*, *Yellow Carex*, or *Hedge-hog grass*, *Pink Carex*, &c. &c. some of which are natives of America, but from what has been already observed, we deem it unnecessary to say more about them.

CARICA, *The Papaw*, a genus of the Dioecia Decandria class of plants, ranking in the 38th Natural Order, *Tricocca*: the calix of the male, scarce any; the corolla is quinquefid and funnel-shaped, the filaments in the tube of the Corolla, a longer and shorter one alternately; the calix of the female quinque-dentated, the corolla is pentapetalous, with five stigmata, the fruit, unilocular, and a polyspermous berry. There are two species,

1. C: PAPAYA, (C: Sinuatis. Sp. Pl. Arbor. of Pluk. *Papaya fructu* of Trew.) *Common Indian Papaw Tree*, a native of both the Indies and of Florida. That truly indefatigable Naturalist, Mr. W. Bartram says, "This admirable tree is certainly the most beautiful of any vegetable production I know of; the towering Laurel Magnolia, and exalted Palm, indeed exceed it in grandeur and magnificence, but not in elegance, delicacy, and gracefulness;" it rises with a thick, soft, herbaceous stem, to the height of eighteen or twenty feet, naked till within two or three feet of the top; the stem is smooth and polished, of a bright ash-colour resembling leaf-silver, curiously inscribed with the footsteps of the fallen leaves, and these vestiges, are placed in a very regular, uniform, imbricated order, which has a fine effect, as if the little column were elegantly carved all over; the leaves are very large, divided into many sinuated lobes of a bright green colour, and come out from every side of the stem near the top on long, hollow footstalks; the undermost leaves are largest and almost horizontal, but those on the top are erect; the flowers of

the male plant are produced from between the leaves on the upper part of the plant, having footstalks near two feet long, at the end of which the flowers stand in loose clusters, each having a separate, short footstalk, these are of a pure white and have an agreeable odour. The flowers of the female also come out from between the leaves towards the upper part of the plant upon very short footstalks, sitting close to the stem, they are large, and bell-shaped, composed of six petals, and are commonly yellow, (in some varieties purple) when these fall away, the germen swells to a large, fleshy fruit, of the size of a small melon; these fruits are of different forms, some angular, and compressed at both ends, others oval, or globular, and some pyramidal, hence the varieties are termed, Melon Papaw, Gourd Papaw, Pear Papaw Tree, &c. from the fruit resembling those of the Melon, Gourd, and Pear.

Mr. Bartram says, this species never branches or divides into limbs, unless the tops are accidentally broken when very young; that they are always green, ornamented at the same time with flowers and fruit, which like Figs come out singly from the trunk or stem.

*Domestic uses.* The fruit and all the other parts of the tree abound with a milky, acrid juice, which is applied for killing Ring-worms, and inspissated is said to be an excellent remedy for worms. When the roundish fruit are nearly ripe, the inhabitants of India boil and eat them as we do turnips, they have somewhat the flavour of a Pompon; previous to boiling, they soak them for some time in salt and water to extract the corrosive juice; unless the meat they are to be boiled with should be very salt and old, and then this juice being in them, will make it as tender as a chicken: the long-fruited sort they generally pickle, and thus make a good succedaneum for Mango: of the buds of the female flower, they make a sweetmeat, and the inhabitants are such good managers of the produce of this tree, that they boil the shells of the ripe fruit into a repast, and the insides are eaten with sugar in the manner of Melons.

2. C: INTEGRIS, (Papaya pyriformi of Fewel, Ficus arbor, &c. of Pluke. Platani folio Arbor Posoposo Philippensis of Petiver,) *Posoposo*, or *Surinam Papaw Tree*, grows naturally at Surinam; the stem is upright, branching, and attains a height of about twenty feet; the leaves are very large, and divided into lobes which are not sinuated on their edges; the flowers are produced in small clusters from the upper parts of the branches, they are of a reddish colour, and are succeeded by very large, pear-shaped fruit, which is of a yellow colour when ripe, and of a fine sweet flavour; the fruit of this also varies in size and shape. They are stove plants, and are propagated from seeds in the same manner other stove plants are reared. They attain a height of twenty feet in about three years, and then produce fruit in abundance.

CARISSA, a genus of the Pentandria Monogynia class of plants, ranking in the 30th Natural Order, *Contortæ*: we have no other mention of this genus, than its having two many-seeded berries.

CARLINA, *Carlina Thistle*, a genus of the Syngenesia Polygamia Aequalis class of plants, ranking in the 49th Natural Order, *Compositæ*; the common calix is ventricose and imbricated, the scales are numerous, loose, acute, long, patent, bright, coloured,

and the inner ones shaped in a circular order, so as to resemble the radius of a compound flower. The compound flower is uniform, the florets funnel-shaped, having a very slender tube, and divided at the top into five parts; the stamina are five very short capillary filaments, having a cylindrical tubulous antheræ; the pistillum consists of a very short germen, a filiforme style the length of the stamina, and an oblong bifid stigma; it has no pericarpium; the seed are single, taper, and crowned with a branching feathery down. It is said there are 9 species.

1. C: UNIFLORA, (C: Acaulos of C. B. Chamcleon Aibus of Clus.) *Stalkless Carlina Thistle*, a perennial plant growing naturally on the mountainous parts of Italy and Germany, it hath a large, thick, white, sweet-scented root, the leaves are finely jagged or divided, very prickly, about six inches long, and spread themselves on the ground; in the midst of these come out the flower without any stalk, or at most with a very short one; its colour is white, though there is a variety with red flowers. Both sorts are very large, close in the evenings, and in rainy or misty weather, but expand in sunshine; they make their appearance in July, and their seeds ripen in September.

*Parts used.* The root.

*Sensible properties.* It has a strong smell, and a sub-acrid, bitterish, weakly aromatic taste. The roots brought from Swisserland, are about an inch thick, externally of a pale rusty brown colour, corroded as it were on the surface, and perforated with numerous small holes appearing when cut as if worm-eaten.

*Medical virtues.* The root of Carlina is considered as a warm diaphoretic and alexipharmic; and has for some time been greatly esteemed by foreign Physicians but never came much into use among us; the present practice has entirely rejected it, nor is it often to be met with in shops. Hoffman, relates that he has observed a decoction of it in broth to occasion vomiting.

*Domestic uses.* In Germany the roots form an article of food, and are dressed like Artichokes, or made into salads; either way they are much esteemed.

2. C: MULTIFLORA, (Acarna Capitulis of C. B. Carlina Sylvestris of Tourne,) *Corymbose Carlina Thistle*, a perennial and native of Italy. The root of this species is thick, fleshy, and strikes deep into the ground; the leaves are large, very prickly, and sit close without any footstalks; the stalk is upright and divides near the top into a few branches; the flowers are produced from the ends of the branches in a corymbus, they are of a golden yellow colour, come out in July, and their seeds ripen in autumn. There is a variety of this with small flowers collected into little heads, and another with a larger branching stalk, producing the flowers in a kind of umbel.

3. C: ALBIS, (Cnicus Sylvest of C. B. Atractylis mitior of Fusch.) *Wild, or Common English Carlina Thistle*, a biennial plant, growing naturally in England and most parts of Europe, where it is deemed a weed, it is nevertheless a plant of great singularity and beauty; the root strikes deep into the ground, is moderately large and hot to the taste; the leaves are large, long, beautifully beset with prick-

kles, and finely divided at the edges; the flowers terminate the branches in prickly heads, and are encircled with leaves of a whitish yellow colour: they come out in June or July.

4. C: PURPUREIS, (Acarna Purpureo of C. B.) *Woolly Carline Thistle*, is an annual plant, growing naturally in Italy and France; the stalk is woolly, forked, and grows to about a foot and a half high, the flowers are produced from the divisions of the branches, are moderately large, and of a fine purple colour; they come out in July or August.

5. C: HISPANICA, (Acarna flore luteo patul of C. B.) *Spanish Carline Thistle*, is an annual plant, growing naturally in the Spanish deserts; it hath a very branching stalk, which rises to about a foot high; the flowers are produced from the sides of the branches, where they sit close, without any footstalks; they are of a yellow colour, and come out in August.

CARNATION. See *Dianthus*.

CAROB TREE, or ST. JOHN'S BREAD. See *Ceratonia*.

CAROLINA FLAX. See *Polyphremum*.

CAROLINA KIDNEY-BEAN TREE. See *Glycine*.

CAROLINA CEDAR. See *Juniperus*.

CAROLINA SORREL TREE. See *Andromeda*.

CAROLINA SPIRÆA, *Red Twig*, or *Jersey Tea Tree*. See *Ceanothus*.

CAROLINA SYRINGA, or *Mock Orange*. See *Philadelphus*.

CARPESIIUM, a genus of the Syngenesia Polygamia Superflua class, and ranking in the 49th Natural Order, *Compositæ*; the general calix is imbricated, the exterior leaves are the largest, spreading and reflexed; the interior are short and equal; the compound flower is equal; the hermaphrodite florets in the disc, consist each of one infundibuliforme petal, cut at the top into five spreading segments; the female florets in the radius consist each of one tubular petal, cut at the top into five connivent segments; the stamina of the hermaphrodites, are five very short filaments, having a cylindrical anthera; the pistillum of the hermaphrodites consists of an oblong germen, a simple style and a bifid stigma; those of the females are similar; there is no pericarpium; the seeds are oboval and naked, and the receptacle is naked. We have accounts as yet of but one species, viz.

C: ITALICA, (C: Terminalibus, Balsamita of Vaill. Aster Atticus of C. B. Chrysanthemum of Moris.) *Italian Carpesium*, a perennial and native of Italy: the root is composed of many thick fibres, the stalk is upright, firm, bending at the top, and two or three feet high; the leaves are long, hairy, and serrated at their edges; the flowers come out from the tops of the stalks attended by a few leaves, which are smaller than the others, more acute and soft to the touch; they are moderately large, of a yellow colour, and hang drooping; they appear in July or August. It is easily propagated by parting the roots in autumn; they should have a fresh, light soil, and shady situation; this does not differ greatly from the Italian Aster.

CARPINUS, the *Horn Beam-Tree*, a genus of the Monoecia Polyandria class of plants, ranking in the 50th Natural Order, *Amentaceæ*; the calix of the male is monophyllous and ciliated, there

is no corolla, but twenty stamina; the calix of the female is the same as the male, no corolla, two germen with two styles on each, the fruit is an egg-shaped nut. There are two species.

1. C: AMERICANA, (C: *Betula* of late Compilers, *Ostrya Ulmo Similis* of C. B. *Betulus sive Carpinus* of Gerard.) *Common Hornbeam*, an indigenous deciduous tree, growing naturally, according to Michaux, in Canada and Florida, attains a height of 70 feet, very much resembling Beech; the leaves are of a dark green, more pointed than those of Beech, and deeply serrated; the leaves put out in March, and the flowers are in full bloom about May. There are many varieties of this species, but the three following appear particularly to merit notice.

*Eastern Hornbeam*; this variety arrives to the least height of all the sorts; about ten feet is the farthest of its growth; the leaves are less than the common sort, and the bark is more spotted.

The *Flowering Hornbeam*, is the most free from shoots, and is higher than the foregoing, rising sometimes thirty or forty feet; the trunk is very large, the branches not much spotted, the leaves are very rough, of a dark green colour, and are longer than the common sort.

The *American Hornbeam*, is a more elegant tree than any of the former sorts; the branches are slender, and covered with a brownish speckled bark, the leaves are oblong, pointed, and of a palish green, and are not near so rough as the common kind, though the flowers and fruit are produced in the same manner.

2. C: OSTRYA, (*Ostrya Italica* of Micheli, *Aceris cognata* of Pluke.) *Hoft Hornbeam*, an indigenous plant, growing naturally in Canada, and the Hilly parts of Carolina; it is of a taller growth than the Eastern kind, arriving at the height of twenty feet or more; the leaves are nearly the same size of the Common sort: there is a variety of this species which grows thirty feet high, shoots freely, has long, rough leaves like those of the Elm, and longish, yellow-coloured flowers; it is called the *Virginian Flowering Hoft Hornbeam*. These are propagated by seeds or layers.

*Domestic uses.* These trees are proper for all plantations whether of profit or pleasure; its leaves afford a grateful food to cattle; its wood is very tough and white, and burns like a candle; it is much employed by turners, and is wrought into cogs for the wheels of mills presses &c. in short, it will serve for as many useful purposes as almost any tree of the forest. Grass will not flourish under its shade. A permanent yellow colour is imparted to yarn by the inner bark.

CARPOBALSAM. See *Amyris*.

CARROT. See *Daucus*.

CARROT ALSACE. See *Peucedanum*.

CARROT CANDY. See *Athamanta* and *Myrrhis*.

CARROT DEADLY. See *Thapsia*.

CARROT MOUNTAIN. See *Faniculum*.

CARROT SICILIAN. See *Athamanta*.

CARTHAMUS, *Dastard Safron*, a genus of the Syngenesia Polygamia Aequalis class of plants, ranking in the 49th Natural Order, *Compositæ*; the calix is ovated, and imbricated with scales close

below, and augmented with sub-ovated foliaceous appendices at top; the compound flower is uniform, the florets are each a funnel shaped petal, having the limb divided into five erect parts that are nearly equal; the stamina are five very short capillary filaments, with a cylindrical tubular antheræ; the pistillum consists of a very short germen, a filiforme styli longer than the stamina, and a simple stigma: There is no pericarpium, the calix becomes connivent and encloses the seed. The seed is single, and the receptacle is plain and hairy—there are nine species.

1. C: UNIFLORO. (*Carduus Cæruleus Erectus* of Moris.) *Bastard Saffron of Tangiers*, grows naturally in Algiers, and is a perennial plant, the stalk is upright, branching a little, and grows about eighteen inches high; the radical leaves are pinnated, but those on the stalk are pinnatifid, each segment ending in a prickle or sharp point. One flower only terminates the stalk; the several florets of which it is composed are collected into a large scaly cup, their colour is blue, and they blow in July.

2. C: SUB-UNIFLORO, (*Cnicus Cæruleus* of C. B.) *Spanish Bastard Saffron*, a perennial, growing naturally in the corn-fields of Spain; it hath a single, channelled, hairy stalk, of a purplish colour, which attains a height of about two feet; the leaves are spear-shaped, smooth on their upper surface, indented, prickly, and downy underneath; one flower only terminates each stalk, having a large leafy prickly calix; the colour of the florets is blue, and they have black antheræ—they blow with the former.

3. C: INERMIBUS, (*Cathamoides Cæruleus* of Vaill. *Carduncellus* of Moris.) *Smooth Bastard Saffron of Mount Lupus*, a perennial and native of France, it hath an upright smooth stalk, about a foot high; the leaves are unarmed with prickles, the radical leaves are indented, and those of the stalk are pinnated; the flowers terminate the stalks, and are collected in large scaly cups—their colour is blue.

4. C: DENTATIS, (*Eryngium Montanum* of C. B.) *Prickly Bastard Saffron of Mount Lupus*, a perennial, and native of France, hath a hairy channelled stalk, of about six or eight inches high; the leaves are narrow, as long as the plants, deeply cut or winged, and each segment ends in a spine or prickle, they are collected into large scaly heads at the tops of the stalks; only one flower terminates each stalk, its colour is blue, and they blow in June.

5. C: Corymbosis, (*Echinops* of the Hort. Cliff. *Chamæleon Niger* of Dalech, and C. B. and *Carduus Chamælean* of Moris.) *Corymbous flowering Bastard Saffron*, also a perennial, and native of Thrace, Lemnos, and the plains of Apulia; the stalks are upright, channelled, branching, and grow to about two feet high; the leaves are large, prickly, hoary, and the whole plant has an appearance not much unlike the Globe Thistle: The flowers are numerous, and grow in roundish bunches, are of a blue colour and blow in June or July.

6. C: OFFICINARUM, (*Cnicus Vulgaris* of Clus.) *Bastard Saffron of the Shops, Safflower, or Dyers Safflower*, an annual plant, and native of Egypt; it rises with an upright, ligneous stiff branching stalk to the height of about a yard; the leaves are oval, undivided, serrated, prickly round the edges, and grow close without footstalks

on the branches: The flowers are collected into large heads at the ends of the branches, having scaly cups; each branch supports one flower only, which is of a reddish or yellow colour, and shews itself to an advantage, by the florets bursting near an inch out from the calix: It is cultivated in large quantities in some places of Germany, from whence it has been introduced into the United States; the flowers well cured are not easily distinguished from the *Crocus*, or *True Saffron*. Their want of smell however readily discover them, the seeds are about a quarter of an inch long, white, smooth, of an oblong roundish shape, yet having four sensible corners, and are so heavy as to sink in water.

*Part used.* The seeds and flowers.

*Sensible properties.* The seeds have a sweetish, viscid taste, which in a little time becomes acrid, and nauseous.

*Medical virtues.* The seeds have been celebrated as a cathartic; but they operate very slowly, and for the most part disorder the stomach and bowels, especially when given in substance; triturated with distilled aromatic waters; they form an emulsion; less offensive, but inferior in efficacy to the more common purgatives; the flowers are esteemed cordial and diaphoretic, and in the United States, forms a considerable article in domestic composition, in eruptive and other complaints, requiring a determination to the surface by sweat: They are, however, considerably inferior to the true Saffron.

*Domestic uses.* An elegant though not permanent red and yellow dye is obtained from the flowers, and the seeds are greedily eaten by a species of Parrot, though it is said they are poisonous to other birds, or beasts.

7. C: PILOSO, (*Atractylis Lutea* of C. B.) *Woolly Bastard Saffron*, or *Yellow Distaff Thistle*, an annual plant, and native of Gaul, Italy, and Crete, where the housewives use the stalks for distaffs; the stalks grow to about two or three feet high, is very hairy and woolly, and branches near the top; the lower leaves are pinnatifid, prickly, woolly and hairy, the upper ones are indented, prickly on their edges and embrace the stalk with their base; the flowers are yellow, and are produced from the ends of the branches in scaly cups, attended by many stiff prickly leaves, clustered together underneath: They blow in July or August.

8. C: CRETICUS, (*Atractylis Flore Leucophæo* of Vaill. *Cnicus Creticus* of Tourne.) *Cretan Bastard Saffron*, is also an annual plant, it rises with an upright stalk, that branches near the top, and is almost smooth, to the height of two or three feet, the lower leaves are lyre-shaped, and the upper ones are indented, and embrace the stalk with their base; the flowers terminate the branches in woody, scaly cups, they are of a white colour, and appear in July or August.

9. C: FOETIDISSIMA, (*Cnicus Hispanica* of Tourne.) *Shrubby Bastard Saffron*, this is a green house plant, it rises with a shrubby branching stalk, to about eight or ten feet high; the leaves are sword-shaped, long, sinuated, indented, prickly, and embrace the stalk with their base; the flowers are yellow, and grow in large scaly, prickly heads at the ends of the branches, they come out in July.



The whole plant is very strongly and disagreeably scented. This species is propagated by planting the slips in pots, filled with light, sandy, fresh mould in the spring, and then plunged to the rim in a moderate hot-bed. The other kinds are easily propagated from seeds.

**CARUM**, *Carvy*, or *Caraway*, a genus of the Pentandria Digynia class, ranking in the 45th Natural Order, *Umbellatæ*; calix, the general umbel is long, and has ten radii, that are often unequal, the partial umbels are clustered. For the general involucre, there is sometimes one leaf; but for the partial none; the perianthium is hardly to be distinguished; corolla, the general flower is uniform; the single flowers consists each of five obtuse, unequal, heart-shaped petals, that are inflexed at the points; the stamina are five capillary filaments. the length of the corolla, having small roundish antheræ; the pistillum consists of a germen situated below the flowers, and two small styles with simple stigmas; pericarpium, there is none, the fruit is oval, oblong, striated and separable into two parts; semina. the seeds are two, oval, oblong, striated, convex on one side and plain on the other. Hanbury says there is but one real species, we however find two described in the last London edition of the *Encyclopædia*.

1. **C:** **CARUI**, (**C:** *Pratense*, *Carvi Officinarum* of **C. B.**) *Caraway of the Shops*, a biennial plant, growing naturally in meadows and pastures in some parts of England, Germany, Bohemia, &c. in the United States it is cultivated in gardens for its seeds, &c. the The root is not much unlike Parsly, but larger, chiefly white, strikes deep into the ground and has the taste almost of a carrot, from this rises one or two smooth, channelled, branching stalks, to the height of about a foot and a half or two feet, the leaves are large, composed of many parts, like those of the carrot, and grow on long naked footstalks, each of the branches is terminated by a large umbel of flowers, which are of a white colour, and blow in June.

*Part used.* The seeds.

*Sensible properties.* Aromatic smell, warm pungent taste.

*Medical virtues.* They are frequently employed as a stomachic and carminative in flatulent colics and the like, an Essential Oil of them is kept in the shops.

*Domestic uses.* Parkinson says, the young roots of Caraway are better eating than parsnips; the tender leaves may be boiled with pot herbs; the seeds are used in cakes, incrusted with sugar as sweet-meats, and distilled with spirituous liquor for the sake of the flavour they afford. Sheep, goats and swine eat the plant, cows and horses are not fond of it.

2. **C:** **HISPANICUM**, *Spanish Caraway*, is also a biennial, and native of Spain; it rises with a stronger stalk than the former, which seldom grows more than a foot and a half high, but is closely garnished with leaves like *Dill*, which are fine and narrow. They are both propagated by seeds, sown either in spring or autumn; this species is also used in medicine for the same purposes as the former.

**CARYOCAR**, a genus of the Polyandria Tetragynia class of plants; the calix is quinquepartite, the petals five, the styles more fre-

quently four; the fruit is a plum, with nuclei, and four furrows netted. I have seen no farther accounts of this genus.

CARYOPHILLATA. See *Geum*.

CARYOPHILLUS, the *Pink*. See *Dianthus*.

CARYOPHILLUS, the *Clove tree*, a genus of the Polyandria Monogynia class of plants, ranking in the 19th Natural Order, *Hesperidæ*; the calix is double, there being a perianthium for the flower, and another for the fruit, the perianthium of the flower is composed of four roundish, concave, deciduous leaves; the perianthium of the fruit is small, acute, permanent, and divided into four parts; the corolla is four, roundish, crenated petals, shorter than the leaves of the calix of the flower; the stamina are numerous capillary filaments with simple antheræ; the pistillum consists of a large oblong germen, situated below the flower, a simple style inserted in a quadrangular receptacle, and a simple stigma; the pericarpium is an oval, unilocular, umbilicated berry, terminated by the calix of the fruit, the segments of which become hardened and connivent; the seed is single, oval and large. There is but one species.

C: AROMATICUS, The *Clove Tree*, a native of the Molucca Islands, and particularly Amboyna, where it is principally cultivated; it is very robust, growing to about twenty feet high; the bark is smooth, thin, and of a brown colour, in these respects it resembles the Olive tree; the branches are numerous, slender, and divide themselves in such a manner as to form a beautiful head, which is either round or conical; not much unlike the common Lime tree; the leaves adorn the branches in great plenty, their figure is oblong, resembling those of the Laurel or Bay. They are possessed of a spicy fragrance, and grow opposite each other on the branches; the flowers come out in clusters from the ends of the branches; they are small and very fragrant, their colour is white on their first coming out, then green, next they alter to a red or brown, and lastly to a very dark colour, succeeded by an oval fruit. When they arrive at this degree of maturity, they are, properly speaking, *Cloves*. They are beaten from the trees when about half grown, having the permanent quadrifid calix at the top, the time of gathering is usually in November, after which they are dried and packed up for exportation: Those that are left remaining on the trees continue to grow till they are about an inch in thickness, and these falling off produce new plants, which do not bear in less than eight or nine years; these are called *Mother Cloves*, and are inferior to the common sorts, but are preserved sometimes in sugar by the Dutch, and in long voyages are eaten after meals to promote digestion.

*Part used.* The fruit and essential oil.

*Sensible properties.* Cloves have a very strong, agreeable, aromatic smell, and a bitterish pungent taste, almost burning the mouth and fauces.

*Medical virtues.* They are very hot stimulating aromatics, and possess in an eminent degree the general virtues of substances of this class, an extract made from them with rectified spirit is excessively hot and pungent; the distilled oil has no great pungency, an

extract made with water is nauseous, and somewhat styptic: Cloves in substance enter the extemporaneous prescriptions of some private practitioners, in Intermitting Fevers; combined with bark and cream of tartar, in the proportion of one ounce of each of the foregoing, to two drachms of the Cloves, digested in a quart of Madeira, affords an elegant and efficacious remedy in Agues, &c. The Essential Oil is a common application in tooth-ache. They enter many officinal compositions.

CARYOTA, a genus of plants ranged under the *Palme Bipinnatifoliae*; the calix of the female is common, the corolla is divided into three parts, and the stamina are numerous; the calix and corolla of the male are the same with those of the female; there is but one pistillum, and the berry contains two seeds. There is but one species, a native of India.

C: URENS, *Burning*, or *Stinging Caryota*, called by the natives *Schundafana*.

CASCARILLA, or *Eleuthera*. See *Croton*.

CASHEW NUT. See *Anacardium*.

CASSADA and *Cassava*. See *Jatropha*.

CASSIA, *Wild Senna*, a genus of the Decandria Monogynia class, and 33d Natural Order, *Lomentaceae*; the calix is a perianthium composed of five lax-concave, coloured, deciduous leaves; the corolla consists of five roundish, concave petals, the lower ones being larger, patent, and more distant than the others; the stamina are ten declinated filaments, of which the three lowest are the largest, and the three upper ones the shortest; the three lower antheræ are large, arched, beaked, and open at the point; the four lateral antheræ open without any beaks, and the three upper ones are very small, and have hardly any pollen; the pistillum consists of a long, pedunculated, taper germen, a very short style, and an obtuse, assurgent stigma; the pericarpium is an oblong pod, having transverse partitions; the seeds are roundish, and affixed to the upper suture. There are 30 species.

1. C: CAROLINIANA, (C: Occidentalis Michaux, *Senna Occidentalis* odore *Opii viroso* of Commel:) *Carolina Wild Senna*, or *Smooth Occidental Cassia*, a biennial plant, and native of Carolina, growing in the vicinity of Charleston; it rises with a channelled, branching stalk, to the height of four or five feet, the leaves are pinnated and grow alternately on glandulous footstalks, each consisting of five pair of oval, spear-shaped folioles, that are rough on the edges, the upper ones are the largest, and they diminish in size gradually to the lowest; the flowers are produced from the tops of the stalks in loose spikes, are of a yellow colour, and are succeeded by sword-shaped, bordered, flat pods, containing the seeds. The whole of this plant is very fetid and disagreeable to the smell.

2. C: AMERICANA, (C: Linearis Mich.) *Hairy Occidental Cassia*, is also a biennial growing naturally in America; the stalk of this species is channelled, branching, and grows to a yard high; the leaves are composed each of six pair of folioles; these are broad, oval, sharp pointed, wooly and hairy; the flowers produced from the tops of the stalks in loose spikes, are of a yellow colour, and both these and the leaves are stinking and disagreeable to the scent.

3. C: MARILANDICA, *Perennial Cassia*, or *Wild Senna of Maryland*, an indigenous perennial plant, growing naturally in the United States, and particularly in Maryland, Virginia, and the Carolinas: the root is composed of many black fibres; the stalks rise in the spring, and die to the root in autumn; they are many, upright, and grow in the summer to the height of two feet; the leaves are pinnated, the folioles are oval, oblong, equal, smooth, and each leaf consists of eight or nine pair beautifully arranged along the midrib; the flowers grow from the ends of the branches in loose spikes, are of a fine yellow colour, and make a beautiful appearance. They come out in July.

4. C: CHAMÆCRISTA, (*Chamæcrista Pavonis major* of Comm.) this species hath a number of vulgar names attached to it, viz. *Many-leaved Cassia*, *Golden Cassia*, *Eastern Shore Bean*, *Magotha Bay Bean*, *Aquamyaue*, and *Dwarf Peacock-flower*, an indigenous annual flower, growing naturally in Carolina, Virginia, &c. the stalk is round, downy, tough, pithy, upright, and grows to about two feet high; the leaves are very long, pinnated in a beautiful manner, and grow on glandular footstalks, they consist of about twenty pair of folioles, which are small, of an oblong figure, grow opposite to each other on the midrib, and are of a pleasant green colour; the stipulæ are sword-shaped; the flowers are large, of a golden yellow colour, and very numerous; they stand opposite to the leaves, or often in the intervals between them; they are placed on short footstalks, on each of which there grows also a single sharp-pointed leaf, altogether different from the others, these are succeeded by pods containing the seeds, which are black, large, and very bright. There are one or two varieties.

*Domestic uses.* This plant is cultivated on the Eastern Shore of Virginia, and in Maryland, for the purpose of recovering worn out lands, and of enriching such as is naturally poor; sandy lands in particular are ameliorated by it. For a more particular description of its Domestic uses, consult Dr. Greenways account, contained in the Transactions of the American Philosophical Society.

5. C: NICTITANS, (*Senna Spuria Virginiana* of Pluke. *Amoena Moesta* of Rhump.) *Many-leaved Virginian Cassia*, an indigenous annual plant, growing naturally in Carolina, Virginia, and Pennsylvania; the leaves of this species resemble those of the Sensitive Plant, they consist of about twenty pair of folioles finely arranged along the midrib; and on the general footstalk is a glandule raised on a little pedicle; the flowers are produced from the upper parts of the branches for a considerable length; the footstalks divide into three parts, and each part supports one flower; it is small, nictant, and will continue in succession for near two months.

6. C: CONJUGIS, *Two-leaved Indian Cassia*, an annual and native of India, hath a ligneous, pithy, taper stalk; the leaves grow two together on short footstalks, are nearly round, striated, and obtuse; the stipulæ are cordated, spear-shaped, and very large.

7. C: FOLIIS BIJUGIS, (*Senna quadrifolia* of Burm.) *Quadrifoliate Indian Cassia*, an annual and native of India and Egypt: it is a low plant not more than a foot high; it hath two pair of leaves growing together, which are smooth and nearly oval; it hath beautiful fiery

red flowers, which are moderately large, and are succeeded by plane, short pods, containing the seeds.

8. C: TRIJUGIS, (C: Siliq: quadrangulare of Dille. Senna Orientalis of Herm. Galega Indica of Ray,) *Quadrangular-podded Indian Cassia*, a biennial and native of India, grows about two feet high, hath ligneous, pithy, rough branching stalks; the leaves are composed of three pair of folioles, of an oblong figure, the upper ones the largest.

9. C: FOETIDA, (*Gallinaria rotundifolia* of Rhump.) *Stinking obtuse-leaved Cassia of Cuba*, is a small, annual plant, with a herbaceous stalk; the leaves are composed of three pair of folioles, which are roundish, oval, and obtuse; the flowers have a very fetid, disagreeable scent, as hath the whole plant.

10. C: SENNA, (*Senna Alexandrina* of C. B.) *Egyptian Cassia*, or *Common Senna*, an annual and native of Egypt, though cultivated in the United States; the stalks are ligneous, long, slender, and tough; the leaves are pinnated, and each consist of three, four, and sometimes of six pair of whitish or pale green folioles, that are nearly of an oval figure; the flowers are produced from the tops of the branches on slender footstalks; they are of a yellow colour, having a few reddish or brown stripes, and are succeeded by crooked, compressed pods, containing the seeds.

*Part used.* The leaves.

*Sensible properties.* Faint not disagreeable smell, and a sub-acrid, bitterish, nauseous taste.

*Medical virtues.* Senna is a very useful cathartic, operating mildly and yet effectually, and if judiciously dosed and managed, rarely occasions the ill consequences which too frequently follow the exhibition of the stronger purges. The only inconvenience attending this drug are its nauseous flavour, and being apt to gripe; this latter quality depends on a resinous substance, which is naturally disposed to adhere to the coats of the intestines; therefore, the more this resin is divided by such matter as takes off its tenacity, the less adhesive, and consequently the less irritating and griping it will prove, and vice versa. When diluted by a large portion of suitable menstruum, or divided by mixing the infusion with oily emulsions or gum, it loses its griping quality. The pedicles of the leaves, and the pods or seed vessels are by some preferred to the leaves, the latter are less apt to gripe, but are proportionably less purgative. Senna is said to prove serviceable in swellings of the spleen. Its dose in substance is from a scruple to a drachm, in infusion from one to three drachms.

11. C: PROSTRATIS *Prostrate Cassia of Jamaica*, hath exceeding slender, herbaceous, smooth, prostrate stalks; leaves composed each of seven pair of oblong, striated folioles, awl-shaped stipulæ, and single flowers growing from the wings of the leaves, on long, naked footstalks, oblong erect pods, growing at right angles with the footstalks.

12. C: MULTIJUGIS, (*Senna Spuria Occident. of Herm.*) *Many-leaved Brazilian Cassia*, hath tough, upright, branching stalks; leaves resembling those of the sensitive plant, consisting of about the same number of pinnæ, finely arranged along the midrib; the flowers

are yellow, produced from the sides of the branches, and are succeeded by single pods containing the seeds.

13. C: PROCUMBENS, *Many-leaved Procumbent Cassia*, an annual and native of both Indies, hath weak, herbaceous stalks lying on the ground; the leaves consist of about twenty pair of folioles, arranged along the midrib; like the former the flowers are small, of little beauty, and are succeeded by narrow, flat pods, containing the seeds.

14. FISTULA, *Pudding Pipe Tree, Spanish Locust, or Purging Cassia of Alexandria*, a native of India, where it rises to forty or fifty feet high, having a large trunk covered with a yellowish, tough bark, and sends forth many branches which spread themselves all round; the leaves are pinnated, being composed of five pair of oval, sharp-pointed, smooth pinnæ, arranged along the common midrib, the footstalk of which is free from glands; the flowers are produced in spikes from the ends of the branches, they are of a deep yellow colour, have moderately long footstalks, and are succeeded by long, round, brownish, hard-cruste'd pods, which will be sometimes two feet long; internally it is divided by thin, transverse, woody plates, covered with a soft, black pulp, which is used in Medicine; the seeds are oval, smooth, and compressed.

*Part used.* The fruit.

*Sensible properties.* Taste sweetish, with some degree of acrimony.

*Medical virtues.* The pulp of the Cassia is a gentle laxative, and is frequently given in a dose of some drachms in costive habits; in inflammatory cases it is directed in doses of two ounces or more as a cathartic; but in the large doses it is apt to occasion nausea and flatulency, which may however be prevented by the addition of aromatics, and exhibiting it in a liquid form. Geoffroy says it does excellent service in the painful tension of the belly, which sometimes follows the imprudent use of antimonials. Vallisneri, observes, that the purgative virtues of this medicine is remarkably promoted by Manna. that a mixture of four drachms of Cassia, and two of Manna, purges as much as twelve drachms of Cassia, or thirty-two of Manna alone. It is said that Cassia tinges the urine of a greenish or blackish colour. The French make great use of it as a medicine.

15. C: FISTULA BRASILIANA, *Horse Cassia, or Purging Cassia of Brasil*, this species in its native country, grows to be a large timber tree, hath pinnated leaves, and are without glands to their footstalks; the folioles of each leaf consists of about twelve pair; these are oblong, obtuse, smooth, and of a light green colour; the flowers grow in loose spikes from the ends of the branches, are of a pale carnation colour, and are succeeded by large roundish pods, containing the seeds, and a black pulp of a violent purging quality; it is generally given as such to horses.

16. C: BICAPSULARI, *Bicapsular Cassia*, a native of India, it is a shrub of about eight or ten feet high, the leaves are composed of three pair of oval, smooth pinnæ, the inner ones being smaller than the others; they are of a green colour, downy underneath, and between them is situated a globular gland: The flowers are produced from the upper parts of the branches, they are small, of a yellow colour, and are succeeded by double pods containing two rows of seeds.

17. C: EMARGINATIS, *Emarginated Cassia*, a native of the Caribbees, is a low shrub, three or four feet high, the leaves are each composed of three pair of oval roundish pinnæ, of equal size, their edges are emarginated, and are of a pale green colour; the flowers are produced from the upper parts of the stalks for a considerable length, they are of a yellowish colour; and are succeeded by oblong pods containing the seeds.

18. C: BIFLORA, *Two-flowered American Cassia*, a shrub of the same height with the foregoing, the leaves are each composed of oblongish smooth pinnæ, the lower ones being the smallest, and between them is situated an awl-shaped glandula: the flowers are produced from the wings of the leaves on footstalks, two for the most part growing together, though sometimes three or four will make their appearance from the same points—they are succeeded by jointed flat pods.

19. C: BAHAMENSIS, *Bahama Cassia*; this is a shrub covered with leaves, composed each of seven pair of spear-shaped pinnæ, smooth on their upper surface, and a little downy underneath; the flowers grow many together from the upper parts of the stalks, they are yellow, and succeeded by oblong compressed pods.

20. C: SYLVESTRIS. (foliis Octojugis,) *Winged podded Cassia*, a native of the warm parts of America; it grows about six feet high, and hath a ligneous, tough, pithy stalk, the leaves are very long, being composed of eight pair of large oval oblong pinnæ, of which the inner ones are the smallest; the flowers are produced in loose spikes from the ends of the branches, are large and yellow, succeeded by long taper pods, which have four borders or wings running the whole length; the seeds are roundish, angular, and arranged in a double series—it is one of the fetid species.

21. C: NOVENJUGIS, (*Senna Spuria* of Houston, C: *Fasciculata* of Mich.) *Small-podded Cassia of Havanna*. This species hath a tough shrubby stalk, and rises to about five feet high. the leaves are composed of nine pair of oblong pinnæ, having an awl-shaped glandula situated between the lowest pair; the flowers are of a yellow colour, small, and succeeded by very small narrow, pods, containing the seeds. The remaining species are not noticed.

*Note.* I apprehend the plant known in the country by the name of *Yellow Indigo*, and from which a quantity of Yellow Indigo was made in my neighbourhood, during the revolution, by Capt. Felder, is the one last mentioned, as it agrees in most particulars. The Indigo produced therefrom, I am informed was sold in Charleston, by him for a guinea pr. pound.—All the species are easily propagated by seeds, the exotics requiring stoves in the winter season.

CASSIA LIGNEA. See *Laurus Cassia*.

CASSINE, *Cassena*, *Yapton*, *Cassio Berry Bush*, and *South Sea Tea*.

See *Ilex* and *Phillyrea*.

CASTANEA, *Chesnuts*. See *Fagus*. Michaux appears to adhere to Tournefort's arrangement of this genus, as distinct from the *Fagus*.

CASTOR OIL PLANT. See *Ricinus*.

CATANANCHE, *Candy Lion's Foot*, a genus of the Syngenesia Polygamia Aequalis class of plants, and 49th Natural Order, *Cro-*

*positæ*; the receptacle is paleaceous, the calix imbricated, the pappus furnished with awns, by a caliculus of five stiff hairs. There are three species.

1. C: COERULEA, (*Chondrilla cœrulea* of C. B.) *Perennial Candy Lion's Foot*, or *Blue Gum Cicory*, a native of Europe, the radical leaves are long, hairy, jagged on their edges, and lie flat on the ground; between these the flower-stalks arise to the height of about two feet; they divide into several branches, and are garnished with a few small, hairy, jagged leaves; the branches are all terminated by flowers, one head only belongs to a footstalk, or small branch, they are of a fine blue colour, hairy, having purple bottoms, golden antheræ, and silvery cups; they are in bloom from May till September. It is an elegant plant, there is a variety of it with double flowers, much sought after by the curious: It is propagated from seeds sown in a light sandy earth, or by parting the roots.

2. C: LUTEA, (*Chondrilla Cyanoides* of Boccone, *Stoebe Plantaginis* of Alpinus) *Annual Candy Lion's Foot*, or *Yellow Gum Cicory*, a native of Crete, hath a round branching whitish stalk, near two feet high; the lower leaves are long, broad, nervous, hoary, and sinuated on their edges; those on the stalk are smaller; the flowers are produced from the ends of the branches in July, are of a yellow colour, and only one grows on a footstalk—it is propagated from seed sown in fine light sandy mould in March.

CAT MINT, or *Cat Nep.* See *Mentha* and *Nepeta*.

CAT-TAIL FLAG. See *Typha*.

CAT'S FOOT. See *Asarum*, and *Gnaphalium*.

CAT'S FOOT GRASS. See *Phleum*.

CAT'S MILK. See *Euphorbia Helioscopia*.

CAT'S TAIL GRASS. See *Phleum*.

CATCHFLY. See *Lychnis*, *Cucubalis*, and *Silene*.

CATCHWEED. See *Asperugo*, and *Gallium Aparine*.

CATERPILLAR PLANT. See *Scorpiurus*.

CATESBÆA, *Lily Thorn*, a genus of the Tetrandria Monogynia class of plants, and 28th Natural Order, *Luridæ*; the calix is a permanent perianthium, placed above the germen, and indented in four acute parts at the top, the corolla is one funnel-shaped petal, the tube extremely long, and thickens gradually to the top, the limb is broad, and cut into four erect plane segments; the stamina are four filaments within the throat, or neck of the tube, having oblong erect antheræ, which reach to the top of the corolla; the pistillum consists of a roundish germen, situated below the calix; a filiforme style the length of the corolla, and a simple stigma; the pericarpium is an oval, coronated berry containing one cell; the seeds are many and angular—there is but one known species, which was discovered in the Island of Providence, by Mr. Catesby, who calls it (*Frutex Spinus*) it has been however changed to this present, in honour of its discoverer.

C: SPINOSA, *Lily Thorn*, grows naturally in New-Providence, and rises to the height of ten or twelve feet, the stem is woody, and covered with pale russet bark; the branches come out alternately almost the whole length; the leaves grow in clusters, are small, and



resemble those of the Box Tree; the flowers are produced singly from the sides of the branches, they are very long, pendulent, of a dull yellow colour, succeeded by oval fleshy berries, which are of a saffron colour when ripe; it is propagated from seeds sown in pots filled with light sandy fresh earth, and plunged into a hot-bed of tanner's bark. Being a tender stove-plant it requires particular care.

CATECHU, or *Japan Earth*, as it is vulgarly called. See *Areca*, and *Mimosa*.

CAUCALIS, *Bastard Parsley*, a genus of the Pentandria Digynia class of plants, and 45th Natural Order, *Umbellatae*; the calix consists of a general and partial umbel, the general is unequal, and formed of a few radii, the partial unequal, but fuller of rays, the five outer ones being larger than the others; the general involucre is composed of the like number of spear-shaped, undivided leaves, or rays; the partial consists of the same shaped leaves, but are longer, the corolla is difformed, and radiated, the stamens are five capillary filaments, with small antheræ, the fruit is hairy, and the seeds are two oblong, convex, prickles on one side and plane on the other—There are 6 species.

1. C: ARVENSIS, (*Echinophora pycnocarpus* of Columna.) *Corn Bastard Parsley*, an annual plant, growing naturally among grain in most of the Southern countries of Europe; the root is long, slender, aromatic, and esculent, it strikes deep into the ground, the stalk is striated, jointed, branching from the bottom, and about two feet high, the leaves resemble those of carrot, being composed of a multitude of narrow parts; the radical leaves have long footstalks; the flowers are produced from the ends and the sides of the branches, in umbels, growing on long naked footstalks, they are large, of a white colour, and blow in July or August.

9. C: LEPTOPHYLLA, *Fine leaved Bastard Parsley*, hath a white root, a round jointed stalk, striated and branching, and about eighteen inches high, the radical leaves are large, divided, and have long footstalks; the stalk leaves are smaller, and grow singly at the joints, the flowers come out in umbels from the ends and sides of the branches, are of a reddish colour, and blow in July.

3. C: MONSPEIENSIS, *Montpelier Bastard Parsley*, hath roots and stalks like the former, the segments which compose the leaves are somewhat broad, smooth on the upper side, hairy underneath, and have short slender footstalks; the flowers are produced in umbels, on long naked footstalks, and blow in July.

4. C: ORIENTALIS, *Oriental Bastard Parsley*, rises about three or four feet high, hath an upright jointed, branching stalk; the leaves are composed of a multitude of narrow parts in the manner of *Ferula*; the flowers are produced in whorls from the tops of the branches, are small, and appear in July.

5. C: ANTHRISCUS, *Hedge Bastard Parsley*. These are all propagated by seeds and require but little care.

CAULIFLOWER. See *Brassica*.

CAULOPHYLLUM of Michaux. See *Leontice*.

CEANOTHUS, *Jersey Tea Tree*, a genus of the Pentandria Monogynia class of plants, and 43d Natural Order, *Dumoseæ*; this

calix is a monophyllous turbinated permanent perianthium, having the limb divided into five acute segments; there are five petals pouched and arched, the stamina are five, and awl-shaped, the pistil the length of the stamina, the fruit is a dry three celled obtuse berry; the seeds are oval, and lie singly in each cell; there are four species.

1. C: AMERICANUS, (*Evonymus Caroliniensis* of Pluke. *Celastrus inermis* of Hort. Cliff.) *Carolina Spirea*, *Red Twig*, or *New-Jersey Tea*. This is an indigenous plant, growing naturally in the United States, it seldom exceeds three or four feet in height, sending out branches on every side from the bottom, the stem is of a pale brown colour, the branches are very slender, and of a reddish colour, which may have occasioned the name *Red Twig*, the leaves which ornament these branches stand on reddish pedicles, about half an inch in length, they are oval, serrated, pointed, and two and a half inches long, proportionally broad, and have three nerves running lengthwise. It is said by some authors that the leaves grow opposite, this is contradicted by later writers, who say they grow irregularly on the branches, and not in pairs; they are late in the spring before they shoot, the flowers grow in clusters at the ends of the twigs, they are of white colour, and when in bloom give the shrub a most beautiful appearance.

*Domestic uses.* The leaves dried may be used as a substitute for tea; the inhabitants of the Jerseys and Carolina up country use them as such, and during the revolution they were substituted for common tea in most of the States. The plant is said to dye wool a fine, strong, nankeen, cinnamon colour. *Quere*, If this plant was cultivated abroad, and sent to America, would it not meet a reception at most of the tea-tables?

2. C: AFRICANA (*Alaternoides Africana* of Comm.) *African Ceanothus*, or *New-Jersey Thea*, grows naturally in Ethiopia, the stem is woody, rough, covered with a dark coloured bark, grows to be ten feet high, and sends forth several weak, purplish branches, which hang downwards; the leaves are oval, spear-shaped, serrated, smooth, and of a shining green colour; the flowers come out from the sides of the branches in July, are small, and of a greenish colour.

3. C: ZEYLANICA, (*Grossularia Spinis* of Burm. *Spireæ Theophrasti* of Pluke.) *Asiatic Ceanothus*, or *New-Jersey Thea*, a native of Ceylon; it is a branching shrub about four feet high, the leaves are oval pointed, and grow opposite to each other without any footstalks; the flowers come out in small bunches, and also singly from the wings of the leaves, they have small footstalks and are of an herbaceous colour; they blow in July, and are succeeded by oval, obtuse berries.

4. C: MACROPHYLLUS, *Georgia Ceanothus*, or *New-Jersey Thea*, an indigenous plant, growing naturally in Georgia, Florida, &c. the stem is somewhat decumbent, the leaves are very small, oboval, oblong, entire and bundled; the flowers terminate the branches in branching spikes or corymbs; they are propagated from seed sown in rich light earth, and by layers; this latter is not always successful. CECROPIA, a genus of the Dioecia Diandria class of plants, the

spatha of the male is caducous, the amenta are imbricated with helmet-shaped scales, and the corolla is wanting; the germina of the female are imbricated, it has but one stylus; the stigma is lacerated, and the berry contains but one seed. There is but one species, which is a native of Jamaica, viz. C: PELTATA.

CEDAR. See *Juniperus*, *Pinus*, *Swietenia*, and the following.

CEDRELA, a genus of the Pentandria Monogynia class of plants, the calix is bell-shaped, and divided into three segments, the corolla is shaped like a funnel, and has five petals inserted into the base of the receptacle; the capsule is ligneous has five cells and five valves, the seeds are imbricated on the back part, and have membranaceous edges. There is but one species.

C: ODORATA, (*Cedrus Barbadensium* of Pluke. *Pruno Odorata* of Sloane,) *Barbadoes Cedar Tree*, a native of the West-Indies, hath a large straight trunk, eighty or ninety feet high, branching near the top; the leaves are pinnated and very long, the folioles being sixteen or eighteen pair along the mid-rib; broad at their base, obtuse, and strongly scented: the flowers are produced in panicles from the ends of the branches, and are succeeded by large, woody, roundish capsules, containing the seeds.

*Domestic uses.* The trunks of this tree are hollowed into boats; it is also used for wainscoating rooms, making chests, &c. the wood is of a reddish brown colour, and finely scented; it is highly valued for chests, as it communicates a fine fragrant odour to whatever is put in them. It is a stove plant, and is propagated from seeds.

CELASTRUS, the *Staff Tree*, a genus of the Pentandria Monogynia class of plants, and 43d Natural Order, *Dumosa*; the corolla is pentapetalous and patent; the capsule quinqueangular and trilocular, the seeds veiled. There are five species.

1. C: BULLATIS, (*Evonymus Virginianus* of Pluke.) *Virginian Staff Tree*, an indigenous evergreen, growing naturally in the United States, and particularly Virginia: It is a shrub of about four feet in growth, rising from the ground with several stalks, which divide into many branches, and are covered with a brownish bark; the leaves are of a fine green colour, and grow alternately on the branches, they are of an oval figure, and have their edges undivided; the flowers are produced in July at the ends of the branches, in loose spikes; they are of a white colour, and succeeded by scarlet fruit, which are very ornamental.

2. C: SCANDENS, *Bastard Evonymus*, or *Climbing Staff Tree*, also an indigenous plant, growing naturally from Connecticut to Canada; the stalks are woody, twining, and will rise by the help of neighbouring trees or bushes to the height of twelve feet; the leaves are oblong, serrated, of a pleasant green colour, pale and veined underneath, growing alternately on the branches; the flowers are produced in small bunches from the ends of the branches, near the ends, they are of a greenish colour, appear in June, and are succeeded by roundish, red, three-cornered capsules; they are propagated by seeds, or laying down the young shoots in the spring.

3. C: PYRACANTHA, (*Lycium Æthiopicum* of Comm:) *Pyracantha-leaved Celastrus*, *Æthiopian Box thorn*, or *African Barberrry*, a native of Æthiopia; it has woody, irregular stalks, covered with a

brown bark, which rise three or four feet high; the leaves are oval, spear-shaped and pointed, of a shining green colour, growing without order from the sides of the branches, and continue all the year; the flowers are of a whitish green colour, grow from the sides of the branches in cymose bunches, and are succeeded by beautiful red, oval, three-cornered capsules containing the seeds.

4. C: BUXIFOLIA, (*Lycium Portoricense* of Pluke.) *Box-leaved Celastrus*, a native of Æthiopia; the stalks are slender, weak, ligneous, ash-coloured, jointed, branching, send forth several angular, whitish, jointed branches, armed with long spines at the joints, and will rise, if supported, ten or twelve feet high; the leaves come out in clusters without order from the spines and sides of the branches, and resemble those of the narrow-leaved Box, but longer; the flowers grow from the wings of the branches, in cymose bunches, are of a whitish green colour, succeeded by oval, reddish capsules.

5. C: MYRTIFOLIA, (C: *Inermis*, *Myrtifolia Arbor* of Sloane) *Myrtle-leaved Celastous*, an indigenous plant, growing naturally in Virginia; the stalks are erect, woody, branching and unarmed with spines; the leaves are broad, oval, serrated, and of a strong green colour; the flowers come out in bunches from the sides of the branches near the top, are of a white colour, succeeded by red capsules like the former; they are propagated by seeds, cuttings and layers. See *Ceanothus* and *Evonymus*.

CELERI. See *Apium Graveolens*.

CELOSIA, *Cock's Comb*, a genus of the Pentandria Monogynia class of plants, and 54th Natural Order, *Miscellanea*; the calix is triphyllous; the corolla is five petaled in appearance; the stamina are conjoined at the base to the plaited nectarium; the capsule gaping horizontally. There are eight species.

1. C: CRISTATA, (*Amaranthus Cristata* of Com:) *Crested Amaranth*, or *Cock's comb*, a native of Asia; this plant is well known in the gardens of the curious, it admits of numerous varieties, such as the red, purple, scarlet, white, yellow and variegated—they resemble the Amaranth tribe, and by some writers are confounded with them, and not improperly.

*Note.* Great use is made of this plant by the good women of the country in *Profluvia*; that is, in cases of immoderate discharges of the *Catamenia*, or Menses, the red flowers are boiled in new milk, and administered at pleasure. In *Fluor Albus*, or the whites the flowers of the white variety are used in the same manner, and frequently with very good success.

2. C: SCARIOSIS, (*Amaranthus Spica* of Martin,) *Silver-spiked Amaranth*, an annual plant, and native of China, it attains a height of about two feet the leaves are of a pale colour, long, spear-shaped, and pointed; the stalks divide into a few erect side branches near the top, and these, together with the main stalk, are terminated with silvery spikes of flowers; but of this there are some varieties, both with respect to the figure, as well as colour of the flowers, some of the spikes being oblong, others pyramidical, some with white flowers, and others with a mixture of red; the spikes of all

these are but small, and entirely unlike the figure of the preceding species.

3. C: OVATIS, *Oval-leaved Amaranth*, an annual, and a native of America, and differs from the foregoing only by having oval leaves; the stalk seldom branches, and the flowers grow mostly in a single head, and have purple stamina.

4. C: MINOR, *Dwarf crested Amaranth*, an annual and native of India, it is a small plant, dividing into many lateral branches, the leaves are lanceolate, very acutely pointed, and their underside veined with red, the flowers form a crested spike, and are of several varieties.

5. C: INCURVATA, *Incurved crested Amaranth*, an annual, and native of India, it rises with a very large, thick, round, furrowed stalk, to the height of four feet; the leaves are oval, the flowers are produced in the most delightful spikes, crested various ways, they are of a bright scarlet colour, though the same sort of seeds will produce the purple, and other tinges.

6. C: CONFERTIS, *Clustered-spiked Celosia*, an annual, and native of Ceylon, the leaves are of a lanceolate figure, very downy and obtuse; the spikes of flowers are produced in clusters, and their stamina are woolly.

7. C: GLOBOSIS, (*Amaranthoides Indic.* of Pluke.) *Globose-spiked Celosia*, an annual plant, and native of Ceylon; the leaves are wedge-shaped and very acute, the flowers are chiefly of a greenish colour, and the lateral spikes are produced in roundish knots, or little heads; the flowers will sometimes vary to almost a white colour; they are propagated from seeds. See *Amaranthus*.

CELSIA, *Oriental Mullein*, a genus of the *Didynamia Angiosperma* class of plants, and 28th Natural Order, *Luridæ*; the calix is quinquepartite; the corolla wheel-shaped, the filaments are bearded or woolly, the capsule bilocular. There is but one species, a native of Cappadocia and Armenia, viz.

C: ORIENTALIS, (*Verbascum Orientale* of Tourne: *Blattaria* Orient: of Buxb:) an annual plant; the leaves are bipinnated, the radical ones are long and lie flat on the ground, from among these the flower-stalk arises to about two feet high, it is nearly round, herbaceous, and garnished with leaves like the radical ones, but smaller, the leaves grow alternately and diminish in size the nearer they approach the top, the flowers adorn the stalk far above half the length; they come out from the footstalks of the leaves, are of an iron colour without, but yellow within, and spread open not much unlike those of common Mullein, and are very beautiful; they blow in July; it is propagated from seeds sown in a light dry soil, in spring and autumn—they require no trouble but to be kept clean.

CELTIS, the *Nettle Tree*, a genus of the *Polygamia Monoecia* class of plants, and 53d Natural Order, *Scabridæ*; it is an hermaphrodite plant; the female calix is quinquepartite; there is no corolla; there are five stamina and two styles, the fruit is a monospermous plum: In the male there is no calix; the corolla is hexapetalous; there are six stamina, and an embryo of a pistillum. There are three species, all of them deciduous.

1. C: AUSTRALIS, (Lotus Arbor of Lobel:) *Southern Cettis*, *Lote*, or *Black-fruited Nettle Tree*, a native of the south of France.

2. C: OCCIDENTALIS, (Lotus Arbor Virginiana of Ray,) *Purple fruited Occidental or Western nettle tree*, or *American sugar nut*, an indigenous tree, growing naturally in Carolina, Virginia. and plentifully at the Mississippi; these trees grow with large, fair, straight stems—their branches are numerous and diffuse. the bark is of a darkish grey colour, the leaves of a pleasant green, three or four inches long, deeply serrated, end in a narrow point, nearly resembling those of the common stinging Nettle; the flowers appear in the spring, but generally decay before the leaves have grown to their full size, the flowers as already noticed, are hermaphrodite. the fruit is a drupe of the size of a black cherry, in which is contained a single kernel; why it is called sugar nut, I have not been able to learn.

3. C: ORIENTALIS, *Eastern*, or *Yellow-fruited Nettle Tree*, a native of the East; it attains a height of about twelve feet, having many branches, which are smooth and of a greenish colour; the leaves are smaller than those of the foregoing, though they are of a thicker texture and of a lighter green; the flowers come out from the wings of the leaves on slender footstalks, they are yellowish, appear early in the spring, and are succeeded by large yellow fruit.

*Domestic uses.* In Italy they make their flutes, pipes, and other wind instruments of the wood of these trees, which are extremely durable; in England the coach-makers use it for the frames of their vehicles; it is very tough and pliable, and therefore useful for every thing which requires such wood. Of the roots of this tree are made hafts for knives, tools, &c. They are propagated from seeds.

CENCHRUS. Of this genus there are different opinions, the compilers of the Encyclopædia. rank it in the Polygamia Monoecia class; while Michaux places it to the Triandria Digynia class of plants and 4th Natural Order, *Gramina*; the calix is a biflorous glume, with one floret male, and the other hermaphrodite; the hermaphrodite corolla is a pointless glume, with three stamina. It is said there are six species, however only one is noticed.

C: CAROLINIANA of Walt: (Triboloides of Mich.) a genus of grasses.

CENTAUREA. *Centaury*, a genus of the Syngenesia Polygamia Frustranea class, and 49th Natural Order, *Compositæ*; the receptacle is bristly, the pappus single, the corollulæ of the radius funnel-shaped, longer than those of the disc, and irregular; 61 species are assigned to this genus, which has swallowed up numerous genera of the old Botanists: These are the most particular.

1. C: CENTARIUM, *Greater Centaury*, a perennial and native of Tartary and Mount Baldus; a strong, hardy plant, the leaves are pinnated and large, the folioles are serrated, and of a bright green colour, the radical leaves are long and spread on the ground, those of the stalks are smaller, though of the same form, and grow singly from the joints of the plant, the stalks are branched, point:

ed, upright and grow to be six feet high; the flowers are produced singly from the ends of the branches, they are of a purplish colour and are longer than the calix.

*Part used.* The root.

*Sensible properties.* Rough, somewhat acrid, abounding with a red, viscid juice.

*Medical virtues.* Its rough taste has gained it some esteem as an astringent, its acrimony as an aperient, and its glutinous quality as a vulnerary. It is however but little noticed in either intention. See also the 33d species.

2. C: *CYANUS*, *Corn Blue Bottle*, an annual plant, growing naturally among corn in Europe; it rises 3 or 4 feet high; the lower leaves are indented, those on the upper part of the stalks are narrow and entire; the original colour of the flower is blue, but cultivation causes many beautiful varieties.

*Domestic uses.* A Paint not much inferior to Ultramarine is prepared from the deep blue middle flowers of this species, by bruising them and expressing the juice, with the addition of a small bit of alum, the colour is permanent; a decoction of the flowers with galls and copperas, affords a good writing ink, and may be successfully employed in the dying of linen or cotton.

3. C: *MOSCHATUS*, (*Cyanus Orientalis Moschatis* of Moris.) *Sweet Sultan*, of which there are two notable sorts, viz. the *Sweet Sultan*, and the *Yellow Sultan*, they are both annuals, and in their native countries are considered as weeds; in England they are adjudged beautiful. The *Sweet Sultan* rises with a round, channelled, branching stalk, to about a yard high; the leaves are smooth, jagged, and of a pale green colour, the flowers are produced from the sides of the branches, on long naked footstalks; one footstalk supports a single head of flowers, which are of various colours, such as white, red, purple, &c. some are fistular, others fringed, &c. The *Yellow Sultan* is pretty permanent, seldom varying.

4. C: *INERMIBUS*, (*Chondrilla* of C. B. *Senecio-carduus*, &c. of Colum:) an annual and native of Europe, hath pinnated leaves, and purple flowers, collected in cups composed of many narrow awl shaped seeds.

5. C: *DECURRENTIBUS*, *Lippi's Centaury*, is an annual and about two feet high, the leaves are pinnatifid, decurrent and obtuse; the flowers are small and of a bright purple colour, and collected in cups like the foregoing.

6. C: *MONSPESSLANA*, *White Spanish Jucea*, hath oblong, lyre-shaped, hairy, indented leaves, and white flowers collected into heads, surrounded with many small leaves.

7. C: *PANICULATA*, *Paniculate Centaury*, hath a leafy, branching stalk, the leaves are bipinnatifid, the flowers grow in panicles, are purple, and have white styles.

8. C: *ARGENTEIS*, *Silvery-headed Stoebe*, the radical leaves are bipinnatifid, the stalk leaves are pinnated, the flowers are collected in white silvery cups, composed of many obtuse scales, and are of a purple colour.

9. C: *SONCHIFOLIA*, *Sow Thistle-leaved Jucea*, the leaves are broad, deeply sinuated, prickly and decurrent, the flowers are purple and collected in large turbinated, prickly cups.

10. C: CRETICA, *Roman Centaury*, the radical leaves are pinnatifid, and moderately large, the stalk-leaves smaller, decurrent, and have no prickles; the flowers are red, have prickly cups, and blow in July.

11. C: NAPIFOLIA, *Turnip-leaved Knapsweed*, grows about a yard high, the radical leaves are large, prickly, rounded at the ends, sinuated at the base, and much resemble those of Turnip; the stalk-leaves are small, decurrent, having wings or borders running along the stalks from the base of one to the other—the flowers are purple.

12. C: LUSITANICUS, *Portugal Thistle*, hath a thick, hairy, branching stalk; the leaves are hoary, a little sinuated on the borders, and decurrent; the flowers are yellow, and grow in prickly, wooly cups from the tops of the stalks.

13. C: STELLATUS, (*Carduus Stellatus* of J. B.) *Star Thistle*, hath a hairy branching stalk, about two feet high; the leaves are pinnatifid, narrow, indented, and free from prickles, the flowers are purple.

14. C: LYRATO-PINNATIFIDIS, *St. Barnabys Thistle*, hath lyre-shaped, pinnatifid decurrent leaves, and yellow flowers.

15. C: MELITENSIS, *Centaury of Melita*, hath spear-shaped, sinuated, decurrent leaves, free from prickles, and yellow flowers.

16. C: SPINOSIS, *Prickly Spanish Centaury*. The lower leaves are pinnatifid, the upper spear-shaped; the flowers have prickly cups, and long footstalks—the foregoing are mostly annuals, and are propagated from seeds. The following perennials are also propagated from seeds and parting the roots.

17. C: LUTEUM, *Yellow Alpine Centaury*, hath long pinnated smooth entire leaves, of a glaucous colour, upright branching stalks four or five feet high, garnished with small leaves at the joints; the flowers are yellow, and grow singly from the ends of the branches.

18. C: ERUCAFOLIA, *Eruca-leaved Centaury*; or *Greater Stoebe*, with the radical leaves spear-shaped, indented, soft, wooly, and spreading themselves around, the stalks are about four feet high, garnished with small leaves at the joints, the flowers grow in single heads from the ends of the branches and are purple.

19. C: REPENS, (*Jacea orientalis* of Tourne.) *Creeching blue Bottle*, the root of this species creeps and spreads itself under the surface of the mould to a considerable distance; the stalks are angular, smooth and branching; the leaves are spear-shaped, indented, and smooth on the surface, but have a rough border, the flowers grow on long naked footstalks, they are small and have silvery cups.

20. C: INTEGERRIMIS, (C: *Cyanus Repens* of C. B.) *Bitter blue Bottle*; the stalks unless supported will lie on the ground; the leaves are broad, spear-shaped, and entire; the flowers grow singly on longish footstalks, are of a fine purple colour, and moderately large. There is a variety with long, narrow, hoary leaves.

21. C: SCARTOSIS-LAURIS, (*Jacea Nigra* of C. B.) *Jacea, Common Knapsweed*, or *Matfellow*, grows naturally in meadows and pastures, in England, &c. the stalk is near a yard high, garnished with leaves, and divides near the top into a few angular branches, each of which



are crowned by a single head of purple flowers—the radical leaves are long, spear-shaped, sinuated, indented, and of a blackish green colour.

22. C: SCABIOSA, (*Scabiosa Major*, &c. of C. B. and Dalech.) *Great Knapweed*, or *Matfellow*, also a native of England, the stalks are large, hairy, branching, and grow to be four or five feet high, the leaves are very long, pinnatifid, and the pinnæ are large, spear-shaped, indented, and of a dark green colour; the flowers are very large, and of a beautiful purple colour.

23. C: SULPHUREA, *Oriental Knapweed*, a native of the East, the radical leaves are very long, each composed of numerous smooth spear-shaped pinnæ, the stalks are branching, about five feet high, garnished with leaves of the same form with the radical, but smaller the flowers are produced from the ends of the branches, in large scaly heads, the edges of the scales of the cups are ciliated, the colour of the flowers is yellow.

24. C. INDIVISIS, (*Jacea 4 Austriaca* of Clus.) *Finland Knapweed*, the radical leaves are long and undivided, the stalks branching and garnished with a few small narrow leaves; the flowers are produced in hairy heads, and are white.

25. C: MONTANUS, (*Cyanus Montanus* of C. B.) *Mountain Blue Bottle* or *Blue Batchelor's Buttons*, a native of the Helvetian, and Austrian Mountains; it hath a creeping root, from which arises many simple stalks to the height of about a foot and a half, adorned with spear-shaped, decurrent, hoary leaves, the flowers are produced in oblong heads on the tops of the stalks, of a blue colour.—There is a dwarf variety of this sort; another with broad hoary leaves.

26. C: RAGUSINA, (*Jacea Cretica* of Moris.) *Knapweed of Ragusia*, a native of Crete, it is often called the *Silvery Knapweed*, and *Snowy Mountain Stoebe*; the leaves are pinnatifid and white with down; the folioles are oval, obtuse, and entire, the stalks are upright, stiff, branching and perennial; the flowers grow from the sides of the branches on short footstalks, are of a bright yellow, and have fine hairy cups—this is a tender plant and requires care in its culture.

27. C: CANDIDISSIMA, (*Jacea montana candidissim* of C. B.) *White Mountain Knapweed*, the stalks are upright, branching and about a yard high; the leaves are exceeding white, downy, and composed of numerous narrow segments, each of the branches are terminated by a head of purple flowers growing in hairy cups.

28. C: MAXIMO, *Siberian Centaury*, hath simple, downy, furrowed stalks, which are declining, and garnished with a few downy undivided leaves, the radical leaves are pinnatifid and downy, the lobes are spear-shaped, whole and decurrent; the flowers grow singly in large swelling hairy cups from the tops of the stalks and are purple.

29. C: SEMPERVIRENS, *Evergreen Centaury*, hath upright perennial stalks, the leaves are spear-shaped, serrated, and continue all winter: the flowers are produced in hairy cups at the ends of the branches. This species will sometimes blow in May, and again in autumn.

30. C: STOEBE, *Hoary Stoebe*, hath upright branching stalks, adorned with winged leaves, growing singly at the joints; the radical leaves are pinnatifid, hoary, and the segments are narrow and

entire; the flowers grow singly from the ends of the branches in oblong, scaly, hairy cups, and are purple.

31. C: AMPLEXICAULIBUS, (Rhaponticoides Lutea of Vaill. *Serratula affinis*, C. B. and *Behen album* of J. B.) *Behen*, hath lyre-shaped leaves, which spread on the ground, among these arise the stalks adorned with a few leaves, which embrace it with their base; the flowers are produced from the ends of the branches in rough, scaly cups, and are yellow.

32. C: SUB-TOMENTOSIS, (Rha, s. Rhei. existimatur of Dodon, *Rhaponticum*, etc. C. B.) *White Elecampane-leaved Centaury*, hath oval, oblong leaves, slightly indented on the edges, downy underneath, and grow nearly erect, in the manner of those of *Elecampane*; the stalks are about 18 inches high, and are crowned by the flowers growing singly, in large scaly heads, and are purple.

33. C: GLASTIFOLIA, *Woad-leaved Centaury*; the leaves of this species resemble those of woad, they grow erect, are large, long, undivided, and form themselves into great tufts; among these the flower-stalks rise to the height of four or five feet, garnished with leaves growing singly at the joints, which are smaller than the radical ones, and decurrent, having wings or borders running from one to the other; the stalks divide into a few branches near the top, each of which is terminated by a single head of flowers, they are yellow, and have scaly cups of a silvery whiteness. The roots of this species is said by some writers to be the kind kept in the shops for medical use.—See also the first species.

34. C. CAPITI-PINI, (Chamaeleon of Lobel.) *Coniferous Centaury*, a native of the rocky parts of France, the leaves are downy, the radical ones spear-shaped, those on the stalk are pinnatifid, the stalk is low and unbranching, and the top of it is crowned by a single head of bright purple flowers, contained in a large scaly cup; broad at the base, and narrow at the top where the flowers make their appearance, so as to resemble the cone of the Pine Tree.

35. C: CICHOREIFOLIIS, (Jacea foliis Cichoreis of Ray) *Cichory leaved Knapweed*, the leaves are undivided, decurrent, serrated, and prickly, the stalk is winged, having membranes running from the base of one leaf to the other, the top of it is crowned by a head of purple flowers.

36. C: SICULA, *Sicilian Knapweed*, the radical leaves are lyre-shaped, hoary, indented, and rough; those of the stalks spear-shaped, and decurrent; the flowers terminate the stalks in large oval, scaly, prickly cups, and are yellow.

37. C: TENUIFOLIA, (Jacea Montana minimi of Column.) *Rock Knapweed*, hath bipinnated leaves, composed of many narrow parts, which often divide or branch into others; the flower-stalk is somewhat angular, and divides into a few branches near the top, which are crowned with yellow flowers in scaly cups.

38. C: BIPINNATIFIDIS, (Jacea Lutea, C. B.) *Yellow Prickly-headed Knapweed*, hath bipinnated leaves, angular stalks, crowned with a head of yellow flowers.

39. C: SALMANTICA, (Stoebe Salmantica of Cluss.) *Italian Stoebe*, the leaves are deeply sinuated on their edges, in the manner of a large whip-saw; they are moderately large, soft and wooly,

the stalks grow about four or five feet high, adorned with woolly leaves like the radical ones, but smaller; the flowers come out in large heads at the ends of the branches, and are yellow.

40. C: MAJUS, *Great Austrian Centaury*, the radical leaves are spear-shaped, soft, hairy, cut into many segments, and spread flat on the ground; the stalk is near a yard high, adorned with leaves at the joints, which are spear-shaped and entire; the flowers grow singly in large heads, from the ends of the branches, they are of a golden yellow colour, and have prickly cups.

41. C: NUDIUSCULO, (*Jacea intybacea* of Barrel.) *Naked-stalked Knafweed*, the stalk is simple, and sometimes entirely naked; the first leaves which come out are oval and entire, but the others are spear-shaped, and indented at their base, the top of the stalk is crowned by one prickly head of reddish purple flowers.

42. C: UNIFLORIS, (*Cyanus Cæruleus* of Walter. *Cnicus Tingitanus* of Herm.) *Knafweed of Tangiers*, hath spear-shaped, undivided, rigid, serrated leaves, prickly on their edges; among these the flower-stalks rise, each supporting one blue flower growing in oblong prickly cups.

43. C: GALACTITES, (*Carduus galactites*, J. B.) *Winged-stalked Thistle of Crete*, hath downy leaves, sinuated, prickly, and decurrent, the stalks appear winged, from the membranes running from the base of one leaf to another—the flowers are small, and have bristly and prickly cups.

44. C: FRUTESCENTE, (*Rhaponticoides frutescens* of Vaill.) *Shrubby Centaury*, hath ligneous stalks, about three feet long, the leaves are spear-shaped, smooth obtuse, and garnish the stalks in great plenty; the flowers grow from the tops of the stalks in large scaly heads, and are of a bright purple colour.—The remaining 17 species are not noticed.

CENTAURY, the lesser. See *Gentiana*.

CENTAURELLA, a new genus of plants belonging the Tetrandria Monogynia class; the calix is divided into four deep cut segments, the corolla nearly bell-shaped, also cut into four parts, which are erect, open, and spreading; the seed case is oblong, oval, unilocular and bivalved, the seeds are numerous. This genus is given by Michaux, who enumerates two species—he observes that it is related to the *Centaurea minore*, and *Gentiana*.

1. C: VERNA, *Vernal Centaurella*, grows naturally in Carolina.

2. C: PANICULATA, *Autumnal Centaurella*, grows also in the moist and humid grounds of Carolina, it hath an erect stem, branching at the joints, each of which are terminated by a panicle of small white flowers of an oval figure—they do not appear to be possessed of any remarkable properties.

CENTEELLA, a genus of the Monoecia Tetrandria class of plants, and 11th Natural Order, *Sarmentaceæ*; the male involucre is tetraphyllous, and quinqueflorous, with four petals; the female involucre is diphyllous and uniflorous, the petals four, the germen inferior, two styles, and a bilocular seed case.

CENTENCULUS, or *Centunculus*, a genus of the Tetrandria Monogynia class, and 20th Natural Order, *Rotaceæ*; the calix is quadrifid, the corolla is also quadrifid, and patent; the stamina

are short: the capsule unilocular, cut round, or parting horizontally. There is but one species.

C: ANAGALLIDIATRUM, (Anagallis of Vaill. Alsine of Mentz.) *Bastard Pimpernel*, a native of Carolina, and indeed most parts of the world; it is an annual plant, hath very slender, white, fibrous roots, the stalks are round, three or four inches long, and lie on the ground, the leaves are small, oval, spear-shaped, and grow alternately; the flowers come out singly from the wings of the leaves, are of a white colour and extremely small, and blow in April. It delights in a moist, sandy soil.

CEODES, a genus of the Polygamia Dioecia class of plants—There is no calix; the corolla is monopetalous, with a short turbinated tube; the stamina are ten subulated filaments; the antheræ are roundish.

CEPA the *Onion*. See *Allium*.

CEPHALANTHUS, *Button-Wood*, a genus of the Tetrandria Monogynia class, and 48th Natural Order, *Aggregata*; there is no common calix, the proper one is superior and funnel-shaped, the receptacle globose and naked, with one downy seed. There is but one species, viz.

C: CAROLINIANA, (C: Occidentalis of Mich. Scabiosa dendroides of Pluke.) a native deciduous tree of South-Carolina, growing naturally in swamps, creeks, and ponds; it is a shrub of about five or six feet height, not very bushy, as the branches are placed thinly in proportion to the size of the leaves, which will grow more than three inches long, and one and a half broad; the leaves stand opposite by pairs on the twigs, and sometimes by threes, they are of a light green colour, the upper surface smooth, they have a strong nerve running from the footstalk to the point, and several others from that on each side to the borders, these as well as the footstalks in the autumn die to a reddish colour; the flowers, which are aggregate flowers, properly so called, are produced at the ends of the branches in globular heads, the florets which compose these heads are funnel-shaped, of a yellow colour, and fastened to an axis which is in the middle.

*Medical virtues*. "A wash of the decoction of this plant is said to be good for the Palsy," vide Mr. John Drayton's *View of South-Carolina*, p. 62. It is considered as a valuable domestic remedy in the country for various complaints.

CERASTIUM, *Mouse-ear Chickweed*, a genus of the Decandria Pentagynia class, and 22d Natural Order, *Caryophille*; the calix is pentaphyllous, the petals are bifid, the capsule is unilocular, and opening at the top—there are 16 species, but none of them possessed of any remarkable property.

1. C: CARYOPHYLLAS, (*Myosotis arvensis* of Vaill. *Caryophyllus arvens* of C. B.) *Corn Mouse-ear Chickweed*, *Wild Pink*, or *Wild Sea Pink*, a perennial, and native of England, &c. It hath short, weak, slender stalks, which lie on the ground, the leaves are narrow, spear-shaped, obtuse, smooth, and of a whitish green colour; the flowers are produced from the ends of the stalks in May or June, and are white.

2. C: CAULE-DIVIDO, *Mountain Mouse-ear Chickweed*, with weak branching stalks, oval, lanceolate leaves, and large snow white flowers.

3. C: PROCUMBENS, (*Lychnis incona repens*, C. B.) *Creeping Mouse-ear Chickweed*, or *Sea Pink*, hath creeping stalks, hoary, spear-shaped, opposite leaves, and white flowers; it was formerly cultivated for edgings in gardens.

4. C: ALPINIS, (*Caryophyllus holosteus* of Burser.) *Austrian Mouse-ear Chickweed*, hath narrow, smooth, sharp pointed leaves, the flowers grow one or two only on a footstalk, are large, yellow, and very beautiful.

5. FOLIIS CORDATIS, *Marsh Mouse-ear Chickweed*, grows in marshy grounds, by the sides of rivers, and moist places, it hath heart-shaped, sessile opposite leaves, the flowers grow singly from the tops of the branches, are small and of a white colour.

6. C: LATIFOLIA, *Broad-leaved Mouse-ear Chickweed*, hath slender stalks, broad, oval, and single purplish flowers.

7. C: TOMENTOSIS, *Wooly Mouse-ear Chickweed*, the stalks are slender, lie on the ground, and strike root at the joints; the leaves are oblong, spear-shaped and downy, the flowers grow from the ends and sides of the branches on branching footstalks, and are succeeded by globular capsules containing the seeds.

8. C: SUB-HIRSUTIS, *Shrubby Mouse-ear Chickweed*, the stalks of this species are ligneous, perennial, and (unless supported) lie on the ground, the leaves are narrow, spear-shaped, rigid and slightly covered with hairs; the flowers are produced from the upper parts of the stalks in June.—The foregoing are perennials, and grow mostly on rocky mountains, and sandy parts of the world, they are propagated from seeds, or by parting the roots. The following are annuals.

9. C: CONNATIS, *Perfoliate mouse-ear Chickweed*, hath an upright stalk about a foot high; the leaves grow two opposite at the joints, and their bases join together; the flowers are white and shaped like those of the common Chickweed.

10. C: VISCOSUM, *Broad-leaved viscous mouse-ear Chickweed*, hath erect stalks, hairy, and clammy to the touch, the leaves are broad, hairy and clammy; the flowers grow from the tops of the stalks and wings of the leaves in June.

11. C: MINOR, *Least mouse-ear Chickweed*, ; this is every where considered a weed; it is a low plant, hath slender, hoary and hairy stalks, the leaves are also hoary, hairy and opposite; the flowers are small, and being shorter than the calix, make no appearance; upon examination the petals will be found to be indented, and in each of them are found five filaments only, which bear anthers.

12. C: PENTANDRIS, *Pentandrous mouse-ear Chickweed*, is also a low plant, but of a fine green colour, the petals of the flowers are whole and shorter than the calix; there are only five fertile stamina in this species.

13. C: CORNICULATA, *Horned mouse-ear Chickweed*, hath a very branching stalk, which divides by pairs, and is a foot high; the leaves are spear-shaped, grow by pairs, and feels clammy to the touch, the flowers are white and like common Chickweed.

14. C: GLABRUM, *Mouse-ear Chickweed of Verona*, hath a fibrous root, from which arise many smooth stalks, to about a foot high; the leaves are spear-shaped, smooth, and grow opposite; the flowers are produced like those of the *Viscosum*, or 10th species—Their culture is very easy by seeds.

CERASSUS, the *Cherry Tree*. See *Prunus*.

CERATIOLA. See *Empetrum*.

CERATOCARPUS, a genus of the Monoecia Monandria class, and 12th Natural Order, *Holoraceæ*; the male calix is divided into two parts; there is no corolla, the filament is longer than the calix; and has an oval, didymous antheræ; the styles are two; the seed is two-horned and compressed. There is but one species, for which we have no English name; it is an annual, and native of Tartary; the stalk is upright, slender, branching, and six or eight inches high; the leaves are long, narrow, grassy pointed, and of a pale green colour; the flowers come out from the wings of the leaves and divisions of the branches, the male flowers usually grow in small clusters, and the females singly; they appear in July and the seeds ripen in September; these are easily propagated by seed sown in a sandy soil.

CERATONIA, *Carob-tree*, or *St. John's Bread*, a genus of the Polygamia Monoecia class, and 33d Natural Order, *Lomentaceæ*; (it is said to be also Dioecious, or male and female distinct on different plants) the calix of the males is a large perianthium divided, in five parts, there is no corolla, the stamens are five, very long oval-shaped patent filaments, with large didymous antheræ. The calix of the females is divided by five tubercles; there is no corolla; the pistilum consists of a fleshy germen within the receptacle, a long filiform style, and a capitated stigma; the pericarpium is a large, obtuse, compressed pod, divided by transverse partitions and full of sweetish pulp; the seeds are single in each partition, roundish, compressed, hard and glossy. There is but one species.

C: SILIQUA, an evergreen, and native of Spain, Italy and the Levant; the stem is woody, thick, firm, divides into numerous spreading branches, and grows to be twenty or thirty feet high, the leaves are long and pinnated, the pinnæ, being large, thick, firm and of a dusky green colour; the flowers are small, of a purplish colour, succeeded by pods as already described, and are of a brown colour when ripe. It is called the *Carob tree*, or *St. John's bread*, from an ill founded assertion of some writers on the Scriptures, that those pods were the locusts St. John eat with his honey in the wilderness. They are propagated from seeds sown in a moderate hot-bed.

*Note.* The pulp is thick, mealy and of a sweetish taste, and is many times eaten by the poorer sort of inhabitants when there is a scarcity of other food, but they are apt to loosen the belly, and cause gripings of the bowels.

CERATOPHYLLUM, *Horned Pond Weed*, a genus of the Monoecia Polyandria class, and 15th Natural Order *Inuidatæ*; the male calix is divided into many equal awl-shaped segments, no

corolla, stamina from sixteen to twenty scarcely conspicuous filaments, having oblong, erect anthers, longer than the calix; female calix same as male, no corolla; pistillum consists of an oval, compressed germen without any style, but an obtuse, oblique stigma; there is no pericarpium; the seed is an oval pointed nut with one cell. There are two species.

1. TRISPINOSIS, *Rough-Horned Pond Weed*, grows naturally in ditches and ponds; it hath fibrous roots, which strike deep into the mud; the stalks are about two feet long, creeping and usually wholly immersed in the water; the leaves are numerous, rough to the touch, of a dusky green colour, and divided into four segments called horns; the flowers come out from the wings of the leaves, are small, of a greenish colour, and in great plenty.

2. C. MUTICIS, *Smooth-Horned Pond Weed*, this differs from the foregoing only by having smooth leaves, divided into six, eight or more segments, called horns; the flowers are also small and greenish. See also Potamogeton Natans.

CERBERA, a genus of the Pentandria Monogynia class, and 50th Natural Order, *Contortæ*; the calix is a perianthium composed of five oval, spear-shaped, pointed, spreading leaves; the corolla is one funnel-shaped petal, the tube is long and four-square at the top; the limb is large, and divided into five obtuse, oblique parts; the fruit is a large, roundish, fleshy drupe, longitudinally furrowed on one side; the seed is a retused nut, formed of four valves and two cells. There are three species.

1. C. AHOUI, *Stink Tree*, grows naturally in the Brazils and Spanish West-Indies, hath a woody stem, which sends out numerous crooked, irregular branches, and grows to be about ten or twelve feet high, the leaves are oval, thick, succulent, smooth, of a bright green colour, and full of a milky juice; the flowers are produced from the ends of the branches; they are of a cream colour, succeeded by fruit as already described.

*Note.* The nuts of this tree are a deadly poison; and the wood, and the milk which flows from it, has such an intolerable stench that it cannot be used by the Indians: When the wood is burned it is said to emit a strong stench like that of human excrement. The Indians put small stones into shells of the nuts, tie them about their legs, and divert themselves with the jinglings they afford in their capers and dancing.

2. C. LACTARIA, (*Maughas lactescens* of Burm.) *Milky Manghas*, or *Stink tree*, a native of both the Indies, hath a thick woody stem, near thirty feet high, branching near the top, the leaves are spear-shaped, thick, succulent, entire, nerved transversely, grow alternately, and full of a milky juice; the flowers are produced in bunches from the ends of the branches, they are of a white colour, and in India are succeeded by large fleshy fruit.

*Note.* The fruit of this species is also a deadly poison; it is said there is no antidote for either species; the wood of this also stinks intolerably when burned.

3. C. NERIFOLIA, *Narrow-leaved Cerbera*, grows naturally in America, the stem is woody, thick, round; branching, and twelve or fourteen feet high; the leaves are narrow, long, grow in clusters and

are full of a milky juice; the flowers are produced two or three together, on long footstalks from the sides of the branches, they are of a yellow colour, succeeded by fruit; and are propagated by planting the nuts in pots filled with light, sandy earth and plunging them into a hot-bed of tanners bark.

CERCIS, the *Judas Tree*, a genus of the Decandria Monogynia class of plants, and 33d Natural Order, *Lomentaceæ*; the calix is a very short melliferous bell-shaped, one-leaved perianthium, convex at bottom, and indented in five parts at the top; the corolla consists of five petals, inserted in the calix, and these form the appearance of a papilionaceous flower; the alæ are two petals fastened by long ungues and bend upwards; the vexillum is one roundish petal situated under the alæ; the carina consists of three petals which close in the form of a heart, are affixed by their ungues, and encloses the parts of generation, the nectarium is a filiforme gland, situated under the germen; the pericarpium is an oblong, obliquely acuminate pod of one cell, the seeds are few roundish, and annexed to the upper suture. There are two species.

1. C: SILIQUASTRUM, (Arbor Judæ of Dodon:) *Common Judas Tree*, grows naturally in Europe, from twelve to twenty feet in height, sending forth young branches irregularly from the very bottom; the stem is of a dark greyish colour, and the branches have a purplish cast; the leaves are smooth, heart-shaped, and roundish, of a pleasant green on their upper surface, hoary underneath, and grow alternately on long footstalks; the flowers are of a fine purple colour, and their general characters indicate their structure, they come out early in the spring in clusters from the sides of the branches, growing upon short footstalks, and are succeed by long, flat pods containing the seeds.

*Note.* The name *Judas Tree* has been given to this from a fancy of one of the Fathers, that it was upon one of them Judas hanged himself—and the earliest writers say he hanged himself upon a Cercis. Some people are fond of eating the flowers in sallads, on which account alone, in some parts this tree is propagated.—The varieties of this species are, 1. The *Flesh coloured*. 2. The *White-flowered*; and, 3. The *Broad podded Judas Tree*.

2. C: AMERICANA, (C: Canadensis Cerata agrestis Virginiana of Ray.) *American Judas Tree*, or *Red Bud*, an indigenous, deciduous tree, growing naturally in the United States; in some positions it will grow to the size of the former; the branches are also irregular, the leaves are heart-shaped, downy, and placed alternately, the flowers are usually of a pale red colour, and appear early in the spring, before the leaves are grown to their size; there is a variety of this with deep red, and another with purple flowers, these two are often eaten in sallads, and afford an excellent pickle—they are propagated from seeds, and make a very handsome appearance, one of them is to be seen in the Botanic Garden of South-Carolina.

*Domestic uses.* The wood is of great value in mechanical arts, as it polishes exceeding well, and is admirably veined with black and green.



CEREUS. See *Cactus*.

CERINTHE, *Honey-wort*, a genus of the Pentandria Monogynia class, and 41st Natural Order, *Asperifolia*; the calix is a permanent perianthium, divided into five oblong equal parts; the corolla is bell-shaped, the limb tubular, ventricose, and rather thicker than the tube; it is cut at the brim in five segments, and the mouth is open and pervious; there is no pericarpium; the seeds are inclosed in the calix—the seeds are two, osseous, nitid, nearly oval, plain on one side, and convex on the other: There are three species.

1. C: MINOR, *Smaller Honey-wort*, a native perennial of the Southern parts of Europe; the stalks are slender, and about two feet high; the leaves are undivided, embrace the stalks with their base, and are of a bluish green colour; the flowers are yellowish and blow in June or July. There is a notable variety of this species with spotted leaves and edges indented.

2. C: MAJOR, *Greater Honey-wort*, hath round, thick branching stalks, about two feet high, the leaves are heart-shaped, broad, obtuse, spotted, and of a bluish green colour, the flowers are produced from the tops of the branches, which bend downwards, and are of a reddish purple colour. There is a variety of this species with rough leaves, and yellow flowers, and another with flowers almost white.

3. The third species is said to have purple flowers; they are propagated from seeds, and require but little care.

CEROPEGIA, a genus of the Pentandria Monogynia class of plants, and 30th Natural Order, *Contorta*; there are two erect folicles, the seeds plumose or covered with a feathered pappus; the limb of the corolla connivent or closing at top—there are two species, of which however I find no further accounts.

CESTRUM, *Bastard Jasmine*, or *Jessamine*, a genus of the Pentandria Monogynia class of plants, and 28th Natural Order, *Luride*; the calix is a very short one leaved, tubular, taper perianthium, cut at the top into five erect, obtuse, obsolete segments, the corolla is one funnel-shaped petal, the tube is cylindrical, very long and slender; the faux is roundish, the limb plane, folded and cut into five oval, equal segments; the pericarpium is an oval, oblong berry containing one cell, the seeds are many, and roundish—there are six species, only two of which are described.

1. C: PEDUNCULATIS, (*Jasminum Laurinis foliis* of Sloane, *Syringa Latifolia* of Pluke.) *Nocturnal Cestrum*, a native of Jamaica, and Chili, the stem is woody, upright, divided into many slender branches near the upper parts, and six or eight feet high, the leaves are like those of the Bay Tree, smooth, firm, veined underneath and grow alternately on footstalks; the flowers come out in small clusters on footstalks from the wings of the leaves, they are of a greenish yellow colour, and of the most heightened fragrance, and blow in August. There is a variety of this species with yellow flowers and dark blue poisonous fruit, but of inferior fragrance to the former, which has gone under the cant names of *Night Cheerer*, *Queen of the Evening*, and *Lady of the Night*, from its so profusely dispersing its odoriferous particles after sun set.

2. C: *SESSILIBUS*, (*Laureola Sempervirens* of Pluke. *Hediunda Jasmina* flore of Fewel.) *Diurnal Cestrum*, *Queen of the Morning*, or *Lady of the Day*, a native of Chili, and the Havannah; the stem is woody, upright, smooth, divides upwards into many branches, and grows to be eight or ten feet high; the leaves are like those of Spurge Laurel, oblong, smooth, thick, of a dark and cheerful green colour, and grow alternately; the flowers come out in clusters from the wings of the leaves, sitting close, having no footstalks; they are of a white colour, and blow in July or August. They are propagated by cuttings planted in any of the summer months, in pots filled with rich earth, and plunging them into a hot-bed of tanner's bark; or from seeds, which latter method produces the most beautiful trees.

CEYLON L'LY. See *Amaryllis*.

CHAEROPHYLLUM, *Wild Chervil*, a genus of the Pentandria Digynia class of plants, and 45th Natural Order, *Umbellata*; the general umbel is patent, the partial is composed of nearly the same number of rays; there is no general involucre, the partial is composed of about five spear-shaped, concave, reflexed leaves almost the length of the umbellata; the proper perianthium is obsolete; the general corolla is nearly uniform; the florets have each five inflexed heart-shaped petals, of which the outer ones are rather largest; there is no pericarpium, the fruit is oval, oblong, pointed, and divided into two parts; the seeds are two, there are ten species.

1. C: *INCISIS*, (*Myrrhis Perennis* of Moris.) *Golden-seeded Wild Chervil*, a perennial, and native of Germany; it sends forth several hairy leaves, cut into many segments; from among these arise the stalks to about two feet high the flowers adorn their crowns in white spreading umbels, succeeded by yellow striated seeds; the leaves of this species affords a good green dye.

2. C: *HIRSUTIS*, (*Cerofolium Latifolium* of Moris.) *Hairy white and red flowered Wild Chervil*, a perennial, and native of Switzerland; the stalks are equal, channelled, and about a yard high; the leaves are exceeding hairy, and composed of numerous broad segments, so that they form a large and finely divided leaf; the flowers terminate the stalks in very large umbels, some of them are red, others white, and often the same umbels will exhibit both of these colours.

3. C: *INTEGRIS*, (*Angelica Podagrariæ* of Rivinus.) *Aromatic Wild Chervil*, a perennial, and native of Lusatia; the stalks are equal, and of a strong scent, the leaves are large, and composed of many heart-shaped, oval, serrated, hairy segments, which emit a kind of aromatic odour: the flowers are formed into large spreading umbels, at the tops of the stalks, and succeeded by oblong pointed fruit.

4. C: *TEMULENTUM*, *Rough Cow Parsley*, or *Rough Chervil*, grows in hedges and flowers in July.

5. C: *ARBORESCENS*, *Tree Chervil*, is a native of the United States, it hath a shrubby stem, large super-decompound leaves, with the palms much expanded, glossy, and gash-serrate; the flowers

are produced in thin white umbels, with a partial involucre, and all the florets are fertile: See also *Scandix*.

**CHAJOTLI**, or *Chayoti*, a Mexican fruit, of a round shape, and similar in the husk with which it is covered, to the Chesnut, but four or five times larger, and of a much deeper green colour; its kernel is of a greenish white, and has a large stone in the middle, which is white, and like it in substance; it is boiled and the stone eaten with it. This fruit is produced by a twining perennial plant, whose generic characters are not described.—The root is also good to eat.

**CHALCAS**, a genus of the Pentandria Monogynia class of plants; the calix has five leaves; the corolla bell shaped, with the petals beeled; the stigma round headed and watery.

**CHAMEROPS**—The *Humble Palm*, a genus ranged in the 1st Natural Order, *Palmæ Flabellifoliæ*; it is by Walter and Michaux ranged in the Hexandria Trigynia class; and by Hanbury in the Polygamia Dioecia; the hermaphrodite calix is tripartite, the corolla tripetalous, there are six stamina, three pistils, and three monospermous plums; the male is a distinct plant, the same as the hermaphrodite, except that the stamina are not distinct and the germen is wanting; there are three species all natives of the United States.

1. C: **ACAULIS**, (*Palma minor* of C. B. *Corypha Pumila*, Walt.) *Dwarf Palm*, *Palmetto*, or *Thutch*. The root is spreading, the leaves are elevated on footstalks, like common Fern, are flat on one side and convex on the other; at first they are closed or shut up like a fan, and afterwards spread open; when they are ten or fourteen, and sometimes eighteen inches long, and near a foot broad, they have many foldings like a fan, and are finely serrated; among these arise the spadix for the support of the flowers, which issue from a spathe.

2. C: **SERRULATA**, *Saw Palmetto*, and 3. C: **PAMLETTO**, (*Corypha Palmetto* of Walt.) *Great Cabbage Palm*. See *Areca*, and *Corypha*.

**CHARA**, *Horse Tail*, a disputed genus of plants, some classing it in the Cryptogamia Algæ, and others, in the Monoecia Monandria class of plants; the calix is very small and composed of two leaves, there is no corolla, others say there is neither male calix, or corolla, and the anthera placed under the germen; the female calix is tetraphyllous, no corolla, the stigma quinquefid, with one roundish seed, the latter we take to be the most correct; they are however not worth contention, as they are never cultivated, they grow naturally in ditches, standing waters, and moist places. The species are four.

1. C: **FOETIDUM**, (*Equisetum foetidum* of C. B.) *Common Chara*, or *Sinking Water Horse Tail*, hath fibrous creeping roots, the stalks are round, slender, smooth, striated, jointed, branching, partly procumbent, and two or three feet long; the leaves are small, oblong, and cut or jagged on their edges; the seeds are small, oval, glossy, and the whole plant has a disagreeable smell.

2. C: **CORALLOIDES**, (*Equisetum* s. *Hippuris lacustris* of Pluke.) *Brittle Chara*, or *Coralline Horse Tail*, the stalks are numerous,

round, jointed, striated, a foot and a half high, armed with thick strong spines at the joints; the leaves are long, narrow, of a grey colour, and come out all round the stalks, at the joints; the whole plant is extremely brittle, and of a coralline taste when chewed.

3. C: SPINOSIS, *Prickly Chara*, hath numerous round slender, branching procumbent stalks, beset with a great number of long slender prickles; the leaves are long, narrow, slender, and stand thick at the joints; the whole plant is of a greyish green colour, and creeping under the water.

4. C: TRANSFLUENS, *Smooth Chara*, the stalks are slender, hollow jointed, less brittle than any of the sorts, and have no spines at the joints, the leaves are numerous, long and narrow, and usually of a brownish green colour.

CHASTE TREE. See *Vitex*.

CHEIRANTHUS, *Wall Flower*, and *Stock July Flower*, a genus of the Tetradynamia Siliquosa class, and 39th Natural Order, *Siliculosæ*; the calix is a compressed perianthium, composed of four spear-shaped, concave, erect, connivent, deciduous leaves, of which the two outer are swelling at their base; the corolla consists of four roundish petals, longer than the calix, and placed opposite in form of a cross; the pericarpium is a long compressed pod, the seeds are numerous, sub-oval, and compressed—there are 13 species.

1. C: INTEGERRIMIS, (*Leucojum Hortense*, C. B. *Viola of Lobel.*) *Ju y Flower*, or *Stock Gilliflower*, grows naturally on the Sea Coasts of Spain; this plant may be very properly ranked among the biennials, as it is generally the second year before it is in full glory. The root of the *Stock July Flower*, is white, ligneous and thick, the plant in some of the varieties will grow to near a yard in height; the stalk is woody and tough, it is single, branching irregularly near the top, and covered with a light down; the leaves are spear-shaped, their edges are entire, they are covered with a downy matter, and their colour is of a bluish green, the branches are terminated by the flowers, which grow in loose spikes, and possess the utmost purity of fragrance, but that is often tainted by the scent issuing from the stalks and leaves, which on being bruised, emit a disagreeable odour, which too often overpowers the natural sweetness of the flower itself. This species varies without bounds in colouring, but the most remarkable varieties are 1. the *Pale Red*, or *Queen Stock Gilliflower*, 2. the *Deep Red*, or *Brumpton Stock July flower*, 3. the *White Stock*, 4. the *Variogated Stock July flower*. These also have their different tints, tendencies and properties, but it is in their double state they are chiefly admired.

2. C: UNDULATUS, *Clustered Waved-leaved Cheiranthus*, a perennial, the place of whose nativity is not known; it hath fibrous roots, a thick, naked and erect stalk, the leaves terminate the top of it in large clusters; they are fessile and recurved, waved in their edges, and very downy, they are spear-shaped, but their points are obtuse; the flowers are purple, and grow from the sides of the stalks in spikes.

3. C: VIRGINIANA, (*Hespins Maritima of Tourne*) *Dwarf Virginian Stock*, an annual low plant, growing on the sea coasts, it seldom rises higher than half a foot; the leaves are spear-shap-

ed; and of a thickish consistence, and of a greenish colour, the ends not very acute; the branches are very diffuse, grow irregular, and intermix with one another; the flowers are produced in loose spikes at the end of the branches, each being composed of four petals placed opposite to each other; and are of a purple colour.

4. C: SUBDENTATIS, (*Leucojum incanum* minus of C. B.) *Ter Weeks Stock*, an annual plant about a foot high; the stalk is smooth, round and branching, the leaves are placed on it without order, are of a lanceolated figure, a little indented, have their ends obtuse, and are very hoary; the flowers are produced from the ends of the branches in loose spikes, of the following varieties, viz. red, white, purple and variegated.

5. C: LANCEOLATIS, *Narrow-leaved Sea Stock July flower*, hath a stalk a foot high, which is ligneous, downy and branching; the leaves are many, narrow, and spear-shaped; the flowers are produced in loose spikes of a bright red colour.

6. C: FOLIIS LYRATIS, *Broad-leaved Sea Stock*, the leaves are near an inch broad, and about two inches long, lyre-shaped, sinuated on their edges and very downy; the stalks are slender, weak, hoary and garnished with small, sinuated, hoary leaves; the flowers are produced from the ends of the branches in loose spikes of a purple colour, succeed by three pointed, downy pods.

7. C: HIRSUTIS, (*Foliis Obovatis*) *Hairy-podded Cheiranthus*, hath spear-shaped, retuse leaves, a little indented, and purplish flowers.

8. C: TETRAGONIS, *Quadrangular-podded Cheiranthus*, of which there are two remarkable varieties, one with indented leaves, the other entire; they are spear-shaped, smooth and sit close to the stalks; the flowers are yellow—this species will flourish upon old walls, rubbish, &c.

9. C: LAVENDULÆ: FOLIO, *Cylindrical-podded, Lavender-leaved Cheiranthus*, the leaves are narrow, smooth, and resemble those of Lavender; the flowers are small and of a worn out purple colour, succeeded by cylindrical pods.

10. C: GLABRIS, &c. *Common Wall-flower*, or *single yellow July flower*. The varieties of Wall-flowers are truly great, and the parent of them all is the present, which grows naturally on the old walls at Leicester, and many other parts of England; it is a perennial, with a long, ligenous and tough root; the stalks are also tough and woody; their height differ according to soil and situation, they divide into several branches, that are angular and are covered with a whitish bark; the leaves are spear-shaped, smooth and acute; the flowers are produced in spikes from the ends of the branches, they are yellow, very fragrant, and show themselves in full blow from old walls during most of the summer months—the following are the varieties of this parent plant—1. The winter Wall-flower—2. The common double Wall-flower. 3. The dwarf double. 4. The large growing double. 5. The bloody. 6. The double bloody. 7. The old double bloody. 8. The white. 9. The cream coloured, and, 10. The variegated Wall-flower—several of which are considered as distinct species by some Botanists. They are all propagated from seeds or slips.

CHELIDONIUM, *Celandine*, a genus of the Polyandria Monogynia class, and 27th Natural Order, *Rhocadeæ*; the calix is a roundish perianthium composed of two oval, concave, obtuse, caducous leaves; the corolla consists of four large, roundish, plain, patent petals, that are narrow at their base, the pericarpium is a cylindric pod formed of one or two valves, the seeds are numerous, small, oval and smooth. There are four species.

1. C: UMBELLATIS, (C: Majus Vulg: of C. B.) the *Common Greater Celandine*, the *Perennial Celandine*, hath a thick knobby root of a deep red colour, which being broken emit a yellow juice; the stalks are round, hairy, branching, jointed and grow two feet or more high; the leaves are large and composed of many folioles, which are indented or jagged on their edges; the flowers are of a golden yellow colour, come out from the ends of the stalks in May and June, and the seeds ripen soon after the flowers are fallen, they grow common in lanes and road sides in many parts of England, and consist of two notable varieties, viz. common, greater and jagged-leaved.

*Part used.* The leaves and root.

*Sensible properties.* Smell disagreeable, taste somewhat bitterish very acrid, biting and burning in the mouth, the root is the most acrid.

*Medical virtues.* It is stimulating, aperient, diuretic and sudorific, the juice has long been celebrated in disorders of the eyes, but requires plentiful dilution to be applied with safety to that tender organ—it has been applied with success for extirpating warts, cleansing old ulcers, and in cataplasms, for the *Herpes Miliaris*. This acrimonious plant is rarely given internally, it is however particularly recommended in the slow kind of jaundice, where there are no symptoms of inflammation, and in dropsies; half a drachm or a drachm of the dried root is directed for a dose, or an infusion in wine; some suppose this root to have been Helmonts specific in the *Hydrops Ascites*.

2. C: AMPLEXICAULIBUS, (*Papaver corniculatum luteum* of C. B.) *Yellow-horned Poppy*, so named from its crooked seed vessels resembling horns, an annual plant growing naturally on the sea coasts of Europe and America; the stalks are round, smooth, robust, jointed, branching, of a greyish green colour, and grow to about two feet high; the leaves are large, of a thick consistence, and of the same colour with the stalk, the radical ones are pinnatifid, the upper ones are lobated and embrace the stalks with their base, the flowers are produced from the wings of the leaves on short footstalks, are large, of a yellow colour, come out in July, and resemble those of poppy; this plant on being wounded discharges a yellow juice in plenty.

3. C: HISPIDUM, (*Glaucium hirsutum* of Tourne, *Papaver Phœnicium Glabrum et Hirsutum* of C. B.) *Scarlet-horned Poppy*, an annual plant, of which there are two principal varieties, the one smooth the other hairy; they both grow to about a foot and a half high, the leaves are large, finely jagged, sit close to the stalk and are very beautiful; the flowers are scarlet, and like those of Poppy, are of short duration; the leaves of the hairy sort are narrower and

more finely divided than the smooth the flowers are succeeded by long, hispid, horn-like pods containing the seeds.

4. C: UNIFLORIS, (Papaver violaceo flore of Clus.) *Violet-coloured horned Poppy*, or *Pilewort*, is also an annual and native of Europe, the stalks rise to about a foot high, are smooth, and divide into two or three branches only; the leaves are composed of many narrow parts, elegantly divided, smooth, and of a lucid green colour; the flowers come out from the wings of the leaves on slender footstalks, and are of a fine violet colour, succeeded by pods like the foregoing.

*Note.* It is said that the roots of this plant consist of slender fibres with some little tubercles among them resembling the *Hæmorrhoides*, (Piles) from whence it has been concluded that this root must needs be of wonderful efficacy for the cure of that disease.

CHELONE, *Bastard Fox-Glove*, a genus of the *Didynamia Angiospermia* class, and 40th Natural Order, *Personate*; the calix is a very short, permanent Perianthium of one leaf, divided at the top into five oval, erect segments; the corolla is a ringent, or grinning petal; the tube is cylindrical and very short, the mouth is inflated, oblong, convex above and plane below; the upper lip is obtuse and emarginated, the lower lip is lightly trihd; the pericarpium is an oval capsule of two cells, the seeds are numerous, roundish, and have a membranaceous border. There are three species, viz.

1. C: GLABRA, (*Digitalis Mariana* of Ray and Pluke.) *Virginian Smooth Chelone*, or *Bastard Fox-Glove*, an indigenous perennial, of which there are two remarkable varieties, one with white, and another with a beautiful rose coloured flower, which blow late in the autumn; in some of this latter variety the flowers are of a deep red, in others paler, and in others a bright purple; they grow naturally in Carolina, Virginia, &c. &c. it hath thick creeping roots, which spread themselves all around and overrun small plants that are near them, from these roots in every place where they run, rise the stalks, which are about two feet high, and are smooth and channelled; the leaves are spear-shaped, pointed, serrated and grow opposite by pairs at the joints; the flowers terminate the stalk in spikes of one or other of the colours already mentioned, they blow from August till October or November.

2, C: HIRSUTIS, (*Digitalis Virginiana* of Pluke.) *Virginian rough Chelone*, or *Bastard Fox-Glove*, a perennial and native of Virginia; this also hath spreading roots and stalks that attain the same height with the former, they are very hairy, and garnished with hairy, spear-shaped leaves at the joints; the flowers terminate the stalks in spikes; they are of several varieties, such as the white, the red, the pale blue and the purple; they blow with the former.

3. C: AMPLEXICAULIBUS, (*Asarina amplex*: of Miller, *Penstemon* of Micheli.) *Penstemon Chelone*, an indigenous perennial, growing naturally in Virginia; the roots of this species are not spreading like the others, and are of shorter continuance, seldom lasting longer than two or three years, the stalks are upright, branching and will grow to about a foot and a half high, the leaves are spear-shaped, oblong and pointed, they grow opposite by pairs and

embrace the stalks with their base; from the divisions of the stalks the flowers are produced in short loose spikes, they are small and of a purple colour and blow earlier than the foregoing, viz. in June or July. The culture of this species is best performed by seeds, the others by parting the roots in Autumn; they grow readily in any soil or situation.

**CHENOPODIUM**, *Goose-foot*, &c, a genus of the Pentandria Digynia class, and 12th Natural Order, *Holoracea*; the calix is a permanent perianthium, composed of five oval, concave leaves; there is no corolla nor pericarpium, the calix closing becomes pentagonal and encloses the seed, which is single, round and depressed. There are 27 species.

1. **C: BONUS HENRICUS**, (*Lapathum* Sylvest: C. B.) *Common English herb Mercury, Good Henry, or All Good*, a perennial and native of Europe, it grows common among rubbish, the stalks are thick, striated and grow to about two feet high; the leaves are large, triangular, sagittated, whole and grow on long strong footstalks; the flowers are produced from the tops of the stalks in close spikes, are of a yellowish green colour, and blow in June, July and August.

*Part used.* The leaves.

*Medical virtues.* Emollient, though rarely used in practice; the leaves are applied as a domestic remedy for healing slight wounds, cleansing old ulcers and other like purposes.

*Domestic uses.* The poorer class of people in Europe cultivate this plant, and boil the leaves while young in their broths, and the young shoots they pull and dress as a substitute for Asparagus. Its roots are frequently given to sheep affected with a cough, and are supposed to afford an excellent remedy for preventing consumptions in these useful animals.

2. **C: PERENNE**, *Pennsylvania Goose-foot*, an indigenous perennial, whose stalks grow to about eighteen inches high, the leaves are oval, oblong and indented; the flowers grow in close clusters from the ends of the stalks, they are small, having no petals, of an herbaceous colour, and blow in July.

3. **C: INTEGERRIMIS**, (*Linaria Scoparia* of C. B. *Osyris* of Dodon: *Summer, or Mock Cypress, or Belvedere*, an annual exotic, growing naturally in Greece, China and Japan. This plant is in great esteem with many, from its manner of growth which is truly pyramidal and much resembles that of the cypress (cedar?) tree, the numerous branches which it closely sends forth to form such a figure, are plentifully adorned with narrow, spear-shaped, plane, whole leaves of a light and pleasant green colour, it is in its greatest beauty before the flowers come out, as the weight of the seeds on swelling weigh down the branches and destroy the uniformity and beauty of the plant.

4. **C: VIRGINICUM**, *Bearded Goose-foot*, an indigenous annual, low, branching plant, hardly a foot high, the leaves are succulent, spear-shaped, fleshy and obtuse, the flowers grow in round bearded, bunches, but having no petals make little appearance.

5. **C: BOTRYS**, (C: *Anthelminthicum* of Walt. and Mich. *Botrys Ambrosiodes vulg.* of C. B.) *Jerusalem Oak, or Wormseed*, an indigenous annual plant, of which there are several remarkable varie-



ues. It is a plant of little beauty, it grows luxuriently in Carolina, in hedges, pannels of fences, &c. It is said to have a fine fragrance, smelling somewhat like Ambrosia. The smell is however not agreeable to many. The stalks rise to about two feet high, the leaves are oblong, sinuated, of a light green colour, and grow alternately; the flowers grow in loose spikes from the upper parts of the plant in July and the seeds ripen in September.

*Part used.* The seed, sometimes the whole plant.

*Sensible properties.* Smell very strong, though not disagreeable to all, a warm, bitter, pungent, acrimonious taste.

*Medical virtues.* Carminative, Pectoral, Anthelmenthic; the expressed juice of the leaves is given in doses of a tea or table spoonful, mixed with molasses for children with worms; the seeds reduced to fine powder; and made into an electuary with syrup; is also administered with the same intention in doses of a tablespoonful for several successive mornings, until the desired effect is obtained. the patient is kept without nourishment for some hours after each dose.

*Note.* It is asserted that the whole seed produce worms in the stomach. and that if a parcel of the seed be inserted into a loaf of bread while baking, by splitting the loaf, and placing the seeds on the incised parts, then closing them, and baking the bread thoroughly—then re-opening the same, the seeds will be found converted into worms! Such is the report, what credit may be due to it, I leave to the determination of those who, either have, or may hereafter, put it to the trial.

6. MEXICANAVE, (Botrys Odorate of Moris.) *Oak of Cappadocia*; this is another species of an agreeable odour like the former, the stalk hardly rises to a foot high; the leaves are spear-shaped, oblong, indented or hollowed on both sides in the manner of oak leaves, and are purple on their under side; the flowers are produced from the upper part of the plant in loose naked spikes in July—the foregoing are those that are mostly cultivated among other annuals in a Flower-Garden; the following grow wild, and are considered as weeds. They are annuals.

7. C: CONFERTIS, *Upright Blite*, hath upright, branching stalks, the leaves triangular and indented; the flowers come out in long, clustered spikes from the wings of the leaves, and make but little show, having no petals.

8. C: CORDATO-TRIANGULARIBUS, (Atriplex sylvest latifolia of C. B.) *Sharp-leaved Goose-foot*, has an upright, branching stalk, about a foot and a half high; the leaves are thick, bright, nearly triangular, with their edges cut into many segments, the lower ones having strong footstalks; the flowers are produced in spikes from the sides of the branches.

9. C: DELTOIDE, (Blitum ficus folio of Ray) *Late-flowered Blite*, hath a strong, upright, branching stalk; the leaves are large, angular, hollowed on their edges, and much resembling those of the Fig tree. It produces its flowers like the others.

10. C: PES: ANSERINIS, *Common Goose-foot*, or *Sow-Bane*, grows naturally on rubbish banks, old walls, &c. it hath an upright, striated, strong branching stalk, about a foot and a half high, the leaves

are broad, and shaped like the foot of a goose; the flowers are of a reddish colour, and are produced like the foregoing.

11. C: RHOMBOIDEO, *Common Orach*, hath an upright, striated, strong branching stalk of about two feet and a half high; the leaves are large, oblong, angular, bright, unequally sinuated on their borders, and shaped like those of the Guelder Rose: The flowers are produced like the foregoing—there is a variety with roundish leaves:

12. C: SYLVESTRIS, *Green Blite*, hath leaves like the foregoing, with the edges indented, though there is a variety with oblong, thick obtuse, entire leaves; the flowers are produced from the ends of the branches in branching naked spikes.

13. C: ACER-FOLIO, (Foliis cordatis angulato acuminatis,) *Maple-leaved Blite*, is a strong branching plant, about two feet high, the leaves are large, cordated, angular, and have their edges cut and serrated, like the common Maple; the flowers grow in long naked branching spikes, from the tops of the plants.

14. C: POLYSPERMUM, *Round-leaved Blite*, or *Allseed Goosefoot*, hath a weak decumbent stalk, the leaves oval, and undivided, the flowers grow in such plenty from the tops of the stalks; that when the seeds begin to swell, the plant is loaded with them. This curious plant has not hitherto been converted to any useful purposes, though it is believed that its numerous seeds might be advantageously employed, where it grows, in feeding poultry. Perhaps it is a variety of the *Quinoa*, which grows in the mountains of Peru, where each plant affords upwards of a thousand grains, equal, if not superior to rice. As it is said in the French "Annee Litteraire," for 1781, that this exotic vegetable is a species of the Goosefoot.

15. C: OVATO-OBLONGIS, *Oak-leaved Blite*, hath oval, oblong leaves, downy underneath, and sinuated on their edges, in the manner of those of the Oak Tree; the flowers are produced from the wings of the leaves in single spikes, like the former.

16. C: VULVARIA, (*Atriplex fetida* of C. B.) *Stinking Orach*, hath low, weak branching stalks, and angular, oval, and undivided leaves; the flowers and seeds are produced from the ends and sides of the branches; the whole plant has a disagreeable smell, and grows commonly on rotten dung-hills, rubbish, old walls, &c. See *Atriplex Hastata*.

17. C: ALBUM, *White Goosefoot*, or *Common Wild Orach*, is said to be a native of Carolina, growing in corn-fields, &c. it is a troublesome weed among grain, nevertheless, in the banks of the Volga, the German colonists make use of its very abundant seed, by mixing it with bread corn, and also boiling it separately, in form of groats.

18. C: MARITIMUM, *Sea Goosefoot*, *Small Glasswort*, or *Sea Blite*, is also said to be a native of Carolina, abounding on the Sea Shores, and flowering in the months of July and August. Dr. Withering mentions it as an excellent pot-herb. In Siberia and Astracan, the inhabitants obtain from this plant, their pot-ash, which probably partakes more of the nature of Soda.

19. C: FRUTICOSUM, *Shrub Stone Crofi*, or *Glasswort*.

20. C: SEMPERVIRENS, *Evergreen Goosefoot*, a native of Bonaria; it is a beautiful green-house plant, the stalks are shrubby, and di-

vide into a few slender branches ; the leaves are composed of numerous narrow segments, they are beautifully divided, and continue green all the year ; and it is from these that the plant derives its chief excellence, for the flowers are small, and are adorned with no petals ; they come out from the wings of the leaves, and sit close, having no footstalks. It is propagated by slips or cuttings in the spring, and treated as other tender plants are ; the other kinds require nothing more than to sow the seeds.

21. C: ARISTATUM, *Awned Goosefoot*. See also *Atriplex Elitum*, and *Linaria*.

CHERLERIA, a genus of the Decandria Trigynia class, and 22d Natural Order, *Caryophylleæ* ; the calix is a perianthium composed of five spear-shaped, concave, equal leaves ; there is no corolla, there are five small emargined nectariums placed circularly ; the pericarpium is an oval capsule, formed of three valves, and containing three cells ; the seeds are two or three, and kidney-shaped—there is but one species, Plukenet calls it *Lychnis Alpina*, Morison and Parkinson, *Sedum Montanum*. It grows naturally on the Helvetian and Vallesian mountains, the stalks are thick, tender, and six or eight inches high ; the leaves are of a thickish consistence of a greyish green colour, and grow alternately ; the flowers are produced in clusters from the tops of the stalks, they are small, of a yellow colour, and blow in July or August : Being a perennial plant it is propagated from parting the roots, or from seed sown in a light dry soil, and shady situation.

CHERRY. See *Prunus*.

GHERVIL. See *Chaerophyllum*.

CHESNUT TREE. See *Fagus*.

CHICH PEA. See *Cicer*.

CHILDING PINK. See *Dranthus Prolifa*.

CHINA ASTER. See *Aster Chinensis*.

CHINA BRIER, or *China Root*. See *Smilax*.

CHINESE HEMP. See *Crotalaria*.

CHINA ROSE. See *Hibiscus Rosa Sinensis*.

CHINQUAPINE, or *Chinquapin*. See *Fagus*.

CHIOCOCCA, *Snow-berry Tree*, a genus of the Pentandria Monogynia class of plants, and 48th Natural Order, *Aggregatæ* ; the calix is a permanent perianthium, situated above the germen, and indented in five parts at the top ; the corolla is one infundibuliforme petal, the tube is long and patent, the limb is divided into five equal, acute, reflexed segments, the pericarpium is a roundish compressed berry, crowned by the calix and containing one cell ; the seeds are two—there are two species.

1. C: RACEMOSA, (Lonicera of the Spec: Plant.) *Racemose Chio-cocca*, or *Snow-berry Tree*, a native of Florida and the West Indies, the stalks are woody, weak, and send forth several slender branches, which are unable to support themselves erect ; the leaves are spear-shaped, oblong, pointed, smooth, and grow opposite to each other at the joints ; the flowers are produced in branches from the ends and on each side of the branches, they are of a yellowish colour, succeeded by berries that are of a snow white colour when ripe, whence the name *Snow-berry Tree*.

2. C: *ALTERNIS*, *Nocturnal Chicocca*, a native of the warm parts of America, it rises with a shrubby branching stalk, to eight or ten feet high; the leaves are smooth, of an elegant green colour on their upper side, greyish underneath, and grow alternately, the flowers are produced from the wings of the leaves, at the upper part of the branches, and are succeeded by roundish compressed berries: These are stove plants, and may be propagated from cuttings or from seeds; either way they require the hot-bed.

*CHIONANTHUS*, *The Snow Drop*, or *Fringe Tree*, a genus of the Diandria Monogynia class, and 44th Natural Order; *Sesfiaria*; the calix is a monophyllous, erect, pointed, permanent perianthium, divided into four parts; the corolla is one funnel-shaped petal, the tube very short, spreading, and the length of the calix; the limb is cut into four very long, narrow, erect, acute segments, the pericarpium is a roundish unilocular drupe, the seed is a single and striated nut—there is but one species.

C: *VIRGINICA*, *Snow Drop*, or *Fringe Tree*, an indigenous plant, growing naturally in the maritime parts of Carolina, Virginia, &c. it will grow to the height of about fifteen feet, the stem is rough, and of a dark brown colour; the leaves are large, shaped like a Laurel, broad and roundish, of a fine deep green on their upper surface, but rather hoary; the flowers come out in bunches in May, from every part of the tree, and are of a pure white colour; its native situation is by the sides of rivulets, and when in bloom resembles a tree covered with snow, whence its first name, and these hanging down in large bunches, cut into many segments, resembling fringe, whence the latter name. After the flowers are fallen off, the fruit appears, which grows to the size of a Sloe, having a stone in the middle. It is propagated by seeds and by layers.

*CHIRONIA*, *American Centaury*, a genus of the Pentandria Monogynia class, and 20th Natural Order, *Rotaceæ*; the calix is a one-leaved permanent perianthium, divided into five oblong, acute, erect parts; the corolla is one equal petal, the tube is the length of the calix, the limb is divided into five oval, unequal spreading segments; the pericarpium is a capsule, in others a berry, the seeds are small and numerous, there are eight species.

1. C: *TRINERVIS*, (*Lysimachia* of Burm.) *Trinervous Chironia*, or *Centaury*, a beautiful annual, and native of the Cape of Good-Hope; it hath a herbaceous branching stalk, two or three feet high, the leaves are spear-shaped, trinervous, pointed and sinuated on their edges; the flowers are produced from the tops of the stalks, are large, of a fine blue colour, and blow in July or August.

2. C: *FRUTICOSA*, (C: *Campanulatis* of Lin. C: *Gracilis* of Michaux) *Shrubby Capsuliferous Chironia*, an indigenous plant growing naturally in Carolina, it hath a fibrous, spreading root, the stalks are woody, but soft, round, send forth several erect branches from the sides, and grow to about three feet high; the leaves are narrow, succulent, obtuse, and a little downy underneath; the flowers come out from the ends of the branches, they are large, of a bright red colour, and have campanulated, or bell-shaped cups—they blow in June.

3. C: BACCIFERA, (*Centaurea Minus* of Oldenl.) *Shrubby berry bearing Chironia*, a native of Æthiopia, the stalk is woody, round, jointed, branching, and three or four feet high; the leaves are narrow, succulent, thick and short; the flowers are produced from the ends of the branches, they are of a beautiful red colour, blow in June, succeeded by oval pulpy berries containing the seeds.

4. C: PANICULATA, grows naturally in Carolina and Georgia, hath a firm, erect stem, the leaves are lance-shaped, and linear, the flowers are produced in panicles.

5. C: ANGULARIS, *Common American Centaury*, a native of the wet, moist places of Carolina; there are two varieties of this species, the one with short oval, or suborbiculate, heart-shaped leaves, the other lance-shaped and linear; it hath an erect square stem, garnished with leaves of one or other of the foregoing characters, and which embrace the stalk with their base; the flowers are produced in a corymbus, and are of a rose colour.

*Note.* These plants have the appearance of Lesser Centaury. (*Gentiana Centaureum*.) This species is a very agreeable, simple bitter, and is used as such in relaxed stomachs, &c.

6. C: CALYCOSA, (C: *Dichotoma* of Walt.) also a native of Carolina, hath an erect leafy stalk; the leaves are oblong-oval, the flowers are solitary, and of a pale rose colour.

7. C: CHLOROIDES, (*Chlora dodecandria* of Linn.) hath a smooth stalk, somewhat weak and leaning; the leaves are lance-shaped, and erect, the flowers are small and rose coloured—they are propagated by seeds sown in light sandy earth.

CHLORA, *Yellow Centaury*, a genus of the Octandria Monogynia class of plants; the calix is octophyllous, the corolla monopetalous, and octofid, the capsule unilocular, bivalved and polyspermous. Formerly this plant was considered as a species of the *Gentiana*, and 5th class; it was then removed to the 8th class, first with the title of *Blackstonia* and now under the present, in which we will arrange but one species, the remainder will be found among the *Chironia* and *Gentiana Genuses*.

C: PERFOLIATA, *Yellow Centaury*, or *Yellow Perfoliate Gentian*, is found in pastures on a chalky soil; it is easily known by its perfoliate leaves, smooth, upright stalks, and yellow flowers; it has eight stamens, the calix and corolla each eight leaves, a simple style, and the stigma four cleft. This, it is presumed, by some is considered as the 8th species of the genus *Chironia*.

CHLORIS, a genus of the Triandria Digynia class of plants, and 4th Natural Order, *Gramina*; it is a genus of grasses, nearly allied to the *Cynosurus*, or *Dog's-tail Grass*—Michaux enumerates four species as natives of Carolina, Georgia, Florida, and the Illinois. See *Cynosurus*.

CHONDRILLA, *Gum Succory*, a genus of the Syngenesia Polygamia Æqualis class, and 49th Natural Order, *Compositæ*; the common calix is calyculated, and cylindrical, the scales are many, narrow, and equal, except a few at the base which are very short; the corolla is imbricated and uniform, the florets are each one tongue-shaped, narrow, truncated petal, that is, indented in four or five parts at the top; there is no pericarpium, the seeds are

single, oval, compressed, rough, crowned with simple stipitated down, and are enclosed in the calix—there is but one species.

C: JUNCEA, *Rushy Viscous Gum Succory*, a perennial, and native of Germany, &c. The roots are large, thick, and full of viscous juice, they strike deep into the ground, and spread themselves under the surface to a considerable distance, from these arise many pinnatifid leaves, which are long and finely divided; the stalks are slender, limber, and tough like rushes; they grow about three feet high, and are garnished with leaves which are spear-shaped, narrow and entire; the flowers are produced from the tops of the stalks and branches, are of a pale yellow colour and much resemble those of the Lettuce—they blow in July.

CHOCOLATE TREE. See *Theobroma Cacao*.

CHRYSANTHEMUM, *Corn Marygold*, &c. a genus of the Syngenesia Polygamia Superflua class, and 49th Natural Order, *Compositæ*; the calix is hemispherical and imbricated; the corolla is compound and radiated, the hermaphrodite florets are numerous in the disc, and each consists of one funnel-shaped petal, the same length with the calix, and divided at the top into five spreading segments, the females in the radius are ligulated, oblong and indented at the top in three parts; there is no pericarp, the receptacle is naked, punctated, and convex--there are 19 species.

1. C: LEUCANTHEMUM, (*Bellis Major* of the Ancients,) *Greater Daisy*, *Great White Ox-eye*, *Moon-flower*, or *Daisy Goldins*, and sometimes called *Corn Marygold*, a perennial plant, growing naturally in the meadow and pasture grounds of Europe; the radical leaves are broad, indented, and spread upon the ground; the upper ones are oblong, narrow, serrated, and embrace the stalks with their base, the stalks grow to be near two feet high, and each of them are crowned a fair large white flower, of the elegant shape of the common Daisy, but much larger; they blow in June, and are possessed of little or no smell, or odour.

*Part used.* The leaves.

*Medical virtues.* Dioscorides recommends the bruised leaves to be applied to cold scirrhus tumours, and says that a decoction of them if taken by persons subject to the jaundice, immediately after coming from the tepid bath, it will tend to restore their natural colour.

*Domestic uses.* The young leaves may be eaten in sallads, and horses, sheep, and goats relish it, though cows and swine refuse it; in gardens where a large border is required this is an elegant and appropriate plant for the purpose.

2. C: AMERICANA, *Creeping Daisy*, a perennial, and native of North America, though what particular part is not mentioned, it hath a creeping root, the lower leaves are broad, serrated, and lie on the ground; those on the stalks are narrow, spear-shaped, serrated and pointed, the stalks grow near a yard high, divide into a few branches near the top, each of which are terminated by a fine large white flower, not unlike the former. There is a variety of this species with jagged leaves, and another with a large double flower.

3. C: MULTIFLORA, (*Tanacetum leucanthemum* of Tabernæ. *Tanacetum inodorum* of C. B.) *Corymbiferous Daisy*, or *Scentless*

*Daisy*, a perennial, and native of the woody, mountainous parts of Thuringia, Bohemia, &c. The stalks grow to about a foot and a half high, the leaves are pinnated, and the pinnæ gashed and serrated; the flowers are produced in kinds of umbels at the tops. There is a variety with small, and another with larger flowers; they have no odour.

4. C: MINOR, (*Leucanthemum Montanus Minor* of Tourne. *Bellis Montana Minor* of C. B.) *Lesser Mountain Ox-eye*, a perennial, and native of Montpellier; the lower leaves are broad, spear-shaped, and serrated, those on the stalks narrow and entire; the stalks are slender, grow to about a foot high, and are each terminated by one large white flower.

5. C: GRAMINEIS-FOLIIS, *Grass-leaved Ox-eye*, a perennial, and native of the same place with the former; the root sends forth many long, grass like leaves, among which arise several small stalks about a foot and a half high; each terminated by one large white flower.

6. C: ORIENTALE, (*Bellidioides Balsamitæ*, etc. of Magnol.) *Oriental Ox-eye*, a perennial, and native of the East, hath oval, oblong, serrated leaves, of a balsamic odour; among these the flower-stalks arise to about a foot and a half high, each of which are crowned with a large fair flower, of a strong odour.

7. C: PALMATIS, (*Bellis Montana Major* of Magnol.) *Greater Mountain Daisy*, also a perennial, and native of the same place with the former; the radical leaves are large, palmated, and the folioles are finely cut into many segments; among these the stalks arise to three or four feet high; they are branched, and adorned with leaves that are beautifully divided; the flowers are produced from the ends of the branches, on long, naked footstalks, the colour is white and not unlike those of the common Ox-eye.

8. C: CUNEIFORMIBUS, *Alpine Ox-eye*, a perennial, and native of the Helvetian Mountains; the leaves are wedge-shaped, downy, and divided into several parallel, entire, acute, distant segments, the stalks are stoloniferous, i. e. shoot out in form of twigs; those which support the flowers are simple, about six inches long, each crowned with one flower.

9. C: CHAMOEMELUM, (*Chamæmelum montanum* of Borell:) *Patinated Chrysanthemum*, a perennial and native of Spain and Italy; the stalks are very short, thick; lie on the ground, and strike root at the joints; the leaves are small hoary, and divided into many narrow, acute, parallel, entire segments; the flowers grow singly from the sides of the stalks, on long footstalks, and are yellow.

10. C: BIPINNATIS, (*Pyrethrum unifloris* of Cmelin) *Bipinnated Chrysanthemum*, a perennial and native of Siberia; the leaves are divided into many spear-shaped, serrated, hairy segments; the stalks grow to about a foot and a half high, and are garnished with a few bipinnated leaves, like the radical ones, but smaller; the flowers come out singly from the wings of the leaves on long naked footstalks, and are also yellow.

11. C: CRETICUM, *Cretan corn Marygold*, commonly called *Chrysanthemum*, an annual and native of Crete and Sicily; in its single state it is but little valued, though in its double it is highly

prized, the root is long, white, and furnished with numerous fibres; the stalk is round, firm, upright, of a pale green, broke into many branches, and lightly hollow in the centre; the leaves stand without order, in great number and are very beautiful, their colour is a greyish green, divided in a most elegant manner into numerous serrated segments; the flowers terminate the branches and rise on leafy stalks from the bosom of the leaves, they are of a deep yellow when they first open, which by degrees grows paler, and have in the centre a yellow disc. Cultivation however has produced many varieties, which are known by the names of the white, yellow, cream-coloured, brimstone-coloured, fistular, quilled, and jagged-leaved *Chrysanthemum*—most of which are well known.

12. C: AMPLEXICAULIBUS, (*Bellis lutea* of C. B.) *Common corn Marygold*, an annual and native of England, Sweden, Germany, &c. this species is not without its beauties, but its offensiveness prevents its having a place in gardens, it is a very stinking plant, and is common in corn-fields.

13. C: INODORUM, (*Chamomelum inodorum*, C. B.) *Scentless corn Marygold*, an annual and native of Sweden and other parts of Europe. Its being an exotic it is admitted into gardens; the stalks are diffuse, branching, and grow to about a foot and a half high; the leaves are pinnated, cut, divided into many segments, and are of an obscure green colour; the flowers grow from the ends and sides of the branches on longish footstalks, are moderately large, and the rays spread themselves in a beautiful manner.

14. C: SIMPLICIBUS, (*Matricaria Sinensis* of Pluke.) *Indian corn Marygold*, an annual and native of India, hath upright, branching stalks, about two feet high, simple, oval, situated, angular, and very sharply serrated leaves; the flowers are large, and consist of several varieties, some of which are very double and beautiful.

15. C: TRILOBIS, (*Pyrethrum*, &c. of Gmel.) *American corn Marygold*, an annual and native of the United States, the stalks are weak, herbaceous, branching and diffuse; the leaves are wedge-shaped, smooth, fleshy and three-lobed, multifid, obtuse, and placed on longish footstalks on the branches; the flowers grow singly from the tops of the branches on hairy footstalks, are about the size of the common *Chrysanthemum* and very beautiful.

16. C: LINGULATIS, (C: *Latifolium* of J. B. *Bellis Lutea* of C. B.) *Yellow Daisy*, or *Broad-leaved Chrysanthemum*, an annual and native of Italy, Spain and Portugal, hath upright, branching stalks, about eighteen inches high; the leaves are broad, roundish, serrated and obtuse, the flowers grow from the tops of the branches on thickish footstalks, are yellow, but being short, make an indifferent appearance—These are generally propagated from seeds, the perennials either from seeds or parting the roots; the two following are green-house plants, and are easily propagated from cuttings planted in pots of good light earth.

17. C: FRUTICOSUM, (*Chamæmelum Canariensis* of Moris. *Bellis Canariensis* of Ray, *Bupthalmum* of Pluke.) *Canary Ox-eye*; this is a branching shrub about two feet high; the leaves narrow, succulent, indented and trifid at the the extremity; the flowers are produced singly from the wings of the leaves, on naked footstalks;



their colour is white, and they much resemble those of chamomile; there is a variety of this species with sulphur-coloured flowers, and of lower growth.

18. C: HERMAPHRODITIS, (Tanacetum of Haller. Balsamita of Vaill. and Bellis of Moris. C. B. and Alpinus) *African Prickly Daisy*, this is also a branching shrub like the former; the leaves are oblong, of a pale green colour, sit close to the branches, are indented on their edges, and each segment is terminated by a soft spine; the flowers are produced from the wings of the leaves on short footstalks; they are round, even, and the florets being all hermaphrodites, are destitute of rays, and are of a deep yellow colour. I find no account of the 19th species.

CHRYSOBALANUS, the *Cocoa Plum*, a genus of the Icosandria Monogynia (Hanbury says "Digynia") class of plants, and 36th Natural Order, *Pomaceæ*; the calix is a monophyllus, bell-shaped, withering perianthium, cut at the top into five spreading segments; the corolla consists of five oblong, plane, patent petals inserted in the calix; the pericarpium is a large oval berry, containing one cell, the seed is an oval, five-furrowed, rough nut, formed of five valves. There is but one species, though there are several varieties of it.

C: OBLONGIFOLIUS, (Icaco of Plumier) *Oblong-leaved Cocoa Plum*, an indigenous plant, growing naturally in Georgia, Florida and the West Indies; the stalk is woody, brown, and often spotted with white, branching, and ten or twelve feet high; the leaves are roundish, oblong, entire, slightly emarginated, and grow alternately on the branches; the flowers are produced from the ends and sides of the branches in panicles, they are small, and of a white colour, succeeded by a very fine, sweet tasted Plum of one or other of the following beautiful colours, and as large as a Damascene, viz. The white, the red, brown, blue, yellow, purple and the black Cocoa Plum. They are propagated from the seed as other plums are, or from switches grafted into other plum stocks.

CHRYSOCOMA, *Golddylocks*, a genus of the Syngenesia Polygamia Æqualis class of plants, and 49th Natural Order. *Compositæ*; the common calix is imbricated, and composed of many narrow, sharp-pointed scales, of which the outer ones are convex; the compound flower is tubulous and longer than the calix; the florets are numerous, tubular, funnel-shaped, equal and divided at the top into five revolute segments; there is no pericarpium, the seeds are single, oval, oblong, compressed, and crowned with hairy down, the receptacle is plane, and naked. There are nine species.

1. C: LIN-OSYRIS, (Osyris austriaca of Clus: Linaria of C. B.) *German Golddylocks*, a perennial and native of Germany, France, &c. The roots of this species are very hardy, and send forth several erect, round, stiff stalks, to about a foot or fifteen inches high; the leaves are narrow, smooth, of a light green, and garnish the stalks in great plenty, the stalks divide near the top, into numerous slender footstalks, each of which supports a head of flowers, so that there being many of them, every stalk is terminated by a large bunch of flowers, growing in a kind of umbel; they are of a bright

yellow colour and make a fine appearance at a distance; they blow in July.

2. C: PANICULATA, (Aster trinervis of Gmel: Conyza Umbellatis of Amm.) *Siberian Goldylocks*, a perennial, and native of Siberia, the root of this species is creeping, the stalks erect, stiff and divides into a few branches near the top; the leaves are stiff, spear-shaped, rough, sharp pointed, and each has three veins running from the base to the extremity; the flowers ornament the tops of the stalks, in loose panicles; they are large, yellow, and blow in June. There is a variety without rays.

3. C: CORYMBOSIS, (C: Nudata of Mich?) *Canada Goldylocks*, an indigenous perennial and native of Canada and the low grounds of Carolina, the radical leaves are spear-shaped, the stem leaves irregular and linear; the flowers terminate the stalks in a corymbus, each branch consists of many heads, which being large, make a fine appearance; they are yellow and blow in July.

4. C: VILLOSIS, (Aster incanus of Gmel: Conyza Tomentosa incana of Amm.) *Tartarian Goldylocks*, a perennial and native of Tartary and Siberia; the stalks are herbaceous, upright, and divide into several slender, upright branches near the top; the leaves are hoary, spear-shaped, and hairy; the flowers grow in umbels at the tops of the stalks, are yellow and blow with the former.

5. C: FRUTICOSA, (Conyza Æthiopica of Pluke. Elichrysum Africanum of Volk.) *African Linaria-leaved Goldylocks*, a native of Æthiopia; it is a branching shrub, two or three feet high; the leaves are narrow, numerous, of a pleasant green colour, and hath a kind of membrane or appendix running from the back of each leaf along the stalk; the flowers are produced from the ends of the branches, on long, slender, naked footstalks, are of a pale yellow colour, and blow early in summer.

6. C: SUFFRUTICOSA, (Coma Aurea of Commel.) *Nodding African Goldylocks*, a native of Æthiopia; it is a small, shrubby, branching plant, about a foot and a half high; the leaves are short, narrow, hairy and recurved; the flowers before they come out, nod on one side, when they are full blown they become more erect, they are of a pale yellow or sulphur colour, and are in blow great part of the year.

7. C: CILIATIS, *Ciliated African Goldylocks*, is also a native of Æthiopia; it is a low, downy, branching shrub, about half a foot high; the leaves are narrow, straight; ciliated and hoary; the flowers are produced from the upper parts of the branches on naked footstalks, and are also yellow.

8. C: BACCHARIS, *Rough-leaved African Goldylocks*, a native of Æthiopia, is a low branching shrub like the former; the leaves are very rough, spear-shaped, oval, serrated and reflexed; the flowers are produced on the upper parts of the branches on downy footstalks, and are of a golden yellow colour.

9. C: FASCICULATIS, (Cyanus foliis marjoranæ of Breyn:) *Marjorum-leaved African Goldylocks*, a native of the Cape of Good-Hope—it is a shrub of about two feet high; the leaves are nearly oval and grow opposite to each other; the flowers are produced in

bunches from the tops of the branches, and continue in blow a long time.

*Note.* Michaux enumerates two species of *Chrysocoma* as indigenous to Carolina, one of which he says grows in the vicinity of Charleston. They are ranked in the *Erigeron* genus of Walter, to which we refer. The five last mentioned are Green-House plants, and may be propagated by cuttings in any of the summer months planted in pots of good light mould. The four first may be easily propagated by parting the roots or from seeds.

**CHRYSOGONUM**, *Moth Mullein*, a genus of the Syngenesia Polygamia Necessaria class, and 49th Natural Order, *Compositæ*; the receptacle is paleaceous, the pappus monophyllous and three toothed; the calix consists of five leaves; and the seeds are caliculated, or wrapped up each in four leaves, as if in a little cup. There is but one species, a native of the United States.

C: AMERICANA, (C: Virginianum of Michaux) *American Moth Mullein*, a small plant growing naturally in the mountainous parts of Virginia and Carolina; It is altogether covered with down or hair, the leaves are narrow, oval, and toothed, supported by petioles, or slender stalks.

**CHRYSOPHILLUM**, *Star Apple and Bully Tree*, a genus of the Pentandria Monogynia class of plants, and 43d Natural Order, *Dumosæ*; the calix is a small perianthium, divided into five roundish, obtuse, permanent parts; the corolla is one bell-shaped petal; the limb is cut into five roundish, spreading segments, which are shorter than the tube; the pericarpium is a large globular berry containing ten cells; the seeds are single, osseous, glossy and compressed. There are two species.

1. C: CAINITO, (Anona of Sloane, Cainito of Plum: and Sideroxylon of Loeff:) *Common Star Apple, Bully Tree*, and by some called *Damson Tree*, a native of the West-Indies, it rises to the height of thirty or forty feet, with a large trunk, covered with a brown bark, and divides into many flexible slender branches, which generally hang downwards, and are garnished with spear-shaped leaves, whose under sides are of a bright russet colour; the flowers come out in oblong bunches from the sides and extremities of the branches, and are succeeded by fruit of the size of a golden Pippin, round and pulpy, of a rough astringent taste, but when mellowed have an agreeable flavour.

2. C: GLABRUM, *Smooth-leaved Star Apple, &c.* a native of the warmest parts of America, it is not as large as the foregoing, its branches and leaves are nevertheless like those of the first, except that the leaves of this species are smooth on both sides; the flowers come out in clusters from the sides of the branches, and are succeeded by smooth, oval fruit about the size of a Bergamot Pear; it contains a white clammy juice when fresh, but when mellowed, it becomes sweet, soft, and delicious—this species contains four or five black seeds about the size of pumpkin seeds.

*Domestic uses.* The fruit, as hath been already noticed, if laid by to mellow in the manner of medlars, become fine eating, and the wood affords and is used as timber in the West Indies; they are both stove plants, and may be propagated from seeds sown in pots, filled

with a rich garden mould, and plunged into a hot-bed of Tanner's bark. They require care.

**CHRYSOSPLENIUM**, *Golden Saxifrage*, a genus of the Decandria Digynia class of plants, and 12th Natural Order, *Succulentæ*; the calix is a permanent perianthium, divided into four or five oval, coloured, patent segments; there is no corolla, the coloured calix is all the flower; the pericarpium is a two beaked, bipartite capsule of one cell, formed of two valves, and surrounded by a green cup; the seeds are numerous, angular, sharp pointed, and small. There are two species.

1. **C: OPPOSITIFOLIO**, (*Saxifragia rotundifolia aurea* of C. B.) *Common, or American Golden Saxifrage*, an indigenous perennial plant, growing naturally in Carolina, Canada, and Florida, it hath a creeping root, which puts forth numerous slender fibres; the stalks are weak, square, hairy, branching a little, and about six inches long, the leaves are roundish, crenated, eared, and grow opposite to each other on short footstalks; the flowers are produced from the wings of the leaves, they grow on short footstalks, and are of a golden yellow colour, and blow in March, April & May; Hanbury observes that "these little elegant plants grow naturally in shady woods, bogs and moist places in many parts of England—" Michaux describes this as growing on high Mountains, &c.

2. **C: ALATERNIS**, (*Sedum Palustre* of Moris.) *Alternate-leaved Golden Saxifrage*, a perennial and native of England, Sweden, and Germany; the root is creeping and full of slender fibres; the stalks are very tender, green, hairy, branching a little, and about six or eight inches high; the leaves are oblong, roundish, crenated, hairy, eared, of a pale green colour, and grow alternately on long footstalks; the flowers are small, and of a bright yellow colour, they come out from the tops of the plants in April and May. They are propagated by parting the roots, or from seeds sown in moist shady places, and require but little care.

**CHULTÆ**, a beautiful tree described by Mr. Ives, growing in Bengal, the flower of which at first is a hard green ball, on footstalks about four inches in length; this opens, and the calix is composed of five round, thick and succulent leaves; the corolla consists of the like number of fine beautiful white petals. After one day, the corolla falls off, and the ball closes again, and is sold in the markets: There is a succession of these for several months.

**CICCA**, a genus of the Monoecia Tetrandria class of plants, mentioned in the last edition of the Encyclopædia; the male calix is divided into four leaves, there is no corolla; the female has three leaves, no corolla; four styles, the capsule is four berried.

**CICELY**, the sweet. See *Scandix Odorata*.

**CICER**, the *Chick Pea*, a genus of the Diadelphia Decandria class and 32d Natural Order, *Papilionacæ*; the calix is a perianthium nearly the length of the corolla, and divided into five parts, four of which lie on the vexillum, the other is under the carina; the corolla is papilionaceous; the vexillum is large, roundish, plain, and inflexed; the alæ are obtuse, and much shorter than the vexillum; the carina is shorter than the alæ, and sharp pointed; the pericarpium is a rhomboidal, turgid, inflated pod, the seeds are two, roundish and gibbous on the sides. There is but one species.

**C:** FOLIIS SERRATIS, Cicer Sativum of C. B. Cicer arietinum of Dodon.) *Red Chiches, Chich, or Chick Pea*, an annual, and native of Spain, Italy, and the East, the stalks are weak, hairy, branching, and grow to about two feet long; the leaves are pinnated, each being composed of about seven or nine pair of roundish greyish, serrated folioles, which are terminated by an odd one; the flowers are small, white, shaped like those of Peas, but are smaller, they are succeeded by Peas like the common sort; but have a protuberance on each side. Their propagation are like other Peas.

*Domestic uses.* In France, Spain, and Italy, they are cultivated, and used as an ingredient in their olios, rich broths, soups, &c. and in England, it is sometimes used for the same purposes. Medical virtues are attributed to them, to wit, lithontriptic, and diuretic, but on no good foundation. These are very hard to digest, and are a strong flatulent food, consequently not wholesome, especially to delicate habits.

**CICHORIUM**, *Succory*, a genus of the Syngenesia Polygamia Aequalis class, and 49th Natural Order, *Composita*; the common calix is caliculated, and imbricated, the scales are narrow, spear-shaped and equal; the flower is plane and uniform, the florets are placed in a circle, and each consists of a tongue-shaped, truncated petal, deeply indented in five parts; there is no pericarpium, the seeds are single, and compressed, and are contained in the connivent calix, the receptacle is paleaceous. There are three species

1. **C:** INTYBUS, *Wild Succory of the Shops, or Endive*, a perennial plant, growing naturally by road sides, in most parts of Europe; the root is thick, and hairy, with many fibres; the stalk is branching, and a yard or more in height, the leaves are deeply cut, and the segments sharp pointed, they rise directly from the roots as well as the stalks, where they sit close without any footstalks, the flowers are of a fine blue colour, large, and are produced from the sides of the stalks without any pedicles; they blow in June and July, and ripen their seeds in September.

*Part used.* The root and herb.

*Sensible Properties.* The root has a moderately bitter taste, with some degree of roughness—the leaves are less bitter—the root stalk and leaves on being wounded, yield a milky saponaceous juice.

*Medical virtues.* Wild Succory is said to be serviceable in cutaneous affections, and other chronical diseases; the juice taken in large quantities, so as to keep up a gentle diarrhœa, and continued for some weeks, has been found to produce excellent effects in the cases mentioned above: It acts without much irritation, tends to cool the body, and at the same time corroborate the tone of the intestines.

*Domestic uses.* Succory or Endive is of considerable consequence in Europe, for the supply of summer food, for cattle; it yields from 20 to 40 tons of green fodder per acre. Horses are said to eat it greedily; it would therefore be particularly suitable to America, and is a hardy plant, of early growth, and defies drought; it certainly, in consequence of the many valuable properties it possesses, is peculiarly adapted to this country, as it will furnish a considerable

quantity of green food for cattle and horses, at a season when other green food is not to be had, or at least very scarce. The leaves when blanched form an ingredient in early spring salads; the young roots may also be eaten among other vegetables.

2. C: SPINOSUM, (Chondrilla genus elegans, etc. of Clus.) *Prickly Succory*, or *Endive*, an annual, and Native of Sicily, and Crete, growing on the sea-shores; the stalk is prickly, and forked, the radical leaves are long, indented, and spread on the ground; but those on the stalk are small and entire; the flowers come out from the wings of the stalks, sitting close, without any footstalks, they are of a pale but elegant blue colour, and blow in July.

*Note.* It is said there is but one real species of Endive, which consists of several varieties, and probably some of these have been considered as distinct species; these are however chiefly cultivated as a substitute for Lettuce, and also as an ingredient in soups. 1. The *Common Endive*, 2. The *White*, 3. The *Green Cw-l-d*, and 4. The *Broad-leaved Batavian Endive*. They are propagated by seeds in the common way.

CICUTA, *Water Hemlock*, a genus of the Pentandria Digynia class, and 45th Natural Order, *Umbellatæ*; the general umbel is roundish, and composed of numerous equal radii; the partial umbel also is roundish, and composed of many equal bristly rays; there is no general involucre, but a partial one, composed of several short bristly folioles; the proper perianthium is hardly discernable; the general flower is uniform, the florets consist each of five oval, inflexed petals, which are nearly equal; there is no pericarpium, the fruit is nearly oval, striated, and divisible into two parts; the seeds are two, oval, convex, striated on one side, and plane on the other. There are three species.

1. C: VIROSA, (Umbellis oppositi foliis, Sium erucæfolio, alterum et marjus of C. B. Gerard. and Park.) *English long-leaved water Hemlock*, a perennial, and native of Europe, growing naturally in pools and watery places; the root sends forth numerous slender black fibres into the mud, the stalks will grow to be four feet high, and are large, hollow and branching; the leaves are winged, composed of many long, narrow, serrated folioles, and grow on long, strong footstalks; the flowers are produced in large umbels from the ends of the branches, they are of a yellowish green colour, come out in June and July, and are succeeded by seeds like those of parsley. This is a very poisonous plant which early in spring rising in the water with other plants, is eaten by cows, who are inevitably killed by it. When the plant grows older, they avoid it from its scent; the root contains a very acrid milky juice, which becomes yellow, and has a nauseous taste. Though this plant is fatal to cows, it is said that horses, sheep, and goats eat it with avidity and safety.

2. C: BULBIFERA, (Ammi foliorum of Gronov. Umbellifera Aquatica of Ray.) *Canada water Hemlock*, an indigenous perennial plant, growing naturally in Canada, Virginia, &c. The stalks are hollow, angular, and branching, the leaves are large, and beautifully divided into a number of minute narrow, plane segments, the flowers grow in large umbels from the ends of the branches, are white; and are succeeded by channelled seeds, also poisonous.

3. C: MEMBRANACEUS, (Aegopodium of Gronov. Angelica Caribæarum of Pluke. Angelica Virginiana of Moris.) *Virginian water Hemlock*, or *Virginian Angelica*, an indigenous perennial poisonous plant, growing naturally in Virginia, &c. The stalks are large, hollow, and branching, the leaves also are large, and have membranaceous footstalks; the folioles are spear-shaped, acuminate and sharply serrated, the flowers grow in large umbels from the ends of the branches and are white: they are succeeded by seeds which have the taste and smell of Cinnamon—they are propagated from seed sown in a wet or watery place, and require little or no care. See *Contum*.

CIMICIFUGA, *Bug-Bane*, in the Encyclopædia Britannica, is said to be a genus of the Dioecia Polyandria class, whereas Michaux has placed it in the Polyandria pentagynia. The characters given by the former are, the male calix is almost pentaphyllous, there is no corolla, the stamina are 20 in number; the female calix is almost pentaphyllous, no corolla, the stamina 20 and barren; the capsules from four to seven, polyspermous.—The characters by Michaux are “calix pentaphyllous, petals four, pitcher-shaped, and cartilagineous, capsule oblong, suture, lateral, and gaping.” Misserschmidius, in the Isis Siberia, calls it *Cimicifuga fœtida*, with the leaves of the herb Christopher, bearing a thyrsus of yellow flowers, with a red villous seed, the seed vessels in form of a horn. This whole plant so resembles the *Actea Racemosa*, i. e. American Black, or Wild Snake-root, that it is difficult to distinguish them when not in flower, but in the fructification it greatly differs from it, the Cimicifuga having four pistils, whereas the Actea has but one. Michaux enumerates two species as indigenous.

1. C: AMERICANA, *American Bug-Bane*, grows naturally in the woods and mountains of Carolina: This species has decompound leaves, and very much resembles the Actea, before mentioned.

2. C: PALMATA, *Palmated Bug-Bane*, also a native of Carolina, hath simple, palmated leaves, and branching panicles of flowers.

*Note.* In Siberia and Tartary, the inhabitants use these plants for driving away bugs. Gmelin mentions that in Siberia the natives also use it as an evacuant, in dropsy, and that its effects are violently emetic and drastic.

CINARIA. See *Cynara*.

CINCHONA, *The Peruvian Bark Tree*, a genus of the Pentandria Monogynia class; the calix is a small monophyllous permanent perianthium, situated above the germen, and divided into five parts, the corolla is one infundibuliforme petal, the tube is cylindrical and long, the limb is patulous, and divided into five acute parts; the pericarpium is a roundish capsule crowned by the calix, containing two cells, and opening in two directions from the base to the top; the seeds are many, oblong, compressed, and bordered—probably the vegetable kingdom does not afford our *Materia Medica*, a more invaluable plant. There are said to be ten species.

1. C: OFFICINALIS, (Arbor febrifuga Peruviana of Ray.) *Peruvian*, or *Jesuits Bark Tree*, grows promiscuously in forests, particularly in the hilly parts of Quito, and on the mountains about Loxas

in Peru, the trunk is woody, slender branching, eighteen or twenty feet high, and covered with a thick, rough, reddish, or brown bark; the leaves are oval, oblong, pointed, entire, and grow opposite to each other on footstalks; the flowers are produced in branched panicles from the wings of the leaves, near the upper parts of the branches, they are of a dull, or whitish red colour on their outside, but of a bright red within, and falling off, are succeeded by roundish capsules containing the seeds.

Two species are particularly noticed, viz. The coloured and the white—the coloured includes three varieties, Pale, Red and yellow; the White includes four varieties, their barks being whitish.

*Part used.* The bark of the tree.

*Sensible properties.* Smell peculiar, having some odour, not agreeable, though to many not unpleasant. Taste bitter and astringent, accompanied with a degree of pungency, and leaving a considerably lasting impression on the tongue.

*Medical virtues.* Tonic, Antiseptic, and astringent. It is of eminent use in fevers, especially intermittents, which it seldom fails to remove, when judiciously applied—sometimes it proves emetic, in which case it is advisable to take it in Port Wine, and if it goes off by stool, a small proportion of Opium may be added to each dose, or a few drops of Laudanum, and should it oppress the stomach, the addition of some aromatic will remedy it. To enter into a detail of the virtues of this invaluable medicine would exceed the limits of this work, we shall however touch upon those more immediately connected with it.

The coloured barks, viz. Pale, Red and Yellow, are most in use. The Red, when pure, is much more resinous, and possesses the sensible qualities of the Cinchona in a much higher degree than the other sorts, and the more nearly the other kinds resemble the red bark, the better they are now considered. It has been observed that it was originally employed in intermittents, but now it is used by some in all continued fevers, at the same time attention is paid to keep the bowels clean, and to promote when necessary, the evacuation of redundant bile; avoiding however the weakening the patient as much as possible—in confluent small pox, it promotes languid eruption and suppuration, diminishes the fever through the whole course of it, and prevents or corrects putrescence and gangrene. In gangrenous sore throats it is much used, as it is externally and internally in every species of gangrene. In contagious dysentery, after due evacuation, it has been used taken internally and by injection with and without opium. In all those Hæmorrhages called passive, and which it is allowed all hæmorrhages are apt to become, and likewise in other increased discharges, it is much used and in certain undefined cases of Hæmoptysis or spitting of blood; some alledge that it is remarkably effectual when joined with an absorbent. It is also used for obviating the disposition to nervous and convulsive diseases, some have great confidence in it joined with the acid of viuriol in cases of Phthisic, scrophula, ill-conditioned ulcers, rickets, scurvy, and in states of convalescence. In these cases notwithstanding the use of the acid, it is proper to conjoin it with a milk diet. In drosy not depending



on any particular local affection, it is often alternated or conjoined with diuretics, or other evacuants; and by its early exhibition, after the water is once drawn off, or even begins to be freely discharged, a fresh accumulation is prevented, and a radical cure obtained.—In obstinate venereal cases, particularly those which appear under the form of pains in the bones, it is successfully joined with Mercury, or even given in conjunction with it. It is used in substance, in powder, watery and spirituous extract, resin, spirituous tincture, decoction and infusion. The powder is the best and most effectual mode of exhibiting it, as in it the constituent parts are in the most exact proportion. The cold infusion which can be made in a few minutes by agitation. The spirituous tincture and the extract are likewise proper in this respect, for covering the taste different patients require different vehicles; Liquorice appears to be one of the best, aromatics, acids, port wine, small beer, porter, milk, buttermilk, &c. are frequently employed, and sometimes it is made into an electuary with currant jelly. The doses of each particular form for adults are,

In powder from one scruple to a drachm several times in a day.

Extract, from half a scruple to one scruple.

Resin do. do.

Spirituous tincture, from a drachm to half an ounce.

Decoction and Infusion in proportion.

Bark is known by the various names of Cinchona, from its curing the Lady of the Spanish Viceroy; the Comitessa del Cinchon, of an ague in the year 1640—Chinachina, Chinchina, Kinakina, Kinkina, Quinaquina or Quinquina; and from Cardinal de Lujo, Pulvis Cardinalis de Lujo, Pulvis, or Cortex Peruv: or Jesuiticus—Patrum, &c.

2. C: CARIBÆA, *v* JAMAICENSIS, *Carribean*, or *Jamaica Bark Tree*, grows to the height of fifty feet; the stem is woody, and divided into several branches near the top; the leaves are oval, of a pale but beautiful green colour on their upper side, and grow on short footstalks; the flowers come out singly on footstalks, in the same manner with the former. The bark obtained from the trunk abounds with fibres, and is more woody than that from the branches and roots; the latter when dried, breaks more easily, and is pulverized with greater facility than that of Peru. It is produced in the utmost perfection on the north side of that island, where it is highly esteemed on account of its very agreeable bitter, answering every purpose of that imported from Peru, with this advantage, that it does not occasion oppression at the stomach, vomiting or nausea, but checks such disagreeable sensations in remitting fevers, and also in other cases where the stomach is disordered.

3. C: TRIFLORA, or *Triple-flowered Bark Tree*, is likewise a native of Jamaica, where it grows in the district of Manchineel, to the height of about 30 or 35 feet; its bark is considerably thinner, and also more fibrous and red than either of the preceding sorts, and on being pulverized, assumes a deep Cinnamon colour; it possesses a musty, bitter and astringent taste, and has been given for the cure of fevers in doses of 20 grains to adults, but as it occasions great nausea and sickness, it is seldom employed.

4. C: FLORIBUNDA, or *St. Lucia Bark Tree*, produces a very thin fibrous rind, which possesses an extremely nauseous bitter taste, and is remarkably astringent; when fresh it proves a violent emetic, of which property it is not totally divested by age. This drug has cured both intermittent and remittent fevers, that had resisted the Peruvian bark; it is however seldom used except in its native island, or in cases where the latter has either failed to afford relief, or cannot be easily procured.

5. C: BRACHYCARPA, which was discovered about eighteen years ago by Mr. Lindsay an eminent surgeon and botanist, then of Westmoreland in Jamaica; it seldom exceeds eight or ten feet in height, its bark is extremely smooth and brown, internally it resembles that of Peru in colour, but is more fibrous: This species is less bitter and more astringent than the common bark, and has been given by Mr. L. in doses of 25 or 30 grains, with the greatest success in intermittent as well as remitting fevers. He has also administered it with advantage in the forms of tincture and decoction in various cases of Dyspepsia or Indigestion; it might therefore be very safely applied as a substitute for the Peruvian bark. They are all stove plants, and are propagated from seeds. For a native American substitute for the Peruvian bark, see Cornus, i. e. *Dogwood*, or *Cornel Tree*.

CINERARIA, *Sky flower*, &c. a genus of the Syngenesia Polygamia Superflua class, and 49th Natural Order, *Compositæ*; the general calix is simple and composed of many equal folioles; the general flower is radiated; the hermaphrodite florets are equal and numerous in the disc; the female florets in the disc are stretched out like the tongue, and answer to the number of the leaves of the calix; each hermaphrodite floret is funnel-shaped and cut at the brim, into five erect segments; the females are tongue-shaped and indented at the top; there is no pericarpium; the seeds are single, narrow quadrangular and crowned with down. There are 13 species.

1. C: CORYMBOSIS, (*Othonna palustris* of the *Iter Scanicum*, *Solidago* of the Hort: *Cliff. Jacobæ aquatica* of Moris. and *Conyza* of Gerard and Park:) *Marsh flea-bane*, or *Sky flower*, a perennial, and native of most watery places in Europe, the stalks are thick, crested, hairy, hollow and four or five feet high; the leaves are broad spear-shaped, and the upper ones embrace the stalk with their base, the edges of the lower ones are sinuated and serrated, but in some varieties they are more jagged, or cut into many segments, and the upper leaves of all the sorts are entire, or nearly so, and sit more close to the stalks; the flowers are numerous at the tops of the plants, growing on slender footstalks; they are of a yellow colour, appear in August, and are succeeded by narrow, four-cornered, downy seeds.

2. C: UMBELLA, (*Solidago* of Van Roy, *Jacobæa* of Bocc. C. B. Ray, *Barrel.* &c. *Senecio* of Haller, *Conyza* of Haller, and *Otheiaria* of the Spec: Plant) *Mountain Ragwort*, a perennial and native of Europe, hath oblong, spear-shaped, entire, hairy, sessile leaves, and of a hoary whiteness; the flowers come out in small umbels from the tops of the stalks, before they are open they are of a dark red colour,

but when in full bloom of a bright yellow. There are several varieties, some with round, others heart-shaped leaves, &c.

3. C: MONOPHYLLO, *Siberian Cineraria*, a native of Siberia, and the East, hath a large tuberous yellowish root, from which arise numerous heart-shaped, obtuse, smooth, and indented leaves growing on long footstalks; the stalk has but one or two leaves, the flowers come out in loose spikes from the tops of the stalks, they are large, and of a yellow colour.

4. C: AMPLEXICAULIBUS, *Glaucous Cineraria*, a perennial, and native of Siberia, hath heart-shaped, oblong, smooth, entire leaves, of a glaucous colour, embrace the stalk with their base; the flowers are produced in spikes at the tops of the stalks, they are large, and of a yellow colour.

5. C: TOMENTOSIS, *Golden Cineraria*, a native of Siberia, hath spear-shaped, serrated leaves, hairy on the upper side, downy underneath; the flowers come out in roundish bunches from the tops of the stalks, are large, and of a golden yellow colour.

6. C: FRUTESCENS, *Sea Ragwort*, hath woody branching stalks, partly procumbent, about a yard long, and the young shoots are made delicate by a soft hoary, silvery down; the leaves are large and pinnatifid and the segments are irregularly sinuated or divided into other parts; they are of a thickish consistence, smooth, soft, and of a bluish green colour, dusted all over, and made white with a most delicate silvery down; the flowers come out in roundish bunches from the ends and sides of the branches, are of a yellow colour, and the rays turn backwards—there is a variety with narrow leaves finely divided, called the narrow-leaved Sea Ragwort.

7. C: CANADENSIS, (herbaceo) *Canada Sea Ragwort*, a perennial, and native of Canada; the stalks are herbaceous, and die to the ground every autumn; the leaves are large, pinnatifid, the segments sinuated and a little hairy underneath, but are not white and downy like the former; the flowers are produced in panicles from the tops of the plants, they are yellow, and the rays spreading.

8. C: SUFFRUTICOSA, *Anelloide Cineraria*, a native of the Cape of Good Hope; the stalks are perennial, rough, jointed, divide from the bottom to the top into numerous spreading branches, and grow to about two feet high; the leaves are oval, rough, sessile, of a thickish substance, and grow opposite by pairs at the joints; the flowers come out singly from the upper parts of the branches, on long, naked footstalks; the rays are of a fine blue colour, but the disc, or middle is yellow.

9. UNIFLORIS, *Shrubby African Solidago*, or *Cineraria Othonnites*, a native of Africa, hath a ligneous branching stalk, oblong spear-shaped leaves, of a thickish substance, a little indented on their edges, and the footstalks grow alternately; the flowers are yellow.

10. C: LINIFOLIA, *Flax-leaved Cineraria*, a native of the Cape of Good-Hope; the stalks are tender, ligneous, and two or three feet high; the leaves are narrow, very much like those of flax, and come out without order all over the plant; the flowers are produced singly from the top of the plant on footstalks, and are yellow.

11. C: SONCHI-FOLIA, *Sow-thistle-leaved Ragwort*, the stalk is upright, thick, full of pith, and about a yard high; the leaves are

large, smooth, sinuated on their edges, and embrace the stalk with their base; the flowers come out like the foregoing, and are of a fine purple colour.

12. C: INTEGRIS, *Cymbalaria-leaved Aster*, the stalk is upright, herbaceous, and about a foot high, the lower leaves are lyrated, but the upper ones are lobed, like those of the Maple tree, and embrace the stalk with their base; the flowers are produced from the tops of the stalks, and are yellow.

13. C: REPENS, *Creeping African Ragwort*, a native of the Cape, the stalks are herbaceous, round, branching, hairy, weak, grow to be five or six feet long, and unless supported lie on the ground; the leaves are kidney-shaped, roundish and many of them lobed or indented in the manner of Ground Ivy; the flowers are produced from the ends of the branches in loose umbels; the rays are of a fine pale yellow, but the florets in the disc are of a dark deep yellow colour, and appear great part of the summer. They are best raised from seeds, though they are also propagated from slips or cuttings, set in any common mould. They are handsome autumnal flowering plants.

CINNA, a genus of the Triandria Digynia class, and 4th Natural Order *Graminæ*; the calix is a one flowered glume, with two valves; the valvula of the interior glume is awn'd. There are 3 species, natives of the United States; this genus hath a great resemblance to *Agrostis* or *Bent grass*.

1. C: ARUNDINACEA, *Reed-like Cinna*, with a smooth stem, producing its flowers in large branching panicles.

2. C: GLOMERATA. 3. C: LATERALIS—They do not appear to be possessed of any remarkable properties.

CINNAMON TREE. See *Laurus*.

CINQUEFOIL, or *Quinquefolium*. See *Potentilla*.

CIRCÆA, *Enchanters Nightshade*, a genus of the Diandria Monogynia class of plants, and 48th Natural Order *Aggregateæ*; the calix consists of two oval, concave, reflexed, deciduous leaves; the corolla consists of two obcordated equal patent petals, which are rather shorter than the leaves of the calix; the pericarpium is a turbinated, oval, rough, hispid, bilocular, bivalvate capsule, that opens from the base to the top; the seeds are single, one being in each cell of the capsule, they are of an oblong figure and narrowest at the base. There are two species.

1. C: LUTITIANA, (*Solani folia Circæa* of C. B. *Circæa Canadensis* of Tourne.) *Common Enchanters Nightshade*, an indigenous perennial plant, growing naturally in Carolina; it hath upright, round stalks, which grow to about a foot and half high; the leaves are large, heart-shaped, pointed, slightly indented, of a dark green colour on their surface, but paler under, and grow opposite to each other on pretty long footstalks; each stalk is terminated by one long range of flowers; and smaller spikes also branch out from the sides; they are small, of a white colour, and blow in June and July.

2. C: ALPINA, *Alpine Enchanters Nightshade*, is also a perennial and native of Canada; the stalks of this species are weak and slen-

der, and grow only to about six inches high, the leaves are like those of the former, but smaller, and are indented on their edges; the flowers come out from the tops of the stalks in loose spikes, are white and small; they are easily propagated by parting the roots, though they are not worth the trouble.

CIRSIUM of Michaux. See *Carduus* and *Cnicus*.

CISSAMPELOS, a genus of the Dioecia Monadelphia class, and 11th Natural Order, *Sarmentacea*. We have already described this plant under the article *Cuafieba*, which see. We shall however notice here the medical virtues which are attributed to them; the first species is said to be a valuable Lithontriptic in cases of gravel and stone, and the root of the third applied externally, is used as an antidote against the bite of venomous serpents.

CISSUS, The *Wild Grape*, a genus of the Tetrandria Monogynia class of plants, and 46th Natural Order, *Vitaceæ*; the berry contains but one seed and is surrounded by the corolla, and calix, which are both divided into four segments. There are five species.

1. C: CORDATIS, *Heart-leaved Cissus*, a native of the West-Indies; the stalks are tender, and divide into several branches, which require support; the leaves are heart-shaped, roundish, and undivided on their edges; the flowers are collected in roundish bunches, and are succeeded by round umbilicated berries, which are of a most elegant, bright blue colour, when ripe.

2. C: OVATIS, (*Irsiola Scandens* of Brown, *Bryonia Alba* of Sloane.) *Sichyoide Cissus*, hath tender, jointed, branching stalks, weak and climbing; the leaves are oval, oblong, naked and serrated on their edges; the flowers are produced in bunches, and are succeeded by fine, glossy berries, of a greenish purple colour, when ripe.

3. C: CARNOSIS, *Acid Cissus*, hath trifoliate, thick, succulent, oblong leaves, cut on their edges; the stalks are climbing, and the berries are of a beautiful, shining, black colour, and are turbinate.

4. C: TRIPHYLLA, *Trifoliate Cissus*, also a climbing plant; the leaves are composed of three oval, subdentated folioles, having a bordered footstalk; the flowers are collected in small bunches, and are succeeded by beautiful umbilicated, shining berries.

5. C: TOMENTOSIS, *Vine Cissus*, hath a woody stalk, which requires support; the leaves are heart-shaped, but divided into five lobes, and are downy on their under side: the flowers come out in loose bunches, succeeded by beautiful shining berries each containing one seed. The fruit of some of the species are eaten by the negroes in the West-Indies. They are propagated by seeds.

CISTUS, the *Rock Rose*, a genus of the Polyandria Monogynia class, and 20th Natural Order, *Rotaceæ*; the calix has five roundish, concave leaves, of which two alternate ones are smaller, and lower than the others; the corolla consists of five roundish, large plane, patent petals; the pericarpium is a roundish covered capsule; the seeds are roundish, small and numerous. There are 37 species.

1. C: LADANUM, *Ladanum*, or *Labdanum*, a native of Spain, Italy, Crete and the south of France; there are many varieties of

this species, differing in the colours of the flowers, or in some respect or other; the tree with its varieties will grow to be six feet or more high, though it exhibits great beauty as indeed do all the species while low. It arises with a woody stem, and though it produces its branches in no regular manner, yet it hath the appearance of a well fashioned shrub; the leaves are of a lanceolate figure, their upper surface is smooth and of a fine green colour, but their under is whitish, and veined; they are scented and have footstalks that join together at their base; the flowers are very large and delicate, and are produced all over the shrub in plenty, many of them are of a pure white, with a deep purple spot at the bottom of each petal, whilst others are of a purple colour, or have the edges of a reddish tinge; the beauty of this species, when in blow, is often over in hot weather by eleven o'clock in the morning, but that is renewed every day for about six weeks. From this tree the Labdanum of the shops is collected.

*Part used.* The Gum Resin.

*Sensible properties.* A very agreeable smell, and of a slight pungent, bitterish taste.

*Medical virtues.* At present it is used only externally as an ingredient in the stomachic plaster, which is now styled *Emplastrum Ladani*.

2. C: POPULIFOLIA, *Poplar-leaved Cistus*, a native of Spain and Portugal, it grows about six feet high; the branches grow irregularly and are covered with a brown bark; the leaves are cordated, smooth, pointed, have footstalks, and a little resemblance to those of the Black Poplar—the flowers are produced at the ends and sides of the branches, and are white: There is a variety which differs only in size from the present.

3. C: LAURIFOLIA, *Bay-leaved Cistus*, a native of Spain, is an irregular branching shrub, of about the same height with the former, the leaves oval, pointed, and very clammy; their upper surface is of a strong green, but their under is white; they grow on footstalks which join together at their base; the flowers are produced in the same manner as the former, are white, and stand on naked footstalks.

4. C: RUGOSIS, *Hoary-leaved Cistus*, a native of the same parts with the former; it is a shrub of about four feet high, and forms itself into a bushy head; there are four or five varieties of this sort, the leaves of all which are hoary, but they differ often in shape, size or figure, hence they are distinguished by the names, common hoary leaved, long leaved hoary male, round leaved male, large hoary leaved male *Cistus*, &c. Some sorts have whiter leaves than others—the flowers are of a purple colour, and darker or lighter, according to the variety. They blow as early as May.

5. C: LADANIFERA MONSPELIENSIS, *Gum Cistus of Montpellier*, commonly grows to about four or five feet high, the branches proceed from the bottom of the plant in plenty, they are hairy, tough, and slender; the leaves are lanceolated, exude a very fragrant matter, are hairy on both sides, have their wings running lengthways, are of a dark green colour, and sit close to the branches; the flowers are produced like the former and are white.

6. C: *INCANUS*, *Oblong white leaved Cistus*, attains a height of about six feet; the younger branches grow upright, are tough and covered with a wooly substance; the leaves are oblong, very white downy, trinervous, and sit close, surrounding the stalk at the base; the flowers are produced from the ends of the branches in June, they are large, and of a fine purple colour. It may be seen at the Botanic Garden, of South-Carolina.

7. C: *SALVÆ-FOLIA*, *Sage-leaved Cistus*, is a much lower shrub and the branches are many, spreading, and slender; the leaves resemble those of some of the Sage plants, they are oval, hairy on both sides, and have very short footstalks; the flowers are produced in June, are white, and stand on naked footstalks.

8. C: *UNDULATIS*, *Waved leaved Cistus*, attains a height of about four or five feet, the branches are many, and spreading, the leaves are spear-shaped, waved, and hairy, bending naturally backwards, and grow opposite by pairs on the branches; the flowers come out like the former, and are white.

9. C: *HALIMIFOLIA*, *Sea Purslain leaved Cistus*, attains a height of about four feet, and sends forth many branches in an upright pretty manner; the younger branches are downy, and the leaves have some resemblance to the Sea Purslain, though there are varieties with broader and narrower leaves; some that approach to an oval, and others that are sharp pointed; the flowers are produced in June and July, on very long, naked footstalks, which support others also with shorter footstalks, they are of a fine yellow colour. It is a very tender sort, and requires a Green House.

10. C: *ROTUNDFOLIA*, *Spanish round leaved Cistus*, is a branching shrub of about a yard, or four feet high; the leaves are oval, round, hairy, and placed on footstalks on the branches; the flowers come out in plenty, from the tops and sides of the branches in July, their colour is purple.

11. C: *CRETICA*, *Cretan Cistus*, is somewhat like the former, the leaves are spatulated, oval, enervous, rough, and grow on footstalks on the branches; the flowers are red and blow in July.

11. C. *ANGUSTIFOLIA*, *Spanish Narrow leaved Cistus*, hath a shrubby, naked, purple coloured stalk, of about four feet high, the leaves are narrow, light, reflexed on their sides, and grow opposite to each other without any footstalks; the flowers grow in small umbels, from the ends and sides of the branches, on long slender footstalks, and are white. The foregoing are beautiful evergreen shrubs, and very ornamental in gardens; they are propagated by seeds and cuttings, though by seeds is preferable—the 19 immediately following are perennials, and may be propagated by seeds, cuttings or roots.

13. C: *PROCUMBENS*, *Common Dwarf Cistus*, or *Little Sun-flower*, hath numerous slender, tough, trailing, ligneous stalks covered with a brown bark; the leaves are oblong, green, a little hairy on their upper side, downy underneath, and grow opposite; the flowers are produced thinly on the tops of the stalks growing on moderately long footstalks, are yellow, and blow in June or July.—There are two notable varieties of this species—1. Broad leaved white flowered dwarf, and 2. The rosy dwarf Cistus.

14. C: SUBTUS-INCANIS, *Prickly-cupped Dwarf Cistus*, hath shrubby, short, jointed, upright stalks, and sends forth many branches from the sides; the leaves are oblong and narrow, having hairy, reflexed borders; they are of a bright green on the upper side, but downy underneath, and grow opposite to each other; the flowers are produced in small clusters, from the ends of the branches, and are of a golden yellow colour. There is a variety with white flowers.

15. C: HIRTIS, *Apennine Dwarf Cistus*, the stalks of this species are tough, ligneous, and spread themselves every way; the leaves are spear-shaped, oblong, downy; the flowers are large and grow from the ends of the branches. The varieties of this species usually go by the names of the White German Dwarf, Yellow German Dwarf, and Stone Dwarf Cistus.

16. C: MONTANUS, *Dwarf Mountain Cistus*, hath procumbent, tough, shrubby stalks; the leaves are oblong, oval, and of a hoary whiteness; the flowers are white, and come out from the stalks in June and July.

17. C: CHAMÆCISTUS, *Hairy Dwarf Cistus*, hath tough, ligneous stalks, which lie on the ground, the leaves are spear-shaped, oval, hairy, downy underneath, and grow opposite; the flowers are collected into smallish heads, at the tops of the stalks, and are white.

18. C: THYMIFOLIO, *Thyme-leaved Dwarf Cistus*, the stalks are ligneous, trailing, and about six inches in length; the leaves are oval, narrow, hoary, and grow opposite; the flowers are produced in small clusters from the ends of the stalks, their colour is white, and they blow in June and July.—This species requires a dry sandy soil.

19. C: SERPILLIFOLIA, *Mother of Thyme-leaved Dwarf Cistus*, the stalks are slender, ligneous, and lie on the ground; the leaves are oblong, hairy, and of a very dark green colour; the flowers are of a golden yellow, and finely scented—they come out in July.

20. C: ORBICULARIS, or Nummulariæfolio, *Moneywort Dwarf Cistus*, the stalks are long, shrubby, divide into many branches, and trail on the ground, the lower leaves are round, and those on the branches are of an oval figure, their upper surface is of a light green colour, but they are greyish underneath, and have several conspicuous veins running from the base of each leaf; the flowers are large and of a white colour, they come out in clusters from the ends of the branches, in July and August.

21. C: SUBPILOSIS, *Narrow-leaved Dwarf Cistus*, the stalks of this species are slender, trailing, ligneous and tough; the leaves are oblong, oval, hairy, and grow opposite to each other; the flowers are small, of a yellow colour, and grow in loose spikes.

22. C: STIPULATIS, *Scaly-leaved Dwarf Cistus*, the stalks are ligneous, four cornered and erect; the leaves are oval, spear-shaped, of a thickish substance, scaly on their surface, and grow on footstalks; the flowers grow many together from the ends and sides of the branches.

23. C: CANADENSIS, *Canada dwarf Cistus*, grows naturally in Canada, the stalks are slender, herbaceous and weak; the leaves are spear-shaped, and grow alternately on the stalks; the flowers



grow in small loose spikes from the ends of the stalks, and are of a yellow colour.

24. C: *PLANTAGINIS*, *Plantain-leaved dwarf Cistus*, the stalks are short, thick, and send forth several branches from the sides; the radical leaves are oval, trinervous, and wooly, those on the stalks are smooth, spear-shaped and placed alternately; the flowers are pretty large, and come out from the ends of the branches in June and July.

25. C: *EMARGINATIS*, *Oeland dwarf Cistus*, grows naturally on the rocks of Oeland, the stalks are slender, ligneous and procumbent; the leaves are oblong, smooth on both sides and grow opposite to each other; the flowers are moderately large, and their petals are indented; they blow in July.

26. C: *HELIANTHEMUM*, *Marum-leaved dwarf Cistus*, hath slender, shrubby, branching stalks; the leaves are oblong, oval, spear-shaped, hairy on their outside and wooly underneath; the flowers come out from the ends and sides of the branches; in July, and are yellow.

27. C: *PALLIDO*, *White Spanish dwarf Cistus*, hath ligneous, procumbent stalks; the leaves are hairy, oval, very hoary, white on their underside, and grow to each other; the flowers are pale, and grow in kind of umbels, they blow in June and July.

28. C: *ITALICUM*, *Italian dwarf Cistus*, is a very short, shrubby plant; the leaves grow opposite and are on both sides armed with strong hairs or bristles, the lower leaves are of an oval figure and have footstalks, those on the upper part are spear-shaped and sit close without any footstalks; the flowers grow in loose spikes and are of a pale yellow colour, their petals are slightly indented and their cups are hispid.

29. C: *UNIFLORIS*, *Helvetian dwarf Cistus*, hath ligneous trailing stalks, about a foot long, the leaves are narrow, rough on their borders, and grow alternately; the flowers grow singly on footstalks and are of a fine yellow colour.

30. C: *ERICIFOLIO*; *Heath-leaved dwarf Cistus*, hath erect, woody stalks, about eighteen inches high; the leaves are narrow, smooth, and grow in bunches alternately from the sides of the stalks; the flowers grow in clusters on the tops of the plants, they are of a fine yellow colour, and pretty large.

31. C: *UMBELLATÆ*, *Umbellated dwarf Cistus*, hath short, ligneous stalks, that lie on the ground; the leaves are narrow, and placed opposite; the flowers come out in umbels from the tops of the stalks in July and August. The four following are annuals, and are propagated from seeds. The last is a Green-house plant.

32. C: *ANNUUS*, *English annual Cistus*, hath an upright, rough, herbaceous, hairy, greenish stalk, about a foot high; the leaves are spear-shaped, trinervous, very hairy, rough and grow opposite to each other; the flowers come out from the ends of the branches, their colour is yellow, spotted with deep red or purple, they appear early in the morning, but in a warm day are totally vanished before noon

33. C: *LÆDIFOLIO*, *Ledon-leaved dwarf Cistus*, hath an erect, smooth; herbaceous stalk about a foot high; the leaves are oblong,

spear-shaped, and of a bluish green colour on the upper side, but hoary underneath; the flowers grow singly from the upper parts of the plant, on very short footstalks.

34. C: SALICIFOLIA, *Willow-leaved dwarf Cistus*, there are two varieties of this species, the stalks of one variety are upright, of the other procumbent, they are herbaceous and hairy; the leaves are oval, hairy and downy underneath: the flowers come out in loose spikes from the ends of the branches, and are of a pale yellow colour.

35. C: ÆGYPTIACA, *Ægyptian dwarf Cistus*, hath an erect, herbaceous stalk; the leaves are spear-shaped, narrow, and on the lower parts of the plant come out several together, but on the upper part they grow opposite; the flowers terminate the stalks in loose spikes, are small, and have very large, inflated cups; they blow in July.

36. C: ARBORESCENS, *Cape Cistus*, or *Rock Rose*, is a branching shrub, about four feet high, the leaves are oval, spear-shaped, trinervous, indented, and are placed on strong short footstalks; the flowers come out from the tops and sides of the branches on slender footstalks, they appear in July and August.

CITHAREXYLON, *Fiddle Wood*, a genus of the Didynamia Angiospermia class, and 40th Natural Order, *Personata*; The calix is divided into five acute segments; the corolla is one infundibuliforme, rotated petal, with the limb bilabiated and divided into five oblong, plain, truncated, spreading segments; the pericarpium is a roundish, slightly compressed berry, containing one cell, the seeds are two oval, bilocular, convex on one side, concave on the other, and emarginated at the top. There are two species.

1. C: CINEREA, (*Jasminum Arborescens* of Father Plum.) *Cinereous Fiddlewood*, a native of the West-Indies; the stem is robust, upright, branching and covered with a cinereous bark; the leaves resemble those of the Bay-tree, are oblong, oval, of a firm substance, grow opposite to each other and continue all the year; the flowers come out in loose spikes from the ends and sides of the branches, they are of a white colour, and are succeeded by roundish, pulpy berries, in its native place it grows to be a large tree, from the wood of which it is presumed fiddles are made.

2. C: FRUTICOSUM, *Caudated Citharexylon*, also a native of the West-Indies, the stem is robust, upright and divided into many taper branches near the top; the leaves are oboval and grow opposite by pairs, on the branches; the flowers are produced from the ends of the branches in long spikes, and are of a white colour: They are both stove plants, and are propagated from seeds, or by cuttings in the usual way.

CITRON TREE. See *Citrus*.

CITRUS, a genus of the Polyadelphia, Icosandria class, and 18th Natural Order, *Bicones*; the calix is divided into five segments; the petals are five and oblong, and the fruit is a berry consisting of nine cells. The species are 6, of which the following are occasionally reared in hot-houses.

1. C: MEDICA, *Lemon*, or *Citron Tree*, a native of Asia, it is a beautiful evergreen, rising from five to ten feet in height, and

forms a full head, thickly set with leaves; it is very luxuriant in its vegetation, shooting forth a profusion of sweet flowers in the spring which are succeeded by an abundance of fruit, which yield a very agreeable acid of considerable utility in medicine.

The farther varieties of Lemon, or properly speaking, Citrons, are numerous—the following are the principal that are to be found in the gardens—1st. The common sour. 2d. The Sweet. 3d. Sour Lime. 4th. Sweet Lime. 5th. Indian Sour. 6th. Indian Sweet. 7th. Imperial. 8th. Pear Shaped. 9th. Adam's Apple, 10th. Furrowed. 11th. The Childing. 12th. Clustered. 13th. Double Flowered. 14th. Silver striped leaved; and 15th. The Gold striped-leaved Lemons—but the sour kinds are most esteemed.

2. C: AURANTIUM, or *Orange Tree*, is also an evergreen and native of India and America. It is highly esteemed on account of its pleasant and cooling fruit, and its fragrant and odoriferous white flowers. The Orange tree is divided into several varieties, the most esteemed are those of China and Seville, the latter of which grow and thrive in the south parts of Georgia, on St. Simons', Jeckyl, and Blythe Islands, of which there are now the remains of several large groves, said to have been planted by Gen. Oglethorpe's soldiers. The proprietor of Jeckyl Island exports annually several hogsheads of the juice collected from his Grove—In Carolina on the Sea-Islands and vicinity of Charleston, there yet remains several species of the Seville and Sour Oranges. The other varieties of this species are—3. Large Indian Sweet. 4. Small Indian. 5. Turkey. 6. Pumpelpoes, or Shaddock. 7. the Nutmeg. 8. the Horned. 9. Hermaphrodite. 10. Double Flowered. 11. Curled leaved. 12. Silver striped leaved, and 13. the Gold striped leaved Oranges.

*Medical virtues.* The juice of Oranges is a pleasant sub-acid liquor which has often proved of service in inflamatory disorders by diminishing heat, allaying thirst, and promoting the salutary discharges. It is likewise eminently useful in the scurvey, and has been therefore introduced into the Navy, as part of the stores of ships destined for long voyages. The outer rind is also a valuable acquisition to desserts, preserved with sugar, it is a grateful aromatic bitter, and one of the best stomachics; it also affords an excellent conserve. The oil expressed from the Orange peel is sold under the name of Bergamot.

The flowers yield by distillation an odoriferous water, used in pastry. They also afford an agreeable drink infused, of a slightly pungent bitter, and were formerly in great repute in Convulsive and Epileptic cases, though late experience has not confirmed these advantages. The leaves have also had similar virtues attributed to them, which however have been found ineffectual.

*Domestic uses.* An excellent wine is prepared from them as follows: Take the expressed juice of eight Seville Oranges, having one gallon of water, wherein three pounds of sugar has been dissolved, boil the water and sugar for twenty minutes, skimming it constantly, and when cooled to a proper heat for fermentation, add the juice and the outer rind, thinly shaved off, and putting all into a

barrel, let it be frequently stirred for three or four days, and then close bunged for six months longer before bottling.

3. C: *DECUMANA*, or the *Giant Citron*, a variety of the Orange, which is common in the East and West Indies, and produces a fruit weighing sometimes fourteen pound, containing a sweet pulp and small compartments in the centre, which abound with a sub-acid, vinous juice.

4. C: *LIMA*, or *Lemon Tree* as was already observed, is a variety of the Citron, it is an elegant evergreen, indigenous in Persia, rising, as does the Citron tree, from five to ten feet in height, producing beautiful large leaves, with a profusion of sweet flowers in the spring and early summer, generally succeeded by an abundance of fruit. The culture and uses of the Lemon are similar to those of the Citron and Orange; it is however more frequently ordered in Physician's prescriptions for preparing saline mixtures and draughts, and enters many others under different titles. An Essential salt is also sold to make punch, and to take out ink spots and iron moulds out of Linens, &c.

The *Lime tree*, is also a variety of the Citron tree, it grows abundantly in Jamaica and other warm climates, it is the smallest production of the kind, has scarcely any pulp, but contains a very sour juice, of a yellowish green colour; on account of its strong acid, it is now, not only by the West-Indians, but throughout the United States generally used as an ingredient in punch, though it is frequently productive of the most alarming colics, especially the dry belly ache.

The inspissated juice of limes possesses a fine flavour, but as it is one of the most corrosive acids, which is not suffered naturally to come to maturity, it cannot be recommended for its salubrity. The negroes in the West Indies employ this fruit with singular success for the cure of scorbutic swellings of the legs, and stains of the skin, merely by rubbing the affected legs, knees and hams three or four times a day with a fresh cut lime. The same remedy is used in Jamaica for mitigating those violent pains in the bones preceeding the yaws.

The *Curassoa Oranges*, are the small young fruit of the Seville Oranges dried.

5. C: *TRIFOLIATA*, or *Japanese Citron*, is a thorny shrub growing naturally in Japan, where it is called *Geese* and *Karatals Banna*, the trunk acquires the thickness of a tree, by age and culture, the branches and shoots are equal, being compressed in some parts, and in others, swelling, particularly about the spines; these proceed singly from the stems and branches, are straight, run out from a broad base into a very sharp point; the wood is loose and soft, the bark of a shining green, moist, and easily parting from the wood; the leaves are few in number, sawed on their edges, veined, placed without order, and generally growing under the spines; they grow by threes like those of trefoil, upon the extremity of a footstalk, which is furnished on each side with a membranaceous fringe or margin, somewhat resembling the pedicles of the Orange: The upper surface of the leaves is of a bright lucid green, the lower dark and herbaceous; the flowers resemble those of the Medlars, are white, grow from

the arm pits of the leaves, consist of five petals but have no great degree of fragrance; the fruit resembles a middle sized orange; the pulp glutinous, smell unpleasant, and taste disagreeable.

CITRULS. See *Anguria Citruli*.

CLADONIA, a new genus of plants, described by Michaux, under the Cryptogamia Lichenacæ, i. e. Cryptogamia Algæ of Lin. The leaves are cartilagineous, membranaceous, small, nearly imbricate, erect, sublobate, crenated green above, and white under; two species are enumerated by him as indigenous to the United States.

1. C: UNICALIS. 2. C: RANGIFERINA. They are a species of Liverwort. See *Lichen*.

CLARY. See *Salvia*.

CLATHRUS, a genus of the Cryptogamia Fungi class—this fungus is roundish, and full of cancelli—there are four species of which I have found no farther accounts.

CLAVARIA, *Club Top*, a genus of the Cryptogamia Fungi class, and 58th Natural Order, *Fungi*; it is smooth and oblong. There are eight species.

1. C: PISTILLARIS, or *Simple Clavaria*. 2. C: OPHIOGLOSSOIDES, or *Black Clavaria*. 3. C: DIGITATA, or *Fingered Clavaria*. 4. C: HYPOXYLON, or *Flat Clavaria*. 5. C: CORALLOIDES, or 6. C: FASTIGIATA, or *Stinking Clavaria*. 7. C: MUSCOIDES, or *Pointed Clavaria*. 8. C: HEMOTADES, or *Oak Leather Club Top*, they grow in the clefts and hollows of old oaks, resembling tanned leather; they are used to dress ulcers, and to spread plasters upon, in Virginia, instead of leather.

CLAYTONIA, in honor of Mr. Clayton, the American Botanist, a genus of the Pentandria Monogynia class, and 13th Natural Order, *Succulentæ*; the calix consists of two valves, the corolla has five petals; the stigma is trifid, and the capsule has three valves, and contains three seeds—there are two species.

1. C: LINEARIBUS, (*Ornithogala* of Pluke.) *Virginian Claytonia*, an indigenous perennial, of very low growth, seldom exceeding three inches; the leaves are narrow, succulent, about two inches long, and of a deep green colour; the flowers are produced from the ends of the stalks in April, their colour is purple, though there is a variety with white flowers, spotted with red.

2. C: CAROLINIANA, *Carolian Claytonia*, grows on the hilly parts of Carolina; the leaves are oval, smooth, nervous, broad at the top, and narrow at the base; the stalk is round, three inches high, and adorned with two oval leaves standing opposite to each other, without any footstalk; the flowers are large, of a delicate red, blow in March, and are very beautiful. These are propagated by dividing the roots or by seeds sown in a light dry soil, and sheltered situation.

CLEAVERS. See *Gallium*.

CLEMATIS, *Virgin's Bower*, a genus of the Polyandria Polygynia class, and 26th Natural Order, *Multisilique*; it has no calix, the petals are four, and the seeds are caudated. There are twelve species.

1. C: RICTA, *Upright White Climber*, or *Upright Virgin's Bower*, the stalks of this are upright, and grow to about three feet high.

the leaves are pinnated, being composed of three or four pair of oval, spear-shaped, entire folioles, besides the odd one which terminates them, they grow opposite to each other on the stalks, the flowers are produced in umbels from the tops of the stalk, their colour is white, and each consist of four or five spreading petals. There is a variety of this species, of lower growth, and smaller leaves, but with larger flowers.

*Medical virtues.* This species is highly praised by Baron Stoerk, in inveterate syphilitic cases, in ulcers, and severe head aches; it acts as a diuretic, and diaphoretic. He used an extract of the leaves but he chiefly recommends an infusion of the fresh leaves in the proportion of two or three drams, to a pint of boiling water; four ounces to be taken, three times a day, whilst the powdered leaves are applied to the ulcers. Most of the species are acrid and corrosive, and may be used for raising blisters, where Cantharides, or the American, or Spanish blistering flies, cannot be had; these insects are very fond of the Clematis Crispa, and it would be well for Medical Gentlemen in the country, to propagate the plant about their residence, in order to secure a constant succession of those valuable insects.

2. C: PANNONICA, *Upright Blue Climber*, a perennial and native of Hungary and Tartary; the stalks of this species are erect, firm, slender, fluted, branching a little, and grow to be three or four feet high; the leaves are large, oval, spear-shaped, smooth, entire, and grow opposite at the joints without footstalks; the flowers come out from the upper parts of the plants, on long footstalks, they are large, of a fine violet colour, and their petals are thick, and hang drooping.

3. C: MARITIMA REPENS, *Maritime Climber*, a perennial growing naturally on the sea shores, of Italy, and the South of France, it is a low creeping plant, the stalks are unbranching, and six cornered, the leaves are pinnated, being composed of about five pair of narrow, stiff, smooth folioles, growing opposite at the joints; the flowers are produced at the tops of the stalks, on slender footstalks, they are moderately large, whitish, and blow in June and July.

4. C: CÆRULEA, *Virgin's Bower*, an exotic plant, of which there are several varieties, viz. double purple, single purple, single blue, and single red Virgin's Bower; the first is however most esteemed, and rises to the height of about 20 or 30 feet, the branches are of a dark brown, or dusky colour, angular, and channelled; the younger branches are of a fine green colour, and nearly square, the leaves grow from the joints, they are both compound and de-compound; the folioles of which, each is composed, are of an oval figure, and their edges are entire; the flowers are of a dirty purple, but very double, and blow in July or August.

5. C: VIRGINIANA, (Scandens Caroliniana of Petev. Flammula of the Hortus Elthamensis) *Virginian Climber*, grows naturally in Virginia, Carolina, &c. The branches are slender and numerous; the leaves are like the foregoing, the folioles grow by threes, and these are often multiplied, to form a de-compound leaf of nine in number, they are nearly cordated, of a good green, and some of them are trifid; the flowers are of a kind of blue colour, the pe-

tals which are four in number, are of a thick coriaceous substance, and blow in July.

6. C: CAROLINIANA, *Carolinian*, or *Curled-flowered Climber*, an indigenous plant, growing naturally in South Carolina; it is one of the lower kinds of climbers, seldom rising higher than six feet, the stalks are very weak, and slender, the leaves afford great variety, being sometimes trifoliate, sometimes single, the folioles also differ much, for some of them are found whole and entire, whilst others again are divided into three lobes; the leaves are of a dark green colour, and are produced opposite from the joints of the stalks, the flowers are composed of four thick, coriaceous, purple, curled petals, which blow in July.

7. C: ORIENTALIS, *Oriental Climber*, seldom climbs higher than ten feet; it hath compound leaves, the folioles are cut angularly, and the lobes are shaped like a wedge; the flowers are of a yellowish green colour, and come out from the wings of the leaves in April—the petals of this species naturally turn backwards.

8. C: VIORNA, *Traveller's Joy*, *Honesty*, *Virgin's Bower*, or *Great Wild Climber*, a hardy indigenous shrub, growing in hedges, and shady places of Virginia, &c. in calcareous soils, where it flowers in June or July; the branches of this species are very tough, sufficient to make *withe*s for faggots, it is the greatest climber of all the species, besides its claspers, the very leaves have a tendency to twine round plants; these leaves are pinnated, and a variety is occasioned by them, for the folioles of some sorts are indented at their edges, whilst others are entire; they are of a bluish green, and moderately large, the flowers are produced in clusters, all over the plant, they are succeeded by flat seeds, each of which, when ripe, is possessed of a white, hairy plume, which is very beautiful.

*Medical virtues.* The whole plant is very acrid to the touch, on which account it is frequently employed as a caustic, for cleansing old ulcers.

*Domestic uses.* Both leaves and branches may be converted into a yellow dye; the fibrous stalks may be converted into paper, and the compact, hard, yellow, and odoriferous wood, furnishes an excellent material for veneering.

9. C: PLEGRINA, *Evergreen Spanish Climber*, is a low evergreen plant, seldom growing higher than six or eight feet; the branches are very numerous, weak and slender, and rises with claspers, the leaves are sometimes cut into three lobes, sometimes into two, and many times are undivided; the lobes when most perfect, are nearly lanceolate, have their edges indented, and are of the most beautiful shining green; the flowers are produced in the midst of winter, they are of a greenish colour, inclining to white, hairy, and have very large petals.

10. C: FLAMMULA, *Creeping Climber*, or *Flammula*, a native of Spain and Portugal; it will rise to the height of 20 feet, the stalks are slender, and numerous, and the leaves are singular; the lower ones being pinnated, with their edges jagged, the upper ones grow singly, are of a lanceolate figure, with their edges entire; the flowers come out in June, July and August, and are of a white colour.

11. C: ODORATIS, *Sweet Scented American Climber*. This is a native of the United States, and attains a great height; the branches are many, spread themselves all around, and lay hold of every thing in their way; the leaves are ternate, the folioles are heart-shaped, angular, and nearly cut into three lobes; the flowers are white, and possess a most agreeable fragrance.

12. C: DIOICEOUS, *Jamaica Virgin's Bower*, or *Dioecious Clematis*, is an indigenous plant, growing naturally in Canada, Virginia, &c. The stalks are weak, slender, branching, and if supported will rise to twelve or fourteen feet high; the leaves are large, of a bright green colour, and each is composed of three oval, veined folioles; the flowers are dioecious, white, and of very little figure; they are propagated from seeds, or by parting the roots.

CLEOME, *Bastard Mustard*, a genus of plants belonging to the Tetradynamia Siliquosa class. and 25th Natural Order, *Putamine*; it has three nectariferous glands, one at each sinus of the calix, excepting the lowest, the siliquosa, or pod, has two valves, and one cell; there are 15 species, one only of which is a native of America; they are herbaceous plants, rising from one to two feet high, adorned with flowers of various colours.

1. C: SUBSEPTENATIS, *Seven-leaved Cleome*, or *Egyptian Bastard Mustard*, the stalk is herbaceous, armed with spines, and is about two feet high, the leaves are each composed of seven long, spear-shaped folioles, which join at the base; the spines are situated below the footstalks of the leaves; they are short, thick, very sharp, and of a yellow colour; the flowers are produced singly from the upper ends of the branches, on longish footstalks, they are large, of a fine flesh colour, and garnish the stalks a great way down, so as to form a long loose spike, which is beautiful.

2. C: QUINATIS, *Five-leaved red flowered Cleome*, with digitated leaves, composed of five small folioles.

3. C: TERNATIS, *Three-leaved Cleome*, with leaves composed of three folioles, and flesh coloured flowers.

4. C: ICOSITETRANDRIS, *Icosandrous Cleome*, with clammy leaves, composed of five folioles; the flowers are icosandrous, and grow in loose spikes on the upper parts of the stalks, they are of a yellow colour.

5. C: VISCOSA; *Viscous Cleome*, with clammy stalks, and leaves composed of five folioles, and pale yellow flowers.

6. C: DODECANDRIA, *Dodecandrous Cleome*, or *Dwarf three-leaved Bastard Mustard*, the only indigenous species; the leaves are composed of three small folioles, the flowers are dodecandrous, single and purple, or flesh coloured.

7. C: POLYGAMIA, *Polygamous Cleome*, or *Jamaica Bastard Mustard*, with trifoliolate leaves and polygamous flowers.

8. C: SPINOSA, *Thorny Indian Cleome*, the stalk is armed with strong spines, and the leaves composed of seven oblong smoothish folioles, and purple flowers.

9. C: SERRATIS, *Serrated Cleome*, with leaves composed of three narrow, spear-shaped, serrated folioles, and hexandrous flowers.

10. C: MONOPHYLLOUS, *Viscous Bastard Mustard of Ceylon*, hath a clammy stalk, simple, oval, spear-shaped, narrow, sticky, alternate leaves, yellow flowers, and slender taper pods.



11. C: LUCITANICUM, *Violet Portugal Cleome*, with leaves composed of three narrow, spear-shaped, undivided folioles, and violet coloured flowers succeeded by slender, awl-shaped pods.

12. C: ORNITHOPODIUM-SILVIVISUM, *Bird's-foot Trefoil-podded Cleome*, with leaves composed of three spear-shaped folioles, and having red flowers succeeded by pods like those of Bird's-foot Trefoil.

13. C: GYNANDRIS, *Shrubby Indian Cleome*, this species is of a ligneous nature; the stalk is round, taper, woody, branching, and grows to about a yard in height; the leaves are simple, oval, oblong, smooth, and grow alternately on footstalks; the flowers are gynandrous, and disposed in loose spikes, at the ends of the branches, and are succeeded by oval pods; it is a native of India. They may be propagated by seeds.

CLEONIA, a genus of the Didynamia Gymnospermia class of plants, and 42d Natural Order, *Verticillatae*; the calix is a monophyllous tubular, angular, bilabiate perianthium; the upper lip is a little plain, broad, and indented in three parts; the lower lip is short, and divided into two parts; the corolla is one ringent petal; the upper lip is straight, bifid, and carinated; the lower lip is trifid, the middle segment being bilobed; the side ones spreading far asunder: There is no pericarpium, the seeds are contained in the calix; are four in number, taper and smooth; there is but one species.

C: ODORATA, (*Prunella odorata* of Barrel. *Bygula odorata* of Cornut.) *Sweet Scented Cleonia*. The place of its nativity is not mentioned; it hath a herbaceous stalk, about a foot and half high, the leaves are sinuated, serrated, and grow opposite, on short footstalks, the flowers come out in spikes from the tops of the stalks, attended by indented, ciliated bractæ, they are of a violet colour, having a mixture of white and blue in August; they are propagated by seeds, and require no trouble.

CLERODENDRUM, a genus of the Didynamia Angiospermia class; the calix is bell-shaped, and divided into five segments, the tube of the corolla is filiform; the limbus is divided into five equal parts, the stamina are very long, and the berry contains but one seed. There are two species, both natives of the Indies; of which I have seen no further mention.

CLETHRA, a genus of the Decandria Monogynia class, and 18th Natural Order, *Bicornes*; the calix is divided into five segments, the petals are five; the stigma is trifid, and the capsule has three cells and three valves, There is but one species, Michaux says two, natives of Carolina.

1. C: ALNIFOLIA, *Alder-leaved Clethra*, attains a height of about ten feet, growing naturally by the sides of rivers and watery places of Carolina, &c. It sends forth a few branches garnished with spear-shaped, serrated leaves, about three inches long, and about half that width, hairy, short footstalks; the flowers are produced at the ends of the branches in long spikes in July, and sometimes until October, they are white and possessed of a strong scent, there are two varieties one with smooth leaves, growing in Pennsylvania, another with downy rough leaves, growing in Carolina.

2. C: ACUMINATA, *Acuminated Clethra*, grows naturally on the mountains of Carolina, the leaves are oval, pointed, obtuse at the base, serrated, smooth and somewhat shining; its flowers are produced in kinds of spikes—They are propagated by layers, seeds, and suckers set in a moist part of the garden.

CLIFF KALE. See *Brassica*.

CLIFFORTIA, a genus of the Dioecia Polyandria class, and 38th Natural Order, *Tricocceæ*; the calix of the male consists of three leaves, it has no corolla; and the stamina are about thirty; the calix of the female consists likewise of three leaves, and the corolla is wanting; the styli are two, and the capsule is bilocular, and contains one seed. There are four species, all natives of Ethiopia, and are evergreens.

1. C. DENTALIS, *Hex-leaved Cliffortia*, the stalks are woody, weak, divide irregularly into many slender, spreading branches and grow to be four or five feet high; the leaves are nearly heart-shaped, sharply indented at their ends, rigid, of a greenish colour, grow alternately and embrace the stalk with their base; the flowers are produced singly from the wings of the leaves, sitting close, are of a greenish yellow colour, and blow in June.

2. C: RUSCIFOLIA, *Ruscus-leaved Cliffortia*, hath a weak, woody stalk, which grows to four or five feet high, sends out several branches from the sides, and is covered with a whitish bark; the leaves are somewhat like those of Butcher's-broom, spear-shaped, stiff, sharp pointed and come out in clusters from the sides of the branches; the flowers are produced in bunches from the sides of the branches between the leaves.

3. C: PILOSIS, *Polygonum-leaved Cliffortia*, a native of Æthiopia, the stalk is woody, weak, branching and grows three or four feet high; the leaves are narrow, hairy and resemble those of Knot-grass; the flowers are sparingly produced from the sides of the branches in July.

4. C: TERANTIS, (*Myrica folio, ternatis* of the Hort. Cliff.) *Trifoliate Cliffortia*, a native of Æthiopia; the stalk is woody, weak, slender, branching and require support to keep them erect; the leaves sit close to the branches, are trifoliate, and the middle lobe is much larger than the others, and is indented in three parts; the flowers are produced from the wings of the leaves on short foot-stalks, are small, and blow in July and August. They are propagated by layers and cuttings.

CLIMBING or Malabar Nightshade. See *Basella*.

CLINOPODIUM, *Field Basil*, a genus of the Didynamia Gymnospermia class of plants, and 41st Natural Order, *Asperifolieæ*; the involucre is composed of a multitude of hairs, the length of the perianthium, and is placed under the whorl or cluster of flowers; the perianthium is monophyllous, cylindrical, slightly incurved and divided into two lips, the upper lip is broad reflexed trifid and acute, the under lip is cut into two narrow inflexed segments; the corolla is of one petal and ringent; the tube is short and gradually widening to the mouth, the upper lip is erect, concave, obtuse and indented; the lower lip is obtuse, and divided into three segments, of which the middle one is the

broadest, and indented; there is no pericarpium, the seeds, which are four and oval, are contained in the calix. There are three species.

1. C: *ORIGANO SIMILE*, (Vulgaris of Mich.?) *Common field Basil*, an indigenous plant, growing naturally in Canada, Pennsylvania, &c. the roots are fibrous, the stalks are square, slender, hairy, branching a little near the top, and grows about a foot and a half high; the leaves are oval, hairy, of a pale green colour, and grow opposite to each other at the joints; the flowers grow in whorls round the upper parts of the stalks. and each branch is terminated with a head of the flowers—The varieties of this species are the purple, the red, and the white flowered, the greater broad-leaved, and the rough-leaved, or Egyptian Field Basil.

2. C: *TOMENTOSIS*, (*Origanum* of Ray) *Hoary Field Basil*, or *Snake-weed*, an indigenous perennial, the roots are fibrous, the stalks are square, hoary, branching a little near the top, and grow to about a foot and a half high; the leaves are oval, spear-shaped, serrated, hoary, strongly scented, and grow opposite by pairs at the joints, without any footstalks; the flowers terminate the stalks in flat tufts or heads, and others surround it at the joints a little lower, and are of a pale purple colour.

*Medical virtues.* This plant is said to be an antidote against the bite of a rattle-snake, but its mode of exhibition is unknown to the compiler.

3. C: *RUGOSIS*, (*Scabiosæ*, affinis &c. of Pluke: *Sideritis spicata* of Sloane. *Mentha Americana* of Ray. *Melissa* alt: *Globularia* of Plum:) *Rough-leaved Field Basil*, an indigenous perennial growing naturally in Carolina; the stalks are square, hairy, branching near the top, and grow to upwards of two feet high; the leaves are rough, hairy, serrated and grow opposite by pairs at the joints; the flowers come out from the wings of the leaves on each side of the stalk on slender, hairy footstalks, they are collected into roundish heads, their colour is white and they resemble much those of *Scabiosæ*—There are four varieties of this species, some of which grow to upwards of three feet high, others hardly attain the height of a foot. They blow in September, are easily propagated from seeds or by parting the roots, and delight in a dry soil, and warm, shady situation.

**CLITORIA.** This genus has by some authors been referred to the *Phaseolus*, or *Kidney-Bean*, to which it hath near affinity; it is a genus of the *Diadelphia Decandria* class, and 32d Natural Order, *Papilionaceæ*; the calix is a monophyllous, erect, tubular, permanent perianthium, indented in five parts at the top; the corolla is papilionaceous; the vexillum is large, erect, spreading, waved and indented; the alae are oblong, straight, obtuse and shorter than the vexillum; the carina is roundish, hooked, and shorter than the wings; the pericarpium is a very long, narrow, compressed pod, composed of two valves, and containing one cell, the seeds are many, and kidney-shaped. There are five species.

1. C: *TERNATENSIMUM*, (*Phaseolus Indicus* of Comm:) *Ternatean Clitoria*, a native of the West Indies; the stalk is herbaceous.

slender, twining, and if supported will grow to about four feet high; the leaves are pinnated being composed of about two or three folioles, terminated by an odd one, of a pleasant green and grow alternately; the flowers come out from the sides of the stalks, near the upper parts on longish footstalks adorned with leaves, they are large and very beautiful; the varieties are the deep blue flowered, the white, the double-blue and double-white.

2. C: BRASILIANÆ, *Brasilian Clitoria*, the stalk is herbaceous, slender, twining, and will rise by assistance to about six feet high; the leaves are trifoliate and stand singly at the joints on long footstalks, with these the flowers come out on long footstalks, which are surrounded about the middle with small oval leaves, they are large and of an elegant blue colour—the varieties are, the large standard single blue Brazilian, and the full double blue-flowered Brazilian Clitoria.

3. C: VIRGINIANA, *Virginian Clitoria*, an indigenous plant, growing naturally in Virginia, Florida, &c. the stalks are herbaceous slender and will twine 6 or 7 feet high; the leaves grow singly at the joints, each of them is composed of three oblong, pointed folioles, opposite to this arises a naked flower-stalk about an inch long, supporting one flower, which is of a greenish white colour on the outside, but purple within.

4. C: MARIANA, *Maryland Clitoria*, another indigenous plant; the stalks are weak, twining, and grow to about five feet high; the leaves come out singly from the joints, each composed of three oblong, narrow-pointed folioles, of a light green colour on the outside and whitish underneath; the flowers are small and grow two together on a footstalk, their outside is dull white, and within of a pale blue.

5. C: GALACTIA, *Jamaica Clitoria*, hath slender stalks which are also twining and grow to the same height of the foregoing; the leaves are each composed of three oval, smooth folioles; the flowers grow in oblong, loose spikes, their colour is purple, and they blow in July and August.

*Medical virtues.* From the fruit of these plants is distilled an eye-water; the beans reduced to powder and taken in broth to the quantity of two drachms proves a gentle purge. The powder mixed with the milk of the Cocoa-nut, or with broth, is said by Crimmius to be very useful and much used in Ceylon in all disorders of the stomach and bowels—they are easily propagated by seeds.

CLOVE JULY FLOWER. See *Caryophyllus* and *Dianthus*.

CLOVE TREE. See *Caryophyllus*.

CLOVER GRASS. See *Trifolium*.

CLUSIA, *Balsam Tree*, a genus of the Polygamia Monoecia class and 59th Natural Order, *Dubii Ordinis*; the calix of the male consists of four or six leaves; the corolla has five petals, and the stamina are numerous; the calix and corolla of the female are the same as those of the male; the nectarium includes the germen and united antheræ, and the capsule has five cells, five valves, and stuffed pulp. There are four species, all of them natives of the West-Indies.

1. C: *AVENEIS*, *Common Yellow Balsam Tree*, or *Hog Gum*, attains a height of about 20 feet; the leaves are round, thick, succulent, glossy, and grow opposite by pairs; the flowers come out singly from the upper parts of the branches, and succeeded by a large oval fruit, as big as an apple.

*Medical irtues.* The turpentine exuding from this tree, is used in medicine, and it is said that the wild hogs, on being wounded, repair to these trees, rub their wounded parts against them and by thus anointing them with the turpentine effect a cure, hence the name Hog Gum.

2. C: *VENOSIS*, *Venose Balsam Tree*, this species attains a height of 16 or 18 feet; the leaves are large, oval, spear-shaped, pointed, very much ribbed, veined underneath, and grow alternately on the branches. the flowers are produced from the ends of the branches, in loose spikes, they are of a rose colour, and are succeeded by oval fruit, of a yellow colour when ripe.

3. C: *ALBIFLORE*, *White flowered Balsam Tree*, attains the same height with the foregoing; the leaves are roundish, thick, fleshy, entire, and grow opposite by pairs; the flowers come out on footstalks from the wings of the leaves, they are of a white colour, and the fruit is of a beautiful scarlet colour; they are propagated from cuttings, the ends of which must be healed over otherwise they will rot. They are also propagated from seeds.

*CLUTIA*, a genus of the Dioecia Gynandria class, and 38th Natural Order. *Tricocceæ*; the calix and corolla both of the male and female, consist of five leaves; the styli are three, and the capsule has three cells, and one seed. There are five species, all natives of foreign parts.

1. C: *ALATEROIDE*, (*Croton lanceolatis* of the Hort. Cliff. *Tithymalus arborus* of Pluke. *Alcurnoides Africana* of Comm. and *Chamælea* of Burm.) *Alateroide Clutia*, a native of Æthiopia, it attains a height of about eight feet; the stalk is woody, and sends forth several erect branches from the sides; the leaves are narrow, spear-shaped, entire, of a greyish colour, and grow alternately, sitting close to the branches; the flowers are produced from the wings of the leaves, growing erect. they are small, of a greenish white colour, and show themselves in June, July and August.

2. C: *POLYGONOIDES*, *Polygonoide Clutia*, a native of the Cape of Good Hope; rises about five or six feet high, and hath a woody branching stalk; the leaves are spear-shaped, narrow, smooth, entire, sharp-pointed; and grow alternately; the flowers come out for the most part two together from the wings of the leaves, along the sides of the branches, they are small, pendulent, and appear about the same time with the former.

3. C: *PORTULACÆFOLIO*, *Purslain-leaved Clutia*, a native of Æthiopia, attains the height of the first, hath a firm woody stalk, and sends out several branches from the sides; the leaves are oval, entire, of a sea green colour, and grow alternately on long footstalks; the flowers come out on short footstalks along the sides of the branches, they are small, and of a greenish white colour.

4. C: *RETUSA*, *Retused Clutia*, a native of India, hath a woody branching stem, and rises six or eight feet high: the leaves are oval.

retused, and grow alternately on the branches; the flowers come out from the wings of the leaves in loose bunches, and are of a greenish white colour.

5. C: ELEUTHERIA, (*Croton fruticosum* of Brown, *Ricinus dulcis*, &c. of Pluke.) *Eleutheria*, a native of the West Indies, it hath a woody, hairy, erect branching stem, five or six feet high; the leaves are cordated, spear-shaped, pointed, and grow alternately, the flowers come out in spikes, from the ends of the branches— There is a variety that grows to be a considerable tree.

*Note.* Doctor Wright, in his account of the medical plants of Jamaica, says that the *Clusia Eleutheria* is the same as the *Cascarilla* and *Eleutheria* of the shops; and that *Croton Cascarilla*, of Linnæus, is the wild Rosemary Shrub of Jamaica; the bark of which has none of the sensible qualities of the *Cascarilla*; the Colleges of Physicians of London, and Edinburgh, observe that *Cascarilla* is the bark of the *Croton Eleutheria* of Linnæus, while other medical writers have supposed *Cascarilla*, and *Eleutheria*, to be distinct barks; and indeed they have been sold in the shops as different productions, however, we shall adhere to the arrangement of the Colleges, and for the medical virtues of *Eleutheria*, refer you to the article, *Croton Eleutheria*, which by late writers is now termed *Croton Aromaticum*, which is more appropriate. They are propagated by seeds or by cuttings.

CLYPEOLA, *Treacle Mustard*, a genus of the *Tetradynamia Siliquosa* class, and 39th Natural Order, *Siliquosæ*; the calix hath four leaves, which are oblong; the corolla is cruciforme, and consists of four oblong, entire petals, which have claws rather longer than the calix; the pericarpium or pod is orbicular, compressed, and has two valves, the seeds are round and compressed; there are two species, Walter says one of them is indigenous.

1. C. CAROLINIANA, (*Thlaspi Clypeatum* of C. B. and *Jonthlaspi* of Column.) *Least Buckler Mustard*, or *Serpillum-leaved Clypeola*, an indigenous annual plant, having hairy, numerous stalks, which are rough, hoary, slender, procumbent, and about five inches long; the leaves are numerous, small, hoary, narrow at the base, and rounded at the extremity; the flowers terminate the branches in close spikes; they are small, yellow and blow in June and July.

2. C: DISPERMIS, (*Thlaspi Maritimum* of C. B.) *Maritime Treacle Mustard*, or *Alysson*, a perennial, and native of Europe; the stalks are numerous, tough, spreading, branching, and grow about eighteen inches high; the leaves are narrow, green on their upper side, but hoary underneath, and sit close to the branch, without any footstalks; the flowers terminate the branches in long spikes, having a round tuft at the end, they are small, white, and come out in June. They are propagated from seeds.

CNEORUM, *Widow Wail*, a genus of the *Triandria Monogynia* class, and 38th Natural Order, *Tricocceæ*; the calix has three teeth, and the corolla has three equal petals; there is but one species, a native of Spain, Italy, and France.

C: TRICOCCEÆ, *Widow Wail*, attains a height of about a yard; the wood is very hard, and covered with a brown bark; the stem divides into many branches, the leaves are smooth, of a fine dark

green colour, and constitute the greatest beauty of this evergreen shrub; they are oblong, and their base joins the young branches, without footstalks; the flowers are yellow, and make no show— They are propagated by seeds and cuttings, and make an excellent front for evergreen quarters.

**CNICUS**, *Saffron flower*, or *Safflower*. See *Carthamus*. The *Carduus Benedictus*, or Blessed Thistle, was formerly ranged under this genus. See *Cerduus*.

**COATZONTECOXOCHILTL**, *Flower with the Viper's Head*, a Mexican flower, of incomparable beauty; it is composed of five petals, or leaves, purple in the innermost part, white in the middle, the rest red, but elegantly stained with yellow and white spots; the plant which bears it has leaves resembling those of the Iris, but longer and larger; its trunk is small and slim: This flower is one of the most esteemed among the Mexicans. The Lincean Academicians of Rome, on account of its beauty, have adopted it as the emblem of their very learned Academy, denominating it *Fior de Lince*.

**COCCULUS INDICUS**. See *Menispermum Cocculus*.

**COCCOLOBA**, *Sea-side Grape*, a genus of the Octandria Trigynia class, and 12th Natural Order, *Holoracea*; the calix is divided into five oblong, obtuse, concave, patent coloured, permanent segments; there is no corolla, nor pericarpium; the calix closes, thickens, assumes the shape of a berry, and encloses the seed, which is an oval acute nut, containing one cell. There are three species.

1. **C: NITIDIS**, (*Polygonum baccalis* of the Spec. Plant Uvifera Litorea of Pluke. *Guajabara racemosa* of Pluke. *Populus Americana* of C. B. and *Prunus maritima* of Sloane.) *Grape bearing Coccoloba*, or *Sea Side Grape*, a native of the West Indies; the stalks are woody, ten or twelve feet high, and covered with a smooth, brown bark; the leaves are heart-shaped, and almost round, of a thickish substance, a glossy green colour, and grow alternately on short footstalks; the flowers come out from the wings of the leaves on long slender bunches, they are of a white colour, and are succeeded by purplish reddish berries, as large as grapes, and of an agreeable astringent flavour.

2. **C: VENOSIS**, *Spotted Coccoloba*, hath slender ligneous stalks, five or six feet high, and covered with a brown bark; the leaves are spear-shaped, oval, much veined, and of a light green colour, the flowers are produced in slender bunches from the ends of the branches, and are succeeded by small spotted purplish berries, of an agreeable aromatic flavour.

3. **C: EXCORIATIS**, *Excoriated Coccoloba*, attains a height of near twenty feet, with a robust, woody stem, covered with a smooth grey bark; the leaves are very large, oval, pointed, veined, of a thickish substance, and a glossy green colour on their upper side, but pale underneath; the flowers come out from the ends of the branches, in long slender bunches, they are of a white colour, and are succeeded by small, roundish purplish fruit of inferior flavour to the first sort. They are propagated by seeds sown in pots, and plunged into hot beds.

COCHLEARIA, *Scurvy Grass*, or *Spoonwort*, a genus of the Tetradynamia Siliculosa class, and 39th Natural Order, *Siliquosa*; the pod is emarginated, turgid, and scabrous, and the valves are obtuse and gibbous. There are eight species.

1. C: OFFICINALS, *Common, or Garden Scurvy Grass, &c.* growing on sea shores, and in mountainous situations, where it flowers in the months of April and May; it hath a fibrous root, from which arise many round, succulent leaves, which are hollow like a spoon: The stalks rise to about a foot in height, and the flowers are produced in clusters from the ends of the branches, consisting of four small white petals, in form of a cross; these are succeeded by short, roundish, swelling seed vessels, hairy, two cells, divided by a thin partition, in each of the cells are contained four or five roundish seeds. When cultivated in gardens, this maritime plant retains its virtues without any sensible change; It possesses a considerable degree of acrimony, which resides in a very subtle essential oil, and as an antiscorbutic, its effects are sufficiently ascertained.

*Part used.* The leaves.

*Sensible properties.* Acrid and saline.

*Medical virtues.* Stimulant and antiscorbutic, it is capable of promoting the fluid secretions, and is particularly serviceable in the pitting asthma, and chronic rheumatism; it is eaten crude, an expressed juice, a distilled water, and a conserve are also prepared from its leaves; the former juice 2 to 4 ounces, and the latter to about half an ounce. Cows eat the plant, but it is refused by horses, sheep, and goats.

2. C: GROENLANDICA, *Groenland Scurvy-grass*, is a very low plant, and has very small, convex leaves, very fleshy and kidney-shaped, and have their edges entire; they blow in May.

3. C: ANGLICA, *English Scurvy-grass, or Spoonwort, common Sea Scurvy-grass*, grows on sea shores, muddy soils or salt marshes, and flowers in the month of May; the leaves are oval, spear-shaped and sinuated on their edges—this species possesses similar properties with the first, though in an inferior degree.

4. C: DANICA, or *Danish Scurvy-grass*, hath hastated or angular leaves resembling those of Ivy; there are two or three varieties, the stalks of some trailing, while others are erect, and about six inches high.

5. C: CORONOPUS, *Common wort Cress, Swines Cress, or Buck's horn*, thrives in corn fields, on rubbish and road sides; blows from June till August; it is a palatable salad herb, on which account the Germans cultivate it in gardens; it hath several weak, straggling branches, which separate like a Buck's horn; the leaves are pinnatifid and smooth.

6. C: ARMORACIA, or *Horse Radish*, a well known perennial plant, growing on the sides of ditches, the banks of rivers and other damp places, and is frequently cultivated in gardens, and flowers in the months of May and June—this species is propagated from seed also from suckers or young roots.

*Part used.* The root.



*Sensible properties.* Acrid, penetrating with very pungent effluvia while green, but when dry, it loses its acrimony, becomes first sweetish and afterwards almost insipid.

*Medical virtues.* Stimulant, diuretic and anti-scorbutic, it stimulates the solids and promotes the fluid secretions; it seems to extend its action through the whole habit, and affect the minutest glands. Sydenham recommends it in dropsies, particularly those which sometimes follow intermittent fevers; it is given in Infusion and Tincture, and externally in paralytic complaints, &c.

*Domestic uses.* The root when scraped is much used at the table as a condiment for fish, roast beef, &c. it is also employed for many other culinary purposes, and might in times of scarcity be reduced to flour for bread, after previous exsiccation, &c. When steeped and digested in vinegar for a fortnight this root is said effectually to remove freckles in the face. See *Raphanus Rusticanus*.

[A syrup made by boiling scraped horse-radish in brown sugar is an excellent remedy in the decline of colds and of pleurisies, to promote expectoration; a tea-spoonful may be taken frequently and permitted to dissolve in the mouth.

7. C: GLASTIFOLIA, *Wood-leaved Scurvy-grass*, hath angular, heart-shaped leaves, which embrace the stalk with their base; the flowers grow in loose spikes from the ends of the branches, are small and white.

8. C: DRABA, *Low hoary Dittander*; this, together with the *Cochlearia Humifusa* of Michaux, was formerly reckoned a *Lepidum*—they are however, found belonging to this place. See also *Lepidum*, &c.

COCKSCOMB. See *Celosia*, and *Phinanthus*.

COCKSFOOT GRASS. See *Dactylis*.

COCOA, or CACAO. See *Theobroma*.

COCOA PLUMB. See *Chrysobalanus*.

COCOS, a genus of the Monoecia Hexandria class, and 1st. Natural Order, *Palmae*; male calix; the general spatha is composed of one valve; the spadix is branching; the perianthium consists of three small, coloured, concave and nearly triquetrous leaves; the corolla consists of three oval, acute, patulous petals; the pericarpium is abortient—Females on the same spadix with the males; the spatha and spadix same as the hermaphrodites; the perianthium is composed of three roundish, concave, connivent, coloured, permanent leaves; the corolla is three permanent petals, similar to the calix, but larger; the pericarpium is a very large, roundish, coriaceous, obsoletely, three-cornered drupe; the seed is very large, and generally known. There is but one species.

C: FRONDIBUS (*Palma Indica Coccifera* of C. B.) *Cocoa Nut Tree*, a native of the East and West-Indies, where it is of the greatest use to the inhabitants, it frequently grows to the height of 60 or 70 feet in the trunk, and delights in a moist, sandy soil, especially near the banks of rivers and sea coasts, where it is propagated by planting its ripe and fresh nuts, that generally come up in the course of six or eight weeks, each branch produces from ten to twenty nuts, which when half ripe, contain a sweet milky liquor well calculated to quench thirst in fevers; the leaves of the *Cocoa*

are ten feet long, and thirty inches broad, it presents a constant succession of blossoms and fruit throughout the year. If the fruit or nuts are allowed to become fully ripe on the tree, the liquor or milk hardens into a kernel, which is partly eaten raw, and partly expressed and converted into an oil, that forms an important branch of trade in the Indies.

*Domestic uses.* Of the sap obtained by incision from the spatha or flower-sheath, the natives prepare wine, vinegar arach, and sugar—The trunk of the tree serves for timber and cabinet ware, and from the leaves are formed and manufactured baskets, hats, sail cloth, mats, parasols, shingles for covering houses, paper, &c.

COFFEE, The *Coffee Tree*, a genus of the Pentandria Monoginia class, and 47th Natural Order, *Stellatæ*; the corolla is hypocrateriform; the stamina are above the tube; the berry is below the flower and contains two seeds which are arillated. There are two species, viz.

1. C: ARABICA, *Arabian*, or *Mokha Tree*, a native of Arabia and Ethiopia.

2. C: OCCIDENTALIS, *West-Indian*, or *American Coffee*. The Coffee tree or shrub grows from twelve to eighteen feet high, was originally a native of Arabia, but is now cultivated in Persia, the East and West-Indies, and several parts of America, and is also rearing in the Botanic Gardens of Europe and South-Carolina. Its evergreen foliage resembles that of the Laurel or Bay, and at the base of the leaves appear annually white fragrant flowers, which are succeeded by a fruit resembling cherries, but of an unpleasant, sweetish taste, each containing two kernels or berries; they grow in clusters, and when of a deep red colour gathered, and carried to a mill in order to be manufactured into coffee beans—there are several varieties of coffee, but the two already noticed, and the East-Indian, are mostly esteemed. There is at St. Mary's in the State of Georgia, a coffee plant, as also in the Mississippi Territory, but as no experiments are known to have been made of them, nothing can be said farther.

*Medical virtues.* With respect to the medical properties of Coffee: it is in general excitant and stimulating, though we doubt whether it relaxes the animal fibres, as by some authors has been supposed. It cannot, however, be recommended to children, or persons of a hot, choleric, nervous or phthisical habit, nor will it be so useful in warm, as in cold temperate climates; but to the phlegmatic and sedentary, a cup of coffee one or two hours after a meal, or which is still better, one hour before it, may be of service to promote digestion and prevent or remove a propensity to sleep. In cases of Spasmodic Asthma (see English Encyclopædia) Hypochondriasis, Scrophulæ, Diarrhoea, Agues, and particularly against Narcotic Poisons, such as Opium, Hemlock, &c. Coffee often produces the best effects, nor is there a domestic remedy better adapted to relieve periodical head-aches, which proceed from want of tone, or from debility of the stomach: the heaviness, head-ache, giddiness, sickness and nervous affections which attack some persons after taking an opiate at night, or from a debauch, are generally abated by a cup or two of good strong coffee. As substitutes for Coffee,

in time of scarcity, particularly in the up country, the following have been used: Rye parched, Acorns, Beet Succory root, Scorzonera, Sweet Potatoes sliced, dried and parched, and the seed of Ochra: the two last are said to vie with the genuine coffee, when properly prepared.

COIX, or *Job's Tears*, a genus of the Monococia Triandria class, and 4th Natural Order, *Gramina*; the calix of the male is a double flowered glume without any awn; the corolla is likewise a glume without any awn; the calix of the female is an open, oval one-flowered glume; the stylus is bifid; and the seed is cartilaginous. There is but one species, a native of Jamaica.

C: LATIFOLIA, (*Lithospermum Arundinaceum* of C. B. *Lachryma Jobi* of Clus: and *Ova Piscium* of Rumph:) *Job's Tears*, or *Bead Corn*, an annual plant, and native of the Indies, though cultivated in Carolina; the root is thick and fibrous, the stalks are round and jointed, and grow to about a yard high; the leaves resemble those of reeds, are long, narrow, and grow singly at the joints; the flowers are produced in spikes from the bottoms of the leaves, standing on short footstalks, they are of a pale yellow colour, and the female flowers are succeeded by large beautiful, oval, smooth, grey coloured seeds. There is a variety with broad leaves, and another with finely polished purple or ash coloured seeds. Miller considers those as distinct species.

*Domestic uses.* The seeds in times of scarcity are ground into flour, of which a coarse, but hearty kind of bread is made for the labouring people of Spain and Portugal; they are also strung in the manner of beads, and worn as such by many both old and young, in Carolina up country, as it is said, to prevent Fits, and to forward dentition. They are propagated from seed.

COLCHICUM, or *Meadow Saffron*, a genus of the Hexandria Trigynia class, and 9th Natural Order, *Spathaceæ*; the corolla is divided into six segments, and the tube is radicated, or having its root in the ground, it has three inflated capsules united together. There are three species.

1. C: AUTUMNALE, *Common*, or *Tuberroot Meadow Saffron*, a perennial plant, growing wild in meadows in temperate climates; the root is an oblong, roundish bulb, frequently compressed and covered with a dark brown bark; the leaves and flowers appear at different seasons; the leaves come out in March and decay in June; they will grow near six inches in length and an inch in breadth and their colour is a deep green—the leaves being gone, no appearance of a plant is to be found till September, and then the flowers burst forth immediately from the root entirely naked and defenceless; the tube of the flower, like that of *Crocus*, is long, and supplies the place of a footstalk, it grows erect, widens gradually, and near the top divides into six large segments; it is a hardy plant, and produces its beautiful purple, white, red, rose-coloured, yellow, &c. flowers, single and double, according to their varieties, of which there are many. This vegetable is more ornamental than useful, and though it frequently occupies a considerable part of a meadow, it is never touched by horses.

*Part used.* The root.

*Sensible properties.* Smell pungent, taste acrid.

*Medical virtues.* Strongly cathartic and diuretic. It has been ever considered as a poison, but less injurious in autumn than in the spring; its seed is also deleterious though not mortal either to man or cattle; from these circumstances it claimed the attention of Dr. Stoerk of Vienna, who made it the subject of many experiments, since which it has been used by other practitioners. On some occasions it operates as a powerful diuretic, particularly in Dropsy, for which purpose an infusion of the root in vinegar is made into a syrup; when taken in substance it is said to excite burning heat, bloody stools, and other violent symptoms, and applied to the skin it shews some kind of acrimony; the most approved mode of exhibiting it is in syrup made as above, which has been given to the extent of two ounces a day without any bad consequence.

2. C: MONTANUM, *Mountain Colchicum*, a native of Spain and Portugal; in these the leaves appear soon after the flowers are past, which are of a reddish colour; the segments are long and narrow, and the stamina are yellow.

3. C: CHIONENSE, *Chequered Colchicum*—of this species there are the waved-leaved and the plain; the leaves are broad and of a deep green colour, the flowers are large, grow erect, and the segments are very long and beautiful, they are chequered like the Fritillaries, and the chequered work consists of different colours, the pale crimson, the blood red, and the white often continue to form these flowers in great beauty and perfection. They are propagated by dividing the roots, and from seeds.

COLDENIA, a genus of the Tetrandria Tetragynia class, the calix has four leaves; the corolla is tunnel-shaped, the fruit consists of four seeds. There is but one species, a native of India.

C: TETRACOCOS, *Four-seeded Coldenia*, an annual, and hath slender trailing stalks, that are branching, and grow about six inches long: the leaves are short, crenated, glaucous, nervous and sit close without any footstalks on the branches; the flowers come out in small clusters from the wings of the leaves, are small, of a pale blue colour, and blow in June and July. It is propagated from seeds.

COLEWORT. See *Brassica*.

COLLINSONIA, in honour of Peter Collinson, Esq. F. R. S. a genus of the Diandria Monogynia (in the old and new Encyclopædias it is said to be of the Decandria Monogynia genus—as there are but two stamens it must be a typographical error) class, and 40th Natural Order, *Personatæ*; the corolla is unequal the inferior lip being multifid and capillary, it has but one seed. There are two species.

1. C: SCABRIUSCULA, (C: *Tuberosa* of Michaux?) or *Rough-stalked Collinsonia*, found by the late John Bartram in East-Florida, is also a native of Carolina; it hath a tuberous root, and somewhat oval pointed leaves; it produces its reddish flowers in September. Formerly the following species was said to be only one, viz.

2. C: CANADENSIS, *Nettle-leaved Collinsonia*, *Horse weed*, *Knatt root*, or *Knot wood*, a native of Carolina, say the Alleghany Mountains: this plant has a perennial root, and usually rises four feet—the stalks decay in the the autumn, they are square, leaves heart-

shaped, serrated and opposite; the flowers are produced at the extremity of the stalks in loose spikes, are of a purplish yellow, and appear early in July or August; the root is composed of woody knots, which are extremely hard.

*Medical virtues.* An infusion of the bruised root in cyder has cured several alarming cases of dropsy. It would be well to try it infused in warm water. They are propagated from seeds, and by parting the roots.

COLOCYNTHIS. See *Cucumis*.

COLTSFOOT. See *Tussilago*.

COLUMBINE. See *Aquilegia*.

COLUMBO, or *Colombo*, a root obtained from a vegetable whose Botanical characters are not yet ascertained, it is brought from Colombo in Ceylon, in the form of knobs, having a rough surface, and consisting of a cortical, woody and medullary lamina: It has a disagreeable bitter taste, and an aromatic flavour, is considerably antiseptic, and particularly effectual in correcting and preventing the putridity of bile, in which case it is said to be superior to bark, and hence ought to be prescribed in yellow fever. It is much used in diseases attended with bilious symptoms, particularly in Cholera, and is said to be sometimes very effectual in other cases of vomiting, it is also considered as very useful in dyspepsia. It restrains alimentary fermentation without impairing digestion, and does not appear to have the least heating quality, and therefore may be used in Phthisics, Pulmonalis, and in hectic cases to strengthen digestion. It occasions no disturbance, and agrees very well with a milk diet, as it abates flatulence, and is indisposed to acidity. Half a drachm of the powder is given repeatedly in the day—Water is not so compleat a menstruum as spirits, but to their united action it yields a flavoured extract in very considerable quantity.

COLUMNÆA, a genus of the Didynamia Angiospernia class, and 40th Natural Order, *Personatæ*; the calix is divided into five segments, the upper labium of the corolla is vaulted and entire, and gibbous at the base; the antheræ are connected, and the capsule is bilocular. There is but one species, a native of Martinico.

C: SCANDENS, (*Achimenes major* of Brown, *Rapunculus*, fruticosus of Sloane) *Climbing Columnea*; the stalks are climbing, hairy, and lay hold of neighbouring trees for their support; the leaves are oval, hairy, serrated, and grow on footstalks; the flowers are produced from the wings of the leaves, they are of a beautiful scarlet colour, succeeded by oval, white coloured fruit. There is a variety with purple flowers, and another with yellow flowers and white fruit; they are propagated from seeds.

COLUTEA, *Bastard*, or *Bladder Senna*, a genus of the Diadelphia Decandria class, and 32d Natural Order, *Papilionaceæ*; the pod is inflated and opens at the top, and the calix is indented into five parts. There are three species, all of them deciduous flowering shrubs.

1. C: ARBOREA, (*Colutea Vesicari* of C. B.) *Common Bladder Senna*, a native of France, Italy and Austria; this species sports in

several varieties, viz. 1. The common. 2d. The Oriental. 3d. P-cocks, and 4th. the Red podded Bladder Senna. The common is the tallest of all the sorts, rising ten or twelve feet, the branches are of a whitish colour, which seems to distinguish it in winter, and the leaves in the summer have a pleasing effect, they are pinnated, the folioles are oval, and indented at top, they consist of four or five pair placed opposite, and are terminated by an odd one; the flowers are of the butterfly kind, and are produced in clusters, are numerous, of a yellow colour, and the footstalk that supports them is long and slender, they are succeeded by large inflated pods like bladders, which catch the attention of those who have not before seen them; they blow in July.

*Oriental Bladder Senna*, grows five or six feet high, the branches are greyish, the leaves pinnated and terminated by an odd one; the lobes are obversely cordated, and small; the flowers are reddish, spotted with yellow. *P-cocks Bladder Senna*, differs from the common no otherways than its being smaller, and the *Red Podded* is a variety which will happen in common to all the sorts more or less when raised from seeds.

2. C: ÆTHIOPICA, *Shrubby Æthiopian Bladder Senna*, or *Scarlet Coluea*, an annual plant, rises with a shrubby, branching stalk, to the height of four feet; the leaves are beautifully pinnated, each consisting of ten or twelve pair of hoary, oblong, oval folioles, which are terminated by an odd one, they are of a silvery whiteness, and the whole plant assumes the appearance of *Jupiter's beard*, (*Anthyllis Barba Jovis*) the flowers are of a fine scarlet colour, and are succeeded by large inflated pods, containing the seeds.

3. C: HERBACEA, *Herbaceous Æthiopian Bladder Senna*, also annual and a native of Æthiopia; the stalks are slender, herbaceous branching a little and grow only a foot high, the wings are pinnated, each being composed of five or six pair of narrow, hoary folioles; the flowers come out from the upper parts of the branches, three growing together on a slender footstalk, they are small and purplish, blow in July and are succeeded by flat oval pods containing the seeds, by which they are propagated. See *Coronilla*.

COMARUM, *Marsh Cinquefoil*, a genus of the Icosandria Polyginia class, and 35th Natural Order, *Senticosa*; the calix is divided into ten segments; the petals are five and less than the calix, and the seeds are ovated, spongy and persistent. There is but one species.

C: PALUSTRE, *Purple Marsh Locks*, or *Marsh Cinquefoil*, an indigenous perennial plant, growing in muddy and putrid marshes in Canada and Quebec; the root is thick, woody and possessed of numerous black fibres; the stalks are round, reddish, two or three feet long, and often lie on the ground; the leaves are each composed of five lobes, sometimes six or seven, they are oblong and serrated, hoary underneath, and join at their base, standing on pretty long footstalks; the flowers are of a reddish purple colour, three or four growing together on shortish footstalks, flowers in June and July, and produces red berries in autumn; the whole plant is employed for tanning calf skins; the Irish rub the inside of their milk vessels

with the root, which makes the milk richer and thicker, and the roots are used in dying an indifferent red colour; goats eat the plant but it is not relished by cows or sheep, and refused by horses and hogs; it is propagated by parting the roots and from seeds, and delights in a boggy, marshy situation.

COMETES, a genus of the Tetrandria Monogynia class of plants, for the first time noticed in the Encyclopædia; the involucre is tetraphyllous, and triflorous; the calix tetraphyllous; the capsule trilocular. We find no further accounts of it.

COMMELINA, a genus of the Triandria Monogynia class, and 6th Natural Order, *Ensateæ*; the calix is a large, cordated, connivent, compressed, permanent spatha; the corolla consists of six petals, of which the outer ones are small, oval, concave, and are often taken for a perianthium; the three others are large, roundish, and coloured; there are three nectaria which have the appearance of the stamina, being placed horizontally on their own separate filaments; the pericarpium is a naked, nearly globular, three-lobed, three-valved capsule, containing three cells, in each of which are lodged two angular seed. There are ten species.

1. C: ANNUA, *Annual Commelina*, a native of Armenia; the stalks are weak, smooth, branching, two feet long, trailing, and put out roots from the joints; the leaves are oval, spear-shaped, acute, veined, smooth, of a strong green colour, grow singly at the joints, and embrace the stalk with their base; the flowers come out from the bosom of the leaves. (two or three flowers only being in each spatha) and have short footstalks; two of the large petals are of a fine blue, the others of a green colour, and blow in June and July.

2. C: LONGIFOLIA, (C: Virginica of Lin.) *Long leaved Commelina*, a beautiful indigenous plant, growing naturally in Virginia, Carolina. &c. it has a firm erect stem, from two to three feet high, covered with down, long, lance-shaped leaves, and blue flowers.

3. C: ANGUSTIFOLIA, *Narrow leaved Commelina*, a native of Carolina; this has generally a single, though sometimes a branching stem, with linear, lance-shaped, acute leaves, and blue flowers.

4. C: CAROLINIANA, *Carolinian Commelina*, hath a branched and creeping stem, oval, spear-shaped leaves, and blue flowers.

5. C: PROCUMBENS, *African Commelina*, a perennial, and native of Ethiopia, hath smooth, jointed, creeping stalks, that lie on the ground, and strike root at the joints; the leaves are oval, spear-shaped, pointed, smooth, and embrace the stalk with their base; the flowers come out from the sides of the stalks, issuing from a large heart-shaped, permanent spatha: They are large, of a deep yellow colour, and the petals are heart-shaped.

6. C: ANACAMPSEROTIDES, *Tuberose Commelina*—The root is composed of many thick, fleshy tubers, joined together at the top; the stalks are tender, weak, and send out a few branches from the lower part; the leaves are oval, spear-shaped, ciliated, and sit close to the stalks; the flowers come out from the wings of the leaves, on slender footstalks, they are moderately large, and the three interior petals are roundish, and of a blue colour, but the three outer are green. It is a native of Mexico.

7. C: ZANONIA, (*Zanonia graminea* of Plum. *Percyloemenum Rectum* of Sloane.) *Grass-leaved Zanonias*, also a native of Mexico, hath trailing stalks, which strike root at the joints; the leaves are spear-shaped, narrow, grassy, and embrace the stalk with their base; the flowers come out three or four together, from the upper parts of the stalks, on thick footstalks, the three interior petals are large, and of a sky blue colour, the three outer small and green.

8. C: MALABARICUM, (*Ephemerum Malabaricum* of Ray.) *Malabarian Ephemerum*, also a native of Mexico; the stalk is round and tender, and three or four inches long, the leaves are narrow, and embrace the stalk with their base; the flowers are produced from the wings of the leaves, sitting close, having no footstalks, and appear in July.

9. C: ZEYLANICUM, *Cristed Commelina of Ceylon*, hath tender stalks, lying on the ground; the leaves are small and embrace the stalk with their base: the flowers are produced from the wings of the leaves, near the upper parts of the stalks, and blow in July.

I have seen no account of the 10th species—they are propagated by seeds, and in their native countries by parting the roots.

COMMERSONIA, a genus of plants described in the last edition of the English Encyclopædia, belonging to the Pentandria Pentagynia class, the calix is a one leaved, five parted corolliferous perianthium, with sharp, ovated segments, the corolla has five linear petals, the stamina are five, very short filaments at the bases of the petals, the pericarpium a globular, hard, five-celled nut, with two oval seeds in each division.

COMPTONIA, a genus of the Monoecia Monadelphica class of plants, enumerated by Michaux; the male calix has two leaves; there is no corolla, the amentum is cylindrical, scaly, and loosely imbricated; the calix of the female has six leaves; there is no corolla, the amentum egg-shaped: the styli are two capillary filaments, the fruit is an unilocular nut—there is but one species, a native of the United States.

C: ASPLENIFOLIA, *Sweet Fern*, hath long, linear, pinnated, and alternately crenated leaves; it grows naturally in New England, Virginia, and Carolina, it is employed in brewing, as a substitute for Hops.

CONCOU, the name of a plant in Guinea, which is in great esteem among the natives for killing the *Guinea Worms*, which breed in their flesh; they bruise the leaves and mixing them with oil, apply them in form of a cataplasm.

CONFERVA, a genus of the Cryptogamia Algæ class, and 57th Natural Order, *Algæ*, and consist of oblong, capillary filaments without any joints. There are 21 species, most of them growing on stones in slow streams, on the sides of cisterns, or in ponds.

CONGO TEA. See *Thea*.

CONIUM, *Hemlock*, a genus of the Pentandria Digynia class, and 45th Natural Order, *Umbellatæ*; the general umbel is composed of many spreading rays, the partial is similar; the general involucre is unequal and composed of many very short leaves, the partial is similar; the proper perianthium is very small; the gene-



ral corolla is uniform, each separate flower consists of five unequal, inflexed, heart-shaped petals; there is no pericarpium; the fruit is globular, crenated on each side, and has five striæ or streaks. There are five species.

1. *MACULATUM*, (*Cicuta Major* of C. B.) *Common, or Greater Hemlock, or Kex*, a native of Europe, and is a biennial plant, growing in hedges, orchards, among rubbish, on cultivated ground and dung-hills, the root is thick, white, long, like parsnip, of a strong scent and agreeable taste; its stalk is more than a yard high, sometimes an inch thick, hollow, marked with many red spots, and knotty, branching out towards the top into several smaller stalks, garnished with decomposed leaves, whose lobes are cut at top into three parts, and of a strong disagreeable smell; its umbels consist of numerous small white flowers, and blossom in June or July; the fruit resembles aniseed, but has an unpleasant taste.

*Parts used.* The leaves, flower and seed.

*Sensible properties.* Smell fœtid, taste herbaceous.

*Medical virtues.* Narcotic in large doses, sedative and diuretic in smaller ones. It is to be observed, that this plant is one among the most deleterious vegetables, and when imprudently taken it has been generally accounted poisonous, which it doubtless is when taken in any considerable quantity. Dr. Stoerk has found that in certain small doses it may be taken with safety, and that without at all disordering the constitution, or even producing any sensible operation; it sometimes proves a powerful resolvent in many obstinate disorders, and is serviceable in schirrous tumours of the breast, cancers, particularly open or ulcerate cancers, scrophulous tumours, and ulcers, and other ill-conditioned sores, and in chin, or hooping-cough, &c. The common, and perhaps the best form of administering it is that of the powdered leaves, in the dose at first of two or three grains a day, which in some obstinate cases has been gradually increased to upwards of two ounces in a day, without even producing giddiness. It is sometimes applied externally in form of decoction, infusion or poultice, as a discutient; these are however apt to excoriate, and their vapour is sometimes particularly disagreeable and hurtful. An extract is prepared from the unripe seeds, and an inspissated juice of the plant; this should also be given at first in very small doses of one, two or three grains a day, and increasing gradually. The root is the most virulent.

*Note.* It were best for those persons unacquainted with medicine to refrain from meddling with Hemlock. It is such a precarious medicine, that its exhibition ought in all cases to be confined to professional gentlemen; if taken inadvertently, it requires the same treatment as is usual in similar cases, such as immediate vomiting, quantities of mucilaginous drinks, as decoctions of barley, oatmeal, lin or flaxseed, marshmallows, &c. and milk and water; after taking which the poisonous matter will be most effectually counteracted by diluted vinegar, juice of lemons, or other vegetable acids, &c.

2. *C. TENUIFOLIUM*, *Narrow-leaved Hemlock*, a biennial and native of Germany; this differs from the foregoing in having taller

stalks, and which are less spotted; the leaves are also much narrower, and of a paler green, the seeds are striated.

3. C: AFRICANUM, (Caucalis of Boerh:) *African Hemlock*, hath round, hollow, branching stalks, and grow near a foot high; the leaves are divided into many parts, and much resemble those of small wild Rue; the flowers are produced from the ends of the stalks in compound umbels, they are of a yellow colour, and blow in July.

4. C: SEMENIBUS RADIATO-SPINOSIS, *Royen's Hemlock*, it is not certainly known in what part of the world this species grows naturally, neither have we any description of it—See also Cicuta, Oenanthus, Phellandrium, &c. &c.

CONNARUS, *Ceylon Sumach*, a genus of the Monadelphia Decandria class, and 59th Natural Order *Dubii Ordines*; it has but one stylus; the stigma is simple, and the capsule has two valves, and contains one seed. There is but one species.

C: MONOCARPUS, *Ceylon Sumach*, a native of India; it rises with a ligneous stalk eight or ten feet high, which is hard, rigid, and covered with a black bark, it divides upwards into two or three branches, garnished with trifoliate leaves, having long footstalks placed alternately. It is propagated by cuttings, and treated as other tender plants are.

CONOCARPODENDRON. See *Protea*.

CONOCARPUS, *Button-tree*, a genus of the Pentandria Monogynia class and 48th Natural Order, *Aggregatæ*; the corolla consists of four petals; the seeds are naked, solitary and below the flower; the flowers are aggregated. There are three species, all natives of the Indies, but are not esteemed either useful or beautiful.

1. C: ERECTA, (Alnus Maritima of Pluke. *Rudbeckia laurifolia* of Amm: *Innominata* of Plum.) *Upright Button tree*, hath an upright trunk, near a foot in diameter, and grows to about twenty or thirty feet high; the leaves are oblong, spear-shaped, long, and grow on short footstalks; the flowers come out from the ends and sides of the branches, and arise from the wings of the leaves in conical heads, they are small and of a reddish colour. There is a variety with yellow flowers.

2. C: RACEMOSA, (Mangle julifera of Sloane,) *Racemose Button tree*, a native of the maritime parts of Jamaica, the trunk is upright, near twenty feet high, and divides into many spreading branches near the top; the leaves are spear-shaped, oval, obtuse and grow on biglandulous footstalks; the flowers come out from the ends of the branches in loose clusters.

3. C: PROCUMBENS, *Procumbent Button tree*, the stalks are ligneous, branching and lie on the ground; the leaves are roundish, oval, thick and come out from every side of the branches on short footstalks; the flowers are produced from the sides of the branches in roundish heads, they are small and greenish; they are propagated by seeds obtained from their native places, and treated as other stove plants.

CONSOLIDIDA. See *Ajuga* and *Symphitum*.

CONTRAYERVA. See *Dorstenia*.

CONVALARIA, or *Lily of the Valley*, a genus of the Hexandria Monogynia class, and the 11th Natural Order, *Sarmentaceæ*; it

has no calix; the corolla is divided into six segments, and the berry is spotted, and has three cells—there are eight species.

1. C: MAJALIS, (*Lilium convallium*, C. B. &c.) *May Lily*, or *Lily of the Valley*. This is an indigenous perennial plant, growing in woods, heaths, and at the foot of hills, in South Carolina, &c. This plant is universally admired for the extreme fragrance of the flowers, the root is oblong, white, fibrous, and creeps under the surface of the ground, from this the leaves come out by pairs, one of which is for the most part taller than the other, they are narrow at the base, broadest in the middle, and diminish gradually to the end; they are from four to six inches long, have several longitudinal veins, and their real colour is a deep green; the footstalks of the flowers rise immediately from the roots, by the sides of the leaves, they are naked, grow to about six inches high; the flowers are ranged from the middle to the top, in a single series; they have crooked footstalks, hang drooping, and appear in May. The varieties are common white, red, striped, double white, and double variegated *Lily of the Valley*.

*Part used.* Flowers and root.

*Sensible properties.* The flowers when fresh very fragrant, but dried acquire a narcotic scent, and if reduced to powder, excite sneezing. Both flowers and roots have a bitter taste, mucilagenous.

*Medical virtues.* Emollient, obtunding, and cathartic. The flowers afford a valuable exhilarating cordial, and are reputed excellent in palsies, apoplexies, cramps, &c. and for giving relief in the gout, it is given in infusion and decoction, and an extract made from the roots and flowers possesses similar purgative properties with aloes; dose from 20 to 30 grains; the root is also of great fame for closing green wounds, knitting of bones, curing of bruises, and cleaning away black or blue marks; for which purpose it is used as a poultice.

*Domestic uses.* A beautiful green colour may be prepared from the leaves with the addition of lime.

2. C: AMPLEXICAULIBUS, *Solomon's Seal*, a native perennial plant, growing in woods and thickets, throughout the United States the stalks are edged, firm, striated, about two feet long, and naked at the bottom, but adorned at the top, they turn downwards with oblong, oval, ribbed leaves; these occupy one side of the stalks, (while the other is adorned with the flowers) they grow singly, and embrace the stalk with their base; the flowers come out from the wings of the leaves, but turn to the opposite side of the stalks, they have short crooked footstalks, and hang drooping, are white at bottom, but green at top, and flowers in May or June. This plant is eaten by cows, goats, and sheep, it possesses the properties of the *Multiflora* species, but in an inferior degree, and to which it bears so close resemblance, that it can be distinguished only by its smaller white flowers, tipped with green—whereas, those of the following are larger, less in number, and white, with a green line running down each segment. The varieties are, the common purple stalked, sweet scented, and double flowered *Solomon's Seal*.

3. C: VERTICILLATIS, (*Polygonatum Angustifolium* of C. B.) *Narrow-leaved Solomon's Seal*, also an indigenous perennial, hath slender stalks, that are angular, upright, and near two feet high, the

leaves are long, narrow, smooth, of a bluish green, and grow in whorls round the stalks at the joints; the flowers come out from the joints on short footstalks. they are small, and usually grow four or five together, on a footstalk—the bottom of the flowers is white, but the brim is green.

4. C: RACEMOSA, *Rasemose Solomon's Seal*, also an indigenous perennial, growing naturally in the mountainous parts of Carolina; the stalks are upright, firm, and grow to near a yard high, the leaves are oblong, pointed, ribbed, of a pale green colour, grow alternately, and sit close without any footstalk; the flowers are produced in branching spikes, from the ends of the stalks, and are of a pale yellow colour, and blow in May and June.

5. C: STELLATA, (*Polygonatum Canadense* Cornut. Virginianum of Moris.) *Stellated Solomon's Seal*, a native of Canada; the stalks are firm, and two feet high, the leaves are oblong, numerous of a pale green colour, embrace the stalks with their base, the flowers grow in single spikes, from the extremities of the stalks, they are of a pale yellow colour, come out early in June, and are succeeded by small red berries.

6. C: TRIFOLIA, *Three-leaved Convallaria*, grows naturally in Siberia, Hudson's Bay, Quebec, &c. The stalk is slender, firm, and about a foot and a half high; the leaves are oval, oblong, ribbed, and embrace the stalks with their base; the flowers grow in single spikes from the ends of the stalks, and blow in May.

7. C: BIFOLIA, *Two-leaved Convallaria*, or *Least Lily of the Vale*, a native of Canada; the stalks are upright, slender, and about six inches high, the radical leaves are heart-shaped, and arise from the roots on footstalks; those on the stalks are few in number, seldom being more than two, which are situated one above another, the flowers grow in loose spikes at the ends of the stalks, they are white and finely scented.

8. C: MULTIFLORA, (*Polygonatum* of C. B.) *Sweet Smelling*, or *Many flowered Solomon's Seal*, a perennial, growing in mountains, woods, and fissures of rocks; the stalks are taper, firm, and about two feet high, the leaves are smooth, broad, of a dark green colour, and embrace the stalks with their base: the varieties are large broad leaved, many flowered dwarf Multiflorous, sweet scented Multiflorous, and double Multiflorous Solomon's Seal: they produce their flowers as already described in the second species, in May or June, according to their varieties: The roots consist of a pulpy tuberous, (several jointed with some flat circular depressions, supposed to resemble the stamp of the seal) white, sweet, and mucilaginous substance.

*Medical virtues.* It was formerly celebrated as a vulnerary in the same intentions with the first species, but the present practice pays no regard to it—except the expressed juice being somewhat acrid, is used as a cosmetic, or a lotion for pimples, &c.

*Domestic uses.* The roots deprived of their acrid properties have in times of scarcity been converted into a wholesome bread, and are always used for that purpose by the lower classes in Sweden and Russia: A good starch may likewise be extracted from them, and the young shoots of this, as well as the preceding, i. e. Multiflora

may be eaten Asparagus—they are propagated by parting the roots. For the other species of Lilies, see *Lilium*, *Nymphaea*, &c.

**CONVOLVULUS**, or *Bind weed*, a genus of the Pentandria Monogynia class, and 29th Natural Order, *Camphanaceae*; the corolla is bell-shaped and plaited, it has two stigmata, and the capsule is bilocular, each cell containing two seeds. There are 43 species, of which we shall only particularly describe those possessing beauty or Medical virtues.

1. C: **ARVENSES**, or *Small Bind weed*, a common plant in fields and hedges, but particularly troublesome in gardens of a gravelly soil, it produces its red and white flowers in June or July. The roots of this species strike deep into the ground and injures the growth of other plants, it ought therefore to be extirpated or removed to sandy banks, &c. to bind the soil.

2. C: **SEPIUM**, *Great, or Large white Bind weed, or Bear Bind*, this is likewise a pernicious plant in gardens, it thrives under moist hedges; its stalks grow to the height of several feet, the leaves are arrow-shaped; and bears white or purplish blossoms in July; the root of this species is very acrid and purgative to the human constitution, but does not affect swine, though eaten in large quantities.

3. C: **SOLDANELLA**, *Sea Colewort, Scotch Scurvy Grass, or Soldanella, or Sea Bind weed*, (called by Ray *Convolvuli maritimi Soldanellæ*: Dicti.) It is a trailing plant growing on the Sea Beech and sandy shores; it cannot be long preserved in gardens; it sends forth its purple flowers in July.

*Medical virtues.* This species is also possessed of cathartic properties, so that half an ounce of the juice of the root, or one drachm of the powder is a strong dose; the leaves have been often externally applied for the reduction of dropsical swellings of the legs, with good effect.

4. C: **JALAPPA**, *Jalap*, this is an exotic species of Bind weed, which produces that valuable medicine, Jalap. It hath a large root of an oval form, which is full of a milky juice; from this root come out many herbaceous, twining stalks, rising eight or ten feet high, garnished with variable leaves, some heart-shaped, others angular and some oblong and pointed; the flowers are like those of the second species. Botanists have been divided with regard to the true genus of this root—Tournefort and Linnæus will have it that Jalap belongs to a species of the *Mirabilis*, or *Marvel of Peru*, but Houston and later writers declare it to belong to the *Convolvulus*: it is now generally received as such.

*Part used.* The root.

*Sensible properties.* Resinous, slightly pungent, of an agreeable smell to some persons.

*Medical virtues.* It is an effectual and safe purgative when taken in its simple state of powder; in hypochondriacal disorders and hot bilious temperaments it gripes violently, but rarely takes due effect as a purge. An extract made by water, purges almost universally, but weakly, and at the same time has a considerable effect by urine; the root remaining after this process gripes considerably. The pure resin prepared by spirit of Wine occasions, if taken alone,

most violent gripings and other distressing symptoms, but scarcely proves at all cathartic. Triturated with sugar, or with almonds, into the form of an emulsion, or dissolved in spirit and mixed with syrups, it purges plentifully in a small dose, without occasioning much disorder. It was formerly said to be improper for children later experience proves that children bear it better than adults—combined with Calomel it often proves an excellent vermifuge medicine, frequently bringing away quantities of worms.

5. C: *BATATAS*, *Sweet*, or *Spanish Potatoes*, a well known, delicious esculent root, of which there are several varieties, as, 1st. the Yam Potatoe, 2d. the Leather-coat, 3d. the Spanish, 4th. common Yellow, 5th. the Brimstone, 6th. Tobacco roots. (of Virginia) 7th. common White, 8th. White Bermudian, 9th. common Red, 10th. Red Bermudian, which last has a red skin, and a snow white substance internally, and from which quantities of Sago have been manufactured, particularly in the vicinity of Savannah, in the state of Georgia, by the name of Bowen's Patent Sago; also by the late Dr. Beacroft of same place—it certainly yields a considerable quantity of farinaceous matter, which forms a fine nutritious jelly when mixed with boiling water. The process for making this Sago is, grating the clean scraped roots, washing the mass through brass wire sieves of different sizes, and collecting the deposited flour at the bottom of the receiving vessel, and finally drying it in pans, either in the sun or by the fire.

*Domestic uses.* The domestic uses of the Sweet Potatoes are so universally known in America, as to require no farther description.

6. C: *SCOPARIUS*, or *Bushy Bindweed*, which grows wild in the Island of Barancas, and affords, it is said the fragrant Oil and wood of Rhodium—this is however not yet reduced to a certainty.

7. C: *SCAMMONIA*, *Scammony*, or *Syrian Bindweed*, producing the concrete juice called Scammony; it is said to be a large climbing plant, growing in Asiatic Turkey: The roots are large, thick, and full of a milky juice, which is the Scammony of the shops; these roots send forth many branches, about four feet in length, they trail on' the ground, are ornamented with sagitated leaves, the flowers are produced from the sides of the branches, and are of a pale yellow colour—each footstalk supports two or three flowers.

*Part used.* The gum resin.

*Sensible properties.* A faint unpleasant smell, and a bitterish, somewhat acrimonious taste.

*Medical virtues.* Scammony is an efficacious and strong purgative, though by some considered as unsafe, and as possessing sundry ill qualities; the principal charge brought against this drug, is that its operation is uncertain, a full dose proving sometimes ineffectual, while at others a much smaller one occasions dangerous hypercatharsis; this difference, however, is owing entirely to the different circumstances of the patient, and not to any ill qualities of the medicine. Where the intestines are lined with an excessive load of mucus, the Scammony passes through them without exerting itself—where the natural mucus is deficient, a small dose of this, or any other resinous cathartic irritates, and inflames: However, if judiciously managed, as hath been directed in the Jalap, or

4th species, it becomes a safe and mild medicine. It is given from three to twelve grains, for a common dose, and enters many compound powders of the shops, and of practitioners.

8. C: POLYGONUM, *Black Bindweed*, *Climbing Buckwheat*, or *Climbing Snakeweed*, a native vegetable, growing about corn-fields, gardens, and hedges, and flowers in June and July: The seeds of this species are equal to the other kinds of Buckwheat, and are produced in greater quantities, and may be more easily collected, as they ripen more uniformly. See *Polygonum*.

9. C: TURPETHUM, *Turbith*, an officinal drug of that name, is prepared from the root of this exotic species of Bindweed, a native of Ceylon: It hath thick, fleshy, spreading roots, which are milky; from these roots issue many small, twining, quadrangular, membranaceous stalks, the leaves of which are heart-shaped, and angular; the flowers are produced from the joints of the stalks, many of them growing together on one common footstalk; they are large, of a clear white colour, and are succeeded by round capsules containing the seeds.

*Part used.* The cortical part of the root.

*Sensible properties.* Taste at first sweetish, chewed for a little time it becomes acrid, pungent, and nauseous.

*Medical virtues.* This root is a cathartic, not of the safest or most certain kind; the resinous matter in which its virtue resides appears to be very unequally distributed, insomuch that a scruple of some pieces purge violently, while larger doses of other pieces have scarce any effect at all; an extract made from the root is more uniform in strength, though not superior, or even equal to purgatives more common in the shops.

10. C: PANDURATUS, or *Wild Potatoe of Carolina*: The root is perennial, thick and long like a carrot, leaves heart-shaped, and downy; the capsule two celled, and two seeded, the roots are purgative.

11. C: MECOACANÆ, or *White Jalap*, brought from Mechoacan, in Mexico, as early as 1524; but since the introduction of the brown Jalap, it has gone into disrepute; though an excellent purgative, universally safe, and capable of evacuating all morbid humours, from the most remote parts of the body. It is a useful cathartic, has very little smell or taste, and is not apt to offend the stomach; its operation is slow, but effectual and safe; it seems to differ from Jalap only in being weaker; the resins obtained from both have nearly the same qualities. Mr. S. Legare, formerly of Cypress, informed the Compiler that he had been in the habit of giving his field negroes our Poke Root, (*Phytolacca*) powdered, as a substitute for *Mechoacan* or white Jalap, and that it answered all the ends of Jalap: He gave from 30 grains, to a drachm to adults.

12. C: BIGLANDULOSIS, *Purging Sea Purple-flowered Bindweed*, grows naturally in the West-Indies, on the sea shores, it hath many trailing stalks, which spread all around, the leaves are of an oval figure, and their edges indented; the flowers are large, of a fine purple colour, one footstalk supports three flowers, which are succeeded by large, oval seed vessels.

13. C: MARINUS CATHARTICUS, *Purging Sea, white-flowered Bindweed*; is a creeping plant, and the stalks put forth roots at the joints; the roots are arrow-shaped and obtuse on their hinder parts; the flowers are white, though there is a yellow variety.

14. C: NIL, *Blue Bindweed, or Convolvulus Indigo*, a native of Carolina, with twining stems and heart-shaped leaves, divided into three lobes, they are woolly and stand upon long footstalks; the flowers are of a very deep blue; this is the handsomest species of the whole genus.

15. C: PURPUREUS, *Convolvulus Major*, a native of Carolina, with twining stem, the leaves are generally of a roundish, heart-shaped figure, and the flowers deep purple, white, red or blue, according to the varieties.

16. C: CAROLINUS, *Carolinian Convolvulus*, a native of Carolina, with twining stem, smooth, sub-lanceolate leaves, of three lobes.

17. C: REPENS, *Creeping Convolvulus*, a native of the United States, with creeping stem, and leaves of a roundish, heart-shaped figure, and somewhat sagittate; the flowers are white, tinged with rose colour, and the margins of the floral leaves purple.

18. C: SPECIOSUS, (*Sagittifolius* of Mich.) a native of Carolina, with twining stem, and deeply sinuated, oblong, arrow-shaped leaves, and rose-coloured flowers. This is also a beautiful species.

19. C: SPITAMÆUS, (C: Stans of Michaux) *Canada Convolvulus*, a native of Canada, hath an erect, downy stalk, with oval, nearly heart-shaped leaves, upon short footstalks; the flowers are bell-shaped, oblong and of a white colour.

20. C: HUMISTRATUS. (C: Tricosanthes of Mich.) a native of Carolina, style bifid or forked, stalk hairy, leaves oblong lanceolate, flowers white and toothed at the margin.

21. C: AQUATICUS, is said by Michaux to be a variety of the foregoing, the difference being only in the leaves, one being broad, the other narrow.

22. C: LINARIÆ, *Linaria-leaved Convolvulus*, a native of France and Italy, hath erect stalks, narrow, pointed, hoary leaves, which sit close to the branches, and pale blue flowers.

23. C: RUBRA, *Linaria-leaved, Red flowering Bind weed*, hath upright, branching stalks, and long and narrow leaves, which sit close to the stalk; the flowers are produced from the sides of the stalks on long footstalks, four or five of them will grow on each peduncle, and are of a delicate red colour and spread open.

24. C: CONFERTIS, *Clustered-flowered, Linaria-leaved Convolvulus*, hath branching stalks, narrow, silky leaves and flowers, which are produced in clusters, they are small and of a red colour.

25. C: SICULUS MINOR, *Small Sicilian Convolvulus*, hath a slender, winding stalk, rising about two feet; the leaves are of a cordated oval figure; the flowers are small and bluish.

26. C: LUSITANICUS, *Convolvulus Minor*, this is an annual plant, and native of Portugal; the stalks are not twining, but naturally prostrate themselves on the ground, the leaves are of a lanceolate figure and sit close to the stalks; the most beautiful variety has blue flowers, with white bottoms; the other varieties are white, and variegated.



27. C: TRILOBIS, *Trifid Convolvulus*, sends forth many twining branches, covered with a whitish down; the leaves are also downy, large, broad and deeply divided into three broad, undivided, sharp pointed lobes; the flowers are large and of a beautiful purple colour.

28. C: PENTAPHYLLUS, *Five-leaved, hairy-stalked Convolvulus*, this will rise to 20 or 30 feet high, hath smooth twining stalks, and leaves divided into five sharp pointed lobes; the flowers are very large and of a fine purple colour.

29. C: HEPTAPHYLLUS, *Seven-leaved Convolvulus*, hath a strong winding stalk, which divides into smaller, and by the help of bushes will aspire to 20 feet or more; the leaves are composed of seven lobes, (though sometimes only five) which are spear-shaped, and have their edges deeply indented; the flowers are produced singly on footstalks; they are in general of a fine purple colour, though there is a variety with white flowers.

30. C: CANARIENSIS, *Evergreen Canary Bindweed*; there are two varieties, the white and the blue flowering kinds; they are tall, growing plants, having ligneous hairy stalks; the leaves are of an oblong, cordated figure, soft and downy to the touch; the flowers grow several upon a footstalk, and are of the colours already enumerated.

31. C: DORYCNium, *Silvery unbellated upright Bindweed*, this is a native of Crete and Syria, and is a kind of shrub about a yard high; the leaves are spear-shaped, and very downy, and their silvery look has a sweet effect; the flowers are produced in clusters from the ends of the branches, and are of a pale red colour, though there is a variety with white flowers.

32. C: ARGENTEUS, *Silvery Oriental Bindweed*, grows about six feet high, the branches have a winding tendency, and the leaves a silver look, their general figure is that of a heart, but they are cut into five or seven lobes, so as to constitute a palmated leaf, they are of a delicate texture, feel like satin to the touch, and are placed on short footstalks on the branches, the flowers are variegated, the ground is a pink colour, striped with a deep red; the varieties are Silvery betony-leaved, Silvery althea-leaved, and Silvery creeping Bindweed.

33. C: CILIOLATUS, an indigenous species growing in Tennessee, the stalk is smooth and twining; the leaves are heart-shaped, somewhat hairy on the margin, and the flower is white, tubular and bell-shaped.

34. C: OBTUSILOBUS, a native of Georgia and Florida, hath a prostrate smooth stalk, leaves deeply sinuated and cut into lobes, the lobes round and obtuse.

35. C: DISSECTUS, a native of Florida, delighting in a calcareous soil, the stalk is hairy and twining; the leaves are smooth, hand-shaped, and the flowers are white and bell-shaped.

36. C: ALSINIFOLIA, *Small Indian Chickweed-leaved Bindweed*, the stalks are very weak and prostrate; the leaves are oval, hairy, about the size of common Chickweed, and grow alternately on the branches; the flowers are small, and of a light blue colour.

37. C: AMERICANA, *Large, hairy, American red-flowered Bindweed*, rises with a twining stalk to eight feet high, the leaves are

heart-shaped and pointed, and the flowers are large and of a red colour, two usually growing on a footstalk.

38. C: *HEDERÆFOLIA*, *Ivy-leaved, blue-flowering Bindweed*, hath slender twining stalks, about four feet long; the leaves are triangular and pointed; the flowers come out in clusters sit close to the sides of the stalks, and are of a blue colour.

39. C: *FASCICULA*, *Jamaica cluster-flowering Bindweed*, hath also twining stalks, about eight feet high; the leaves are like those of the common Bind weed; the flowers are very beautiful, are produced in bunches, and are of a delightful purple colour.

40. C: *GLABRIS*, *Oblong, smooth-leaved Bindweed*, hath winding stalks about seven feet long; the leaves are of an oblong, oval figure and very smooth; the flowers are very long, large, and of a fine purple colour.

41. C: *ALTHEIFOLIA*, *American marsh-mallow-leaved Polyanthos Bindweed*, also a twining plant, rising eight or nine feet; the leaves are heart-shaped, soft to the touch, downy and resemble those of marsh mallow; the flowers are produced on strong footstalks, each supporting many flowers, which are of a good purple colour.

42. C: *ARISTOLOCHIFOLIA*, *American Birthwort-leaved Polyanthos Bindweed*, the stalk is like the foregoing; the leaves are arrow-shaped, and the ears at the base are rounded; the flowers are produced in clusters and are yellow. They are propagated by seeds, layers, cuttings, and dividing the roots; several of them are tender plants, and require care in their culture, especially the exotic species.

*CONYZA*, or *Flea-Bane*, a genus of the Syngenesia Polygamia Superflua class, and 49th Natural Order, *Compositæ*; the receptacle is naked; the pappus is simple; the calix is roundish and imbricated, and the rays of the corolla are divided into three segments. There are 19 species.

1. C: *SQUARROSA*, *Great Flea Bane*, or *Ploughman's Spikenard*, a biennial plant growing in mountainous meadows and pastures of Europe, in a calcareous soil; the stalks are upright, round, firm, branching, and grow to about two feet high; the leaves are oblong, spear-shaped, serrated and hairy—the radical ones are broad, and moderately large, but those on the stalks are smaller, and grow alternately, producing yellow flowers in roundish bunches, in the months of July and August. This plant possesses the odour of Musk; the smoke occasioned by burning it was formerly much employed for the destruction of fleas and gnats, as well as other insects.

2. C: *AMPLEXICAULIBUS*, (*Eupatoria Conyzoides* of Pluke:) *Pyrenean Flea Bane*, hath upright, firm, winged stalks, and divide upwards into many branches; the leaves are oval, oblong, rough, and embrace the stalks with their base; the flowers come out from the ends of the branches in round bunches, and are yellow.

3. C: *CRETICA*, (*Aster Tomentosis* of Boccone, *Jacobæa Cretica* of Barrel.) *White Cretan Flea Bane*, the stalk of this plant is shrubby, branching and grows to about six or eight feet high; the leaves are soft, oval, downy and of a silvery whiteness; the

flowers are produced two or three together, from the ends and sides of the branches, on long, wooly footstalks, which have small, oval, white leaves, placed alternately, they are of a dirty yellow colour.

4. C: MARILANDICUS, *Maryland Flea Bane*, the root of this plant is spreading, fibrous and sends forth several herbaceous stalks to the height of about two feet; the leaves are broad, spear-shaped and slightly serrated on their edges; the flowers are finely radiated and produced in roundish bunches, they are of a white colour.

5. C: CAROLINIANA, *Carolina Flea Bane*, the stalks of this species is slender, striated, winged, having membranes running from the base of one leaf to another; the leaves are narrow, spear-shaped decurrent, whitish, and downy underneath, and sawed on their edges; the flowers are produced in small spikes from different parts of the plants, and their colour of a greenish white.

*Note.* This plant has been introduced among the simples as a domestic remedy in the country, in female complaints, particularly *Fluor Albus*; but the mode of its exhibition is unknown to the Compiler. One of this species is to be seen in the Botanic Garden of South Carolina.

6. C: DECURRENTIBUS, *Decurrent Flea Bane*, an annual plant, hath herbaceous, erect, forked, downy stalks, about a foot high, the leaves are spear-shaped, downy, serrated and decurrent; the flowers are produced from the wings of the leaves, in roundish heads of a dirty white or bluish colour, it is a native of India.

7. C: PANICULATIS, (Senecio Indica of Burm, Eupatorium angustiore of Pluke. and Olus Serophinum of Rhump.) *Indian Groundsel*, hath herbaceous, upright, branching stalks, the height of the former; the leaves are oblong, oval, and some of them spear-shaped, the edges of some are serrated, and others indented; the flowers are produced in panicles from the ends of the stalks and are yellow.

8. C: ARBORESCENS, (Eupatorium Erectum hirsutum of Brown.) *Tree Flea Bane*, a native of Jamaica; this plant rises with a woody stem eight or ten feet high, sending forth many branches, which are covered with a mealy bark; the leaves are oval, acute, undivided, hairy, of a silvery whiteness underneath, and placed alternately, without any footstalks, on the branches; the flowers are of a pale purple colour, and come out in recurved spikes, from the ends and sides of the branches. There is a variety with fine blue flowers, and another of lower growth, with narrow, spear-shaped leaves.

9. C: FRUTESCENS, *Shrubby Flea Bane*, a native of America, and rises with a shrubby branching stalk, to about six feet high, the leaves are oval, undivided, obtuse, smooth, and placed alternately, without any footstalks, on the branches; the flowers grow alternately from the sides of the branches, they have no footstalks, are of a purple colour, and are succeeded by downy heads, containing the seeds. There is a variety with white flowers.

10. C: ODORATA, *Sweet-scented Flea Bane*, a native of the warmer parts of America; the stalks are shrubby, upright, branching, and grow to four or five feet high; the leaves are oval, hairy, serrated, acute, downy underneath, and placed on short footstalks, on the branches; the flowers are produced in roundish bunches, are of a purple colour, very fragrant, and succeeded by downy heads, con-

taining the seeds. There are two or three varieties of this species, one is of low growth, another hath broad, rough leaves, a third smooth leaves and flowers of a pale purple colour.

11. C: ZEYLANENSIS, *Balsamiferous Flea Bane*, a native of India; the stalk is shrubby, branching, and four or five feet high; the leaves are spear-shaped, downy underneath, and when bruised emit a fine balsamic odour; the flowers are produced from the ends and sides of the branches in small heads; their colour is purplish, and they are succeeded by downy dark coloured seeds.

12. C: MADAGASCARIENSIS, *Tortuous Flea Bane*, a native of Madagascar; the stalks are shrubby, climbing, send forth many branches, and will grow to twelve feet high, the leaves are oval, oblong, undivided, nervous, of a thick substance, continue all winter on the plant, and are of a pale green colour; the flowers are produced from the sides of the branches, in long, reflexed spikes, they are large, white, and are succeeded by downy dark coloured seeds.

13. C: VIRGA-AUREA, *Lobated Flea Bane*: The stalk of this plant is shrubby, branching, and grows to be seven or eight feet high; the leaves are rough, and each of the lower ones are cut into three parts or divided into three lobes, those on the upper part of the plant being oval, spear-shaped, hairy, and slightly serrated on their edges; the flowers are produced in roundish bunches from the ends of the branches, their colour is yellow.

14. C: ELICHRYSO, (*Gnaphalium unifloris* of the Hort. Cliff. *Helichrysum Saxatile* of Bocc. and *Elichryso Sylvest* of C. B.) *Saxatile Flea Bane*, a native of the Cape of Good-Hope, &c. The stalks are ligneous, downy, weak, and lie on the ground, if not supported especially while young; the leaves are narrow, slightly indented, downy, acute and grow alternately; the flowers come out singly from the sides of the branches, they are collected in long, cylindrical heads, and are succeeded by downy seeds. The other five species I have not found enumerated. They are propagated from seeds—the exotic species may be reared in hot-houses—the last in a green-house.

COPAIFERA, *Balsam of Capi.i Tree*, a genus of the Decandria Monogynia class, and 59th Natural Order, *Dubii Ordines*; it has no calix, the corolla is four oblong, acute, concave, spreading petals; the pericarpium is fleshy and globular, the seeds are surrounded by the pulp; there is but one species, a native of the Brasils and Antilles.

C: BALSAMUM, or *Coafoiba*, is a large branching tree, rising fifty or sixty feet high; the leaves are roundish, the flowers red; the fruit is globular, fleshy, and of a yellow colour when ripe; it is from some of these trees the Balsam Capiivi of the shops is procured. All the trees do not yield the Balsam, such as do are known by a longitudinal ridge down the trunk, and after being once tapped, they never yield any more Balsam. The tree when tapped yield the balsam in such plenty from the wounded part, that five or six gallons are often collected from one tree in a small time.

*Sensible properties.* Balsam Capiivi is clear, transparent, of a whitish, or pale yellowish colour, an agreeable smell, and a bitterish

pungent taste, it is usually about the consistence of oil, or a little thicker--when long kept it becomes nearly as thick as honey.

*Medical virtues.* It is a useful corroborating, detergent medicine accompanied with a degree of irritation; it strengthens the nervous system, tends to loosen the belly; in large doses proves purgative, promotes urine, and cleanses and heals exulcerations in the urinary passages, which it is supposed to perform more effectually than any of the other balsams. Fuller observes that it gives the urine an intensely bitter taste, but not a violet smell, as the turpentine do. This balsam has been principally celebrated in gleet, and the fluor albus, and externally as a vulnerary. The author above mentioned recommends it in dysenteries, scorbutic cachexies, in diseases of the breast and lungs, and in an acrimonious or putrescent state of the juices: He says he has known very dangerous coughs, which manifestly threatened a consumption, cured by the use of this balsam alone; and that notwithstanding its being hot and bitter, it has good effects even in hectic cases: Most Physicians seem now, however, to consider balsams and resins too stimulant, in phthical affections. The dose of this balsam rarely exceeds twenty or thirty drops; though some authors direct sixty and upwards—it may be conveniently taken in the form of an Oleosaccharum, or in that of an emulsion, with Gum Arabic, in yolk of eggs, and water. I have frequently administered it with great success, combined with *Spt. Nitric Dulc.* in Gleet. Gonorrhœa, Fluor, &c. Equal quantities of the balsam, and sweet spirits of nitre, form an elegant mixture in those cases, and given from 20 to 40 drops, twice or thrice a day on sugar, has had admirable effects.

CORALLINA, or *Sea Moss*, it was formerly supposed (by Tournefort, who enumerated 36 species) to be a vegetable substance, or substances, hardened by the air, but are now generally believed to be a congeries of animals, which are even endued with the faculty of moving spontaneously. From 10 grains to 20 or 30 per day, is said to be a good vermifuge; this however is doubted, as it is insipid to the taste, and operates as an absorbent.

CORALLODENDRON, or *Coral Tree*. See *Erythrina*.

CORCHORUS, *Jew's Saad*, or *Mallow*, a genus of the Polyandria Monogynia class, and 37th Natural Order, *Columnifera*; the corolla consists of five petals. the calix is deciduous, and consists of five leaves, and the capsule has many cells and valves. There are eight species.

1. C: PLINII, *Common Jew's Mallow*, grows naturally in Asia, Africa, and America; it is an annual plant, which rises with a herbaceous stalk, tender, branching, and about two feet high; the leaves are of different shapes, some being oval, some spear-shaped, and others heart-shaped; they are of a deep green colour, serrated, have two bristly reflexed segments near the base, and grow on long footstalks; the flowers come out singly from the sides of the branches, opposite the leaves, their colour is yellow, they appear in July and August, and are succeeded by oblong, rough, swelling capsules, containing the seeds.

*Domestic uses.* This plant is cultivated at Aleppo, as an esculent, and is in great esteem—more especially with the Jews, who prefer it when boiled; to most other herbs, to eat with their meat.

2. C: AMERICANUS, (Alcea Olitoria of Pluke.) *American Jew's Mallow*, is a native of India, and annual; the stalk is herbaceous, tender, branching, and about a yard high, the leaves are oblong, heart-shaped, pointed, serrated, and grow singly at the joints, on short footstalks, the flowers come out singly from the sides of the branches, without any footstalks, they are small and yellow, blow in August, and are succeeded by short, roundish, rough, striated pods, containing the seeds. Both these species have varieties produced from their seeds, the leaves of some being narrower, others more deeply serrated, some with larger flowers, some with deep yellow, and others of a straw colour.

3. C: ULMIFOLIA, *Elm-leaved Jew's Mallow*, a native of Jamaica; it hath a shrubby branching stalk, about four feet high, the leaves are oval, spear-shaped, serrated, have no footstalks, but have several other small leaves growing irregularly among them. The flowers are produced from the sides of the branches, on very short footstalks, they are small, come out at different times of the year, and are succeeded by very narrow, compressed capsules, containing the seeds.

4. C: CARPINIFOLIO, (Triumfetta Subvillosa of Brown) *Horn-leaved Jew's Mallow*, a native of the warmer parts of America, the stalks are ligneous, branching, and about a yard high; the leaves are roundish, heart-shaped, waved, and serrated; the flowers grow from the sides of the branches, in July or August, are yellowish, and succeeded by oblong, six-furrowed, six-pointed capsules, containing the seeds. They are propagated from seeds.

CORDIA, *Sebesten*, a genus of the Pentandria Monogynia class, and 41st Natural Order, *Asperifolia*; the calix is one-leaved, tubulous, permanent and indented at the top; the corolla is funnel-shaped, and has but one petal, cut into four, five or six obtuse segments; the stylus is dichotomous, the fruit is a bilocular drupa, growing to the calix, and the seed is a sulcated nut of four cells. There are five species,

1. C: MYXA, (Sebestena domestica of Comm:) *Assyrian Plum*, grows naturally in Egypt and Malabar; it has a thick, branching trunk, fifteen or twenty feet high; the leaves are oval, serrated indented and downy; the flowers are produced in roundish bunches from the sides of the branches, and are succeeded by a roundish, blackish fruit, with whitish ash-coloured cups; the flesh sticks close to the stone.

*Medical virtues.* The fruit has a sweet, very glutinous taste, and hence has been employed in some kinds of hoarseness, and in coughs, from thin sharp defluxions—it is however not often met with in our shops. In some parts of Turkey they cultivate this tree in abundance, not only for the sake of the fruit to eat, but to make bird lime of.

2. C: SEBESTENA, (Caryophilla spuria inodorus Sloane. Novella Nigra of Rhump:) *Sebesten*, a native of the Indies, it hath woody, branching stalks, eight or ten feet high; the leaves are oval, rough, of

a deep green colour on their upper side, and grow on short footstalks; the flowers come out in clusters from the ends of the branches, they are of a beautiful scarlet colour, and are succeeded by a sweet tasted, glutinous fruit, which adheres close to the stone, and is employed in medicine for the same purposes with the foregoing; and it is said the wood is more valuable than the fruit, as a small piece of it thrown on a clear fire will perfume a room with an agreeable odour.

3. C: GERASCANTHUS, a native of Jamaica, hath a woody, round, branching stem; the leaves are spear-shaped, oval and very rough on both sides; the flowers come out in panicles from the ends of the branches, having ten striated cups.

4. C: COLLOCOCUS, *Rough-leaved Collococcus*, or *Clammy Cherry*, is also a native of Jamaica, and is a large tree, the trunk is upright, straight, covered with a dark grey bark, sends forth branches by threes, and grows to about forty feet high; the leaves are oblong, oval, entire, veined, very rough; and grow on short footstalks; the flowers are produced from the ends of the branches in loose, roundish bunches, and are succeeded by globular berries, full of a clammy juice of a deep scarlet colour when ripe.

5. C: OBLONGIFOLIA, (*Prunus Racemosa* of Sloane.) *Broad-leaved Collococcus*, a native of Jamaica; the trunk of this species is large and covered with a grey furrowed bark, sends out many crooked branches and grows to be forty or fifty feet high; the leaves are very large, broad, oval, rough, hairy, and grow on short footstalks; the flowers are produced from the ends of the branches in loose bunches, and are succeeded by small roundish berries, which are of a red colour when ripe. They are all stove plants, and are propagated by seeds plunged into a hot-bed of Tanner's Bark.

COREOPSIS, *Tick-seeded Sun-flower*, a genus of the Syngenesia Polygamia Frustranea class, and 49th Natural Order, *Compositæ*; the receptacle is paleaceous; the pappus has two double horns; the calix is erect and consists of many leaves. There are eleven species, ten of which, with their varieties, are natives of the United States.

1. C: DECURRENTIBUS, (*Chrysanthemum Virginianum* of Pluke. Canadense of Moris.) *Alternate-leaved, Virginian Corn Marigold*, a hardy perennial plant, growing naturally in Virginia and Canada; the stalks will grow to be ten feet high; the leaves are spear-shaped, and grow alternately on short footstalks, having borders or wings running from the base of one to the other; the flowers grow two or three together on a footstalk, from the ends of the branches, they are yellow, and much resemble those of the sun-flower, but smaller: they blow in August and September.

2. SUBTERNATIS, *Ternate-leaved Coreopsis*, or *Virginian Chrysanthemum*, an indigenous perennial, growing naturally in the shady, moist parts of Virginia; the stalks are round, smooth, firm, jointed, and grow to be six feet high; the leaves are for the most part trifoliate, smooth, and grow opposite to each other at the joints; the flowers terminate the stalks in bunches, having long footstalks; the rays are of a pale yellow colour, but the middle is dark purple.

3. C: SCANDENS, *White American Coreopsis*, hath herbaceous, smooth, climbing stalks, which divide into many slender branches; the leaves are for the most part trifoliate, smooth, and their edges serrated; the rays of the flowers are of a pure white, but the middle is purple.

4. C: VERTICILLATIS, *Verticillate Coreopsis*, a native of Virginia and Carolina; there are two varieties, one with smaller and finer, which grows in Virginia, the other with linear leaves, that are larger, growing in Carolina; the stalks are upright, firm, angular, grow to about a yard high, and branching by pairs opposite; the leaves are beautifully divided into a multitude of narrow parts, and adorn the stalks at the joints; the rays of the flower are of a bright yellow colour, and the middle is a dark purple; they blow in July.

5. C: CAROLINIANA, *Carolina spear-leaved Tick-seeded Sun-flower*, is an annual plant, the stalk is herbaceous, firm and erect; the leaves are spear shaped, entire, smooth and placed opposite to each other; the flowers come out from the wings of the leaves on long, naked, erect footstalks, they are large; the rays are yellow, and deeply cut into many segments, and blow in July.

6. C: DIVERSI-COLORE, *American pinnated Tick Seed*, an annual and native of America, the stalks are herbaceous, and grow to about two feet high; the leaves are pinnated, being composed of about two or three pair of oblong, serrated folioles, which are terminated by an odd one; the flowers are produced from the ends of the stalks, the rays are large and vary in their colour, though the general ground is white; they also blow in July.

7. C: AMPLEXICAULIBUS, (*Hepatorium Aquale* of Trimum: *Chrysanthemum Aquaticum* of Moris.) *Aquatic Tick seed*, an indigenous annual plant, growing naturally by the sides of ditches, and watery places in the United States and Europe; the stalks are herbaceous, and about two feet high; the leaves spear-shaped serrated and opposite, embracing the stalk with their base; the flowers terminate the stalks in July, they are finely radiated, of a golden yellow colour, succeeded by seeds.

8. C: GLABRIS, (*Ceratocephalus* of Vaill: *Biden's Pentaphylla* of Plum:) *Coronated Tick seed*, also an indigenous annual, growing naturally in Virginia; the leaves are pinnated and composed of two pair of smooth, streaked, acute, serrated folioles which are terminated by an odd one; the flowers are finely radiated, and crown the stalks in July and August.

9. C: DICHOTOMA, (C: *Gladiata* of Walt:) *Dichotomous Tick seed*, an indigenous plant, growing naturally in Carolina; the stalk is smooth and uniformly divided into branches; the leaves are entire, undivided and placed alternately on footstalks on the branches.

10. C: TRIHOSPERMA, hath pinnated leaves, consisting of about five pair of lance-shaped, serrated folioles, this species grows in the low wet grounds of Carolina, and very much resemble the Glabris, or 8th species.

11. C: TRIPTARIS, also an indigenous plant, growing naturally on the hilly parts of Virginia and Carolina; the stalk is smooth, the



leaves are trifoliate or pinnated, being composed of three or four lobes; the folioles are broad, lance-shaped and entire; they are propagated by seeds.

**CORIANDRUM**, *Coriander*, a genus of the Pentandria Digynia class; and 45th Natural Order, *Umbellatæ*; the corolla is radiated; the involucreum universale, consists of one leaf, and the par-tiale is dimidiated, and the fruit is spherical. There are two species.

1. C: **SATIVUM**, *Common Coriander*, is an annual plant, growing in corn fields, on road sides, and on dung-hills, and is also cultivated in gardens; the stalk is round, slender, striated, branching, and grows to about two feet high, the leaves are composed of many parts; the segments of the lower ones are broad, crenated, and of a pale green colour and fætid smell, but those on the stalks are narrow, and finely divided; the flowers grow in umbels at the ends of the branches, their colour is white, and blow in June and July— This umbelliferous plant differs from all the others of that class in producing spherical seeds, which are well known to most people.

*Part used.* The seed.

*Sensible properties.* When fresh a strong disagreeable smell, which improves by drying and becomes sufficiently grateful to the smell and taste.

*Medical virtues.* They are carminative and stomachic, but certainly possess intoxicating, if not deleterious properties. They are now only used in the bitter infusions and preparations of Senna, the disagreeable taste of which they completely overcome. Confectioners incrust the seeds with sugar, and call them Coriander com-fits; some people eat them when young as a salad, and the green leaves boiled with crumbs of bread, make an excellent poultice in swellings and inflammations, and are said to be powerful in dissolving wens, and hard lumps in the flesh.

2. C: **TESTICULATUM**, *Smaller Testiculated Coriander*, a native of Europe, and not much unlike the former, only that the leaves are smaller, the stalks angular, and the fruit is double and large, it is hardly ever cultivated in Gardens, neither are its virtues or uses in medicine yet known. They are propagated by seeds.

**CORIARIA**, *Myrtle-leaved Sumach*, a genus of the Dioecia Decan-dria class, the calix of both male and female consists of 5 leaves, and the corolla of each has five petals; the antheræ are divided into two parts; the female has five styli and five seeds. There are two species, both natives of France. Botanists appear to have confounded this genus with the *Rhus*, as the first species of *Rhus* is *Coriaria*, and it is a genus of the Pentandria Trigynia class. See *Rhus*.

1. C: **MYRTIFOLIA**, (*Rhus Myrtifolia* of C. B. and Lobel.) *Tan-ner's*, or *Myrtle-leaved Sumach*, is a shrub of low growth, seldom higher than four or five feet, the bark is of a greyish colour, and spotted, the wood is very brittle, and very full of light pith; the young shoots are produced in great plenty, from the bottom to the top, they are square, and come out three or four together from one side of the stem; the leaves resemble some of the sorts of Myrtle, they are oblong, pointed, of a bright green, and stand opposite by

pairs on the twigs; the flowers are both male and female, on different plants; they are produced in spikes, at the ends and sides of the branches, and have but little beauty to recommend them.

*Part used.* The bark, leaves, and seeds.

*Medical virtues.* The bark is said to be possessed of many excellent virtues, and is a good medicine in Epilepsies, &c. others say that the berries when eaten occasion Vertigo and Epilepsy. The leaves afford an ointment, which is said to be powerful in stopping gangrene, and the seeds pounded, and mixed with honey and oak coals, are good against the piles.

*Domestic uses.* It is used in France, for tanning leather. The whole plant is very astringent; it also dyes a beautiful black; the old leaves produce ill effects upon cattle, but the young leaves are said to be innocent.

2. C: FOEMINA. Of this I have discovered no farther accounts. They are propagated from suckers or layers, planted in a lightish soil. One of these is to be seen in the Botanic Garden of South Carolina.

CORIS, *Heath low Pine*, a genus of the Pentandria Monogynia class; the corolla has but one irregular leaf, the calix is prickly, and the capsule has five valves, there is but one species, a native of Montpelier.

C: MARITIMA, (*Symphitum petreum* of Cammerarius, *Maritime Heath-low Pine*, an annual plant, and native of the Southern parts of Europe; it grows about six inches high, hath round, smooth, firm, purplish branching stalks, adorned with narrow, oblong, spear shaped, alternate leaves; the flowers come out in spikes from the ends of the branches, they are small, but very beautiful, and of the following varieties: Purpleflowered, Red, Blue, and White Coris—they are propagated from slips, or by seeds sown in a hot-bed.

CORISPERMUM, *Tick Seed*, a genus of the Monandria Digynia class, and 12th Natural Order, *Holoracea*; there is no calix, the corolla consists of two compressed, crooked, pointed petals, equal in size, and placed opposite one another, its fruit is a roundish capsule, compressed, bilocular, and having a furrowed edge; the seeds are of an oblong figure, and stand single—there are two species.

1. C: HYSSOPIFOLIUM, *Hyssop-leaved Tick Seed*, an annual, and native of the South of France, it hath a tender herbaceous stalk garnished with oval, spear-shaped leaves, placed opposite; the flowers come out from the sides of the branches, are small, and of a white colour, and blow in May or June.

2. C: SQUARROSIS, (*Rhagrostis foliis arundinaceæ* of Buxb.) *Reed-leaved Corispermum*, an annual and native of Tartary; the stalks are very delicate, tender, and branching, the leaves are long, narrow, and pointed like those of the reed; the flowers come out in rough spikes, from the ends of the branches, and blow in May and June—they are propagated by seeds. The second species grows altogether in water.

CORK TREE, See *Quercus*.

CORN, the Indian. See *Zea Mays*—it is also called Maize, or Guinea Wheat.

CORN BERRIES, CRANBERRIES, or BILLBERRIES. See *Vaccinium*.

CORNELIAN CHERRY. See *Cornus*.

CORNUCOPIÆ, *Horn of Plenty Grass*, a genus of the Triandria Digynia class, and 4th Natural Order, *Gramina*; the involucre consists of one funnel-shaped, crenated leaf, containing many flowers, and the calices are double valved: There is but one species, a native of Smyrna.

C: CUCULLATUM, (*Juncus Clavatus* of Petiver *Gramen Orientale* of Scheuchzer,) *Horn of Plenty Grass*, an oriental grass, which grows naturally about Smyrna, the root is a cluster of tough, thick spreading fibres; the leaves are about a foot long, narrow, pointed, stiff, and of a pale green colour, the stalk is round, smooth, and about a foot and a half high, the flowers come out from the tops of the stalks in clusters, and are very large for the kind. they appear in June and July, and are propagated by seeds. Walter in his *Flora* enumerates three species as indigenous to the United States—Michaux refers them to the genus *Trichodium*, which see.

CORNUS, *The Cornel*, or *Dogwood Tree*, &c. a genus of the Tetrandria Monogynia class, and 47th Natural Order *Stellate*; the common involucre is composed of four coloured, oval, and deciduous leaves, the opposite ones being smallest; the perianthium is deciduous, very small, situated on the germen, and indented in four parts; the corolla consists of four oblong, acute, plain petals, smaller than the leaves of the involucre; the pericarpium is a roundish umbilicated drupe; the seed is an oblong, umbilicated nut, of two cells, each of which has an oblong kernel. There are 12 species, according to Miller, and but 5 according to Hanbury, and others.

1. C: ARBOREA, (*Cornus mas* of C. B.) *Cornelian Cherry*, or *Male Cornel Tree*, a native of Austria; it rises to upwards of twenty feet in height, spreading into a multitude of irregular branches, the trunk is covered with a pale brown bark, and the young twigs are of a bloody purple; on these early in the spring appear the flowers, before the leaves burst forth, and they cover them at small distances in agreeable tufts, like umbels, each of these is a cluster of twenty flowers or more, supported on a slender stalk, and spread out handsomely, these are succeeded by a large crop of fruit of a red colour, which is much esteemed by some persons, while others dislike them,

*Part used.* The fruit.

*Sensible properties.* Astringent taste, and cooling.

*Medical virtues.* On account of their cooling and astringent properties, they are said to strengthen the stomach, stop fluxes of every kind, and to be very serviceable in fevers, especially if accompanied with a diarrhoea. An officinal preparation of the fruit of this tree is kept in some shops under the title of *Kob de Cornis*.

*Domestic uses.* With regard to these what is said of one species, will apply to the whole, except the colour: The timber of this species is white, very durable, as well as solid and hard, and besides the uses it has in common, with other trees, it is much recommended

for wheel works, pins, wedges, &c. It is said to last as long as iron—this, I presume, is only meant comparatively.

2. C: FLORIDA, (*Cornus fœmina* of C. B.) *Common Dogwood*, *Boxwood*, *Dogberry*, or *Gatten Tree*, and *Bloody Twig*, a native of Europe, Asia, and America; the twigs of this species, in the winter, are very red; the leaves are about two inches long, and an inch and a half broad; these have large nerves, which terminate in a point, and they often die in the autumn, to a reddish colour; the flowers are white, and produced in umbels, at the ends of the branches, and are succeeded by blackish berries, like those of the Buckthorn, but have in each only one stone. They are sometimes in Europe, imposed upon the ignorant for Buckthorn berries; these have four stones in each; they are therefore easily distinguished that way. Coal from this wood is said to be the best for gunpowder, of any in the world.

*Part used.* The bark of the root, and branches.

*Sensible properties.* Astringent, bitter taste.

*Medical virtues.* As a domestic remedy in intermittents, our *America-Peruviani Cortex*, has been a successful substitute for many years to the Cinchona, or Peruvian Bark. The happy effects produced from a judicious administration of this valuable native Tonic, and Antifebrifuge, has induced our learned practitioners, (particularly Dr. Walker, of Philadelphia) to enter minutely into its virtues, and it now stands highly, and deservedly recommended in intermittent, remittent, and malignant Fevers. By some it is prized equally with Peruvian Bark, its effects being similar; it is used in infusion with brandy, or in substance, by some, and others conjoin to it Sassafras Root; in either way it is an excellent medicine, and is worth the attention of country practitioners. The ripe fruit infused in spirit or brandy, makes an agreeable bitter, and an infusion of the flowers are by some of our Indians used in intermittent fevers and flatulent colics.

3. C: VIRGINIANA, *Virginian Dogwood*, grows rather higher than the common Dogwood; the twigs are of a beautiful red, the leaves are obversely cordated; the flowers are produced in a large corymbus, having a large involucre, their colour is white, and they are in blow in May and June.

4. C: PUMILA; (*Periclymenum* of C. B.) *Dwarf Honey Suckle*, a perennial and native of the same places with the foregoing; the root is slender, tough, and creeps much under the surface of the ground; the stalks are herbaceous, about a foot high, and send forth branches opposite to each other, the leaves are oval, spear-shaped, sharp pointed, ribbed, and grow opposite to each other on the stalks; the flowers come out from the ends and divisions of the branches, and are small and whitish, blow in May and June, and are succeeded by clusters of red berries.

5. C: CANADENSIS, (*Pyrola Alsines flora* of C. B.) *Canada Pyrola*, the root is slender, creeping, and fibrated, the stalk is herbaceous, and tender: the leaves are oval, spear-shaped, and pointed, the flowers come out from the ends of the stalks in June and July, and are succeeded by roundish berries. From the three first of these species the Rev. Mr. Hanbury observes, that the following beautiful varieties are produced; they are, however, by later writers, considered as distinct species, and as such we shall enumerate them.

6. C: SERICEA; (C: Lanuginosa of Mich.?) *Red Willow, Rose Willow, or Blue berried Dogwood, Swamp Dogwood, American Red-rod Cornus, New-England Dogwood, Female Dogwood, or Kin-ni-ka-nick*, a native of Canada, and Carolina, hath oval, pointed, ferruginous leaves, silky underneath, it grows to about six or eight feet high, with an upright, round branched, grey stem; the shoots are of a beautiful red colour in winter, and are said to furnish our Indians with a red dye; the bundles of white flowers which come out in August and September, and grow at the extremity of every branch, give to this shrub a fine appearance, and are succeeded by large oval, blue berries, in autumn. It delights in moist and wet places, and is used also as a substitute for Peruvian Bark, to which it is but little, if any inferior. I am strongly of opinion, that a critical investigation of this tree, will prove it to be a species of *Cinchona*, or Peruvian Bark: The only difference yet known, consists in the fructification, and this may not be universal. The *Cornus* is said to belong to the Tetrandria, and the *Cinchona*, to the Pentandria Monogynia class—only one stamen different. This tree is called by the Delaware Indians, Kin-ni-ka-nick; the *Cinchona*, or Peruvian Bark, is called Kin-a-kin-a—Here is certainly a field for conjecture: May not these names so nearly alike, have been originally the same? If so, is not our Swamp Dogwood a species of Peruvian Bark?

7. C: ALBA, *White berried Dogwood*, a native of Pennsylvania; the young shoots, like those of the others, are also of a beautiful red colour, during the winter, like them also it produces its white flowers in large umbels, in May, but they are succeeded by white berries.

8. C: VARIEGATIS, *Striped Dog-berry Tree*, this species hath variegated leaves, and is said to be only a variety; it is not much esteemed, nor do I find any more sask of it.

9. C: CIRCINATA, (Tomentulosa of Mich.) a native of Canada, &c, hath oval, pointed leaves, covered with fine down, and flowers in June and July.

10. C: STOLONIFERA, a native of Canada, New-England, &c, it hath an inclining, weak, branching stem, somewhat smooth; the twigs purple, and garnished with oval leaves.

11. C: FASTIGIATA, (C: Stricta, Pflerit.) this species is a native of Virginia, and Carolina; it hath smooth, fastigiated stems, rising all alike the main stem is of an oil colour the smaller are brown, straight, and erect; the leaves are oval, longish, pointed, and whitish.

12. C: ASPERIFOLIA, *Rough-leaved Dogwood*, a native of Carolina, hath an erect stem, oval, pointed leaves, which are rough, and somewhat downy. They are propagated by seeds, and from the roots; they delight in a light, loose, moist earth, and a shady situation.

CORNUTIA, a genus of the Didynamia Angiospermia class, and 40th Natural Order, *Persennia*; the calix has five teeth; the corolla is one ringent petal; the tube is cylindrical and much longer than the calix; the limb is cut into four segments, the upper segment being erect and roundish, the lateral ones distant, and the lower one roundish and entire; the stamina are longer than

the corolla; the stylus is very long, and the berry contains but one seed. There is but one species.

C: PYRAMIDATA, (*Agnanthus Viburni-folio* of Vaill.) *Viburnum leaved Cornutia*; a native of the Caribbees, hath a woody branching stem, ten or twelve feet high; the leaves are soft, hoary, and grow opposite by pairs, they resemble those of the *Viburnum*, or Mealy tree; the flowers come out from the ends of the branches in spikes, they are of a beautiful blue colour, and blow in August. It is a stove plant, and may be propagated by seeds or cuttings.

CORONILLA, *Jointed, podded Colutea*, &c. a genus of the Diadelphia Decandria class, and 32d Natural Order, *Papilionacea*; the calix is bilabiolated; the corolla is papilionaceous; the vexillum is heart-shaped and reflexed on both sides; the alæ are oval, obtuse, join at the top, but open below; the carina is rising, sharp-pointed, compressed, and often shorter than the alæ; the pericarpium is a very long, taper, jointed pod, and the seeds many. There are eleven species.

1. C: FRUTICOSA, (*Colutea Scorpioides* of Comm: and *Colutea Siliquosa* of C. B.) *Jointed-podded Colutea*, or *Scorpion Senna*, an exotic plant, growing naturally in Vienna, Geneva, Italy, France, &c: one of the species of this genus is to be seen in the Botanic Garden of South-Carolina. The Scorpion Senna sends out numerous irregular branches from the root and on all sides, the oldest and most woody of which are of a greyish brown, whilst the youngest are smooth and of a dark brown; the leaves are pinnated, and constitute a great beauty in this shrub, they are of a pleasant green, and are composed of three pair of folioles, terminated by an odd one, these stand opposite on the mid-rib, and each has an indenture at the top, but as beautiful as the leaves are, it is the flowers which constitute their greatest beauty, vying with all other shrubs, there being none more striking or pleasing than this when in full blow; in May it is covered all over with bloom, the shrub itself appearing as one large flower divided into many spikes, for the flowers come out all along the sides of the branches by the leaves, on long footstalks, each supporting two or three flowers which are butterfly-shaped, of a yellowish colour, succeeded by longish, jointed pods—there is a variety of it of lower growth, called *Dwarf Scorpion Senna*.

*Domestic uses.* The leaves of this plant are used as a substitute for Senna and by a proper fermentation will afford a dye nearly like that of Indigo.

2. C: PROCUMBENS, (*Ferrum Equinum* of C. B. *Lotus enneaphyllos*; of Dalech.) *Least Coronilla*, a perennial and native of France, Spain and Italy; the stalks are slender, weak and lie on the ground; the leaves are pinnated, and each composed of about nine pair of spear-shaped folioles ranged along the mid-rib; the flowers are yellow, come from the ends of the stalks by pairs, and are succeeded by angular, knotty pods.

3. C: GLABRIS, (*Securidaca*, 2. of Clus:) *Variable flowered Coronilla*, grows naturally among bushes and thickets in France, Denmark, &c. the root is tough, fibrated and creeping, the stalk is herbaceous, tender, round, hardly able to support an erect posi-

tion, and is about three or four feet long; the leaves are smooth, pale green, pinnated with eight or ten pair of obtuse, oblong folioles, besides the odd ones with which they are terminated, and grow alternately on the stalks; the flowers grow in bunches from the wings of the leaves and ends of the stalks, standing upon longish footstalks, and of the following varieties, one is of a fine, deep purple on its first appearance, and alters to a light purple, and then to a white—another variety is a strong crimson, and another the standard is crimson, and the wings white; both these vary to pale or white colours, and have sometimes a slight tinge, or a few streaks of the original.

4. C: CRETICA, *Cretan Coronilla*, an annual plant, the stalk is herbaceous, and about two feet high; the leaves are composed of about six pair of folioles, terminated by an odd one; the flowers are small, purplish, and succeeded by long, taper, articulated, erect pods.

5. C: PLURIMIS, (*Securidaca lutea major* of C. B. *Hedysarum primum* of Dodon.) *Annual Spanish Coronilla*, or *Hatchet Vetch*, hath herbaceous, branching, trailing stalks, about a foot and a half long, the leaves are of a deep green colour, smooth, and each is composed of seven or eight pair of oval, obtuse folioles terminated by an odd one; the flowers come out on long footstalks, each supporting a cluster of yellow flowers, which blow in July.

6. C: SUBNOVENIS, (*Polygala altera* of C. B. *Polygala valentina* of Clus.) *Valentine Coronilla*, a native of Italy and Spain, hath shrubby, branching stalks, a little more than a foot high; the leaves are pinnated, each being composed of about nine pair of small folioles, ranged by pairs along the mid-rib, and terminated by an odd one; the flowers are yellow, and are produced in bunches on long footstalks.

7. C: GLAUCO, *Glaucus Coronilla*, a native of France, is a shrubby, branching plant, about two feet high, the leaves are composed of five pair of small folioles, narrow at their base, rounded and indented at the top, of a sea green colour, and continue all the year; the flowers are of a bright yellow, and strongly scented.

8. C: NOVENIS, *Coronated Colutea*; a native of Italy, Portugal and Spain, it hath a shrubby, branching stalk about a foot and a half high; the leaves are composed of about nine pair of oval folioles, terminated by an odd one, and blows in June.

9. C: ODORATA, *Silvery Coronilla of Crete*, the stalk of this is shrubby, branching, and about two feet high; the leaves are composed of nine or eleven silvery folioles arranged along the mid-rib; the flowers are yellow, scented, and come out in bunches in May.

10. C: SUBCARNOSIS, (*Dorychnium Luteum* of Barrel. *Polygala major* of J. B.) *Yellow, Shrubby Spanish Coronilla*, hath a shrubby, branching, cornered stalk; the leaves are narrow, spear-shaped; obtuse, and of a thickish substance, and the flowers are yellow, and blow in June.

11. C: SCANDENS, *Climbing Coronilla*, a native of some parts of America, the stalk is slender, hairy, of a brown colour, three feet long, and twist about any thing that is near it; the leaves are pinnated, of a deep green colour and consists of about five oval foli-

cles; the flowers are produced by pairs from the joints, standing upon short footstalks, they are large, of a pale yellow colour, and are succeeded by long, taper, erect, downy pods: they are propagated by seeds, layers or cuttings, any of which may be made easily to grow.

**CORRIGIOLA.** This genus is now referred to *Illecebrum*.

**CORTUSA,** *Bear's-ear Sanicle*, a genus of the Pentandria Monogynia class, and 21st Natural Order, *Preciæ*; the calix is divided into five obtuse parts, reflexed at the tops; the corolla is rotated, with an open limb, divided into five roundish segments, and the capsule has two valves. There are two species.

1. C. MATTHIOLI, (*Sanicula Montana* C. B.) *Matthiolus' Bear's ear Sanicle*, a perennial and native of the Alps of Austria, &c. the root is composed of many fibres collected into a head at the top, from which issue many large, oblong, heart-shaped leaves, which are much indented and cut at the edges, among these arise the round, naked flower stalks to the height of about six inches; the flowers grow in umbels at the top, each floret having its own separate footstalk, they are of a fine red colour, have often in the middle a circle of white or yellow; they blow in April and May, and hang drooping.

2. C. GMELINI, *Gmelins Bear's-ear Sanicle*, a perennial and native of Siberia, the leaves are heart-shaped, oblong, cut or indented and arise from the root in a large tuft; the flower stalk is naked, and about four inches high, the flowers are of a pale red colour, and form an umbel at the top of the stalk, though of inferior beauty to the former sort; they are propagated by seeds sown in lean, hungry, sandy and shady spots, and also by parting the roots. They will not thrive in rich land.

**CORYLUS,** *The Hazle*, a genus of the Monoecia Polyandria class, and 50th Natural Order, *Amentacæ*; the calix consists of one trifid leaf, and contains but one flower, it has no corolla, but eight stamina; the calix of the female consist of two lacerated leaves, it has no corolla; the styli are two, and the nut is oval. There are but two real species, though Mr. Miller mentions six, which are however only varieties, and Michaux mentions two as indigenous to Canada and Florida, viz. 1. C. *Americana*, and 2. C. *Rostrata*.

1. C. AVELLANA, *Hazle nut Tree*, a native of Britain, it grows in woods, copses and hedges, and flowers in March or April—all the different species of Hazle are large, hardy and deciduous shrubs, they have several varieties, valuable for their fruit, which in a cultivated state are known under the name of Filberts; these are Large, Clustered, Red wood, Cob, Long, Spanish, White, and Red Filberts or Nuts.

*Medical virtues.* No medical virtues are attributed to this fruit, except an emulsion with good old Mead is recommended for inveterate dry coughs.

*Domestic uses.* Its domestic uses are various, it is employed for poles, hoops for barrels, spars, hurdles, handles for implements of husbandry, walking sticks, angling rods; and for veneering and staining, the roots afford beautiful specimens, and are preferable to the branches. In Italy the chips are used for fining turbid wines,



and in countries where yeast is scarce the twigs of this shrub dried and soaked in the fermenting liquor serve as a substitute for that article in brewing. Painters and Engravers prepare coals for drawing outlines from the wood of this plant, which draws freely, and is easily effaced with India rubber. A kind of chocolate has been prepared from the kernels of the fruit, which has also been converted into bread; an expressed oil is also obtained from the nuts, which is little inferior to that of Almonds, it is often preferably used by painters, as it readily dries, and chemists employ it as the basis of fragrant oils artificially prepared, because it easily combines with, and retains odour. If eaten unripe they produce dysentery, and when ripe if not properly masticated they cause constipations of the bowels—they are difficult of digestion and ought therefore to be fully ripe, well masticated, and eaten but in small quantities.

[A species of Hazle nut grows in South Carolina on Edisto, where there is a pretty thick copse of it on Penn branch, these however do not thrive well, hardly exceeding eight or ten feet in height; but near the mountains they grow profusely, and though it has been asserted that hogs refuse them, we can assure our readers that in Carolina the hogs and bears keep fat upon them as long as they continue in season.]

2. C: LINEARIBUS, *Byzantine*, or *Dwarf Nut*, a native of Constantinople, this species is distinguished from the others chiefly by the stipulae which are very narrow and acute, whereas those of the common nut are oval and obtuse—it differs also in the size of its growth, the true Byzantine nut tree seldom growing higher than four or five feet, otherways they hardly differ; there are other varieties also known by the names of—*Spanish Hazle nut*, *Pound nut*, *Almond nut*, *Blood nut*, &c. and are easily propagated by seeds or layers, and will thrive in almost any soil or situation.

CORYMBIUM, a genus of plants belonging to the Syngenesia Monogamia class, and 49th Natural Order, *Compositae*; the calix consists of two leaves, shaped like a prism, and containing one flower; the corolla has but one irregular petal, and the fruit contains one downy seed. There is but one species, a native of Africa.

C: LYRATIS, (*Bupleurifolia scabro* of Pluke.) *African Corymbium*, the root is perennial, the stalk is slender, herbaceous, rough and a foot and a half high; the leaves are long, lyre-shaped, and the radical ones spread themselves on the ground; the flowers come out at the tops of the stalks, and blow in July. It is a green house plant and is propagated by parting the roots, or from seeds.

CORYPHA, *Mountain Palm*, or *Umbrella Tree*, a genus belonging to the Order of Palmæ Flabellifolia, the corolla consists of three petals; it has six stamina and one pistillum, and the fruit is a drupa containing one seed. There is but one species, a native of India, viz.

C: UMBRACAULIFERA, or *Talipot*, a native of Ceylon, Robert Knox assures us that a single leaf is capable of covering from 15 to 20 persons; he considers the Talipot as one of the greatest blessings that Providence has bestowed upon the inhabitants of a coun-

try which is parched by the sun, and inundated by the rains for six months in the year. Bartram enumerates four other species, viz. C: Palma, *Great Cabbage Palm*. See *Areca*. C: Pumila, *Dwarf Palmetto*. C: Repens, *Creeeping Palmetto*. C: Obliqua, or Serrulata, *Saw Palmetto*. The first of these has already been described under the article *Areca*, and the second under *Chamærops*, to which genus the *Corypha* of Walter and Bartram do properly belong. These have the common characters of *Palmetto* in general, and are well known in the United States, particularly the *Serrulata*, or *Saw Palmetto*, which on the Sea Islands of Georgia, particularly Blythe Island, are so closely matted together as to render the same almost impenetrable, indeed the whole of the maritime parts Georgia, and part of the southern border of Carolina, from beyond Pocotaligo to Florida, in the route I took through those parts, presented a profusion of this species, which are armed with acute spines, closely ranged along the edges of the stems, to the annoyance of man and beast. The mode of flowering is similar to that of the other species of Palms, and is succeeded by fruit of the drupa kind, and of the size of large plums, of a dark purple, inclining to a black colour: the pulp of this fruit is of an uncommon sweet taste, but is possessed of such a purgative quality, that strangers are sure to pay dear for the knowledge obtained from one experiment—they are so tempting and pleasant that few can refrain from tasting, and one or two of them produces a copious evacuation, and are very apt to occasion gripings. I am of opinion a valuable medicine might be prepared from this fruit. Swine, Deer and Bears are excessively fond of them, and as they only bear every second year, that is called the Mast year in Georgia. See *Areca* and *Chamærops*.

**COSTUS**, a genus of the Monandria Monogynia class, and 8th Natural Order, *Scitamineæ*; the calix is indented in three parts at the top; the interior part of the corolla is inflated, and ringent the inferior lip being trifid; the pericarpium is a roundish, coronated capsule, formed of three valves, containing three cells and many triangular seeds; there is but one species, a native of the Indies.

**C. ARABICUS**, (*Zinziber Sylvest Major* of Sloane, *Amomum minus* of Brown.) *Arabian Costus*, the root is large, thick, tuberous, knobbed, and spreads itself under the surface of the earth to a considerable distance; the stalk is round, glossy, jointed, full of pith, and grows to be four or five feet high: the leaves are oblong, narrow, pointed ribbed, smooth, grow singly at the joints, and embrace the stalk with their base; the flowers are produced from the tops of the stalks, in imbricated heads, and are of a pale red or white colour, and blow at different seasons of the year. Some authors mention two sorts of *Costus*, sweet and bitter; however, the only one hitherto known in the shops, is the present.

*Part used.* The root, which consists of a yellowish, woody part, inclosed within a whitish bark.

*Sensible properties.* The former is very tough, has no smell, and very little taste; the cortical part of a warm bitterish, aromatic taste, somewhat like ginger, and an agreeable smell, somewhat resembling that of violets, or florentine orris.

*Medical virtues.* It was formerly said to attenuate viscid humors, to promote expectoration, perspiration, and urine; at present it is rarely met with in prescription; *Zedoary* now supplies its place. There is a *Costus Hortorum*, mentioned by some writers as a synonyme of a species of *Balsamita*, and *Tunaceti*—which see.

COTTON TREE. See *Bombax*.

COTTON BUSH. See *Gossypium*.

COTTON LAVENDER. See *Santolina*.

COTTON WEED. See *Filago*, *Gnaphalium*, &c.

COTTON GRASS. See *Eriophorum*.

COTTON GROUNDSEL TREE. See *Baccharis*.

COTULA, *May Weed*, a genus of the Syngenesia Polygamia Superflua class, and 49th Natural Order, *Compositae*; the receptacle is naked; the pappus is marginated, and the corollulæ of the disc are divided into four segments; there are 6 species, two however, have been referred to *Anthemis*, and *Bellis*.

1. C: PINNATO-MULTIFIDIS, (*Ananthocyclus Chamæmelisfolio* of Dillen. *Chrysanthemum exoticum* of Pluke.) *Chamomile leaved May Weed*, a native of Spain, hath tender branching stalks, of about a foot and a half high; the leaves are beautifully divided into many segments, like those of Chamomile; the flowers grow singly from the ends of the branches, but are destitute of rays, which are the greatest ornaments to plants of this class; their heads, however, rise high in the middle, and look tolerably handsome.

2. C: AMPLEXICAULIBUS, (*Bellis Annuæ* of Herm.) *Small Æthiopian May Weed*, hath slender, trailing stalks, about six inches long, the leaves are spear-shaped, narrow, pinnatifid, and embrace the stalk with their base; the flowers come out from the wings of the branches, on short footstalks, and are of a sulphur colour, and are destitute of rays.

3. C: TURBINATIS, (*Chamæmelum Æthiopicum* of Bryn.) *African Turbinate May Weed*, the stalks divide into many branches, and spread on the ground; the leaves are beautifully divided into many segments, and covered all over with a cottony down; the flowers grow singly from the sides of the branches, on long footstalks, they have rays of a white colour, and the centre yellow.

4. C: AUREUM, (*Chamæmelum luteum*, C. B. C: *Aureum*, L. B. and *Anthemis Chrysanthemum* of Lobel.) *Spanish Golden May Weed*, hath herbaceous, branching stalks, which spread themselves on the ground; the leaves are divided into many parts, in the manner of Chamomile; the flowers have no rays, but the middle rises high, and is of a golden yellow colour, and blow in June. The other species are to be found in the genus *Anthemis*, and *Bellis*—they are propagated by seeds.

COTYLEDON, *Navel Wort*, *Kidney Wort*, or *Wall Penny Wort*, a genus of the Decandria Pentagynia class, and 13th Natural Order, *Succentæ*; the calix is divided into five segments; the corolla consists of one petal; there are four nectariferous scales at the base of the germen, and it has five capsules. There are eight species.

1. C: SUBROTUNDIS, *Cape round leaved Cotyledon*, a native of the Cape of Good Hope; the stalks are thick, and succulent, send

forth crooked, irregular branches, and are of different heights in the different varieties; the leaves are fleshy, full of juice, thick, rounded at the top, and are of a sea green colour, edged with purple; the flowers are produced from the ends of the branches, on long, naked, succulent footstalks, each supporting eight or ten flowers, growing on a sort of umbel; their colour is yellow—the most common variety of this species grows to be three feet high, though there is a kind of low growth, seldom rising higher than a foot, and another with leaves remarkably hoary.

2. C: SPINOSA-MUCRONATIS, *Prickly Cotyledon*, a perennial and native of Siberia; this plant is not much unlike the House-leek of our walls; the leaves are oblong, fleshy, pointed, and each of them is terminated by a spine; among these the flower-stalk rises to about four inches high, each of them supports four or five whitish flowers which makes their appearance in April or May, succeeded by seeds.

3. C: UMBILICUS, (*Sidum luteum* of Moris. *Umbilicus repens* of Camm.) *Common Wall Penny-wort*, *Navel-wort*, or *Golden Cotyledon*, a perennial, and native of Europe, growing upon old walls, &c. of this species there are several varieties, both with respect to the roots and flowers, the roots of some being thick, and in a manner bulbous, others slender and creeping, others again very knotty and full of tubers: The flowers of some are whitish, others reddish, some streaked, but the most beautiful is the yellow flowered; the leaves are round, fleshy, full of juice, indented, and grow on footstalks, which are inserted in the middle; among these the flower-stalks rise, some of which are near a yard long, while others are not more than four inches, the bottom of which is ornamented with a few small, alternate leaves, the flowers crown the top in a long spike, of one or other of the varieties mentioned.

4. C: CRETICA, *Cretan*, or *Siberian Cotyledon*, an annual plant, the roots are fibrous, the stalks are upright, succulent, branching, and a foot and a half high; the leaves are oval, oblong, indented, thick, juicy, and grow alternately on the stalks; the flowers grow in loose spikes at the tops of the stalks, and are of a reddish purple colour.

5. C. MARITIMA, (C: *Palustris* of Shaw.) *Spanish Cotyledon*, also an annual, with fibrous roots, the stalk is upright, taper, unbranching, and about five or six inches high; the leaves are oblong, taper, spotted, and sit close to the stalks; the flowers come out from the tops in bunches; they are small, and of a reddish colour, having some stripes of purple, and blow in June.

6. C. SPATULATIS, *Cape long-leaved Cotyledon*, hath thick, fleshy, ligneous stalks, that are branching, and two or three feet high, the leaves are long, thick, fleshy, full of juice, narrow, entire, and grow alternately; the flowers are produced many together on long, naked, succulent footstalks, and are yellow.

7. C: CAPENSIS. *African Hemispherical Cotyledon*, a native of Ethiopia, hath a thick, succulent, branching stalk, about eight inches high, the leaves semi-globular, being short, thick, fleshy, and convex, on their under side, but on their other plain; they are full of juice, and of a greyish colour, spotted with green, and sit close to the

branches; the flowers are produced from the ends of the branches on long, naked footstalks, each supporting about six flowers, of a greenish colour, tipped with purple.

8. C: TRIFIDIS, (*Telephium Africanum* of Pluke. *Planta Anagalis* of Rhump.) *Jagged-leaved Cotyledon*, a native of Egypt and India; the stalk is upright, jointed, succulent, and about a foot high; the leaves are broad, thick, and trifid; they are of a greyish colour, grow opposite to each other, and embrace the stalk with their base; the flowers are small, quadrifid, and of a golden yellow colour, seven or eight supported by one footstalk—The first sixth and seventh are Green-house plants, and the eighth a stove plant: They are propagated by seeds and cuttings, sown or planted in light sandy fresh earth.

COUHAGE, STINKING BEANS, or *Cow-itch*. See *Dolichos Pruriens*.

COX COMB. See *Amaranthus*, *Celosia*, and *Rhinanthus*.

CRAB TREE. See *Pyrus Malus*.

CRAB GRASS. See *Syntherisma*.

CRAMBE, a genus of the *Tetradynamia Siliquosa* class, and 39th Natural Order, *Siliquosa*; the four longer filaments are forked at the points, and the antheræ are fixed upon one of them; the berry is dry, globular, and deciduous. There are three species.

1. C: MARITIMA, *Sea Colewort*, *Sea Cabbage*, or *Cliff Kale*, this species hath already been described under the article *Brassica*, Fig. 7th, which see.

2. C: RAPISTRA, *Oriental Sea Colewort*, a native of the East; the leaves of which are cut alternately to the mid-rib, and each of these parts is again alternately cut into many segments, they are rough, of a greyish colour, and the radical ones spread themselves on the ground, the stalks are smooth, upright, branching, and about two feet high; the flowers are produced from the tops of the stalks, in panicles, are small, white, and blow in June.

3. C: F: SCABRIS, (*Rapistrum maximum* of Cornut.) *Spanish Sea Colewort*, an annual plant, hath a robust, rough, firm, branching stalk, of about four feet high; the leaves are rough, heart-shaped, roundish, indented, and grow on long footstalks, the flowers are small, and grow on loose spikes, at the ends of the branches; their colour is white, and they blow in June—they are propagated as the other kinds of Cabbage or Colewort. See *Brassica*.

CRAMERIA, a genus of the *Tetandria Monogynia* class of plants: There is no calix, the corolla has four petals, the superior nectary is trifid, the inferior triphyllous, the fruit is a dry monospermous, and echinated berry.

CRANBERRY. See *Vaccinium*.

CRANESBILL. See *Geranium*.

CRANIOLARIA, a genus of the *Didynamia Angiospermia* class, and 40th Natural Order, *Personata*; the perianthium consists of four leaves and the spatha of one, and the tube of the corolla is very long. There are two species, both natives of hot climates, Dr. Houston has named one of these plants *Martynia*, and Father Plumier calls the other *Gesnera*.

1. C: ANNUA, (*Martynia annua*, &c. of Houst.) *Annual Craniolaria*, a native of New-Spain; the stalk is viscous, sends out viscous, hairy branches by pairs opposite, and grows to about two feet high; the leaves are heart-shaped, angular, lobed in the manner of maple, pointed, clammy to the touch and grow opposite on long footstalks; the flowers come out from the ends and sides of the branches on short footstalks, they are white have very long tubes, and large inflated cups.

2. C: DENTALIS, (*Gesnera Arborescens* of Plum.) *Shrubby Craniolaria*, grows naturally at the Havanna and other West-India islands; the stem is woody, and a little branching at top, and rises ten feet high; the leaves are spear-shaped, soft, hairy and indented on their edges; the flowers come out many together on footstalks from the sides of the branches, they are of a greenish yellow colour, and have many brown spots on their inside; this latter is a stove plant; they are propagated by seeds sown in the richest kind of earth. See *Martynia* and *Gesnera*.

CRASSULA, *Lesser Orpine*, or *Live ever*, a genus of the Pentandria Pentagynia class, and 13th Natural Order, *Succulenæ*; the calix consists of five leaves, and the corolla of five petals; there are five nectariferous glands, at the base of the germen, and it has five capsules. There are 17 species, all natives of warm climates, viz. Africa and Æthiopia, some of which are called *Sedum* by Herman, and *Cotyledon* or *Commeline*.

1. B: SUBULATIS, (*Sedum umbellatum* of Herm.) *Subulated Crassula*, an annual and native of Æthiopia, hath an upright, herbaceous stalk about a foot and a half high, awl-shaped, taper, spreading leaves; the flowers are produced in umbels, and are of a white colour.

*Note.* Formerly the leaves of these plants were recommended as emollient and astringent on account of their mucilaginous and roughish taste; they have not however been received into practice.

2. C: CORDATIS, *Centauroide Crassula*, an annual, with herbaceous stalk, dividing at top by pairs; the leaves are heart-shaped and sit close to the stalks; the flowers are produced on footstalks, each supporting one flower.

3. C: DICHOTOMO, *Dichotomores Crassula*, also an annual with a herbaceous dichotomous stalk, about a foot and a half high; the leaves are oval and spear-shaped, and its golden yellow flowers are produced like the former.

4. C: PLANIS, (*Cotyledon Africana* Comm.) *Scarlet Crassula*, hath a round, jointed, branching stalk about three feet high and usually of a reddish colour; the leaves are oblong, plain, cartilaginous, ciliated, grow opposite, and surround the stalk, forming for it a sheath with their base; the flowers are of a beautiful scarlet colour, and stand in erect, close umbels.

5. C: PERFOLIATA, (*Aloe Africana* of Comm.) *Perfoliate Crassula*, grows ten or twelve feet high; the leaves are spear-shaped, acute, thick, succulent, of a pale green colour, channelled on their upper, and convex on their lower side, grow opposite and surround the stalk with their base; the flowers adorn the top of the stalk in large clusters, and are of a whitish green colour.

6. C: TETRAGONIS, *Tetragonal Crassula*, rises about three feet high, with an upright, smooth stalk; the leaves are oval-shaped, bluntly cornered, a little incurved, spreading and grow opposite; the flowers adorn the stalks in large flat bunches, and are of a white colour.

7. C: INTEGRALIS, *Cultrated Crassula*, grows to about two feet in height, with a weak succulent stalk; the leaves are obtusely oval, thick, narrower on one side than the other, entire and grow opposite; the flowers come out in loose bunches from the ends of the branches, are of a greenish colour, small and erect.

8. C: CILIATIS, *Ciliated Crassula*, rises about two feet high, with a tender, succulent, branching stalk; the leaves are oval, plain ciliated and grow opposite; the flowers are produced in corymbose bunches from the ends of the branches.

9. C: SCABRO, *Rough Crassula*, rises about a foot and a half high, with a weak succulent stalk; the leaves are long, pointed rough, spreading opposite and embrace the stalk with their base; the flowers are produced in small clusters from the ends of the branches, are small, and of a greenish colour.

10. C: ALTERNIS, *Alternate-leaved Crassula*, hath an upright, tender, undivided stalk; the leaves are oblong, pointed, plain, indented and grow alternately; the flowers are yellow, hang downward, and come out singly from the wings of the leaves.

11. C: NUDO, *Naked-stalked Crassula*, the radical leaves, for there are none on the the stalk, are long, succulent, awl-shaped, pointed, and form a head at the crown of the root, from the midst of these the flower stalk arises and divides into two or three branches, near the top; the flowers are produced in clusters from the ends of the branches, and are of a green colour.

12. C: PUNCTATIS, (*Telephium frutescens* of Ray,) *Spotted Crassula*, hath smooth, slender, trailing stalks, of a reddish colour, full of joints, and about ten inches long; the leaves are oblong oval, thick, succulent, convex on their under side, of a greenish colour, spotted and grow opposite; the flowers come out in clusters, and are small and white.

13. C: ORBICULARIS, *Round Crassula*, hath slender, flaccid, trailing stalks, the leaves are thick, succulent and collected into round, imbricated, spreading heads, in the manner of houseleek; the flowers are produced in clusters from the centre of these heads, standing on naked footstalks, and are of a greenish colour.

14. C: REPENS, *Pellucid Crassula*, hath slender, flaccid, succulent stalks, which lie on the ground and strike root at the joints; the leaves are small and opposite; the flowers come out in small clusters from the ends of the branches, are white and have a tinge of purple at the rims.

15. C: PORTULACÆFOLIO, (*Anacampseros arborea* of Dill.) *Purslain-leaved Crassula*, rises about 3 or 4 feet, with a thick, woody, robust, succulent stalk, sending out branches from the bottom; the leaves are ob-oval, wedge-shaped, opposite and much resemble those of Purslain, the branches are of a reddish colour, very tender and succulent; the form, &c. of the flowers are not

described, neither are the other two species. They are easily propagated by offsets or cuttings.

CRATÆGUS, *Indian Wild Service, &c.* a genus of the Icosandria Digynia class, and 36th Natural Order, *Pomaceæ*; the calix has five segments, and the corolla five petals; the berry is below the flower, and contains two seeds. There are twenty-five species.

1. C: OXYACANTHUS, (*Mespilus apiifolio* of C. B. C: *Apiifolio* of Mich.?) *Common Hawthorn, or White Thorn*; an indigenous shrub or tree growing naturally in the woods of Carolina, when trained as they are in England, they rise to a large timber size, with a tall stem and full spreading head, the stem and branches are guarded with stiff spines; the leaves resemble parsley. This tree sports in the following varieties:

*Large Scarlet Hawthorn*; which is exceedingly large, oblong, perfectly smooth and of bright scarlet. *Yellow Haw*, is an exquisite plant, the buds at their first coming out in the spring, are of a fine yellow, and hath gold-coloured fruit. *White Haw*, which is but indifferent, the fruit small and of a bad white. *Maple-leaved Hawthorn*, grows near twenty feet high, has very few thorns, with leaves resembling the Maple, and of a whitish green colour, the flowers come out in large bunches, and the fruit is of a shining red, *Double-blossomed Hawthorn*, produces a full flower, and is one of the sweetest ornaments in spring, the beautiful double flowers come out in large bunches in May, and the tree is so good a bearer that it will often appear covered with them; on their first appearance they are of a delicate white, they afterwards die to a faint red, succeeded by fruit—and *Glastonbury Thorn*, this tree is said to have originally been the staff of Joseph of Arimathea, that noble counsellor who buried CHRIST. He, according to the tradition of the Abbey of Glastonbury, attended by eleven companions came over into Britain and founded in honour of the Blessed Virgin, the first Christian church in that Isle. As a proof of his mission he is said to have stuck his staff in the ground, which immediately shot forth and bloomed. This tree is said to have blossomed on Christmas day ever since, and universally distinguished by the name of the Glastonbury Thorn. It however differs in no respect from the common Hawthorn only that it sometimes flowers in the winter, *vide*, Hanb. Comp. body of Planting and Gardening. Volume 1. Page 112.

*Note.* The reputation which the flowers and berries of these plants formerly had in Nephritic and Calculous complaints, continues them in most catalogues of the *Materia Medica*, though common practice has long rejected them as insignificant; the flowers have a very pleasant smell, and the berries are mucilaginous and sweetish.

2. C: AZAROLUS, (*Mespilus apiifolio* of C. B.) *L'Azarole Thorn*, a native of Italy and the south of France, attains a height of fifteen or sixteen feet, hath large, nearly trifid, serrated and obtuse leaves; the flowers are large, and in the different varieties are succeeded by fruit of different size, shape and relish. There is the *Azarole*



with strong thorns, those with no thorns, the jagged-leaved *Azarole* and the Oriental Medlar.

5. C: *ARIA THEOPHRASTI*, (Alni effigie of C. B. Sorbus Alpini of J. B.) *Aria Theophrasti White leaf*, or *White Beam tree*, a native of Europe, attains a height of about 20 feet, hath a fine straight spotted stem; the leaves are oval, unequally serrated, about three inches long, and half as wide, having several strong nerves running from the mid-rib to the border. Their upper surface is green and the lower white, they are placed alternately on the branches, which appear as if powdered with the finest meal, the flowers are white, grow in large bunches, having mealy footstalks, and are succeeded by red berries.

4. C: *TORMINALIS*, (Mespilus Tormalis C. B. Sorbus Tormalis J. B.) *Wild or Maple-leaved Service*, is a native of Europe, and is a large growing tree, rising near 50 feet high; the leaves resemble those of the Maple tree in shape, their upper surface is a fine green, their under hoary, and they grow alternately on the branches; the flowers grow in large clusters in May, are white and succeeded by fruit of a brown colour when ripe, and about the size of a large haw; in England they are tied up in bunches and exposed for sale in autumn. The timber of this tree is white and hard, and is very useful for mill-wrights and many purposes of that kind.

3. C: *COCCINEA*, (Mespilus Virginiana of C. B.) *Virginian L'Azarole*, a native of the United States, being common from Carolina to Canada, it attains a height of about twenty feet, having a robust stem, covered with a light coloured bark, the branches are produced without order, are of a dark brown colour, and possessed of a few long, sharp thorns; the leaves are spear-shaped, oval, smooth, serrated, of a thickish consistence, and often remain great-part of winter; each separate flower is large, but as few of them grow together the umbels they form are rather small, these are succeeded by large dark red coloured fruit—the varieties are *Pear-leaved Thorn*, *Plum-leaved Thorn*, with very long strong spines and and large fruit, and the *Plum-leaved Thorn*, with short spines, and small fruit.

6. C: *CRUS-GALLI*, (Mespilus prunifolio of Clayton) *Cockspur Hawthorn*, a native of the lower parts of Carolina, Canada and Virginia, attains the height of the former, rising with an upright stem, branching irregularly, these branches are smooth, of a brownish colour, thinly spotted with small white spots, and armed with thorns that resemble spurs of cocks; the leaves are oval, angular, serrated, smooth and bend backwards, they are about four inches long and three and a half broad, have five or six pair of strong nerves running from the mid-rib to the border, and die to a brownish red colour in Autumn; the the flowers are produced in very large umbels, of a noble show in May, and are succeeded by large fruit. The principal varieties of this species are the *Cockspur Hawthorn* with many thorns—the *Cockspur Hawthorn* with no thorn and the *Cockspur* with eatable fruit.

7. C: *CAROLINIANA*, (C: *Tomentosa* of Mich. Mespilus, Carolina of Trew. M. *Xanthocarpus* of Linn. and M. *Laciniata* of Walter,) *Carolinian Gooseberry-leaved Thorn*, formerly called

*Gooseberry-leaved Virginian Thorn*, grows also naturally in the lower parts of Carolina, attaining a height of about seven or eight feet; the branches are slender and closely set with sharp thorns; the leaves are wedge-shaped, oval, serrated, and hairy underneath; the flowers are small and white, and are succeeded by yellow fruit— There is a variety called the *Carolina Hawthorn*, which has longer and whiter leaves, and larger flowers and fruit, and no thorns.

8. C: VIRIDIS, *Green-leaved Virginian Thorn*, the stem and branches are without thorns; the leaves are lanceolate, oval, nearly trilobate, serrated, smooth and green on both sides; the flowers are white, moderately large, and the fruit is round.

9. C: INERMIS, *Indian Wild Service*, a native of India, is a shrub of about four or five feet high, branching and altogether without thorns; the leaves are broad, spear-shaped, serrated, of a thickish consistence, and are placed on footstalks on the branches; the flowers terminate the branches in a corymbus, being attended by awl-shaped bractæ.

10. C: GLANDULOSA, *Glandulous Thorn*, a native of Carolina up country; the stem is spinous and scaly; the leaves are nearly round, short, and a little hairy.

11. C: SPATHULATA, also a native of Carolina, Virginia, &c. very much resembles the first species.

12. C: PUNCTATA, a native of Carolina up country, hath a large woody stem, with large, wedge-shaped, oval leaves, somewhat plaited, and doubly toothed: the flowers are produced in a corymbus are downy, and the fruit is yellow. We have no account of the 13 remaining species. They are propagated from seeds, buddings, and by setting out the young plants.

CRATEVA, The *Garlic Pear*, a genus of the Dodecandria Monogynia class, and 25th Natural Order, *Putamineæ*; the calix is cut into four segments; the corolla consists of four oblong petals; the pericarpium is a large globular, fleshy, pedicillated berry, containing one cell; the seeds are many. There are three species all natives of the Indies.

1. C: SPINOSA, (*Cucurbitifera trifolia* of Pluke. *Cydonia exotica* of C. B.) *Marmelos*, or *Prickly Crateva*, attains the size of our Pear Trees, having numerous, long, slender branches, armed with sharp thorns, growing by pairs; the leaves are trifoliate, and the folioles are oblong, serrated, and acute pointed; the flowers are produced in small clusters from the sides of the branches, they are of a greenish colour on their outside, white within, and finely scented; they are succeed by a large esculent fruit, as big as an orange, covered with a hard, long shell.

*Domestic uses.* The pulp of this fruit is yellow, and tastes like Quinces; these are used in their deserts in various forms, heightened by a proper mixture of sugar and Oranges, and from the flowers is obtained, by distillation, a water highly odoriferous and cordial.

2. C: TAPIA, (*Apioscordon*, S: *Arbor Americana* of Pluke. *Malus Americana* of Comm. *Anona trifolia* of Sloane.) *Tapia*, *Garlic Pear*, or *Unarmed Crateva*, the trunk is large, branching and covered with a dark brown bark, and grows twenty or thirty feet high, the

branches having no thorns; the leaves are also trifoliate, the middle foliole being large and oval, and the side ones narrow, entire and pointed; the flowers are yellow, and have purple stamina, and are succeeded by a large plescent fruit, as big as the former, having a strong scent of Garlic.

*Note.* The tender buds from the young branches, bruised and applied to the naked skin will blister as effectually as Spanish flies; the fruit communicates the smell of Garlic to such animals as feed upon it.

3. C: GYNANDRIS, *Gynandrous Cratevo*, hath a robust branching trunk, unarmed with thorns, and grows about 30 feet high, the leaves are oval, smooth, of a thin consistence, and entire; the flowers are produced in bunches from the ends of the branches; they are gynandrous, the stamina are numerous, and of a purple colour, succeeded by a large, round, pulpy fruit, containing the seeds; they are propagated from the seeds, in the same manner as the Annona. CREEPING WATER PARSNIP. See *Sium Nudiflorum*.

CREPIS, *Bastard Hawkweed*, a genus of the Syngenesia Polygamia Æqualis class, and 49th Natural Order, *Compositæ*; the receptacle is naked, the calix is caliculated, with deciduous scales, and the pappus is plumose and furnished with a stipes: There are 14 species, most of them herbaceous, annuals, seldom exceeding 18 inches in height, and are natives of Europe.

1. C: TECTARUM, *Smooth Succory Hawkweed*, hath smooth, slender, acute stalks; the leaves are long, spear-shaped, runcinated, smooth, and grow singly at the joints, and the flowers are small and yellow.

2. C: BIENNIS, *Rough Succory Hawkweed*, is a tall growing plant, with a rough, angular stalk, and rough, lyre-shaped leaves, indented in such a manner as to form a pinnatifid leaf—a single yellow flower terminates each stalk.

3. C: FOETIDA, *Stinking Hawkweed*, the stalks are three or four in number, the leaves are long, narrow, jagged, and indented so as to resemble a winged leaf—a beautiful gold-copper coloured flower terminates each stalk.

4. C: AMPLEXICAULIBUS, *White Bastard Hawkweed*, hath oblong sharp-pointed, rough, hairy leaves, which embrace the stalk with their base, each branch is terminated with the flowers, which are white.

5. C: PURPURA-RUBENTIBUS, *Red Bastard Hawkweed*, hath spear-shaped leaves, situated in the manner of Dandelion, the stalk-leaves are oblong, runcinated, and embrace the stalk, each branch is terminated by one large compound flower of a red colour.

6. C: HIERACIUM-PROLIFERUM, *Yellow and Purple Bastard Hawkweed*, hath spear-shaped leaves, indented on their edges; the flowers are compound, the outer floscules are yellow, and the centre ones of a bluish purple.

7. C: SUB-TOMENTOSIS, *Common Succory-leaved Bastard Hawkweed*, hath an angular stalk, the radical leaves are lyre-shaped, smooth, and indented like those of Endive; the stalk leaves are spear-shaped, narrow, and embrace the stalks; the flowers are yellow, the centre purple.

8. C: HAPSANA, *Small Italian Bastard Hawkweed*, the radical leaves are spear-shaped, smooth, obtuse, their edges largely indent-

ed, and of an elegant green colour; the stalk leaves are spear-shaped, small, acute, entire, and embrace the stalks, the flowers are small and yellow.

9. C: PYRAMIDALIS, *Pyramidal-cupped Hawkweed*, hath a channelled, branching stalk, the leaves are saggitated, hairy, and their edges are indented—the flowers are small, and their cups resemble a pyramid.

10. C: PINNATIFIDIS, *Sicilian Bastard Hawkweed*, is a perennial, the leaves are pinnatifid, crenated, smooth, and of a pale green colour; the flowers grow two or three together from the tops of the stalks and are yellow.

11. C: DENTACULATIS, *Siberian Bastard Hawkweed*, hath rough, branching stalks, the lower leaves are oblong, indented, and have winged, indented footstalks; the upper leaves are spear-shaped, indented, and embrace the stalks; the flowers are yellow. Mons. Desfontaines, hath noticed two species, to the Society of Natural History, at Paris, viz. 12. C: VIRGATA, with a smooth stalk, and lance shaped leaves, growing in sandy soils, about Tunis, and Algiers. 13. C: CORNOPIFOLIA, with pinnatifid, radical leaves, those of the stalk linear; it is a native of the Canary Isles. each of these admit of several varieties, the other is not enumerated, they are a great ornament to gardens in autumn, and are easily propagated by seeds, any soil or situation suiting them.

For the other species of Hawkweed, see *Hierachium*.

CRESCENTIA, *the Calabash Tree*, a genus of the Didymia Angiospermia class, and 25th Natural Order, *Putamina*; the calix is split into two equal parts, the corolla is gibbous, and the berry is unilocular, and contains many seeds. There is but one real species, a native of the Indies.

1. C: CUJETE, (Cujete, &c. of Plum. Cucurbitifera arbor of Pluke.) *Calabash Tree*, attains a height of about 20 or 30 feet, hath a thick trunk covered with a whitish bark. This plant admits of many varieties, differing in height, breadth of the leaves, colour of the flowers, and size of the fruit or shells; the leaves of some of the varieties are spear-shaped, and narrow, at both ends, whilst others are broad and nearly oval, which circumstance hath induced authors to rank them as distinct species, viz. *Angustifolia*, or narrow leaved, and *Latifolia*, or broad-leaved. The flowers are produced from the trunks, and large branches, on longish footstalks; in some sorts they are of a pale yellow colour, in others of a deep yellow, in some of a greenish yellow, and they are usually striped, and spotted with brown—all the varieties are followed by fruit of different forms and properties, some are spherical, others are oval, and some have a contracted neck, like a bottle, in this respect they very much resemble the *Cucurbita*, or Gourd. Some of the Calabashes will hold near two gallons; these are covered externally with a thin skin of a greenish yellow colour when ripe; when this is pulled off, there appears a hard, ligneous shell, enclosing a pale yellowish, soft pulp, of a tart unsavoury flavour, surrounding a great number of flat, heart-shaped seeds.

*Domestic uses.* The shells are used for various purposes in the same manner as our Gourds are—the pulp is seldom eaten except

by cattle, in the time of drought--the wood, which is hard and smooth, is made into stools, chairs, and other furniture.

**CRESSA**, a genus of the Pentandria Digynia class, the calix is composed of five oval, obtuse, incumbent leaves; the corolla is one hypocrateriforme petal, the tube is the length of the calix, and swelling near the base; the limb is divided into five oval, acute, patent segments; the pericarpium is an oval capsule, a little longer than the calix, formed of two valves, and containing one cell; the seed is single, oval, and oblong--there is but one species, a native of Italy and Crete.

**C**: **QUAMOCLIT**, (*Quamoclit humifusa* of Tourne. *Anthyllis* of Alp. *Chamæpithys* of C. B. and *Lysimachia* of Pluke.) *Hoary-leaved Cressa*, hath slender, weak, and trailing stalks; the leaves are small, oval, pointed, and hoary; the flowers come out each in a kind of spike from the tops of the stalks, are of a reddish purple colour, and blow in June. It is propagated from seeds.

**CRESS**, or *Cresses*. See *Sisymbrium*.

**CRESTED AMARANTH**, or *Coxcomb*. See *Calisia*.

**CRINUM**, *Asphodel Lily*, a genus of the Hexandria Monogynia class, and 9th Natural Order, *Spathaceæ*; the corolla is funnel-shaped, and consists of one leaf, divided into six segments, and the germs are at the bottom of the corolla; there are four species--Mr. Bartram says they are called white Lily, at St. Simon's Island, Georgia, where they grow superbly.

1. **C**: **LANCEOLATIS**, *Polyanthus Umbellatis* of the Hort. Cliff. *Hyacinthus* of Burn. and Pluke.) *African Asphodel Lily*, hath a root which is composed of many thick, white, fleshy, fibres, collected into a head, at the top; the leaves form a cluster, on the crown of the root, they are nearly spear-shaped, plain, surround each other with their base, two or three inches high, and then spread themselves two ways; the stalk is round, hollow, two feet high, and stands by the side of the leaves; the flowers are produced from the top of the stalk, in a kind of large umbel, are of a bright blue colour, and very beautiful.

2. **C**: **OVATO-LANCEOLATIS**, *Broad-leaved Asphodel Lily*, hath broad, oval, spear-shaped, pointed leaves, and sit close to the crown of the root; the stalk is tender, round, and about two feet high, the flowers are produced from the top of the stalk, issuing from a two-leaved involucre, which is reflexed after the flowers are out.

3. **C**: **CARINATIS**, (*Lilium Zeylanicum* of Herm. *Radix toxicaria* of Rhump.) *Ceylon Asphodel Lily*, the root is a large bulb; the leaves are very long, carinated, obtuse, of a deep green colour, closely surround each other at their base, but afterwards spread themselves in every direction; the stalk is thick, succulent, hollow, compressed, and of a deep green colour, and two or three feet high; the flowers are produced in large umbels, from the tops of the stalks, they have very long tubes, are finely scented, and are succeeded by large, sub-oval, three cornered capsules, which produce bulbs, from which they may be propagated.

4. **C**: **COROLLARUM**, (*Lilio-asphodelus Americanus* of Commel.) *American Asphodel Lily*, hath a bulbous, thick, fleshy root; the leaves are broad, flat, and embrace each other at their base; the stalk is

thick, tender, round, hollow, compressed, and about two feet high, the flowers are produced from the top, in large umbels, are of a white colour, finely scented, and appear at all seasons of the year. They are propagated by parting the roots, (or planting the bulbs,) from the capsule, in fresh, light, rich earth. See *Amaryllis*, Fig. 5.

**CRITHMUM**, or *Samphire*, a genus of the Pentandria Digynia class, and 45th Natural Order, *Umbellatae*; the fruit is oval, and compressed, and the florets are equal. There are two species.

1. **C: MARITIMUM**, *Rock, or Sea Samphire*, or *Smaller Sea Fennel*, a perennial plant, growing on sea coasts, among gravel, and rocks, &c. where it flowers in August; the leaves are large, somewhat like fennel, being composed of many thick, oblong, spear-shaped, fleshy segments, full of juice, spicy, and saltish to the taste; the flowers come out in round umbels from the ends of the branches, and are yellow; the root is of a pleasant odour, and agreeable taste.

*Part used.* The leaves.

*Sensib'e properties.* Smell resembles Smallage, taste warm, bitterish, not agreeable.

*Medical virtues.* Stomachic, aperient, and diuretic.

*Domestic uses.* It is much relished as a pickle, and is likewise employed as a pot-herb. Sheep and cows get fat upon it.

2. **C: PYRENAICUM**, (*Apium Pyren* of Tourne.) *Biennial Samphire*, or *Pyrenean Parsley*, an annual and native of the Pyrenees; the radical leaves are large, and composed of many narrow segments, which spread themselves on the ground; the stalk is upright branching, and a foot and a half high; the leaves with which it is ornamented, are doubly trifid, the flowers come out from the tops of the stalks in round umbels, their colour is white, and blow in June. They are propagated from seeds sown in gravelly or rocky ground.

**CRETONIA**, a new genus of plants, enumerated by Michaux, on the authority of Gaert. who ranks it in the Syngenesia Polygamia Aequalis class; the calix is oblong, composed of unequal scales, imbricated; the receptacle is naked, the pappus feathery, the floscules are all androgynous, and five cleft; there is but one species enumerated.

**C: KUUNIA**, hath a hairy stalk, the leaves are linear, lance-shaped, and entire, finely dotted, and produces its flowers in panicles—he does not, however, say of what part of the United States it is a native.

**CROCUS**, or *Saffron*, a genus of the Triandria Monogynia class, and 6th Natural Order, *Eusatae*; the calix is a one-leaved spatha, the corolla is divided into six equal parts, it has three erect stigmata, and the pericarpium is a roundish trilobate capsule of three cells, the seeds are numerous and roundish. There is but one real species of Crocus, though the varieties are so numerous—these are divided into spring, and autumnal Crocus, which are the *Crocus Vernus*, and autumnalis of some authors, however, the real species is denominated

**C: SPATHA UNIVALVI RADICALI**, *Corolla tubo longissimo*, the *Spring Crocus*, hath a small, round, bulbous root, white within, and covered with a brown bark; the leaves are many, long and narrow, they are usually of a deep green colour, with a whitish stripe along

The middle; the flowers come out with, or before the leaves, each has a very long tube, which serves the place of a stalk, and is surrounded by a thin ragged membrane; the flower is large, and widens gradually, and divides into six large, oval, obtuse segments; these have the appearance of so many distinct petals. The varieties of the Spring Crocus are as follows:—1 *Early wild*, 2 *the white*, 3 *purple striped white*, 4 *blue striped white*, 5 *small blue*, 6 *blue crocus*, with a large flower, 7 *blue purple striped*, 8 *Purple*, 9 *yellow*, 10 *yellow black striped*, 11 *yellow crocus*, striped with purple, 12 *Ash coloured*, 13 *cream coloured*, 14 *little white narrow leaved*, 15 *white crocus* with a purple bottom, 16 *pale blue crocus*, with a purple bottom, 17 *great violet*, 18 *felyanikos*, 19 *doub e go den*, 20 *double blue*, 21 *double striped*; all these varieties are the effects of culture from seeds, for they are all but one species. The second division is that of the autumnal Crocus, which sports in the following varieties:—1 *Small blue Autumnal Crocus*, 2 *White Autumnal*, 3 *Autumnal Crocus*, with a whitish blue flower, 4 *Purple Autumnal*, 5 *Large Rush-leaved purple Autumnal Crocus*, and lastly, *Saffron*, or the

C: SATIVA, or *Cofficinalis* of the shops. The description of this, with very little variation will belong to all the kinds; the root is like the spring crocus, but is frequently double, the flowers come out with or before the leaves, and on their first appearance are wrapped in a thin, flimsy membrane, which divides and lets them out, the leaves are long, narrow, and of a very deep green colour, with a membranaceous hollow line running lengthways; the flowers rise immediately from the roots, standing upon its long tube; it widens gradually, and at the top is divided in the manner already noticed in the spring variety. The flowers are of a bluish purple, in the centre is a slender style, placed on a roundish germen; this styli has three stigmata of a reddish yellow colour, and these stigmata produce the Saffron of the shops.

*Part used.* The filaments and stigmata of the pistil, commonly called the chives.

*Sensible properties.* Smell aromatic, very diffusive, taste warm, bitterish; colour high orange.

*Medical virtues.* Stimulant, aromatic; besides, the virtues which it has in common with all the bodies of that class, it remarkably exhilarates the spirits, and is deservedly accounted one of the highest cordials—when used in too large a dose, it produces immoderate mirth, and all the consequences resulting from the abuse of spirituous liquors. This medicine was formerly considered an excellent remedy in hysteric depressions, originating from spasms, or from obstructions of the usual evacuations; but in modern practice, it is seldom employed, though it forms an ingredient in several medicinal preparations:—it has been much employed by nurses in this country, for promoting measles, small-pox, &c. They are propagated from the bulbs and seeds, and will flourish in any soil, or situation. See also *Carthamus*.

CROSSOSTYLUS, a genus of plants belonging to the Monadelphica Polyandria class; the calix is a quadrangular, quadrifid, and turbinate perianthium, the corolla consists of four elliptical petals; the stamina are 20 filiform filaments, almost the length of

the calix; the anthers small and roundish, the pericarpium an hemispherical, unilocular berry, with many stria on its upper part, the seeds are numerous and roundish.

CROSSWORT, or MUGWEED. See *Galium Cruciatum*, and *Valentia Cruciata*.

CROTOLARIA, *Rattle, and Rattle Box*, a genus of the Diadelphia Decandria class, and 52d Natural Order, *Papilionaceæ*; the calix is divided into three segments: the corolla is papilionaceous; the vexillum is large, heart-shaped and depressed on both sides; the alae are oval, and much shorter than the vexillum, the carina is sharp pointed, and the length of the alae; the pericarpium is a short, tinged, unilocular pod of two valves; the seeds are kidney shaped and roundish. There are 14 species.

1. C: CAROLINIANA, (*Anonis Caroliniana* of Martin,) *Carolina White Crotolaria*, a perennial, and hath a herbaceous smooth stalk, about two feet high; the leaves are composed each of three spear-shaped, oval folioles; the flowers grow in a thyrse at the top of the stalks, and are of a white colour, succeeded by tinged pods.

2. C: PERFOLIATA, *Carolina perfoliate Crotolaria*, hath round, shrubby, branching stalks, four or five feet high; the leaves are heart-shaped, oval, smooth, and surround the stalk as if they were run through with it; the flowers are of a pale yellow colour, and grow from the wings of the leaves.

3. C: ASIATICA, *Asiatic Crotolaria*, hath square stalks, oval, verrucose leaves, and spikes of light blue flowers.

4. C: SIMPLICIBUS, *Chinese herbaceous Crotolaria*, hath simple, spear-shaped leaves, smooth on the top and hairy underneath; and hairy blue flowers coming out from the wings of the leaves.

5. C: RETUSA, *Indian retuse Crotolaria*, hath oblong, wedge-shaped, retuse, smooth leaves, of a pale green colour, and large spikes of yellow flowers.

6. C: BENGHALENSIS, *Bengal Crotolaria*, hath simple, spear-shaped, hairy leaves, a herbaceous, upright striated stalk, adorned at top with the flowers.

7. C: SAGITTALIS, *American, or Brasilian Crotolaria*, a native of Virginia and Carolina, hath simple, spear-shaped leaves, that are hairy, and have wings running from their base to the stalk; the flowers are yellow, and come out in loose spikes from the ends of the branches.

8. C: CAPENSIS, *Cape pefoliate Crotolaria*, hath robust, upright stalks, oval leaves with rough borders, which appear as if perforated by the stalks, and produces its flowers at the wings of the leaves.

9. C: VARIEGATO, *Broad-leaved Crotolaria of Jamaica*, hath shrubby, branching stalks, four or five feet high; the leaves are broad, smooth, and each composed of three folioles; the flowers are produced in short spikes, and are variegated.

10. C: TERNATIS, *Laburnum-leaved Crotolaria*, a native of Asia, hath shrubby stalks, and trifoliate leaves, each being composed of three oval, acute folioles, much resembling those of *Laburnum*; the flowers are large, and of a fine yellow colour.



11. C: *HIRSUTIS*, *Hoary Crotonaria*, a native of the West-Indies, hath woody, tough, hairy, hoary stalks; the leaves are very broad, and each composed of three oval, roundish, acuminate folioles; the flowers come out in spikes, and are of a greenish yellow. The ten last mentioned are annuals.

12. C: *VILLOSIS*, *Hairy Ethiopian Crotonaria*, hath a shrubby, branching stalk, about four feet high; the leaves are simple, oval, acute, hairy and sit close, without footstalks; the flowers are blue.

13. C: *CHINDENSIS*, *Shrubby Chinese Crotonaria*, hath a woody stalk, which sends forth several taper branches, armed with a whitish down; the leaves are simple, oval, obtuse and slightly hairy; the flowers grow in loose spikes, are yellow and hairy, having a striped vexillum.

14. C: *AMPLEXICAULIBUS*, *Amplexicaule Crotonaria*, hath woody, branching stalks four or five feet high; the leaves are roundish, heart-shaped, grow alternately and embrace the stalks with their base; the flowers come out from the upper parts of the stalks in June. These three are stove plants.

*Note.* One of the species, probably the fourth, under the specific name *Juncea*, or *Chinese Hemp*, has been introduced from India in the year 1785, which upon experiment was found to produce 95 stone, 7 pounds, 2 ounces of pure hemp to the acre, beside three bushels, two pecks and half a pint of seeds that were saved, which is upwards of one third more than the best crops of English hemp, have ever been known to yield. The compiler is sorry that he is not able to collect a more general and particular account of this plant, which would certainly become an object of importance to this country. It is to be remarked that the pods of these plants are filled with seeds, which when dry and shaken by the slightest wind, emit a rattling noise, whence the vulgar name; and the rude inhabitants of China attribute this noise to the devil, who is thought by them to deliver his oracles in this whimsical manner. They are all propagated by seeds. See *Cannabis*.

**CROTON**, *Tallow Tree*, or *Bastard Ricinus*, a genus of plants of the Monoecia Monadelphia class, and 38th Natural Order, *Tricocca*; the calix of the male is cylindrical, and has five teeth; the corolla has five petals, and the stamina are from ten to fifteen; the calix of the female consists of many leaves, it has no corolla, but has three bifid styli, and the capsule has three cells, and contains one seed. There are 21 species.

1. C: **TINCTORIUM**, (*Heliotropium tricoc.* of C. B.) *Dyers Wild Ricinus*, *Turnsol*, or *Maurelle*, by the French. This plant produces a round, herbaceous stalk, two or three feet high, with many rhomboidal or oval leaves; the flowers come out in spikes and are yellow; from this plant that valuable dying drug, called Turnsol, or Maurelle, is prepared; the dark green sap is expressed into stone vessels with the addition of urine; linen or woollen rags are next dipt into the liquor, and immediately dried in the sun, after which they are suspended for seven or eight hours over casks containing stale urine, quick lime and alum, till they acquire a dark blue or violet colour; they are then packed and sold under the French name of Turnesols.

en drapreau, which is very useful in dyeing, painting, staining of wines, jellies, &c.

2. C: SEBIFERA (C: Glandulorum of Mich. Ricinus Chinensis of Petiv. Evonymus affinis of Pluke.) *Sebiferous Croton*, or *Tullew Tree*, a native of China, the stalks are woody, irregularly branching and attains the height of a cherry tree; the leaves are rhomboidal rounded, smooth, undivided, and each of them has two glands at the base; the flowers are produced on short spikes, are small and of a whitish green colour; the female flowers are succeeded by three lobed capsules; the fruit is enclosed in a cover like a chesnut, and consists of three round, white grains, of the size and form of a small nut, each having its peculiar capsule, and within that a little stone, this stone is encompassed with a white pulp, which has all the properties of true tallow, as to consistence, colour, and even smell.

*Domestic uses.* The Chinese make candles of it, the same as we do of tallow.

3. C: ARBOREA, (Ricinoides Indica of Burm, Pinus Indica of C. B. Granum Moluccum of Rhum.) *Tiglium Croton*, a native of India, rises with a thick branching stem, fifteen or twenty feet; the leaves are oval, smooth, sharp pointed, serrated and of a lucid green colour; the flowers come out in short spikes, are of a whitish green colour—the female flowers are succeeded by a smooth fruit having three cells.

*Note.* It is said the fruit possesses like purgative qualities with the castor-oil nut.

4. C: AROMATICUM, (C: Eleutheria? Ricinus Aromaticus of Pluke.) *Lacciferous Croton Cascarilla*, or *Eleutheria of the Shops*, the stalk of this plant is woody, branching, prickly, aromatic, and when broken emits a milky juice; the leaves are oval, hairy, downy slightly serrated, grows on short footstalks, and finely scented; the flowers are produced in spikes, are small, herbaceous and of but little beauty. The bark of this tree is the *Cascarilla*, or *Eleutheria of the shops*, which was formerly considered by some as distinct barks.

*Part used.* The bark.

*Sensible properties.* When freed from the outer whitish coat which is insipid, and inodorous, has a light agreeable smell, and a moderately bitter taste, accompanied with a considerable aromatic warmth; it is easily inflammable, and yields when burning a very fragrant smell, resembling that of musk, a property which distinguishes the *Cascarilla* from all other barks.

*Medical virtues.* It was introduced into Europe about the year 1693, and seems first to have been used in Germany, where it is still in very high esteem, and where it is frequently employed against common Intermittent Fevers, in preference to the Peruvian Bark, as being less subject to produce some inconveniencies which the latter, on account of its great astringency is apt to occasion. It is also said to have been employed with great success in some very dangerous epidemic fevers, attended with *Petechia*; and it is frequently employed with advantage in flatulent colics, internal hæmorrhages, dysenteries, diarrhoeas and similar disorders. Lector Kier of London thinks it is by no means so generally employed as

it deserves to be—and I am convinced that was a fair trial given this bark, particularly in intermittents, its success would justify these remarks. Its virtues are partially extracted by water, and totally by rectified spirit, but it is most effectual when given in substance; an infusion of it is sometimes directed for promoting perspiration.

5. C: CASCARILLA, (Ricinio Rosmarina folio of Sloane,) *Rosmary-leaved Croton*, or *Cascarilla*, a native of America, hath erect, woody, smooth, branching stalks, ten or twelve feet high, and covered with a yellowish bark; the leaves are spear-shaped, narrow, pointed, smooth, of a light green colour above, downy underneath, they grow alternately, and when bruised emit an agreeable odour; the flowers are produced in long, loose spikes, are of a whitish green colour, succeeded by white, three lobed capsules, containing the seeds, which are black when ripe. Dr. Wright observes, that the *Cascarilla* described by Linnæus as producing the officinal bark of that name, is the wild Rosemary shrub of Jamaica, the bark of which has none of the sensible qualities of the true *Cascarilla*, or *Leutheria* above described.

6. C: RICINOIDES, (C: Muritimum of Mich.) *Marsh Pastard Ricinus*, an annual and native of Vera Cruz, the stalks are herbaceous, flat and two or three feet high; the leaves are oval, spear-shaped, plicated, serrated and rough; the flowers grow from the wings of the leaves in short, loose spikes, are herbaceous, and of little beauty; the capsules are prickly.

7. C: SUBTOMENTOSIS, (C: Capitatum of Mich.) *Silvery Croton*, an annual, and native of America, the stalk is herbaceous, hoary and branching near the top, it is about a foot and a half high, the leaves are heart-shaped, oval, downy and undivided, slightly serrated and grow on long hairy footstalks; the flowers are of a whitish green colour, and grow in clusters.

8. C: RICINOCARPOS, (Mercuriales and Rogyna of Van Roy;) *American Ricinocarpos*, also annual, hath a herbaceous stalk, hardly a foot high, leaves nearly heart-shaped, their edges indented; the flowers are whitish, and grow in small heads, male and female together.

9. C: LOBATUS, *Lobated Croton*, also annual, hath a herbaceous stalk, a foot and a half high; the leaves grow opposite on long footstalks, are smooth, serrated, and the lower ones are deeply cut into five, and the upper ones into three lobes; the flowers come out in spikes and are of a whitish green colour.

10. C: GLABRIS, *Lucid Croton*, a native of Jamaica, is a woody plant six or eight feet high; the leaves oblong, oval, slightly serrated, smooth, and of a lucid green colour, growing mostly opposite; the flowers are of herbaceous colour, come out in spikes, and are succeeded by roundish capsules.

11. C: TOMENTOSIS, (C: Monanthogynum of Mich.) *Yellow Croton*, a native of Jamaica and Tennessee, hath a yellow, shrubby, hairy, downy, branching stalk, two or three feet high; the leaves are heart-shaped, oblong, undivided, and very downy on both sides; the flowers grow in short spikes, from the upper parts of the branch-

es, and are of a greenish yellow colour, succeeded by three cellular capsules, containing in each cell one large oval seed.

12. C: FRUTICOSA, *Dwarf Croton*, a native of Jamaica, hath weak, slender, ligneous stalks, about two feet high, and which put out a few slender branches; the leaves are heart-shaped, undivided, ciliated, rough, hairy, pointed and downy underneath; the flowers are small, and of little figure.

13. C: OBTUSIUSCULIS, *Smooth Jamaica Croton*, hath a woody, smooth, branching stalk; the leaves are undivided, oval, obtuse, smooth, pale green above, whitish underneath, and grow alternately; the spikes come out from the wings of the leaves, and are of a greenish white colour. The whole plant when bruised, hath the smell of Mugwort.

14. C: ARGYRANTHEMUM of Mich. hath a shrubby stem, entire, oval, obtuse leaves; the flowers are produced in branches or clusters; it is a native of Georgia and Florida. The seven remaining species are not enumerated—they are all propagated from seeds, are somewhat tender, and require care.

CROTONOPSIS, a genus of the Monoecia Pentandria class; the calix of the male is cut into five deep, oval, obtuse, concave segments; the corolla consists of five alternate, linear, oblong petals, smaller than the calix—the calix of the female same as the male; it has no corolla; the pericarpium is a short, round, unilocular capsule, which does not open; the seed is single and round, inclosing an oily, fleshy nut. Michaux discovered this plant in the *Long Bay* of South-Carolina, and also at the Illinois, it hath a very near affinity with the Croton before mentioned. The species is termed by him,

C: LINEAR, *Linear-leaved Crotonopsis*, hath an erect, branching stem, and the leaves are linear and obtuse; the flowers are described in its Botanical characters.

CROW BERRY, or CRAKE BERRY. See *Empetrum*

CROW FLOWERS. See *Lychnis*.

CROW FOOT. See *Ranunculus*.

CROWN IMPERIAL. See *Fritularia*.

CRUCIANELLA, *Petty Madder*, a genus of the Tetrandria Monogynia class, and 47th Natural Order, *Stellata*; the calix consists of two spear-shaped, compressed leaves, the corolla consists of one funnel-shaped petal with a filiform tube, the limb is cut into four sharp segments; the pericarpium consists of two capsules, growing together, and the seeds are two, situated between the calix and corolla; there are five species, but are not possessed of any remarkable properties.

1. C: PROCUMBENS, (*Rubia Maritima* of C. B.) *Maritime Petty Madder*, the stalks of this species are ligneous, perennial, square, hairy, about a yard long, and (unless supported) lie on the ground, the leaves are spear-shaped, rigid, acute, and quaternate, being disposed by fours at the joints, in a radiated manner; the flowers are of a dull yellow colour, having black anthers, grow opposite, are closed in the day, but open in the night, and very fragrant.

2. C: REPENS, *Petty Madder of Montpellier*, the stalks are diffuse, moderately thick, and procumbent; the leaves are of a whitish colour, and make but little show.

3. C: ERECTA, (*Rubia angustifolia spicata*, C. B.) *Narrow-leaved Petty Madder*, an annual, and native of France, the stalks are erect, square, rough, jointed, and branched; the leaves are narrow, rough and grow usually six at a joint, where they surround the stalk; the flowers grow in close spikes, are white, small, and blow in July.

4. C: SPICATIS, (*Rubia Latifolia*, C. B.) *Broad-leaved Petty Madder*, an annual and native of Crete, and France. the stalks are hairy, square, and lie on the ground; the leaves are spear-shaped, and four of them stand at each joint; the flowers come out in long spikes, are small and greenish, and blow in June and July.

5. C: DIFUSA, *Spanish Petty Madder*, an annual plant, the stalks put forth numerous, slender branches, which spread themselves all around, the leaves grow in whorls, usually six together at a joint; the flowers are small, and of but little show: The annuals are all raised from seeds sown in any common garden mould; the perennials from seeds or by parting the roots.

CRUCITA, a genus of the Tetrandria Digynia class, and 59th Natural Order, *Dubii Ordines*; the interior calix has four, and the exterior three leaves; there is no corolla, and only one seed. This plant is for the first time noticed in the English Encyclopedia: We have no further account of it.

CTESIUM, a genus of the Cryptogamia Filicis class, and 55th Natural Order, *Filicis*. This genus of Ferns, was discovered by Michaux, who observed it from the Eastern Shore of Virginia, to the confines of Kentucky and Tennessee. He gives one species.

C: PANICULATUM; the frond is nearly round, the leaves are cut into five or six lobes, so as to form a hand-shaped leaf, the lobes are nearly equal, oval, oblong, and obtuse, the flowers come out in compound panicles.

CUCKW FLOWER, or *Ladies Smock*. See *Cardamine*.

CUCKOW PINT. See *Arum Maculatum*.

CUCUBALUS, *Berry bearing Chickweed*, or *Spatling Popsy*, a genus of the Decandria Trigynia class, and 22d Natural Order, *Caryophyllei*; the calix is inflated, the corolla has five petals, with ungues, and the capsule has three cells—there are 13 species, only two of which are indigenous.

1. C: BACCIFEROUS, *Berry bearing Chickweed*, is a climbing plant, and will rise to six or eight feet high; the leaves are opposite, oval, and pointed, the flowers are small, and white, the cup is bell-shaped; and much inflated: The flowers are succeeded by oval, black, juicy berries.

2. BEHEN, or BEKEN, *White Corn Camfion*, *White Bottle*, *Spatling Popsy*, or *Bladder Camfion*, the Swedes call it *Gumshungar*, a native perennial, which grows in corn-fields, dry meadows, and pastures, particularly about Canada, Quebec, &c. It is a Rambler, the stalks are round, smooth, and jointed, and about two feet in length, often forming themselves into large bunches; the leaves are of an oval figure, and stand two at a joint; the empalement of its flowers is curiously wrought like a net work, and is of a purple colour. It flowers in July and August.

*Part used.* The leaves and roots.

*Sensible Properties.* The leaves of this vegetable, when boiled, possess the flavour of Peas.

*Medical virtues.* The Gothlanders advantageously apply the leaves to crisympelatous eruptions, and the roots are esteemed cordial, cephalic, and alexepharmic; the flowers are eagerly visited by bees, &c.

3. C: VISCOSUS, or *Dover Camphion*, is a low growing plant, the leaves are narrow, opposite, and reflexed at their base; the flowers are of a pale red colour, and have striped cups—there are several varieties of this species.

4. C: OLITIS, or *Spanish Catchfly*, this is a dioecious species, having male and female flowers on different plants, the stalks are jointed, and issues a glutinous matter, which catches flies, and other insects; the leaves at the joints are long and narrow, and grow from every one of them, opposite, by pairs; the flowers are produced in small clusters, and are greenish, and of little beauty.

5. C: ACAULIS, or *Moss Camphion*.

6. C: POLYPETALOUS, (Walter) *Many petaled Lychnis*. Of these two species, I have found no particular account.

7. C: CARNOSIS, *Rocky or Pine-leaved Camphion*, a perennial and native of Sicily, which by different management may be made also annual and biennial, the leaves are of a very thick consistence, succulent, and of an oval figure; the flowers are small, and of a greenish colour, and blow in June.

8. C: VIRGINIANA, *Virginian Clove Lychnis*, a perennial; and hath herbaceous stalks, about a foot high; the leaves are smooth, of a deep green colour, sharp pointed, and four of them surround the stalks at each joint; the flowers are white, and fringed, and blow in June.

9. C: SEPTENTRIONALUM, *Tartarian Lychnis*, hath undivided stalks, about a foot high; the leaves are oval, pointed, of a pleasant green colour, and much resemble those of Hyssop; the flowers are produced in spikes, at the tops of the stalks, and are white.

10. C: BIPARTITIS, *Catholic Lychnis*, hath viscid stalks, about a yard high; the leaves are spear-shaped, oval and pointed, the flowers are produced in panicles, hang drooping, and the petals are divided into two parts—their colour is herbaceous.

11. C: MARITIMA, *Soft Maritime Lychnis*; from the roots issue several rigid, upright stalks, which are a little downy, soft the touch, and about a foot high; the lower leaves are spatulated, but the upper ones are spear-shaped, they are of a fleshy substance, spread open, are reflexed at the top, silky and soft to the touch; the flowers come out in forked panicles, are white, and cut into two parts.

12. C: SYLVESTRIS, *Reflexed Spiked Lychnis*, a native of France, hath spear-shaped, narrow leaves; and small white flowers.

13. C: STELLATUS, *Star leaved Lychnis*, a native of the United States, hath an erect downy stem; the leaves are oval, lanceolate, pointed, and grow in whorls four at each joint. They are all propagated by parting the roots. See also *Lychnis, Silene, &c.*

CUCUMBER. See *Cucumis*.

CUCUMIS, *Cucumber*, a genus of the Monoecia Syngenesia class, and 34th Natural Order, *Cucurbitaceæ*; the calix of the male has five

teeth; the corolla is divided into five segments, and the filaments are three; the calix and corolla of the female are the same with those of the male: the pistillum is trifid, and the seeds of the apple are short and slender. There are 14 species, of which the following are the principal.

1. C: SATIVA, or *Common Cucumber*, a plant reared at three different seasons of the year, first in hot beds, 2 beneath bell or hand glasses, and 3 on common ground; the latter is our method in the U. S. Cucumbers are so well known, as to need no further description; except in rearing of them it hath been discovered that if planted by trees where they can run up, they bear considerably better, and more numerous, and that several crops may be propagated in succession without sowing, as follows: As soon as there appears several flower buds on a plant, bend the second or third joint of a branch below the blossom, fasten it firmly into the ground, and cut off the capillary end of the plant, the new vegetable speedily takes root, when it is then to be separated from the parent stock; proceed thus with the most vigorous plants, and as each root has to supply only a few fruit with nourishment, both room and labour, as well as time is saved, and a constant succession of Cucumbers are obtained the whole year, and which do not degenerate as those do which are raised from a variety of seed. It is said the best seed for planting are those from two to four years old. The foregoing is the discovery of Mr. Burton of Staineshead, Sussex—The varieties of this species are, 1. *Common rough green prickly*. 2. *Short green prickly*. 3. *Long green prickly*. 4. *Early green cluster*. 5. *Long, smooth, green Turkey*. 6. *Long, smooth, white Turkey*. 7. *Large, smooth, green Roman*, and 8. *The long, white, prickly, Dutch Cucumber*.

*Domestic uses.* Cucumbers are a salubrious cooling fruit, and may safely be allowed to consumptive patients, as they sweeten acrid humours, at the same time are gently laxative, but being in a considerable degree acescent, sometimes produce flatulency and diarrhoea; such effects however, may be prevented by eating them with moderation, or with the addition of vinegar and pepper, which counteract their natural coldness. If properly pickled (i. e. without that dangerous method of colouring them with the poisonous metals copper or brass, which is shamefully done by some, and ignorantly by others, or render them too acrid with stimulant spices.) they are an excellent antiseptic, yet they are not proper for children or wet-nurses.

2. C: COLOCYNTHIS *Coloquintida*, or *Bitter Apple*, which grows in Syria, and also in the island of Crete; the stalks are rough, procumbent, striated and extend themselves to a considerable length; the leaves are divided into a multitude of segments, are large, rough, hairy and grow singly from the joints on long footstalks: the flowers are regarded least of any thing in this genus, they consist of male and female in the same plant, and are mostly yellow, though they are sometimes white; they are pretty large in this species, and are succeeded by yellow fruit of the size of an orange, and resembling a gourd, the shell or outside of which contains a very light white, spongy pulp, interspersed with stalks and seeds.

*Part used.* The medullary part of the fruit.

*Sensible properties.* An extremely bitter, nauseous, acrimonious taste:

*Medical virtues.* This pulp when dried and reduced to powder is one of the most violent purgatives, and though frequently employed, we cannot but caution against the use of it, which is sometimes attended with bloody stools, colics, convulsions and ulcers in the bowels: As there are numerous other, native plants, which are possessed of similar virtues, there can be no necessity for employing this exotic; the best method of abating its virulence, without diminishing its purgative virtues, seems to be by triturating it with gummy, farinaceous substances, or oily seeds, which prevents its adhesion to the intestines, where it is apt to irritate, corrode, or inflame them.

3. C: AGRESTIS, or SYLVESTRIS. (C: Americanus of Pluke. C: Anguriæ of Sloane. Anguriæ Americana of Miller. C: Elaterium of late authors) *Anguria Elaterium*, or *Wild Cucumber*, this plant is found wild in foreign countries, and grows wild in some parts of Carolina and Georgia. Its principal botanical difference from the *Sativa*, or common *Cucumber*, is the smallness of its fruit, which is no bigger than a Spanish Olive; when ripe it bursts on a light touch, and sheds its seeds with violence and was hence called by the Greeks *Elaterium*, which name was also applied to the inspissated juice of the fruit, which is the only preparation of the plant made use of in Medicine.

*Medical virtues.* Drastic, cathartic—*Elaterium*, or the inspissated juice of the wild *Cucumber* is a strong cathartic, and very often operates upwards; two or three grains are accounted in most cases sufficient for a dose. Simon Paulli relates some instances of the good effects of this purgative in dropsies, but cautions practitioners not to have recourse to it till after milder medicines have proved ineffectual.

4. C: CUCUMIS MELO, the *Common*, or *Musk Melon*, an exotic plant, growing wild in Asia, whence it has been introduced into almost all the civilized countries in the south west parts of the world; it is propagated from seed; there are several varieties, as the *Cantelope* and *nutmeg melon*, all of which are accounted delicious fruit—they are apt to degenerate, especially if planted among inferior sorts, such as *Cucumbers*, *Squashes* or *Gourds*. Those, therefore who wish to procure good melons, must be careful to procure good seed; secondly, to plant them remote from other seed vines, whereby such degeneracy will be prevented; this rule will hold good in all kinds of fruit or culinary vegetables, of what genus soever.

5. C: ANGURIA, or *Water Melon*, though properly a species of the former, is by some considered as a distinct genus of exotic plants comprising three species, (of which the *Anguria citrulli dictæ* of Caspar Bauhine) is one, and the only one known in Britain. Hanbury places it in the *Cucurbita* genus. The *Water Melon* is also propagated from seed in a manner similar to the former. Partaking more of the nature of cucumbers, they afford a very refreshing article of diet in our warm summers, and yield considerable profit. The juice yields on inspissation a bright, light coloured syrup, and a well flavoured spirit by distillation. Both these species, as well as several varieties of them grow in abundance in



the Southern States, where they are so well known as to exclude the necessity of any farther notice.

6. C: PUMILA, *Dwarf Arabian Colocynth*, the stalks of this species are much weaker than those of the former. The leaves are heart-shaped and composed of five indented, obtuse lobes; the fruit is round, striated and prickly.

7. C: LONGUS, *Long Indian Cucumber*, a native of Tartary and China, the stalks are five cornered, and extend a great length; the leaves are heart-shaped, roundish, acutely angulated, and indented; the flowers are yellow, and are succeeded by oblong, angular, compressed fruit.

8. C: ORIENTALIS, [*Melo variegatis aurantia figura odoratissima* of Dille:] *Oriental Cucumber*, or *Smell Melon*, hath rough, weak and procumbent stalks like the gourds; the leaves are angular, rounded, and grow from the joints on moderately long footstalks; the flowers are not inconsiderable, but the fruit is the chief excellence of this plant, which is about the size of an orange, and of a most agreeable odour. There are several varieties of these, some are oval, about the size of a fowl egg, and of a yellow colour, others larger, and variegated with different colours, but all agree in their grateful odour. They are eaten by some people.

9. C: ÆGYPTIACUS, *Chate* or *broad-leaved Egyptian Cucumber*, hath procumbent, hairy, five cornered stalks; the leaves are hairy, roundish, angular, and indented; the fruit is fusiforme, ventricose, beset with white, erect, prickly hairs, and is beaked at both ends.

10. C: CYLINDRICIS, *Long fruited Indian Cucumber*, the stalks of these run a good length; the leaves are large, lobated, and grow from the joints on longish footstalks; the fruit is very long, of a cylindrical figure, and very smooth.

11. C: BRYONIAFOLIS, *Small fruited Indian Cucumber*, (*Guinea Water Melon*?) the stalks run like the others; the leaves are heart-shaped, oblong, smooth, and indented; the fruit is round, smooth, and very small. The remaining species are not particularised. Several of the foregoing are cultivated in the United States. the modes of which are well known.

CUCUMBER ROOT. See *Medeola*.

CUCURBITA, or *Gourd*, a genus of the *Monococia Syngenesia* class, and 34th Natural Order, *Cucurbitaceæ*; the calix of the male has five teeth; the corolla is divided into five segments, and the filaments are three; the calix and corolla of the female are the same with those of the male; the pistillum is quinquefid, and the seeds of the apple are turned at the edges—There are nine species. The difference in the Botanical characters of this and the *Cucumis* genus, is only seen in the pistillum, and seed.

1. C: LANGENARIA, *Long*, or *Bottle Gourd*, a native of both Indies, and America, where it grows on the banks of rivers; it has thick, trailing, downy stalks, extending from 10 to 20 feet; the leaves are large, cordated, angular, downy, and glandulous at the base, producing large white flowers, which are succeeded by long, incurvated fruit of a whitish yellow colour, from 2 to 5 or 6 feet in length, and from 9 to 24 inches in circumference.

*Domestic uses.* In the East and West Indies, these are sold in markets, and constitute during summer months, the principal food of the common people, who boil and season them with vinegar, and sometimes filling the shell with rice and meat, prepare a kind of pudding. These shells are employed as flasks for holding water, some of which will hold about 20 gallons. They are likewise converted into spoons, funnels, and even hats. The Arabians call this species *Charroh*.

2. C: PEPO, *Pomfitch, Pumfkin, Common Gourd*, or as it is vulgarly called, *Punkin*, which is cultivated, not only in various parts of Germany; but in the United States; the native soil of which is however unknown: It produces fruit of various sizes and shapes, frequently 18 inches in diameter; but this depends altogether on the quality of the land.

*Domestic uses.* The pulp is eaten either baked or stewed, and when cold affords a delicious repast; they are an ingredient in puddings, and pancakes, but the most economical use of this bulky vegetable production, is that of fattening, not only "pigs and carp," but horses and cows; as is the custom in most parts of America—The seeds afford an unusual quantity of expressed oil, amounting to half their own weight, and when triturated with water, they yield a cooling and nutritive milk, and when boiled to a jelly, they are said, by Bechstein, to be a very efficacious remedy for curing a retention of urine. They are among the number of the four greater cold seeds.

3. C: VERUCOSA, or *Warted Gourd*, which is reared in America as a culinary vegetable, and is more generally known by the name of *Running Squash*, or *Cymbelines*, the fruit is covered with protuberances, knots or warts; its young and tender fruit is eaten boiled, and frequently mixed with wheaten flour in the baking of bread, to which it imparts a yellow colour, and an agreeable taste.

[The Editor rather apprehends the Pepo, or Pompion is meant, as that species is frequently mixed with flour for making bread.]

4. C: MELO PEPO, *Erect Gourd or Squash, Bush or Bunch Squash*, has erect stalks, several feet in height, which becomes bushy towards the top; the leaves are large, lobed, and shaped like a shield; this plant produces a knotty fruit of a moderate size, and is used like the preceding. [This species degenerates, and in time trails like many of the others.]

5. C: LIGNOSA, *Ligneous Shelled Gourd, or Calalash*, which has long trailing stalks, extending along the ground in every direction, its smooth, roundish fruit is provided with hard, woody shells, enclosing an uncommon bitter pulp, very much resembling the *Colocynth*, we think it a species.

6. C: PEREGRINA, or *Wild Squash*, a native of Florida, which climbs over the lofty limbs of the trees, their yellow fruit somewhat the size and figure of a large orange, hang pendent from the extremities of the limbs over the water. The remaining species, I have not found enumerated; They are propagated from seeds as the cucumbers are.

*Note.* All these species have several varieties, among which, we may reckon the numerous kinds of Gourds in use now among us,

from the size of an egg, up to a half bushel tub; they are all raised from seeds, and are converted into milk receivers, powder flasks, seed vessels, water dippers, strainers, &c. and the shell converted into button moulds, when unfit for other uses. Water suffered to remain a few hours in one of those half ripe gourds, is violently emetic, and cathartic; similar to bitter apple; the pulp of the gourd when ripe has also a similar effect.

**CUMINUM**, *Cummin*, a genus of the Pentandria Digynia class, and 45th Natural Order *Umbellatæ*; the fruit is oval, and striated, it has four umbellatæ, and the involucre consists of four segments. There is but one species.

**C:** **CYMINUM**, *Cummin*, an exotic annual plant, propagated in the Isle of Malta, for the sake of its seeds; it resembles fennel but is smaller, the root is slender, and sweet to the taste; the leaves are smooth, and beautifully divided into a number of very narrow parts, the flowers grow in umbels, and are of a whitish blue or purple colour, and blow in July.

*Part used.* The seeds.

*Sensible properties.* Bitterish, warm taste, accompanied with an aromatic flavour, though not an agreeable one.

*Medical virtues.* Carminative—although esteemed good carminatives they are seldom employed in medicine, the essential oil possessing all the virtues of the seed, are said to be a sovereign remedy in rheumatic cases. Externally the seeds are employed in form of a plaster, and cataplasm. Pigeons are exceeding fond of these seeds.

**CUNILA**, or *Mountain Balm*, &c. a genus of the Diandria Monogynia class, and 42nd Natural Order, *Verticillatæ*; the calix is divided into five parts at the top; the corolla is one ringent petal, the upper lip is erect, plain, and emarginated, the lower lip is divided into three roundish segments—there is no pericarpium, and the seeds, which are four, are lodged in the calix, they are oval, and small. There are three species.

1. **C:** **MARIANA**, (*Hedyosmos* of Michel. *Thymus* of Gronov. and *Calamintha Mariana* of Pluke.) *Virginian Field Basil*, a perennial, and native of Virginia, Carolina, &c. the stalks are upright, brown, tough, and a foot and a half high; the leaves are oval: pointed, serrated, smooth, and finely scented, the flowers come out in roundish branches, from the tops of the stalks, they are small, whitish, and appear in July.

2. **C:** **BUBULÆ**, (**C:** *Glabella* of Mich.?) *Wild Marjoram*, or *Montpelier Cunilla*, according to Michaux, a perennial, though Hanbury says, an annual plant, indigenous to the southern and western parts of America; the stalk is upright, four cornered, branching a little, and six or eight inches high; the leaves are oval, obtuse, entire, smooth on the upper side, and striated underneath: the flowers come out in whorls the whole length of the plant, and are of a white colour, having some purplish marks in the middle.

3. **C:** **PULIGOIDES**, *Canada Cunilla*, *Dittany*, or *Mountain Balm*, an indigenous annual, growing principally on the mountainous parts of America: the stalks are upright, branching, and seven or eight inches high; the leaves are spear-shaped, oval, oblong, indented in

one or two places, and finely scented; the flowers come out in whorls almost the whole length of the plant; they are white, having a fine violet or purple colour in the middle. The perennials are propagated by parting the roots, or from seeds; the annuals from sowing the seeds in light earth. They have none of them been discovered to possess any remarkable property.

**CUNONIA**, a genus of the Decandria Digynia class, and 59th Natural Order, *Dubii Ordines*; the calix consists of five oval, concave, acute leaves, the corolla, of five, ob-oval patent, sessile petals; the pericarpium is an oblong acuminate capsule containing two cells, the seeds are many and roundish. There is but one known species.

**C:** **AFRICANA**, (*Osterudykia* of Burm. *Arbuscula arbuti alatis foliis* of Pluke.) *African Cunonia*, a native of the Cape of Good-Hope; the stalks are woody, branching, and eight or ten feet high, the leaves are winged and have membranaceous footstalks; the folioles are about three pair, terminated by an odd one, they are oblong, spear-shaped, serrated, smooth, and of a good green colour on their upper, but somewhat hoary on their under side, and sit close to the mid-rib—the flowers are produced in spikes at the ends of the branches and are followed by oblong capsules. It is propagated from seeds, and is a green-house plant.

**CUPANIA**, a genus of the Pentandria Monogynia class, and 38th Natural Order, *Tricocceæ*; (In the last edition of the English Encyclopædia it is placed to the Monoecia class, and Monadelphia Order.) The calix consists of three oval, acute leaves; the corolla of five orbicular patent petals, the stylus is trifid; the capsule has three valves, and the seeds are six. There is but one species, which possesses no remarkable property.

**C:** **CASTANÆAFOLIA**, *Chesnut-leaved Cupania*, a native of the warmer parts of America; the stalks are woody, and divided into many ligneous branches, covered with a soft pale bark; the leaves are oval, oblong, obtuse, indented, serrated, have several transverse veins on their under side, and grow alternately; the flowers are produced in bunches from the ends and sides of the branches, and are followed by soft, coriaceous capsules containing the seeds. It is a stove plant, and is propagated from seeds sown in a hot-bed of tanner's bark.

**CUPHEA**, a new genus of plants given by Michaux on the authority of Brown and Gært. It ranks in the Dodecandria Monogynia class; the calix is a tubular perianthium of six teeth, the upper of which are broadest; the corolla consists of six unequal petals, the two upper larger than the rest; the pericarpium is an unilocular capsule; the seeds are lentiforme, or like lentils. There is but one species.

**C:** **VISCOSSISSIMA**, *Viscous Cuphea*, an indigenous plant, growing in the chalky and mountainous parts of Virginia and Kentucky.

**CUPRESSUS**, the *Cypress tree*, a genus of the Monoecia Monadelphia class, and 51st Natural Order, *Coniferae*; the calix of the male is a scale of the amentum; it has no corolla, and the antheræ have no filaments; the calix of the female is a strobilus, and the squamæ contains a single flower; it has no corolla, the sty-

lus is a concave point, and the nut is angular. There are 4 species.

1. C: *SEMPERVIRENS*, *Common Cypress*, a native of the islands of Candia and Crete, of which there are several varieties, as the Male, Female, Smaller Fruited, &c. they are beautiful evergreens; and may be easily propagated from seeds and cuttings.

2. C: *DISTICHIA*, or *Decyduous Cypress tree*; this, according to Mr. W. Bartram, stands among the first order of American trees, [they grow in lakes, swamps and ponds, in the former situation they attain the height of from 70 to 80 feet and upwards, and from 6 to 9 feet diameter at the butt; this size is not uncommon in the lakes, of the Alatomaha river, in Georgia, by Fort Barrington. Large entire boats have been wrought out of a tree, six feet in the clear, and from 30 to 35 feet in length. Mr. Bartram mentions them to be from 8 to 12 feet diameter, and from 40 to 50 feet straight shaft. They are certainly a valuable tree, affording many durable articles, for domestic uses, the posts for gardens, boards for houses, scantling, staves for kitchen utensils, and shingles for covering are evidences of its utility; they are not liable to decay, and if the parts inserted in the earth, be superficially burnt to a coal, they will lay for ages under ground without damage; a rich balsam of a deep red inclining to black, is procured by boxing the tree as it is called, and a similar balsam is obtained from the nuts or fruit by distillation; the former appears, and is much richer than the latter, these are applied to cuts and wounds by the inhabitants, and are possessed of very valuable balsamic properties. The Editor has never seen or heard of its internal use, but doubts not from its general character its virtues are similar to those oils and balsams of Juniper and Pinus, Cedrus, &c.

3. G: *THUYOIDES*, *White Cedar*, or *Small blue berried Cypress*, sometimes called *Arbor Vitæ*; an indigenous tree, growing naturally in Carolina, &c. This is the lowest growing tree of the genus, seldom rising higher than fifteen feet; the branches stand two ways and are pretty numerous, forming themselves into a regular head; the leaves are imbricated like the *Arbor Vitæ*, though smaller, and are of a browner kind of green than the common Cypress; the fruit is very small and of a blue colour, of the size of a Juniper berry, and much resemble it, though they are cones, and like the other species of this genus, only smaller.

4. C: *LINEARIBUS*, *Cape Cypress*, a native of the Cape of Good Hope; the branches of this species are numerous, slender, and spread themselves all around; the leaves are narrow, awl-shaped, about an inch long, of a light green colour, and grow opposite; the flowers come out from the sides of the branches like the common Cypress, and are succeeded by black fruit. They are propagated from seeds.

*Domestic uses.* The wood of Cypress is of a very sonorous nature and therefore proper for musical instruments, bassoons, German flutes, Organ pipes, &c. the raft negroes appear to know this, as they make a kind of wind instrument, through which they blow on rafts coming down the river, and are heard many leagues in a still night.

**CURATELLA**, a genus of the Polyandria Digynia class, and 59th Natural Order, *Dubii Ordines*, the calix has five leaves; the corolla four petals, the capsule is bipartite with the cells dispersed; or containing two seeds in each.

**CURCUMA**, *Turmeric*, a genus of the Monandria Monogynia class, and 8th Natural Order, *Scitamineæ*; the calix is an obsolete perianthium, situated above the germen; the corolla consists of three spear-shaped, spreading segments; it has four barren stamina, and only the fifth is fertile; the pericarpium is a roundish capsule formed of three valves containing three cells, the seeds are many. There are two species.

1. C: **ROBUNDA**, *Round Turmeric*, a native of India; the root is thick, fleshy, jointed, creeping, rough on the surface and yellow within; the leaves are oval, spear-shaped, pointed at each end, and have a few lateral nerves, are of a firm contexture, and good green colour; the stalks are tender, round, succulent and grow to a foot high; the flowers are produced in spikes from the tops of the stalks, they are of a yellow colour, and blow in August.

*Part used.* The root.

*Sensible properties.* An agreeable aromatic odour, and warm, bitterish taste.

*Medical virtues.* Turmeric is esteemed aperient and emmenagogue, and of singular service in the Jaundice; it tinges the urine of a saffron colour.

*Domestic uses.* The Indians are very fond of Turmeric in their soups and other dishes. It dyes a yellow, but fading colour.

2. C: **LONGA**, *Long Turmeric*, hath thick, long, fleshy, knotted creeping roots, of a deep yellow colour; the leaves are spear-shaped, large, pointed, have numerous nerves, diverging from the mid-rib to the sides, and are of a sea-green colour; the stalks are round, thick, tender, succulent, and about a foot high; the flowers are produced in spikes, from the tops of the stalks, they are of a yellow colour inclining to red or purple. The virtues of this are similar to the foregoing—they are Stove plants, and are propagated like Ginger, by parting the roots; early in the spring, and planting them in the richest garden mould.

**CURRANTS.** See *Grossularia* and *Ribes*.

**CURSUTA.** See *Gentiana*.

**CUSCUTA**, or *Dodder*, a genus of the Tetrandria Digynia class, and 59th Natural Order, *Dubii Ordines*; the calix consists of four segments; the corolla has but one petal, and the capsule is bilocular. There are three species.

1. C: **EUROPOEA**, *Greater Dodder*, *Hell weed*, or *Devil's guts*, a very pernicious weed, that chiefly attaches itself to clover, hops, flax, nettles and willows, and flowers in July or August. Its leaves are scarcely visible, and it ought to be timely extirpated before the seeds become ripe. The whole plant is bitter, but is eaten by cows, sheep, and hogs; goats do not relish it. In dying it affords a pale reddish colour.

2. C: **MINOR**, or *Epithimum*, *Lesser Dodder*, or *Dodder of Thyme*, this is common in corn fields and heaths, but is found

chiefly preying on Thyme, whence it has received its name; it is in bloom from July till August.

*Sensible properties.* A strong smell, and somewhat pungent, subtile taste.

*Medical virtues.* It is reputed to be aperient, the ancients ranked it among cathartics, but improperly. When given it is chiefly in cases of jaundice and cutaneous disorders; it is however but seldom used. Both these plants are of a most singular nature, being almost destitute of leaves, parasitical, creeping, and fixing themselves to whatever is next to them; they decay at the root, and are afterwards nourished by the plants which support them.

3. *C. AMERICANA*, *American Dodder*, or *Love Vine*, (Michaux ranks it in the Pentandria Digynia class,) this is a branching, leafless, twining, parasitical plant, tender, shining, and of a bright yellow; flowers small, without scent, aggregate, greenish, or yellowish: the young of both sexes try their fortunes by breaking a branch of this plant, and thinking of those they love best; throw it backward over the left shoulder, on any plant contiguous; if they are beloved, the plant immediately begins to flourish, and in a short time covers the whole plant by which it was suspended; otherwise it droops and dies. This may be however accounted for in a natural way, for these plants are lined with vesicles or papillæ, which they put forth and attaching themselves to the depending plant, continue to vegetate in the same manner as on the mother stalk; by degrees the longitudinal vessels of the stalk, which have accompanied the vesicles, shoot from their extremities, and penetrate the softer plant, by dividing the vessels, and insinuating themselves into the tenderest parts of the stalk; if the expression may be admitted, take root in the leaves or branches of the plant to which they are attached, and are so intimately united thereto, that they sooner break than are disengaged. This species is also used for dying a yellow.

**CUSTARD APPLE.** See *Annona*.

**CYCAS**, *Sago Palm*, or *Todda Pana*, a genus of plants belonging to the 1st Natural Order, *Palmeæ*; the fruit is a dry plum, with a bivalved kernel; there are two species, a small one may be seen in the Botanic Garden of South Carolina.

1. *C: CIRCINALIS*, *Sago Palm*, or *Sago Tree*, it runs up with a straight stem to upwards of forty feet, having many circles the whole length, occasioned by the old leaves falling off, for they standing in a circular order round the stem, and embracing it with their base, whenever they drop, leave the marks of their adhesion behind, the leaves are pinnated, and grow to the length of seven or eight feet; the pinnae, or lobes are long, narrow, entire, of a shining green, all the way of a breadth, lance-shaped at the point, are closely crowded together, and stand at right angles, on each side the mid-rib, like the teeth of a comb; the flowers are produced in long bunches at the footstalks of the leaves, and are succeeded by oval fruit about the size of large plums, of a red colour when ripe, and a sweet flavour, each contains a hard brown nut, enclosing a white meat, which tastes like a Chesnut.

*Domestic uses.* This is a valuable tree to the inhabitants of India, as it not only furnishes a considerable part of their constant

bread, but also supplies them with a great article of trade; the body contains a farinaceous substance, which they extract from it by sawing it into small pieces, beating them in a mortar, and pouring water upon the mass, it is left for some time to settle, it is then strained, and the farinaceous part suffered to subside, is then farther prepared and converted into bread, which is said to be nearly equal to wheat bread: the same meal more finely pulverized, and formed into granules, is one of the Sagoes of the shops.

2. C: CAFFRA. *Brood Boom*, or *Bread Tree of the Hottentots*, a new species of this genus lately discovered by professor Thunberg—the pith or *medulla*, which abounds in the trunk of this little palm, is collected and tied up in dressed calf or sheep skins, and then buried in the earth for several weeks, till it becomes sufficiently mellow and tender, to be kneaded up with water into a paste, of which they afterwards make small loaves or cakes, and bake them under ashes, others dry and roast the pith or marrow, and afterwards make a kind of frumenty of it—they are propagated as other palms. See *Areca*.

CYCLAMEN, or *Sow Bread*, a genus of the Pentandria Monogynia class, and 21st Natural Order, *Preciæ*; the calix is cut into five oval segments, the corolla is rotated, and reflexed, the tube is very short, with a procumbent faux, and the berry is covered with a capsule. There are two species and many beautiful varieties.

1. C: EUROPOEUM, *vel.* *Arthanitæ*, *Sow Bread*, these are exotic plants, sometimes cultivated in the gardens of the curious, they are low, herbaceous, blowing perennials, of the tuberous rooted kind, with numerous angular, heart-shaped, spotted, marbled leaves, with many fleshy footstalks, six inches high, with flowers of various colours. Mr. Hanbury, admits but one species, consisting of the following varieties:—The winter flowering, spring white flowered, spring purple flowered, spring red flowered, autumnal flowering, white Persian, common Persian, large flowering sweet scented Persian, and the small rooted, or chesnut rooted *Cyclamens*.

*Part used.* The root.

*Sensible properties.* When fresh it has an extremely acrid and burning taste, which it loses in drying.

*Medical virtues.* Virulent purgative—it is also recommended as an emhine, or to be formed into cataplasms for discussing scirrhus and scrophulous tumors; internally taken it operates slowly, tho' with great virulence, and is apt to inflame the fauces, and intestines, but when roasted in embers, it may be eaten with safety. In Germany, an ointment is prepared from these roots, which serves the useful purpose of relieving costiveness, when rubbed on the abdomen.

*Note.* If the roots of *Sow Bread*, have been swallowed inadvertently, or eaten among other vegetables, it will be adviseable to take an immediate emetic, or if some time has elapsed, to drink large portions of oily and mucilaginous liquors, such as the solutions of mutton suet in milk of Gum Arabic, Salep Powder, &c. They are generally propagated from seeds, but the particular varieties by parting the roots.

CYDONIA, the *Quince*. See *Pyrus Cydonia*.



CYMBARIA, a genus of the Didynamia Angiospermia class of plants, and 40th Natural Order, *Personata*; the calix is divided into many parts, and the capsule is unilocular: There is but one species, of which I have seen no farther account.

CYNANCHUM, *Bastard Dog's Bane*, a genus of the Pentandria Digynia class, and 30th Natural Order, *Contorta*; the calix is a small, erect, monophyllous, permanent perianthium, indented in five parts at the top; the corolla is a single petal, the tube is very short; the limb is plain and divided into five long, narrow segments; in the centre of the flower, is situated an erect cylindrical nectarium indented into five parts, and of the same length with the corolla; the pericarpium consists of two oblong, acuminate, unilocular follicles, opening longitudinally; the seeds are numerous, oblong, placed imbricatum, and crowded with down. There are five species—it was formerly supposed to be the Scammony.

1. C: CAROLINENSIS, (*Periploca Caroliniensis* of Diller.) *Carolina Periploca*, hath slender, ligneous, shrubby stalks, rising about seven feet high, twisting itself around adjacent plants; it is hairy, and the lower part is covered with a thick fungous, cloven, cork like bark; the leaves are oval, heart-shaped, pointed, and opposite having hairy footstalks; the flowers come out from the wings of the leaves in small bunches, they are of a greenish colour, on their first appearance, but die away to a bad purple. See *Periploca*.

2. C: ACUTUM, *Montpelier Acute-leaved Scammony*, hath twisting stalks, oblong, heart-shaped, acute, pointed, smooth, opposite leaves and flowers of a dirty white colour.

3. C: MONSPELIACUM, *Round-leaved Montpelier Scammony*, hath herbaceous twining stalks, six or seven feet high; the leaves are broad, uniform, roundish, and opposite; the flowers are like the second species.

4. C: ERECTA, *Erect Dog's Bane*, a native of Syria, hath upright, slender, branching stalks, about a yard high, the leaves are broad, heart-shaped, pointed, smooth, and opposite; the flowers are small and white, succeeded by taper, oblong pods.

5. C: VOLUBILI, (*Apocynum scandens Virginianum* of Moris.) *Citron-leaved Periploca*, a native of Jamaica and Virginia, the stalks are ligneous, and much resemble the first species; the upper part hath small stinging hairs, it rises to 20 feet high; the leaves are oval, heart-shaped, and opposite, the flowers are yellow, moderately large, star-shaped, and succeeded by long, swelling follicules, containing the seeds, crowned with down. These plants abound with a milky juice, like the spurge which they emit plentifully on being broken; this, when concreted has been sold for Scammony. These plants propagate so fast by their creeping roots, that few people care to admit them into their gardens.

CYNAPIUM. See *Ethusa*.

CYNARA, the *Artichok*, a genus of the Syngenesia Polygamia Æqualis class, and 49th Natural Order, *Composita*; the calix is dilated and imbricated with fleshy scales, sharp at the points. There are four species, two only of which are cultivated for use, viz.

1. C: SCOLYMUS, or *Garden Artichok*.

2. C: CARDUNCULUS, *Cardoons*. These plants though exotics, are well known, they are propagated by slips, or suckers, arising in the spring from the roots of the old plants. The Cardoons, which are a hardy plant, may be propagated by seeds sown in March—as they are very large, they ought to be placed at several feet distance, and crops of Spinach, Endive, Cabbage, &c. raised between them, about the 28th September: the Cardoons attain to a considerable size, when the leaves should be tied, that they may be hoed for blanching, which will require six or eight weeks, and the plants will be fit for use in November or December, and continue the whole winter.

*Domestic uses.* The domestic uses of these are well known, and have been employed with advantage in making of soda; the leaves of the Scolymus prepared with bismuth imparts to wool a fine and permanent gold colour.

3. C: FOLIIS SPINOSIS, (*Carduus Tingitanus* of Pluke.) *Wild Artichoke of Spain*, a perennial, having firm, upright stalks, about a foot high; the leaves are pinnatifid, prickly, downy underneath, and longer than the stalks; the flowers are large and of a fine blue colour, and the cups are composed of awl-shaped scales, which spread open, the whole has the appearance of an Artichoke, but are not so agreeable.

4. C: ACAULOS, *Stalkless Cynara*, or *Tutetana Tafga*, a native of Barbary, the leaves are large, pinnated, free from spines, and smooth on their upper side, among these the flowers rise immediately from the roots, they are large, of a fine colour, and finely scented.

For the Jerusalem Artichoke, or as it is called, *Ground Artichoke*, see *Helianthus*.

CYNOGLOSSUM, *Hound's Tongue*, a genus of the Pentandria Monogynia class, and 41st Natural Order, *Asperifolia*; the corolla is funnel-shaped; the seeds are depressed, and the stylus is fixed to the interior side of them. There are eight species, none of them remarkable for beauty.

1. C: OFFICINALE, *Common great Hound's Tongue*, or *Dog's Tongue*, a perennial and native of Europe, is frequently found on road sides, and among rubbish, and in shady lanes; the root is large, thick, black on the outside, white within, and of a sweetish nauseous taste; the radical leaves are large, broad, oval, spear-shaped, hoary, velvety to the touch, and of a very disagreeable smell; the stalks are round, hairy, firm, and about two feet high; the leaves adorn it in plenty are long, narrow, pointed, hoary and strongly serrated; the flowers adorn the ends and sides of the branches for a good way down, they are small, of a dark red, or purple colour, and blow in June or July.

*Part used.* The root.

*Sensible properties.* This plant has a bitter taste, and is said to be so powerfully narcotic, that persons who had eaten it as a culinary vegetable were laid into a profound sleep for 14 hours, and others died in consequence.

*Medical virtues.* The roots however were formerly employed internally in decoction and externally in cataplasms in Scrophulous

cases and the piles; the leaves and roots have also been recommended for the same purposes, and also for coughs dysenteries, &c. on account of their mucilaginous, astringent and sedative qualities. The present practice however has no regard to them in any form.

2. C: VIRGINIANUM, (C: Amplexicaule of Mich.) *Virginian Hound's tongue*, an annual, and native of the United States; the stalks are upright, branching a little near the top, and about a foot and a half high; the leaves are broad, oval and embrace the stalk with their base; the flowers come out in spikes, and are of a dull red colour; the leaves when used as Tobacco in smoking, intoxicate. According to Clayton, the root is astringent, and given in Diarrhoeas.

3. C: REPENS, *Creeping Hound's Tongue*, or *Low Spring Navelwort*, a perennial, and native of Spain, Portugal, &c. is a small, creeping plant, hath smooth, heart-shaped leaves, growing on long footstalks; the flowers come out in loose panicles from the divisions of the stalks, are of a fine blue colour, and blow in March.

4. C: ARGENTEIFOLI A, *Silvery narrow-leaved Hound's Tongue*, hath an upright slender stalk, long, narrow, spear-shaped leaves, of a silvery whiteness, and sit close without any footstalks; the flowers are of a deep purple, though there is a variety with white flowers, veined with red.

5. C: MONTANA, *Apennine Hound's Tongue*, hath an upright, robust stalk a yard high; the radical leaves are large, broad, long, and spread themselves on the ground, those on the stalk are narrower, and sit close; the flowers are dark purple.

6. C: MINUS ALBUM, *Flax-leaved Hound's Tongue*, or *Venus' Navelwort*, hath slender, upright stalks, seven or eight inches high; the leaves are long; narrow, smooth, and of a greenish colour; the flowers come out in panicles, they are white, and are succeeded by umbilicated seeds, which occasions the name Navelwort to be applied to it.

7. C: SCABRIS, *Portugal Hound's Tongue*, or *Larger Venus' Navelwort*, hath an erect, rough, branching stalk; the flowers grow in long spikes at the ends of the branches, are white, each having its separate footstalk, and succeeded by umbilicated seeds like the former. These four last are also annuals, and are easily propagated from seeds.

CYNOMETRA, a genus of the Decandria Monogynia class, and 59th Natural Order, *Dubii Ordines*; the calix consists of four segments, the opposite being broader, and the legumen is fleshy, lunated, and contains but one seed. There are two species; both natives of the Indies, and of which I have seen no further account.

CYNOMORIUM, *Catstail Mushroom* a genus of the Monoecia Monandria class, and 50th Natural Order, *Amentaceæ*; the calix of the male is an imbricated amentum or catkin, and neither male nor female has a corolla; the female has one stylus, and one round seed. There is but one species, a native of Jamaica. This is a very singular exotic plant; its form, substance, and want of leaves has caused it to be called a *Fungus*, hence *Boccone*

calls it *Fungus Typhoides*, or *Catstail Mushroom*, a name not unaptly representing what is sometimes its figure. The plant is about eight inches high, and under different circumstances of growth it appears in various forms, the root is a light, roundish and irregular lump, lodged at a small distance below the surface; from this root rises the body of the plant; small at the bottom irregularly thickening upwards and at the extremity some what less again; on its first appearance the whole substance is covered with little scales, thick set by one another; in this form it stands a considerable time, a crimson lump, shewing itself about three inches above the surface of the ground, but when it rises to flowering, the growth from that to its full height is very quick; the lower part retains its delicate crimson, and thick, scaly covering, but the rest is a fine scarlet, lightly covered with loose and broader scales, indented usually at the top; from this naked part rise the flowers covering the whole substance; these are very small, and of two kinds, irregularly intermixt with one another, male and female, but they are not very conspicuous. The male flower consists only of a single filament, firm, rigid, and of some length, of a pale flesh colour, and terminated by a button, split at the end, and seemingly double. The female has no more of the parts of a flower than a style, rising from the rudiment of the seed, this is of a dusky colour, terminated by an obtuse, purple stigma; these are succeeded by roundish, shining, crimson seed. Mr. Hill in his *Eden* observes, that the *Vallisneria* itself is scarce a stranger plant than this, and few have more beauty; were there nothing to recommend it but the high colour and the form; the want of leaves and scaly ament, it would deserve all notice; it grows in the Greek islands and in some of the warmer parts of Europe. It is propagated from seeds obtained from the Levant, and sown in pots, placed in a warm situation in the stove. It is said this plant possesses very powerful astringent properties, and in Italy is collected in quantities for medicinal use.

CYNOSURUS, *Dog's tail grass*, a genus of the Triandria Digynia class, and 4th Natural Order, *Gramina*; the calix is a double valve, and includes many flowers. There are ten species.

1. C: CRISTATUS, the *Crested Dog's Tail Grass*, a perennial and native of Europe, which grows in dry pastures, on a moist clayey soil, and blows in June or July; its leaves are shorter than those of any of the pasture grasses, but they grow closely together, in great abundance, and are very palatable to cattle, particularly to sheep; the flowers come out in long, bending ears, or spikes, having pinnatifid bractæ, and are of a pale green colour.

2. C: ECHINATUS, *Rough Dog's Tail Grass*, an annual plant, growing in the moist, sandy, or clayey soils of Europe, and hath bluish green flowers, its stalk seldom exceeds the height of two feet; the mealy seeds of this vegetable may in time of scarcity be advantageously converted into bread. Sheep feeding on any of the species of *Dog's Tail Grass*, becomes remarkably fat, and the mutton is of a particularly fine flavour.

3. C: INDICUS, or *Indian Dog's Tail Grass*, a native of Carolina and Pennsylvania.

4. C: COERULEUS, or *Blue Dog's Tail Grass*, a perennial, and native of Europe.

5. C: PANICEUS, *Golden*, or *Bearded Dog's Tail Grass*, an annual and native of Europe, the flowers are of a golden yellow colour, and are bearded.

6. C: UNIFLORUS, or *One-flowered Dog's Tail Grass*, a native of Carolina.

7. C: HISPANICA, *Small Spanish Dog's Tail Grass*, an annual, and native of Spain, the flowers come out in oblong, compressed, imbricated spikes.

8. C: DACTYLON, *American Dactylon*, an annual and native of India, grows to be four or five feet high, with long, hairy, opposite leaves; the flowers come out in digitated, incurved spikes, succeeded by roundish, naked seeds, arranged in four rows. Several of these grasses are considered as affording excellent food for cattle—They are easily propagated from seed.

CYPERUS, a genus of the Triandria Monogynia class, and 3d Natural Order, *Calamariæ*, the gluma is paleaceous, and imbricated, it has no corolla, and but one naked seed—there are 79 species, of which the following are the principal.

1. C: ROTUNDIS, *Round Cyperus*, or *Cyper Grass*, a native of the East Indies, its imported root is knotty, surrounded with tough fibrous strings, of a brown colour externally, but grey internally, and of a pleasant odour, especially when fresh and well dried.

*Medical virtues.* Cordial, diuretic, and cephalic, they have occasionally afforded relief in nephritis and colic. It is given in powder, and decoction.

2. C: LONGUS, *Sweet Cyperus*, or *English Galangale*, a native English plant, which is chiefly found on the Isle of Purbeck, where it flowers in July, its root is of the size of an olive, full of little knots or speck, of an oblong figure, and grey colour, and of a warm, somewhat bitter taste, and almost destitute of smell when newly taken out of the ground; the leaves are carinated, long and narrow, the stalks are three square, smooth, striated, full of pith, and the flowers come out in large super-decompound panicles.

*Medical virtues.* The virtues of this species are said to be equal to the foregoing, although it is seldom used.

3. C: ESCULENTIS, *Eatable Cyperus*, or *Earth Almonds*, growing wild in the East, in Italy, and the South of France; its pulpy and mealy root is agreeably sweet, not unlike Chesnuts, and might be advantageously cultivated in this country as a substitute for bread in times of scarcity.

4. C: PAPHYRUS, or *Paper Cyperus*, a native of Calabria, Sicily, Syria, and especially Egypt, on the banks of the Nile—from this noble plant the ancients manufactured most of their paper, their sail cloth, matresses, ropes, nay, even their apparel. This plant would be a valuable acquisition to this country, and should, if possible be introduced here by some adventurer. The following are enumerated by Walter, and Michaux as indigenous to South-Carolina.

5. C: ODORATUS. 6. C: ELEGANS. 7. C: GLOMERATUS. 8. C: ARTICULATUS. (Michaux) 9. C: HYDRA. 10. C: FLAYICOMUS. 11. C: VIRENS. 12. C: STRIGOSUS.

13. C: NUDO, *Yellow Cyperus*, and 14. C: CONFERTIS, *Brown Cyperus*, these two latter are natives of Europe; the remaining species, are said to be hardly worth notice. These are not cultivated plants, growing wild in different places.

CYPRESS. See *Cupressus*.

CYRIPEDIUM, *Ladies Slipper*, a genus of the Gynandria Diandria class, and 7th Natural Order, *Orchideæ*; the calix is a spatula; the corolla is four or five long spear-shaped, erect, patent petals; the nectarium is situated between the petals, is very broad, shaped like a shoe or slipper, inflated, hollow, and obtuse, having the upper lip small, oval, plain and inflexed; the pericarpium is an oval, obtuse, three cornered, three furrowed capsule, formed of three valves, and containing one cell; the seeds are numerous and small, there are three species.

1. C: CALCEOLUS, *Fibrous rooted Ladies Slipper*, an indigenous perennial plant, growing naturally in South-Carolina, &c. The root is thick, knotty, fibrated and creeping; the stalks are upright, firm, hairy, and about a foot high; the leaves are large, oval, spear-shaped, ribbed, and set close, growing alternately, without any foot-stalks; the stalk is terminated by one large flower, shaped like a slipper, from whence it took its name. The colour of the flowers is according to the following varieties:—*Deep purple, pale purple, golden, larger yellow flowered, red, and various flowered Ladies Slipper*, all of which are more or less streaked or spotted in different parts with opposite colours, which causes their beauties to be more conspicuous, the closer they are examined.

2. G: SUBROTUNDO, (C: Acaule Mich.?) *Bulbous Ladies Slipper*, also a perennial, and native of South-Carolina; the root is a roundish bulb; the leaves are few, they rise directly from the root, and are of a roundish figure, from the root, the flower-stalk comes forth, grows about three or four inches high, and the top is crowned by one purple flower.

3. C: CANADENSE, *Canada Ladies Slipper*, the whole of this plant is hairy, the stalk is leafy, and the flowers purple. Some authors observe that these plants are with difficulty preserved in gardens: Mr. Hanbury says they have but little reason for so saying, as the first sort creeps very much under the surface, and every joint will take root and grow—they are propagated from seeds, or by planting the roots.

CYRILLA, a new genus of plants, ranked by Michaux, in the Pentandria Monogynia class; the calix is a very small top-shaped compressed perianthium, divided into five acute, oval, lance-shaped segments; the corolla is large, and consists of five rigid, oval, oblong patent petals: the pericarpium is a firm, fleshy, bilocular capsule; the seeds are single in each cell—there are two species. These plants hath very great affinity to the genus *Itca*, which see.

1. C: CAROLINIANA, (C: Racemiflora of other authors,) *Carolinian Cyrilla*, an indigenous shrub growing naturally in this State; the stalk is shrubby or woody, and attains a height of seven or eight feet, the leaves are lanceolate, and wedge-shaped; the flowers are produced in spikes, and are very handsome.

2. C: ANTILLANA, hath oblong, wedge-shaped leaves.

**CYTINUS**, a genus of the Gynandria Dodecandria class of plants, and 11th Natural Order, *Sarmentaceæ*; the calix has four leaves, there is no corolla, the antheræ are 16 and sessile, the fruit is an eight celled, many seeded berry.

**CYTISSUS**, *Base Tree Trefoil, &c.* a genus of the Diadelphia Decandria class of plants, and 32nd Natural Order, *Papilionaceæ*; the calix is a very short, bell-shaped perianthium, obtuse at the base, and divided into two lips; the upper lip is bifid, and sharp pointed, and the lower lip indented in three parts: The corolla is papilionaceous, the vexillum is oval, rising, and inflexed on the sides; the alæ are straight, obtuse, and the length of the vexillum, the carina is bellied, and sharp pointed; the pericarpium is an oblong, obtuse, rigid pod, narrow at the base: The seeds are few, kidney shaped, and compressed—there are 11 species.

1. **C: GLABRIS**, *Smooth round-leaved Cytissus*, a native of France, Italy, and Spain; it is a shrubby plant, and grows to the height of five or six feet; the branches are numerous, erect, very brittle, and covered over with a smooth brown bark; the leaves are small, and of a fine green colour, they are nearly of an oval figure, and grow by threes on the twigs; the flowers come out at the ends of the branches, in short spikes, are of a fine yellow colour, and almost cover the whole shrub.

2. **C: NIGRICANS**, *Black Cytissus*, a native of Austria, Bohemia, &c. attains the same height with the former; the bark is brown, the young shoots of a greenish red; the leaves resemble trefoil, and the flowers grow in long, erect, close spikes, and are of a beautiful yellow colour.

3. **C: AUSTRIACUS**, *Tartarian Cytissus*, of which there is a variety called Siberian Cytissus. This species hath shrubby, branching, green stalks; the leaves are oval, oblong, smooth, and of a whitish green colour; the flowers come out in close heads of a light yellow colour, and have a cluster of leaves under them; they are succeeded by short wooly pods—the variety hath a naked stalk, and smaller leaves and flowers.

4. **C: HIRSUTIS**, *Hairy Evergreen Cytissus of Naples*, is of upright growth, and six or seven feet high; the bark of the main stem is of a grey colour; the branches and young shoots, greenish, and streaked, and their surface hairy; the leaves have the same property, and stand three upon a short footstalk, they are nearly oval, and have a strong mid-rib, running the whole length; the flowers are of a bright yellow colour, and succeeded by small hairy pods.

5. **C: SUPINUS**, *Low Downy Cytissus*, a perennial, and native of Sicily, Spain, &c. it hath tough, strong roots, weak, slender stalks, scarce a foot long, and unless supported, lie on the ground; the leaves are oblong, smooth on their outside, downy underneath, and grow by threes; the flowers are collected in small heads at the ends of the branches, are of a deep yellow colour, and like the 3d species, have a cluster of leaves under them.

6. **C: LABURNUM**, or *Broad-leaved Laburnum*, or *Libony of the Alps*, a valuable exotic tree, introduced from the Alps into the highlands of Scotland: this plant is very hardy, grows forty or fifty feet high, and will thrive on poor shallow lands, and in exposed situations, the

branches are smooth, of a pale green colour, with a few greyish spots; the leaves stand by threes on long, slender footstalks, their upper surface is smooth, and of a shining green, but their under is inclined to be downy; the flowers come out in long pendulent bunches, of a delightful yellow, making a grand and inviting appearance. It is propagated by seeds, which should be deposited in March.

*Domestic uses.* This tree forms an agreeable ornament for parks, and gardens, as it grows rapidly with a straight stem, and attains the height of twelve feet in about four years. Its wood is frequently employed for making chairs, tables and other articles of household furniture, which are said to resemble the finest mahogany; a decoction of the fresh branches and leaves of this tree imparts an excellent dark brown colour to cloth, prepared in a solution of copperas.

7. C: ARGENTEUM, *Sil ery Cytissus*, a perennial and native of Italy, &c. hath roots and stalks like the fifth species; the leaves are small, spear-shaped, of a silvery whiteness, and grow by threes on the stalk; the flowers come out two or three together from the ends of the branches, but from the wings of the leaves they grow singly, and are of a pale yellow colour.

8. C: SIMPLICIBUS, (*Barba Jovis* of Pluke.) *Linaria-leaved Cytissus*, a perennial, growing naturally in most of the Mediterranean islands; the stalks are ligneous, slender, angular and put forth several weak, four cornered branches; the leaves are simple and spear-shaped, and the flowers small and yellow.

9. C: ÆTHIOPICUS, *Æthiopian Cytissus*, hath weak, shrubby stalks, about five feet high; the leaves are wedge-shaped, roundish, and grow three together; the flowers come out in small bunches, and are of a pale yellow colour. There is a variety of this species with spear-shaped leaves and deep yellow flowers.

10. C: PLANTA, *Cape Cytissus*, hath weak, ligneous stalks; the leaves are spear shaped and very hoary underneath; the flowers are small and of a yellow colour. the two foregoing are greenhouse plants.

11. C: CAJANA, (*Laburnum humilius* of Sloane.) *Angola*, or *Pigeon Pea*, or *Indian Cytissus*, a native of India, is a branching shrub, attaining a height of about ten feet; the leaves are trifoliate, the folioles are spear-shaped and downy, and the two side ones grow close to the main footstalk, while the middle one is extended further on its own separate pedicle; the flowers come out in clusters from the sides of the branches, they are moderately large, of a deep yellow colour, and are succeeded by long, roundish, contorted pods, full of kidney-shaped seeds, these are deemed admirable food for Pigeons, whence the name. This last is a stove plant, they are all propagated from seeds:

*Domestic uses.* The seeds of this latter are astringent, and as such make a wholesome nourishment in wet seasons, when dysenteries prevail, and they are sometimes used as food for the human species. See *Posrалеа*.

#### D.

DACTYLI or DATES. See *Phoenix*.

DACTYLIS, *Cocksfoot Grass*, a genus of the Tryandria Digynia



class, and 4th Natural Order, *Gramina*; the calix consists of two obtuse valves, the one being somewhat longer than the other. There are seven species.

1. D: STRICTA, or *Smooth Cocksfoot Grass*, which grows in marshes on the sea coasts of America, is perennial; the stalk is round, hollow, jointed and whitish; the leaves are broad, long and smooth, and flowers in the month of August.

2. D: GLOMERATA, *American Orchard grass*, or *Rough Cocksfoot grass*, which thrives in pastures and in shady places under the drippings of trees, is a native perennial of England and the United States, is in flower from June till August, and grows to the height of four or five feet when seeding; it is a strong, robust and productive plant, it is ripe before Timothy, flourishes well in orchards, (whence its name) and lasts three years. It is however said that the American Orchard grass is different from the grass known in Europe by that name. Dogs and cats instinctively search for, and swallow this shrub when they incline to vomit, or to envelope the splinters of bones collected on their stomach; it is a valuable grass, and ought to be cultivated with care.

3. D: CYNOSUROIDES, *American Cocksfoot grass*, a native of Carolina; spikes six or more scattered, numerous; flowers closely imbricate and pointing one way; culm two feet high, and reedy.

4. D: PATENS, *Spreading, Cocksfoot Grass*, spikes scattered, turned one way; flowers closely imbricate, culm decumbent, leaves spreading very much.

5. D: MARITIMA, *Maritime Cocksfoot grass*, a native of Carolina and of which we have no particular account. They are wild grasses and are seldom cultivated.

DAFFODIL. See *Narcissus*.

DAIS, a genus of the Decandria Monogynia class; the involucre is composed of four scariose, erect leaves, and contains many flowers; there is no perianthium; the corolla is one infundibuliforme petal, larger than the involucre; the tube is filiforme and rude; the limb is divided into five spear-shaped, obtuse segments; the pericarpium is a berry, and the seed is single. There is but one species.

D: CAPENSIS, *Cape Dais*, hath a woody, branching stalk, the leaves are oval, undivided, smooth, and grow opposite to each other on short footstalks; the flowers come out in bunches at the ends of the branches, and are succeeded by berries as above described. It is a Green-house plant, and may be propagated by seeds and cuttings.

DALEA, a genus of the Diadelphia Decandria class of plants, and 32d Natural Order, *Papilionacea*; the calix is top-shaped, including the seed, and consists of five equal, awl-shaped segments; the corolla is papilionaceous; the seeds are kidney-shaped. There is but one species, a native of the United States, viz.

D: LINNÆI hath an herbaceous stalk, the leaves are pinnatifid, having from nine to fifteen pair of folioles, terminated by an odd one; the flowers terminate the branches in spikes.

DAISY. See *Bellis*.

GREAT DAISY. See *Leucanthemum*.

OX-EYE DAISY, See *Bupthalmum*.

DALBERGIA, a genus of the Diadelphia Octandria class; there are two filaments or stamina, quadrifid at top; the fruit is pedicellated, not gaping, leguminous, membranous compressed and bearing seeds. Of this genus we have nothing further.

DALECHAMPIA, a genus of the Monoecia Monadelphia class, and 38th Natural Order, *Tricoccea*; in the males the general involucre is divided into four parts; the perianthium has six leaves; the calix of the female hath three leaves; the perianthium ten, there is no corolla either in male or female, and the seeds are roundish and solitary. There is but one species, a native of America.

D: SCANDENS, *Climbing Dalechampia*, hath slender, weak stalks, which twist about the neighbouring trees for support, attaining a height of about eight or ten feet; the leaves are cut into three lobes, are smooth and grow singly at the joints; the flowers come out in small clusters from the sides of the stalks, they are of a yellowish green colour, succeeded by a roundish capsule, formed of three valves, and containing three cells. It is a Stove plant, and is propagated from seeds.

DALIBARDA of Michaux. See *Fragaria* and *Rubus*.

DAMEWORT. See *Hesperis Inodora*.

DAMSON TREE. See *Chrysothillium*.

DANDELION. See *Leontodon*.

DAPHNE, *Spurge Laurel*, a genus of the Octandria Monogynia class, and 31st Natural Order, *Vesicifera*; it has no calix; the corolla consists of four segments, and the berry contains but one fleshy seed. There are eleven species, some of which Mr. Hanbury is very lavish in praise of, considering them as possessed of every perfection to recommend them to notice.

1. D: LAUREOLA, *Spurge Laurel*, *Laurel Mezereon*, or *Evergreen Daphne*, a low shrub found in woods and hedges in different parts of the United States; it seldom grows higher than four feet, it sends out many branches from the bottom, these are covered with a smooth, light, brown bark, that is very thick that on the branches is smooth and green; these are very closely set with leaves that are spear-shaped, shining, thick smooth and entire; the flowers are small, of a greenish yellow colour, possessing uncommon fragrantcy; they are succeeded by oval berries, which are first green, but when ripe they are black. It is an evergreen, and on account of its elegant green and yellow flowers, which appear early in the spring, and sometimes in the winter, it is cultivated in shrubberies.

*Part used.* The root.

*Sensible properties.* The whole of this vegetable, especially the bark of the root, is very acrid.

*Medical virtues.* The root has been employed as a cathartic and anthelmintic for worms. In rheumatic fevers it has been given with success, operating powerfully as a purgative, and in worm cases, but as it possesses great acrimony it ought never to be administered without medical advice, and in small doses not exceed-

ing ten grains, and here we would advise to begin only with grain doses, gradually increasing to the former. It is often usefully combined with Mercury. The bark of the root steeped in vinegar, is directed to be applied to promote the discharge of issues.

*Note.* Although its berries are eagerly eaten by Pheasants, &c. yet they prove mortal food to man, and all the mamillary animals.

2. D: MEZEREUM, *Mezereon, Spurge Olive Spurge Flax*, or *Dwarf Bay*, a low shrub, growing in woods and shady places of Europe; its leaves are deciduous, it produces its purplish, crimson, pale red, or white flowers in February or March, and are possessed of a fine fragrance. When cultivated in gardens in a rich soil it attains the height of sixteen feet. I am strongly of opinion that some of the species, and I think this in particular, is indigenous to Carolina, though not mentioned by Walter or Michaux.

*Part used.* The root, bark and berries. The leaves are said to be a strong cathartic.

*Sensible properties.* Very durably hot and acrimonious.

*Medical virtues.* Stimulant, solvent of venereal nodes. Doctor Withering, states (Botanic Arrangement, vol. 2. p. 377.) that a woman who had been unable to swallow any solids, and liquids very imperfectly, for three years before, was effectually cured in two months, and enabled to take any food without difficulty, by chewing a thin slice of the root of Mezereon, as often as she could support its irritating effects; it is however apt to occasion ulcerations in the throat; An ointment prepared from its bark or berries, has been advantageously applied to foul or ill conditioned ulcers—on emergencies scraped and applied to the surface of the skin, affords an efficacious substitute for the Spanish fly as a blister, which speedily operates—it may also be employed in the form of issues. It is also frequently employed in diet drinks.

*Note.* The whole plant is so corrosive, that six of its berries are said to be sufficient to kill a wolf, yet it is asserted that birds are very fond of them.

*Domestic uses.* The stalks and leaves yield a fine vigogne dye, and the stalks alone imparts a beautiful gold brown shade to wool, previously dipped in a diluted solution of bismuth; from the ripe berries an excellent red lake is prepared by painters.

3. D: LAGETTO, *Lace-wood*, a native of the United States.

4. D: GNIDIUM, *Flax-leaved Daphne*, a native of France, Spain, and Italy, is also a low shrub, the branches are very slender, and ornamented with narrow, spear-shaped, pointed leaves; the flowers are produced in panicles at the ends of the branches, are small; and blow in June.

5. D: CNEORUM, *Spear-leaved Daphne*, or *Cneorum*, hath a shrubby stalk, about a foot and a half high; the leaves are narrow spear-shaped, and grow irregularly on the branches; the flowers are produced in clusters, and are purple.

6. D: TARTON-RAIRE, *Oval-leaved Daphne*, or *Tarton-Raire*, a native of France, and Italy, hath a woody stalk, about two feet high, oval, shining leaves, soft to the touch, the flowers come out in clusters and are white.

7. D: ALPINA, *Alpine Daphne*, or *Chamaelea*, a native of Italy, and the Alps, attains a height of about three feet; the leaves are spear-shaped, obtuse, and hoary underneath; the flowers come out in clusters, are very fragrant, and are succeeded by red berries.

8. D: THYMELÆA, *Milk-wort-leaved Daphne*, or *Thymelæa*, a native of France and Spain, also attains a height of about a yard; the stalks are covered with a light brown bark; the leaves are spear-shaped, smooth, and resemble Milkwort; the flowers are produced in clusters, are of a greenish colour, succeeded by yellowish berries.

9. D: VILLOSA, *Small hairy Portugal Daphne*, hath ligneous stalks, about two feet high; the leaves are spear-shaped, plain, hairy on both sides, and grow on very short footstalks; the flowers have very narrow tubes, are small, and make no great show.

10. D: LANUGINOSA, *Æthiopian Daphne*, or *Wooly headed Thymelæa*, a native of Æthiopia, is a branching shrub; about six feet high the branches are covered with a white bark; the leaves are small, narrow, acute-pointed, spreading, and are placed without order on the branches; the flowers grow in clusters and are white.

11. D: GLABRIS, *Indian Daphne*, a native of China, is a small shrub about two feet high; the leaves are oblong, oval, smooth, undivided, and are placed opposite; the flowers come out in clusters, sitting close on one common footstalk. They are propagated by seeds—these two last are green-house plants.

DARNEL. See *Lolium*.

DATE, the fruit of the great Palm tree. See *Phoenix*.

DATISCA, *Bastard Hemp*, a genus of the Dioecia Polyandria class, and 54th Natural Order, *Miscellanæ*; the male calix is a perianthium composed of seven narrow, equal, acute leaves; there is no corolla, the female calix is a small, erect, permanent perianthium, situated above the germen, and indented in two parts; there is no corolla, the pericarpium is an oblong, triangular, trivalvate, tricuspidated capsule, of one cell, and the seeds are numerous, small, and adhere to the three sides of the capsule: there are two species.

1. D: CAULI-LÆVI, (Luteola of C. B. Cannabis, &c. Hort. Cliff.) *Smooth Bastard Hemp*, a perennial, and native of Crete, it rises with strong, herbaceous, smooth stalks, that are upright, and about four feet high; the leaves are pinnated, each being composed of three large, acute, pointed, serrated folioles, terminated by an odd one; they grow alternately on the stalks, and the flowers come out from the wings of the leaves, in long loose spikes; they are males and females on different plants, and make but little show.

2. D: HIRSUTO, *Rough Bastard Hemp*, an indigenous perennial growing naturally in Pennsylvania; the stalks of this plant are strong, upright, hairy, and grow to be five or six feet high; the leaves are pinnated like the other, and the flowers are produced from the sides of the stalks, and are succeeded by oblong, triangular capsules, containing the seeds. They are easily propagated from seeds, or by parting the roots.

DATURA, *Thorn apple*, a genus of the Pentandria Monogynia class, and 28th Natural Order, *Luridæ*; the corolla is plaited,

and funnel-shaped; the calix is tubular, angular, and deciduous, and the capsule consists of four valves—there are 6 species, all natives of the warm climates.

1. D: STRAMONIUM, the *Common Thorn Apple*, *James-town Weed*, *Jimson Weed*, *Sinking Weed*, *French Chesnut*, &c. originally a native of America, but now indigenous in some parts of Britain; it grows in waste places about the city of Charleston, and almost all parts of the union—the stalk is round, hollow, sometimes an inch thick, green, and divides into many branches; the leaves are large, broad, serrated, acute-pointed, smooth, of a dark green colour, and grow alternately on tolerably strong footstalks; the flowers come out singly, from the wings of the branches on straight footstalks, they are very large, of a pure white colour, and the general characters indicate their structure; they appear in June, July, &c. and are succeeded by very large, green, oval, prickly fruit, called *Thorn Apples*.

*Note.*—This plant has been recommended to notice by several medical gentlemen, who have been at considerable pains to discover its properties and virtues, and the result hath proved it an active, and useful medicine in the hands of prudent physicians, but a dangerous and fatal one in many cases, when imprudently used. The reader is requested to turn to the 2nd Volume of the "*New-York Medical Repository*," pages 27—32, where he will find that the effects produced by the imprudent eating of some of the seeds of this vegetable, where high fever, burning heat, redness of the skin, itching, eruptions, bloated countenance, dilation of the pupils of the eyes, weak pulse, incessant hiccup, frequent ineffectual retching to vomit, an involuntary starting, a distortion of the countenance, &c. in short all the functions appeared entirely deranged, and the patient evidenced great aversion to fluids of every kind—in another it produced a furious *mania*, involuntary flows of urine, &c. So far Dr. Dewitt, on the noxious, and now Dr. King, on the salutary effects of this vegetable. The Doctor advises half a drachm of the bruised seeds to be boiled in four ounces of water, until half the quantity is evaporated; this he observes, is a suitable quantity for a grown person, in twenty four hours, to be taken in divided doses; he also recommends an extract made in water, from the bruised seeds, in doses of half a grain to a grain for an adult, when taken this way, it is moderately diuretic, cooling, anodyne, and sedative; it relaxes the tone of the solids, lessens the contractile force of the arterial system, and moderates the violent attrition of the circulating fluids against their containing vessels, lowers the pulsation of the arteries, and renders the pulse slower, more uniform, and equable when excited by violent stimuli; but the most useful and least dangerous mode of employing it is externally, in form of an ointment made of the fresh leaves with hog's lard, it is thus an excellent application for tumefied breasts, scrotum, &c. and admirable for burns, scalds, and inflammations, in the form of plaster, it is an excellent vulnerary either for fresh or old sores or cancers.

2. D: TATULA, *Egyptian Thorn Apple*, with purple flowers, sometimes cultivated in gardens, it has also purple stalks, which are stouter and larger than the former sort; the leaves are also larger, and

more angular and notched; the capsule is also larger, but in other respects like the former.

3. D: FEROX, *Fierce*, or *Chinese Thorn Apple*, the capsule of which is armed with very strong spines, the stalks are thick, branching, and grow to about a foot and a half high; the leaves are broad, oval, angular pointed, and alternate, and the flowers come out from the wings of the stalks.

4. D: PURPUREUM, *Great Purple Stramonium*, its place of nativity unknown, the stalk is very large, smooth, purple coloured, often spotted, branching, and hollow; the leaves are large, heart-shaped, smooth, and indented on their edges; the flowers are of a pale blue colour, and are succeeded by erect, oval, prickly pericarpiums. There is a variety of this species with white flowers.

5. D: ALBA, *African Thorn Apple*, or *Metelia Nut*, the stalk is round, smooth, and a foot and a half, or two feet high; the leaves are large, heart-shaped, sinuated, hoary, and alternate; the flowers are of a pure white colour, succeeded by pericarpiums like the former. There is a variety of this species with violet, and another with reddish flowers—the foregoing are all annuals.

6. D: ARBOREA, *Tree Thorn Apple*, a native of Peru; it rises with a woody branching stalk, to the height of ten or twelve feet; the leaves are large, oblong, entire, downy, and oblique to the footstalks, which are long; the flowers have a long, narrow tube, which expands itself broad at the brim; their colour is white, with some stripes of yellow on their outside; they are extremely fragrant, and are succeeded by smooth, roundish, nutant capsules. This is a stove plant—they are all easily propagated from seeds.

DAUCUS, the *Carrot*, a genus of plants belonging to the Pentandria Digynia class, and 45th Natural Order, *Umbellatae*; the corolla are sub-radiated, and all hermaphrodite, and the seeds are rough, and hairy. There are five species.

1. D: CAROTA, or *Sylvestris*, *Common Carrot*—these are cultivated in almost all civilized countries; it was introduced from Flanders into Britain, in the reign of Queen Elizabeth; as a culinary root it is well known, and is not only a richer, and more nourishing, but also a much pleasanter food than Turnips. The varieties of this species are, the orange, the red, the white, the yellow, and the purple Carrot, &c. Walter ranks them among the indigenous plants of Carolina.

*Medical virtues.* A marmalade of Carrots, on account of their strong antiseptic qualities has been successfully used for preventing and curing the sea scurvy. An infusion of them has afforded relief to persons affected with the stone and worms, but especially the tape worm:—A poultice of the roots mitigates the pain, and abates the smell of foul and cancerous ulcers.

*Domestic uses.* Although they do not yield sugar, yet a thick syrup similar to treacle has been procured from them. A strong liquor is obtained from them by distillation, nearly equal to brandy.

2. D: HISPANICUS, *Great Spanish Carrot*, is an annual plant and rises better than a yard high; the leaves are like our common Carrot, but their footstalks are streaked, with white veins, the umbel is exceedingly large, and the flowers are of a purple colour,

3. D: GINGIDIUM, *Visnaga*, or *Tooth-pick Carrot*, an annual, and native of Spain; the leaves are smooth, finely divided, and resemble fennel; the flowers terminate the stalks in large compound umbels; the footstalks that support the small umbels, are long and stiff, and are used by the Spaniards for tooth picks.

4. D: LUCIDUS, *Shining Sea Carrot*, an annual, and native of France; the leaves are a little like those of the common Carrot, but the segments are broader and of a shining green colour; the flowers terminate the stalks in large compound umbels.

5. D: ACULEATIS, *Prickly seeded Carrot*, an annual and native of Mauritiana, the leaves are hairy, and the seeds are prickly. The dwarf Sea Caulalis of C. B. is only a variety of this species.

*Note.* Michaux mentions a D: PUSILLUS, as growing in Carolina, and is probably the D: Divaricatus of Walter. They are all propagated from seeds.

DAY LILY, or LILY ASPHODEL. See *Hemerocalis*.

DEAD NETTLE. See *Lamium*.

DEAD TONGUE. See *Oenanthe Crocata*.

DEADLY CARROT, or Scorching Fennel. See *Thapsia*.

DEADLY NIGHTSHADE. See *Atropa*.

DECASPERMUM, a genus of the Icosandria Monogynia class of plants; the calix is a top-shaped perianthium, quinquefid at the apex; the corolla has five roundish petals; the stamina are many filiform filaments, a little shorter than the corolla; the pericarpium is a dry berry with ten cells; the seeds are egg-shaped and solitary.

DECUMARIA, a genus of the Dodecandria Monogynia class of plants; the calix has from eight to twelve segments, superior, the corolla has ten petals; the pericarpium is a capsule containing from 7 to 10 cells, and the seeds are many. This plant is termed by Mr. Walter "*Forsythia Scandens*." There is at present but one species known.

D: FORSYTHIA, (*Decumaria barbata* of Lin: D: *Sarmentosa*, Act: Soe: Nat: Paris.) It is a native of South-Carolina, growing mostly in the moist low grounds; it hath a climbing stalk; the leaves are broad, oval, smooth, shining and toothed on their edges, and the footstalks of the leaves are somewhat downy.

DELIMA, a genus of the Polyandria Monogynia class of plants, and 59th Natural Order, *Dubii Ordines*; the calix consists of five leaves; there is no corolla, and the pericarpium is a two seeded berry.

DELPHINIUM, *Dolphin flower*, or *Larks-spur*, a genus of the Polyandria Trigynia class, and 26th Natural Order, *Multisili-que*; it has no calix; the corolla consists of five petals, and the nectarium is bifid and horned behind, and the siliquæ three or one. There are seven species.

1. D: CONSOLIDA, *Wild*, or *Field Larkspur*, or *Larks heel*, grows in Corn fields, and flowers from the month of June till September; the stalks are round, tough, branching, and grow to be two feet high; the leaves are composed of several long, narrow segments; they are of a dark green colour and grow alternately at the joints

the flowers are produced in spikes from the ends of the branches—the most common colours are blue and white, though there are many varieties. Besides the beauty of these plants, they possess a property which should endear them to all people, for, upon the best authority, we can state, that the expressed juice of the blue flowers has proved a specific, in every instance in which it has been applied to that painful, dangerous and troublesome disease, the Chin, or Hooping Cough. The expressed juice of the petals of this plant imparts a green colour, and with the addition of a little alum, will produce a good blue ink. The seeds are acrid, and said to be poisonous, sheep and goats eat it; horses do not relish it; cows and swine totally refuse it—Bees are much attached to its flowers, which are used in Germany cut and dried with tobacco, as they are said to improve its flavour.

2. D: CAROLINIANUM, (D: Tridactylum of Mich.) *Carolinian* or *Dalmatian Larkspur*, an indigenous annual species, hath strong, upright stalks; the leaves are hand-shaped, composed of five or seven obtuse lobes, which join at the base; the flowers grow in loose spikes, their most common colour is a pale blue, though they are sometimes purple and other coloured.

3. D: AZUREUM, *Siberian Larkspur*, or *Bee flower*, an indigenous perennial growing naturally in South-Carolina and Georgia, the stalks are upright, firm and two or three feet high; the leaves are smooth, hoary, consist of many narrow parts, and are alternate; the flowers come out singly, are seldom more than two, on the upper parts of the plant, they are of a blue colour, and have a bearded dark coloured nectarium in the centre, forming the appearance of a Bee in the flower, whence the name. The varieties of this species are, the Dwarf, Taller, Purple stalked, Aconite leaved, Portugal, and Yellow Bee Larkspur.

4. D: MULTIPARTITIS *Mauritanian Larkspur*, an annual, growing chiefly in Mauritania, the leaves consist of several long, narrow parts, and are alternate; the flowers grow in spikes, are usually of a blue colour, with a tinge of red or green on the outside, though there are other varieties.

5. D: REGIUS, (Flos Regius of Dodon, *Consolida regalis* of C. B.) *Royal Larkspur*, an annual plant, the place of whose nativity is unknown, it is however among the most beautiful of all the hardy annuals; the stalk is upright, firm, simple, a yard or more high; the leaves are smooth, composed of several long, narrow segments, and are alternate; the flowers are produced in large, long spikes, frequently a foot or more in length, and are of many colours and sorts.

6. D: LATIFOLIA, *Italian Larkspur*, hath a branching stalk; the leaves on the upper parts of the plant are single, though towards the bottom, they are divided into many broad, obtuse segments; the flowers are produced but thinly, are small, of a deep blue colour, and succeeded by small, single capsules.

7. D: SILISIACA, *Silesian Larkspur*, a perennial, and native of Silesia, &c. It hath hairy, upright, hollow, purplish stalks; the leaves are divided into many segments, which spread open like the hand; the segments are large, hairy, and cut at the extremities



into a few acute points; the flowers come out in long spikes, are of a purplish blue colour, having a two-leaved bearded nectarium, resembling a Bee.

*Note.* Michaux mentions a D: Tricorne as indigenus to Carolina, it appears to be the same as the 4th species—They are propagated from seeds.

DENS CANIS, or *Dog's Tooth*. See *Erythronium*.

DENS LEONIS, or *Dandelion*. See *Leontodon*.

DENTARIA, or *Tooth Wort*, a genus of the Tetradynamia Siliquosa class, and 39th Natural Order, *Siliquosæ*; the siliqua or pod, bursts open by elastic valves; the stigma is emarginated, and the calix is connivent. There are three species, all of which are perennials, only one of which is a native of Britain. Michaux enumerates two as indigenus to Carolina.

1. D: BULBIFERA, (D: Dyphylla of Mich.?) *Bulbiferous Toothwort*, or *Coralwort*, a perennial, and native of Europe and America; the roots of this plant is tuberous, toothed, crooked, craggy like coral, and full of a sharp, disagreeable juice; the stalks are slender and about a foot high; the radical leaves are pinnated, each being composed of three pairs of narrow, acute, pointed, jagged, hemp-like folioles, terminated by an odd one, those on the lower part of the stalk are composed of five folioles, and the upper ones simple; the flowers are small, purplish, and among them grow small bulbs or tubers, which fall, take root and grow.

2. D: CONCATENATIS, (D: Ternatis?) *Three-leaved Toothwort*, a native of Carolina, hath a thick, fleshy, tuberous, knobbed root; the stalks are round, upright and about a foot high; the radical leaves are composed of three large, broad, oval, serrated folioles, on long, strong footstalks; the stalk leaves are narrower, and the three whole leaves usually come out from one point, making the folioles nine, from the same quarter; the flowers come out in loose spikes of a pale green or blue colour.

3. D: DIGITATIS, *Five-leaved Toothwort*, a native of Europe, and of which there are several varieties, some having rough leaves others smooth, some white, some blue, others purple flowers, &c. the leaves are digitated, and each is composed of five long, acutely serrated folioles, though in some varieties the lower leaves have seven; the flowers come out in clusters, are small, and of one or other of the varieties mentioned. They are propagated from seeds, bulbs or parting the roots.

DENTELIA, a genus of the Pentandria Digynia class of plants the calix is a five parted perianthium, with small, subulated leaves; the stamina five short, subulated filaments; the antheræ; small; the pericarpium a globular, bilocular capsule; the seeds, egg-shaped, and very numerous.

DEVIL IN A BUSH. See *Nigella*.

DEVIL'S BIT. See *Scabiosa*.

DIALUM, a genus of the Diandria Monogynia class of plants; It has no calix; the corolla has five petals, and the stamina are at the upper side of the receptacle.

DIANTHERA, a genus of the Diandria Monogynia class, and 40th Natural Order, *Personatæ*; the corolla is ringeat, and the capsule

has two elastic valves. There are two species, natives of America, this is the genus *Justicia* of Michaux.

1. D: *OVATA*, *American Dianthera*, a perennial and native of Carolina, hath weak, simple, herbaceous, erect stalks, about four or five inches long; the leaves are roundish, hairy, of a dark green colour, and finely scented; the flowers are produced in single, alternate, oval spikes, and are white, or of a reddish purple colour.

2. D: *ENSIFORMIS*, *Sword-shaped Dianthera*, a native of Carolina, hath sword-shaped leaves; they are propagated from seeds or parting the roots. See *Justicia*.

**DIANTHUS**, *Clove July-flower*, or *Carnation*, a genus of the Dendrodia Digynia class, and 22nd Natural Order, *Caryophyllæ*; the calix is cylindrical, and consists of one leaf with four scales at the base; the corolla consists of five clawed petals, and the capsule is cylindrical, and has but one cell. There are 10 species.

1. D: *CARYOPHILLUS*, *Common Pink*, or *Carnation*; called also *Clove Pink*, and *Clove July-flower*, a native of Italy, and the Alps. This species in its wild state, grows on old walls, and is found among the ruins of old castles, it usually flowers in the months of June, or July. This tender species has given rise to the profusion of carnations, which now adorn our gardens, and are well known plants; they are perennials, and flower in the month of July, having the odour of cloves, whence the term *Clove July-flowers*. All the species are beautiful plants, and are generally cultivated on account of their fragrance. Florists bestow uncommon praise on the culture of these elegant flowers, which are propagated by seeds as well as by slips and layers, they divide them into ten classes, and these again into varieties of which there appear to be several hundred—we shall therefore describe only the most particular.

*Part used.* The flowers.

*Sensible properties.* A pleasant aromatic odour.

*Medical virtues.* Cordial and alexipharmic: a decoction of the flowers of *Red Pink*, has been successfully used in malignant fevers; and as Pauli asserts, they raise the animal spirits, quench thirst, and powerfully promote both perspiration, and the secretion of urine without great irritation as a slight decoction deprives them of their pleasant flavour; the college directs the syrup made by infusion.

2. D: *SIMPLEX*, the *Pink*, is found in meadows and pastures of Europe, affording a world of varieties, which are termed, *the little Milk Maid*, is a small, white, single pink, and is the earliest in flowering of all. The *White Shock Pink*, is very white and has its edges fringed more than common. The *Paper Pink*, it is of a pure white colour, very high fragrance, and the borders of the petals less fringed. *Brown's Pheasant Eye*, *Montrous Pheasant's Eye*, which are large broken flowers. *Cob Pink*, is of a fine red colour, and of a fine fragrance; besides these, there are *Brownnames Pink*, the *Old Man's Head*, *Painted Lady*, &c. &c. There are also the *Annual Sweet William*, the *China Pink*, single and double. The *German Pink*, and the *Superb*, which are termed annuals.

3. D: *BARBATUS*, *Bearded Dianthus*, or *Sweet William*—this species is of uncertain original, but sports in the following varieties.—The *Mule*; this variety hath narrow leaves; the flowers are very

double, of a bright red colour, and possessed of some fragrance. The *Double Rose Sweet William*, these are complete, full flowers, of a fine rose colour, and a fine fragrance. *Double Sweet William*, hath large double flowers of purplish colour, but as it bursts the pods, is of all the sorts least admired.

4. D: AGGREGATIS, *Deptford Pink*, grows wild near Deptford, it is of the Sweet William kind, and produces its flowers in close bunches, the stalks are slender, lie on the ground, and strike root at the joints. The flowers are red.

5. D: COESIUS, *Mountain Pink*, a native of the rocky parts of Europe, it is a small elegant species; the leaves are very short and grassy, and of a light colour; the flowers are small, single, white, and have an elegant circle of purple surrounding the eye, which makes it very beautiful.

6. D: SYLVESTRIS, *Wild Pink of the Forests*, is a very small pink, which grows wild in stony places: The flowers come out singly, are of a pale red colour, and have their petals cut into many points.

7. D: ARMERIA, *Stone Pink*, grows naturally in dry, sandy places, old walls, &c. The leaves are small and narrow, the flowers are single, of a pale colour, very sweet scented, make but little show, and their cups have oval scales.

8. D: ALPINA, *Alpine Pink*, a native of the Alps; it is a dwarf with short blunt leaves, which are moderately broad, the stalk supports one single flower, with crenated petals; the flowers are very small, and of a pale red colour.

9. D: TUNICA, *Maiden Pink*, a native of Europe, is a very low plant, having numerous short, awl-shaped leaves; the flowers are small and red, the petals are crenated or notched, and the calix hath very short scales.

10. D: MONSPELIENSIS, *Montpelier Pink*, the leaves are very narrow, of a bluish green colour; the stalks are slender, jointed, and about six inches high; the flowers are single, the scales of the calix awl-shaped, and the petals are deeply cut into many narrow segments. Mr. Walter, in his Flora, mentions a D: Carolinianus or Carolina Pink, as indigenous, and having aggregate flowers upon long footstalks. I have not been able to discover it in any other writer—they are all propagated by layers, by slips, and by seeds.

DIAPENSIA, a genus of the the Pentandria Monogynia class; the calix consists of five leaves, imbricated with three smaller ones; the stamina arise from the tube of the corolla, and the capsule has three cells. There are two species.

2. D: PEDUNCULATIS, *Lapland Diapensia*, a perennial, and native of Lapland, the root is fibrous and white, the leaves are narrow, obtuse, of a thin consistence, and pale green colour; the stalks are but two or three inches long, jointed usually procumbent and adorned with tufts of small leaves at the joints; the flowers come out on slender, pale, green footstalks from the joints; each footstalk supports one large white flower.

2. D: ARCTICA, *Helvetian Diapensia*, hath taper stalks, two or three inches long, the leaves are numerous, imbricated, and pale

green; the flowers have short footstalks, are white and large. They are propagated from seeds, or by parting the roots.

**DICHONDRA**, a genus of the Pentandria Monogynia class of plants; the calix is a permanent, bell-shaped perianthium, of five oblong, spathula-shaped segments; the corolla consists of five equal, oval, spreading petals; the tube is long—it has no pericarpium, the capsule closes and contains the seeds—there is one species.

D: **CAROLINIENSIS**, *Carolina Dichondra*, a perennial, and grows naturally in the vicinity of Charleston; the stalks are herbaceous, creeping, and covered all over with soft hairs, the leaves are kidney-shaped, emarginated, and grow alternately; the flowers come out singly on footstalks, are small, and nodding or drooping.

**DICRANUM**, a genus of the Cryptogamia Musci class, of this genus of mosses; Michaux enumerates five species as indigenous to Carolina, and Canada, viz. D: *Scoparium*, D: *Polysetum*, D: *Glaucum*, D: *Orthocarpum*, and D: *Purpureum*—of these, the stalks are generally from two to four lines in thickness, the leaves are of a pale yellowish green, the Sporangium is of a saffron colour, and the Peristomium of a deep purple.

**DICHROMENA**, a genus of the Triandria Monogynia class of plants, enumerated by Michaux, it hath near affinity to the Bog Rush, and Bastard Cypress. See *Schoenus*.

**DICTAMUS**, or *Dictamnus*, *Dittany*, a genus of the Decandria Monogynia class, and 26th Natural Order, *Multisiliquæ*; the calix consists of five leaves, and the corolla of five open petals, the filaments have many glandular points, and the five capsules are united. There is but one species.

D: **OBLUS**, (Albus of Linnæus—D: *Creteca* of Tournefort—D: *Fraxinella* of Casp. Bauhine,) *White Dittany* *Fraxinella*, or *Bastard Dittany*, an exotic perennial plant, growing in France, Germany and Italy; its thick, pungent and bitter root produces annually erect stalks, which bear loose spikes, forming a large pyramidal thyrsé, of white, red, and purple flowers, according to the varieties, in June and July; the stalks are round, clammy to the touch, and grow to be two or three feet high; the leaves are large, pinnated, and grow alternately on the stalks; the folioles consist of about four or five pairs, besides the terminating odd one; they are oblong, smooth, pointed, have a longitudinal furrow on the upper side, and sit close to the mid-rib; the flowers are produced as above described.

*Part used.* The root.

*Sensible properties.* Colour white, smell weak, not very agreeable, taste durably bitter, lightly pungent.

*Medical virtues.* Alexipharmic, tonic, and anthelmintic, though not regarded in practice; it resembles Lemon Thyme in smell, and taste, but possessing a stronger aromatic flavour, as well as a great degree of pungency; when fresh they yield, i. e. the leaves, on expression a considerable quantity of an excellent essential oil; the flower cups exude a very pure, and fragrant resin, which is said to be diuretic.

*Domestic uses.* It is eminently calculated for ornamenting borders, but as these flowers exhale a considerable quantity of inflammable air,

they ought not in any large quantities to be kept in dwelling rooms. See also *Origanum Dictamnus*.

DIERVILLA, of Michaux. See *Lonicera*.

DIGITALIS, or *Fox Glove*, a genus of the Didynamia Angiosperma class, and 28th Natural Order, *Labiæ*; the calix is divided into five segments; the corolla is bell-shaped, ventricose, and has five divisions, and the capsule is oval, and has two cells. There are six species.

1. D: PURPUREA, the *Common*, or *Purple Fox Glove*, is said in one of our Gazettes, to be an indigenous biennial plant, growing naturally in the vicinity of Charleston. And in woods, meadows, and uncultivated heaths, and on hedge banks, and the sides of hills, in dry, gravelly, or sandy soils, and but seldom on flat grounds, unless in very dry situations. There are many varieties of this plant, but the parent of them all is the Common Red Fox Glove; the leaves of this species, are long, broad, rough and hairy, the stalk is upright, firm, and will grow to a yard high, and is garnished with the same sort of leaves as the radical one, though narrower and smaller; the tops are garnished with a long, loose thyse of elegant purple flowers, with white spots on the under lip, which hang in spikes along one side of the stalk; these, as well as its medical virtues, has gained it a place in gardens, though the seeds vegetate, the roots decay in the winter, and the plant consequently perishes—it flowers in June or July, according to the following varieties, white, purple and red. A species marked D: Lanata, is to be seen in the Botanic Garden of South-Carolina.

*Part used.* The plant.

*Sensible properties.* Bitter, nauseous taste, no peculiar smell.

*Medical virtues.* Violently emetic, and purgative. With regard to the medical virtues of this plant, much depends on the season of collecting it—the part used, the mode of curing it, the adulteration of the plant, the manner of exhibiting it, and the condition of the system, at the time of its use. The leaves have been strongly recommended externally against scrophulous tumours, and likewise internally in epileptic disorders; according to Dr. Withering, an infusion of two drachms of the leaves in a pint of water, given in half ounce doses, every two hours, till it begins to puke or purge, is recommended in dropsey, particularly that of the breast. It is said to have produced an evacuation of water, so copious and sudden, in ascites, by stool and urine, that the compression of bandages was found necessary. The plentiful use of diuents is ordered during its operation—this remedy is, however, not adviseable to weakly patients. The dried powder taken to the extent of one, two, or three grains, in any convenient vehicle, at bed-time, often, in a very short time operates as a very powerful diuretic, without producing any other evacuation—though it will sometimes von it during its operation, it has a very remarkable influence in rendering the pulse slower, and frequently excites very considerable vertigo, and an affection of vision. It has also been employed in some instances of *Hæmoptysis*, or spitting of blood, *Phthisis*, *Mania*, &c. with very good success.

2. D: LUTEA, *Yellow Fox Glove*, an annual, and native of France and Italy; of this, there are also several varieties, as the large flow-

ering yellow, small yellow, and cream coloured Fox Glove; the stalk is upright, firm, and about two feet high, the leaves spear-shaped, soft, and obtuse; the stalk leaves smaller than the radical; the upper part of the stalk is adorned with the flowers ranged on one side of it; they are of a bright yellow colour and blow in June and July.

3. D: FERRUGINEO, *Iron coloured Fox Glove*, an annual, and native of Italy, and Constantinople, the leaves are smaller than those of the common purple Fox Glove; the stalk rises upwards of eight feet high, on clayey lands, but in richer soils no more than four feet. The top is adorned with flowers near a yard long, they are small, and of a rusty iron colour. There is also a dwarf variety, and another with a very branching stalk.

4. D: HISPANICA, *Broad-leaved small Spanish Fox Glove*, an annual and native of Spain, hath many soft, wooly, veined, oval, spear-shaped, serrated leaves; stalk about a foot high, garnished with the same kind of leaves, but smaller and run into one another; the flowers ornament the top in a short thyrs, growing on one side, are of a purple colour, with pale red spots about the mouth.

5. D: NIGRICANTE, *Narrow-leaved Taller Spanish Fox Glove*, also an annual and native of Spain; the leaves are narrow, smooth, and spear-shaped; the stalk is very robust, woody, and branching; the flowers are of a very bad purple, inclining to black; they adorn the top for a great length and blow in July.

6. D: CANARIENSIS, (Gesneria, etc. of the Hort. Cliff.) *Shrubby Canary Fox Glove*, is a delightful plant, appropriate to the Green-House. The very stem, branches and leaves conspire, as well as the flowers, to enforce our esteem—it grows about a yard high, the stalk is shrubby, branching, and of a purple hue; the branches are purple or reddish, and are made still more beautiful by a kind of cottony down that covers them; the leaves are spear-shaped, rough, pointed, hardly a foot long, and about two inches broad, their edges are slightly serrated, they grow alternately on the branches, without any footstalks; the flowers are produced in spikes, from the ends of the branches; each consists of a large swelling quadrid petal, of a bright yellow colour, and blows often from May to the end of summer. They are easily raised from seeds.

DIGITARIA, (of Michaux,) *Crab Grass*. See *Panicum*, and *Syntherisma*.

DILATRIS, a genus of the Triandria Monogynia class of plants; it has no calix, the corolla has six petals, and is shaggy, the stigma simple.

DILEPYRUM, a genus of the Triandria Digynia class of plants, and 4th Natural Order, *Gramina*; the calix is a simple bivalved glume, the valves equal, awl-shaped, linear, and keeled; the apices are awned, or bearded; the stamens are three, the antheræ forked, the seeds are oblong—there are two species, both perennials.

1. D: ARISTOSUM of Michaux, *Bearded Dilepyrum*, a native of Carolina and Georgia, the culm is hairy, the leaves long, broad, and lance-shaped; the flowers come out in loose panicles, and are all hermaphrodite.

2. D: MINUTIFLORUM, *Small flowered Dilephyrum*, a native of Kentucky, and Illinois, hath plain linear leaves, and small panicles of flowers.

DILL. See *Anethum*.

DILLENIA, a genus of the Polyandria Polygynia class; the calix consists of five leaves, and the corolla of five petals, and the capsule contains many seeds. There is but one species, a native of Malabar.

DIODIA, a genus of the Tetrandria Monogynia class, and 47th Natural Order, *Stelmate*; the corolla consists of one funnel-shaped petal, and the capsule has two cells, containing as many seeds. There is but one species, a native of Virginia—though Walter in his Flora mentions two, viz.

1. D: TETRAGONA, with creeping, four sided stem, half heart-shaped leaves, and awl-shaped stipules.

2. D: TERES, round, creeping stem, and lanceolate leaves.

DIONEA, *Venus fly trap*, or the *Carni orous vegetable!!!* a genus of the Decandria Monogynia class; the calix has five leaves; the corolla consists of five petals; the pericarpium is a one celled, gibbous capsule, and the seeds are many. There is but one species of this wonderful plant, a native of the low grounds of South Carolina, &c.

D: MUSCIPULA, *Venus Fly Trap*. This is a newly discovered sensitive plant, indigenous to North-Carolina; the roots are squamous, sending forth but few fibres, and are perennial; the leaves, are numerous, inclining to bend downwards, and are placed in a circular order; they are jointed and succulent: the lower joint, which is a kind of stalk, is flat, longish, two edged and nearly heart-shaped, in some varieties they are serrated on the edges near the top; the upper joint consists of two lobes, each of which is of a semi-oval form, with their margins furnished with stiff hairs, like eye-brows, which embrace, or lock into each other when they close, which they do whenever inwardly irritated; the upper surfaces of these lobes are covered with small red glands; each of which appears, when highly magnified, like a compressed strawberry, among the glands, about the middle of each lobe, are three very small, erect spines. When the lobes enclose any substance, they never open again while it continues there. It can be shoved out so as not to strain the lobes; they expand again; but if force is used to open them, so strong has nature formed the spring of their fibres, that one of the lobes will generally snap off rather than yield. The flower-stalk is about six inches high, round, smooth, and without leaves, ending in a spike of flowers; the flowers are milk white, and stand on footstalks, at the bottom of which is a little pointed bractea or flower-leaf; it delights in wet shady places, and flowers in July and August.

*Note.* In the construction of this wonderful plant, nature seems to have had some view towards its nourishment, in forming the upper joint of its leaf like a machine to catch food, and placing upon the middle of it the bait for the unhappy insect that becomes its prey; many minute red glands that cover its inner surface, and which doubt-

less discharge some sweet honey-like liquor, tempts the poor insect to taste them, and the instant these tender parts are irritated by its feet, the two lobes rise up, grasp it fast, lock the two rows of spines together and squeeze it to death; and further, lest the strong efforts for life in the creature thus taken, should serve to disengage it, the three small spines beforementioned, like small swords, effectually put an end to all its struggles—One thing it is however said is certain, that the plant cannot distinguish an animal from any other substance, “wonderful, most extremely wonderful!” in a plant—for if we put a straw or pin between the lobes, it does not know the difference, but will grasp it full as fast as if it was an insect. It is propagated by parting the roots, and from seeds.

**DIOSCOREA**, the *Yam*, a genus of the Diocia Hexandria class, and 11th Natural Order, *Sarmentacea*; the calix, both of the male and female consists of six segments, and they have no corolla; the female has three styli; the capsule is compressed, has three cells, and contains two membranaceous seeds. There are eight species most natives of the Indies.

1. D: **CAROLINIENSIS**, (D: *Paniculata* of Mich.) *Carolina Yam*, an indigenous plant, growing naturally in Carolina and Canada; the stalks are small; the leaves short, heart-shaped, pointed, nervous, and somewhat downy; the flowers come out in compound panicles, forming bunches, which are succeeded by smooth, roundish, trilocular capsules containing the seeds.

2. D: **BULBIFERA**, *Bulbiferous Yam*, a native of Ceylon; the stalks are slender, smooth lie on the ground, into which they strike root and produce fresh bulbs from the sides; the leaves are heart-shaped, and somewhat like Bryony; the flowers come out in clusters from the sides of the stalks, they are small and greenish.

*Domestic uses.* The culture of these plants has been introduced into the West-Indies, and other parts of America; it is divided into two varieties, known under the names of Red and White, from the colour of their roots. They are propagated like Irish potatoes, by setting their eyes; they flourish best on poor soils, and retain their beautiful verdure till a late period in the year. They possess similar properties with the potatoe, except that it is less mealy, in a raw state it is viscous, but when roasted is equally wholesome and nourishing, so that the inhabitants of the West Indies prefer it even to bread; the meal obtained from the boiled and grated roots, when beaten up with milk and eggs, without any flour, yields a firm and well flavoured dish, which is scarcely distinguishable from a common batter pudding.

3. D: **TERRETI**, (*Volubilis Nigra* of Sloane,) *Cultivated Dioscorea*, a native of the Indies; the root of this plant is also very large, tuberous, mealy and esculent; the stalks slender, smooth, climbing, near twenty feet high; the leaves are heart-shaped, veined and alternate; the flowers grow in bunches, and are greenish. It is used the same as the former.

4. D: **ALATO**, *Winged Dioscorea*, hath also large esculent roots; the stalks are winged, trailing, and strike root as they lay on the



ground; the leaves are heart-shaped, veined, and grow singly at the joints; the flowers are reddish.

5. D: ACULEATO, *Kattu Kalengu*, or *Aculeated Dioscorea*, hath large thick, irregular roots; stalks are slender, prickly, lie on the ground, and strike root; the leaves are heart-shaped, the flowers are small and of little beauty.

6. D: DIGITATIS, *Nurem Kalengu*, or *Five-leaved Dioscorea*, hath weak, slender, prickly stalks; the leaves are composed of five folioles, formed in the shape of a hand, the flowers are small and greenish, followed by large capsules.

7. D: TERNATIS, *Tsiageri-Nurem*, or *Three-leaved Dioscorea*; this differs but little from the former, except that the leaves have but three folioles. It is considered by some authors only a variety.

8. D: OPPOSITI-FOLIO, *Opposite-leaved Dioscorea*, hath weak slender stalks, requiring support; the leaves are oval, pointed, beautifully veined, and grow opposite; the flowers are small and greenish, and the fruit triangular. They are propagated as our common potatoes from seeds, eyes, or planting the vines.

DIOSMA, *African Spirea* a genus of the Pentandria Monogynia class, and 59th Natural Order, *Dubii Ordines*; the calix is a permanent perianthium, divided into five narrow, acute parts, which are plain at their base; the corolla has five petals, and the nectarium is shaped like a crown; is divided into five segments, and situate above the germen; it has five united capsules, and the seeds are furnished with Calyptræ. There are nine species, all natives of the East; one of which, marked D: *Latanum*, is to be seen in the Botanic Garden of South-Carolina.

1. D: OPPOSITIS, (*Spiræa Africana* of Comm:) *Opposite-leaved African Spirea*, a native of the Cape, hath a woody branching stem, and is about three feet high; the leaves are awl-shaped, acute, and placed crosswise; the flowers are produced along the branches, almost their whole length; they are white, and continue long in beauty.

2. D: HIRSUTIS, or ODORATUS, *Hairy African*, or *Sweet scented African Spirea*, hath woody, branching stalks, and grows five or six feet high; the leaves are narrow, pointed, hairy and alternate; the flowers come out in clusters from the ends of the branches, they are small and of a white colour. The whole of this plant affords a grateful odour.

3. D: PUNCTATIS, (*Erica Æthiopica* of Pluke.) *Red African Spirea*, hath a woody, branching stem, two or three feet high; the leaves are narrow, sharp pointed, spotted underneath, and of an aromatic odour; the flowers come out in clusters, are red, and of an agreeable odour.

4. D: IMBRICATIS, *Heath-like African Spirea*, is a shrub two or three feet high; the leaves are narrow, spear-shaped, pointed and convex underneath; the flowers come out from the ends and sides of the branches, and are finely scented.

5. D: CILIATIS, *Ciliated African Spirea*, hath a shrubby, branching stalk, 4 or 5 feet high, the leaves, are small, ciliated and spear

shaped; the flowers come out in umbels, and are of a white colour.

6. D: *GLABRIS*, Smooth, lanceolated African *Spiræa*, is a shrub three or four feet high, the leaves are short, smooth and spear-shaped, the flowers show themselves great part of summer.

7. D: *CRENATIS*, Crenated African *Spiræa*, hath shrubby, branching stalks, the leaves are spear-shaped, oval, glandulous and crenated on their edges; the flowers are produced singly from the wings of the leaves.

8. D: *UNIFLORA*, (*Cistus humilus* of Pluke.) *One-flowered African Spiræa*, hath woody, branching stalks, three or four feet high; the lower leaves long, oval, oblong and spotted, the upper ones small, and almost round; the flowers are produced singly, are large, flesh-coloured and spotted on the edges, underneath they have deeper spots.

9. D: *OVATIS*, *Pretty African Spiræa*, this is a pretty little shrub, hath woody stalks, upright, branching, and about two feet high, the leaves are oval, obtuse, glandulous and crenated; the flowers come out two together, from the wings of the leaves, they are small and of a beautiful blue colour. They are green house plants, and are propagated from cuttings.

**DIOSPYROS**, *Persimmon*, or *Indian Date-Plumb*, a genus of the Polygamia Monoecia class, and 18th Natural Order, *Dicorines*; the calix of the hermaphrodite has four segments, and the corolla is urceolated, and has four segments, it has eight stamina, and a quadrifid stylus, the berry contains eight seeds: the calix of the male is the same, &c. There are two species.

1. D: *AMERICANA*, (D: *Virginiana* of Authors,) *Persimmon tree*, or *American Prune*, or *Date Plumb*, called also *Pishamin*, or *Pitchumen Plumb*, a well known and valuable native tree, growing in most of the States, particularly south of New York, inclusive: It attains a height of about 15 or 20 feet, the branches are whitish, smooth, and produced in an irregular manner, the leaves are large and beautiful, about five or six inches long, and three broad, of an oblong figure, pointed at the end, they grow irregularly on the branches, and are veined: in summer they are of a fine green colour, but in autumn die to a fine red; the flowers are hermaphrodites and males on different plants, they are pitcher-shaped, of a reddish colour, but have no beauty, they are succeeded by large fruit, well known in the United States.

*Sensible properties.* The unripe fruit are green and very astringent, towards winter they become of a light brick dust colour, and when acted on by frost, are mellowed, and have a very agreeable taste.

*Medical virtues.* Astringent—The unripe fruit divided, well dried in the sun, and reduced to powder, may be used as a valuable astringent remedy in either the forms of powder, pills, or spirituous tincture, in all cases requiring astringents.

*Domestic uses.* The Inhabitants of the country parts of South-Carolina, use the inner bark of the Persimmon, with Potatoes, &c. and also the fruit, in making Beer, and for distilling spirits; and an infusion or decoction of the inner bark with Alum, in gargles and

washes for sore throat, ulcerations, &c. The unripe juice of the fruit is preferable to oak bark for tanning, and the ripe fruit yields on distillation, after fermentation, a quantity of proof spirit, of an agreeable flavour, they are also mixed with flour and form a pleasant bread; it also makes an excellent black dye.

2. D: *LOTUS*; *Pishamin Plum*, a native of Africa, Italy, &c. this tree will arrive to the height of 20 or 30 feet, hath an upright stem, the upper surface of the leaves are of a delightful green; the lower has a whitish cast, they are oblong, pointed, and longer and narrower than the foregoing; they grow alternately, and are veined; the flowers are also like the foregoing, and are succeeded by large black berries, which are eatable when mellow, like the Medlar—these trees are best propagated from seeds.

**DIPHYLLEA**, a genus of the Hexandria Monogynia class of plants, the calix has three leaves, the folioles oval, concave, and deciduous; the corolla consists of six petals larger than the calix; these are also oval, concave and deciduous; the pericarpium is a roundish, one celled berry, without footstalks, and contain two or three roundish seeds. This plant is enumerated by Michaux, who says it hath very near affinity to the *Podophyllum Felutianum*, or May Apple, and also the genus *Caulophyllo*, or *Leontice* of Linnaeus. There is but one species given.

D: *CYMOsa*, an indigenous plant growing naturally in Carolina up country, attains the same height with the May Apple, and much resembling it in its manner of growth; the roots of this species are jointed and full of knobs, from each of which run many small fibres; the stalk is smooth and upright; the leaves are constantly two, sub-palmated, with the lobes, angular, serrated, and pointed; the flowers resemble those of the Elder, coming out in a cyma.

**DIPSACUS**, or *Teasel*, a genus of the Tetrandria Monogynia class, and 48th Natural Order, *Aggregata*; the common calix consists of many leaves, and the proper one is above the fruit, and the receptacle is paleaceous. There are three species.

1. D: *FULLONUM*, *Manured*, or *Fullers Teasel*, an annual, and native of Europe; it hath thick, upright, firm stalks, about four or five feet high, armed with strong crooked prickles; the leaves are large, more than a foot long, pointed, serrated, prickly, of a light green colour, surround the stalk with their base, forming there a bason, which is frequently full of rain water—the flowers terminate the stalks and branches in large conical heads, they are of a reddish colour, and blow in June and July; it is raised from seeds, and is of considerable importance to clothiers, who employ the crooked awns of the heads, for raising the knap on woollen cloths; or this purpose they are fixed round the periphery of a large broad wheel, against which the cloth is held, while the machine is turned.

*Medical virtues.* The water which collects within the cavities of the leaves grown together, is said to be a useful application to weak or inflamed eyes, and likewise to afford a harmless cosmetic for removing spots from the face, &c.

2. D: *SYLVESTRIS*, *Small Wild Teasel*, or *Shepherd's Rod*, hath a stalk and leaves like the former, only smaller, and the leaves are eared at the base, grow opposite, but do not surround the stalk.

the flowers are collected in small roundish heads, resemble some kinds of Thistle, are of a whitish or reddish colour, and blow in July.

**S. D: SINUATIS**, or *Jagged leaved Teasel*, a native of Alsace; the stalks rise about a yard high, they are upright, branching, and armed with spines; the leaves are long, narrow, and jagged at the edges, prickly, grow opposite by pairs, and surround the stalk with their base; the flowers terminate the stalks in oval heads, and are of a purplish colour. There is a variety of this species with sinuated leaves, which some authors distinguish as a distinct species.

**DIRCA**, *Leather Wood*, a genus of the Octandria Monogynia class, and 31st Natural Order, *Veprecule*; it has no calix, the corolla is tubular, with the limb indistinct or obsolete: the stamina are longer than the tube, and the berry contains no seed—at present we know of but one species, viz.

**D: PALUSTRIS**, *Pond Leather Wood*, or *Moose Wood*—this is a low shrub, and native of the United States, growing in moist, shady places, seldom rising more than four feet high, spreading into a head, with many small and very flexible branches; the flowers are produced at the extreme ends of the former year's shoots; they are of an herbaceous colour, and make a tolerable appearance; the flowers which appear the latter end of March, before any perfect leaves, are of a yellow colour, the bark is uncommonly tough, and it is said will if applied to the skin, blister equally as the Mezercon, yet the enclosed wood is very brittle; it is highly valued by the native Indians, and used in the place of cords. This plant, according to Mr. W. Bartram, occupies an extensive range of territory, from Canada to Georgia.

**DISA**, a genus of the Gynandria Diandria class of plants; the spatha is univalvular, the petals three, the third smaller than the rest, bifid and gibbous at the base.

**DISANDRA**, a genus of the Pentandria Digynia class of plants; the calix has seven leaves; the corolla is parted into seven, and flat; the capsule is two celled.

**DISTAFF THISTLE**. See *Atractylis*.

**DITTANDER**. See *Lepidium Latifolium*.

**DITTANY**. See *Dictamnus*.

**DOCK**. See *Lapathum*, also *Rumex*.

**DODARTIA**, a genus of the Didynamia Angiospermia class, and 40th Natural Order, *Personatæ*; the calix has five teeth, the inferior labium is much less than the superior; and the capsule is roundish, and has two cells. There are two species.

**1. D: ORIENTALIS**, *Oriental Dodartia*, a perennial, and hath several erect, compressed, branching stalks, rising from the root about six inches high; the leaves are long, narrow, fleshy, smooth, and entire; they grow opposite, and are of a deep green colour; the flowers come out singly from the joints of the stalks, sit close, are of the lip kind, and of a deep purple colour.

**2. D: VILLOSIS**, *Indian Dodartia*, a tender stove plant; it hath several slender, roundish, hairy stalks; the leaves are oval, hairy, obtusely serrated, about an inch long, and grow on short footstalks;

the flowers terminate the stalks in loose spikes, of the lip kind, and are yellow. They are propagated from seeds, and require care.

**DODECATHEON**, *Virginian Bear's Ear*, a genus of the Pentandria Monogynia class; the involucre is composed of many small leaves, and contains many flowers; the perianthium is monophyllous, permanent, and cut at top into five long, reflexed segments; the corolla is monopetalous, and divided into five very long, spear-shaped segments; the pericarpium is an oval, oblong capsule, containing one cell, and opening at the top, the seeds are many, and small; the receptacle is small and free—there is but one species.

**D**: **MEADIA**; formerly the generic name of this plant was Meadia, in honour of Dr. Mead, but Linnæus altered it to Dodecatheon, it is the *Virginian Bear's Ear*, or *Auricula Ursi Virg.* of Pluke. it is a native of Virginia, hath perennial fibrous roots, sending forth large tufts of leaves, which are smooth, almost half a foot long, and three inches broad; they grow erect on first coming out, but the heat of the sun, renders them flaccid; among the leaves come out the flower-stalks, which are smooth and naked, and eight or nine inches high; the flowers come out in umbels, having a many leaved involucre, each by its own separate footstalk; they are of a purple colour, mixed with red, and hang drooping. They are propagated from seeds, or by parting the roots.

**DODDER**. See *Cuscuta*.

**DODONÆA**, See *Ptelea*.

**DOG'S BANE**. See *Aphocynum*.

**DOG'S BERRY**. See *Cornus*.

**DOG'S CABBAGE**. See *Theligonum*.

**DOG'S FENNEL**. See *Cotula*.

**DOG'S GRASS**, or *Wheat*. See *Triticum repens*.

**DOG'S MERCURY**. See *Mercurialis*.

**DOG'S ROSE**. See *Rosa*.

**DOG'S TAIL**. See *Cynosurus*.

**DOG'S TONGUE**. See *Cynoglossum*.

**DOG'S TOOTH**. See *Erythronium*.

**DOG'S VIOLET**. See *Viola Canina*.

**DOGWOOD** See *Cornus*, and *Piscidia*.

**DOLICHOS**, *Couhage*, or *Cowitch*, (as it is vulgarly called) a genus of the Diadelphia Decandria class, and 32nd Natural Order, *Lapi- lionaceæ*; the corolla is papilionaceous, the vexillum is roundish, large, emarginated, and wholly, reflexed; the fruit is a large, acuminate, oblong pod, composed of two valves, and containing two cells; the seeds are numerous, elliptical, and frequently compressed. There are 25 species, mostly exotic, growing in the Indies.

1. **D**: **PRURIENS**, *Couhage*, an exotic plant growing in warm climates, especially in the West Indies; it is sometimes called Horse-eye Bean; it hath a fibrous root, and an herbaceous climbing stalk, which is naked, dividing into a great number of branches, and rises to a great height; the leaves are alternate, and triobate, rising from the stem and branches about 12 inches distant from each other; the footstalk is cylindrical, from 6 to 8 inches long—from the axilla

or arm pit of the leaf descends a pendulous solitary spike from six to fourteen inches long, covered with long, blood coloured, papilionaceous flowers, rising by threes, in a double alternate manner; from small fleshy protuberances, each of which is a short pedunculus of three flowers: These are succeeded by crooked, leguminous, coriaceous pods, four or five inches long, thickly set with spiculæ or sharp hairs, which penetrate the skin, and causes a violent itching.

*Part used.* The rigid down, or spiculæ of the pod.

*Sensible properties.* Mechanically irritating.

*Medical virtues.* Anthelmenthic. All the hairy part of one pod, mixed with syrup or treacle, and taken in the morning, fasting, is prescribed as a dose for an adult; the worms are said to appear after taking the second or third dose, and by means of a brisk laxative, the stools are reported in some cases to have consisted almost entirely of worms. Drs. Bancroft and Cochrane affirm that they have never seen any inconvenience resulting from the internal use of it, notwithstanding the great uneasiness it occasions on the slightest touch to any part of the surface. The vermifuge powers of the *Dolichos Pruriens*, ought not to be doubted, though it is by some—A decoction of the roots is esteemed a powerful diuretic, and a vinous infusion of the pods—i. e. twelve pods to a quart of wine is said to be a certain remedy for the dropsy. The dose when made into beer is half a pint.

*Note.* In Carolina we have a poisonous vine, called Cowitch, and Poison Vine, which is possessed of similar characters with the foregoing, except with regard to its medical virtues, we believe those have never yet been experienced.

2. D: *SINENSIS*, *Chinese Dolichos Bean*, is said to be a native of the Western parts of the United States; is called also *Ensiformis*, or *Cane-knife Bean*, and are excellent food when cut small, and produces abundantly. This species hath large pointed leaves, and the flowers are produced in large, erect bunches.

3. D: *SOJA*, *Soy*, or *Soaja*, a native of Japan, though bearing this climate; and is the bean, the leguminous fruit of which affords the liquid condiment called Indian Soy. Kempfer affirms that the seeds of this species give relief in the Asthma.

4. D: *LABLAB*, *Egyptian Dolichos*, or *Lablab*, hath weak, taper, branching stalks; the leaves resemble those of the common Kidney Bean; the flowers come out in clusters, and are white.

5. D: *VOLUBILIS*, *American Dolichos*—this scarce differs from the foregoing, except in having reddish, or pale brown flowers.

6. D: *ARISTATA*, *Aristated Dolichos*, hath stalks like the others; the leaves are oval, oblong, sharp pointed, and smooth; the flowers are produced from the sides of the branches, and are succeeded by short aristated pods.

7. D: *ZOOPHTALMUM*, *Stinging Dolichos*, *Mucuna*, or *Kaku valli*, a native of the warmer parts of America; this species hath a thick woody, climbing stalk; the leaves are large, broad, lobed, and armed with numerous sharp, stinging hairs; the flower are produced in bunches, from the wings of the leaves, are whitish, and succeeded by very rough, jointed pods.

8. D: **BULBOSA**, *Bulbous Dolichos*, a native of the Indies; this plant hath a thick, fleshy root, from which arise several weak stalks, that twist about contiguous substances; the leaves are smooth, multangular, and indented; the flowers are produced in small clusters, and are succeeded by oblong, sharp pointed pods.

9. D: **LIGNOSA**, *Ligneous Dolichos*, the stalk of this species is ligneous, perennial, and twining; the leaves are large, pointed, and of a good green colour, the flowers are produced in roundish clusters, from the wings of the leaves, are of a reddish purple colour, succeeded by very narrow pods.

10. D: **GLABRO**, *Purple Dolichos*, hath smooth winding stalks, of a purple colour; the leaves are nearly heart-shaped, smooth, and beautifully reticulated with purple veins on their underside; the flowers are large, spreading, and of a most elegant purple colour, having the carina tipped with violet; they appear great part of autumn and winter in beauty, and are followed by oblong, large, compressed pods.

11. D: **REPENS**, *Creeping Dolichos*, hath slender creeping stalks, which spread very much; the leaves are oval and downy, the flowers come out on strong footstalks, from the wings of the leaves, and are followed by very narrow, taper pods.

12. D: **BIFLORIS**, *Two-leaved Dolichos*, hath a perennial, smooth, tolerably firm stalk; the leaves pretty large, pointed, of a good green colour on their upper side, but veined and hoary underneath; the flowers grow two together on a footstalk, and are followed by erect pods.

*Note.* The thirteen remaining species I have not seen enumerated—they are propagated most certainly from their seeds, and will sometimes be raised from layering their branches, or parting their roots. The six latter are stove plants.

**DONATIA** a genus of the Triandria Trigynia class of plants; the calix is a perianthium of three leaves, with short, subulated leaves, standing at a distance from one another; the corolla has from eight to ten petals, of an oblong linear shape, twice as long as the calix; the stamina are three subulated filaments, the length of the calix: the antheræ roundish, double, and two-lobed at the base.

**DORIA**, in honour of Andrew Doria, one of the most celebrated Genoese officers, who rendered himself immortal by his praiseworthy actions, in the reign of Francis I. See *Solidago*.

**DORONICUM**, a genus of the Syngenesia Polygamia Superflua class, and 49th Natural Order, *Composita*; the receptacle is naked, the pappus simple, the scales of the calix in a double row longer than the disc: the seeds of the radius naked, without any pappus. There are said by some to be but one species, others say seven, it is however probable that the Arnica and this genus have been confounded together.

1. D: **LAT FOL IUM**, *Broad-leaved, or Scorpion Leopard's Bane*, a perennial and native of Helvetia, &c. the root is thick, fleshy, knotty, creeping, white and fibrated, the radical leaves are broad, heart-shaped, hairy, and grow on long footstalk, the flower stalks are upright, channelled, put out some small, erect stalks near the

top, grow to near a yard in height, and are possessed of a few heart shaped leaves, which closely embrace it with their base: the flowers grow singly at the tops of the stalks, they are large and yellow. There is a variety with a branching stalk, and another with a still more knotty and toothed root.

*Note.* This is supposed to be a deadly poison to Leopards, Wolves, Dogs, Sheep, Oxen, &c. but is nevertheless said to be harmless to mankind, if taken inwardly, green or dried. It is used in medicine, and is said to be a sovereign remedy against the bites of Scorpions. from which circumstance it has been frequently confounded with the genus Arnica.

2. D: PLANTAGINIS FOLIO, (D: Nudicaule of Mich?) *Plantain-leaved Leopard's Lane*, a perennial and native of Europe, though Michaux describes one which we take to be the present, as indigenous to the United States, growing naturally from Virginia to Florida, the leaves are oval, acute, slightly indented, the radical ones resembling those of Plantain, those on the stalk smaller, grow alternate, and embrace the stalk with their base: the stalks are about two feet high, and each of them crowned by a large yellow flower.

3. D: BELLIDASTRUM, *Wild Daisy-leaved Leopard's Lane*, a native of the Alps: the leaves are hairy, and shaped like those of Lesser Daisy, the stalk is simple, naked and hardly a foot high, one flower only crowns each stalk, the border of which is white, and the disc yellow. There is a variety with large, broad leaves, stalks near two feet high, and red and white flowers—they are propagated from seeds and parting the roots.

DORSTENIA, *Contrayerva*, a genus of the Tetrandria Monogynia class, and 53d Natural Order, *Scabridæ*; the common receptacle consists of one fleshy leaf, in which the solitary seeds are contained; there is no corolla, the seeds are single, roundish and pointed. There are four species.

1. D: CONTRAYERVA, *Common Contrayerva*, or *Counter-poison Plant*, a native of New-Spain, Peru, &c. &c. the root of this plant is thick, knotty, brown without and pale within, long, rough, slender fibres shoot out from all sides of it, the radical leaves (and there are no others) are cut almost to the midrib, palmated, serrated, and grow on reddish footstalks to four or five inches long; the stalk arises among the leaves, and grows to be six or seven inches high, supporting at top the flowers, which are very small, numerous, of a greenish colour, and situated in a large angular receptacle.

2. D: ACAULIS, *Houston's Contrayerva*, a native of Campeachy, the root resembles the foregoing, the leaves are heart-shaped, angular, pointed, of a bright green colour, and grow on long, slender footstalks; the stalk is very thick, grows eight or nine inches high, and the upper part is closely surrounded by the flowers.

3. D: DRAKENA, *Drakena*, a native of Vera Cruz, this plant has roots like the others; the leaves like the first sort are hollowed almost to the mid-rib, and palmated, but their edges are not serrated; the stalk is thick, fleshy, and the receptacle is surrounded by the very numerous small flowers.



*Part used.* The tuberous roots of all these species, which indiscriminately go by the name of *Contrayerva* in the shops.

*Sensible properties.* A peculiar kind of aromatic smell and a somewhat warm, astringent, bitterish taste, with a light and sweetish kind of acrimony when long chewed; the fibres have little taste or smell, the tuberous part therefore should be only chosen.

*Medical virtues.* *Contrayerva* is one of the mildest of those substances called *Alexipharnics*, it is indisputably a good and useful Diaphoretic, or medicine to promote sweat, and may be safely given in much larger doses than the the common practice is accustomed to exhibit it in; it is frequently employed in inflammatory Fevers, where the skin is dry, in Pleurisies, and in all those diseases where a determination to the surface is required.

*Note.* Our Button Snake Root (*Eryngium Gladiolatis*) is used in Carolina up country as a substitute for *Contrayerva*.

**DORTICNIUM**, *Shrub Trefoil*. See *Convolvulus*.

**DRABA**, *Whitlow Grass*, a genus of the *Tetradynamia Siliculosa* class, and 39th Natural Order, *Siliquosa*; the pod is entire and somewhat oval, with plain valves, and a parallel dissipationum; it has no stylus. There are six species.

1. **D: VERN**, *Common Whitlow Grass* or *Nailwort*, an annual plant, growing on walls, and in dry pastures; the leaves are small, spear-shaped, hairy, and slightly cut on their edges, the stalks are round, naked, and about four or five inches high; the flowers terminate the tops in long spikes, and are white. There is a variety with jagged leaves, they blow in the months of March and April. According to Dr. Withering it is one of the earliest flowering plants, and may be used as a salad—a poultice of the herb is applied to Whitlows.

2. **D: MURALIS** *Speedwell Whitlow Grass*, grows also upon walls, in shady woods, &c. the leaves are heart-shaped and indented, the stalks are branching, and about ten inches high, adorned with leaves which closely embrace them with their base, the flowers come out in loose spikes, are white, and they are succeeded by oblong pods.

3. **D: INCANA**, *Wreathen Podded Whitlow Grass*, a biennial and native of Europe, the leaves are oblong, hoary and indented on the edges; the stalks are upright, branching, and grow a foot in height, and are closely garnished with leaves above half their height; the flowers come out in loose spikes, are white, and succeeded by oblong twisted pods.

4. **D: ALYSSON**, (*Alysson alpina* of Tourne. *Sedum alpinum* of C. B.) *Alpine Alysson*, or *Houseleek*, a perennial and native of the Alps, the leaves are spear-shaped, entire, short, narrow, very hairy, and collected in small heads, in the manner of *Houseleek*, from each head comes out a naked flower stalk, about two inches high; the flowers grow at the top in loose spikes, their colour is yellow, and are succeeded by broad compressed pods, containing the seeds.

5. **D: PYRENAICUM**, (*D: Arabisans* of Mich.) *Pyrenean Draba*, a native of New-England, the roots of this species put forth small lignous stalks, each of which is crowned by a tuft of leaves, placed imbricatum, these are small, wedge or tongue shaped, some tri-

lobate, and some divided in five lobes; the flowers are purple, grow on short, naked footstalks, and blow in March.

6. D: CAROLINIANA, (D: Hispidula of Mich.) *Hairy, Carolina Whitlow Grass*, the leaves are oval, hairy, indented and hoary, the stalk rises to about eight inches high, and is adorned with one spear-shaped leaf; the flowers come out in spikes, and are white, they are succeeded by smooth, oval, oblique, pedicillated pods. They are propagated from seeds, or by parting the heads.

DRACOCEPHALUM, *Dragon's Head*, a genus of the Didynamia Gymnospermia class, the faux of the corolla is inflated, and the superior labium is concave. There are 13 species.

1. D: AMERICANA, (D: Virginianum Mich. Pseudo digitalis of Bocc.) *American Dragon's Head*, an indigenous perennial plant, growing naturally in the mountainous parts of America, and by the sides of rivers; the stalk is upright, firm, striated, ridged, purplish near the top, and grows about three feet high, the leaves are spear-shaped, sessile, pointed, serrated, and usually grow opposite by pairs at the joints; the flowers are produced in long spikes from the tops of the stalks, and are purple—they blow in July.

2. D: SUBSPICATIS, *German Dragon's head*, a perennial and native of Siberia, the stalk is striated, branching, and about three feet high, the lower leaves are oval, oblong, and slightly jagged, the upper spear-shaped, narrow indented, prickly and sharp pointed; the flowers grow in kind of spikes from the ends of the branches, and blow in July.

3. D: HYSSOPUS, *Austrian Dragon's head*, hath an upright hairy, branching stalk, about two feet high, the leaves are narrow, jagged, and prickly; the flowers grow in spikes, are large, and of a blue colour.

4. D: PRUNELLA, *Swedish Dragon's head*, hath a smooth stalk, which divides into a few branches, the leaves are spear-shaped, narrow, and undivided; the flowers grow in long spikes, are large, and of a bright blue colour.

5. D: CATARIA, *Siberian Dragon's head*, hath upright square stalks, about two feet high, the leaves are heart-shaped, oblong, serrated, and opposite; the flowers grow in whorls, round the upper parts of the stalk, and blow in July.

6. D: MELISSA, *Moldavian Balm*, hath upright, branching stalks about a foot and a half high, the leaves are oblong, spear-shaped serrated and opposite; the flowers grow in whorls, are blue, though there is a variety with white flowers, it is an annual plant, and possesses a fine balsamic odour, which it emits on being rubbed.

7. D: SIDERITIS, *Hoary Oriental Dragon's head*, an annual, and native of the East. the stalks are hoary, square and branching, and about six inches high, the leaves are spear-shaped, hoary and indented; the flowers came out in whorls, from the bosom of the leaves, almost the whole length of the stalk, and are blue, though there is a variety with yellow flowers.

8. D: SALICIFOLIA, *Willow-leaved, Oriental Dragon's head*, an annual plant, the stalk is about a foot-high and upright, the leaves are long, narrow, entire and opposite; the flowers also come in whorls, and are pale blue.

9. D: PENDULUS, *Pendulous-flowered Dragon's head*, an annual and native of Siberia; the stalks are square, slender, and about a foot high, the leaves are oval, spear-shaped, crenated, and grow opposite to each other on moderately long footstalks; the flowers are produced in whorls at the joints, and are of a deep green colour, and hang downwards.

10. D: CEDRONELLA, *Thyme-flowered Dragon's head*, also annual and native of Siberia, the stalks are upright, square, and about eighteen inches high, the lower leaves are oblong, spear-shaped, and pointed, and diminish in size as they approach the top, where they sit close, and are small; the flowers come out in whorls, of the following varieties—pale blue, pale purple, and blue stained with red, but are small and of little figure.

11. D: GRANDIFLORA, *Grand-flowered Dragon's head*, an annual and native of Siberia, the stalks are upright, square, branching, and about two feet high, the leaves are oval, oblong, obtusely serrated and grow opposite; the flowers come out in whorls, are very large, and of a bright blue colour, and continue long in blow.

12. D. CAMPHOROSMA, (*Melissa odorum Camphoræ* of Pluke: *Cedronella Canariensis* of Comm:) *Canarian Dragon's head*, or *Balm of Gilead*, a native of the Canara isles, the stalks are square, ligneous below, and herbaceous above, and is about five feet high, the leaves are usually composed of three folioles, though there are sometimes five, they are remarkable for their powerful exhilarating odours on being bruised; the flowers come out in spikes, are small, of a pale red, or blue colour, and whitish underneath—they are propagated from seeds.

DRACONTIUM, or DRACÆNA, *Dragons*. All the species of this genus will be found under the article *Arum*. Fig. 2. 3. 12. and 13.

DRACUNCULUS. See *Arum*.

DRAGON'S EYE, a fruit peculiar to China, and called *Louyen*, it is round, yellowish when ripe, and full of juice, which is cool, and very inoffensive.

DRAKENA. Vide *Contrayerva*.

DROPWORT. See *Fillipendula*.

WATER DROPWORT. See *Oenanthe*.

DROSERA, *Ros Solis*, or *Sun Dew*, a genus of the Pentandria Pentagynia class of plants, and 14th Natural Order, *Gruinalis*; with a funnel fashioned flower, consisting of five obtusely ovated petals, the fruit is an unilocular, suboval capsule, containing a great many very small seeds. There are five species.

1. D: ROTUNDIFOLIA, *Round-leaved Red Rot Sun Dew*, or *Youthwort*, an indigenous perennial, growing in the mossy bogs of Carolina; the leaves are round, hollow, hairy reddish, grow on slender footstalks, and on the surface, even in the hottest weather, are possessed of a real fluid liquor, standing in drops, which occasions a beautiful look when the sun shines on them; the flower stalks are round, naked, and grow about four inches high; the flowers come out in spikes are white and turn one way. They blow in May or June.

*Medical virtues.* The whole of this singular aquatic plant is acrid and its juice is sufficiently caustic to erode corns or warts, and if it be properly diluted with milk, it forms a safe remedy for removing freckles and similar blemishes in the skin: It was formerly an ingredient in the Confectio Cardiaca, or *Cordial Confection*, of the Dispensatories, but as it was found to possess hurtful qualities to cattle who fed upon it, it was judiciously expunged.

*Note.* Any part of this vegetable coagulates milk in a manner similar to that of the common Butterwort; it is likewise supposed to occasion the rot in sheep. The growth of this plant in particular situations, directs or serves as an useful guide in digging for Turf.

2. D: LONGIFOLIUS, *Long-leaved Rosa Solis*, an indigenous perennial, growing naturally in Canada, the leaves are oblong, hairy, reddish, and possessed of the like pellucid drops with the other; the stalks are round, upright, and five or six inches high; the flowers are moderately large, have footstalks, and adorn the tops in a long series, their colour is white. This is by some said to be only a variety of the former.

3. D: LUSITANICUS, *Portugal Sun Dew*, hath awl-shaped leaves, convex underneath, the stalks are slender, upright, and about six inches high; the flowers are decandrous, and terminate the stalks in May.

4. D: AFRICANUS, *African Rosa Solis*, hath long, spear-shaped, pointed, very hairy leaves, of a red colour, frequently tinged with crimson or purple, and possess on their surface large transparent drops; the stalks are upright naked, firm, purplish, though frequently brown, they grow near a foot high; the flowers terminate the stalks in short spikes, are small, and of a snow white colour.

5. D: CISTIFLORE, *Cape Rosa Solis*, hath spear-shaped, long, pointed leaves, whose surface is spangled with transparent dewy drops; the stalks are simple, upright, firm, and garnished with narrow leaves, growing alternately; the flowers terminate the stalks in close spikes, are moderately large, and of a milky whiteness—they blow in June. There is a variety of this species with purple flowers. They are propagated from seeds sown in boggy ground, or moist and watery places, where the soil is light, sandy and exposed to the sun.

DRYAS, *Cinquefoil Avens*, a genus of the Icosandria Polygamia (Hanbury says Monogynia) class, and 39th Natural Order, *Sen-ticosæ*; the calix consists of eight or nine narrow segments, and the corolla of eight or five petals, inserted into the calix, and the seeds are tailed and hairy. There are two species.

1. D: PENTAPHYLLEA, or *Cinquefoil Avens*, a perennial, and native of Europe, the root is composed of many long, tough, sweet smelling fibres, the radical leaves are composed of five oblong, spear-shaped, sharply serrated folioles, which join at their base; the stalks are slender, upright, herbaceous, garnished with leaves at the joints; the flowers are small and yellow, having each five petals.

2. D: OCTAPETALA, or *Mountain Avens*, a native of Lapland, Ireland, &c. It hath a thick, woody, tough, creeping root, of a dark

brown or blackish colour; the stalks are tough, ligneous, procumbent, of a reddish colour, and six or eight inches long; the leaves are simple, oblong, serrated, tough, hoary underneath, and alternate; the flowers are produced singly on long hairy footstalks, they are very large and beautiful, each possess eight petals, and are snow white; they are propagated by parting the roots, or by seeds. See also *Grum*.

**DRYPIS**, a genus of the Pentandria Trigynia class, and 22nd Natural Order, *Caryophyllæa*; the calix is a monophyllous, tubular, permanent perianthium, indented in five parts at the top, the corolla is five petals, whose claws are the length of the cup, and limbs divided into five narrow, acute segments; the pericarpium is a small, roundish, one celled capsule, covered by the cap, the seed is single, bright and kidney-shaped. There is but one species a native of Italy.

**D:** **THEOPHRASTI**, *Italian Drypis*, a biennial plant, and hath an angular, jointed, and branching stalk, the leaves are spear-shaped, narrow, nearly three cornered, indented, grow by pairs, and each of them is terminated in a sharp, prickly point; the flowers come out in umbels from the ends of the branches, they are of a reddish colour, and the umbels are guarded with spines, somewhat like the Thistles. There is a variety with white flowers. It is propagated from seeds.

**DUCKSFOOT**, or *May Apple*. See *Podophyllum Peltatum*.

**DUCKSMEAT**. See *Lemna*.

**DULC AMARA**, *Bitter Sweet*. See *Solanum*.

**DULLS, DULLESH**, or *Dulce*. See *Fucus Falmatus*.

**DURANTA**, a genus of the Didynamia Angiospermia class, and 40th Natural Order, *Personatæ*; the calix is above the fruit, and divided into five segments, and the berry contains four seeds.— There are two species, both natives of America.

1. **D:** **CASTOREA**, *Castorea*, this species consists of two very distinct varieties, which have, for very good reasons until lately, been held as distinct species; the stalks of the *Prickly Duranta* are ligneous trailing, and armed with hooked thorns at every joint; the leaves are oblong, serrated and placed without order: the flowers are produced in long bunches, from the sides of the stalks, are of a bluish colour, and succeeded by brown berries, like those of the Hawthorn. The *Duranta* without thorns is a branching shrub six or eight feet high, and is guarded in no part by thorns, the leaves are oval, spear-shaped, serrated, and grow opposite; the flowers come out in bunches, are blue, and succeeded by yellow berries.

2. **D:** **ELLISEA**, *Ellisea*, hath a woody stalk, divided into many ligneous angular branches, armed at each joint with two erect slender thorns, placed opposite; the leaves are oval serrated at the points, and grow opposite; the flowers come out in loose spikes, are white, and succeeded by roundish berries, crowned by the calix. They are stove plants, and are propagated by seeds and from cuttings.

**DUROIA**, a genus of the Hexandria Monogynia class of plants; the calix above is cylindrical and lobed; the border six parted; there are no filaments, and the fruit is a hispid apple.

DWARF AMERICAN LAUREL. See *Kalmia*.

DWARF BAY. See *Daphne Mezereum*.

DWARF ELDER. See *Ebulus* and *Sambucus*.

DWARF SUN FLOWER. See *Rudbeckia*.

DWAY BERRIES. See *Atropa*.

DYERS GREEN WEED, or WOOD WAXEN. See *Genista Tinctorium*.

DYERS YELLOW WEED. See *Reseda lutea*.

DYERS WILD RICINUS. See *Croton*.

DYERS MULBERRY TREE. See *Morus Tinctoria*.

## E

EARTH NUT. See *Bunium*.

EBENUS, the *Ebony Tree*, or *Ebony of Crete*, a genus of the Diadelphia Decandria class, and 32nd Natural Order *Papilionaceæ*; the calix has a number of small, hairy teeth, as long as the corolla; the corolla has hardly any wings, and the pod is hairy, and contains but one seed. There are two species.

1. E: CRETICA, (*Anthyllis fruticosa* of Savi; *Cytissus incanus* of C. B. Barba Jovis of Barrel. &c.) *Ebony of Crete*. It hath an upright, woody, branching stalk, three or four feet high, the leaves are composed of three or five spear-shaped, hoary folioles, which join at their base; the flowers are produced in thick spikes from the ends of the branches, are large and of a reddish purple colour, blowing in June and July.

2. E: PINNATA, *Pinnated Ebony*; a new species described by M. Desfontaines, to the society at Paris—it is a native of Tunis and Algiers, hath an herbaceous stem, the leaves are pinnated by pairs, the folioles are linear, lance-shaped and silky, it flowers in May.—They are propagated by seeds, and are green-house plants.

*Domestic uses.* Ebony is an exceeding hard and heavy wood, imported from the East Indies, it admits of a very high polish, and is of service in veneering cabinets, in Mosaic and some articles of turnery. There are various colours of Ebony, black, red and green, the first is that most generally known—Artificers frequently make artificial Ebony, i. e. harden and colour other woods so as to resemble Ebony.

ECHINOPHORA, *Prickly Parsnif*, a genus of the Pentandria Dygynia class, and 45 Natural Order, *Umbellatæ*; the fruit has sunk peduncles. There are two species, both perennials.

1. E: SPINOSA, or *Prickly Samphire*, or *Sea Parsnif*, a native of the maritime parts of Europe, the root is creeping, long, thick, and nearly as large as a Carrot, the stalks are thick, fleshy, jointed, upright, and divide into a few branches at the top; the leaves are composed of numerous awl-shaped folioles, which are thick entire, and terminate in spines; the flowers come out in umbels, having spinous involucre; they are white and blow in June. There is a variety with reddish flowers—The young leaves of these plants are said to afford a very wholesome and excellent pickle, and the roots are said to be very wholesome and good eating.

2. E: INERMIBUS, *Carrot leaved Echinophora*, the leaves of this are without briars, and are composed of a multitude of segments,

like garden Carrots, the stalks are thick and woody, and the flowers white, growing in small umbels. They are propagated by parting the roots or from seeds.

**ECHINOPS**, *Globe Thistle*, a genus of the Syngenesia Polygamia Segregata class, and 49th Natural Order, *Compositæ*; the proper calix is erect, imbricated, and contains but a single flower. There are three species.

1. E: MAJOR, *Greater Globe Thistle*, a perennial and native of Italy, the stalks are upright, firm, thick, striated, branching, and grow to be three or four feet high; the leaves are large, rough, wooly, white underneath, sinuated and a little prickly; the flowers come out in large, round heads, they are white, and blow in June. There is a variety with blue flowers.

2. E: MINOR, *Smaller Globe Thistle*, the stalks are upright, firm, white, downy, and about a foot and a half high, the leaves are beautifully jagged, the segments end in a spine; the flowers are globular and blue. There is a variety with white flowers.

3. E: ANNUA, *Annual Globe Thistle*, a native of Spain, the leaves are pinnatifid, and end in spines above, they are possessed of many brown hairs, but underneath they are white and downy; the flowers are globular, large, of a pale blue colour, and blow in July. They are propagated from seeds.

**ECHITES**, a genus of the Pentandria Monogynia class and 30th Natural Order, *Contortæ*; the calix has five segments; the corolla is an infundibuliforme petal, the limb is plain, very spreading and divided into five parts; the nectarium consists of five small glands, standing round the germen; the pericarpium consists of two very long follicules, each composed of one valve and containing one cell, the seeds are many, imbricated, and crowned with long down. There are six species; they are somewhat like our Jasmine.

1. E: BIFLORIS, *Two-flowered Echites*, a native of America, the stalk is woody, and divides into several weak, slender branches, which climb to a great height; the leaves are roundish, pointed, smooth and green; the flowers grow two together, on each footstalk, arising from the wings of the leaves, they are of a white colour, very beautiful and succeeded by long follicules.

2. E: CAROLINIANA, (E: *Puberula* of Michaux,) *Carolina Echites*, hath a woody stalk and weak branches; the leaves are oboval and acuminate, or pointed; they grow in bunches, the fundamental footstalk branching into others, and those into still smaller, forming a considerable cluster, they are of a very pale yellow, and are succeeded by long follicules.

3. E: ERECTUM, *Erect Echites*, a native of the West-Indies, hath woody stalks and branches, which grow nearly erect, the leaves are nearly oval, obtuse, and terminated with a very sharp point; the flowers are produced in bunches in the same manner with the foregoing, each flower is separately large, and are yellow, it has when in full blow an enchanting appearance.

4. E: TOROSIS, (*Nerum Sarmentosus Scandens* of Brown,) *Torulose Echites*, a native of Jamaica, the stalk is ligneous and attains a

great height; the leaves are spear-shaped and pointed; the flowers come out in small bunches from the wings of the leaves, succeeded by very long, slender, tortuose or knotty pods.

5. E: UMBELLATIS, *Umbellated Echites*, a native of Jamaica, hath thick, fleshy roots, from which arise several slender stalks, which twist about any thing to a great height, the leaves are oval, obtuse; end in a point, and are veined; the flowers come out in umbels, and are green.

6. E: TRIFIDIS, *Trifid Echites*, a native of America, it hath a woody, branching stalk, and oval, oblong, pointed leaves; the flowers grow many together, on trifid footstalks, succeeded by very long pods, containing downy seeds. They are propagated from seeds.

ECHIUM, *Viper's Bugloss*, a native of Carolina, a genus of the Pentandria Monogynia class, and 41st Natural Order, *Asperifolia*; the calix is divided into five awl-shaped segments; the corolla is irregular, with a naked faux. There are six species.

1. E: VULGARE, *Common Viper's Bugloss*, a biennial plant, growing in sandy corn fields, walls and rubbish particularly on the clay thrown out of coal mines, it hath a rough stalk, the radical leaves are about a foot and a half high, rough and hairy, the stem leaves are rough and spear-shaped; it flowers from June till August, its flowers are blue, hairy and much visited by Bees. There is also a variety with purple flowers--this species very much resembles the *Anchusa Sempervirens*, the chief difference being in their roots. See *Anchusa*, Sp: 8.

2. E: FLORE ALBO, *Italian Viper's Bugloss*, hath erect stalks, finely spotted, the leaves are spear-shaped pointed, narrow, hairy and of a pale green; the flowers come out in spikes, according to their varieties, and are bluish-white, white, blue and purple.

3. E: LUSITANICUM, *Portugal Viper's Bugloss*, attains a height of about two feet, the radical leaves are a foot long, two inches broad and covered with soft hairs, those on the stalk are smaller, spear-shaped, silky and soft to the touch: the flowers come out in spikes and blow in July.

4. E: CRETICUM, *Cretan Viper's Bugloss*, an annual, and native of Crete, there are two remarkable varieties distinguished by their leaves and named Cretan Broad, and Cretan Narrow-leaved Viper's Bugloss; the flowers come out in thin slender spikes, and are of a reddish purple in both varieties.

5. E: AFRICANUM, *Ethiopian Echium*, hath shrubby, branching stalks, about a yard high; the leaves are oval, hairy, sessile, and alternate; the flowers come out in May, are purple and moderately large.

6. E: PURPUREO, *Cape Echium*, hath oblong, spear-shaped, spotted leaves, rough on their edges; the flowers come out in loose spikes are purplish, and of an irregular figure, having smooth cups; there is a variety with blue flowers. They are propagated from seeds--the two last are green-house plants.

ECLIPTA, *Starwort*, a genus of the Syngenesia Polygamia Superflua class, and 49th Natural Order, *Compositæ*; the receptacle is chaffy, there is no pappus, and the corollulæ of the disc are quadrifid. Michaux observes of this genera, that it is dispersed



throughout Asia, Africa and America. There are only two species enumerated, both of which are indigenous to Carolina, and appears to be the *Amellus*, or Starwort of other authors.

1. E: PROCUMBENS, *Procumbent Eclipta*, hath a crooked, procumbent stalk, the leaves are long and lance-shaped.

2. E: BRACHYPODA, (*Amellus Caroliniana* of Walt. *Amellus Umbellatus* of Lin:) *Carolina Star Wort*, hath a very branching stalk, plain, lance-shaped, finely serrated leaves. See *Amellus*.

EDDOES. See *Arum Esculentum*.

EGG PLANT. See *Solanum Pomiferum*.

EGLANTINE. See *Rosa*.

EHRETIA, *Bastard Cherry Tree*, a genus of the Pentandria Monogynia class, and 41st Natural Order, *Asperifoliae*; the calix is a small, one-leaved, bell-shaped perianthium, cut at the top into five obtuse segments; the corolla is one-leaved, the tube is longer than the calix; the limb is divided into five nearly oval, plain segments; the fruit is a roundish berry, containing one cell. the seeds are four, convex on one side, and angular on the other. There are two species, both natives of the West Indies.

1. E: ARBOREA, (*Cerasso Affinis*, &c. of Sloane,) *Laurustinus-leaved Ehretia*, or *Bastard Cherry Tree*, is a large growing tree, having a strong trunk half a yard in diameter, covered with a grey furrowed bark; the leaves resemble those of the *Viburnum Laurustinus*, are oblong, acute, pointed, smooth, of a dark green colour, and are placed alternately on short footstalks; the flowers come out from the ends of the branches in panicles, are of a white colour, and are succeeded by small, oval, yellow, pulpy berries, called *Bastard Cherries*.

2. E: LAURIFOLIO, (*Cordia Bourreria* of the Amon. Acad. *Bourreria arborea* of Brown. *Mespilus Americana* of Com: *Piltonia similis* of Catesby, and *Jasmini periclymeni* of Sloane,) *Laurel-leaved Ehretia*—the leaves of this species are oval, smooth, and entire; the flowers grow in loose bunches, and are white, the fruit are small, roundish, red berries, though there is a variety with yellow fruit. They are stove plants, and are propagated from seeds. I do not learn that the fruit is eaten.

EHRHARTA, a genus of the Hexandria Monogynia class of plants; the calix is a two-valved, abbreviated, and one-flowered glume; the corolla is a double glume, each two-valved; the exterior one compressed and scymetar-shaped, transversely wrinkled and gashed at the base; there are six stamina, three on each side the pistil in a parallel line; the stigma is simple, compressed, four-tufted and torn at the top. I have seen no farther account of this genus.

ELÆAGNUS, *Oleaster Wild Olive*, or *Dutch Myrtle*, a genus of the Tetrandria Monogynia class, and 16th Natural Order, *Calyciflora*; it has no corolla; the calix is bell-shaped above the fruit, has four segments, and the drupa is bell-shaped, and below the calix. There are 3 species.

1. E: LANCEOLATIS, (*Olea Sylvestris* of C. B.) *Wild Olive*, a native deciduous tree of Bohemia, Spain, Syria, &c. it grows near twenty feet high, the branches are smooth, and of a brown colour;

the preceding years shoots are white and downy; the leaves are spear-shaped, and two or three inches long, and three quarters broad, the leaves are silvery white, particularly their under side, and are as soft as satten to the touch; this tree is valued mostly for its elegant leaves, as the flowers make no figure, they are small and white, and possessed of a strong scent; they are succeeded by fruit, which much resembles an Olive—there is a variety with yellow flowers.

2. E: ROTUNDIS, *Broad-leaved Wild Olive*, a native of Ceylon attains a height of about fourteen feet, the young branches are round and smooth, and covered with a whitish bark; the leaves are broad, oval, spotted, hoary underneath, and grow on short footstalks; the flowers are small, yellowish, and succeeded by oval, smooth, fruit, the size of an Olive. Mr. Miller mentions a narrow-leaved wild Olive with a small, roundish, acrid fruit, which we take to be a variety of this species.

3. E: ELLIPTICIS, *Prickly Wild Olive*, a native of Egypt, attains a height of ten or twelve feet, the young shoots are downy and armed with thorns, which come out from the base of the footstalks of the leaves; the leaves are elliptical, downy, and grow irregularly; the flowers and fruit are like the former. They are stove plants and easily propagated by seeds or cuttings.

ELÆOCARPUS, a genus of the Polyandria Monogynia class, and 59th Natural Order, *Dubii Ordines*; the calix is Pentaphyllous; the corolla has five lacerated petals, and the fruit is a plum, with a wrinkled kernel.

ELAIS, *Wild Malabar Palm*, a genus of the Hexandria, Trigynia class, and 1st Natural Order, *Palmæ*; the male calix consists of six leaves; the corolla is cloven in six parts; the stamina are six; the female calix and corolla same as male; the stigma three; the fruit is a fibrous plum, with a three valved nut or kernel.

ELASTIC RESIN, or Indian Rubber, See *Jatropha*.

ELATE, a genus of the Triandria Monogynia class, and 1st Natural Order, *Palmæ*; there is neither male nor female calix; the corolla of both hath three petals; the male flowers have three stamina; the female one pistil, and the fruit is an oval, acuminate plum.

ELATERIUM. See *Cucumis Agrestis*.

ELATINE, *Water-wort*, &c. See *Antirrhinum Elatine*.

ELAGOSTEMA, a genus of the Monoecia Pentandria class; the male flowers have no calix; the corolla is quinquepartite; there are female flowers on the the same plant, these have neither calix nor corolla; the pericarpium is a very small, oblong, bivalved, one-seeded capsule; the seeds are single and egg-shaped.

ELDER. See *Sambucus*.

ELECAMPANE. See *Inula*.

ELEPHANT'S FOOT. See *Elephantopus*.

ELEPHANT'S HEAD. See *Rhinanthus*.

ELEPHANTOPUS, *Elephant's Foot* a genus of the Syngenesia Polygamia Segregata class, and 49th Natural Order, *Compositæ*; the receptacle is naked, the corolla is divided into five segments; the calix is imbricated, and the pappus has several arristæ. There are 2 species—Mr. Miller says three.

1. E: CAROLINIANA, (E: Tomentosis of Lin.) *Downy-leaved Carolina Elephant's Foot*. Mr. Miller considers this as a weed growing naturally in South-Carolina; it is a biennial plant, the stalks are upright, firm, very branching, and about a foot high, the radical leaves are large, oval, nervose, wooly, lie on the ground, and resemble much an Elephant's foot; the stalk leaves are smaller, narrower, and more acute-pointed; the flowers come out by pairs from the ends of the branches, having a long, four-leaved involucre; they are small, and of but little beauty.

2. E: SCABER, *Rough-leaved Elephant's Foot*, an indigenous perennial, growing naturally in Virginia, Florida, &c. the stalks are erect, branching, and about a foot and a half high; the leaves are oval, oblong, serrated, very rough, and the radical ones lie flat on the ground; the flowers come out in small heads, and are of a pale purple colour, and blow in July.

3. E: SINUATO, *Sinuate-leaved Elephant's Foot*, mentioned by Mr. Miller as being common in Jamaica. They are propagated from seeds.

ELEUTHERIA, or Cascarilla. See *Croton*.

ELICHRYSUM, *Cat's Foot*, or *Cassidonia*. See *Gnaphalium*.

ELLISIA, a genus of the Pentandria Monogynia class of plants, and 28th Natural Order, *Lurida*; the corolla is monopetalous and funnel-shaped; the berry fleshy and containing two cells; there are two seeds, mucicated or set with small raised points, the one higher than the other.

ELEUSINE. See *Cynosurus*.

ELM. See *Ulmus*.

ELODEA, a genus of the Triandria Monogynia class of plants; the calix and corolla are six parted; the segments are oblong and oval. There is but species, a native of the watery parts of Canada.

E: CANADENSIS, *Canada Elodea*, the stalk is herbaceous, the leaves are verticillate by threes, the folioles are oblong and obtuse; the flowers come out irregularly, and are single.

ELODES, See *Hypericum*.

ELVELA, a genus of the Cryptogamia Fungi class of plants; the fungi is top-shaped, or like an inverted cone.

ELYMUS, *Lyme Grass*, &c. a genus of the Tetrandria Digynia class, and 4th Natural Order, *Gramina*; the involucre consists of two leaves, and the spiculæ are double. There are twelve species.

1. E: ARENARIUS, *Sea Lyme*, or *Lime Grass*, a perennial and native of Europe, it grows on the Sea Coast, and flowers in the months of July and August; the leaves are of a glaucous white colour, broad at bottom; and diminish gradually to a point, the stalks are round, hollow, jointed, and are sheathed with the lower part of the leaves, which grow singly at the joints; the flowers are produced from the tops of the stalks in long, erect downy spikes, and blow in May and June.

*Domestic uses.* This plant is of essential service on the coast, for preventing the encroachments of the sea, in which respect it saves millions of florins to the Dutch, who cultivate it with great

industry. Its mealy seeds and roots have in times of scarcity been converted into bread, and the grass itself while young, affords proper food for cattle, except sheep, which refuse it. Dr. Withering questions whether it may not be advantageously employed in forming ropes, in the same manner as the *Stipa Tenacissima*, or *Tough Feather Grass*, is manufactured in Spain.

2. E: CAROLINIANUS, (E: Virginicus of Mich.) *Carolina Lime Grass*, or *Virginian Barley*, a native of Carolina and Virginia, the leaves are narrow, pointed, and 8 or 10 inches long; the stalk is round hollow and jointed, and about a foot high; the flowers are produced from the tops of the stalks in erect spikes, and blow in July.

3. E: PENNSYLVANICA, *Pennsylvanian Lyme Grass*, with leaves broadest at bottom, pointed, striated and a foot long; the stalks are round, hollow and jointed; two or three feet high, and the flowers appear in pendulent, spreading spikes.

4. E: TRITICUM, *Siberian Wheat*, the leaves resemble the cultured wheat, but their height is only a foot and a half; the stalks about three feet; the flowers appear in long, bearded, pendulent spikes.

5. E: SECALINUM, *Canada Secale Grass*, the leaves are long, narrow and pointed; the stalks are upright and three or four feet high, round, hollow and jointed; the flowers appear in nodding spikes.

6. E: ARISTATUS, *Bearded Wheat Grass*, a native of Europe, the leaves are narrow and pointed; the stalks and flowers are like the foregoing. I have not found the others particularised—they are propagated from seeds or by parting the roots.

ELYTRARIA, a genus of the Diandria Monogynia class of plants, the calix is cut into five deep segments; the tube of the corolla is narrow, the faux transverse, the limb nearly double lipped, and has 5 fissures; the segments are nearly equal, obtuse and elliptical. the two superior ascending, and the three inferior spreading; the pericarpium is a roundish, oblong, two-celled, two-valved capsule, and the seeds are small. There is but one species enumerated by Michaux, who observes that it hath great affinity to the genus *Justicia*, which see.

E: VIRGATA, a native elegant plant, growing in the low grounds of Carolina, the lower leaves of which are large, entire, nervous, smooth, and the edges waved or serrated; the stalk, or rather scape is closely jointed, at each of which is inserted a pair of small, erect acute-pointed leaves, which embrace the same with their base; the flowers terminate the scape in imbricate spikes, the general characters of which indicate their structure.

EMBOTHRIUM, a genus of the Tetrandia Monogynia class of plants; there is no calix; the corolla consists of four linear, oblique petals; the pericarpium is a round, unilocular follicle, sharpened at both ends; the seeds are four or five in number, egg-shaped and compressed.

EMPETRUM, *Berry bearing Heath*, a genus of the Dioecia Triandria class, and 54th Natural Order, *Miscellanea*; the calix of both male and female consists of three segments, and the corolla of three petals; the female has nine styli, and the berry contains nine seeds. There are two species.

1. E: NIGRUM, *Procumbent berry-bearing Heath, Black Crow berries, or Crake berries*, an indigenous perennial plant, growing on moist mountains, and elevated heaths, in the driest and most barren lands, as well as in bogs and moorlands of Canada, &c. the stalks are woody, slender, tough, of a reddish colour, and lie on the ground; the leaves are numerous, narrow, firm, usually grow by threes or fours, and are of a dark green colour; the flowers come out in plenty from the sides of the branches, they are small, of a greenish white colour. It flowers in the months of April and May, and produces black berries, about the size of the Juniper, and full of a purple juice.

*Domestic uses.* The berries are eaten by the Highlanders; but if taken in large quantities, they occasion violent head aches, hence they are more proper for grouse. Heath Cocks are very fond of, and feed much upon them. The plant is not relished by goats, and is totally refused by horses, cows and sheep—If boiled with Alum they impart a purplish dye.

2. CANDIDIS, *Upright berry-bearing Heath*, a perennial, and native of Lusitania; the stalks are upright, woody brittle, branching, a foot and a half high, and covered with a dark coloured bark; the leaves are numerous, short, narrow, and grow usually by threes; the flowers are small, and are succeeded by very white transparent berries. They are propagated by layers and seeds, and require a moist soil.

ENCHANTER'S NIGHTSHADE. See *Circæa*.

ENDIVE. See *Cichorium*.

ENULÆ CAMPANE. See *Helenium*.

EPACRIS, a genus of the Pentandria Monogynia class of plants, the calix is a five parted perianthium; the corolla monopetalous and tubular; the stamina five very short filaments; the pericarpium is a roundish, depressed, five celled, five valved, gaping capsule, the seeds are numerous and very small.

EPHEDRA, the *Sea Grape, or Shrubby Horsetail*, a genus of the Dioecia Monadelphia class, and 51st natural Order, *Conifera*; the calix of the amentum of the male and female is divided into segments, the corolla is wanting in both; the stamina are seven; there are two pistils and two seeds, covered with a kind of cup berry. There are two species, though Mr. Miller enumerates six.

1. E: DISTACHYA, *Shrubby Horsetail*, a native of the south of France and Spain, is an evergreen, and attaining a height of five or six feet, the bark of the stem is rough, and of a dirty colour—this shrub branches out, and the branches are jointed and hollow, these branches send forth smaller, which are called the leaves, these are jointed, grow opposite by pairs, are alternately produced at every joint by pairs in opposite directions, and thus branch out in that singular horsetail manner to a great length; male and female flowers will be found on different plants, they are small, and of a yellow colour.

2. E: MONOSTACHYA, *Lesser Sea Horsetail*. 3. E: ANAEURIS, *Climbing Sea Horsetail*. 4. E: ARBORESCENS, *Tree-like Horsetail*.

5. E: CRETICA, *Candy Horsetail*; and 6. ORIENTALIS, *Taller*

*Eastern Horsetail*, with hard, thick branches. They are all leafless plants, and only admitted into Botanic Gardens—they have not been discovered to possess any Medical virtues. They are propagated by offsets in a moist soil. See *Equisetum*.

**EPHEMERUM**, *Virginia Spiderwort*, or *Flower of a day*. See *T. adscandens*.

**EPIBATERIUM**, a genus of the Monoecia Hexandria class of plants; the calix of the male is a double perianthium, the outward one with six leaves, very small, the inner one three leaved, and three times larger than the former, with egg-shaped leaves; the corolla has six petals smaller than the interior calix, and roundish; the stamina are six crooked, capillary filaments, long as the petals, having roundish antheræ—the calix and corolla of the female same as the male; the pericarpium consists of three roundish, monospermous plums, the seed is a kidney-shaped, compressed nut, somewhat furrowed.

**EPIDENDRUM**, *Vanilla*, a genus of the Gynandria Diandria class, and 7th Natural Order, *Orchidæ*; the spathe are vague; the spadix is simple, there is no perianthium; the corolla consists of five oblong, extremely long patent petals; the nectarium is top-shaped, tubular at the base, plain on the back side of the petals, and has an oblique, bifid top, the upper lip is short and triid, the lower lip is drawn out into a long point; the pericarpium is a very long, taper, fleshy pod, the seeds are numerous and very small. There are 30 species.

1. E: SCANDENS, (*Vanillus pipens*, &c. of Pluke.) *Vanilla*, or *Vanilloe*, a parasitical plant growing on trees in both the Indies, the stalk of this plant is thick, jointed, full of juice, strikes root into the bark of old trees in the manner of Ivy, and arrives to a great height; the leaves are oval, oblong, spear-shaped, smooth, of a shining green colour, and grow on short footstalks; the flowers are produced from the wings of the leaves along the sides of the branches, they are of a greenish white, or yellow colour, succeeded by pods, as before mentioned, and which have a fine aromatic odour.

*Part used.* The seeds.

*Sensible properties.* Taste oily, a fragrant odour similar to that of the Peruvian Balsam, when the fresh pods are opened they exhale such powerful fragrance as to intoxicate the person employed in opening them.

*Medical virtues.* Resolvent and corroborant. They are said to afford relief in flatulency, and to promote the digestion of the oily matter contained in Cocoa, or Chocolate. If too freely used, *Vanilla* produces similar symptoms with other narcotics, though exhilarating at first, like opium; its effects are succeeded by uncommon debility and relaxation of the nerves.

*Domestic uses.* They are chiefly used in domestic economy for imparting an agreeable flavour to Chocolate, in the proportion of one grain to an ounce—and to Tobacco for Segars, &c. &c.

*Note.* There are many species of this genus which it appears cannot be cultivated in England; they are however raised by seeds and cuttings, and just live long enough to show what they are. In Ca-

colina we have a plant, the leaves of which when near dried, possess the fine flavour of Vanilla, hence it is by some called *Vanilla Leaf*, *Indian Tobacco*, *Wild Melilot*, &c. It is also used in Segars, &c.

EPIGÆA, *Trailing Arbutus*, a genus of the Decandria Monogynia class, and 18th Natural Order, *Bicornes*; the calix is a double permanent perianthium, the outer is composed of three oval, spear-shaped, sharp pointed leaves, the inner longer, erect and divided into five spear shaped, acuminate segments; the corolla is one hypocrateriforme petal; the tube is cylindrical, hairy within, and a little longer than the calix; the limb is patent and divided into five oval, oblong parts; the pericarpium is a subglobose, depressed, five cornered capsule, containing five cells; the seeds are many and roundish; the receptacle is large and divided into five parts. There is but one species a native of South-Carolina, Virginia, Canada, &c.

E: REPENS, (Memecyllum of Michel. Arbutus of Gronov: Pyrolæ of Pluke.) *Trailing Arbutus*, a perennial plant, the stalks are ligneous, lie on the ground and strike root at the joints; the leaves are oval, oblong, undivided, rough, waved on their edges, and grow on long, slender footstalks; the flowers come out from the ends of the branches in loose bunches, their colour is white, and are succeeded by fruit resembling strawberries—these plants propagate themselves by striking root at the joints. See *Arbutus*, *Pyrolæ*, &c.

EPILOBIUM, the *Willow Herb*, a genus of the Octandria Monogynia class, and 17th Natural Order, *Calycanthemæ*; the calix is divided into four segments, and the corolla consists of four petals; the capsule is oblong and below the flower, and the seeds pappous. There are 13 species.

1. E: RAMOSUM, *Great hairy, or large-flowered Willow herb*, or *Coddings and Cream*, a native of the United States, is a perennial plant, growing in moist hedges, the banks of brooks, rivers and lakes; the stalks are upright, firm, branching, brittle and about four feet high; the leaves are spear-shaped, serrated, decurrent, hoary, of a whitish green, soft to the touch, and remarkable for emitting a scent like coddled apples; the flowers are produced from the ends of the stalks, and are of a reddish purple colour, There is a variety called the *Small-flowered hairy Willow herb*, which is inferior to this.

*Domestic uses.* The young tops of this vegetable possesses a delicate odour, resembling that of scalded coddings, but which is so transitory that after they have been gathered five minutes, their fragrance is entirely dissipated. This herb according to Bechstein, remarkably absorbs the inflammable air generated in moist situations, so that it deserves to be cultivated in the neighborhood of dwellings on marshes and about mill ponds, both on account of its useful property, and its large, beautiful purple flowers. Horses, sheep and goats eat the plant—Cows do not relish it, hogs totally refuse it.

2. E: ANGUSTIFOLIUM, *Rose bay Willow herb*, or *French Willow*, is also a perennial, and native of Canada, frequent in woods and hedges, where its rose coloured flowers appear from June till

August. There are also two principal varieties of this species, the White, and the Red French Willow, distinguished by their stalks, leaves, &c. in the White variety the stalks are of a pale green, but in the Red, are of a purplish colour; the leaves are long, narrow, terminate in a point, and much resemble those of the Willow Tree; the flowers are produced in long spikes, are large, finely arranged on their several pedicles, and are the most beautiful of all the species of this genus. They are cultivated to adorn chimneys, flower pots, &c.

*Domestic uses.* The suckers of the roots when properly dressed afford a wholesome dish; though an infusion of the leaves produces intoxicating effects. The inhabitants of Kamtschatka brew a kind of ale from the pith of this plant, which they convert into vinegar, and the down with which its seeds abound, has in combination with cotton or fur, been advantageously manufactured into stockings, and other articles of wearing apparel—this fibrous substance may also be profitably employed as a material for making paper.

3. E: LANCEOLATA-OVATIS, *Broad-leaved Willow herb*, or *Siberian Willow*, a perennial, and attains a height of about six feet; the leaves are spear-shaped, oval, downy, soft and grow alternate; the flowers reddish purple.

4. E: MONTANUM, or *Smooth-leaved Willow herb*, a perennial and native of Europe, it attains a height of a foot and a half; the leaves are oval, spear-shaped, indented, smooth and opposite; the flowers are purplish.

5. E: TETRAGONUM, or *Narrow-leaved Willow herb*, a perennial and native of Carolina, hath slender, square stalks, narrow, spear-shaped, indented leaves, though there is a variety with larger leaves; flowers are small, and of a beautiful red.

6. E: PALUSTRE, or *Marsh Willow herb*, a native of Europe, hath also square stalks; the leaves are spear-shaped, entire and opposite; the flowers are of a reddish colour, with the petals indented.

7. E: ALPINUM, *Mountain Willow Shrub*, a native of the Alps, hath a creeping stalk, which strikes root and spreads greatly; the leaves are oval, spear-shaped, smooth and entire; the flowers are small and bifid. I have found no account of the remaining species, except they are among those of the genus *Lysimachia*. These plants propagate themselves from their roots, and are not calculated for gardens, growing wild and plentifully.

EPIMEDIUM, *Barren wort*, a genus of the *Tetrandia Monogynia* class, and 24th Natural Order, *Corydalis*; it has four cap-shaped nectaria lying upon the petals; the corolla consists of four petals; and the calix is caducous. There is but one species, a native of Germany. It hath creeping roots, and soon spreads a considerable distance; the footstalks of the radical leaves are long and divided into three branches at top, each of which supports three heart-shaped folioles, that are rigid, sharp pointed, of a pale green colour on their upper side, and hoary or whitish underneath; the flower stalks are round, woody, firm, often crooked, and about a foot high. the flowers are produced from the tops of the stalks,



on footstalks, each of which supports three flowers, except near the extremity, where there are sometimes only two, and one flower alone usually crowns the top; they are small, but very elegant, their colour is purple, with a mixture of yellow and bright red—it is propagated by parting the roots.

**EQUISETUM**, *Horse Tail*, a genus of the Cryptogamia Filicis class, and 51st Natural Order, *Coniferae*; the fructification is disposed on an oblong spike, and of an orbicular figure. There are eight species.

1. E: **SYLVATICUM**, or *Wood Horse Tail*, grows in moist and shady places. in the vicinity of rivers and on boggy soils, it flowers in the months of April and May—it is a perennial plant, having round, channelled stalks, two feet high, composed of many tubular joints, inserted into one another; the leaves are long, slender, bristley, and grow in bunches opposite each other at the joints; the fructifications are produced in spikes from the tops of the stalks, from April till June. Horses eat it with avidity, and in some parts of Sweden it is collected for the purpose of serving them for winter food.

2. E: **ARVENSIS**, *Common; or Corn Horse Tail*, grows in wet meadows and moist corn fields, it is a most troublesome weed in pastures; the stalks are numerous, jointed and a foot and a half high; the leaves are long, thick, jointed and angular, very rough to the touch; the fructifications are found on naked stalks in March or April. It is seldom touched by cows unless pressed by hunger, when it occasion an incurable Diarrhoea, it is eaten with impunity by horses, but is noxious to sheep. This rough grass is employed for cleaning and polishing tin vessels—it is also used for tanning leather.

3. E: **PALUSTRE**, *Marsh Horse Tail*, or *Paddock Pipe*, which flourishes in marshy and watery places, flowers in the months of June and July—it is not so strong as the preceding species, but is equally prejudicial to Cows; it is also very troublesome in drains within which it vegetates, and forms both stems and roots several yards in length, whereby the course of the water is interrupted and the drains often totally obstructed.

4. E: **HYEMALE**, *Rough Horse tail*, *Shave grass*, *Pewter wort*, or *Dutch Rushes*, is found in marshy, watery soils, and flowers in the months of July and August; the stalks are round, tubular, jointed, striated, rough, thickish at the base, obtusely pointed, naked, two or three feet high, and of a brownish purple near the bottom. There are several varieties, all of which are very rough, whence the vulgar names. This species is wholesome food for horses, but is hurtful to cows and disagreeable to sheep.

*Domestic uses.* It is chiefly employed by Turners and Cabinet Makers for polishing their work, and by Dairy Maids for cleaning their Pails and other wooden utensils.

5. E: **FLUVIATILE**, or *River Horse tail*, this the grandest of all the species of Horse tail, the stalks are numerous, thick, striated, hollow, jointed, and four or five feet high; the leaves are long, bristly, striated, eight or ten inches long. and grow twenty or thirty together in close whorls, round the stalks at every joint; the fructifica-

tion is found at the tops of the naked stalks in the form of oval spikes.

6. E: LIMOSUM, or *Smooth Horse tail*, hath simple, smooth and naked stalks; the fructifications are found in oblong spikes at the top of the stalks in June.

7. E: SCIRPOIDES, *Canada Horse tail*, hath simple, small and bristly stalks; the fructifications are found in little, short, black heads at the tops of the stalks. Those who are desirous to propagate them, may by planting the roots in a moist, shady place.

ERANTHEMUM, a genus of the Diandria Monogynia class, and 59th Natural Order, *Dubii Ordinis*; the calix is divided into five segments; the tube is filiforme, and the stigma is simple. There is but one species, a native of *Ethiopia*.

ERIANTHUS. In treating of the Anthoxanthum, or Vernal grass, we mentioned Mr. Walter as having enumerated a species under the title of *A: Giganteum*, which is the species referred by Mr. Michaux to the present genus, of which he gives 2 species.

1. E: SACCHAROIDES, *Sugar grass*, an indigenous perennial, growing naturally in Canada and Florida, the culm attains a height of from 6 to 9 feet; the sheathing leaves are crowded, woely, and bearded. It produces its flowers in the same manner as the common Sugar Cane, but much closer, and to which it hath near affinity.

2. E: BREVIBARBUS, also a native Carolina, &c. the sheathing leaves are somewhat hairy, and the flowers are produced in panicles. See Anthoxanthum.

ERICA, or *Heath*, a genus of the Octandria Monogynia class, and 18th Natural Order, *Bicornes*; the calix consists of four leaves, and the corolla of four segments; the filaments are inserted into the receptacle, the antheræ are bifid, and the capsule has four cells. There are 100 species, one or two of which are to be seen in the Botanic Garden of South-Carolina.

1. E: VULGARIS, *Common Heath*, or *Ling*, a perennial and native of Europe, it grows on Heaths and in woods, the stalk is woody tough slender, very branching, and abut two feet high; the leaves, are small, oblong triquetrous, erect and opposite; the flowers come out from the sides of the branches, they are small and of a bright red colour, often inclining to a purple, though there is a variety with white flowers.

*Domestic uses.* In the island of Islay, in the West of Scotland a wholesome ale is prepared by brewing one part of malt and two parts of the young tops of Heath, to which hops are occasionally added. In England, the common Heath is employed in making brooms and faggots, which last are used either as fuel in ovens, or for filling up drains before they are covered; the stalks and tops are of considerable service in tanning leather, especially for soles, and if woolen cloth be boiled in alum water, and afterwards in strong decoction of the tops of Heath, it will acquire a fine Orange colour. Horses, Sheep and Goats eat the the tender shoots, and Bees are very partial to this species.

2. E: CINEREA, or *Fine-leaved Heath*, the stalks are many, slender, ligneous, tough, hardly a foot high; the leaves are very small, grow by threes, and the flowers grow in purple spikes.

3. E: TETRALIX, or *Cross-leaved Heath*; hath a woody, branching, nearly procumbent stem, the leaves are awl-shaped, a little hairy and spreading, they grow four round the stalk cross-ways; the flowers bright red.

4. E: MULTIFLORA, or *Fir-leaved Heath*, hath shrubby, slender, tough stalks; leaves grow five together, they are moderately long, narrow, pointed, and much resemble the common Fir tree; the flowers are of a faint purple.

5. E: CILIARIS, *Rough-leaved Heath*, hath a woody, branching stem, covered with a blackish bark, the leaves are small, oblong, rough, ciliated, reflexed on their edges, placed by threes, and the flowers come out in whorled bunches from the sides of the branches, are large, oval, and purple.

6. E: GLABRIS, *Portugal Heath*, hath ligneous, tough stalks, covered with a pale brown bark, the leaves are short, smooth, grow by threes, and have a white, longitudinal line on their under side; the flowers are roundish and angular, come out in naked umbels, and are pale blue.

7. E: HERBACEA, *Herbaceous Heath*, hath herbaceous, slender stalks that lie on the ground, the leaves grow by threes, are small, triquetrous and spreading, the flowers are small, bell-shaped, and long in duration.

8. E: SCOPARIA, *Spanish Heath*, hath erect, tough, woody stalks, hoary, whitish branches, the leaves grow by threes, are small spreading and deciduous; the flowers grow in whorls, are of an herbaceous colour, and bell-shaped, they sit close without any footstalks.

9. E: IMBRICATIS, *Greenish purple-flowered Heath*, hath a ligneous, tough, branching stalk, about a foot high; the leaves are ternate, spear-shaped, and lie over each other imbricatum; the flowers come out in spikes, are oval, all turned one way, and are of a greenish purple.

10. E: MAXIMA, *Tree Heath*, a native of the South of Europe, the stem is erect, woody, branching, downy, and upwards of a yard high, the leaves are quaternate, narrow and spreading; the flowers come out in clusters, are oval and of a white colour—there is a variety of this species with red flowers; these are the largest and most beautiful of all the kinds of heath.

11. E: DILUTE PURPUREO, *Pale purple-flowered Heath*, hath woody, branching stalks, which lie on the ground, the leaves grow five together; the flowers are oval, and of a pale purple colour.

12. E: PROCUMBENS, *Hungarian Heath*, this is a small, procumbent, ligneous plant, the leaves are quaternate, triangular, small, smooth and patent; the flowers of a pale red colour.

13. E: CANTABRICA, *Irish Heath*, or *Irish Whorts*, a native of the Hibernian mountains, the stalks are shrubby, branching, hairy and covered with an iron coloured bark, the leaves are oval, spear-shaped, entire, slightly hairy, of a pale green on their upper side, hoary underneath, and grow alternately on the branches; the flow-

ers are produced in bunches, are moderately large, and are succeeded by roundish berries containing the seeds.

The remaining species are not enumerated, they are propagated by suckers, layers, cuttings, or by seeds, which is the best, though slowest method, most of them require a light, sandy earth, though some flourish most in soft, spongy ground.

**ERIGERON**, or *Sweet Flea Bane*, a genus of the Syngenesia Polygamia Superflua class, and 49th Natural Order, *Compositæ*; the receptacle is naked, the pappus is hairy, and the radii of the corolla are linear and very narrow. There are 16 species.

1. E: **CANADENSE**, *Canada Flea Bane*, a native annual plant of the United States: It hath herbaceous stalks about a foot and a half high, and very hot and biting to the taste; the leaves are numerous, narrow, and much resemble those of *Linaria*; the flowers come out in panicles, are small and white, and blow in June.

2. E: **ACRIS**, *Blue flowered Flea bane*, a perennial and native of Helvetia, hath hot, biting, yellow roots, erect stalks, spear-shaped leaves and pale blue flowers.

3. E: **SENECIONIS**, (*Senecionis minores vulgaris C. B.*) *Groundsel from Buenos Ayres*, hath purple stalks and flowers, and leaves of different figures.

4. E: **PHILADELPHICUM**, *Philadelphia Flea Bane*, a perennial and native of Carolina, &c. the stalk is upright, a little branching, and grows a foot high; the leaves are spear-shaped, rough, slightly serrated, and embrace the stalk with their base; the flowers come out in bunches, the rays are white and the centre yellow—there is a variety with purple flowers.

*Medical virtues.* It has acquired great reputation in the United States as a remedy in Calculous and Nephritic cases and Gout.

5. E: **MAJOR**, *Viscous Erigeron*, or *Great sweet Fleabane*, a perennial and native of France, Spain and Italy, the stalk is about a yard high; the leaves are oval, oblong, hairy and sessile, and in warm weather exudes a viscous matter; the flowers are produced singly on long footstalks, are yellow and finely scented.

6. E: **ALPINA**, *Blue Alpine Flea Bane*, a perennial and attains a height of about two feet, the leaves are long, spear-shaped and serrated; the flowers are blue.

7. E: **TOMENTOSO**, *Lapland Erigeron*, is also a perennial and about nine inches high, the leaves are oblong spear-shaped, entire, and whitish underneath; the flowers crown the top of each stalk, are moderately large, yellowish and have hairy cups—there is a variety covered with purplish coloured rays.

8. E: **GRAMINEIS**, *Grass-leaved Erigeron*, a perennial and native of Siberia, is about four inches high, the leaves are narrow, rough, ciliated and alternate; one flower only crowns the top of each stalk, and is white. There is a variety without any stalk at all; the flower rising immediately from the root on a short footstalk.

9. E: **TUBEROSA**, *Tuberous rooted Flea Bane*, a perennial and native of France, the root is thick, fleshy and tuberous; stalks ligneous, short, tough, the leaves spear-shaped, entire, narrow and stiff; the flowers are yellow and blow in August.

10. E: MINOR, *Small Viscous Golden, Rod or Stinking Flea Pane*, an annual and native of France, hath upright stalks, the leaves are spear shaped entire, a little hairy; sessile, alternate, glutinous and strongly scented, the flowers grow in small bunches and are pale yellow.

11. E: RUBENTE, *Sicilian Flea Bane*, hath upright branching stalks, spear shaped, alternate leaves, and yellow flowers whose footstalks are closely set with very small narrow recurved leaves.

12. E: VIRGINIANA, *Virginian Erigeron* an indigenous annual plant with herbaceous stalks, the leaves are oval spear shaped, serrated, hairy, and when bruised emit an agreeable odour, the flowers grow in small tufts, and are whitish, there is a variety with yellow flowers.

13. E: AFRICANA, *African Flea Pane, Cape Erigeron or Crenial Stinking Groundsel*, hath herbaceous hairy stalks, near four feet high, the leaves are spear shaped, retuse, narrow, sessile and grow in clusters, the flowers are of a golden yellow colour—This is a green house plant.

14. E: DIVARICATUM, *Divaricate Erigeron*, a native of the Illinois, is an annual, hath a branching stalk, the leaves are awl shaped, the flowers grow in panicles.

15. E: HYSOPIFOLIUM, *Hyssop leaved Erigeron*, a native of the United States, the leaves are entire and linear smooth on their surface, and ciliated on their edges, the flowers also grow in panicles.

16. E: PULCHELLUM, a native of the mountainous parts of the United States, the stalk is simple and hairy, the radical leaves are oblong or wedge shaped, the stem leaves are distant, embrace the stalk with their base, the flowers are large, the rays numerous, and are of a whitish blue colour. They are propagated from seeds.

ERINGO, See *Eryngium*.

ERINUS, a genus of the Didynamia Angiospermia class of plants, and 40 natural order *Personatae*, the calix has five leaves, the corolla five equal petals the lobes emarginated, the upper lip very short and reflexed, and the capsule has two cells. There are six species.

1. E: RACEMOSIS (Ageratum of other authors) *Alpine Erinus*, a perennial and native of Holland, the radical leaves are small, oblong, serrated, grow in tufts and lie on the ground; the stalk is about two inches high, the flowers come out from the tops in loose erect bunches, their colour is purple, though there is a variety with white flowers.

Of the remaining species we have learnt nothing further, than their growing from two to four inches high, and are adorned with white or purple flowers. They are the same or nearly allied to the genus *Ageratum* which see. They are propagated by seeds.

ERIOCAULON, a genus of the Triandria trigynia, Michaux says Monoecia Triandria class, and 6 natural order *Ensatae*, the common calix has an imbricated, capitulum, it has three equal petals, and the stamina are above the germen. There are five species, three of them natives of Carolina.

1. E: ANCEPS (E. Villosum of Mich.) a native of Carolina; the leaves are short, awl-shaped, linear and hairy, the scape is furrowed and hairy, the flowers are sooty.

2. E: DECANGULARE, (E Gnaphalodes of Mich.) also a native of Carolina, the scape is marked with ten furrows, the leaves are awl-shaped, smooth and short, the flowers are of a silvery white.

3. E: SEROTINUM, (E: Decangulere of Mich:) a native of the United States, the scape is like the former, the leaves are grass like, the flowers numerous.

4. E: PELLUCIDUM, a native of Canada, the leaves are smooth, short, awl-shaped, channelled, pellucid, and have five veins, stem solitary and terminated by a small apple form head.

5. E: FLAVIDULUM, a native of Carolina, the culm has five streaks, finely downed, the leaves are short, awl or sword-shaped, the culm is terminated by a convex head.

ERIOCEPHALUS, a genus of the Syngenesiapolygamia necessaria class, and 49 Natural Order *Compositae*, the receptacle is somewhat hairy; it has no pappus, the calix consist of six equal petals, and there are five floscules in the radius. There are 2 species.

1. E: SEMPERVIRENS; (Abrotanu Afric: of Walk:) *African Erioccephalus* attains a height of about four feet, the stalk is woody, the leaves are produced in clusters, they are white, wooly, some of them entire white, others are divided into three or five digitated parts, they are scented, and when bruised emit a strong odour, the flowers are produced in roundish bunches, are white with a tinge of red or purple.

2. E: RACEMOSIS, *Racemose Erioccephalus* a native of the Cape of Good Hope, hath a woody stalk, the leaves are narrow, undivided and of a silvery whiteness, when bruised small like southernwood the flowers grow in loose spikes. They are propagated by cuttings.

ERIOPHORUM, *Cotton Grass*, a genus of the Triandria Monogynia Class, and 5d Natural Order *Calamariae*, the gluma is paleaceous and imbricated on each side, the corolla is wanti g, there is but one seed surrounded by long down, there are five species.

1. E: ANGUSTIFOLIUM, *Common Cotton Grass*, *Moorgrass*, *Moss-crofts* or *Many Headed Cotton Grass*, a perennial and native of Europe, growing chiefly on marshes and bogs, the leaves are grassy, flat, pointed, and six or eight inches long, the stalks are round, smooth, rushy, and about a foot high, the flowers are produced in spiked panicles, and when the seeds are ripe the heads are covered with a considerable quantity of soft downy matter of the purest cottony whiteness.

*Domestic uses.* Poor people stuff their pillows with the wooly down of this plant, and also employ it in making wick for candles. It is also useful to support cattle in the early part of spring before the other grasses are sufficiently grown.

2. E: POLYSTACHION, or *Broad-leaved Cotton Grass*, also grows in marshy and boggy land of Canada, the stalk is leafy, the leaves plain and spreading, the flowers are produced in spikes; large tracts of ground are sometimes covered with the white downy fibres of this plant, which flowers from April to June, and represents the snowy field of winter, cattle have died eating this species, large conglobate masses have often been found in the stomach, formed of the hairy seed vessels, it would be well therefore to collect the down in order to prevent cattle coming at it—and as it may be converted into the following useful purposes it is an object to collect it, viz

*Domestic Uses.* In combination with Sheep's wool, or common cotton, it may be spun in a very strong and uniform yarn for any purpose, either of knitting or weaving.

3. E: VAGINATUM, (Hudsonianum of Michaux?) *Hare's tail Rush*, a native of the United States; the stalks are round, striated, and surrounded by many leaves at the bottom; the leaves are slender, rushy, sharp pointed and grow in clusters at the crown of the root; the flowers come out in spikes.

4. E: CYPERINUM, (Scirpus eriophorum of Michaux,) *Maryland Cotton Grass*, a native of Carolina; the leaves are narrow, grassy, and six or eight inches long; the stalks are taper, and adorned with leaves to the very top; the flowers come out in loose, branching panicles, are wooly and of a reddish yellow colour.

5. E: VIRGINICUM, *Virginian Cotton Grass*, a native of Canada, and Carolina, the leaves are grassy, flat and sharp pointed; the stalks are taper, compressed and garnished with leaves half their length; the flowers grow in close compact panicles, covered with a soft matter, at first of a gold or yellow colour, but afterwards brown. They are propagated from seeds sown in boggy grounds.

ERITHALIS, a genus of the Pentandria Monogynia class, and 59th Natural Order, *Dubii Ordines*; the calix is bladder or pitcher-shaped; the corolla has five leaves, and the berry ten inferior cells.

ERODIUM. See *Geranium*.

ERUCA, or *White Rocket*. See *Brassica*, Sp. 7.

ERVUM, *Lentil, Tares, or Bitter Vetch*, a genus of the Diadelphia Decandria class, and 32d Natural Order, *Papilionaceæ*; the calix consists of five segments, of an equal length with the corolla. There are six species, all annuals.

1. E: SOLONIENSIS, or *Spring Tare*, a native of Europe, the stalks are weak, slender and divide into many branches; the leaves are pinnated, being composed of several pair of obtuse folioles, which end in tendrils or claspers; laying hold of whatever comes near them: the footstalks of the flowers have also tendrils, each footstalk supports two or three flowers, succeeded by pods containing roundish cornered seeds.

2. E: TETRASPERMUM, or *Smooth Tare*, also a native of Europe, the stalks are weak, slender, and little more than a foot long; the leaves are small, pinnated and end in claspers; the flowers are small and bluish, and are succeeded by smooth pods.

3. E: HIRSUTUM, or *Corn Vetch, Wild or Hairy Tare, Tine Tare, or Rough podded Tare*, grows in sandy cornfields, hedges and meadows, the leaves are pinnated, composed of four or five folioles, and the flowers are of a whiteish blue colour—although eaten by Horses, Cows, Goats and Sheep, it ought to be carefully eradicated, as during wet seasons whole crops of wheat have been overpowered and their growth completely stifled by this pernicious weed.

4. E: LENS, or *Lentil*, a useful exotic vegetable of the pulse kind, that has long been cultivated in Britain and other parts—It is an annual plant growing to the height of about 18 inches, the leaves are also pinnated and beautiful; it produces pale purple flowers which are succeeded by flat pods, containing two or three round seeds—these are used in soups, the flavour of which, is thus, much improved; the plant itself affords an excellent fodder for cattle.

*Note.* Lentils are a strong flatulent food, and are on that account not wholesome to some constitutions, and are sometimes fatal to Horses. Mention is made of the *French Lentil*, or *Tills*, it is in every respect a plant twice as large as the fourth, and is supposed to be a distinct species, its long and numerous pods ripen late in autumn, and produce a new species of pulse, which may be dressed in the same manner as the common Lentils.

5. E: UNIFLORI, *One-flowered Lentil*, hath weak, slender angular stalks, the leaves are pinnated, being composed of about 15 pair of narrow folioles, which end in claspers; the flowers grow singly, are of a pale purple, and are succeeded by short pods.

6. E: ARTICULATIS, *Articulated Ervum*, or *Bitter Vetch*, a native of France, the stalks are weak and angular, about a foot and a half high, the leaves are composed of fourteen or fifteen pair of narrow folioles, much like the common Vetch, only smaller; the flowers come out two or three together, are of a pale colour, moderately large, and succeeded by jointed pods. They are propagated by seeds—This is also excellent food for cattle. For the other genus and species of Vetch, Fares, &c. See *Lathyrus*—*Orobus*—*Lathyroides*—*Lepium*—*Vicia*.

ERYNGIUM, *Eryngo*, *Sea Holly*, *Button Snake Root*, or *Rattle Snake Weed*, a genus of the Pentandria Digynia class, and 45th Natural Order, *Umbellatæ*; the flowers are capitated, and the receptacle is paleaceous. There are 11 species.

1. E: MARITIMUM, *Sea Eryngo*, is a perennial and native of Europe, grows on the Sea shore, strikes its roots 20 feet deep in the soil, the radical leaves are large, roundish, sinuated, plicated, prickly, of a bluish white colour, and grow on stiff footstalks, those on the stalks are smooth, round, thick, tough, branching, of a bluish green colour, and grow to about a foot and a half high; the flowers come out from the ends of the branches in roundish, prickly heads, surrounded by narrow, stiff, prickly leaves, which are disposed in a radiated manner, they are of a whitish blue colour.

*Part used.* The root.

*Sensible properties.* The root possesses no remarkable smell, but when chewed have a pleasing, and somewhat aromatic sweetness, as hath the leaves.

*Medical virtues.* Stimulant, diuretic and aperient. It was formerly esteemed an anti Scorbutic and Aphrodisiac, and is said to be efficacious in Cholick, Stone, Gravel, Convulsions, Epilepsies, and for bites of Serpents, however the virtues are too weak to be depended on as a medicine in these cases, although it is still asserted it gives great ease to those afflicted with the cramp, &c. The candied root is still retained in the Shops.

*Domestic uses.* The young flowering shoots when boiled, have the flavour of Asparagus, and are an wholesome and nutritious summer food; the roots of this species are thick, pulpy, sweet, and nourishing, on which account, the Germans boil and eat them as a culinary vegetable. They are also employed in the city of Prague for extracting Soda, or Mineral Alkali.

2. FORTIDUM, *Stinking Eryngo*, or *Fever Weed*, an indigenous plant, growing naturally in the United States, the radical leaves are



narrow, sword-shaped, half a foot or more in length, of a light green colour, serrated, prickly, and of a strong, disagreeable scent, those on the stalks are small, and cut into many parts; the stalks divide into many branches, and the flowers are produced in small heads from the ends, and are of a bad white colour.

*Note.* This plant is an admirable febrifuge, which occasions its being called the Fever weed: it is also of great force against the bite of Serpents. I am apt to conclude that the three species, *Fœtidum*, *Yuccifolium*, and *Aquaticum*, possess similar virtues; and are used indiscriminately in the United States, as Button Snake Root.

3. E: AQUATICUM, *Water Eryngo*, an indigenous plant, growing naturally in the maritime and inundated parts of South-Carolina, the stalk is hollow, the radical leaves are lanceolate and a little indented, the stem leaves are linear, cut on their edges, and serrated; the flowers are produced in small, oval, chafly heads. Professor Barton ranks this species among the general stimulants, which he observes acts more especially as a sudorific. "It is nearly allied in its qualities to the *Convolvulus* of the shops; it is one of the medicines of our Southern Indians—they use the decoction."

4. E: YUCCIFOLIUM, (E: *Gladiatis* of Linn.) *Button Snake Root*, *Rattle Snake Weed*, or *Virginian Eryngo*, an indigenous perennial, growing naturally in South-Carolina, &c. the radical leaves are narrow, long, gladiated, serrated, prickly, and grow many together from the root, in the manner of some of the *Yuccas*, or *Adam's Needles*; those on the stalks are small and slightly indented; the stalks are strong, simple, grow to about a foot high, and send forth many footstalks near the top; the flowers are produced in small heads from the ends of these, and are of a bluish white colour, and blow in June. The reader is requested to see Button Snake Root.

5. E: VULGARE, OR CAMPESTRE, *Common Eryngo*, a perennial and native of Europe, hath a thick fleshy root, black on the outside white within, and strikes deep into the ground, the radical leaves are pinnated, divided into three principal parts, serrated and prickly on their edges, the stalks are round, striated, tough, branching, and about two feet high; the flowers come out from the tops in roundish clusters, surrounded with six small, rough, prickly leaves, they are of a blue colour—though there is a variety with white, and another with yellowish flowers.

6. E: AMETHYSTINUM *Amethystine Eryngo*, a perennial, and native of the Appenine mountains, the radical leaves are digitated and cut into numerous segments, all of which end in a small spine; the stalks grow to about two feet high, and are adorned with leaves which are smaller and more beautifully divided than the radical ones, and the upper part is of the colour of an Amethyst, as are the flowers, but in a finer and more perfect degree—there is a variety of this with more rounded leaves, and larger heads of flowers, of a pale blue colour.

7. E: PLANUM, *Small Eryngo*, a perennial and native of Spain, the radical leaves are oblong, plain and cut on their edges; the stalk divides into branches by pairs, and grows about nine inches high; the flowers grow in small heads without footstalks, and are white.

8. E: GENEVENSE, *Alpine Eryngo*, the radical leaves are heart-shaped, oblong and plain, but those on the stalks are cut into many winged and prickly points, almost to the mid-rib; the stalks grow two or three feet high, and are terminated by the flowers, which grow in cylindrical heads, of a bright blue colour.

9. E: LATIFOLIUM, *Broad-leaved plain Eryngo*, a perennial, and native of Austria, Russia, Poland and Switzerland, the radical leaves are broad, oval, plain and indented on their edges, those on the stalks are cut into many segments, each of which terminates in a small spine; the flowers grow in oval heads, and are of a purplish blue colour, though there is a variety with white flowers.

10. E: SYRIACUM, *Oriental Eryngo*, a perennial and native of the East, the radical leaves are heart-shaped, oval, indented, and grow on strong footstalks, those on the stalks are palmated, auriculated and bend backward: the flowers grow in small conical heads from the ends or wings of the branches, and are blue.

11. E: OVALIFOLIUM; *Oval-leaved Eryngo*, an indigenous plant, growing naturally in the flat woody lands of South-Carolina, the stem is simple, the leaves are oval and toothed; the flowers are produced in small, chaffy heads, nearly three pointed, and blow in July. They are all propagated from seeds or by the roots.

ERYSIMUM, *Hedge Mustard*, a genus of the Tetradynamia Siliquosa class, and 39th Natural Order, *Sitiyusæ*; the calix is four coloured leaves; the corolla cruciforme, and the pod is four sided, divided into two cells. There are ten species.

1. E: OFFICINALE, *Common Hedge Mustard*, *Worm Seed*, *Bank Cresses*, or *Scrambling Rocket*, an indigenous annual, growing under walls and hedges, on road sides, and among rubbish; where it flowers in the months of May and June, the stalks are round, tough, pliant, branching and about two feet high; the leaves are long, deeply sinuated on both edges; the flowers are produced in spikes, are small and yellow, and are succeeded by narrow, loose pods.

*Part used.* The Herb and seeds.

*Sensible properties.* Flavour warm and acrid.

*Medical virtues.* Diuretic. The seeds taken internally promote expectoration, the discharge of urine, and other fluid secretions, and the juice has been employed with unparalleled success in ulcers of the throat, and for removing hoarseness occasioned by loud speaking—it is said to be an admirable medicine for the cure of the Jaundice.

*Domestic uses.* When cultivated is used as an early pot herb; Sheep and Goats eat it, but Cows, Horses and Swine refuse it.

2. E: BARBAREA, *Winter Cresses*, *Winter Rocket*, *Winter Worm seed*, and in Britain it is called, *French Cress*; it is a perennial and grows on walls, in watery places, or banks of running streams, and is sometimes found in cultivated fields of Europe; it flowers from May till October, the stalks are round, herbaceous and branching; the leaves lyre-shaped, broad, smooth and green, the radical ones spread on the ground; the flowers are small and narrow, and the pods yellow.

*Domestic uses.* It is used as an early salad in the spring, and late in the autumn, and they are also boiled as Kale, Cows devour

this plant with avidity, Horses and Swine refuse it, and Sheep and Goats dislike it.

3. E: ALLIARIA, *Garlic Hedge Mustard*, *Jack by the Hedge*, *Sauce alone*, or *Garlic Wormseed*, a perennial and native of Europe, thrives on ditch banks, in hedges and shady places, flowers in May or June; the stalk is herbaceous, leaves heart-shaped, broad, serrated, pointed and smell and taste like Garlic; the flowers are small and white.

*Part used.* The plant.

*Sensible properties.* The leaves have a bitterish acrid taste, and when rubbed between the fingers emit a strong smell, approaching to that of Garlic.

*Medical virtues.* Sudorific and Deobstruent internally and externally, antiseptic in gangrenes and cancerous ulcers, but are at present disregarded as medicine.

*Domestic uses.* The Prussians eat the leaves in spring with salted meat, and they are equally useful with lettuce and the colder salads; it is also employed in tanning. Cows and Goats eat the plant, but Horses, Sheep and Swine refuse it.

4. E: CHEIRANTHOIDES, *Treacle Hedge Mustard*, or *Treacle Wormseed*, an annual, and native of Europe, thrives in corn fields and on the banks of rivers; it flowers in the month of July; the stalks are tough, pliant and branching; the leaves spear-shaped and entire, and the flowers are small and yellow.

*Part used.* The seed.

*Medical virtues.* Anthelmintic—they are successfully employed by the country people for destroying worms. The plant is eaten by Horses, Cows, Sheep, Goats and Swine.

5. E: OPPOSITIFOLIS, *Spanish Hedge Mustard*, an annual plant, having opposite stalks; the leaves are spear-shaped, with their edges indented; the flowers are produced in long spikes, are small and yellow.

6. E: HIERACIFOLIUM, *Hawkweed-leaved Erysimum*, a perennial, and native of Gaul, the stalks are slender and herbaceous; the leaves spear-shaped and serrated; the flowers of a pale yellow. The other species are not enumerated—they are propagated from seeds; however most of them are considered as weeds.

ERYTHRINA, *Coral tree*, a genus of the Diadelphia Decandria class, and 32d Natural Order, *Papilionaceæ*; the calix is balabated and furnished with a melliferous pore at the bottom, and the corolla is papilionaceous, and consists of a long lanceolated vexillum; the alæ are small, nearly oval, and scarce longer than the calix; the carina is dipetalous, the length of the alæ, and indented at the top; the pericarpium is a very long, swelling, sharp-pointed pod, and the seeds kidney-shaped. There are four species.

1. E: CAROLINIANA (E: Herbacea of Mich.) *Carolina Coral*, or *Herbaceous Erythrua*, an indigenous annual plant, growing naturally in Carolina, in the vicinity of Charleston, the root is large, thick and woody, the stalks are simple, two feet high, (I have seen them six feet high, and the joints armed with aculeæ, or hooked spines) and die to the ground every year; the leaves are trifoliate,

hastated, and of a deep green colour; the flowers are produced in long spikes, from the top of the stalk, are of a scarlet colour and very beautiful.

2. E: ARBOREA, *Smooth-leaved Coral tree*, or *Mouricou*, a native of the Indies, the trunk of this tree is large, sends out many strong branches, which are armed with sharp thorns: this tree grows 20 feet high, the leaves are trifoliate, the folioles short, nearly heart-shaped, smooth, of a deep green colour, and the middle one the largest; the flowers are produced from the ends of the branches in spikes, are large, and of a fine scarlet colour. There are many varieties differing in height, colour of their bark, spikes, flowers, and seeds; they are all however extremely beautiful, the seeds are also beautiful, being of a scarlet colour.

3. E: ACULEATA, *Prickly-leaved Coral tree*, also a native of India, the trunk is large, branching, prickly, and grows 15 or 16 feet high, the leaves are trifoliate, and armed with short spines; the flowers come out in spikes.

4. E: CORALLODENDRON, *Flat-podded Coral tree*, a native of America, the leaves are oblong, and undivided; the flowers come out in spikes, succeeded by flat pods—they are propagated from seeds, and are stove plants, except the first, which I think is a variety of the *Arborea*, if we may judge from the roots. I have no doubt if kept in a stove it would become a permanent tree like it.

ERYTHRONICUM, *Dog's-tooth Violet*, also termed (*Viola Canina*) a genus of the Hexandria Monogynia class, and 11th Natural Order, *Sarmentaceæ*; there is no calix, the corolla is bell-shaped, and consists of six petals; there are two nectariferous tubercles at the base of every second petal. There is but one species a native of Germany and the colder parts of the United States, and thrives in shady places, on heaths and hedge banks; it is in flower from March till June. The root is fleshy, white, and fancied by some to be shaped like a tooth; from the root arises two leaves which in some varieties are oval, in others narrow and spear-shaped; they enclose the flower, at first embrace each other, and afterwards fall opposite on the ground, these leaves are of a fleshy substance, and beautifully marbled, spotted or variegated with brown, black or purple, all over their surface; the flower stalk rises with the leaves, or before them; it is naked, round, tender, and about four or five inches high, at the top of which the flower is placed in a drooping manner, it is very large for so small a plant, exceeding elegant, and is composed of six spear-shaped petals, which turn backward; the stamina add great beauty to this plant; the filaments are white, and have their purple anthers dusted with silver; the style also is white, large, and closely surrounded by the purple stamina, which renders it an elegant plant; it blows early in March or April, adding great beauty to the borders of a garden. The varieties are, The Common Red, Pale Red, Blood Red, White, Yellow, Crimson, purple, Narrow-leaved, Whitish-purple, &c. &c. all of which may be propagated by seeds or parting the roots, as they are perennial.

*Part used.* The roots.

*Sensible properties.* Astringent taste.

*Medical virtues.* Anthelmintic, astringent and restorative—the powdered roots are said to be an excellent vermifuge, and were formerly drank in wine as an approved remedy for the Cholick. They are sometimes given in water, to cure children of the epilepsy.—Sheep are very fond of this herb, and Bees frequent its blossoms. See also *Viola*.

**ERYTHROXYLON**, a genus of the Decandria Trigynia class; and 59th Natural Order, *Dubii Ordines*; the calix is a top-shaped perianthium; the petals of the corolla have each a nectariferous emarginated scale at the base; the stamina are connected at the base, and the fruit is a bilocular plum.

**ERYTHRORHIZA**, a genus of the Monadelphia Pentandria class of plants, enumerated by Michaux: the calix is nearly bell-shaped, and cut into five erect, appressed, oblong segments; the corolla consists of five nearly spatula-shaped petals, which are erect below, but spreading above the calix; the pericarpium is formed of the calix, which becomes a trilocular capsule, containing very many unequal, angular seeds. There is but one species enumerated.

**E:** **ROTUNDFOLIUM**, *Round-leaved Erythrorhiza*; an indigenous plant, growing naturally on the high, mountainous parts of South-Carolina, it hath a creeping root, of a deep red colour, very much resembling Madder; the radical leaves, (and there are no others) grow on long footstalks, from the base of the scape, or flower-stem; they are orbicular, kidney-shaped, and toothed at the edges; the scape is guarded at the base by leafy scales, which lie imbricatum, the remainder is smooth; the flowers come out in spikes, are small, white, and plentifully arranged on short footstalks, upwards of a foot on the top of the stalks; they blow in May. See *Galax*.

**ESCALLONIA**, a genus of the Pentandria Monogynia class of plants; the petals are distant and tongue-shaped; the stigma headed the fruit is bilocular, and contains many seeds.

**ESCHALLOT**, or Shalot. See *Alicum Ascalonicum*,

**EVERLASTING PEA**. See *Lathyrus*.

**EVERLASTING FLOWER**, See *Gomphrena*.

**EUGENIA**, the *Yamboo Silver Tree*, a genus of the Icosandria Monogynia class, and 19th Natural Order. *Hesperideæ*; the calix is above the fruit, and consists of four segments; the petals are four, and the drupa is quadrangular and contains one seed. There are five species, though later writers say but two, one of which is to be seen in the Botanic Garden of South-Carolina.

1. **E. IAMBOS**, *Narrow-leaved Eugenia*.

2. **E. MALACCENSIS**, *Broad-leaved Eugenia*, or *Rose Apple*. Of this genus I have found no farther remarks, except that they rise from 20 to 30 feet high, and bear plum-shaped fruit, inclosing one nut—it is said they are very tender, and require to be kept constantly in the stove.

**EUODIA**, a genus of the Tetrandria Monogynia class of plants; the calix is a four-leaved perianthium; the corolla consists of

four spatula-shaped, sharp, open petals; the pericarpium are four roundish, bivalved, one-seeded capsules; seeds solitary.

**EVOLVULUS**, a genus of the Pentandria Tetragynia class, and 29th Natural Order, *Campanaceæ*; the calix is a perianthium, composed of five spear-shaped, acute, permanent leaves; the corolla is one rotated, plicated petal, cut at the brim into five segments; the pericarpium is a sub-globular capsule, formed of four valves, and containing four cells; the seeds are single, roundish and angular on one side. There are five species, by some writers placed to the genus *Convolvulus*.

1. E: **UNIFLORIS**, *Small Indian Evolvulus*, an annual and native of India, the stalks are tender, weak and divide into many slender branches, which spread on the ground; the leaves are heart-shaped, obtuse, mucronated, hairy and grow on footstalks; the flowers come out singly on footstalks from the wings of the leaves, are of an elegant blue colour, and blow in July or August.

2. E: **ANAGALLIS**, *Chickweed Evolvulus*, an annual and native of Malabar, &c. the stalks are very small and spreading on the ground; the leaves are nearly heart-shaped; oval, obtuse, hairy and alternate; and flowers light blue.

3. E: **LANCEOLATIS**, *Flax-leaved Evolvulus*, an annual and native of Jamaica, the stalk is herbaceous and erect; the leaves are spear-shaped, hairy and sit close to the stalk, and grow two or three together, on long, slender footstalks.

4. E: **TRICUSPIDATA**, *Tricuspidated Evolvulus*, an annual and native of India, is a small procumbent plant, the leaves are narrow, wedge-shaped and tricuspidated; the flowers are produced on footstalks from the wings of the leaves.

5. E: **SUBROTUNDIS**, *Money wort Evolvulus*, grows naturally in the meadow of Jamaica and Barbadoes, it hath a herbaceous, tender, trailing stalk, which strikes root into the ground; the leaves are roundish, somewhat resembling monywort; the flowers grow singly from the wings of the leaves on short footstalks, and are of a fine blue colour. This latter is a stove plant, and raised from cutting the stalk into proper lengths, or from seeds, as all the other species are.

**EUONYMOIDES**. See *Celastrus*.

**EUONYMUS**, the *Spindle tree*, a genus of the Pentandria Monogynia class, and 43rd Natural Order, *Dumosa*; the corolla consists of five petals, the capsule is five sided, and has five coloured cells, and the seeds have calyptra. There are 4 species.

1. E: **EUROPÆUS**, *Common Spindle tree, Gatteridge tree, or Louse Berry*, an indigenous shrub, which in favorable situations attains the height of 20 feet, it grows in woods and heges, where it flowers in the months of May and June; the bark of the stem is of a dark brown colour, but those of the first and second years shoots, are smooth and of a fine green; the white berried sort which differs in this respect from the rest, the leaves are spear-shaped, of a fine green colour, about three inches long and one and a half broad, most slightly serrated placed nearly opposite; the flowers have but little beauty to recommend them, they are small, and of a greenish

colour, produced in small bunches from the sides of the branches, the seeds are of a delightful scarlet, four are contained in each vessel, and these opening expose them to view all over the head of the plant, some just peeping out, others quite out, and sticking to their edge, these constitute the chief beauty of the plant, there are some of the varieties, the seed vessels of which are paler, and others white—the varieties of this species are Deep red berried, Pale red, White berried, Broad-leaved and variegated Spindle tree.

*Medical virtues.* The berries of this elegant plant operate powerfully as an emetic and cathartic—they destroy sheep. Powdered and sprinkled on the skin of men or animals, they are said to exterminate vermin of every description.

*Domestic uses.* When in blossom the wood is remarkably tough, and broken with difficulty, in such state it is employed by watch-makers for cleaning time pieces, and by other artificers for various purposes, and as tooth picks, spindles, &c. whence the name Spindle tree. The shoots of this shrub are so grateful to cows that they generally damage the banks of fences in order to obtain their favorite food—sheep and goats also eat the leaves, but they are disliked by horses. A green dye is prepared from the bark, and a pale yellow from the seed capsules. The three following are natives of the United States.

2. E: CAROLINIENSIS, (Americanus Walter) *Carolina Spindle tree*, this species grows naturally in Carolina and Virginia, and has long been known by the name of *Virginian Myrtle Sumach*, (*Rhus Virginianum foliis myrti* of Comm.) Linnæus formerly termed it *Celastrus*, or *Staff tree*, and Plukenet has given it its right name, *Euonymus*, which at length was adopted by Linnæus; the stem is woody but not strong, seldom more than seven feet high, and is covered with an olive coloured bark; the leaves resemble those of the Italian Myrtle, and are beautifully disposed; the flowers are placed singly or in pairs on short pedicles, rising from the bosoms of the leaves, they are small and of a yellowish green colour, tinged with a faint purple, and are succeeded by a small, square, rough fruit.

3. E: ATROPURPUREUS, *Purple-flowered Spindle tree*, a native of Kentucky and Tennessee, hath oval leaves, which are slightly serrated, and the flowers are purple.

4. E: LATIFOLIA, *Broad-leaved Spindle tree*, is said by Mr. Hanbury to be only a variety of the first species, though it will grow to be twenty-five feet high; the leaves are much larger than the common, as are the flowers, in other respects they scarcely differ.

*Note.* There is an E: Verrucosa, or *Worted Spindle tree*, mentioned by some writers, which is another variety. The best method of propagating these plants are by seeds, or by budding.

EUPATORIUM, *Henri Agrimony, Thoroughwort, &c.* a genus of the Syngenesia Polygamia, Aequalis class, and 49th Natural Order, *Compositæ*; the common calix is oblong and imbricated; the scales are narrow, spear-shaped, unequal and erect; the corolla—the compound flower is uniform; the florets are funnel-shaped, and cut at the top into five spreading segments; there is no pe-

ricarpium, the seeds are oblong and crowned with long feathery down; the receptacle is naked. There are 21 species.

1. E: PERFORATUM, (E: Connatum of Mich.) *Thoroughwort*, *Crosswort*, *Bone set*, *Indian Sage*, and *Vegetable Antimony*, an indigenous perennial plant, growing naturally in standing waters; edges of ponds, creeks, &c. of Carolina and Virginia; the stalks are upright, hairy, and grow to be about two or two and a half feet high, (I have seen it five or six feet high in the low, rich lands of South-Carolina, about Lynches creek,) the leaves are long, sharp-pointed, rough, hairy, downy underneath, grow opposite, and join at their base, so as to appear as one leaf, having the stalk thrust through it; the flowers are produced in small clusters from the upper part of the plant, each cluster having its separate footstalk, their colour is white, and blow in July.

*Part used.* The plant. The flowers are said to possess the greatest activity.

*Sensible properties.* An acrid smell, bitter taste, with some pungency.

*Medical virtues.* It is but lately this invaluable herb has been introduced to public notice, being heretofore principally confined to families, remote from cities, and among our Indians, who first communicated its medicinal virtues to them. Professor Barton in his collection for an Essay, &c. observes that it possesses emetic, sudorific, tonic, &c. properties, which latter quality is most unquestionably attached to it; a watery infusion of the leaves is a powerful, and not disagreeable bitter, and somewhat astringent medicine, which promise to afford uncommon advantages in intermittent and other Fevers—in regular intermittents a decoction of the whole plant, or the leaves in powder, have, on many occasions proved effectual in preventing the recurrence of paroxysms; it is also given in the hot stages with equal success, nor is it confined alone to intermittents, it has been used with great advantage in remittents, and in malignant yellow Fevers. Exhibited warm it produces a copious perspiration. In Carolina up-country it is exhibited in decoction as an emetic, in intermittents; I have however known it fail producing this effect in several instances, but with respect to its sudorific properties, it seldom fails if properly applied. It also appears that the celebrated *Aya Pana*, is a species of this vast genus of plants, which tends to confirm the practice of exhibiting our Eupatorium as a remedy for *Ferpes*, i. e. Ring Worms, &c. A decoction of the flowers is deemed by Professor Barton as a Tonic bitter, superior to Chamomile flowers.

2. E: CANNABINUM, *Common Hemp Agrimony*, or *Dutch Agrimony*, a perennial and native of Europe, where it is found wild by the sides of rivers and ditches; the stalks are round, reddish, upright, and two or three feet high; the leaves are digitated and large, the folioles are oblong, indented, and of a pale green colour; the flowers come out in large clusters from the tops of the stalks and branches, are of a red colour, succeeded by downy seeds.

*Part used.* The Herb.

*Sensible properties.* Similar to the foregoing.



*Medical virtues.* The leaves are much recommended for strengthening the tone of the viscera, and as an aperient—they are said to have excellent effects in the Dropsey, Jaundice, Cachexies, and Scorbatic disorders. It is deemed an admirable vulnerary, and boiled in wine and water is said to possess great virtue in removing Tertian Agues. Boerhaave informs us, that it is a common medicine of the Turf diggers in Holland, against scurvies, foul ulcers, and swellings in the feet, to which they are subject. The root is said to operate strongly as a Cathartic—we believe all the species possess considerable medicinal virtues, and as sixteen of them are indigenous to this country. a wide field now lays open to our friends in the country, for ascertaining their virtues.

3. E: HYSOPIFOLIUM, (E: Hirsuta of Walt.) *Hyssop-leaved Hemp Agrimony*, a perennial and native of Virginia, hath round, upright stalks, three feet high; the leaves are spear shaped, narrow, entire, trinervous and opposite; the flowers come out two or three together on long footstalks, and are white.

4. E: ROTUNDIFOLIUM, *Round-leaved Hemp Agrimony*, a perennial and native of Carolina, Canada and Virginia, the stalks are upright, close jointed and about a foot high; the leaves are roundish, heart-shaped, serrated and sit close, having no footstalks; the flowers terminate the stalks in loose panicles, and are white.

5. E: SESSILIFOLIUM, *Sessile-leaved Hemp Agrimony*, a perennial and native of Virginia and the Alleghany Mountains, hath spear-shaped, and slightly indented leaves of a whitish green colour, and embrace the stalk with their base; the flowers come out in loose panicles and are white.

6. E: LONGIFOLIUM, (E: Altissimum of Mich.?) *Long-leaved Hemp Agrimony* a perennial and native of Pennsylvania, the stalks are ligneous and branching; the leaves are spear-shaped, very long, narrow, slightly serrated, and of a whitish green colour; the flowers adorn the stalks in plenty, are moderately large and white.

7. E: TERNIS, *Trifoliate Hemp Agrimony*, a perennial and native of Virginia, grows three or four feet high; the leaves are oval, spear-shaped, serrated and grow three together at the joints; the flowers grow in loose panicles, and are of a bluish red colour.

8. E: PURPUREUM, *Purple Hemp Agrimony*, a perennial, and native of the United States, and particularly Canada, the stalks are erect, taper, firm, purplish and grow to be three or four feet high; the leaves are spear shaped, oval, unequally serrated, rough, oblique to the footstalks, and grow by fours in whorls round the stalks, the flowers grow in roundish bunches and are purple.

9. E: URTICAEFOLIUM, *Spotted Hemp Agrimony*, a perennial and native of the Northern and Western parts of the United States, the stalk attains a height of about two, or two and a half feet, are purplish and marked with numerous dark purple coloured spots; the leaves are spear-shaped, rough, a little downy, equally serrated, and usually placed by fives around the stalks; the flowers grow in roundish clusters, and are of a pale purple colour.

10. E: COELESTINUM, *Blue Hemp Agrimony*, a perennial and native of South-Carolina and Virginia, hath heart-shaped, oval, obtusely serrated leaves, growing on pretty strong footstalks; the

flowers terminate the stalks in corymbose bunches, of a fair purple colour.

11. E: AROMATICUM, *Aromatic Hemp Agrimony*, a perennial and native of Virginia, Florida, &c. grows about a yard high; the leaves are oval, oblong, trinervous, rough, serrated, grow on short footstalks and are possessed of an agreeable aromatic odour; the flowers grow in clusters and are white.

12. E: SCANDENS, (*Clematis novum genus cucumeris foliis of Pluke.*) *Climbing Hemp Agrimony*, a perennial, and native of the watery places of Carolina and Virginia, the stalks are slender, twining, and grow if supported five or six feet high; the leaves are heart-shaped, indented, acute and opposite; the flowers grow in clusters on long footstalks, and are white—there is a variety with purple flowers, both handsome plants.

13. E: LINEARIFOLIUM, *Linear-leaved Hemp Agrimony*, a perennial and native of South-Carolina, growing in low, wet and inundated places; the leaves are small, linear, lance-shaped, and grow in bundles all over the stalk; the flowers are white.

14. E: VERBENÆFOLIUM, *Vervain-leaved Hemp Agrimony*, grows naturally in the low grounds of Carolina; the leaves are sessile, erect, oval, lance-shaped, indented and rough; the flowers are small singly, but grow in a kind of corymb, or little bundles, and are white.

15. E: GLANDULARUM, *Glandular Hemp Agrimony*, grows naturally in the sandy lands of Carolina; the leaves are long, lance-shaped, serrated and pointed.

16. E: FALCATUM, *Falcated Hemp Agrimony*, grows naturally in the Ohio river swamps, &c. the leaves are smooth, oval, lance-shaped, falcated, or hooked, pointed and slightly serrated, they grow usually by fours at the joints in whorls, and the flowers are white.

17. E: VOLUBILI, (*Conyza Americana Scandens of Amm.*) *Houston's Eupatorium*, a native of Vera Cruz, hath weak, slender, twining stalks, branching by pairs from the joints, and will, if supported rise eight or ten feet high; the leaves are heart-shaped, oval, sharp pointed, smooth and entire; the flowers grow in long, branching spikes, and are small and white.

18. E: KLEINIA, *Climbing Kleinia*, a native of Jamaica, the stalks will twist about any thing to the height of six or seven feet; the leaves are heart-shaped, hastated, angular, indented and acute; the flowers grow in spikes and are white.

19. E: FRUTICOSA, *Shrubby Dalea*, a native of Jamaica, it rises with an upright, shrubby branching stalk eight or ten feet high; the leaves are spear-shaped, venose, slightly serrated, smooth and opposite; the flowers come out in long, loose spikes, and are white.

20. E: ZELANICUM, *Eupatorium of Ceylon*, hath also a shrubby, branching stalk, six or eight feet high; the leaves are oval, hastated, indented, eared, green above and white underneath, growing on short footstalks; the flowers grow in clusters of which there are three varieties, one is white, another yellowish, and another pale purple. They are all remarkable for the agreeable odour they continually emit when in full blow.

21. E: ODORATUM, *Sweet Scented Eupatorium*, also a native of Ceylon, the stalks are slender, hairy, branching, and four or five feet high, the leaves are oval, angular, indented near the base, pointed, hairy, and of a hoary whiteness underneath; the flowers are produced in leafy bunches, are large, of a white or purplish colour, and possess a fine fragrance.

*Note.* Mr. Michaux mentions an E: Maculatum, which he observes hath a very great affinity to the Purpureum, or 8th species, and is probably only a variety—also, E: Serotinum, with the stalk all over dusted as it were; the leaves shaped like the Greek Delta, slightly serrated, and having white flowers. This latter he observes grows naturally in the maritime parts of Carolina, generally in low grounds, among Rushes. They are all propagated from seeds, layers, cuttings and dividing the roots.

**EUPHORBIA**, *Burning Thorny Plant, Spurge, &c.* a genus of the Dodecandria Trigynia class, and 38th Natural Order *Tricoceæ*, the calix is a monophyllous, ventricose, coloured, permanent perianthium, indented in four and in a few species in five parts at the edge, the corolla is four or five turbinated, thick, gibbous, truncated, permanent petals, unequally situated, alternate with the segments and affixed by their ungues to the edge of the calix, the pericarpium is a roundish, trigonous, trilocular capsule, which opens with an elastic force for the discharge of the seeds, which are single and roundish. It is to be observed that Michaux has placed this genus to the Monoccia Monadelphia class. There are 110 species assigned to it.

1. E: ACULEA, *True Euphorbium of the Ancients* of which there are two principal varieties, viz. the upright, and the spreading, grows naturally in India, the stalks of the first are triangular, naked, compressed, send forth three or four cornered, jointed, compressed branches, which grow erect and are armed with short crooked spines, the whole plant is destitute of leaves. The spreading variety hath triangular, succulent, compressed, jointed stalks, seven or eight feet high, and sends forth several irregular spreading branches from the sides, which are also angular, succulent and compressed, the leaves are short, roundish and produced from the ends of the branches, but soon fall off. Among the leaves a few flowers make their appearance, their colour is white, with hairy thick petals, and of short duration.

2. E: CANARIENSIS, *Canary Euphorbium*, the stalks are very thick, green, succulent, quadrangular and quinquangular, armed with black crooked spines which come out by pairs, and send forth many large cornered, succulent prickly branches which diverge from the main stalk and then turn upwards in the manner of a chandelier, the whole plant is destitute of leaves, the flowers come out like the foregoing.

3. E: LIGULARIA, *Oleander Leaved-Euphorbium*, a native of India, hath a thick; upright, firm angular stalk, possessed of tubercles which are oblique to the angles, sends forth several spinous branches near the top, and grows six feet high, the leaves are produced from the tubercles and upper parts of the branches, they are

of an oblong figure, rounded at the top, smooth, entire, and of a shining green colour, these leaves are produced in Autumn and fall off in spring, leaving the plant entirely naked, some time after this the flowers put out, and are of a greenish white colour.

4. E: VOLUBILIS, *Climbing Indian Spurge*, a native of Africa, hath slender, taper, ligneous, smooth stalks, which twist about any thing that is near them to the height of ten feet, the whole plant is destitute of leaves.

5. E: INDICUS, *Indian Shrubby Spurge*, hath thick, taper, succulent stalks which become at length woody and divide into many branches, the leaves are small and scattered. Its mode of flowering unknown.

6. E: FRUTICOSA, *Venice Sumach-Leaved American Spurge*, a native of the West-Indies, hath an upright, shrubby, branching stalk, seven or eight feet high, covered with a light brown bark, the leaves are nearly heart-shaped, indented at the extremities and opposite, the flowers are small and yellow.

7. E: CURASSVICUS; *Bastard Spurge*, of which there are two grand varieties, the Myrtle-Leaved and Laurel-Leaved, they are natives of the West-Indies, the stalks of the first are shrubby, smooth, succulent and grow to be twelve feet high, requiring support, the leaves are oval, succulent, sessile and are varied alternately in two rows of flowers, are of a beautiful scarlet colour. The Laurel-leaved variety hath thick, woody, succulent stalks, the height of the other, the leaves are of a thick consistence, oblong, oval, of a dark green, and ranged alternately in two rows, the flowers are of a deep red, succeeded by roundish capsules.

8. E: OFFICINALIS, *Officina Euphorbium*, a native of Ethiopia, and most of the warm parts of Africa, hath thick, roundish, succulent stalks, which while young have eight or ten angles, and send forth many irregular distorted prickly branches; diverging at first horizontally from the main stalk, and then many of them turn upwards, almost in a perpendicular direction; the flowers are of a greenish white colour, and come out from the upper parts of the branches. The above are stove plants.

*Note.* This latter species is said by Linnæus to be the sort which produces the famous drug called Euphorbium. However this may be, the whole of those already enumerated abound with an acrid milky juice, which, inspissated, have been indiscriminately imported for medicinal uses. The Colleges of London and Edinburgh conceiving, and with propriety, (its extreme acrimony, exulcerating the mouth and fauces tearing away the fine mucus of the bowels, and bringing on fatal Dysenteries, &c.) that it cannot safely be exhibited internally, have denied it a place in their *Materia Medica*; though it is still retained in some Pharmacopœias. It is one of the most drastic of the vegetable purgatives, and its virulence is so great as to render it unsafe even as a Sternutatory, or medicine to provoke sneezing—externally it has been used as an ingredient in plaisters, tinctures and powder, for cleansing ulcers, and promoting the exfoliation of bones, &c. Hoffman says it ought to be expunged from the list of internal medicines: and externally it requires care.

9. E: HEPTAGONUM, *Septangular burning thorny Plant*, a native of Ethiopia. It hath a thick, succulent, upright stalk, which rises to about a yard high, and sends forth several succulent, septangular branches, armed with long, black, awl shaped single spines; the flowers come out from the ends of the spines; they are small and of a greenish colour, succeed by small, roundish capsules.

10. E: POLYGONA, *Polygonous Euphorbium*, also a native of Ethiopia, the stalks are succulent, roundish, swelling in the middle, have many tuberos or knotted angles, and between them long, straight spines, they grow about two feet high; the flowers are produced from the ends of the branches, and are of a yellowish green colour.

11. E: MAURITANIE, *Mauritanian Spurge*, a native of Africa, the stalks are slender, weak, succulent, taper, covered with a light green bark, and grows three or four feet long, and unless supported lie on the ground; the upper parts are garnished with oblong, smooth, entire leaves, which grow alternately, the lower parts are naked, and the flowers come out in clusters, and are of a yellowish green.

12. E: MULTANGULARIS, *Torch Thistle Euphorbium*, a native of Ethiopia, hath thick, succulent stalks, with many angles, armed with single awl-shaped spines, and send forth irregular, distorted branches, also angled and armed in the same manner as the stalk, the flowers are produced from the angles at the ends of the branches, they are small, and of a greenish white colour, succeeded by small roundish capsules.

13. E: CAPUT MEDUSÆ, *Medusa's Head*, a native of Ethiopia; of this species there are several varieties of great singularity, known by the following names.

*Common Medusa's head*, the stalks of this sort are thick, roundish, succulent, scaly, and send forth many scaly, succulent, roundish branches, which twist and wind over each other in the manner of Serpents, from whence the name; the leaves are thick, narrow, succulent, are produced chiefly from the upper part of the branches, but soon drop off; the flowers are white.

*Little Medusa's head*; the stalk of this is thick and short, and the branches, wind in the same manner with the foregoing; the leaves are narrow and the flowers white.

*Dwarf procumbent Medusa's head*, is a still lower plant seldom more than three inches high; the branches are about six inches long, have swelling scales, which are almost square, and spread themselves on the ground; the flowers are like the former.

*Spreading Medusa's head*, hath stalks about six inches high with a few preading branches, these branches are not scaly, but in other respects like the former sorts.

*Deciduous Medusa's head*, grows about a foot high, having succulent, scaly branches, which lie on the ground; the leaves are narrow: the flowers small, white and in plenty.

*Double branching Medusa's head*, hath a thick, succulent, oblong, smooth stalk, which sends forth several weak, double branches, which spread on the ground; the leaves are narrow, and the flowers come out like the former.

14. E: IPECACUANHA, *Ipecacuanha Spurge*, or *Carolina Hippo*, a perennial and native of Carolina, Pennsylvania; &c. the stalks of this plant are upright, divided by pairs, and grow to about two feet high; the leaves are spear-shaped, undivided, and of a bluish green colour; the flowers come out singly from the wings of the stalks on footstalks; they are of a greenish colour, tipped with yellow, and blow in May. There is also another *Spurge*, *Indian Physic*, or *Hippo*—This plant is a native of the United States, and is peculiar to light, dry, sandy soils, and grows abundantly in New-Jersey and the maritime districts of the Southern States, particularly South-Carolina. It is a pretty plant, the stem rather procumbent and diffusive in their manner of growth; it very much resembles in growth and appearance the *Arrachis Hypogaios*, or *Ground Nut* leaves. The leaves are remarkably variable in their figure, but generally oblong, or broad lanceolate, whilst others are long and narrow, some almost linear, like grass, but all are of a full, dark crimson colour, except such as grow in the shade; which are of a lucid green, elegantly reticulated with crimson veins.

*Medical virtues.* In Medicine it is a sure and powerful emetic, but perhaps too drastic, and ought to be administered with caution, and by such as have investigated its properties. It is an Indian medicine, yet commonly used by country people.

*Note.* There are many plants which are called Hippo in the up country, one of which we have already mentioned under the article *Apocynum Canadense*, another *Asarum*, and another *Asclepias Currassavicum*, (this latter is poisonous,) these, together with the present have been considered by different authors to be the true Hippo—It is now however asserted that it is neither, but is found to be the *Psychotria*. It is strange that Hippo and Jalap, two Medicinal Simples, alike invaluable, and of which incalculable quantities are annually used, and have been in use near three hundred years, should yet be so little known as to the genera from which they are derived! I venture to assert that Hippo is a native of South-Carolina, that it grows spontaneously in our corn-fields, and of which I hope yet to be able to convince my impartial countrymen, so soon as I shall be enabled once more to explore our forests.

15. E: CYPARISSUS, *Aleppo Spurge*, a perennial, (as are the nineteen immediately following,) hath a very creeping root, which sends forth several stalks that divide by pairs, and grow about eighteen inches high; the leaves are oval, spear-shaped, pointed, and the lower ones are bristly, but the upper smooth; the flowers come out in large quinquefide umbels, and are yellow.

16. E: MARITIMUS, *Sea Spurge*, a native of the maritime parts of Europe, the stalks are about a foot and a half high, and reddish; the leaves are numerous, small, narrow, of a thickish substance and closely garnish the stalks all round in an imbricated manner; the flowers are produced in large umbels from the tops, and are yellow.

17. E: PORTLANDICUS, *Portland Spurge*, hath narrow, spear-shaped, reflexed leaves, and yellow umbels of flowers, is a native of Europe.

18. E: PITHYUSA, *Belgic Spurge*, or *Pithyusa*, a native of Germany, &c. hath spear-shaped, short, sharp-pointed leaves, like Juniper, and lie over each other imbricatum; the flowers are produced in umbels divided into five parts, each of which is again divided into two smaller, and are yellowish.

19. E: ESULA MINOR, *Sweet Spurge*; a native of Europe, hath feeble stalks, the leaves are spear-shaped, entire and obtuse; the flowers are produced in quinquefide umbels, and are red.

20. E: PEPLIOS, *Italian Spurge*, is a low plant, about ten inches high, the leaves are spear-shaped, obtuse, rough on their edges and hairy underneath, and the flowers are like the former.

21. E: TUBEROSA, *Aphios Spurge*, a native of Crete, hath a thick, knobbed, fleshy root, which sends forth a few stalks about eighteen inches high, the leaves are oblong, hairy and grow alternate all round the stalk; the flowers come out like the former, and are of a greenish yellow colour.

22. E: UNIFLORA, *Portulacoid Spurge*, a native of the United States, the leaves are oval, undivided, retuse, and of a bluish green colour; the flowers are greenish.

23. E: VERRUCOSIS, *Rough fruited Spurge*, a native of Germany and the East, the stalks are upright, divided by pairs near the top, and full of a milky juice; the leaves are spear-shaped, slightly serrated, hairy and downy underneath; the flowers come out in umbels like the 18th species, and are succeeded by very hairy, rough, warted fruit, containing the seeds.

24. E: VILLOSUS, *Hairy Spurge*, a native of Siberia; the stalks are ligneous, tough, milky and about three feet high; the leaves are spear-shaped, a little hairy on both sides, serrated near the extremities, and grow alternate; the flowers come out in umbels, and are yellow.

25. E: ORIENTALIS, *Oriental Spurge*, hath thick, succulent stalks, about a yard high, smooth and covered with a purple bark; the leaves are oblong, spear-shaped, smooth, and of a deep green colour; the flowers come out in quinquefide umbels, are large and of a greenish yellow.

26. E: COROLLATA, *Coralloide Spurge*, a native of the United State and the East-Indies, the stalks are woody, smooth, dichotomous, grow to be six feet high, and are covered with a red bark; the leaves are spear-shaped, obtuse, smooth and alternate; the flowers come out in umbels and are yellow.

27. E: UNIFORMIBUS, *German Spurge*, a native of Germany, the stalks are smooth, milky when broken, and about a foot and a half high; the leaves are spear-shaped, narrow, smooth, thick, and of a bluish green colour; the flowers grow in umbels and are yellow.

28. E: SPATULATIS, *Calabrian Spurge*, hath thick, succulent stalks, which are green and marked with cicatrices, when the leaves are fallen. The leaves are spatula-shaped, fleshy, concave, rough on their borders, sharp pointed, spreading and of a glaucous green colour; the flowers terminate the stalks in eight parted umbels and are yellow.

29. E: *ESULA MAJOR*, *Marsh Spurge* a native of Germany and Sweden, hath a thick, ligneous, smooth stalk, about three feet high; the leaves are spear shaped, thick, and of a whitish green colour; the flowers are produced in multifid umbels, and are of a greenish yellow.

*Note.* It is said this plant is a deadly poison, and that only outwardly applied it produces gangrene and mortification.

30. E: *HIBERNICUS*, *Irish, or Knotty Spurge*, a native of Ireland, the stalks are upright, unbranching, and about a foot high; the leaves are broad, oblong, entire and alternate around the stalks; the flowers grow in six parted umbels; are yellow and succeeded by warted capsules.

31. E: *DENDROIDE*, *Dendroide Spurge*, or *Tree Tithymale*, a native of Crete, Italy, &c. grows five or six feet high, with an upright, woody, branching stem; the leaves are oblong pointed and alternate; the flowers come out in umbels, are small and yellow.

32. E: *AMYGDALOIDE*, *Amygdaloide Spurge*, a native of Europe, hath an upright, shrubby stalk, about a yard high; the leaves are obtuse, and of a thickish consistence; the flowers are produced in close multifid umbels; the perianthium is of a greenish yellow colour, but the petals of the flowers are black.

33. E: *RUBENS*, *Red Spurge*, a native of Europe, attains a height of about four feet; the stalk is round, smooth, and covered with a reddish bark; the leaves are long, spear-shaped, entire, a little downy, and alternate; the flowers come out in multifid umbels, and are purple—there is a variety with yellow flowers.

34. E: *SYLVATICUS*, *Wood Spurge*, a native of Europe, the stalk is round, smooth, thick and woody; the leaves are spear-shaped, long and entire, and much like the foregoing; the flowers are produced in five pointed umbels, each part being composed of two smaller umbels, they are of a purplish colour.

35. E: *GRAMINIFOLI*, *Grass-leaved Spurge*, an annual and native of Georgia, Florida, &c. the leaves are linear, entire and irregular; the flowers are produced in bundles.

36. E: *DENTATA*, *Dwarf Spurge* an annual, and native of Tennessee, &c. the stalks are small and hairy; the leaves are oval, opposite and indented; the flowers come out from the tops in little clusters.

37. E: *MACULATA*, *Spotted Spurge*, an annual and native of Florida; it is a low plant sending forth many spreading; purplish coloured branches alternately from the sides; the leaves are oval, oblong, trinervous, slightly serrated, a little hairy and tender, and are elegantly marked with brownish or purple coloured spots; the flowers come out singly from the wings of the leaves, are small, and of a reddish yellow.

38. E: *ANNUUS*, *Corn Spurge*, grows naturally in corn fields in Europe, the stalk is upright, slender, full of a milky juice, and about a foot and a half high; the leaves are numerous, long, narrow, spear-shaped and alternate; the flowers grow in umbels, which are divided into five principal parts. These are the general descriptions of this numerous family of plants, they generally blossom



from June till August and are propagated from seeds, or by parting the roots—we shall however give the names of the remaining species so far as they have been noticed, which are as follows :

39. E: HELIOSCOPUS, *Sun Spurge* or *Wart wort*, *Churn staff*, or *Cat's milk*, a native weed of Europe, the juice tinges paper blue.  
 40. E: SERRATIS, *Serrated Spurge*, a native of the East Indies.  
 41. E: PLATIPHYLLOS, *Broad-leaved Spurge*, a native of Germany.  
 42. E: PEPLUS, *Petty Spurge*, also a native weed of Europe.  
 43. E: MARINUS, *Spanish Spurge*, a native of Spain.  
 44. E: OVATIS-OPPOSITIS, *Myrtle-leaved Spurge*, a native of Jamaica.  
 45. E: POLYGONIFOLIO, *Polygonum-leaved Spurge*, a native of Carolina.  
 46. E: SEMICORDATIS, *Small purple Sea Spurge*, a native of Europe.  
 47. E: CHAMÆSYCE, *Spurge Thyme*, a native of Siberia, &c.  
 48. E: NUMMULARIFOLIO, *Hoary Spurge*, a native of Carolina.  
 49. E: SUBDICHOTOMEA, *Small-flowered Spurge*, a native of India.  
 50. E: PANDURIFORMIBU, *Heterophyllous Spurge*, a native of Florida.  
 51. E: HERBACEA, *Campheachy Euphorbia*.  
 52. E: HYPERICIFOLIA, *Hypericum-leaved Spurge*, a native of the United States.  
 53. E: ESCULENTA, *Rough-leaved Euphorbia*, a native of India.  
 54. E: CAPATUTIA, *Greater Lathyrus*, a native of France and Spain.

55. E: MERCURIALINA, *Mercury Euphorbinm*, a native of Knoxville. I have found no other species enumerated. See *Tithymalus* EUPHRASIA, *Eyebright*, a genus of the Didynamia Angiosperma class, and 40th Natural Order, *Personata*; the calix is cylindrical and consists of four segments; and the capsule is oblong and Bilocular. There are six species, which however appear to have been confounded with the *Bartsia*, which see.

1. E: OFFICINALIS, or *Eyebright*, an annual indigenous plant, growing naturally in Carolina, and on heaths, dry barren meadows, and in pastures of Europe; it flowers from July to September; the leaves are linear, ovate and sharply indented about the edges; this vegetable is remarkable for not thriving in any situation unless it be surrounded by plants taller than itself.

*Part used.* The leaves.

*Sensible properties.* Astringent bitter taste.

*Medical virtues.* Ophthalmic, Anticleric Hildanus says he has known old men of seventy who had lost their sight, recover it again by the use of this herb; later practitioners however have not been so happy as to obtain such good effects from it. It is also recommended in Jaundice. It is eaten by cows, horses, sheep and goats, but refused by swine.

EURYANDRA, a genus of the Polyandria Trigynia class of plants; the calix is a five leaved perianthium, with small, roundish and concave leaves; the corolla consists of three roundish, hollow petals, longer than the calix; the stamina are very many capillary

filaments, much dilated at the apex; the pericarpium three egg-shaped folioles, containing several seeds.

**EXACUM**, a genus of the Tetrandria Monogynia class, and 20th Natural Order, *Rotaceæ*; the calix consists of four leaves, and the corolla of four segments, with a roundish tube, the capsule is bisulcated, and has two cells containing many seeds. There are two species.

**I. E: PEDUNCULATIS**, (*Centaurium minus hypericoides* of Pluke.) *Indian Exacum*, an annual and native of India, the stalk is round, slightly striated, upright, branching near the top, and eight or ten inches high; the leaves are spear-shaped, oval and opposite by pairs; the flowers come out from the ends of the branches and sides on long slender footstalks, are small, very numerous, of a golden yellow colour, and blow in July and August. This plant resembles much the St. John's wort, and Centaury. We have no account of the other species—it is propagated from seeds.

**EXCOECARIA**, *Aloes Wood*, a genus of the Dioecia Triandria class, and 38th Natural Order, *Tricocceæ*; the male amentum is naked; there is neither calix nor corolla; there are three styles, and a three seeded capsule. There is but one species, a native of China.

**E: AGALLOCHA**, *Aloes Wood*, it attains the height of the Olive tree, the trunk is of three colours, and contains three sorts of wood, the heart is that of *Tambac*, or *Calambac*, which is dearer in the Indies than even Gold itself! By referring to the article *Agallochum* and attending to these additional particulars, and also the article *Calamba*, we shall discover their agreement in various particulars, which confirms the opinions of former writers. The uses to which this precious wood is converted in China, are in perfuming clothes, and apartments; in medicine it is esteemed a sovereign cordial in fainting fits, a restorative in the palsy, and a cure for ascariides in children. It is also burnt as Incense in the Chinese and Indian Temples, and it is used to set the most precious Jewels that are wanted in the Indies. See *Agallochum*, *Calamba*, and *Xylo Aloes*.

**EXIGUA**. See *Euphorbia*.

**EYEBRIGHT**. See *Euphrasia*.

## F.

**FABA**. See *Vicia*.

**FABAGO**. See *Zygothillum*.

**FAGARA**, *Iron Wood*, a genus of the Tetrandria Monogynia class, and 43rd Natural Order, *Dumosæ*; the calix consists of four segments, and the corolla of four petals, and the capsule has four cells, two valves and contains one seed. There are five species, all natives of the warm parts of America; rising with woody stems more than twenty feet high. They are propagated from seeds and are stove plants. See also *Sideroxylon*.

**FAGCNIA**, a genus of the Decandria Monogynia class, and 14th Natural Order, *Gruinalis*; the calix consists of five leaves, and the corolla of five cordated petals; the capsule has five cells

with one seed in each, and ten valves. There are three species, all natives of the East.

1. F: SPINOSA, *Cretan Fagonia*, is a low plant, sending forth several branches, which lie on the ground; the leaves are trifoliate being composed of three spear-shaped, plain, smooth folioles, which grow opposite at the joint, and immediately under them on each side of the stalk is a pair of spines; the flowers come out singly and are pale blue—there is a variety with narrower leaves, and larger reddish purple flowers.

2. F: HISPANICA, *Spanish Fagonia*, this species is free from spines; the leaves and flowers like the foregoing.

3. F: ARABICA, *Arabian Fagonia*, hath ligneous stalks, sending forth branches armed with very long thorns; the folioles are of a thickish substance, but narrow and convex on one side; the flowers are pale blue; the first is an annual, the other two are biennials, and are propagated by seeds. They require to be housed in the winter.

FAGOPYRUM, *Buck Wheat*. See *Polygonum*.

FAGUS, the *Beech*, a genus of the Monoecia Polyandria class, and 50th Natural Order, *Amentacea*, the calix of the male is bell-shaped, and consists of five segments; it has no corolla, but 12 stamina; the calix of the female consists of four teeth, it has no corolla; the styli are three, and the capsule is muricated, has four cells, and two seeds. There are 3 species.

1. F: SYLVATICA, *Beech tree*, is a native of America, and rises sixty or seventy feet, growing to a great size, its stateliness and grandeur of outline, places it on a level with the oak. Its foliage is peculiarly delicate and pleasing to the eye, and its bark is extremely smooth and silvery.

*Domestic uses.* The wood of this tree is almost as necessary to Cabinet Makers and Turners as Oak is to Ship Builders; when properly cured, it is a firm, close wood, and capable of receiving high polish; the young leaves are used by the country people as a pot herb, and in Europe the poorer class stuff their bedding with the dry leaves. The Mast or Nut affords a nourishing food to swine, though they occasion giddiness and head ache in the human species; an Oil is also obtained from them which is used in many parts of France and Silesia instead of Butter, which is said to be little inferior to Olive Oil, and the pulp left after extracting the oil is said to be sweeter and more palatable than before, and may be easily converted into flour of a similar taste and colour to that of wheat.

2. F: CASTANEA, *Spanish or Black Chesnut tree*, also a native of the United States, it flourishes on poor gravelly, or sandy soils, and will thrive in any but moist or marshy situations. The characters of the Chesnut are the same as the Beech, except that the male flowers are disposed in cylindrical catkins; the styles more numerous and bristly; the capsules much larger, round, and set very thick, with long, prickly spines, containing from one to four or five, but generally two or three nuts, filled with a sweet kernel.

*Domestic uses.* This tree is highly valuable for many purposes, and ought to be carefully introduced into settlements contiguous

to cities; although plentiful in the up country, we have scarce any within a hundred miles of Charleston. The superiority of the timber over most others in point of durability is well known; in England a tree exists called "the great Chesnut of Tortworthi, it measures 52 feet in circumference, or seventeen and nearly one third feet in diameter, it is probably not less than a thousand years old. The wood splits very easily, and is converted into lasting fence rails; much labour might be saved by encouraging their growth, as one hand can get from four to five hundred rails per day, whereas a smart labourer cannot get more than 150 or 200 rails from most other timber trees. The only objection to this timber is its excessive brittleness, otherways it might be employed in every article of husbandry, mechanics, &c. and may, except in such positions as require great support. The fruit is rendered acceptable in many forms; though recent, and eaten in quantity, they are of difficult digestion—when well dried they are less hurtful; the Germans roast them among embers, and eat them with butter and salt, the French with lemon juice and sugar, and the Americans principally fatten their hogs with them. It is also employed in several articles of Confectionary, as a substitute for Coffee, and in the preparation of Chocolate; and in Italy it is said to be almost the only food of the common people, not only boiled and roasted, but also in puddings, cakes and bread.

3. F: *CASTANEA PUMILLA*, *Dwarf Chesnut*, or *Chinquelin*, this seldom rises above eight or twelve feet, sometimes eighteen or twenty, otherwise much resembling the Chesnut, its fruit capsules are smaller, though similar to the former, and contains generally but one (sometimes two) conical-shaped nut; when two nuts are enclosed in a capsule the depression common to the Chesnut is remarkable, in this also. There are two varieties in South-Carolina, i. e. this already described, and the *Fagus Americana*, or *Low bush Chinquelin*, seldom exceeding two feet in height, growing almost over the whole of the interior of this state. The fruit of the low bush appear larger and better than those of the former: the fruit is much sweeter than Chesnut, though in quantities produce similar effects. Boiling increases their agreeable taste, and renders them more salutary as food.

FALSE IPECACOANHA, or Fever Root. See *Triosteum*.

FAIR MAIDS OF FEBRUARY. See *Galanthus Nivalis*.

FASSEL or FAUSSEL NUT. See *Areca Catechu*.

FAT HEN, or Wild Orache. See *Atriplex Hastata*.

FEA BERRY, or Rough Goose Berry. See *Ribes Grossularia*.

FEDIA RADIATA of Gaert. and Michaux. See *Valeriana locusta radiata* of Linn.

FELL WORT. See *Gentiana*.

FEN-BERRIES. See *Vaccenium*.

FENNEL COMMON. See *Anethum fœniculum*.

FENNEL the Water. See *Callitriche verna*.

FENNEL FLOWER of Crete. See *Gandella*.

FENUGREEK. See *Trigonell fœnugrecum*.

FERN, the Male. See *Polygodim Felix mas.*

FERN, the Female. See *Ptetris Aquilina.*

FERN, the flowering. See *Osmond Regalis.*

FERRARIA, in honour of Ferrarius, a genus of the Gynandria Triandria class, and 6th Natural Order, *Ensata*; the calix consists of two carinated spathæ, placed alternately, and containing each one flower; the corolla is six oblong, acuminate petals, fringed and turned back on their edges, and alternately smaller; the pericarpium is an oblong, triquetrous capsule, which is thickest at the upper end; formed of three valves containing three cells; the seeds are numerous and roundish. There is but one species, a native of the Cape, to be seen in the Botanic Garden of South-Carolina.

F: CAPENSIS, (*Iris stellata* of Barrel. *Narcissus indicus* of Rudd.) *Cape Ferraria* hath a tuberous, roundish, compressed root, brown on the outside and white within; the stalk is thick, round, upright, branching near the top, and a foot and a half high; the leaves are nearly sword-shaped, obtuse, pointed, smooth, hollowed, of a light green colour, grow alternately, and embrace the stalk with their base; the flowers come out from the ends of the branches on short footstalks, are of a whitish green colour on their outside, and of a violet colour within. There is a variety with deep purple, and another with reddish flowers; they are propagated from seeds, or offsets, and are green house plants. There is a great singularity in the roots of one of the sorts; that it vegetates only every other year, and sometimes every third year, in the intermediate space they remain inactive, though very sound and good.

FERULA, *Fennel Giant*, a genus of the Pentandria Digynia class, and 45th Natural Order, *Umbellata*; the general umbel is globular, the partial is of the same figure, the general involucre is caducous; the partial is small and composed of several narrow leaves; the proper perianthium is scarce distinguishable; the general corolla is uniform, the florets have each five oblong, erect petals, nearly equal; the pericarpium is an elliptical, plain and compressed fruit, divided into two parts, and marked on each side with three prominent lines, the seeds are two, large, elliptical, plain and striated on both sides. There are nine species. This genus is remarkable for affording those various Medicinal Gums Ammoniac, Assafetida; Galbanum, and Sagapenum.

1. F: FOEMINA PLINII, *Common Fennel Giant*, a perennial and native of the southern parts of Europe, the root is very long, thick, and full of a milky juice; the radical leaves are large, composed of a multitude of long narrow, undivided segments, of a pale, but bright green colour, and spread on the ground; the stalk is very robust, round, hollow, jointed, ten or twelve feet high, and is adorned with leaves like the radical ones; the flowers come out from the ends and sides of the stalks, in large roundish umbels, they are of a yellow colour and blow in June.

*Part used.* The concrete juice of the plant called Gum Sagapenum.

*Sensible properties.* The whole plant is of a strong smell, and an acrid taste, the Gum is of a disagreeable smell, resembling that of Leeks, and its taste hot and bitterish.

*Medical virtues.* Sagapenum is an useful aperient and deobstruent, and is frequently prescribed either alone or in conjunction with Ammoniacum, or Galbanum for opening obstructions of the viscera, and in Hysterical disorders arising from a deficiency of the menstrual purgations. It likewise promotes expectoration, and proves of considerable service in some kinds of Asthmas, and Chronic Catarrh, where the lungs are oppressed by viscid phlegm. It is most commodiously given in the form of pills, from two or three grains to half a drachm, may be given every night, or oftener, and continued for some time—However the Galbanum and Ammoniacum are preferred by the College of Edinburgh.

*Domestic uses.* The stalks when dry are admirable for lighting fires, and the pith is so very flammatory, that it will burn like tinder, catching fire from the smallest sparks of the flint.

2. F: ASSAFÆTIDA, *Assa Fætida*, or *Hingeseh*, a native of Persia, the root is very thick, fleshy and full of juice, striking very deep into the ground; the leaves are composed of several folioles, which are sinuated, obtuse and of a strong, disagreeable odour, the stalks are very thick, pithy, ten or twelve feet high, and divide into many branches, these as well as the mainstalk are terminated with the flowers, growing in small umbels, they are of a greenish yellow colour, blow in July, and are succeeded by a flat, yellowish seed. This is one of the several plants which produce the Assafætida—Mr. Laurens in his “New System of Agriculture and Gardening” has taken considerable pains to ascertain the genuine Assafætida plant, he proves that the modern Asa is corrupted from Laser and Laserpitium, also an Umbelliferous plant; and that these are the ancient Silphium, which he considers to be the plant producing that Drug. I expect the Ferula of the moderns will prove to be the Laserpitium and Silphium of the ancients, I would fondly transcribe a part of Mr. Laurens’ letters on this subject, but the limits of this work will not admit me; the reader is therefore referred to his work in folio page 384 to 400, where much useful matter concerning this plant may be collected. Dr. Hope has introduced it into the Botanic Garden of Edinburgh, where it is found to bear the vicissitudes of that climate in the open air.

*Part used.* The concrete juice of the plant.

*Sensible properties.* Strong fetid smell, somewhat like Garlic, a bitter, acrid, biting taste.

*Medical virtues.* It is the strongest of the fœtid Gums, and of frequent use in Hysterical and other kinds of nervous complaints; it is of considerable efficacy in flatulent cholics; and for promoting all the fluid secretions in either sex. It is an ingredient in the Official Gum-pills, fœtid tincture, and fœtid volatile spirit.

3. F: GLAUÇO, *Glaucous Fennel Giant*, a native of Italy, the radical leaves are large, glaucous, and divide into a multitude of long narrow segments; the stalks are upright, large, jointed, hollow, and seven or eight feet high; the flowers are produced in umbels, and are yellow.

4. F: TINGITANA, *Fennel Giant from Tangier*, a native of Barbary, the roots are very large, thick and juicy; the leaves are com-

posed of a multitude of jagged parts, each of which is divided into three unequal segments, the whole leaf is of a grassy green colour, large, and the radical ones spread themselves on the the ground; the stalks grow ten feet high; the flowers come out in large umbels and are yellow.

5. F. LATIORE, *Sicilian Fennel Giant*, the root is thick, long, full of purple juice, the leaves pinnatifid; the pinnæ are plain and trifid, they are of a dark green colour; the stalks grow eight feet high; the flowers grow in roundish umbels, and are yellow. This plant is said to produce the Gum Galbanum of the Shops. I apprehend it is the same with the *Bubon Galbanum*, which see.

6. F: ORIENTALIS, *Oriental Fennel Giant*, it is a native of the East, the leaves are finely divided, and each of them possess a multitude of segments, which are bristly, and of a pale green colour; the stalks grow about three feet high; the flowers come out in small umbels and are yellow.

7. F: LASERPITIUM, (Quere, *Laserpitium Orientale* of Tourne?) *Spignel-leaved Fennel Giant*, also a native of the East, the leaves are composed of a multitude of appendiculated and bristly folioles, the radical ones are large, spreading, and grow on angular, channelled footstalks, those on the stalks are small, elegant and surround them at the joints; the stalks grow to a yard high, and are branching; the flowers terminate them in large umbels of a yellow colour. Probably this is the species which produces the Gum Ammoniac.

*Part used.* The inspissated juice of the plant.

*Sensible properties.* It has a nauseous sweet taste, followed by a bitter one, and a peculiar smell somewhat like that of Galbanum, but more grateful; it softens in the mouth, and grows of a white colour upon being chewed, thrown upon live coals it burns away in flame, it is in some measure soluble in water and in vinegar, with which it assumes the appearance of milk, but the resinous part amounting to one half subsides on standing.

*Medical virtues.* Ammoniac is an useful deobstruent, and frequently prescribed for opening obstructions of the abdominal viscera, and in hysterical disorders occasioned by a deficiency of the menstrual evacuations: It is likewise supposed to deterge the pulmonary vessels; and proves of considerable service in some kinds of asthmas, where the lungs are oppressed by viscid phlegm, in this intention, a solution of Gum Ammoniac in vinegar of squills, proves a medicine of great efficacy, though not a little unpleasant. In long and obstinate cholics, proceeding from viscid matter lodged in the intestines, this gummy resin has produced happy effects, after the purges and the common carminatives had been used in vain. It is most commodiously taken in pills to about 20 grains every night or oftener; externally applied, it softens and ripens hard tumors, a solution of it in vinegar stands recommended by some for resolving even scirrhus swellings, a plaister made of it and squill vinegar, is recommended by some in white swellings, a dilute mixture of the same is likewise rubbed on the parts which are also fumigated with the smoke of Juniper-berries: It is an ingredient in the squill pills, and a solution of it in pennyroyal water is called *Lac Ammoniacum*, from its milky colour.

8. F: LIBANOTIS, (*Libanotis Ferulæfolio* of C. B. *Panax asclepium* of Lobel.) *Istrian Fennel Giant*, the leaves are composed of a multitude of folioles that are narrow, entire and have appendages on both sides; the stalks are about a yard high; the flowers come out in small umbels at the joints, and are of a yellowish colour.

9. F: LUCIDA CANADENSIS, *Canada Fennel Giant*, an indigenous species growing naturally in Virginia and Canada; the leaves are much divided, large and of a most beautiful bright, or glossy green; the stalks are upright, firm, pithy, and about a yard high; the flowers come out from the ends and sides of the stalks in umbels, they are small and yellowish, and blow in July. They are easily cultivated from seeds.

FESTUCA, a genus of *Grasses*, belonging to the *Triandria Digynia* class, and 4th Natural Order, *Gramina*; the calix has two valves, and the spica is oblong and cylindrical. There are 39 species, though later amendments admit but sixteen.

1. F: OVENA, *Sheep's fescue grass*, a perennial, grows in dry sandy soils, the leaves are narrow, compressed, bristly, and of a dark green; the stalks are almost naked, square, and six inches high, and the flowers come out in aristated panicles, and it flowers in June. Cows, Horses and Goats eat it, Sheep are very partial to it. A variety of this species is the Proliferous Grass, the spikes of which send forth young plants before the seeds are ripe.

2. F: RUBRA, *Creeping, or Purple Fescue grass*, is a perennial, grows on elevated heaths, and dry barren pastures of Europe, hath narrow, bristly leaves, which form a cluster at the crown of the root; the stalk is rounded on one side, flat on the other; the flowers come out in panicles, ranged one way, and it flowers in June; it affords abundance of wholesome food for cattle at all times, as it retains its verdure throughout the winter, when almost every other vegetable is decayed.

3. F: DURIUSCULA, *Hard Fescue grass*, is also a perennial and native of Europe, grows as well in dry places as in flat meadows, and flowers in June; the leaves are slender, hard and bristly; the stalks are weak and jointed, and the flowers come out like the foregoing. It has not hitherto been cultivated, though it claims the attention of the farmer, for it frequently attains the height of three or four feet, shoots forth very early in the spring, is very luxuriant, and affords a wholesome and grateful food to all kinds of cattle.

4. F: ELATIOR, *Tall Fescue grass*, is also a perennial, grows in boggy meadows, and at the sides of wet ditches, where it often attains the height of four or five feet; the leaves are broad at bottom, diminish gradually to a point, and are two feet long; the stalks are thick, round, jointed, and two or three feet high; the flowers are produced in upright panicles, the spikes are destitute of aristæ, and flowers in June or July, sometimes twice in the year, and makes excellent pasture, but requires a rich soil; it is eaten by horses, cows, sheep and goats. There is a variety called—F: PRATENSIS, or *Meadow Fescue grass*, by Mr. Curtis, which will thrive not only in very wet, but also in dry soils; this variety produces abundance of



seeds, which speedily grow and are easily collected; it bears a close resemblance to *Ray Grass*, though in many respects greatly superior, being perennial, larger, more productive of foliage, and very hardy.

5. F: FLUITANS, or *Flote Fescue grass*, a perennial; which is common in wet ditches, ponds, and marshy places of Pennsylvania. Hudson river, &c. the stalks are long, crooked, and variously implicated with one another; the leaves are broad and coarse, and the flowers come out in ramose, erect panicles; the spikes are taper, beardless and of a whitish colour; it flowers from June to September; this plant is remarkable for its small, but very sweet and nutritious seeds, which are collected in several parts of Germany and Poland under the name of Manna Seeds, and used in soups, gruels and puddings, both for their excellent aliment and agreeable flavour. When ground into meal the seeds may be converted into bread, which is little inferior to that made of wheat; the bran separated in preparing the meal, is given to horses troubled with worms; but no water should be allowed these animals for several hours afterwards. Beside these useful purposes, it is a valuable grass; for cattle being so remarkably fond of it, they will endanger their lives in obtaining it; but as it grows only in waters having a miry bottom, it cannot be cultivated.

6. F: MYURUS, *Wall Fescue grass*, or *Cajon's tail grass*, an annual and native of Carolina, which grows on walls, dry, barren places, and road sides; it produces violet stalks from sixteen to 24 inches high, garnished with narrow, short, pointed leaves, growing singly at the joints, and surrounding them with their base: the flowers come out in spiked panicles, are very rough, and bend downwards with their own weight—and blow in June. This grass affords a sweet nourishing pasture, hence it might be cultivated with advantage, on a soil, where few other grasses will thrive.

7. F: AMETHYSTINA, *Amethystine Fescue grass*, a perennial and native of Europe, hath long, narrow, bristly leaves; the stalks are upright and slender, and a foot and a half high; its panicles of flowers put forth in June and July.

8. F: BROMOIDES, or *Barren Fescue grass*, an annual and native of Carolina, growing plentifully in the vicinity of Charleston; the leaves are narrow, pointed, and three or four inches long, the stalks are slender, jointed and six or eight inches high, garnished with leaves like the 6th species; the flowers are produced in panicles, which are smooth, and arranged one way, they appear in May and June.

9. F: DECUMBENS, or *Small Fescue grass*, a perennial and native of Europe.

10. F: SIMPLICIBUS, or *Arabian Fescue grass*, a perennial and native of Arabia, six feet high, and hath long, sharp pointed alternate leaves.

11. F: FILIFORMIBUS, *Spanish Fescue grass*, a perennial and native of Spain, the radical leaves are taper, edged, and about a foot long; the stalks are about four feet high; slender, taper, and have two or three tumid joints, and have short channelled leaves, placed alternately; the flowers are produced in downy spikes like panicles.

12. F. MUTICUS, *Palestine Fescue grass*, a perennial and native of Palestine.

13. F. MARITIMUM, (F: *Distichiphylla* of Michaux?) *Sea Fescue grass*, an annual and native of Spain and the maritime parts of Carolina, the leaves are awl-shaped, striated and three or four inches long; the stalks are very slender, jointed, and garnished with small pointed leaves; the flowers come out in narrow, straight spikes, each spike containing six flowers, which are aristated.

14. F. COARCTATA, *Long cupped Fescue grass*, an annual and native of Spain, the radical leaves are very short, and form a cluster at the crown of the root; the stalks are very slender, narrow, and three or four inches high; the flowers come out in straightened panicles, the spikes being very narrow, and cups longer than the florets. Besides these, Mr. Michaux gives the following as indigenous to the United States.

15. F: *Polystachia*, a native of Illinois—16. F: *Poaoides*, a native of St. Laurence—17. F. *Diandra*, a native of Kentucky, &c.

FEVERFEW. See *Matricaria*.

FEVER ROOT, or False Ipecacoanha. See *Triosteum*.

FEVILTEA, a genus of the Dioecia Pentandria class, and 34th Natural Order, *Cucurbitaceæ*; the male calix is quinquefid, the corolla same; there are five stamina, and the nectarium, consists of five filaments, connivent or closing together; the female calix is quinquefid; the style are three, and the fruit is a hard trilocular apple, with an hard bark.

FICOIDES, a name given to several distinct plants as the *Mesembryanthemum Musa*, and *Opuntia*, which see.

FICUS, the *Fig tree*, a genus of the Polygamia Trioecia class, and 53d Natural Order, *Scabridæ*; the common receptacle is turbinated, fleshy and conceals the floscules; the calix of the male consists of three segments, it has no corolla, but has three stamina; the calix of the female consists of five segments; it has no corolla and but one pistil and one seed. There are ten species.

1. F: CARICA, or *Common Fig tree*, a tree so well known as to exclude the necessity of a particular description, shall therefore only note the principal varieties, their uses, &c.

The principal varieties of the common Fig are, the Brown, or Chesnut coloured, Yellow, Green and Black. *Ischia Fig*—The *Murrey*, or *Brown Naples Fig*—The *Common Blue*, or *Purple Fig*. The small White, large White, Great Blue, little Blue, the Genoa, black Genoa, Vermisique, Minion, little Green Malta, round Naples, long Naples, Hanover, Gentile, and lastly, the Turkey Fig, which is in the greatest estimation.

*Medical virtues.* A decoction of Figs affords excellent gargles for cleansing the throat and mouth; externally applied, it softens, digests and promotes maturation; when in an unripe state the fruit, as well as the whole tree, yields an acrid, milky liquor, which, if taken as a medicine, proves both purgative and emetic, but externally a mild caustic, hence it is frequently employed for the removal of warts. This fruit also forms an ingredient in the Lenitive Electuaries, and pectoral draughts.

*Domestic uses.* As a fruit, we know none which is entitled to higher consideration. A decoction of the green branches and leaves of the Fig tree imparts a deep gold colour, of a brown reddish shade, the young branches communicate a delicate brown to cloth, prepared with a solution of Bismuth, but the leaves alone, yield a very deep yellow colour. The juice has been also substituted for Sympathetic Ink, as the characters written with it do not appear visible till they are exposed to a fire.

2. F: SYCO-MORUS, *Sycamore*, or *Mulberry-leaved Fig*, or *Pharoah's Fig*; a native of Egypt, it hath a robust trunk, branching near the top, and rises twenty or thirty feet high; the leaves are large, roundish, heart-shaped and entire; the the fruit is like that of the cultivated Fig in our Gardens, and contrary to most other kinds, disdaining the young shoots, burst forth from the trunk and larger arms of the tree; the fruit is of little relish, though some varieties deemed excellent.

3. F: RELIGIOSA, (*Candela Americana*), *Banian tree*, *Mangrove tree*, *Religious tree*, *Sacred tree*, *Sacred Fig*, or *Indian God tree*, a native of India; the trunk is robust, branching, and thirty or forty feet high, the leaves are heart-shaped, oblong, sharp-pointed, smooth, entire and grow on pretty long footstalks; the fruit is small, roundish, grows by twins on the young shoots, and is of little esteem; this tree is beautifully described by Milton in his *Paradise Lost*, Book ix. l. 1100. It is said to be perhaps the most beautiful of Nature's productions; it is asserted that a tree grows on an island in the river Nerbedda, ten miles from the city of Baroche, in the province of Guzerat: the remains of the principal stems of which are 2000 feet in circumference; it was formerly much larger, but part hath been destroyed by the high floods, which washed away part of its roots and stems. From many concurring circumstances I am led to believe that the foregoing; and following have been both confounded with the *Bontia*, or *Wild Olive of Barbadoes*.

4. F: BENGHALENSIS, *Bengal Fig tree*, a native of India; it rises with many implicated stalks and branches to upwards of 20 feet high; the leaves are oval, obtuse, smooth entire, and much veined underneath, the fruit grows on the young branches, is small, round and of no value; the branches of these trees strike root from their lower parts, and form amazing strong thickets in the countries where they naturally grow.

5. F: THEOPHRASTI, *Indian Fig of Theophrastus*, a native of both the Indies, the stem is woody, grows to be thirty feet high, and divides into many branches near the top; the leaves are spear-shaped, entire, smooth, veined underneath, and grow on longish footstalks; the fruit is about the size of a pea, of a purple colour, and of no value. The branches of this strike root like the foregoing.

6. F: RACEMOSA, (*Grossalaria domestica* of Rumph:) *Racemose Indian Fig*, also arises with a woody stem thirty feet high; the leaves are oval, entire, acute pointed, smooth, and of a bright green colour; the fruit grows in clusters on the younger branches, are small, and of no value.

7. F: MACULATO, *Spotted Fig*, a native of America, rises with a strong, branching stem to upwards of twenty feet; the leaves are large, oblong, sharp pointed, serrated, and in some manner resemble those of Spanish Chesnut; the fruit is moderately large, globular and spotted, but is seldom eaten.

3. F: REPENS, (*Varinga repens* of Rumph.) *Dwarf Chinese Fig*, a native of China and Japan; the stalks are tender, lie on the ground, and strike root at the joints; the leaves are oval, sharp-pointed entire, and of a bright green colour; the fruit grows from the sides of the youngshoots, but is small and of no virtue. They are propagated by cuttings or from Suckers; if by cuttings lay them in some dry, airy place a few days, that the wounded parts may heal—previous to setting them in the ground. See *Avicenia*, *Bontia*, &c.

FIELD WOOD. See *Citharexylon*.

FIELD BASIL. See *Clinopodium*.

FIG. See *Ficus*.

FIG MARYGOLD. See *Mesembryanthemum*.

FIGWORT. See *Scrophularca*.

FILAGO. See *Gnaphalium*.

FILBERT, the fruit of the *Corylus*, which see.

FILIPENDULA. See *Spirea*.

FIR TREE. See *Pinus*.

FISSIDENS a genus of the Cryptogamia Musci class of plants; described by Michaux as growing naturally at My Grand Father's Mountain, in Carolina—he gives two species of this Moss, viz.

1. F: SUB-BASILARIS—2. F: SCIRPIOIDES.

FIVE FINGER HERB. See *Cinquefoil*.

FIVE FINGER ROOT. See *Oenanthe Crocata*.

FLAG FLOWER. See *Iris*.

CORN FLAG. See *Gladiolus*.

SWEET FLAG. See *Acorus*.

FLAGELLARIA, a genus of the Hexandria Trigynia class; the calix consists of six segments; it has no corolla, and the berry contains but one seed. There is but one species, a native of the Indies.

FLAX. See *Linum*.

FLAX, Common Toad. See *Antirrhinum Linaria*.

FLEA BANE. See *Conyza*.

FLIXWEED. See *Sophia Chirurgorum*.

FLORENTINE IRIS. See *Iris*.

FLOWER DE LUCE: See *Iris*.

FLOWER FENCE. See *voinciana*.

FLOWER OF A DAY. See *Tradescantia*.

FLUELLEN. See *Antirrhinum Elatine*.

FLY-TRAP. See *Dionca Muscipula*.

FLY-TREE. See *Populus Tremuli*; &c.

FOOL'S PARSLEY, or LESSER HEMLOCK. See *Æthusa Cy-napium*.

FŒNUGREEK. See *Trigonella*.

FONTENALIS, *Water Moss*, a genus of the Cryptogamia Musci class; the antheræ is pooded, and the catsptra is sessile. There are four species of this genus, viz.

1. F: ANTIPYRETICA, *Greater Water Moss*, which grows upon rocks and roots of trees, in brooks, rivulets, slow streams, and ponds, it flowers from June to September, according to Linnæus, this species resists the action of fire, and if mixed with mortar for lining the inside of chimneys it renders them fire proof, as contrary to the nature of all other mosses, it is almost incombustible. Bohmer also remarks, that a thatched roof if covered an inch thick with the Greater Water Moss will be completely secured against fire.

2. F: MINOR, or *Lesser Water Moss*.

3. F: SQUAMOSA, or *Scaly Water Moss*.

4. PINNATUM, or *Feathered Water Moss*.

FORSKOHLEA, a genus of the Decandria Pentagynia class of plants, the calix is pentaphyllous and longer than the corolla there are ten petals spatulated or roundish before, with a linear base.

FORSTERA, a genus of the Gynandria Triandria class of plants, the perianthium is double; the exterior one beneath, three-leaved, the interior one above and six cleft, the corolla tubular.

FORSYTHIA; a genus of the Polyandria Monogynia class of plants, the calix is a perianthium above, consisting of nine short coloured leaves, the corolla has nine oval lanceolate nearly concave petals, longer than the calix, the pericarpium is a top-shaped, one celled nervous capsule. The seeds are numerous and chaffy. There is but one species.

F: SCANDENS (Decumaria Forsythia of Mich.) *Climbing Forsythia*, a native of South-Carolina, growing principally in swampy lands, it is a beautiful climbing plant, aspiring to a great height, the leaves are single, opposite, oval, sharp pointed at the tops, placed on footstalks that are somewhat downy. The flowers are produced in corymbs, having awl-shaped bractæ or floral leaves, are large, very white mellifluous, and finely scented. They blossom in April and May. I am indebted to the politeness of John Drayton, Esq. for the specific characters of the above, he having found it growing near his plantation at Santee.

FOTHERGILLA, (in Honour of the late Dr. John Fothergill) a genus of the Polyandria Digynia class of plants, the calix is a small abbreviated bell-shaped perianthium, lightly crenated on the margin into five or six incisions. There is no corolla, the germen bifid; the capsule bilocular, the cells twovalved, the seeds solitary and bony. There is but one species.

F: GARDENI, or ALNIFOLIA, *Alder-Leaved Fothergilla*.

FOUR O'CLOCK FLOWERS. See *Mirabilis*.

FOX-GLOVE, the COMMON or PURPLE. See *Digitalis*.

FOX-TAIL GRASS. See *Alopecurus*.

FRAGARIA, the *Strawberry*, a genus of the Icosandria Polygynia class, and 35th Natural Order *Senticosæ*, the calix is divided into ten segments, the petals are five, and the receptacle is an oval deciduous berry. There are three species, to one of which Mr. Michaux has given the name *Dalibarda*.

1. F: VESCA, or *Common Strawberry*, which is indigenous in Carolina, growing in woods, hedges and hollow ways, where its flow-

ers appear in the month of May or June, and are succeeded by small red fruit. The Common Strawberry is the parent Stock from which all the different varieties have been obtained by culture, the most remarkable of these are—1. F: *Sylvestris*—or *Wood Strawberry*, with oblong serrated leaves, and small white round fruit.

2. F: *VIRIDIS*, *Green or Pine Apple Strawberry*, which has received this name from its delicate flavour resembling that of the Pine-apples

3. F: *CANADENSIS*, *Scarlet or Virginia Strawberry*, which has also oval serrated leaves and bears a roundish berry of a scarlet colour.

4. F: *MOSCHATA*; *Fauboy or Musk Strawberry*, a native of America, it is remarkable for its rough pear-shaped leaves, and its large pale red fruit.

5. F: *CHILIASIS*, *Chili Strawberry*, has oval, thick, hairy leaves, large flowers and firm berries.

6. F: *ALPINE*, *Alpine, Monthly or Ever Flowering Strawberry*, has small oval leaves; diminutive flowers, and oblong pointed fruit of a moderate size, it was originally a French variety, and is in season from May to November. it furnishes but few offsets for transplantation. All the varieties of this vegetable are hardy perennial plants producing fruit from June to November.

*Part used.* The leaves, fruit and root.

*Sensible properties.* Fragrant smell, pleasant sub-acid taste.

*Medical virtues.* Aperient, Refrigerant and Diuretic, as a fruit they are delicious and wholesome, and may be eaten alone, with sugar, or with milk, but most agreeably with wine. They are cooling and laxative, a copious use of the fruit has relieved painful paroxysms of the stone, and are a preventative of that disease, and for dissolving the tartareous concretions on the teeth, an infusion of the young and tender leaves makes an excellent tea, they have been used with advantage in laxity and debility of the intestines, in immoderate secretions or suppressions of the natural evacuations, as likewise in hæmorrhages and other fluxes. they are also of considerable service as aperients in suppressions of urine, visceral obstructions, the jaundice and many other complaints the bark of the roots in decoction are serviceable in a similar degree.

*Domestic uses.* In domestic economy a palatable jam, wine and vinegar are prepared from the fruit. They are propagated by dividing the roots.

2. F. *SERRILIS*, or *Barren Strawberry*, a native of England and Switzerland, is in every respect smaller than any of the foregoing, and produces a barren juiceless fruit of no value.

**FRANKENIA.** *Sea-leath* or *Sea Chickweed*, a genus of the Hexandria Monogynia class, and 17th Natural Order *Calycanthaceæ*, the calix is funnel-shaped, and divided into five segments, the petals are five, the stigma has six divisions, and the capsule consists of one cell, with three valves. There are three species.

1. F: *LEVIS*, or *Smooth Sea-leath*, a native of Europe, hath liguleous stalks of a reddish colour, ten or twelve inches long, smooth and trailing on the ground, the leaves are slender and short, blunt,

smooth and grow in clusters at the joints, the flowers are small, come singly from the ends of the branches and are of a reddish purple colour.

2. F: PULVERULENTA, or *Broad-Leaved Sea Heath*.

3. F: CREICUM, *Hairy Sea Heath*, the stalks are hairy and procumbent, the leaves spear-shaped, short and grow six or eight together at a joint, the flowers come out in clusters; and are white, they are easily raised from seeds.

FRANKLINIA, (in honour of the Great American Philosopher, Doctor Benjamin Franklin of lov'd memory) a genus of the Monadelphia Polyandria class of plants, the calix is simple, the corolla is very large and expanded, the inferior petal or segment of the corolla is hollow, formed like a cap or helmet, and entirely includes the other four until the moment of expansion, its exterior surface is covered with a short silky hair, the borders of the petals are crisped or plicated, the fruit is large, round, dry woody apple or pericarp, opening at each end oppositely by five alternate fissures, containing ten cells, each replete with dry wedge-shaped, woody seeds. There is but one species noticed.

F: ALATAMAHA, Mich. and Bart. (*Gordonia Lasianthus* L. G. Franklinia of L. Heret) *Alatamaha Franklinia*, a native of the state of Georgia; Mr. Bartram observes that he never saw it at any other place wild, from Pennsylvania to Point Coupee on the banks of the Mississippi, but at the Alatamaha river in Georgia. There are two or three acres of ground where it grows plentifully. On first observing the fructification and habit of this tree, he says I was inclined to believe it a species of *Gordonia*, but afterwards upon stricter examination and comparing its flowers and fruit with those of the *Gordonia Lasianthus* or *Smooth Labilly Pay* I presently found striking characteristics abundantly sufficient to separate it from that genus, and to establish it the head of a new tribe which we have honoured with the name of the Illustrious Dr. Benjamin Franklin. It is a flowering tree of the first order for beauty and fragrance of blossoms. The tree grows fifteen or twenty feet high, branching alternately; the leaves are oblong, broadest towards their extremities, and terminate with an acute point, which is generally a little reflexed, they are highly serrated, alternate downwards and sessile, or have very short petioles; they are placed in alternate order and towards the extremities of the twigs are crowded together, but stand more sparsely below. The flowers are very large, of a snow white colour and ornamented with a crown or tassel of gold coloured refulgent stamina in the centre. See *Gordonia*.

FRASERA, a genus of the Tetrandria Monogynia class, the calix is four leaved, and persistent, the corolla consists of four petals, the stamen is a subulate filament, the anthera oblong. There is but one species, a native of Carolina.

F: CAROLINENSIS, (F. Walteri of Michaux) *Carolina Fräsera*; an indigenous plant, growing naturally in the low fenny grounds of South-Carolina, the stalk is erect, the leaves are oval, oblong and grow in whorls opposite, it hath some affinity to the genus *Gentiana*.

**FRAXINELLA:** See *Dictamnus Alba*, it is remarkable of this plant, that when in full blossom, the air which surrounds it in a still night may be inflamed by the approach of a lighted candle.

**FRAXINUS,** *The Ash*, a genus of trees belonging to the Polygamia Dioecia class, and 44th Natural Order, *Scpiariae*, the calix of the hermaphrodite is divided into four parts, it has no corolla, the stamina are two, and it has but one pistil and one lanceolated seed. There are but three real species.

1. F: **EXCELSIOR**, *Common Ash*, an indigenous tree well known to most kinds of Artificers. This tree delights in a rich soil, it attains its greatest height and perfection when at an age of from forty to fifty years, although it naturally grows in wet and loose grounds, it prospers remarkably well on a white calcareous soil. The trees growing on dry land, yield a more durable timber than those growing in swamps and low grounds. The varieties of this species are the Silver Striped, the Gold Striped and the Yellow coloured Ash.

*Part used.* Bark and seeds.

*Sensible properties.* The seeds have an acrid biting taste, the bark moderately astringent.

*Medical virtues.* The seeds are aperient, and the bark as before observed moderately astringent. It has however been succeeded by medicine more efficacious for these intentions.

2. F: **CAROLINIENSIS**, *Carolina Ash*, grows to the height of thirty feet; dividing into several branches, the small ones generally opposite, the leaves are composed of three or four pair of lobes terminated by an odd one of a light green colour, egg-shaped and pointed, their under surface covered with white downy hairs, the varieties of this species are F: **ORNUS**, *Manna Ash*, from the leaves of which manna is procured. F: **ALBA**, *White Ash*. F: **RUBRA**, *Red Ash*, F: **NIGRA**, *Black Ash*, and F: **PENNSYLVANIA**, *New Discovered or Pennsylvania Sharp Key'd Ash*.

*Part used.* The concreted juice of the variety called F: **Ornus**, which is the manna of the shops. This variety is said to grow in Italy.

*Sensible properties.* A faint sweetish taste.

*Medical virtues.* Manna is a mild agreeable laxative, and may be given to children and pregnant women, in some particular constitutions it acts very unkindly, producing flatulencies and distension of the viscera, this however may be remedied by the addition of some warm aromatic Manna is very slow in its operation, but its efficacy is much promoted by a substance which is itself very slow of operation, viz. Cassia. Geoffroy recommends acuating it with a few grains of Emetic Tartar. The mixture is to be divided into several doses, each containing one grain of the Emetic Tartar; by this management, he says, bilious serum will be plentifully evacuated, without any nausea, gripes or other inconveniencies.

3. F: **FLORIFERA**, *Flowering Ash*, of which there are two varieties, 1. *The Virginian Flowering Ash*, which when in blow, is infe-



rior in beauty to few of our flowering trees. It will attain a height of thirty feet, the leaves are of a fine green, smooth, serrated, and consists of about three pair of foliocs placed a good way asunder along the mid-rib, and are usually terminated by an odd one, the mid-rib is long but not straight, is jointed, and swelling where the leaves come out, the flowers white, and are produced in large bunches at the ends of the branches, the flowers exhibit themselves in a loose easy manner all over the tree, and blows in May. 2.

*Dwarf Ash of Theophrastus*, is a low tree for the Ash tribe, about fourteen or fifteen feet high, the branches are smooth and of a darkish green, the leaves also are pinnated, of a dark green, and serrated on the edges; but proportionably smaller than those of the Common Ash, the flowers of this sort make no show, though they are possessed of petals necessary to complete a flower, which are denied the Common Ash.

*Domestic uses.* All the species of ash contribute something towards supplying Domestic and Mechanic wants, particularly the Alba and Pennsylvania, these are much used by wheel-wrights, and carriage makers for shafts, rimmers, wheels and axles, not being apt to split or scale, it is also useful in farming, affording durable plough stocks.

The Prickly Ash is a tree of a different genus. See *Aralca Spinososa*. This plant is given with great success in snake bites in the up country.

FRINGED ANTHISTIRIA. See *Anthistirea*.

FRITILLARIA, a genus of the Hexandria Monogynia class, and 10th Natural Order *Cronaria*, there is no calix, the corolla consists of six bell-shaped petals, with a hollow nectarium above the unguis of each petal, and the stamina are of an equal length with the petals. There are five species.

This genus now swallows up many genera of authors. It contains the Corona Imperialis, Lilio, Fritillaria, and Petilium of Tournefort, Boerhaave and others. They are divided into three classes. 1. Crown Imperials. 2. Fritillaries. 3. Persian Liels.

1. F. INTEGERRIMIS, (*Lilium sive Corona Imperialis* of C. B.) *Crown Imperial*, a perennial and native of Persia. These are well known plants, and originally took their name from the tuft or bunch of leaves above the flowers, this tuft has very improperly been called a crown. There are many varieties of this species, and they continue to increase. The principal are, the Old, the Golden, the Lemon-Coloured, the Gold-Striped, the Light-Red, the Late-Red, the Majestic; the Double-Yellow, the Double-Red, the Triple, the Broad-Leaved, the Gold Striped-Leaved, and the Silver Striped-Leaved Crown Imperials. The root of the Crown Imperial is a large thick bulb, composed of many juicy scales; it is of a yellow colour, here and there a little tinged with purple, and of a very disagreeable strong smell, the stalk will grow to a yard or more in height, its colour of a light green and very thick, firm and succulent, the leaves are long and narrow, smooth and their edges entire, the flowers surround the stalks near the tops on short footstalks, they are of a complicated figure, large and bend downwards, each of them is composed of six petals, at the base of each petal is the

nectarium, which is a cavity filled with a honey-like juice: above this noble general flower, composed of so many florets, surrounding the top of the stalks, in this pleasing pendulous manner is a very large tuft of leaves which are long, narrow and pointed, and which is called the crown, and gives an air of majesty to the whole plant.

2. F: *ALTERNIS*, *Alternate-leaved Fritillary*, a perennial and native of Europe, the root is a white, depressed, succulent bulb, the stalk will grow to about a foot in height, it is upright, slender, round, and of a brownish green colour, often tinged with purple; the leaves are but few, long and narrow, and grow in the alternate way; at the top of the stalks hang one or more flowers, which are large, very beautiful, and of different colours, sizes and properties according to the variety.

3. F: *OPPOSITIS*, *Opposite leaved Fritillary*, a perennial, and native of the Pyrenees; this hath a double, soft, fleshy naked bulb, the stalks will be of different heights but generally a foot, it is round, erect, but slender the leaves are long and narrow, though broader than the preceding sort, and grow by pairs on the lower part of the stalk, but higher, they stand alternately; this is the general position of the leaves of all the varieties that belong to this species, at the top of the stalk hang the flowers, which are large; bell-shaped, and of different colours, sizes and properties—these two species comprehend the vast variety of Fritillaries, and from hence arise the early purple, the late purple, the red, green, white, black, yellow, double umbelliferous, and the different sorts of chequered and spotted Fritillaries, with which a well stocked Garden is furnished.

4. F: *OBLIQUIS*, (*Lilium Persicum* of Dodon.) *Persian Lilies*, a perennial and native of Persia, there are but few varieties of this species, and their appearance is altogether very different from any of the before-mentioned sorts. The root is a large, round, whitish bulb; the stalk is round, upright, firm, and will grow to about a yard in height. This is the size of the common Persian Lily; the Dwarf variety will hardly grow half that height, the leaves are long, narrow, pointed, obliquely waved, and grow on every side of the stalk; the stalk-flowers themselves terminate the stalk in a large pyramidal spike; they have footstalks, and are placed in a pendulous manner, each flower is but small in proportion to the other species of this genus, they spread wide at the brims, and their colour is a deep purple; of this there are different tinges, the inside of all are paler than the outside, and a greenish cast, and is commonly found at the base of the petals—they are propagated from seed or by offsets.

FROG'S BIT. See *Hydrocharis*.

FUCHSIA, a genus of the Tetrandria Monogynia class of plants; the calix is an undivided margin, situated upon the germen; the corolla is one funnel-shaped petal; the tube is clavated, the limb is plain and cut into eight acuminate segments; the pericarpium is a roundish, four-furrowed berry, containing four cells, the seeds are many, oval and placed in a double series. There is but one species, a native of the warmer parts of America—one is to be seen in the Botanic Garden of South-Carolina.

F: *TRIPHYLLA*, *Scarlet Fuchsia* hath an herbaceous stalk, upright and undivided; the leaves are ternate, spear-shaped, and sit close; the flowers are produced in loose spikes, and are of a beautiful scarlet colour—they are propagated by seeds.

FUCUS, *Sea Wrack*, a genus of the Cryptogamia Algæ class; of which there are 145 species; for the Botanic Characters see the list of Terms, alphabetically arranged in the preceding part of this work, also Scheme, sect. 2nd.

1. F: *SERRATUS*, or *Serrated Sea Wrack*, is a perennial, growing upon rocks to the height of two feet, consisting of a flat, radical, dichotomous leaf and have a flat rib, divided, and running through the middle of it in all its various ramifications and varying from a green to a yellowish, or olive colour, it is employed by the Dutch for covering or packing Lobsters and Crabs that are to be conveyed to a considerable distance, because it keeps them alive longer than any other species of this plant, nor does it easily ferment or become putrid.

2. F: *VESICULOSUS*, *Common Sea Wrack*, *Bladders Fucus*, *Sea Waure*, or *Swmetang*, a perennial, and grows to the height of one foot, producing its fructified parts in July and August, it differs from the foregoing in having no serratures on the edge of its leaf, it is an excellent manure.

*Medical virtues.* Dr. Russel recommends the saponaceous liquor found in the vesicles or bladders, that abound beneath the leaves of this plant, as a powerful resolvent in dispersing serophulous and scorbutic tumours of the glands. He directs the patients to rub such swellings with these bladders, having previously bruised them in his hand, till the part be thoroughly penetrated with the mucus, after which they are to be washed with sea water. By calcinating this vegetable in the open air Doctor Russel obtained a very black saline powder, by him called Vegetable *Æthiops*, and which has been highly extolled both as a resolvent and as a dentifrice, for correcting the scorbutic laxity of the gums, and removing all foul matters from the teeth. Burnt sponge has also similar virtues.

3. F: *PALMATUS*, *Ulva Palmatus* Dr. Withering) *Palmated Sea Wrack*, *Dil s*, *Dults*, *Dultesh* and *Dulse*, this plant abounds on the coasts of Scotland, on those of the contiguous Islands, and on the shores of Northumberland, its substance is membranous, pellucid and thin, of a greenish or reddish colour; its height varies from five to six, and sometime twelve inches; its manner of growth fan-shaped.

*Medica' virtues.* D. Rutly observes that it is supposed to sweeten the breath, and destroy worms. In the Isle of Skye, this plant is occasionally boiled in water, with a little butter, and administered in fevers with a view to promote perspiration, though in this form it is often attended with purgative effects.

*Domestic uses.* This species, after being soaked in water, is eaten either boiled or dried, in which latter state it acquires a flavour somewhat resembling that of violets, and according to Bechstein, the sweetness of Sugar: yet unless it be dried in close vessels, no Saccharine, but Saline particles will appear on its surface; because the former are dissipated in the open air, a remark, for which we

are indebted to Olaffen, the Icelandic Traveller; it is sold in a dry state in the streets of Dublin.

4. F: CILIATUS. (Lacinatus Dr. Withering,) *Fringed Sea wrack*, abounds on rocks and stones on the British coast, where it grows from four to five inches high; consists of a membranous, pellucid substance, and is of a red colour; it is eaten both in Britain and Ireland.

5. F: PINNATIFIDUS, *Indented or jagged Sea wrack*, or *Peppier Dilse*, is also met with abundantly on the rocks of Britain, which are covered with the tides; it attains two or three inches in height, and is of a yellowish olive colour frequently tinged with a reddish hue, it is likewise eaten both in Scotland and Ireland.

6. F: ESCULENTUS, *Esculent Sea wrack*, *Bladder Locks*, or *Tangle*. is also common on rocks contiguous to the shores of Cumberland and Scotland, where it grows from five to ten yards in length, and a foot wide, being of an olive or green colour; this species furnishes a grateful food for cattle, and its stalk when boiled affords a culinary dish in Scotland as well as some parts of England; it is also recommended for restoring the natural appetite in the disorder termed Pica or Longing.

7. F: SACCHARINUS, *Sweet Sea wrack*, or *Sea Belt*, abounds on the sea shores, its stem is from two to twelve inches in height, of an oval form, a leathery consistence, and of a tawny green colour; if it be washed in the spring and suspended to dry, a sweet, saccharine matter will exude from its extremities, though not in such quantity as from the Palmated Sea wrack—it is eaten both when taken fresh out of the sea, and also boiled as a pot herb.

8. F: PROLIFER, *Proliferous Fucus*, is found on stones, and shells.

9. F: PLOCAMIMUM, or *Pectinated Fucus*, is found on rocks, and in basons of water.

10. F: FILUM, *Thread Fucus*, or *Sea Laces*.

11. F: GIGANTEUS, or *Gigantic Fucus*; the leaves of this latter are four feet long, and some of the stalks, though not thicker than a man's thumb, are one hundred and twenty feet long.

12. F: PLICATUS, *Matted or Indian grass Fucus*, is generally about three or four inches long, though sometimes six, its colour often being exposed to the sun and air, is yellowish, or auburn.

FUIRENA. a new genus of Rush, belonging to the Triandria Monogynia class of plants, the chaff terminates in a point, are imbricate and on every side bearded or bristly. There are two species.

1. F: SQUARROSA, *Rough Fuirena*, a native of Carolina and Georgia, the stalks are rough, the leaves ciliated, and the chaff scaly and very rough.

2. F: SCIRPOIDEA, *Leafless Fuirena*, a native of Florida, it hath a creeping, scaly root; the culm is without leaves, though there is at the joints a distinct leafy scale or sheath, which involves a part of the culm at each joint alternately; they are terminated by short, oval, heads of scaly pointed and downy husks, placed imbricatim.

FULLERS WEED. See *Dipsacus*, also called *Fullers Teasel*.

**FUMARIA**, *Fumitory*, a genus of the Diadelphia Hexandria class and 34th Natural Order *Corydalis*; the calix has two leaves, and the corolla is ringent. There are nineteen species, of which these are most particular :

1. F: **OFFICINALIS**, *Common Fumitory*, an annual plant, growing in Corn-fields, hedge banks and gardens; the stalks are slender, weak, branching, diffuse and hardly a foot high; the leaves branch out in many divisions, and the folioles are small and jagged; the flowers come out in loose spikes and are of a reddish purple. There is a variety with deep purple and another with white flowers.

*Part used.* The leaves.

*Sensible properties.* Smell not remarkable, taste bitter, succulent and saline.

*Medical virtues.* Aperient and diuretic—The Medical effects of this plant are to strengthen the tone of the viscera, gently to loosen the belly, and promote the urinary and other natural secretions; it is strongly recommended in melancholic, scorbutic and cutaneous disorders, and in such habits as abound with vitiated humours. It corrects acidity, and strengthens the stomach. Hoffman in these cases preferred it to all other medicines, on account of its efficacy in opening obstructions and what are professionally called infarctions of the viscera, especially those of the liver; the juice expressed from the leaves in doses of two or three ounces is generally prescribed in the above cases, particularly Bilious Colic, where it generally proves both diuretic and laxative; it may also be used as a common drink mixed with whey, an infusion of the leaves are used as a cosmetic.

2. F: **MAJOR SCANDENS**, *Ramfing Fumitory*, an annual, and a native of Europe, growing naturally in woods and hedges, the stalks weak, slender, and lay hold of bushes climbing on them; the leaves are composed of several parts and have short claspers, assisting the plant to climb; the flowers grow in loose bunches, and are pale, red or whitish, and blow in June.

3. F: **CIRRIFERIS**, *Climbing Fumitory*, an annual and native of Europe, hath weak slender stalks, possessed of tendrils, and grow if supported a yard high, the leaves are small and usually grow three or five together on a footstalk, the flowers come out in small bunches, of a greenish white colour.

4. F: **ERECTA**, *Striped-Fumitory*, an annual and native of Italy France, &c. the stalks are erect, branching, and about a foot high, the leaves are beautifully divided into a multitude of slender folioles, the flowers are produced in close spikes, of a deep red colour.

5. F: **SEMPERVIRENS**, *Evergreen Podded Fumitory*, an annual and native of Canada, Alleghany, Virginia; &c. the stalk is upright, round, smooth, sends forth several erect branches, and grows to about a foot and a half high, the leaves branch into many divisions like the Common Fumitory; they are smooth and green, the flowers come out in loose panicles, are of a pale purple colour, and have yellow tips.

6. F: *CYSTICAPNOS*, *Æthiopian Fumitory*, *Bladder Fumitory*, or *Climbing African Cysticapnos*, a native of Ethiopia, the stalks are weak, tender, trailing, branch into a few divisions, and grow about a yard long, the leaves are composed of many parts, like the common kind, but they end in claspers, the flowers are produced in loose panicles of a whitish yellow colour.

7. F: *TINGITANA*, *Evergreen Perennial Fumitory*, a native of Mauritania; the root is fibrous, and sends forth several angular stalks, which divide into numerous branches, and grow about nine inches high, the leaves are very much divided, and composed of numerous small obtuse folioles, the flowers come out in panicles, and are small and of a bright yellow colour. There is a variety with white, and another with pale yellow flowers.

8. F: *SAXATILIS*, *Nine Leaved-Fumitory*, a perennial, and native of Spain and Italy, growing in barren stony places, and declivities of rocks, the root is fibrous, the stalks are slender, and divide into numerous branches, and lie on the ground; the leaves are triternate, each being composed of nine heart-shaped folioles; which are small, the flowers are produced in a kind of panicles, are small and of a greenish white colour.

9. F: *CORYMBOSA*, *Corymbose Fumitory*, a new species discovered by M. Desfontaines, growing in the cliffs of Mount Atlas near Thlemsen and Mascara in Algiers. It hath pinnate leaves, the folioles somewhat spread like a fan, the flowers grow in a corymbus, and are purple and white.

10. F: *SOLIDA* or *BULBOSA*, *Solid Bulbous Fumitory*, which grows in woods and parks, and flowers in April or May. Bechstein relates that this plant affords a certain remedy for the extermination of frogs in fish ponds. There are three notable varieties of this species, viz. Hollow Bulbous, Greater Solid Bulbous and Smaller Solid Bulbous Rooted Fumitory.

11. F: *CUCULLARIA*, (Capnorches of Bauh.) *Dutchman's Breeches*, or *Tuberous Fumitory*, a very singular and handsome plant, growing naturally in Virginia and Canada, the elegantly complex texture of its leaves of a soft glaucous green colour, composed of three principal parts divided into others, together with its racemes of milk white flowers, having tips studded as it were with gold, gives it an air of great softness and elegance; the flower is of a singular structure, having two, or rather a double nectary conjoined, resembling a pair of breeches from whence its name.

We have two species of *Fumaria* in the United States, both of which are very beautiful plants.

12. F: *GLAUCA*, *Azure-Leaved Fumitory*.

13. F: *FUNGOSA*, *Funguos Fumitory*, the last mentioned, grows in the rich vallies of our northern mountains, but on account of its singular elegance has lately been introduced into our gardens, it is a biennial vine, rambles to a great extent over shrubs during the flowering season. Its foliage is truly elegant, and its tufts of incarnate blossoms excite general admiration. [Mr. Bartram.] They are propagated by offsets from their roots and from seeds.

FUNARIA, a genus of the Cryptogamia Musci class of plants, enumerated by Michaux, a genus of mosses which grow naturally in Carolina, he gives one species.

F: FLAVICANS, the leaves are long, bristly and pointed, and the flowers yellow.

FUMITORY. See *Fumaria*.

FURZE. See *Ulex*.

FUSANUS. See *Euonymus*.

FUSTIC, or the Dyers Mulberry. See *Morus Tinctoria*.

END OF THE FIRST VOLUME.

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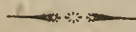
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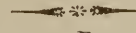
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J. HOFF-



Since the publication of the First Number of this Work, the following lines in commendation of it have appeared in the City Gazette, published in this city. Though the Author is not vain enough to flatter himself that the compliments they contain are wholly due to his labors; still, as they were evidently written with a view to serve him, he thinks his Patrons will not be displeas'd to see them in this place—he believes that they are from the pen of Capt. Philip Freneau, who was lately in this City.

[Lines, occasioned by reading the first number of Doctor SHENKUT'S FLORA CAROLINAENSIS, lately published in this City.]

To Nature's Garden who would lead the way,  
Explore her wonders and explain her sway,  
No common merit from such toil may claim;  
Great is the task as glorious is the aim.

In darkness hid, too long obscur'd, conceal'd,  
Lay the deep secrets of kind Nature's field,  
Herbs rose and perish'd on their native spot,  
By savage man neglected, or forgot.  
If sages toil'd those secrets to unveil,  
Ages on ages saw their labours fall;  
At best some rude and scanty sketch they trac'd,  
Absurd in system as by truth disgrac'd.  
For them a thousand forests useless rose,  
Or forests only useful to repose.  
Flowers idly bloom'd; their virtues all unknown  
Died on the dust, or wither'd in the sun,  
Or some fair damsel, ignorant as fair,  
Thought them created but to deck her hair,  
Or clothe the soil with all enlivening green,  
To flourish idly, only to be seen.  
At length, these whims of fancy to dispel,  
LINNÆUS rose, and ancient error fell;  
He search'd all plants, their nature, end and use,  
Their friendly virtues, or their poisonous juice;  
In different classes he arrang'd the kind,  
The species settled, and the rank assign'd.—  
Thrice happy genius! to his piercing view  
All plants unfolded, as their forms he drew:  
From every clime to his botanic reign  
He brought the silent people of the plain.  
And Sweden saw a race to vigour grown  
Of vegetable wonders—not her own,

But still the vast botanic science hid  
In bulky volumes, to the world lay dead:  
No folios opened to plebeian view,  
Or if they open'd, who could read them through:—  
Pedantic terms this pleasing art disgrac'd,  
And cumbrous learning half its charms effac'd;  
Thus few were found, of mind to persevere,  
Or purchase knowledge at a rate so dear.

In SHECUT's work an easier plan we trace;  
Here all is ease, simplicity and grace,  
Each order, nature, sex itself defin'd—  
All seems a gay amusement to the mind;  
No aukward dress on science he impos'd,  
For simple Nature stands unveil'd, disclos'd,  
All native plants expos'd, explain'd we view,  
And CAROLINA's FLORA blooms anew.

And may that PUBLIC, whom he strives to please,  
To instruct, inform, with elegance and ease:  
May they, the patrons of the nobler arts,  
In just return for what his toil imparts—  
May they reward it with a liberal hand,  
And prove the generous patrons of our land;  
Let cold neglect be far from SHECUT's fate,  
Regard his merits, nor regard too late—  
And O! may Envy's odious tribe combin'd  
To fetter genius, never cloud his mind:  
She follows all, attendant on them still,  
Who shine in arts, or honor's station fill;  
But dies at length, when merit has its due,  
And well-earn'd fame appals the rankling crew.

This first attempt presages hopes of more  
To unveil the beams of science to our shore,  
To tell us more than learned LINNAEUS taught,  
Than KALM or CATESBY publish'd, told or thought.  
This Work encourage, elegant and new,  
'Till every herb is known that sips the dew,  
And every flower that decks this happy land  
Is copied, faithful to creation's hand.









