

LINNEANA
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MEDICAL BOTANY,

CONTAINING

SYSTEMATIC AND GENERAL DESCRIPTIONS,

WITH

PLATES OF ALL THE MEDICINAL PLANTS,
INDIGENOUS AND EXOTIC,

COMPREHENDED IN THE

CATALOGUES OF THE MATERIA MEDICA,

AS PUBLISHED BY THE

ROYAL COLLEGES OF PHYSICIANS OF LONDON AND EDINBURGH:

ACCOMPANIED WITH A

CIRCUMSTANTIAL DETAIL OF THEIR MEDICINAL EFFECTS,

AND OF THE

DISEASES IN WHICH THEY HAVE BEEN MOST SUCCESSFULLY EMPLOYED.

By WILLIAM WOODVILLE, M. D.

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AND

PHYSICIAN TO THE SMALL-POX AND INOCULATION HOSPITALS.

IN THREE VOLUMES.

VOL. II.

et herbarum subiecta potentia nobis.

OVID.

L O N D O N :

Printed and Sold for the AUTHOR by JAMES PHILLIPS, George Yard, Lombard Street.

M. DCC. XCII.

T O

JAMES EDWARD SMITH, M. D. F. R. S.

PRESIDENT OF THE LINNEAN SOCIETY,

A N D

POSSESSOR OF THE LINNEAN COLLECTION.

S I R,

*Not only Friendship and Gratitude,
but Propriety induce me to dedicate this Volume to You:
for, as the first Volume of this Work, which relates both
to Medicine and Botany, has been honoured by the Patronage
of the President of the Royal College of Physicians, I am
happy to find a Botanical Patron, to do equal Honour to
the second Volume, in the President of the Linnean Society.*

*I have the honour to be
With the utmost respect and esteem,
Your faithful Servant,*

WM. WOODVILLE.

PENTONVILLE,
February 20th, 1792.



Mimosa Catechu.

Published by D. Woodville, Ed. 3. 1. 1791.

MIMOSA CATECHU. CATECHU MIMOSA.

Ex hujus plantæ ligno paratur *CATECHU*, vulgo *Terra Japonica*.
Pharm. Lond. & Edinb.

SYNONYMA. Mimosa Cate; spinis duabus stipularibus, foliis bipinnatis 15-30 jugis, foliolis 40 jugis, spicis elongatis axillaribus. Vide *Murray App. Med. vol. ii. p. 415.* Coira vel Caira in Provincia Bahar dicitur. See *Kerr's* "Description of the Plant from which the *Terra Japonica* is extracted. *Med. Obs. & Inquir. vol. v. p. 151. Suppl. Plant. p. 439.*

Class Polygamia. *Ord.* Monoecia. *Lin. Gen. Plant. 1158.*

Ess. Gen. Ch. *HERMAPH.* Cal. 5-dentatus. Cor. 5-fida. Stam. 5 f. plura. Pist. 1 Legumen.

MASC. Cal. 5-dentatus. Cor. 5-fida. Stam. 5, 10, plura.

Sp. Ch. M. spinis stipularibus, foliis bipinnatis multijugis: glandulis partialium singulis, spicis axillaribus geminis f. ternis pedunculatis. *Syst. Veg. ed. 14.*

ACCORDING to Mr. Kerr, this small tree grows to twelve feet in height, and to one foot in diameter; it is covered with a thick rough brown bark, and towards the top divides into many close branches: the leaves are bipinnated, or doubly winged, and are placed alternately upon the younger branches: the partial pinnæ are nearly two inches long, and are commonly from fifteen to thirty pair, having small glands inserted between the pinnæ: each wing is usually furnished with about forty pair of pinnulæ or linear lobes, beset with short hairs: the spines are short, recurved, and placed in pairs at the bases of each leaf: the flowers are hermaphrodite and male, and stand in close spikes, which arise from the axillæ of the leaves, and are four or five inches long: the calyx is tubular, hairy, and divides at the limb into five oval pointed segments: the corolla is monopetalous, whitish, and of the same form as the calyx, but twice its length: the filaments are numerous, capil-

lary, double the length of the corolla, adhering at the base of the germen, and crowned with roundish antheræ: the germen is oval, and supports a slender style, which is of the length of the filaments, and terminated by a simple stigma: the fruit, or pod, is lance-shaped, brown, smooth, compressed, with an undulated thin margin; it contains six or eight roundish flattened seeds, which produce a nauseous odour when chewed. This tree grows plentifully on the mountainous parts of Indostan, where it flowers in June.

An Indian drug, known by the name of Terra Japonica, and now more properly called Catechu, has long been an officinal medicine in Europe; and though soon discovered by chemical analysis to be of vegetable origin, yet neither was the plant from which it is produced, nor the process by which it is prepared, sufficiently ascertained for near a century afterwards. Writers on the Materia Medica very generally, from the time of Clusius, considered the Catechu to be extracted from the seeds of a nut, the produce of a species of palm; (Areca, or Beetle-nut) and conformably to this opinion, Linnæus, in both the editions of his Mat. Med. refers this drug to the "*Areca Catechu frondibus pinnatis, foliolis replicatis oppositis præmorsis.*" We are told however by Mr. Kerr, that in the Province of Bahar, where the Terra Japonica is manufactured, the price of the Areca-nut far exceeds that of the Catechu.^a But he thinks it probable that where this nut is in great plenty, "they may perhaps join some of the fruit in making the extract, to answer a double purpose, for the most frequent use of both is in chewing them together, as Europeans do tobacco; to these two substances they add a little shell lime, and a leaf called *Pauw.*"^b Cleyerus and Herbert de Jager,^c more especially the latter, have asserted, that the Catechu is not extracted from one tree only, but from almost all the species of Acacia, whose bark is astringent and reddish, and from many other plants, which by boiling yield a juice of the like sort; and though these extracts differ consider-

^a Mr. Kerr says, if the Terra Japonica were extracted from this nut, it would be twenty times dearer than in the present sales. Vide l. c.

^b Hence the following lines:

Quis foliis credat commixta calce tenellis,
Cum fructu hoc Indos vesci, unde ore cruento
Purpureum ejiciunt succum, tam dentibus atris
Horrendum arringunt, & dentibus ore minantur?

^c Vide *Misc. Nat. Cur. Dec. 2. Ann. 4. Obs. 3. & Dec. 2. Ann. 3. p. 8.*

ably, yet in India they are all denominated Khaath or Catechu.‡ But the tree which affords the best extract, according to his description, appears evidently to be a Mimosa.^d

In this uncertainty our knowledge concerning the production of Terra Japonica still remained, till Mr. Kerr (assistant surgeon to the civil hospital at Bengal) transmitted an account of this substance, which completely removed every doubt respecting its origin. In this account we are told, that he not only carefully attended to the process of the manufacturer in the preparation of Catechu, but that he actually repeated it himself; and upon the faith of the figure and description of the plant which he has given, and from which he prepared the Catechu, the younger Linnæus has admitted it into the Supp. Plant. under the name of Mimosa Catechu; and we have accordingly figured the plant. The preparation of the extract is stated by Mr. Kerr to be as follows: “After felling the trees, the manufacturer carefully cuts off all the exterior white part of the wood. The interior coloured wood is cut into chips, with which he fills a narrow-mouthed unglazed earthen pot, pouring water upon them until he sees it among the upper chips; when this is half evaporated by boiling, the decoction, without straining, is poured into a flat earthen pot, and boiled to one third part; this is set in a cool place for one day, and afterwards evaporated by the heat of the sun, stirring it several times in the day; when it is reduced to a considerable thickness, it is spread upon a mat or cloth, which has previously been covered with the ashes of cow dung; this mass is divided into square or quadrangular pieces by a string, and completely dried by turning them frequently in the sun, until they are fit for sale.”^e

This

‡ The derivation of the word Catechu seems to favour this opinion; *Cate*, in the oriental language, signifies a tree, and *Chu*, juice.

^d According to the Linnæan nomenclature we have no genus under the name *Acacia*. But the *Mimosas* are very numerous, and that most known in Europe is the *M. pudica*, or humble *sensitive plant*, and the remarkable contractions which it manifests upon being touched, or even approached, induced my ingenious friend Dr. Marshal, to dissect the moving fibres. In his letter to me, he says, “I have made two or three dissections (more to gratify the curiosity of the moment than to ascertain any discovery) of the fleshy joints of the *Mimosa pudica*; branch is articulated with stem, petiolus with branch, and petiolus of the leaflet with the common petiolus. Within the fleshy substance of the joint are found numerous white threads, which go from the one articulated body to the other, inserted into both. These it would appear, are the irritable fibres, by which the motions are performed.”

^e “In making the extract, the pale brown wood is preferred, as it produces the fine whitish

This extract is called *Cutt* by the natives, by the English *Cutch*, and by different authors *Terra Japonica*, *Catechu*, *Khaath*, *Cate*, *Cachou*, &c. “ In its purest state it is a dry pulverable substance, outwardly of a reddish colour, internally of a shining dark brown, tinged with a reddish hue; in the mouth it discovers considerable astringency, succeeded by a sweetish mucilaginous taste. According to Lewis, “ it dissolves almost totally in water, excepting the impurities; which are usually of the sandy kind, and amounting in the specimens I examined to about one-eighth of the mass. Of the pure matter, rectified spirit dissolves about seven-eighths into a deep red liquor: the part which it leaves undissolved, is an almost insipid mucilaginous substance.”^f “ *Catechu* may be usefully employed for most purposes where an astringent is indicated, provided the most powerful be not required. But it is particularly useful in alvine fluxes; and where these require the use of astringents, we are acquainted with no one equally beneficial. Besides this, it is employed also in uterine profluvia, in laxity and debility of the viscera in general, in catarrhal affections, and various other diseases where astringents are necessary. It is often suffered to dissolve leisurely in the mouth, as a topical astringent for laxities and exulcerations of the gums, for apthous ulcers in the mouth, and similar affections.”^g “ This extract is the basis of several fixed formulæ in our pharmacopœias, particularly of a tincture and an electuary: but one of the best forms under which it can be exhibited, is that of a simple infusion in warm water, with a proportion of cinnamon or cassia; for by this means it is at once freed from its impurities, and improved by the addition of the aromatic.”

whitish extract: the darker the wood is, the blacker the extract, and of less value. They are very careful in drying their pots upon the fire, before they are used; but very negligent in cutting their chips upon the ground, and not straining the decoction, by which, and the dirty ashes they use, there must be a considerable quantity of earth in the extract, besides what avarice may prompt them to put into it.” *Kerr l. c.*

^f Lewis's *M. M.* p. 642. ^g See Duncan's *Edinb. New Dispens.* p. 167.

The antiseptic quality of *Catechu* appears from the experiments made by Sir John Pringle. (*Vide Dis. of the Army, App. Exp.* 10.) Huxham employed it successfully in cases where a putrid dissolved state of the blood prevailed. This extract is the principal ingredient in an ointment of great repute in India, composed of *Catechu* four ounces, alum nine drams, white resin four ounces; these are reduced to a fine powder, and mixed with the hand, adding olive oil ten ounces, and a sufficient quantity of water, to bring the mass to the consistence of an ointment. To all sores and ulcers in warm climates astringent applications of this kind are found to be peculiarly useful. See *Kerr l. c.*

MIMOSA NILOTICA.



Mimosa nilotica

Published by D^r Woodville Feb. 1. 1791.

MIMOSA NILOTICA.

EGYPTIAN MIMOSA,
ACACIA, EGYPTIAN THORN.

Gummi Arabicum, *Pharm. Lond. & Edinb. sponte ex hac
planta fluit.*

SYNONYMA. Acacia vera. *J. Baub. Hist. vol. i. p. 429.* Acacia
foliis scorpioides leguminosæ. *Baub. Pin. 392.* Acanthus Theo-
phraasti. *Raii Hist. p. 976.* Acacia vera sive spina Ægyptiaca.
Park. Theat. p. 1547. Acacia vera f. Spina Ægyptiaca, subrotundis
foliis flore luteo; filiqua paucioribus isthmis glabris nigricantibus.
Pluk. Alm. 3. t. 123. f. 1. Acacia Ægyptiaca filiquis Lupini,
floribus luteis. *Herm. Parad. Bat. Prod. 303. Conf. Hasselq. it.
p. 475. Acacia Dioscorid. L. 1. cap. 133.*

Glass Polygamia. Ord. Monoecia. Lin. Gen. Plant. 1158.

*Ess. Gen. Ch. HERMAPH. Cal. 5-dentatus. Cor. 5-fida. Stam.
5. f. plura. Pist. 1. Legumen.*

MASC. Cal. 5-dentatus. Cor. 5-fida. Stam. 5, 10, plura.

*Sp. Ch. M. spinis stipularibus patentibus, foliis bipinnatis: partia-
libus extimis glandula interstinctis, spicis globosis pedunculatis.*

THIS, like the preceding species of Mimosa, rises several feet in height: it is covered with smooth bark of a grey colour, and that of the branches has commonly a purplish tinge: the leaves are bipinnated, and placed alternately: the partial pinnæ are opposite, furnished with a small gland between the outermost pair, and beset with numerous pairs of narrow elliptical pinnulæ, or leaflets: the spines are long, white, spreading, and proceed from each side of the base of the leaves: the flowers are hermaphrodite and male, they assume a globular shape, and stand four or five together upon slender peduncles, which arise from the axillæ of the leaves: the calyx is small, bell-shaped, and divided at the mouth into five minute teeth: the corolla consists of five narrow yellowish segments: the filaments are nume-

rous, capillary, and furnished with roundish yellow antheræ: the germen is conical, and supports a slender style, crowned with a simple stigma: the fruit is a long pod, resembling that of the Lupin, and contains many flattish brown seeds. It is a native of Arabia and Egypt, and flowers in July.^a

Dioscorides was certainly well acquainted with this tree, as he not only mentions the gum which it produces, but also the renowned *Acaciæ veræ succus*,^b obtained from its pods; since his time, however, it has been thought that gum arabic is not the production of the Acacia or Mimosa, as it is now called; but the accounts given by Alpinus, and those of subsequent naturalists, leave no doubt upon this subject.^c

Although the *Mimosa nilotica* grows in great abundance over the vast extent of Africa, yet gum arabic is produced chiefly by those trees, which are situated near the equatorial regions; and we are told that in Lower Egypt the solar heat is never sufficiently intense for this purpose.^d The gum exudes in a liquid state from the bark of the trunk and branches of the tree, in a similar manner to the gum which is often produced upon the cherry trees, &c. in this country; and by exposure to the air it soon acquires solidity and hardness. In Senegal the gum begins to flow when the tree first opens its flowers,^e and continues during the rainy season till the month of December, when it is collected for the first time. Another collection of the gum is made in the month of March, from incisions in the bark, which the extreme dryness of the air at that time is said to render necessary.^f

^a The *M. nilotica* was cultivated in England by Evelyn in 1664. Kalend. h. p. 75.

A plant of this species is now in the Royal Garden at Kew, about four feet in height: and in Dr. Lettsom's garden at Grove Hill, where it flowers annually.

^b The pod, and manner of preparing the juice, are thus mentioned by Murray: "Ex fructu elicitor, qui ipse legumen est complanatum viridi brunum, quatuor vel quinque pollices longum et octies vel decies angustius, compositum ex sex vel decem partibus vel articulis discoideis et intra utramque cuticulam parenchyma gummosum rubicundum continens. In quovis articulo latet semen ellipticum sulco utrinque pariter elliptico notatum. Succus exprimitur ex fructu immaturo in mortario contuso, et calore in spissitudinem extracti densatur," &c. *Vide App. Med. vol. ii. p. 412.*

^c Hasselquist. Adanson, Sparrman, and others. ^d Niebuhr Reisebesch. Arab. i. B. p. 143. ^e Adanson Mem. de l'Ac. d. Sc. d. Paris, 1773. p. 8. ^f Demanet Nouvelle Hist. de l'Afrique Française, t. i. p. 56.

Gum arabic is now usually imported into England from Barbary, not packed up in skins, which was the practice in Egypt and Arabia, but in large casks or hogheads. The common appearance of this gum is so well known as not to require any description of it here; and the various figures which it assumes seem to depend upon a variety of accidental circumstances attending its transudation and concretion.

Gum Arabic of a pale yellowish colour is most esteemed; on the contrary, those pieces which are large, rough, of a roundish figure, and of a brownish or reddish hue, are found to be less pure, and are said to be produced from a different species of Mimosa: (M. Senegal) but the Arabian and Egyptian gum is commonly intermixed with pieces of this kind, similar to that which comes from the coast of Africa, near the river Senegal. Gum Arabic does not admit of solution by spirit or oil, but in twice its quantity of water it dissolves into a mucilaginous fluid, of the consistence of a thick syrup, and in this state answers many useful pharmaceutical purposes, by rendering oily, resinous, and pinguious substances, miscible with water.³

The glutinous quality of gum arabic is preferred to most other gums and mucilaginous substances as a demulcent, in coughs, hoarsenesses, and other catarrhal affections, in order to obtund irritating acrimonious humours, and to supply the loss of abraded mucus. It has been very generally employed in cases of ardor urinæ, and stranguary: but it is the opinion of Dr. Cullen, "that even this mucilage, as an internal demulcent, can be of no service beyond the alimentary canal. In common practice hardly more than a few ounces are given in one day; and what that can give of a mucilaginous quality to many pounds of serosity, I leave my intelligent reader to judge. Still, however, it may not be thought enough to reason *a priori*, and I should say, what experience has actually taught. What others may have observed, I cannot determine; but, for myself I can assert, that, in innumerable trials, I have never observed the effects of gum arabic in the mass of blood, or in the excretions derived from it. The most frequent occasion for its use is in the ardor urinæ; and in that I have been often disappointed, and have often found that two pounds of water or watery liquors added to the drink, would be

³ See Mr. French's Experiments in Lond. Med. Observ. vol. i. p. 413, &c.

of more service than four ounces of gum arabic taken in without such addition." ^h This gum is an ingredient in the Hartshorn decoction, the chalk Julep, the common emulsion, and some of the troches as directed in our Pharmacopœias.

^h Mat. Med. p. 415. vol. 2.

Gum arabic has been found a good substitute for food; and Dr. Sparrman tells us, that he pointed out this gum to the Hottentots, "which they might gather in many spots thereabouts from the *Mimosa nilotica*; but this was a species of food very well known to them, and which they had often tried.—When in want of other provisions, the Boshies-men are said to live upon this for many days together."—Voyage to the Cape, vol. ii. p. 23.

RUBIA TINCTORUM.

DIER'S MADDER.

SYNONYMA. Rubia. *Pharm. Lond. & Edinb.* α Rubia sylvestris aspera. β Rubia tinctorum fativa. *Baub. Pin. p. 333.* Rubia tinctorum. *Gerard. Emac. p. 1118.* Rubia major fativa. *Park. Theat. p. 274.* Rubia sylvestris monspessulana major. *J. Baub. Hist. vol. iii. p. 715.* Rubia tinctorum. *Raii Hist. p. 480.* *Vide Hall. Stirp. Helv. n. 708.* Rubia foliis senis. *Miller's Dict.* *Ἐρυθροδάκνον* vel *Ἐρυθροδάκνον* *Græcorum.*

Class Tetrandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 127.

Eff. Gen. Ch. Cor. 1-petala, campanulata. *Baccæ* 2, monospermæ.

Sp. Ch. R. foliis annuis, caule aculeato. *Mant.* 330.

THE root is perennial, long, round, jointed, beset with small fibres, externally of a bright red colour, but towards the center yellowish: the stalks are quadrangular, slender, procumbent, jointed, four or five feet in length, and covered with rough short points, by which they adhere to the neighbouring plants for support: the leaves are elliptical, pointed, rough, ciliated, and are placed in whorls of four, five, or six together at the joints of the stem: the branches stand



Rubia tinctorum L.

stand in pairs at the articulations of the stalk, and upon their various subdivisions produce small terminal flowers of a yellow colour: the calyx is divided at the mouth into four teeth: the corolla is small, bell-shaped, and cut at the extremity into four oval segments: the filaments are four, short, and support simple erect antheræ: the germen is double, and placed below the corolla: the style is slender, and at the top divides into two globular stigmata: the fruit consists of two round berries, each containing an oval seed, with a cavity at its smaller extremity. It is a native of the South of Europe, and flowers in June.

Madder is frequently mentioned by the Greek writers, who employed its roots with the same medicinal intentions for which they now are recommended by most of the modern writers on the *Materia Medica*. Our knowledge of the first cultivation of this plant in England is from Gerard;^a and though an extensive cultivation of Madder in Britain seems to promise considerable advantage both to the planter and to the nation, yet we find that the great quantity of Madder roots used here by the Diers and Callico-printers, has been for many years almost wholly the growth and export of Holland.^b Madder appears to differ from other substances used for the purpose of dying, in having the peculiar property* of tinging with a florid red colour not only the milk, urine, &c.^c but even the bones of those animals which have fed upon it; a circumstance which was first noticed by Antonius Mizaldus,^d but not known in England till Mr. Belchier published an account of a pig and a cock, whose bones became red by eating Madder mixed with their food;^e since that time

^a Vide *Hort. Kew.* ^b *Miller Dict.* in which is also given a full account of the cultivation of this plant. But we are happy to observe, that by the laudable endeavours of the *Society for the Encouragement of Arts, &c.* considerable quantities of English Madder have been produced, and found as good at least, if not better than any imported. See *Transactions*, p. 10. vol. i.

* Some other plants of the same natural order (*Stellatæ*) have also the effect of tinging the bones, as the *Galium Mollugo* and *Aparine*. Vide Guettard *Mem. de l'Ac. de Sc. a.* 1746 & 1747. And the *Valantia cruciata*. *Böhmer Diss. de rad. rub. tinct.* p. 42.

^c *Böhmer* also found the serum of the blood reddened by the Madder. *Diss. rad. rub. tinct.* &c. p. 13. And *Levret* observes, that it sometimes tinged the excretion by the skin. *Sur les Accouchemens*, p. 278.

^d *Memorab. ut. ac jucunda Cent.* 7. *Aph.* 91. *Lutet.* 1566.

^e *Phil. Transf.* vol. 39. p. 287. & p. 299. See also vol. 41. Afterwards experiments were prosecuted by *Bazanus*, *Geoffroy*, *Du Hamel*, *Fougeroux*, *Bergius*, and others.

various experiments relating to this subject have been made, from which it appears that the colouring-matter of Madder affects the bones in a very short time; and that the most solid, or hardest, part of the bones first receives the red colour, which gradually extends, *ab externo*, through the whole osseous substance, while the animal continues to take the Madder; and if this root be alternately intermitted and employed for a sufficient length of time, and at proper intervals, the bones are found to be coloured in a correspondent number of concentric circles. According to Lewis, “the roots of Madder have a bitterish somewhat austere taste, and a slight smell not of the agreeable kind. They impart to water a dark red tincture, to rectified spirit, and to distilled oils, a bright red; both the watery and spirituous tinctures taste strongly of the Madder.”^f

Madder, by medicinal writers, has been considered as a deobstruent, detergent, and diuretic, and is chiefly used in the jaundice, dropsy, and other diseases supposed to proceed from visceral obstructions, particularly those of the liver and kidneys; and some modern authors have recommended it as an emmenagogue,^g and in rickety affections.^h With regard to its diuretic quality, for which there are many respectable authorities, Dr. Cullen asserts, that in many trials both for this and other purposes, such an effect is not constant, having never occurred to him. As a remedy for the jaundice, it has the authority of Sydenham, and was formerly an ingredient in the decoctum ad icteros of the Edin. Pharm. but as it seemed more adapted to the *fæces albidæ* than to the disease itself, this decoction was expunged. That some French writers should prescribe Madder in a rickety state of the bones, appears a little surprising, as the brute animals, to which it was given, especially the younger, suffered considerable emaciation and prostration of strength from its effects. Its virtues, as an emmenagogue, rest principally on the authority of Dr. Home, who gave from a scruple to half a dram of the powder, or two ounces of the decoction, three or four times a day. But this medicine failed with Dr. Cullen, who also says, “I know of other practitioners in this country, who, after several ineffectual trials made with it, have now entirely deserted its use.”ⁱ

^f *Mat. Med.* p. 546. ^g See *Home's Clinical Experiments*, p. 388. ^h *Levret. l. c.*
and *Alii.* ⁱ *Mat. Med.* vol. ii. p. 39.



Rumex Acetosa

Published by D. Woodville. Feb. 7 1791

RUMEX ACETOSA.

COMMON SORREL.

SYNONYMA. Acetosa. *Pharm. Lond. & Edinb.* Acetosa pratensis. *Baub. Pin. p. 114.* Oxalis crispa. *J. Baub. ii. p. 990.* Oxalis feu Acetosa. *Gerard. Emac. p. 396.* Acetosa vulgaris. *Park. p. 742.* Lapathum acetosum vulgare. *Raii Synop. p. 148.* *Raii Hist. p. 178.* Lapathum sexubus distinctis, foliis sagittatis, hamis retrorsum porrectis. *Hal. Stirp. Helv. n. 1597.* R. Acetosa. *Withering. Bot. Arrang. p. 376.* *Relban Flor. Cant. p. 149.* *Hudson's Ang. 156.*

Class Hexandria.* *Ord.* Trigynia. *Lin. Gen. Plant. 451.*

Ess. Gen. Ch. Cal. 3-phyllus. *Petala* 3, conniventia. *Sem.* 1, triquetrum.

Sp. Ch. R. Flor. dioicis, fol. oblongis sagittatis.

THE root is perennial, slender, long, and fibrous: the stalk is erect, channelled, branched at the top, partially of a purplish red colour, and usually rises from one to two feet in height: the radical leaves are narrow, oblong, arrow-shaped, of a bright green colour, and stand upon long footstalks, but those on the stem are without footstalks, and placed alternately: the flowers are produced in terminal branched spikes, partly tinged of a reddish colour, and stand upon short slender peduncles: the calyx is composed of three oval segments: the corolla consists of three petals, shaped like the divisions of the calyx: the six filaments are short, slender, and furnished with erect double antheræ: the germen is triangular, and supports three simple reflected styles, with bearded stigmata: the seeds are naked, single, and of a triangular shape. It is common in meadows and pastures, and flowers in June.

Some writers have referred this plant to the *Lapathum quartum*^a of

* This plant, according to the strictness of methodical system, ought to belong to the class Dioecia, as the flowers are distinctly male and female in different plants: our figure represents the former.

^a *L. ii. cap. 108.*

Dioscorides, and to the *Lapathum sylvestre*, quod alii oxalidem appellant, of Pliny.^b But as the word *ξύ* has been indiscriminately used both to signify sharp, with respect to the taste of a plant, and in relation to the form of its leaves, there may be a doubt whether those authors have done right, in exclusively applying it in the former sense as in the name *Acetosa*.—The leaves of common Sorrel have an agreeable acid taste, like that of the *Oxalis Acetosella*, or Wood-sorrel, which we have before described; (see page 56) and as they are medicinally employed for the same purposes, what has been already said of that plant will in a great measure apply to this; which from being easily procured in great abundance may be conveniently substituted for it. Sorrel, taken in considerable quantity, or used variously prepared as food, will certainly be found of important advantage where a refrigerant and antiscorbutic regimen is required;^c and we are told by Linnæus, that the Laplanders experience a serum acetosatum to be in this respect an useful and pleasant diet.^d

^b *L. xx. cap. 21.*^c See Morin in *Hist. de l'Ac. des Sciences*, 1708, p. 52.Barthol. *Act. Havn.* 1671, p. 35.Boerhaave *Hist. Plant. L. B. P. ii.* p. 540.^d *Flor. Lapp.* p. 94.

ARBUTUS UVA URSI. TRAILING ARBUTUS; Or
BEAR-BERRY.

SYNONYMA. *Uva ursi.* *Pharm. Lond. & Edinb.* — *Uva ursi*
Clus. Rarior. Plant. Hist. p. 62. *Vaccinia ursi* sive *Uva ursi*
apud *Clusium.* *Gerard. Emac.* p. 1416. *J. Baub. Hist. vol. i.*
p. 523. *Baub. Pin.* p. 470. *Park. Theat.* p. 1457. *Raii Synopsis,*
n. 457. *Hist.* p. 1489. *sp.* 5. *Flor. Dan.* 33. *Murr. Comment.*
de Arbuto uva ursi. *Gotting.* 1764. *Girardi Novæ Animadver.*
Patavii 1764. *Sandifort Diss. tab.* 8. *Withering. Bot. Arr.* p. 428.

Class Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 220.

Eff. Gen. Ch. *Cal.* 5-partitus. *Cor.* ovata: ore basi pellucida.
Bacca 5-locularis.

Sp. Ch. A. caulibus procumbentibus, foliis integerrimis.



Arbutus Uva ursi

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THE root is perennial, long, branched, and fibrous: the stems are numerous, procumbent, spreading, woody, scarcely a foot in length, and seldom divided into branches: the leaves are oblong, obtuse, narrowed towards the base, entire, thick or fleshy, smooth, without footstalks, of a dingy green colour, and closely surround the upper part of the stalk: the flowers are whitish or flesh-coloured, and terminate the stems in small clusters upon short slender pedicles: the calyx is very small, and divided into five obtuse teeth: the corolla consists of a single petal, which is tubular, oval, contracted,^a and divided at the margin into five minute reflexed segments: the filaments are ten, short, downy, tapering, and crowned with erect reddish antheræ: the germen is oval, and placed above the insertion of the corolla: the style is tapering, longer than the filaments, and terminated with a simple stigma: the fruit is a pulpy, round, red berry. It is a native of the Northern parts of Britain, and flowers in June.

Professor Murray has not been able to determine whether this plant is the *ἀγρου σαφύλη*, which is much commended by Galen^b in cases of hæmoptysis, or the *ἰδαίνας εἰζή* used as a general astringent by Dioscorides.^c It grows in great abundance in different parts of Europe and America, particularly in barren sandy soils; and that which is found in dry, lofty, and exposed situations, is preferred^d for medical use to that which is collected in valleys and shady grounds. The leaves of this plant, in a dried state, have no remarkable smell, but a bitterish astringent taste, and by some are used for the purpose of dying an ash-colour, and for tanning leather. The sapid matter of these leaves has been attributed rather to the presence of gummy than of resinous particles, as watery menstrua extract their virtues more completely than spirituous.^e

The Uva Ursi, though employed by the ancients in several diseases requiring astringent medicines, had almost entirely fallen into disuse till about the middle of the present century, when it first drew the attention of physicians as a useful remedy in calculous and

^a Our artist, by supposing the contracted state of the corolla to be merely the effect of drying, has made it appear too inflated in the annexed figure.

^b *De comp. med. sec. loc. L. 7. c. 4. p. 548. Ed. Chart.* ^c *Mat. Med. L. 4. c. 42. p. 482. Ed. Vergil.* ^d *Girardi l. c. p. 454.* ^e *Murray App. Med. vol. ii. p. 58.*

nephritic affections; and in the years 1763 and 1764, by the concurrent testimonies of different authors,^f it acquired remarkable celebrity not only for its efficacy in gravelly complaints, but in almost every other to which the urinary organs are liable, as ulcers of the kidneys and bladder, cystirrhœa, diabetes, &c. and its utility was then thought to be so fully established, that a Spanish writer^g made it his boast that the man, to whom these important discoveries of the effects of this plant ought first to be referred, was his countryman. He was however superseded in this claim by the physicians at Montpellier, who had been in the habit of prescribing Uva Ursi in these diseases for many years before.^h But the cases published successively by De Haen tended more to raise the medical character of Uva Ursi over Europe than all the other books professedly written on the virtues of this plant: and encouraged by his success, many practitioners in this country have been induced to try its effects; and though the use of this plant has been frequently observed to mitigate the pains in calculous cases, yet in no instances do we find that it has produced that essential or permanent relief, which is said to have been experienced by the German physicians.ⁱ

From the experiments of Dr. Alexander,^k the leaves of Uva Ursi seem to possess very little diuretic power, and those made by Murray^l show that they have no material effect upon the urinary calculi: the efficacy they may therefore have in relieving the calculous diseases, we are disposed to ascribe to their astringency; and in confirmation of this opinion we may cite the observation of Dr. Cullen, who, in

^f De Haen, Gerhard, Quer, Girardi, Murray, Buchoz, and others.

^g Quer. See the French version of his book, viz. *Dissertation sur la maladie nephritique, et sur son veritable specifique le Raisin d'ours*, p. 84. ^h Vide Barbeirac *form. Med.* p. 163.

ⁱ "The trials of the Uva Ursi made in this country, have by no means answered expectation: in all the cases that have come to my knowledge it produced great sickness and uneasiness, without any apparent benefit, though continued for a month." *Lewis M. M.* p. 683. And in a case of Incontinence of urine, Dr. Fothergill observes, "The Uva Ursi, so much extolled of late in ulcers of the urinary passages, seemed but to aggravate the symptoms." *Med. Obs. & Inquir.* vol. iii. p. 144. But in the preface to this volume we are told, "that the Uva Ursi had been frequently prescribed successfully by many of the Members of the *Society of Physicians in London.*"

^k See his *Exp. Essays*, p. 154.

^l The calculi were macerated in a strong decoction of the Uva Ursi. *Vide l. c.*



Syrax officinale

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his chapter on Astringents,^m notices the dissertation of De Heucher, under the title of *Calculus per adstringentia pellendus*: and though he does not think with this author that astringents are lithontriptics, yet from his own experience, and that of others, he believes they often have a powerful effect in relieving calculous symptoms; and in proof of this he refers to the exhibition of the Uva Ursi. The leaves may be employed either in powder or decoction; the former is most commonly preferred, and given in doses from a scruple to a dram two or three times a day.

^m *Mat. Med. vol. ii. p. 12. & seq.* And Dr. Withering, speaking of the effects of this plant, says, "Perhaps, upon the whole, we shall find it no better than other vegetable astringents; some of which have long been used by the country people in gravelly complaints, and with very great advantage; though hitherto unnoticed by the regular practitioners." *l. c.*

STYRAX OFFICINALE.

OFFICINAL STORAX.

Styrax, *Pharm. Lond. & Edinb.* ab hac arbore effluit.

SYNONYMA. Styrax folio mali cotonei. *Baub. Pin. p. 452.*
 Styrax arbor. *J. Baub. Hist. vol. i. p. 341. Gerard. Emac. p. 1526. Raii Hist. p. 1680. Styrax arbor vulgaris. Park. Theat. p. 1530. Lin. Spec. Plant. p. 635. Miller's Figures, p. 260.*

Class Decandria. *Ord.* Monogynia. *Lin. Gen. Plant. 595.*

Eff. Gen. Ch. Cal. inferus. Cor. infundibuliformis. *Drupa* 2-sperma.

Sp. Ch. S. foliis ovatis subtus villosis, racemis simplicibus folio brevioribus. *Ait. Hort. Kew.*

THE Storax-tree usually rises above twenty feet in height; it sends off many strong branches, which are covered with a roughish bark of a grey colour: the leaves are broad, elliptical, entire, somewhat pointed, on the upper surface smooth, and of a light green colour, on the under surface covered with a whitish down; they are placed

placed alternately, and stand upon short footstalks: the flowers are large, white, and disposed in clusters upon short peduncles, which terminate the branches: the corolla is monopetalous, funnel-shaped, and divided at the limb into five lance-shaped segments: the filaments are ten, placed in a regular circle, and seem to adhere towards the base: the antheræ are erect and oblong: the germen is oval, and supports a slender style, with a simple stigma: the fruit is a pulpy pericarpium, which contains one or two nuts of an oval compressed figure. It is a native of Italy and the Levant, and flowers in July.

Gerard appears to be the first who cultivated the Storax-tree in England; and although it is indigenous to many of the southern parts of Europe, yet the resinous drug which it produces is only to be obtained in perfection from these trees growing in Asiatic Turkey.^a The Storax issues in a fluid state from incisions made in the bark of the trunk, or branches, of the tree; and as it was formerly the custom to collect and export this gum-resin in reeds, it obtained the name of *Styrax calamita*. But the only two kinds of Storax^b now to be met with in the shops may be divided into the pure and the common Storax; the first is usually in irregular compact masses, free from impurities, of a yellowish or reddish brown appearance, and interspersed with whitish tears, somewhat like Gum ammoniac or Benzoin; it is extremely fragrant, and, upon the application of heat, readily melts. This has been called Storax in the lump, red Storax, and the separate tears, Storax in the tear. The common Storax is in large masses, very light, and bears no external resemblance whatever to the former Storax, as it seems almost wholly composed of dirty saw-dust merely caked together by the resinous matter; and though much less esteemed than the purer kinds of Storax, yet when freed from the

^a "Copia ejus effluit ex arboribus procerioribus in Gallo-Provinciæ sylvis (de la Chartreuse de Montrieu, Du Hamel *Traité des arbres tom. ii. p. 288*), item incisione promanat in planitie quadam agri Tiburtini montium catena septentrionem versus cincta. (Mazeas, *Journal des Sçavans*, 1769. p. 105. Ed. in 4^{to}). Sed quæ in officinis servatur, orientalis originis est, transferturque ad nos ex Turcia per Massiliam." *Murray App. Med. vol. ii. p. 80.*

^b It is necessary to observe, that no reference is here made to the *Styrax liquida*, which is produced from a very different tree, viz. the *Liquidamber styraciflua*; and, according to Monardes, is obtained by boiling the branches in water, which occasions the drug to separate, and rise to the surface, when it is skimmed off for use.

woody part, we are told that it possesses more fragrance, and is superior to the other kind. Rectified spirit, the common menstruum of resins, readily dissolves the Storax, which may be inspissated to a solid consistence, as directed for the *Styracis purificatio* in the London Pharm. without sustaining any considerable loss of its sensible qualities.

“ Common Storax, infused in water, imparts to the menstruum a
 “ gold yellow colour, some share of its smell, and a slight balsamic
 “ taste. It gives a considerable impregnation to water by distillation,
 “ and strongly diffuses its fragrance when heated, though it scarcely
 “ yields any essential oil. The spirituous solution, gently distilled
 “ off from the filtered reddish liquor, brings over with it very little
 “ of the fragrance of the Storax; and the remaining resin is more
 “ fragrant than the finest Storax in the tear, which I have met with.
 “ The pure resin distilled without addition, yields along with an
 “ empyreumatic oil, a portion of saline matter, similar to the
 “ flowers of Benzoine: I have sometimes also extracted from it a
 “ substance of the same nature by coction in water.”^c

Storax, with some of the ancients, was a familiar remedy as a resolvent, and particularly used in catarrhal complaints, coughs, asthmas, menstrual obstructions, &c. and from its affinity to the balsams it was also prescribed in ulcerations of the lungs, and other states of pulmonary consumption. And our pharmacopœias formerly directed the *pilulæ e styrace*; but this odoriferous drug has now no place in any of the officinal compounds; and though a medicine which might seem to promise some efficacy in nervous debilities, yet by modern practitioners it is almost totally disregarded.

^c Lewis Mat. Med. p. 621.

STYRAX BENZOIN.

BENJAMIN TREE.

Benzoë, *Pharm. Lond. & Edinb.* ex hac arbore exfudat.

SYNONYMA. Benjui. *Garcias ab Horto in Clusii Exoticis*, p. 155. Arbor Benzoini. *Grimm. in Ephemer. Acad. Nat. Curios. Dec. 2. Ann. I. p. 370. fig. 31.* *Sylvius in Valentini Historia Simplicium*, p. 487.

Benzuin. *Radermacher in Act. Societ. Bataviæ*, vol. iii. p. 44.

Benjamin or Benzoin. *Marsden's Hist. of Sumatra*, p. 123.

Laurus Benzoin. *Houttuyn in Act. Harlem. vol. xxi. p. 265. tab. 7.*
See Dryander's *Botanical Description of the Benjamin Tree of Sumatra. Phil. Trans. vol. lxxvii. p. 307.*

Class Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 595.

Eff. Gen. Ch. Cal. inferus. Cor. infundibuliformis. *Drupa* 2-sperma.

Sp. Ch. S. foliis oblongis acuminatis subtus tomentosis, racemis compositis longitudine foliorum. *Dryander. l. c.*

THIS tree is of quick growth, and rises to a considerable height: it sends off many strong round branches, which are covered with a tomentose or whitish downy bark: the leaves are oblong, entire, veined, tapering to a long point, on the upper surface smooth, on the under downy; they stand alternately upon short footstalks, which are round, scored, and downy: the flowers are produced in bunches, and usually hang all on the same side upon short slender pedicles: the racemi, or common peduncles, are nearly of the length of the leaves, compound or branched, downy, and arise from the axillæ of the leaves: the calyx is short, bell-shaped, downy, and divided at the extremity into five obscure imperfect teeth: the corolla is monopetalous, externally of a cineritious colour, downy, and cut into five obtuse



Styrax Benzoin

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obtuse parallel segments growing close together: the filaments are ten, of the length of the calyx, adhering at the base, bearded towards the top, forming a circle upon the receptacle in which they are inserted, and crowned with linear erect antheræ: the germen is oval, downy, and placed above the insertion of the corolla: the style is filiform, longer than the stamina, and terminated with a simple stigma: the fruit is similar to that of the *Styrax officinale*.*

The botanical character of this tree was entirely mistaken by modern botanists, even till the year 1787, when that excellent naturalist, Mr. Dryander, fully ascertained it to be a *styrax*.^a This was done at the request of Sir Joseph Banks, who obtained a proper specimen for the purpose from Mr. Marsden at Sumatra: and as we have copied the figure given by Mr. Dryander, we shall also transcribe the following observations with which it is introduced. “ Though GARCIAS AB HORTO, GRIM, and SYLVIUS,^b were acquainted with the real tree from which Benjamin, or Benzoin, is collected, their descriptions of it are so imperfect and insufficient for its botanical determination, that succeeding botanists have fallen into many errors concerning it; and it is remarkable, that although this drug was always imported from the East-Indies, most of the later writers on the *Materia Medica* have conceived it to be collected from a species of *Laurus*, native of

* Descriptio botanica a cl. Dryander.

Rami teretes, tomentosi.

Folia alterna, petiolata, oblonga, integerrima, acuminata, venosa, supra glabra, subtus tomentosa, palmaria. *Petioles* teretes, striati, canaliculati, tomentosi, brevissimi.

Racemi axillares, compositi, longitudine fere foliorum. *Pedunculi communes* tomentosi; *partiales* alterni, patentes, tomentosi. *Pedicelli* brevissimi. *Flores* secundi.

Calyx campanulatus, obsolete quinque-dentatus, extus tomentosus, linea longior.

Petala quinque, (basi forte connata) linearia, obtusa, extus tomento tenuissimo cinerea, calyce quadruplo longiora.

Filamenta decem, receptaculo inserta, petalis paulo breviora, inferne connata in cylindrum longitudine calycis, superne infra-antheras ciliata. *Antheræ* lineares, filamentis longitudinaliter adnatæ, iisque dimidio breviores.

Germen superum, ovatum, tomentosum. *Stylus* filiformis, staminibus longior. *Stigma* simplex.

^a L. c. Before this time however Sir Joseph Banks seemed to have no doubt that the Benjamin-tree was a *styrax*. Vide LODER in BALDING. *Med. Journ.* P. 5. p. 50.

^b Vide lib. in *Synon. cit.*

Virginia,

Virginia, to which, from this erroneous supposition, they have given the trivial name of Benzoin. This mistake seems to have originated with Mr. RAY, who in his *Historia Plantarum*, vol. ii. p. 1845, at the end of his account of the Arbor Benivifera of GARCÍAS, says, “ Ad nos scripsit D. *Tancredus Robinson* Arborem resiniferam odoratam foliis citrinis prædictæ haud abfimilem transmissam fuisse e Virginia a D. Banister, ad illustrissimum Præfulem D. Henr. Compton, in cujus instructissimo horto culta est. — Arbor ista Virginiana Citrii, vel Limonii foliis Benzoinum fundens, in horto reverendissimi Episcopi culta.” This error was detected by Linnæus, but another was substituted by him in its place;^c for in his *Mantissa Plantarum Altera* he tells us, that Benjamin is furnished by a shrub described there under the name of Croton Benzoë, and afterwards, in the *Supplementum Plantarum*, describes again the same plant, under the name of Terminalia Benzoin. M. Jacquin, who had been informed that this shrub was called by the French *Bienjoint*, supposes, with reason, that the similar sound of that word with Benjoin, the French name for Benjamin, may have occasioned this mistake.^d Since that period, Dr. Houttuyn has described the Benjamin tree of Sumatra; but for want of good specimens has been so unfortunate as to mistake the genus to which it belongs.”^e

This tree, which is a native of Sumatra, is deemed, in six years, of sufficient age for affording the Benzoine, or when its trunk acquires about seven or eight inches in diameter; the bark is then cut through longitudinally, or somewhat obliquely, at the origin of the principal lower branches,^f from which the drug exudes in a liquid state, and by exposure to the sun and air soon concretes, when it is scraped off from the bark with a knife, or chissel. The quantity of Benzoine which one tree affords never exceeds three pounds,^g nor are the trees found to sustain the effects of these annual incisions longer than ten or twelve years.^h The Benzoine which issues first from the wounded

^c This discovery was not made till after the publication of his *Spec. Plant.* where it stands as a laurus.

^d *Hort. Vindob. vol. iii. p. 51.*

^e Houttuyn had the specimens from Rademacher, from which he determined the tree to be a laurus.

^f Vide *Grimm & Marsden, l. c. p. 124.*

^g *Grimm. l. c.*

^h *Marsden. l. c.*

bark is the purest, being soft, extremely fragrant, and very white; that, which is less esteemed, is of a brownish colour, very hard, and mixed with various impurities, which it acquires during its long continuance upon the trees.¹ Eschelskron^k distinguishes Benzoine into three kinds, viz. *Camayan poeti*, or white Benjamin, which, upon being melted in a bladder by the heat of the sun, appears marked with red streaks, or veins. *Camayan bamatta* is less white than the former, and often spotted with white circles, called eyes, from the number of which its goodness is estimated: it likewise melts by the heat of the sun. *Camayan itam*, or black Benjamin, which requires to be melted in hot water for its preservation in bladders. In Arabia, Persia, and other parts of the East the coarser kinds of Benjamin are consumed for fumigating and perfuming the temples, and for destroying insects.

The Benzoine which we find here in the shops “is in large brittle masses, composed partly of white, partly of yellowish or light brown, and often also of darker coloured pieces: that which is clearest, and contains the most white matter, called by authors *benzoe amygdaloides*, is accounted the best.” “This resin has very little taste, impressing on the palate only a slight sweetness: its smell, especially when rubbed or heated, is extremely fragrant and agreeable. It totally dissolves in rectified spirit, the impurities excepted, which are generally in a very small quantity, into a deep yellowish red liquor, and in this state discovers a degree of warmth and pungency, as well as sweetness. It imparts, by digestion, to water also a considerable share of its fragrance, and a slight pungency: the filtered liquor, gently exhaled, leaves, not a resinous or mucilaginous extract, but a crystalline matter, seemingly of a saline nature, amounting to one-tenth, or one-eighth, of the weight of the Benzoine.”¹ Exposed to the fire in proper vessels, it yields a quantity of a white saline concrete, called flores benzoës, of an acidulous taste, and grateful odour, soluble in rectified spirit, and in water by the assistance of heat.

As the trees, which afford the drugs benzoine and styrax, are congeners, and as their resinous products are very similar in their external appear-

¹ Grimm. l. c. * Cfr. Eschelskron *Beschreib. von Sumatra*. p. 62.

¹ Lewis M. M. p. 142.

ances, and not widely different in their sensible qualities, it is reasonable to suppose them analogous in their medicinal effects. Benzoine, however, though rarely employed in a simple state, has been frequently prescribed as a pectoral; and we find it recommended for inveterate coughs, asthmas, obstructions of the lungs, and phthifical complaints, unattended with much fever: it has also been used as a cosmetic, and in the way of fumigation for the resolution of indolent tumours. Dr. Cullen, who classes Benzoine with the stimulants, says, "The flowers, which is the only preparation employed, are manifestly a saline substance of the acid kind, of considerable acrimony and stimulant power, as I have found in every trial of them I have made, It has been recommended as a pectoral, and I have employed it in some asthmatic cases without finding it of use; and in a dose of half a dram it appeared to be heating and hurtful."^m In the pharmacopœias the flowers are directed in the tinctura opii camphorata, and it is ordered in substance in the tinctura benzoës composita.

^m *Mat. Med. vol. ii. p. 192.* We may also notice, that Dr. Cullen thinks "the benzoine is a singular composition of an acid salt with an oily and resinous substance; but as a saline matter of the same kind is found in most of the turpentine and balsams—it appears to me, that the benzoin affords an analogy for explaining the composition of all these."

APIUM PETROSELINUM.



Apium Petroselinum

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APIUM PETROSELINUM. COMMON PARSLEY.

SYNONYMA. Petroselinum. *Pharm. Lond. & Edinb.* Apium hortense vulgo Petroselinum. *Baub. Pin. p. 153.* Petroselinum vulgare. *Park. Theat. p. 922.* Apium hortense. *Gerard. Emac. p. 1013.* *Raii Hist. p. 1448.*

α Apium sativum. *Riv. pent. 88.* Common Parsley.

β Apium crispum. *Riv. pent. 90.* Curled Parsley.

γ Apium radice esculenta. *Hort. Ups. 67.* Large rooted Parsley.

Aiton's Hort. Kew.

Class Pentandria. *Ord.* Digynia. *Lin. Gen. Plant. 367.*

Eff. Gen. Ch. *Fructus* ovatus, striatus. *Involucrum* 1-phyllum. *Petala* æqualia.

Sp. Ch. A. foliolis caulinis linearibus, involucellis minutis.

THE root is biennial, long, white, and beset with fibres: the stem is upright, round, scored, branched, jointed, and usually rises two feet in height: the radical leaves are with footstalks, compound, pinnated in ternaries: the leaflets are smooth, veined, divided into three lobes, and notched at the margin: the leaves of the stalk proceed from the vaginal sheaths at the joints, and have the leaflets cut into narrow linear entire segments: the flowers are small, of a yellow colour, and terminate the stem and branches in umbels composed of general and partial radii; the former are about ten in number, and the latter twenty in each umbel; it seldom has a general involucre, but the partial involucre consists of six or eight leaflets, unequal, pointed, spreading, and shorter than the umbel: the corolla consists of five oval petals, which have their points inflected: the filaments are five, spreading, slender, twice the length of the corolla, and crowned with roundish antheræ: the germen is oval, striated, and supports two short reflected styles, terminated with obtuse stigmata: the seeds are of a dark green colour, oblong, angular, striated, flat on one side, and convex on the other. It is a native of Sardinia, and flowers in June and July.

All the varieties of Parsley have been long very generally cultivated in England,^a and its frequent use for culinary purposes renders it more familiar than most of the plants which our kitchen gardens produce. Both the roots and seeds of Parsley are directed by the London College for medicinal use; the former have a sweetish taste, accompanied with a slight warmth or flavour, somewhat resembling that of a carrot: the latter are in taste warmer, and more aromatic than any other part of the plant, and also manifest considerable bitterness. In distillation, three pounds yielded above an ounce of essential oil, a great part of which sunk in the fluid. They give out little of their qualities by infusion in watery menstrua, but readily impart all their virtue to rectified spirit. The roots, by distillation in water, were found to yield a very considerable portion of essential oil, not above two or three drams from as many hundred pounds of the root.^b These roots are said to be aperient and diuretic, and have been employed in apozems, to relieve nephritic pains, and obstructions of urine.^c In this way they have been prescribed by Dr. Cullen without producing any diuretic effect, and this he thinks may in some measure be attributed to the loss of their active matter, which they sustain in boiling.^d The seeds, like those of many other umbelliferous plants, possess a share of aromatic and carminative power; but as this is inconsiderable they are now seldom employed. † The bruised leaves have been successfully used as a decutient poultice to various kinds of tumours.^e Although Parsley is so commonly used at table, it is remarkable that facts have been adduced to prove that in some constitutions it occasions epilepsy, or at least aggravates the epileptic fits in those who are subject to this disease.^f It has been supposed also to produce inflammation in the eyes.^g

^a Cultivated in 1551. *Turn. Herb. part. 1. sign. D iiiii.* Vide *Aiton's Hort. Kew.*

^b Lewis, *Mat. Med. p. 499.* ^c See Hoffman and others. ^d *Mat. Med. p. 159.*

† Externally they have been advantageously used for destroying cutaneous insects in children. Vide *Con. Mich. Valentini Act. Nat. Cur. vol. i. p. 285.* and *Rosenstein Barns junkd. Ed. 3. p. 533.*

^e We are told by Lange, (*Misc. verit. med. p. 26*) that this application has succeeded in scirrhus tumours where *Cicuta* and *Mercury* had failed.

^f *Hannemannus, in Eph. Nat. Cur. Dec. 3. A. 3. p. 78.* And *Marriotte in Journ. de Med. t. 23. p. 545.* ^g See *Boyle's Works, t. 1. p. 503.* *Alston's Lect. on M. M. vol. i. p. 381.* And cited by *Murray.*



Ribes rubrum

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RIBES RUBRUM.

RED CURRANT.

SYNONYMA. Ribes rubrum. *Pharm. Lond.* Ribes vulgaris fructu rubro. *Gerard. Emac.* p. 1593. *Raii Hist.* p. 1485. *Synop.* p. 456. Ribes fructu rubro. *Park. Theat.* p. 1561. Ribes vulgaris acidus ruber. *J. Baub. Hist. ii.* p. 97. *Grossularia*, multiplici acino, five non spinosa hortensis rubra. *Baub. Pin.* p. 455. Ribes inerme floribus planiusculis stipulis minimis. *Hal. Stirp. Helv. n.* 818. *Hudson Flor. Aug.* p. 99. *Withering. Bot. Arrang.* p. 243.

α Ribes rutilum. *Red Currant.*

β Ribes album. *White Currant.*

Class Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 281.

Ess. Gen. Ch. Petala 5 et Stamina calyci inserta. Stylus 2-fidus. Bacca polysperma, infera.

Sp. Ch. R. inerme, racemis glabris pendulis, floribus planiusculis.

THIS shrub grows five or six feet in height, is divided into many branches, and covered with a dark brown bark, except that of the young branches which is whitish or ash-coloured: the leaves are serrated, veined, divided into five, and sometimes seven lobes, of a pale green colour, and stand upon tapering footstalks, which are about the length of the leaves, and hairy towards the base: the bractæ are small, oval, pointed, and placed at the base of the leaf stalks and peduncles: the flowers grow in lateral pendulous racemi, or clusters, and appear in April: the calyx is divided into five spreading, reflexed, pointed, oblong, concave, permanent segments, which are of a yellowish green colour: the corolla is composed of five small obtuse upright petals, of a yellowish colour, and inserted in the calyx: the filaments are five, tapering, erect, and inserted in the calyx: the antheræ are compressed, gaping at the edges, and attached at their sides to the filaments:

filaments: the germen is roundish, placed below the corolla, and supports a cloven style, with obtuse stigmata: the fruit is a round shining red berry, of one cell, separated into two receptacles, and containing many roundish seeds. It is a native of Britain, and usually grows in dry woodlands.

As the white Currant-tree is merely a variety of the red, the fruit of both, whether considered in a botanical or medical sense, is perfectly analogous; therefore what is observed here of the latter will apply equally to the former.

It is well known that the red Currant is abundantly cultivated in our gardens, whence we are plentifully supplied with the fruit, which, from its grateful acidity, becomes universally acceptable, either as nature presents it, or variously prepared by art^a with the addition of sugar. By Dr. Cullen, this fruit is classed with the alimentary plants, and from being generally and exclusively considered as such, it was not received in the British catalogues of the *Materia Medica* till that published in the last edition of the *London Pharmacopœia*.

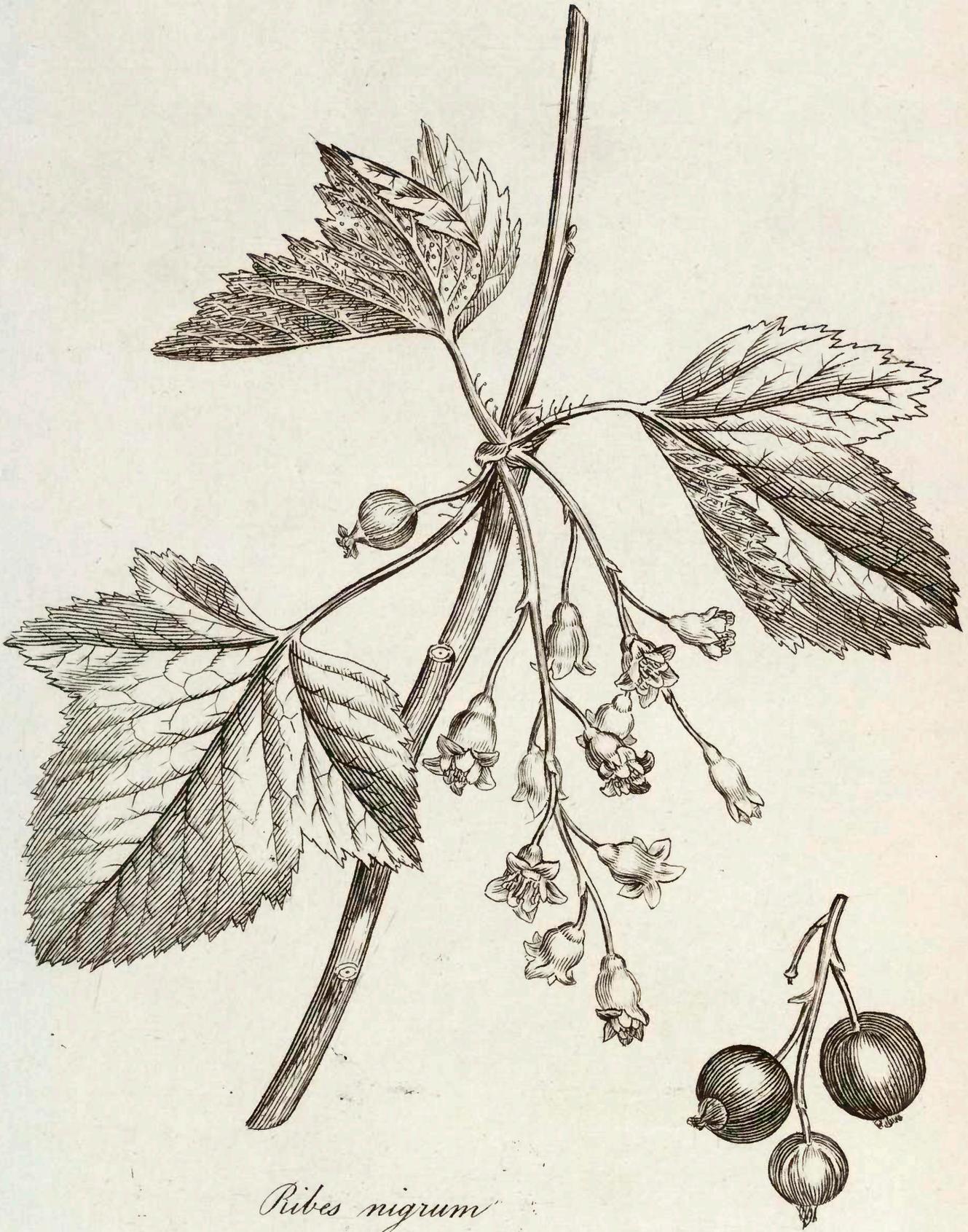
The medicinal qualities of red Currants appear to be similar to those of the other subacid fruits, which are esteemed to be moderately refrigerant, antiseptic, attenuant,* and aperient. They may be used with considerable advantage to allay thirst in most febrile complaints; to lessen an increased secretion of bile;^b and to correct a putrid and scorbutic state of the fluids, especially in sanguine temperaments: but in constitutions of a contrary kind, they are apt to occasion flatulency and indigestion.

^a "The juice is a most agreeable acid in punch. If equal weights of picked currants and pure sugar are put over the fire, the liquor that separates spontaneously is a most agreeable jelly." *Withering. l. c.* The juice of red currants, with sugar, is a common beverage at Paris, where it is generally preferred to orgeat, or lemonade.

* Hoffman and Boerhaave had great confidence in the efficacy of these fruits in obstinate visceral obstructions.

^b See *Maclurg on the Bile*, where the effects of the vegetable acid are considered.

RIBES NIGRUM.



Ribes nigrum

Published by D^r Woodville March 1. 1791.

RIBES NIGRUM.

BLACK CURRANT.

SYNONYMA. Ribes nigrum. *Pharm. Lond.* Ribes nigrum vulgo dictum folio olente. *J. Baub. Hist. ii. p. 98.* *Raii Hist. p. 1486.* *Synop. p. 456.* Grossularia non spinosa fructu nigro. *Baub. Pin. p. 455.* Ribes fructu nigro. *Park. Theat. p. 1562.* *Gerard. Emac. p. 1593.* Ribes inerme, olidum, calyce oblongo, petalis ovatis. *Hall. Stirp. Helv. n. 819.* *Hudson Flor. Ang. p. 99.* *Withering. Bot. Arrang. p. 243.*

Class Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant. 281.*

Eff. Gen. Ch. Petala 5 et stamina calyci inserta. Stylus 2-fidus. Bacca polysperma, infera.

Sp. Ch. R. inerme, racemis pilosis, floribus oblongis.

THE Black Currant-tree usually rises six or seven feet in height: the old wood is covered with a dark brown or blackish bark, but that of the younger shoots is of a whitish colour: the leaves are commonly divided into three lobes, much veined, irregularly serrated, of a deep green colour, and on the under side beset with many yellowish glands, which secrete an odoriferous fluid, impregnating the whole leaf; the leaf-stalks are similarly shaped to those of the red currant: the bractææ, or floral leaves, are oval, short, and woolly: the flowers are produced in pendent bunches, upon slender pedicles, placed alternately upon the common racemus, or peduncle: the calyx is divided into five oval spreading segments, of a pale green or yellowish colour: the corolla is composed of five roundish petals: the nectarium is larger than that in the red currant, and the fruit or berries are black. In other respects, the parts of fructification correspond with the description already given of the red currant. It is a native of Britain, preferring a swampy ground, and flowers in May.

The

The berries of the black Currant are larger than those of the red; and we are told that in some parts of Siberia they grow to the size of an hazel nut. Besides having the properties in common with the *fructus acido-dulces*, these berries are also said to be peculiarly useful in sore throats, and to possess a diuretic power in a very considerable degree. From those qualities which they manifest to the organs of taste, there can be little doubt but that in cases of inflammatory angina, they may be advantageously employed to answer the same intentions as gargles:^a the proofs however of their diuretic powers seem to want confirmation, as Forestus, on whose authority they rest, and who first noticed this property of the black currant, constantly prescribed it in combination with the seeds of wild carrot.^b

The leaves of the black Currant are extremely fragrant, and have been likewise recommended for their medicinal virtue, which Bergius states to be mundificans, pellens, diuretica.^c

The officinal preparations of the black currant berries, in the London Pharmacopœia, are the *syrupus ribis nigri*, and the *succus ribis nigri inspissatus*.

^a From their efficacy in this way they acquired the name of Squinancy berries.

We may observe here, that the black currant jelly in common domestic use for this purpose, is rendered less efficacious by having too much sugar in its preparation.

Both the fruit of this, and of the red currant, afford a pleasant wine; and that made of the former is mentioned by Haller, "Ex eo optimum vinum fieri non deterius vinis verioribus viteis, quando annum est." I. c. Smith *Nat. Hist. of Cork*, p. 359.

^b *Opp. Lib. 25. Obs. 10.*

^c *Mat. Med. vol. i. p. 155.* An infusion of these leaves is said to have the taste of green tea; and when prepared from the young leaves, is to some people peculiarly agreeable.

QUASSIMA SIMARUBA.



Quassia tinctoria

Published by D^r Woodville April. 1. 1791

QUASSIA SIMARUBA.

SIMARUBA QUASSIA.*

SYNONYMA. Simrouba. *Pharm. Lond. & Edinb.* Simaruba amara. *AUBLET Hist. des Plantes de la Guiane Françoise. tom. ii. p. 859. tab. 331, 332.* Euonymus fructu nigro tetragono, vulgo Simarouba. *BARRERE France equinoxiale. p. 50.* Le Simarouba vel Bois amer. *DES MARCHAIS Voyages en Guinée et à Cayenne, vol. ii. p. 124.* *BANCROFT'S Nat. Hist. of Guiana, p. 84.* A Botanical and Medical account of the Quassia Simaruba. *WRIGHT in the Transactions of the Royal Society of Edinb. vol. ii. p. 73. & seq.*

Class Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 529.

Ess. Gen. Ch. Cal. 5-phyllus. *Petala* 5. *Nectarium* 5-phyllum. *Pericarpia* 5, distantia, 1-sperma.

Sp. Ch. *Q.* floribus monoicis, foliis abrupte pinnatis: foliolis alternis subpetiolatis, petiolo nudo, floribus paniculatis. *Suppl. Plant.*

THIS tree grows to a considerable height and thickness, and sends off alternate spreading branches: the bark, which covers the trunks of the old trees, is black, and a little furrowed, but that of the younger trees is smooth, grey, and here and there marked with broad spots of a yellow colour: the wood is hard, white, and without any remarkable taste: the leaves are numerous, and stand alternately upon the branches; each leaf is composed of several pinnæ, nearly of an elliptical shape, on the upper side smooth, and of a deep green colour, on the under side whitish, and stand alternately upon short footstalks: the flowers are of a yellow colour, and placed on branched spikes, or long panicles: the calyx is small, and cut into five obtuse erect segments: the corolla is divided into five petals, which are sessile,

* "This tree is known in Jamaica by the names of Mountain Damson, Bitter Damson, and Stave-wood. The shops are supplied with this bark from Guiana; but now we may have it from our own islands at a moderate expense." *Wright. l. c.*

equal, lance-shaped, bent outwards, and triple the length of the calyx, into which they are inserted: the nectarium is composed of ten oval hairy scales, inserted at the base of the filaments: the stamina are ten, slender, equal, about the length of the corolla, and furnished with long antheræ: the receptacle is a fleshy substance, of an orbicular shape, and marked with ten furrows. The female flower, (according to Dr. Wright, whose figure of the male plant we have given) is never found at Jamaica on the same tree which produces the male flower; it is furnished with five roundish germina adhering together: the style is cylindrical, erect, about the length of the corolla, and divided at the top into five recurved persistent stigmata: the fruit is an oval, black, smooth, fleshy, soft pulp, or drupa; the number of these drupæ is five on each common receptacle, but seldom more than two or three arrive at perfect maturity, when each contains an oblong pointed nut with a flattish kernel. It is a native of S. America and the West Indies, and flowers in April.

Although the medicinal bark, which the roots of this tree are known to furnish, was first imported into Europe in the year 1713, it is but a few years since the Simaruba was botanically ascertained.

Linnæus at first supposed it to be the *Pistacia foliis pinnatis deciduis, foliolis ovatis*; but in the second edition of his *Species plantarum* and *Mat. Med.* it is recorded as the *Bursera gummifera*, and both these genera are referred to the *Terebinthus major* of Sloane, or the Birch turpentine-tree of Browne. However Jacquin, who examined the root of the *Bursera*, and compared its bark with that of *Simaruba*, found it to be very different. Linnæus therefore in his observations on the *Mat. Med.* published in 1772, very properly mentions it among those plants which are not sufficiently determined. About this time the *Simaruba* tree was discovered and investigated at Guiana by Aublet, and at Jamaica by Dr. Wright, from whose specimens it evidently appears to be a *Quassia*, and under this name it has since been described by the younger Linnæus in the *Supp. Plantarum*. Dr. Wright, to whose botanical researches we are much indebted, says, "in 1773, specimens of the fructification were sent (from Jamaica) in spirits, accompanied with a botanical account of the tree, to my late worthy friend Dr. Hope, Professor of Botany in the University of Edinburgh; also some dried bark from the roots.

The

The following year specimens with similar description, were transmitted to my late learned friend Dr. John Fothergill of London, who sent them to the celebrated Linnæus at Upsal, as appears by Professor Murray's Apparatus Medicaminum.^a Dr. Fothergill caused elegant drawings to be made of this plant, and these drawings I now have the honour of presenting to the Royal Society of Edinburgh."^b By the assistance of Mr. Alexander Anderson a plant of this species has been lately introduced into the Royal garden at Kew.^c The cortex Simarubæ of the shops is the bark of the roots of this tree, which, according to Dr. Wright, "is rough, scaly, and warted. The inside, when fresh, is a full yellow, but when dry, paler: it has but little smell: the taste is bitter, but not disagreeable." "Macerated in water, or in rectified spirit, it quickly impregnates both menstrua with its bitterness, and with a yellow tincture. It seems to give out its virtue more perfectly to cold, than to boiling, water; the cold infusion being rather stronger in taste than the decoction; which last, of a transparent yellow colour whilst hot, grows turbid and of a reddish brown, as it cools. The milky appearance, which Jussieu says it communicates to boiling water, I have not observed in the decoction of any of the specimens which I have examined."^d

This bark was first sent from Guiana to France in 1713 to the Count de Porchartrain, then Secretary of State, as a remedy of great efficacy in dysentery. In the years 1718 and 1723, an epidemic flux prevailed very generally in France, which resisted all the medicines usually employed in such cases; small doses of ipecacuanha, mild purgatives, and all astringents were found to aggravate, rather than to relieve, the disease: || under these circumstances, recourse was had to the cortex Simarubæ, which proved remarkably successful,

^a Qualis vera ejusdem arbor sit, jamjam *Aubletii* indagine cognoscimus; ut tamen et mihi monere incumbat, b. *Linneum*, Equitem, litteris jam a. 1776. ineunte mihi datis, antequam *Aubletii* elegantissimum opus illi innotesceret, significasse, Simarubum *Quassia* speciem a se haberi. Ille autem Simarubæ cortex, quo cl. *Wright* (*Conf. Bibl. mea med. v. iii. p. 483*) arborem in Jamaica vulgarem vestitam esse innuit, pariter in alvi profluviis efficaci, *discrepat a vulgo usitato cortice, ut specimine mihi misso reperio, quod scilicet tenue est, tenacius, longe pallidius, obtectum extrinsecus verrucis exiguis fere stipitatis, valde amarum.*"
Vol. iii. p. 458.

^b L. c. p. 74.

^c See Aiton's *Hort. Kew.* ^d Lewis *Mat. Med.* p. 606. || See Wright, l. c.

and first established its medical character in Europe. † Dr. Wright says, “ most authors who have written on the Simaruba, agree, that in
 “ fluxes it restores the lost tone of the intestines, allays their spasmodic
 “ motions, promotes the secretions by urine and perspiration, removes
 “ that lowness of spirits attending dysenteries, and disposes the patient
 “ to sleep; the gripes and tenesmus are taken off, and the stools are
 “ changed to their natural colour and consistence. In a moderate dose
 “ it occasions no disturbance or uneasiness, but in large doses it pro-
 “ duces sickness at the stomach and vomiting.

“ Modern physicians have found from experience, that this medicine
 “ is only successful in the third stage of dysentery, where there is no
 “ fever, where too the stomach is no way hurt, and where the gripes
 “ and tenesmus are only continued by a weakness of the bowels. In
 “ such cases, Dr. Monro gave two or three ounces of the decoction every
 “ five or six hours, with four or five drops of laudanum; and found
 “ it a very useful remedy. The late Sir John Pringle, Dr. Huck
 “ Saunders, and many others, prescribed the cortex simaruba in old and
 “ obstinate dysenteries and diarrhœas, especially those brought from
 “ warm climates. Fluxes of this sort, which were brought home from
 “ the siege of Martinico and the Havannah, were completely and
 “ speedily cured by this bark. The urine, which in those cases had
 “ been high coloured and scanty, was now voided in great abundance,
 “ and perspiration restored. Dr. James Lind at Haslar Hospital, says,
 “ that the Simaruba produced these effects sooner and more certainly,
 “ when given in such quantity as to nauseate the stomach. Dr. Huck
 “ Saunders remarks, that if the Simaruba did not give relief in three
 “ days, he expected little benefit from its farther use; but others have
 “ found it efficacious in fluxes, after a continued use for several weeks.
 — “ My own experience, and that of many living friends, are

† Jesuitæ patri *Soleil* collegio Parisino adscripto anno 1713, quædam hujus corticis specimina miserunt, ille in dysenteria gravi, quæ anno 1718, Parisiis furebat, jussu Regio, fuit tentatus, bonos inde observatos effectus, anno 1723, reiterata experimenta uberius confirmarunt, variis itaque in locis in usum tractus efficaciam suam in sistenda dysenteria ubivis probavit Degner, Schwenk, Tissot, Grashuis, Bœnnicken, Werlhoff, testibus, efficacem quoque in alvi fluxu chronico & lienteria Schwenk, Tissot, Bœnnicken Jussieu sunt experti, in hæmorrhagia uteri Du Buiffon & Jussieu: has ejus virtutes non modo a vi adstringente, qua pollet, pendere, sed illam ipsam materiem quoque horum morborum corrigere & e corpore educere, Schwenk & Jussieu ex eo probant, quod sub ejus usu excretiones aquosæ promoveri observentur. Spielman *Mad. Med.* p. 228.

convincing



Quassia amara

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“convincing proofs to me of the efficacy of this medicine, and I hope
“the Simaruba bark will soon be in more general use.”^e

Dr. Wright recommends two drams of the bark to be boiled in twenty-four ounces of water to twelve; the decoction is then to be strained and divided into three equal parts, the whole of which is to be taken in twenty-four hours, and when the stomach is reconciled to this medicine, the quantity of the bark may be increased to three drams. To this decoction some join aromatics, others a few drops of laudanum to each dose.

^e L. c. p. 78. It may here be remarked, that Dr. Cullen says, “we can perceive nothing in this bark but that of a simple bitter, the virtues ascribed to it in dysentery have not been confirmed by my experience, or that of the practitioners in this country; and leaving what others are said to have experienced to be further examined and considered by practitioners, I can only at present say, that my account of the effect of bitters will perhaps explain the virtues ascribed to Simaruba. In dysentery I have found an infusion of chamomile flowers a more useful remedy.” *Mat. Med. vol. ii. p. 75.*

QUASSIA AMARA.

BITTER QUASSIA.

SYNONYMA. Quassia. *Pharm. Lond. & Edinb.* Quassia pentaphylla pediculis alatis, floribus racemosis terminalibus coccineis fructu pentaspermo. *PATRIS in Gazette salutaire, 1777, n. 41. 42.* item in *ROZIER Observations sur la Physique. Tom. IX. 1777. p. 140.* *Suppl. Plant. p. 235.*

Class Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 529.

Eff. Gen. Ch. Cal. 5-phyllus. *Petala* 5. *Nectarium* 5-phyllum. *Pericarpia* 5, distantia 1-sperma.

Sp. Ch. Q. floribus hermaphroditis, foliis impari-pinnatis, foliolis oppositis sessilibus, petiolo articulato alato, floribus racemosis. *Suppl. Plant.*

THIS tree rises several feet in height, and sends off many strong branches: the wood is white and light; the bark is thin, and of a grey colour: the leaves are placed alternately upon the branches, and consist of two pair of opposite pinnæ, with an odd one at the end:

all the leaflets are of an elliptical shape, entire, veined, smooth, pointed, sessile, on the upper pagina of a deep green colour, on the under paler: the common footstalk is articulated and winged, or edged, on each side with a leafy membrane, which gradually expands towards the base of the pinnæ: the flowers are all hermaphrodite, of a bright red colour, and terminate the branches in long spikes: the bractææ or floral leaves are lance-shaped or linear, coloured, and placed alternately upon the peduncles: the calyx is small, persistent, and five-toothed: the corolla consists of five lance-shaped equal petals, at the base of which is placed the nectary, or five roundish, coloured, scales: the filaments are ten, slender, somewhat longer than the corolla, and crowned with simple antheræ, placed transversely: the receptacle is fleshy and orbicular: the germen is ovate, divided into five parts, and supports a slender style, longer than the filaments, and terminated by a tapering stigma: the capsules are five, two-celled, and contain globular seeds. It is a native of South America, particularly of Surinam, and also of some of the West-India islands.

The botanical character of this species of *Quassia* was known long before that of the *Simaruba*, as it is noticed in its proper place in the *Sp. Plantarum*, upon the authority of Dahlberg, when it was thought peculiar to Surinam; afterwards, Linnæus, in his *Materia Medica*, referred it to the *Nux americana, foliis alatis bifidis* of *Commelin*.|| It appears, however, that the figure given in the *Amœnitates Academicæ*,^a is not a faithful representation of this species; hence the younger Linnæus has observed, “*Figura floris in Dissertatione Parentis de Quassia vera est, sed ramulus cum foliis ad aliam pertinet;*”^b and consequently those copied from it, and since published by Buchoz, and others, are with respect to the leaves erroneous;* this will be evident, upon consulting the plate and description of the *Quassia* given by Patris, as well as the Icon here annexed, which was drawn from a specimen in the possession of that able naturalist Dr. J. E. Smith, President of the Linnæan Society.^c

|| *Hort. i. p. 423. t. 94.* ^a See *Vol. vi. p. 416.* ^b *Suppl. Plant. p. 235.*

* On this account, we have not referred to the figure of the *Quassia*, lately published by Dr. Lettsom in the *Mem. of the Med. Society.*

^c The ample and valuable collection of specimens in Natural History made by Linnæus, and to which most of his cotemporary naturalists were contributors, are now in the possession of this Gentleman, who has obligingly offered us any assistance it may afford us in the prosecution of this work.

The root, bark, and wood^d of this tree, are all comprehended in the catalogues of the *Materia Medica*; but as the roots are perfectly ligneous, they may be medically considered in the same light as the wood, which is now most generally employed, and seems to differ from the bark in being less intensely bitter; the latter is therefore thought to be a more powerful medicine. Quassia has no sensible odour; its taste is that of a pure bitter, more intense and durable than that of almost any other known substance; it imparts its virtues more completely to watery than to spirituous menstrua, and its infusions are not blackened by the addition of martial vitriol. The watery extract is from a sixth to a ninth of the weight of the wood; the spirituous about a twenty-fourth. Quassia derived its name from a negro named Quassi, (by Fermin^e written Coissi, and by Rolander Quass) who employed it with uncommon success, as a secret remedy in the malignant endemic fevers, which frequently prevailed at Surinam. In consequence of a valuable consideration, this secret was disclosed to Daniel Rolander, a Swede, who brought specimens of the Quassia-wood to Stockholm, in the year 1756; and since then the effects of this drug have been very generally tried in Europe, and numerous testimonies of its efficacy published by many respectable authors.^f Various experiments with Quassia have likewise been made, with a view to ascertain its antiseptic powers, from which it appears to have considerable influence in retarding the tendency to putrefaction,^g and this Professor Murray thinks cannot be attributed to its sensible qualities, as it possesses no astringency whatever, nor can it depend upon its bitterness, as gentian is much bitterer, yet less antiseptic. The medicinal virtues ascribed to Quassia are those of a tonic, stomachic, antiseptic, and febrifuge; it has been found very effectual in restoring the tone of the stomach, producing appetite for food, assisting digestion, expelling flatulency, and removing habitual cof-

^d It may also be remarked, that the leaves, flowers, &c. likewise possess similar qualities. Toutes les parties du Cassia, écorce, bois, feuilles, fleurs, calice, enveloppes des graines, et les graines mêmes, sont d'une amertume énergique, et dont n'approche aucun médicament jusqu'à présent connu, &c. *Patris l. c. p. 144.*

^e *Description de la Colonie de Surinam. Tom. i. p. 212.*

^f Of these we may mention *Linnæus, Dahlberg, Blom, Fermin, Tissot, Thorstensen, Severius, Ebeling, Patris*, and many others, for which see *Murray App. Med. vol. iii. p. 432. & seq.* ^g Vide *Ebeling Diss. de Quassia, &c. p. 14. Severius, Comment. in quo medicatæ Quassia vires expenduntur. p. 77.*

tiveness, produced from debility of the intestines, and common to a sedentary life. Dr. Lettsom, whose extensive practice gave him an opportunity of trying the effects of Quassia in a great number of cases, says, " In debility, succeeding febrile diseases, the peruvian bark is most generally more tonic and salutary than any other vegetable hitherto known; but in hysterical atony, to which the female sex is so prone, the Quassia affords more vigour and relief to the system than the other, especially when united with the *vitriolum album*, and still more with the aid of some absorbent." In dyspepsia, arising from hard drinking, and also in diarrhoeas, the Doctor exhibited the Quassia with great success. But with respect to the tonic and febrifuge qualities of Quassia, he says, " I by no means subscribe to the Linnæan opinion, where the author declares, *me quidem judice chinchinam longe superat*: it is very well known, that there are certain peculiarities of the air and idiosyncrasies of constitution, unfavourable to the exhibition of the peruvian bark, even in the most clear intermissions of fever, and writers have repeatedly noticed it; but this is comparatively very rare. About midsummer, 1785, I met with several instances of low remittent and nervous fevers, wherein the bark uniformly aggravated the symptoms, though given in intermissions the most favourable to its success; and wherein Quassia, or snake-root, was successfully substituted. In such cases, I mostly observed, that there was great congestion in the hepatic system, and the debility at the same time, discouraged copious evacuations."—And in many fevers without evident remissions to warrant the use of the bark, whilst at the same time increasing debility began to threaten the life of the patient, the Doctor found that Quassia, or snake-root, singly or combined, upheld the vital powers, and promoted a critical intermission of fever," by which an opportunity was offered for the bark to effect a cure.^h It may be given in infusion, or in pills made from the watery extract, the former is generally preferred in the proportion of three or four drams of the wood to twelve ounces of water.

^h See *Memoirs of the Med. Society*, vol. i. p. 150.

Dr. Cullen says, " I believe Quassia to be an excellent bitter, and that it will do all that any pure and simple bitter can do; but our experience of it in this country does not lead us to think it will do more; and the extraordinary commendations given of it are to be ascribed to the partiality so often shewn to new medicines. *Mat. Med.* v. ii. p. 74.



Sambucus nigra

Published by Dr Woodville April. 1. 1791.

SAMBUCUS NIGRA. COMMON BLACK ELDER.

SYNONYMA. Sambucus. *Pharm. Lond. & Edinb.* Sambucus fructu in umbella nigro. *Baub. Pin. p. 456.* Sambucus vulgaris. *Park. Theat. p. 407.* *J. Baub. vol. i. p. 544.* *Raii Hist. p. 1609.* *Synop. p. 461.* *Gerard. Emac. p. 1422.* *Hudson Flor. Ang. p. 130.* *Flor. Dan. 545.* *Witbering. Bot. Arrang. p. 320.* *Dubamel, t. 65.* Sambucus arborea, floribus umbellatis. *Hal. Stirp. Helv. n. 670.*

Varietates sunt,

β Sambucus fructu in umbella viridi. *C. Baub.*

γ Sambucus laciniato folio. *C. Baub.*

Class Pentandria. *Ord.* Trigynia. *Lin. Gen. Plant. 372.*

Eff. Gen. Ch. *Cal.* 5-partitus. *Cor.* 5-fida. *Bacca* 3-sperma.

Sp. Ch. *S.* cymis quinquepartitis, foliis pinnatis, caule arboreo.

THE root is woody, from which issues a shrubby stem often to the height of twelve or sixteen feet: it is much branched towards the top, and covered with a rough whitish bark: the wood is hard, tough, and contains in the centre a large proportion of medullary matter, or pith: the leaves are pinnated, consisting of two or three pair of pinnæ or leaflets, with an odd one at the end; they are oval, veined, smooth, deeply serrated, and of a deep green colour: the flowers are small, white, and produced in large flat umbels or clusters: the calyx is permanent, placed above the germen, and divided into five segments: the corolla is monopetalous, wheel-shaped, somewhat convex, and divided into five obtuse segments: the filaments are tapering, spreading, equal in length to the corolla, and crowned with roundish antheræ: the germen is oval, and furnished with a prominent gland, which supplies the place of the styles, and supports three blunt stigmata: the fruit is a round succulent berry, of a blackish purple colour, and contains three seeds, which are flat on one side, and angular on the other. It is a native of Britain, in moist hedges and woods, and flowers in May and June.

This species is the *Ακτιν*^a of the Greek writers, and has been long very generally employed for medical purposes. The whole plant has an unpleasent narcotic smell, and some authors have reported its exhalations to be so noxious as to render it unsafe to sleep under its shade.^b The parts of the Sambucus, which are proposed for medicinal use in the Pharmacopœias,^c are the inner bark, the flowers, and the berries. The first has scarcely any smell, and very little taste: on first chewing, it impresses a degree of sweetishness, which is followed by a very slight, but durable, acrimony, in which its powers seem to reside, and which it imparts both to watery and spirituous menstrua. It is strongly cathartic, and on this account was much used by Sydenham^d and Boerhaave,^e who recommend it as an effectual hydragogue; the former directs three handfuls of it to be boiled in a quart of milk and water, till only a pint remains, of which one half is to be taken night and morning, and repeated for several days: it usually operates both upwards and downwards, and upon the evacuations it produces, its utility depends. Boerhaave gave its expressed juice in doses from a dram to half an ounce. In smaller doses it is said to be an useful aperient and deobstruent in various chronical disorders.

“ The flowers have an agreeable flavour, which they give over in distillation with water, and impart by infusion both to water and rectified spirit: on distilling a large quantity of them with water, a small portion of a butyraceous essential oil separates. Infusions made from the fresh flowers are gently laxative and aperient: when dry they are said to promote chiefly the cuticular excretion, and to be particularly serviceable in erysipelalous and eruptive disorders.” Externally they are used in fomentations, &c. and in the London Pharmacopœia directed in the form of an ointment. “ The berries, in taste, are somewhat sweetish, and not unpleasent; on expression, they yield a

^a Sambucus, Ἀκτιν Græcis, a Sambuca musico instrumento, quod alii pectida, alii magadin vocant, dicta putatur. Alii ab autore cui nomen Sambyx denominatam malunt. Nobis vox incertæ originis esse videtur. *Raii Hist.* p. 1609.

^b The Berries are said to be poisonous to poultry. (*Barthol. Hist. anat. rarior. Cent. iv. p. 248.*) And the flowers to peacocks. *Linn. Flor. Suec. p. 79.* If turneps, cabbages, fruit-trees, or corn, (which are subject to blight from a variety of insects) are whipped with the green leaves and branches of Elder, the insects will not attack them. *Withering. l. c.* See *Phil. Trans. vol. lxii. p. 348.*

^c The leaves are purgative like the bark, but more nauseous.

^d *Oper. p. 496.* ^e *Hist. Plant. P. I. p. 207.*



Pyrus Cydonia

fine purple juice, which proves an useful aperient and resolvent in recent colds and fundry chronical diseases, gently loosening the belly, and promoting urine and perspiration."† The officinal preparation of these berries is the succus baccæ sambuci spissatus. (Pharm. Lond.)

† *Lewis M. M. p. 576.*

PYRUS CYDONIA. COMMON QUINCE TREE.

SYNONYMA. Cydonium malum. *Pharm. Lond. & Edinb.*
 Malus Cotonea. *Gerard. Emac. p. 1452. Raii Hist. p. 1452.*
J. Baub. Hist. vol. i. p. 35. Malus Cotonea vulgaris. Park.
Theat. p. 1504. Mala cotonea majora. Baub. Pin. p. 434.
Flor. Austr. v. iv. t. 342. Duplex varietas in hortis colitur, scil.
 1. Cydonia fructu oblongo læviori. *Tourn. Instit. p. 632. Mala*
Cotonea majora. C. Baub. l. c. depicta ab ill Du Hamel, in
Traité des Arb. fruit. ad p. 206. 2 Cydonia fructu brevior et
rotundior. Tourn. l. c. Mala cotonea minora. C. Baub. l. c.
depicta in Du Hamel Traité des Arb. et Arbustes Tab. 83.
 Prostat et alia 3 varietas: Cydonia latifolia lusitanica. *Tourn. cujus*
fructus oblongus succosior et minus acerbus, sed rarioris proventus.
 Vide *Murray App. Med. vol. iii. p. 196.*

Class Icosandria. *Ord.* Pentagynia. *Lin. Gen. Plant. 626.*

Ess. Gen. Ch. Cal. 5-fidus. *Petala* 5. *Pomum inferum* 5-loculare,
 polyspermum.

Sp. Ch. F. fol. integerrimis, flor. solitariis.

THIS tree seldom rises very high, being usually crooked and distorted: it sends off several branches, and is covered with a brown bark: the leaves are simple, roundish or oval, entire, on the upper side of a dusky green colour, on the under, whitish, and stand upon short footstalks: the flowers are large, solitary, of a pale red or white colour, and placed close to the axillæ of the leaves: the
 calyx

calyx is composed of one leaf, and divided into five spreading oval notched segments: the corolla consists of five petals; these are large, convex, roundish, and notched at their extremities: the filaments are about twenty, tapering, shorter than the corolla, inserted into the calyx, and furnished with simple antheræ: the germen is orbicular: the styles are five, slender, nearly of the length of the filaments, and supplied with simple stigmata: the fruit is of the apple kind, and divided at the centre into five membranous cells, containing the seeds, which are oblong, angular, pointed at one end, obtuse at the other, on one side compressed, on the other flat, and covered with a brownish pellicle. It is a native of Austria,* and flowers in May and June.

It appears from Pliny,^a that the *malus Cydonia*, or *Μηλεα κυδωνια* of the Greeks, was originally brought from Cydon in Crete, hence the name *Cydonia*. At present, the Quince tree is known to grow wild on the banks of the Danube, though in a much less luxuriant state than we observe it in British gardens, where it was cultivated in the time of Gerard. The form of the fruit approaches to that of the pear or apple, according to the different varieties of this species of tree from which it is produced, and which we have already noticed under the synonymis: it has a pleasant odour, and a very austere taste: || its expressed juice, repeatedly taken in small quantities, is said to be cooling, restringent, and stomachic, useful in nausea, vomitings, nidorous eructations, and some kind of alvine fluxes.^b Formerly this juice was ordered in the Lond. Pharm. to be made into a syrup; but the only preparation of the Quince which it now directs is a mucilage of the seeds, made by boiling a dram of the seeds in eight ounces of water, till it acquires a proper consistence. This has been recommended in apthous affections, and excoriations of the mouth and fauces. It may be a more pleasant mucilage, but it is certainly a less efficacious one, than that of the simple gums.

* Vide *Aiton's Hort. Kew.*

^a *Lib. xv. cap. 11.*

Heister *Diff. de Cydoniis*, p. 59.

|| But upon being boiled and preserved in syrup, this fruit is well known to give a pleasant flavour to apple-pies.

^b *Lewis Mat. Med.* p. 267.

DIANTHUS CARYOPHYLLUS.



Dianthus Caryophyllus

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Cissampelos Pareira

Published by D^r Woodville May 1. 1791.

DIANTHUS CARYOPHYLLUS. ||

CLOVE PINK.

SYNONYMA. Caryophyllum rubrum. *Pharm. Lond. & Edinb.*
 Caryophyllum hortensis simplex flore majore. *Baub. Pin. p. 208.*
 Caryophyllum simplex major. *Gerard. Emac. p. 590. Vide Park.*
Parad. p. 306. Raii Hist. p. 986. Synop. p. 336. Dianthus
Caryophyllum. Hudson. Flor. Ang. Withering. Bot. Arr. p. 441.

α Caryophyllum hortensis simplex flore majore. *C. Baub.*

CLOVE PINK.

β Caryophyllum maximum ruber & variegatus. *C. Baub.*

COMMON CARNATION.*

Class Decandria. *Ord.* Digynia. *Lin. Gen. Plant. 565.*

Ess. Gen. Ch. Cal. cylindricus, 1-phyllus: basi squamis 4. *Petalæ* 5,
 unguiculata. *Caps.* cylindrica, 1-ocularis.

Sp. Ch. D. floribus solitariis, squamis calycinis subovatis brevissimis,
 corollis crenatis.

THE root is perennial, firm, divided, and beset with many fibres: the stems are slender, smooth, branched, upright, jointed, of a glaucous, or sea green, colour, and rise from one to two feet in height: the leaves upon the stem are short, linear, and placed in pairs at the joints: those of the young shoots are numerous, narrow, pointed, smooth, entire, and of the same colour as the stalk: the flowers stand singly at the extremities of the branches, and are of a deep crimson colour: the calyx is tubular, cylindrical, divided at the mouth into five segments, and surrounded at the base with four oval pointed squamæ: the corolla consists of five petals, which at the limb are roundish, patent, scolloped, fringed, and attached to the common receptacle by long narrow claws: the ten filaments

|| " Ut nomen traxisse ab odoris affinitate qualicunque dubium non est; ita nescio sane quæ et unde sit barbara illa vox tunica. *Baub. Pin. p. c.*

* Vide Aiton's *Hort. Kew.*

are longer than the calyx, tapering, spreading towards the top, and furnished with compressed oblong antheræ: the germen is oval: the styles two, slender, longer than the filaments, and their stigmata curled outwards: the capsule is cylindrical, and contains many small roundish seeds.

This fragrant plant is known to grow wild in several parts of England on old walls and in the crevices of rocks;† but the flowers, which are pharmaceutically employed, are usually produced in gardens, where they become extremely luxuriant, and by the arts of culture those beautiful varieties raised which are so highly esteemed under the name of Carnations. The flowers of the Clove Pink, or as it is more commonly called, Clove July Flower, have a pleasant aromatic smell, somewhat allied to that of clove spice: their taste is bitterish and subastringent. “Rectified spirit, digested on the flowers, receives a much paler tincture than watery liquors, but extracts the whole of their active matter. In distillation or evaporation, spirit elevates much less than water; the spirituous extract retaining a considerable share of the fine smell of the flowers as well as their taste: its colour is purplish like that of the watery extract.”^a

Formerly these flowers were supposed to have considerable effect upon the nervous system, and were therefore recommended in headaches, faintings, palpitations of the heart, convulsions, tremors, &c. and S. Paulli says, that he found them of great use even in malignant fevers.^b At present, however, they are valued merely for their sensible qualities, and the syrupus caryophylli rubri, which is the only officinal preparation of these flowers, is to be considered in this light: its pleasant flavour and fine colour rendering it an useful vehicle for other medicines.

† At Rochester, Deal, Sandown, and other castles, plentifully. See *Ray* and *Hudson*.

^a *Lewis's Mat. Med.* p. 205.

^b *Quad. Bot.* p. 242.

VIOLA ODORATA.

SWEET VIOLET.

SYNONYMA. Viola. *Pharm. Lond. & Edinb.* Viola *martia* purpurea, flore simplice odoro. *Baub. Pin. p.* 199. *J. Baub. Hist. ii. p.* 542. *Raii Hist. p.* 1049. *Synop.* 364. Viola *nigra* five purpurea. *Gerard. Emac. p.* 550. Viola *simplex* *martia*. *Park. Parad. p.* 282. Viola *acaulis stolonifera*, foliis cordatis. *Hall. Stirp. Helv. n.* 558. Viola *odorata* *acaulis*, foliis cordatis, stolonibus reptantibus, bractæis supra medium pedunculi. *Curtis Flor. Lond.*

Varietates sunt,

α Viola *martia* purpurea, flore simplice odoro. *C. Baub. l. c. p.* 199.

PURPLE FLOWERED SWEET VIOLET.

β Viola *martia* alba. *C. Baub. l. c. p.* 199.

WHITE FLOWERED SWEET VIOLET.

γ Viola *martia* *multipliei* flore. *C. Baub. l. c. p.* 199.

DOUBLE FLOWERED SWEET VIOLET.^a

Class Syngenesia. *Ord.* Monogamia. *Lin. Gen. Plant.* 1007.

Eff. Gen. Ch. *Cal.* 5-phyllus. *Cor.* 5-petala, irregularis, postice cornuta. *Caps.* supera, 3-valvis, 1-ocularis.

Sp. Ch. V. *acaulis*, fol. cordatis: stolonibus reptantibus.

THE root is perennial, knobbed, whitish, and furnished with long fibres: the leaves are heart-shaped, veined, crenated, or slightly scolloped at the edges, on the upper side smooth, and of a shining green colour, underneath paler, somewhat hairy, and stand upon long smooth footstalks: the stipulæ are membranous, lance-shaped, minutely serrated, and chiefly produced from the root: the peduncles are usually about four inches long, and somewhat above the middle furnished with two pointed bractææ, below which the peduncle is quadrangular, but above it is grooved on the back, bent downwards at the top, and supports a single flower: the calyx is composed of

^a Vide Aiton's Hort. Kew.

five leaflets, persistent, oval, obtuse, protuberant at the base, and tinged with a dark purplish colour: the corolla consists of five irregular petals, of a bluish purple colour; the two lateral petals are bearded towards the base, and the claw of the undermost formed into a horn-shaped nectarium: the five filaments are very short: the antheræ are bilocular, slightly joined together, yellowish, and terminated by an oval membrane of an orange colour: from behind two of the antheræ there arises a flat greenish appendage, which is inserted in the nectarium: the germen is orbicular: the style twisted, and supplied with a hooked stigma: the capsule is roundish, compressed, separated by three valves, and contains several roundish light-coloured seeds. It is common near warm hedges, and on ditch banks, and flowers in March and April.

This species of violet may be distinguished from the *Viola hirta*, to which it bears a great resemblance, by the latter having its leaves and footstalks beset with small hairs; by not sending off creeping shoots which strike root; by its flowers being inodorous, and of a fainter blue colour; and by the bractææ being placed somewhat below the middle of the scapus or peduncle.^b

The *Viola odorata* is evidently the *Ἴον μέλαν* of Theophrastus, and the *Ἴον πορφύρεον* of Dioscorides;^c it was also well known to the Arabian physicians, as Mesue commends its use highly in various inflammatory diseases. *Viola* is likewise frequently mentioned by the Latin poets, who allude to its effects as a vulnerary.^d The recent flowers only are now received in the catalogues of the *Materia Medica*; they have an agreeable sweet smell, and a mucilaginous bitterish taste; to water they readily give out both their virtue and their fine flavour, but scarcely impart any tincture to rectified spirit, though they impregnate the spirit with their flavour.^e These flowers taken in the quantity of a dram or two are said to be gently purgative or laxative, and according to Bergius, and some others, they possess an anodyne and pectoral quality. The officinal preparation of these flowers is a

^b This last circumstance was first noticed by Mr. Curtis, who introduced it into the specific character.

^c “*Viola, quasi vitula, Græcis Ἴον ab Io Puella in vaccam a Jove conversam, dicta censetur. Matthiol. Viola per diminutionem à Græco dicta est, spiritu leni in literam converso, ut in aliis multis.*” *Raii Hist. p. 1049.*

Vide *Lewis's Mat. Med. p. 664.* ^d Vide *Ovid Metamorph. lib. x. v. 190.*



Amygdalus communis

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fyrup,^f which to young children answers the purpose of a purgative. This fyrup is also found useful in many chemical inquiries to detect an acid or an alkali, the former changing the blue colour to a red, the latter to a green. The seeds of Violets are reported to be strongly diuretic, and useful in gravelly complaints.^g The root powdered, in the dose of a dram, proves both emetic and cathartic.^h

^f This fyrup is usually prepared from the petals of the cultivated Violet; and Dr. Withering tells us, that at Stratford upon Avon large quantities of the Violet are cultivated for this purpose. l. c. ^g See the authorities cited by Murray, *App. Med. v. i. p. 519.*

^h Tournefort *Hist. des Plant. de Paris, t. i. p. 291.* Henninger *Diff. de Viola purpur.*

CISSAMPELOS PAREIRA. PAREIRA BRAVA CISSAMPELOS.

SYNONYMA. Pareira brava. *Pharm. Lond.* Clematis baccifera glabra et villosa, rotundo & umbelicato folio. *Plumier, Plantes de l'Amer. 78. t. 93.* *Sloane's Jamaica, vol. i. p. 200. Cat. 85.* Caapeba folio orbiculari umbelicato & tomentoso. *Plum. Gen. 33.* Cissampelos scandens, foliis peltatis orbiculato-cordatis villosis; floribus masculinis racemosis, femininis spicatis, spicis foliolatis. *Browne's Jamaica, p. 357.*

Class Dioecia. *Ord.* Monadelphia. *Lin. Gen. Plant. 1138.*

Eff. Gen. Ch. *MASC.* Cal. 4-phyllus. Cor. o. Nectarium rotatum. *Stam.* 4: filamentis connatis.

FEM. Cal. monophyllus, ligulato-subrotundus. Cor. o. *Styli* 3. *Bacca* 1-sperma.

Sp. Ch. C. foliis peltatis cordatis emarginatis.

THE root is perennial, long, thick, woody, composed of distinct fibres, of a dull yellowish hue, and covered with furrowed bark of a brown colour: the stalks are numerous, shrubby, slender, very long, covered with a whitish bark, and climb round the neighbouring trees

for support:^a the leaves are roundish, indented at the top, about an inch and a half long, two inches broad, entire, covered with soft downy hairs,^b and hang upon round simple downy footstalks, which are inserted into the back of the leaf: the flowers are extremely minute, of a greenish colour, placed in clusters upon long axillary spikes, and are male and female in different plants: the calyx of the male flower is divided into four small oval segments: it has no corolla, but the nectary is wheel-shaped and membranous: the filaments are four, very small, united, and furnished with broad flat antheræ: of the female flower the calyx is strap-shaped or ligulated: the germen is roundish, and supports three short styles, furnished with pointed stigmata: the fruit is a small one-celled berry, containing a roundish rough compressed seed. It is a native of S. America and the West Indies.

The plant, which we have here represented, was drawn from a dried specimen in the possession of Mr. Aiton at Kew, to which a separate display of the parts of fructification was intended to have been introduced, but from their extreme minuteness and dryness it was found to be impracticable: the general appearance of the plant is however so characteristic as in some measure to compensate for this deficiency.

The medicinal use of the roots of this plant was first learned from the Brazilians, who infused them in water, which they drank freely in all obstructions in the urinary passages;^c and towards the end of the last century these roots were brought into Europe by the Portuguese, who recommended them to physicians as the most effectual remedy hitherto discovered in all calculous and gravelly complaints; and various accounts of their efficacy were soon after published.^d This root “has no remarkable smell; but to the

^a In Jamaica “this plant grows in great plenty, commonly amongst the ebony trees, climbing about them.” *Long's Jam. vol. iii. p. 760.*

^b From this villous covering of the leaf, it is usually called *Velvet leaf*.

^c According to Browne, it is still used with this intention by the negroes at Jamaica. Vide l. c.

^d “Parisiis per Regis Gallix legatum, *Amelot*, a. 1688. pervenit (*Hist. de l'Acad. des Scien. de Paris*, 1710, p. 56.) tumque varii medici Galli ejus usum fecere, interque hos *Helvetius*, qui in *Traité des maladies les plus frequentes et des remedes spécifiques*, ejus mentionem aliquoties honorificam injicit.” In Germania nondum initio seculi famam excitaverat, sed multum ibidem ad ejusdem existimationem contulit *Lochnerus* (*Schediasma de Pareira brava Norimb.* 1719. *Ed. 2. in 4.*) casibus potius distincte prolatis, quam luxuriantis eruditionis ornamentis, quibus obvelantur.” Vide *Murray Ap. Med. v. i. 345.*
taste

taste it manifests a notable sweetness of the liquorice kind, together with a considerable bitterness, and a slight roughness covered by the sweet matter. It gives out great part both of the bitter and sweet substance to watery and spirituous menstrua: in evaporating the watery decoction a considerable quantity of resinous matter separates, which does not mingle with the remaining extract, nor dissolve in water, but is readily taken up by spirit; whence spirit appears to be the most perfect dissolvent of its active parts. Both the spirituous tincture and extract are in taste stronger than the watery.”^e

The facts adduced on the utility of radix pareiræ bravæ in nephritic and calculous cases, are principally those by Helvetius, Geoffroy, and Lochner:^f the first seems to think that it acts as a lithontriptic, but Geoffroy attributes its virtues to its power of dissolving the indurated mucus to which the fabulous matter adheres. It has also been recommended in ischuria, ulcers of the bladder, fluor albus, rheumatism, jaundice, asthma, and some other chronic diseases. The accounts given of the successful employment of this root by the French writers, induced physicians to try its effects in this country; but we find no remarkable instances of its efficacy recorded by British practitioners; and as a proof of its being fallen into disrepute, the Edinburgh College has expunged it from the *Materia Medica*.^g The dose of the powdered root is from one scruple to two. Geoffroy directs two or three drams of the root to be bruised and boiled in a pint and a half of water till only a pint remains, which is to be divided into three doses.

^e *Lewis Mat. Med.* p. 480.

^f Vide l. c. in note (d)

^g And Bergius says, “Certe vidi ego calculosos, arthriticos & rheumaticos plures, qui satis diu usum ejus absque successu continuarunt.” *Mat. Med.* p. 815.

AMYGDALUS COMMUNIS. THE ALMOND TREE.

SYNONYMA. Amygdala (nuclei). *Pharm. Lond. & Edinb.*
 Amygdalus amara & dulcis. *J. Baub. Hist. vol. i. p. 174. Raii*
Hist. p. 1519. Gerard. Emac. p. 1445. Park. Theat. p. 1515.
 Amygdalus foliis glabris, ovatis, utrinque acuminatis, ferratis,
 petiolo imisque dentibus glandulosis. *Hal. Stirp. Helv. n. 1080.*

Varietates sunt,

α Amygdalus fativa. *Baub. Pin. p. 441. Amygdalus dulcis,*
 putamine molliore. *Tournef. Inst. p. 627. Amandier à*
 coque tendre, vel Amandier des Dames. *Du Hamel. Arbres*
fruit. T. i. p. 120. tab. 5.

SWEET ALMOND TREE.

β Amygdalus amara. *Tournef. Inst. p. 627. Amandier à fruit*
 amer. *Du Hamel, l. c. p. 123.*

BITTER ALMOND TREE.

Class Icosandria. *Ord.* Monogynia. *Lin. Gen. Plant. 619.*

Ess. Gen. Ch. Cal. 5-fidus, inferus. *Pet. 5. Drupa* nuce poris perforata.

Sp. Ch. A. foliis ferraturis infimis glandulosis, floribus sessilibus geminis.

THIS tree divides into many branches, covered with a dark grey bark, and usually rises from twelve to sixteen feet in height: the leaves are elliptical, narrow, pointed at each end, minutely ferrated, veined, of a bright green colour, beset with small glands towards the base, and stand upon short footstalks: the flowers are large, of a pale red colour, without peduncles, commonly placed in numerous pairs upon the branches, and appear before the leaves: the calyx is tubular, and divided at the brim into five blunt segments of a reddish colour: the corolla consists of five oval convex petals, with narrow claws: the filaments are about thirty, spreading, tapering, of unequal length, and of a reddish colour, inserted into the calyx, and furnished with simple antheræ: the germen is roundish and downy: the style is short, simple, and crowned with a round stigma: the fruit is of the
 peach



Prunus spinosa

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peach kind, the outer substance of which is hard, tough, hairy, and marked with a longitudinal furrow where it opens; under this is a thick rough shell, which contains the kernel or almond. This tree is a native of Barbary,^a and flowers in March and April.

The Almond-tree seems to have been known in the remotest times of antiquity, being frequently mentioned by Theophrastus and Hippocrates: it is probable however that this tree was not very common in Italy, in the time of Cato, as he calls the fruit by the name of Greek nuts.^b It was cultivated in England by Lobel previous to the year 1570,^c and though it does not perfect its fruit in this country, yet it is here very generally propagated for the beautiful appearance of its flowers, which are the more conspicuous by showing themselves early in spring before the leaves are expanded.

The fruit or seeds of most vegetables on being planted produce varieties, differing more or less from the parent plant and from each other, and of the Almond-tree this difference is principally confined to the fruit, which is larger or smaller, the shell thicker or thinner, and the kernel bitter or sweet; hence the distinction into bitter Almonds and sweet Almonds, though the same species of tree affords both. Sweet Almonds are more used as food than medicine, but they are said to be difficult of digestion, unless extremely well comminuted;^d their medicinal qualities depend upon the oil which they contain in the farinaceous matter, and which they afford on expression nearly in the proportion of half their weight. The oil thus obtained is more agreeable to the palate than most of the other expressed oils, and is therefore preferred for internal use, being generally employed with a view to obtund acrid juices, and to soften and relax the solids; in tickling coughs, hoarseness, costiveness, nephritic pains, &c. externally in tension and rigidity of particular parts. The milky solutions of Almonds in watery liquors, usually called emulsions, possess, in a certain degree, the emollient qualities of the oil, and have this advantage over the pure oil, that they may be given in acute or inflammatory disorders, without danger of the ill

^a Particularly in the hedges about Tripoli. See *Bauh. l. c.*

^b See Pliny, *Lib. 15. cap. 22.* ^c Vide *Hort. Kew.*

^d The Nuceæ oleosæ are not always easily digested: "but it appears that this inconvenience may be in a great measure obviated by a very diligent triture, uniting very intimately the farinaceous and the oily part." See *Cullen's Mat. Med. vol. i. p. 298.*

effects which the oil might sometimes produce, by turning rancid.* The officinal preparations of Almonds are the expressed oil and the emulsion; to the latter the London College directs the addition of gum arabic, which renders it a still more useful demulcent in catarrhal affections, stranguries, &c.

Bitter Almonds yield a large quantity of oil, perfectly similar to that obtained from sweet Almonds; but the matter remaining after the expression of the oil, is more powerfully bitter than the Almond in its entire state. "Great part of the bitter matter dissolves by the assistance of heat both in water and in rectified spirit: and a part arises also with both menstrua in distillation."^e Bitter Almonds have been long known to be poisonous to various brute animals,^f and some authors have alledged that they are also deleterious to the human species, but the facts recorded upon this point appear to want further proof.^g However, as the noxious quality seems to reside in that matter which gives it the bitterness and flavour, it is very probable that when this is separated by distillation, and taken in a sufficiently concentrated state, it may prove a poison to man,^h as is the case with the common laurel, to which it appears extremely analagous. These Almonds are highly commended for the cure of hydrophobia by Thebesius, who experienced their good effects in twelve cases, in which a few (no particular quantity is mentioned) were eaten every morning.ⁱ And Bergius tells us, that bitter Almonds, in the form of emulsion, cured obstinate intermittents, after the bark had failed.^k

* Several substances of themselves, not miscible with water, may, by trituration with Almonds, be mixed with it in this form, and thus fitted for medical use, as camphor, and various resinous and unctuous substances. ^e *Lewis Mat. Med.* p. 53.

^f Particularly wolves, foxes, dogs, cats, and various kinds of birds. For which see Wepfer de Cicut. aquat. And many other instances are related in the *Ep. Nat. Cur.* See also *Daries Epist. de Amygdalis et oleo amararum æthereo.* And Lorry de *Venenis*, p. 17. From the sudden effects which this poison produces, and the convulsions and spasms which follow its exhibition, there can be no doubt of its acting directly upon the nervous energy.

^g Formerly they were eaten to prevent the intoxicating effects of wine, as is noticed by Dioscorides, "et Plutarchus medicum filii Imperatoris Tiberii producit, qui hocce præsidio munitus inter quotidianas comestiones in bibendo reliquos omnes antecellere valuit." *Murr. Ap. Med.* vol. iii. p. 260. But from twelve of these Almonds Lorry experienced a sense of inebriation. *De Venenis*, p. 17.

^h One drop of this essential oil killed a small bird in two minutes. See *Daries*, l. c.

ⁱ Vide *Nov. Act. Nat. Cur.* tom. i. p. 181. ^k *Mat. Med.* p. 413.

PRUNUS SPINOSA.

PRUNUS SPINOSA.

SLOE TREE.

SYNONYMA. Prunum fylvestre. *Pharm. Lond.* Prunus fylvestris. *Gerard. Emac. p.* 1497. *Park. Theat. p.* 1033. *Baub. Pin. p.* 444. *J. Baub. Hist. vol. i. p.* 198. *Raii Hist. p.* 1527. *Synop. p.* 462. Prunus spinosa, foliis glabris ferratis ovato-lanceolatis, floribus breviter petiolatis. *Hall. Stirp. Helv. n.* 1080. *Hudson. Flor. Ang. p.* 212. *Withering. Bot. Arrang. p.* 509.

Class Icofandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 620.

Eff. Gen. Ch. *Cal.* 5-fidus, inferus. *Petala* 5. *Drupæ* nux futuris prominulis.

Gen. Ch. P. pedunculis folitariis, foliis lanceolatis glabris, ramis spinosis.

THE root is woody, divided, and spreading: the stem is shrubby, crooked, rises to the height of six or eight feet, covered with a purplish black coloured bark, and sends off many irregular spinous branches: the leaves are oval, obtusely lance-shaped, smooth, minutely ferrated, of a deep green colour, and stand upon short footstalks: † the stipulæ are linear, notched, and discoloured at their points: the flowers are large, white, and stand separately upon short peduncles: the calyx is small, and divided at the brim into five oval segments: the corolla is composed of five oblong concave petals, attached to the calyx by short claws: the filaments are in number from twenty to thirty, spreading, tapering, white, inserted in the calyx, and furnished with orange coloured antheræ: the germen is roundish, the style simple and slender, and the stigma orbicular: the fruit is of the drupous or cherry kind, though much smaller, of a black colour, but covered with a bright blue exudation, and contains a nut with an oblong kernel. It is common in hedges, and the flowers appear in March and April, before the leaves are visible.

† The serratures of the leaves have been observed by Linnæus to be terminated by an excretory duct.

The fruit of the Sloe-bush, or, as it is frequently called, Black-thorn, is so harshly sharp and austere as not to be eatable till thoroughly mellowed by frosts: its juice is extremely viscid, so that the fruit requires the addition of a little water, in order to admit of expression. The juice obtained from the unripe fruit, and inspissated to dryness by a gentle heat, is the German acacia, and has been usually sold in the shops for the Egyptian acacia, from which it differs in being harder, heavier, darker coloured, of a sharper taste, and more especially in giving out its astringency to rectified spirit.^a

The *Pruna sylvestria* have been employed for their styptic powers since the time of Dioscorides;^b and as their astringency is united to the refrigerant qualities of the fruit, they may sometimes supersede those medicines of this class which are of a resinous or heating quality. They have been recommended in diarrhæas, hæmorrhagic affections, and as gargles, in tumefactions of the tonsils and uvulæ. Dr. Cullen considers the Sloe as the most powerful of the *fructus acerbi*, and adds, that he has often found it an agreeable and useful astringent; but he thinks the conserve of this fruit, as directed by the College, contains a larger proportion of sugar than is necessary.^c

The flowers, with their calyces, are moderately purgative, and for this purpose an ounce infused in a sufficient quantity of water, or rather whey, was experienced to be a pleasant and useful laxative.^d The powdered bark, in doses of a dram, is said to cure agues.

^a Lewis *Mat. Med.* p. 522.

^b Diosc. *Mat. Med. Lib. i. cap.* 173.

^c Vide *Mat. Med. vol. ii. p.* 41. See J. Bauh. *Hist. tom. i. P. i. p.* 196. & Fred. Hoffman. *Diff. de præstantia remed. domest.* §. 26.

Dr. Withering says, "The tender leaves dried are sometimes used as a substitute for tea, and is I believe the best substitute that has yet been tried. The fruit bruised, and put into wine, gives it a beautiful red colour, and a pleasant subacid roughness. Letters written upon linen or woollen with the juice of this fruit, will not wash out." *Bot. Arr.* p. 509.

PRUNUS DOMESTICA. COMMON PRUNE, Or PLUM TREE.

SYNONYMA. Prunum gallicum. *Pharm. Lond.* Prunus domestica. Gerard. *Emac.* p. 1497. Prunus vulgaris. *Park. Theat.* p. 1512.



Prunus domestica

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Viola odorata

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Raii Hist. p. 1526. *Prunus foliis ferratis, hirsutis, ovato-lanceolatis, floribus longe petiolatis. Hal. Stirp. Helv. n.* 1079. Ut Linnæo videtur *Prunus fructu parvo dulci atro-cæruleo. Tournef. Inst. p.* 622.

Class Icofandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 620.

Ess. Gen. Ch. *Cal.* 5-fidus, inferus. *Petala* 5. *Drupæ* nux futuris prominulis.

Sp. Ch. *P.* pedunculis subsolitariis, fol. lanceolato-ovatis convolutis, ramis muticis. *Gemmæ floriferæ aphyllæ.* Mur.

THIS species of *Prunus* grows much higher than the former; it is without spines, and covered with smooth bark of a dark brown colour: the leaves are oval, slightly indented at the edges, pointed, veined, of a pale green colour, and stand upon very short footstalks: the stipulæ are oval, pointed, membranous, and placed in pairs at the base of the peduncles: the flowers are large, and surround the branches upon separate peduncles: the calyx is divided into five narrow concave segments, and beset on the inside with a number of glandular hairs:^a the corolla consists of five roundish white petals: the filaments are more than twenty, tapering, inserted in the calyx, and furnished with reddish antheræ: the germen is round, and supports a simple style, which is shorter than the filaments, and crowned with a globular stigma: the fruit is oblong, or egg-shaped, consisting of a sweet fleshy pulp, covered with a dark violet coloured pellicle, and including in the centre an almond-shaped nut, or stone. It is a native of Britain, and flowers in April and May.

Among the many varieties of plums^b we find considerable difficulty in referring with sufficient accuracy to that called by the London College *Prunum gallicum*; it is therefore probable that some

^a See Withering, l. c.

^b Du Hamel (*Arbres fruit. T. 2. p. 65. sq.*) describes forty-eight varieties: and Mayer (*Pomona Francon. T. 1. p. 110.*) makes them still more numerous.

The original parent of these varieties is not yet satisfactorily ascertained.—J. Bauhin refers it to the *Pruna cerea minoræ præcocia*.

of the synonyma introduced above, are not in this respect so correctly applicable as they ought to be.^c The Syrian Plums were much esteemed by the ancients, particularly a species which grew in the neighbourhood of Damascus,^d and hence a variety of this fruit is still known by the name of *Pruna damascena*. According to Pliny,^e the tree was brought from Syria into Greece, and from thence into Italy, where its fruit is repeatedly noticed by the Latin poet.^f

All our garden plums are eaten at table, and when sufficiently ripe, and taken in a moderate quantity, prove a pleasant and wholesome food. But in an immature state, they are more liable to produce colicky pains, diarrhæa, or cholera, than any other fruit of this class; some attention to this circumstance is therefore always necessary. Considered medicinally, they are emollient, cooling, and laxative, especially the French prunes, which are imported here in their dried state from Marseilles; and though the laxative power of these is diminished by drying, yet it is observed by Dr. Cullen, that as they contain a great deal of the acid which they originally had, they have more effect in this way than the other dried fruits.^g They are found to be peculiarly useful in costive habits, and are frequently ordered in decoction with fenna or other purgatives. It is the pulp of this fruit which is directed in the *Electuarium e Senna*, or *Lenitive electuary*.

^c On this subject Professor Murray says, “*Hiscæ Pharmacopœia Londinensi duce intelligo vulgaria ista oblonga, profunde violacea, ubivis in hortis reperiunda, cui varietati non audeo in brevitate descriptionum adscribere nomen Bauhinianum vel Tournefortianum, nisi sit Pruna oblonga cœrulea C. B. vel Pr. fructu oblongo cœruleo Tournef.*” *App. Med. vol. iii. p. 230.*

^d See Dioscorides, (*Lib. i. cap. 1. 174*) by whom the tree is called *Κοκκυμηλεα*, and the fruit *Κοκκυμηλα*.

^e *Hist. Nat. L. xv. cap. 13.*

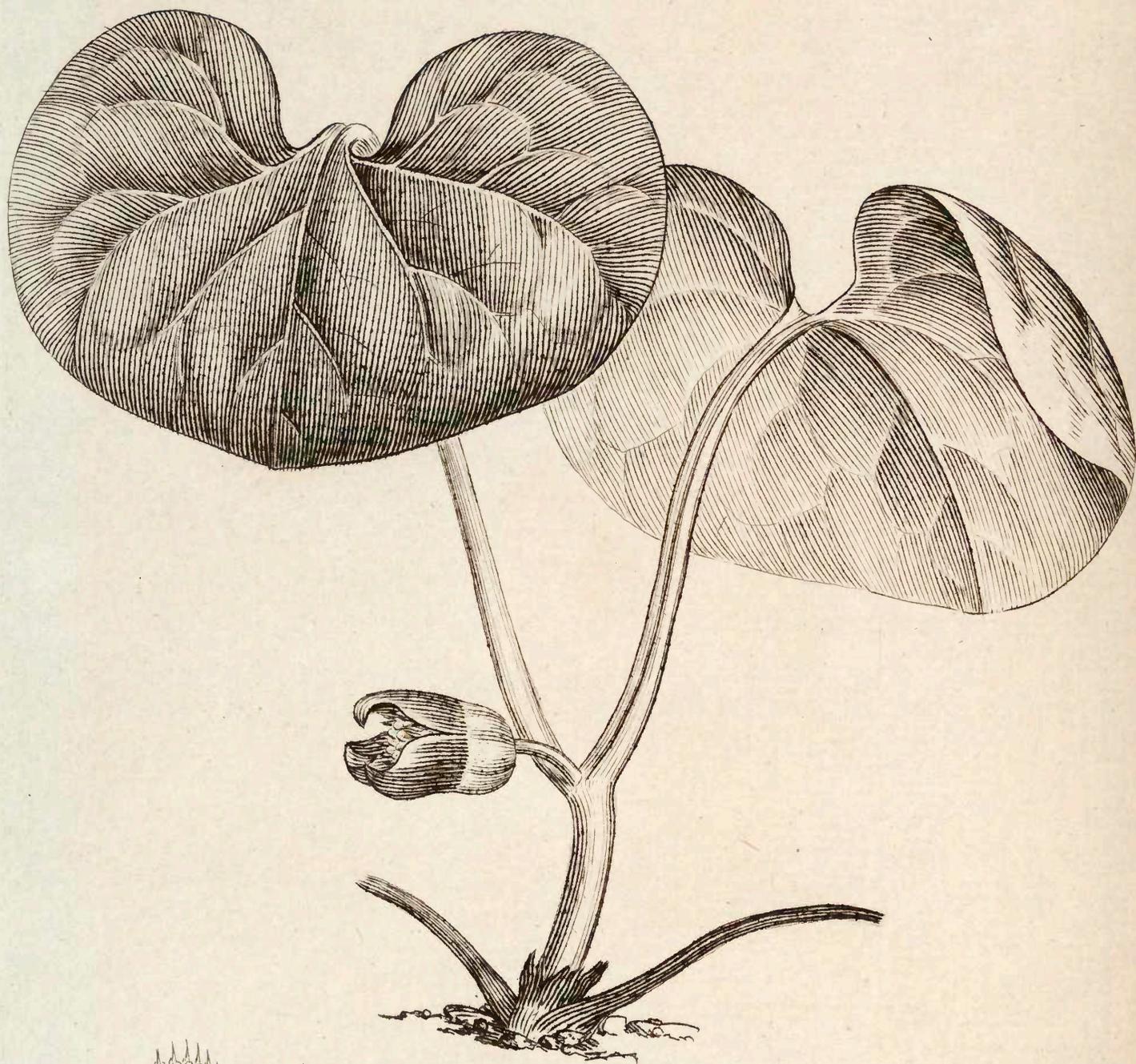
^f It is also thus mentioned by Ovid:

*Prunaque, non solum nigro liventia succo,
Verum etiam generosa, novasque imitantia ceras.*

MET. Lib. xiii. v. 818.

^g *Mat. Med. vol. i. p. 254.*

ASARUM EUROPÆUM.



Asarum europaeum

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ASARUM EUROPÆUM. COMMON ASARABACCA.

SYNONYMA. Afarum. *Pharm. Lond. & Edinb. Baub. Pin.* p. 197. *Gerard. Emac.* p. 836. *J. Baub. Hist. vol. iii.* p. 548. *Ray Hist.* p. 207. *Synop.* p. 158. Afarum vulgare. *Park. Theat.* p. 266. Afarum foliis reniformibus subhirsutis. *Hal. Stirp. Helv.* n. 1547. Afarum Europæum. *Withering. Bot. Arrang.* p. 488. *Flor. Dan.* 633.

Class Dodecandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 589.

Eff. Gen. Ch. Cal. 3-f. 4-fidus, germi infidens. *Cor.* o. *Caps.* coriacea, coronata.

Sp. Ch. A. foliis reniformibus obtusis binis.

THE root is perennial, strong, divided and fibrous: it has no stalk, so that the leaves rise immediately from the root; they grow in pairs, are kidney-shaped, large, of a deep shining green colour, and stand upon long footstalks: the flowers are large, bell-shaped, of a dirty purple colour, and placed singly upon short peduncles at the base of the footstalks: the calyx supplies the place of a corolla, and is large, bell-shaped, divided at the mouth into three or four pointed segments, which are of a brownish purple colour, but towards the base it is greenish: the filaments are twelve, about half the length of the calyx, and furnished with oblong antheræ, which are attached to the sides of the filaments: from the germen arises a simple style, crowned with a stigma, divided into six radiated reflected parts: the capsule is of a leathery texture, and divided into six cells, which contain several small oblong seeds. It is a native of England,^a and flowers in May.

It appears from Pliny,^b that by the Ancients the name of this plant was frequently confounded with that of nardus and baccharis; and the English name Asarabacca has been derived from the words asarum and

^a It is extremely scarce. Ray observes it is found in some woods in Lancashire. l. c.

^b *Hist. Nat. L. xii. c. 13. et L. xxi. cap. 6.*

Afaron, ab *α priv.* & *σαρω ορνο*, quoniam in coronis non addatur.

baccharis: it is evident however that the plants, now known by these names, differ very considerably both in their appearance and effects.

“ The leaves and roots of *Asarum* have a moderately strong and not very unpleasant smell, somewhat resembling that of valerian or nard,† and a nauseous bitterish acrid taste:”^c they seem to agree also in their medicinal effects, both proving strongly emetic and cathartic: the root has been observed to excite vomiting so constantly, that it is proposed by Linnæus as a substitute for ipecacuanha;^d and Dr. Cullen says, “ the root dried only so much as to be powdered proves, in a moderate dose, a gentle emetic. It will commonly answer in doses of a scruple, sometimes in a less quantity,” “ and as we judge may be suited to many of the purposes of the ipecacuanha.”^e In small doses it is said to promote perspiration, urine, and the uterine flux.^f Spirituous tinctures and watery infusions of the plant possess both its emetic and cathartic virtues, but it is said that by coction in water the emetic power is first destroyed, and afterwards the purgative.^g At present *Asarum* is seldom given internally, as the evacuations expected from its use may be procured with more certainty and safety^h by various other medicines, that it is now chiefly employed as an errhine or sternutatory, and is found to be the most useful and convenient in the *Mat. Med.* For this purpose the leaves, as being less acrid than the roots, are preferred by the College, and in moderate doses, not exceeding a few grains, snuffed up the nose several successive evenings, produce a pretty large watery discharge, which sometimes continues for several days together, by which headach, toothach, ophthalmia, and some paralytic and soporific complaints, have been effectually relieved. It is the basis of the *pulv. sternutatorius*, or *pulvis asari compositus*.

† *Nardus Celtica* L.

^c *Lewis M. M.* p. 122.

^d *Am. Acad. T.* 7. p. 307. where it is also observed, that when exhibited in a state of very fine powder, it uniformly acts as an emetic, but when coarsely powdered it always passes the stomach and becomes cathartic.

^e *Mat. Med.* vol. ii. p. 473.

^f “ Diureticum & emmenagogum insigne: unde Meretriculæ plus satis frequentant decoctum ejus, cum sentiunt se gravidas. Quò tenuius est tritum eò magis urinas movere, minus autem alvum ducere, creditur.” *Ray Hist.* p. 208. ^g *Raii l. c.*

^h Ante aliquot annos civis hujus loci, vir quadratus, difficulter mobilis, sumit, suasu aniculæ, pulverem asari foliorum & radice ad integrum cochlear. Inde verò hypercatharsin patiebatur lethalem,” &c. *Wedelius Amœnit. M. M.* p. 240. & *De Med. fac.*

ROSMARINUS OFFICINALIS.



Rosmarinus officinalis

Published by D. Woodville June 4. 1791.

ROSMARINUS OFFICINALIS. COMMON ROSEMARY.

SYNONYMA. Rosmarinus. *Pharm. Lond. & Edinb.* Rosmarinum coronarium. *Gerard. Emac. p. 1292.* Rosmarinus hortensis angustiore folio. *Baub. Pin. p. 217.* Rosmarinus coronarius fruticosus. *J. Baub. Hist. v. ii. p. 25.* *Raii Hist. p. 515.* Libanotis coronaria sive rosmarinum vulgare. *Park. Theat. p. 71.*

Class Diandria. *Ord.* Monogynia. *Lin. Gen. Plant. 38.*

Eff. Gen. Ch. *Cor.* inæqualis: labio superiore bipartito. *Filamenta* longa, curva, simplicia cum dente.

THE root is strong, woody, and fibrous: the stalk is shrubby, covered with a rough grey bark, divided into many branches, and rises frequently to the height of six or eight feet: the leaves are sessile, or without footstalks, numerous, long, narrow, entire, obtusely pointed, on the upper side of a dark green, on the under of a greyish or silvery colour, and placed in whorls upon the branches: the flowers are large, of a pale blue colour, and arise from the axillæ of the leaves: the calyx is divided into two lips, of these the uppermost is entire, but the undermost is cloven into two pointed segments: the corolla is monopetalous, consisting of a cylindrical tube, longer than the calyx, and divided at the brim into two lips; the upper lip is erect and bifid, the under lip is separated into three segments; of these the middle segment is larger than both the others: the two filaments are long, curved, tapering, towards the base furnished with a small tooth, and supplied with simple antheræ: the germen is separated into four parts, which support a slender style, terminated by a cleft pointed stigma: the seeds are four, of an oblong shape, and lodged in the bottom of the calyx. Rosemary^a is a native of the South of Europe and the Levant. It is commonly cultivated in our gardens, where it usually flowers in April and May.

^a Ros dici putatur quia roscidæ sit naturæ, vel quia roris instar aspergatur, vel quia ejus usus in aspergillis, quod nobis verisimilius videtur: marinus autem vel quia in marinis locis feliciter proveniat, vel quia saporis marini, hoc est, amari. Voss. Etymolog. Vide Ray, l. c.

The ancients were well acquainted with this plant, as it is mentioned by Dioscorides, Galen, and Pliny.^b It grows wild in some of the southern parts of France, but more abundantly in Spain and Italy. Its cultivation in this country, like many other plants which we have had occasion to mention, is probably of ancient date, but now cannot be traced beyond the time of Gerard.

Rosemary has a fragrant aromatic smell, and a bitterish pungent taste. The leaves and tops of this plant are the strongest in their sensible qualities: the flowers, which are also directed for use by the College, are not to be separated from their cups or calyces, as the active matter principally, if not wholly, resides in the latter.^c "Rosemary gives out its virtues completely to rectified spirit, but only partially to water. The leaves and tops, distilled with water, yield a thin light pale-coloured essential oil of great fragrancy, though not quite so agreeable as the Rosemary itself: from one hundred pounds of the herb in flower were obtained eight ounces of oil: the decoction thus divested of the aromatic part of the plant yields, on being inspissated, an unpleasant bitterish extract. Rectified spirit likewise, distilled from Rosemary leaves, becomes considerably impregnated with their fragrance, leaving however in the extract the greatest share both of their flavour and pungency. The active matter of the flowers is somewhat more volatile than that of the leaves, the greatest part of it arising with spirit."^d

Rosemary is reckoned one of the most powerful of those plants, which stimulate and corroborate the nervous system; it has therefore been recommended in various affections, supposed to proceed from debilities, or defective excitement of the brain and nerves; as in certain headaches, deafnesses, giddinesses, palsies, &c. and in some hysterical and dyspeptic symptoms. Dr. Cullen supposes the stimulant power of Rosemary insufficient to reach the sanguiferous system;^e

^b It is called *Λιβανωτίς* by the Greeks, (Dioscor. *Lib. 3. cap. 89.*) Pliny, *Lib. 24. cap. 11. de rore marino.* Hence it may have been alluded to by Virgil in the following lines:

Nam jejuna quidem clivosi glareæ ruris

Vix humiles apibus casias roremque ministrat.

GEORG. ii. v. 212.

^c Lewis *M. M.* p. 544.

^d Lewis, *l. c.*

^e "It has justly had the reputation of a cephalic, or as a medicine that gently stimulates the nervous system, but hardly so strongly as to affect the sanguiferous." *M. M.* vol. ii. p. 151.



Fumaria officinalis

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it has however the character of being an emmenagogue, and the only disease in which Bergius states it to be useful is the chlorosis.^f The officinal preparations of this plant are the oleum essentielle roris marini, and the spiritus roris marini. It is also a principal ingredient in what is known by the name of Hungary water.

By many people Rosemary is drunk as tea for breakfast.

^f “*Virtus*: resolvens, nervina corroborans, emmenagoga. *Ufus*. Chlorosis.”—
M. M. p. 21.

FUMARIA OFFICINALIS. COMMON FUMITORY.

SYNONYMA. Fumaria. *Pharm. Edinb.* Fumaria officinarum et Dioscoridis. *Baub. Pin.* p. 143. Fumaria purpurea. *Gerard. Emac.* p. 1088. Fumaria vulgaris. *Park. Theat.* p. 287. *Raii Hist.* p. 405. *Synop.* p. 284. Fumaria foliis multifidis lobis subrotunde lanceolatis; fructibus monospermis. *Hal. Stirp. Helv. n.* 346. *Hudson Flor. Ang.* p. 270. *Lightfoot Flor. Scot.* p. 379. *Curtis Flor. Lond. n.* 112. *Withering Bot. Arrang.* p. 751.

Class Diadelphia. *Ord.* Hexandria. *Lin. Gen. Plant.* 849.

Eff. Gen. Ch. Cal. dyphyllus. Cor. ringens. Filamenta 2, membranacea, singula *Antheris* 3.

Sp. Ch. F. pericarpis monospermis racemosis, caule diffuso.

THE root is annual, slender, and fibrous: the stalk is spreading, smooth, somewhat angular, bending, much branched, and usually rises above a foot in height: the leaves are compound, doubly pinnated, pinnulæ trilobed, of a pale green colour, and standing upon slender footstalks: the flowers are of a reddish purple colour, and grow in spikes, which arise from the axillæ of the leaves: the bractæ are linear, purplish, and placed at the base of the peduncles: the calyx

calyx is composed of two deciduous equal leaflets, slightly indented at the edges: the corolla is oblong, tubular, gaping, or ringent, the palate projecting so as to fill up the mouth; the *upper lip* dilated at the tip, keel-shaped, hollow beneath, turned a little upwards at the margin, and at the base obtuse, and curled inward; the *lower lip* is nearly similar to the upper; the *lateral petals* cohere at the top, and form a quadrangular mouth, in which there are three divisions on the upper and lower part: the filaments are two, membranous, broad at the base, and each furnished with three yellowish antheræ: the germen is oval: the style is filiform, about the length of the filaments, and crowned with a flattish downy stigma: the seed is roundish, and contained in a small heart-shaped pod. Fumitory is common in corn fields, and usually flowers in May.

By the Ancients this plant was named Capnos,^a from being thought to be peculiarly useful in dimness of sight, and other diseases of the eyes. The leaves, which are the part of the plant directed for medicinal use by the Edinburgh College, are extremely succulent, and have no remarkable smell, but a bitter somewhat saline taste. "The expressed juice, and a decoction of the leaves in water, inspissated to the consistence of extracts, are very bitter, and considerably saline; on standing for some time they throw up to the surface copious saline efflorescences, in figure somewhat resembling the crystals of nitre, to the taste bitterish and slightly pungent. A tincture of the dry leaves, in rectified spirit, yields, on inspissation, an extract less in quantity and bitterer in taste than either the watery extract or inspissated juice."^b Fumitory has been supposed by several Physicians of great authority,^c both ancient and modern, to be very efficacious in opening obstructions and infarctions of the viscera, particularly those of the hepatic system: it is also highly commended for its power of correcting a scorbutic and acrimonious state of the fluids; and has therefore been

^a Καπνος Dioscor. Καπνιος Gal. i. e. fumus — "Claritatem facit inunctis oculis, delachrymationemque, ceu fumus; unde nomen." Plin. L. 25. cap. 13. See also Galen. Simp. Lib. 7. p. 49.

^b Lewis M. M. p. 315.

^c Aetius, Boerhaave, F. Hoffman, and many others.

The juice of Dandelion and Fumitory is greatly commended by Leidenfrost in obstinate diseases of the skin. See *Diff. de succis herb. &c.*

An infusion of the leaves is used as a cosmetic to remove freckles and clear the skin.
employed



Spartium scoparium

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employed in various cutaneous diseases ; when taken in pretty large doses it proves diuretic and laxative, especially the juice, which may be mixed with whey, and used as a common drink. Dr. Cullen classifies this plant among the tonics ; he says, “ it is omitted in the London dispensatory, but retained in ours, and in every other that I know of. I have found it useful in many cases in which bitters are prescribed ; but its remarkable virtues are those of clearing the skin of many disorders. For this it has been much commended ; and I have myself experienced its good effects in many instances of cutaneous affections, which I would call Lepra. I have commonly used it by expressing the juice, and giving that to two ounces twice a day : but I find the virtues remain in the dried plant, so that they may be extracted by infusion or decoction in water ; and the foreign dispensaries have prepared an extract of it, to which they ascribe all the virtues of the fresh plant.”

^a *M. M. vol. ii. p. 77.*

SPARTIUM SCOPARIUM. COMMON BROOM.

SYNONYMA. Genista. *Pharm. Lond. & Edinb. Gerard. Emac. p. 1311.* Genista angulosa & scoparia. *Baub. Pin. p. 395.* Genista vulgaris & scoparia. *Park. Theat. p. 228.* Genista angulosa trifolia. *J. Baub. Hist. vol. i. p. 388.* *Ray Hist. p. 1723.* *Synop. p. 474.* Spartium foliis inferioribus ternatis hirsutis superioribus simplicibus. *Hall. Stirp. Helv. n. 354.* Spartium scoparium. *Hudson. Flor. Ang. p. 310.* *Withering. Bot. Arrang. p. 756.* *Flor. Dan. p. 313.*

Class Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant. 858.*

Ess. Gen. Ch. Stigma longitudinale, supra villosum. *Filamenta* germi adhærentia. *Cal.* deorsum productus.

Sp. Ch. S. foliis ternatis solitariisque, ramis inermibus angulatis.

THE root is woody, tough, and extends to a considerable length: the stalk is shrubby, branched, and covered with light brown bark: it usually rises from four to six feet in height, and sends forth a great number of slender angular green shoots: the leaves are small, downy, divided into three oval leaflets, and standing upon footstalks of different lengths: the flowers are large, numerous, of the papilionaceous shape, and of a bright yellow colour: the calyx is tubular, divided transversely at the margin into two lips, of these the uppermost is entire, the undermost slightly notched: the corolla is composed of five petals: the superior, or standard petal is inversely heart-shaped, and bent backwards: the two lateral petals, or wings, are oblong, convex, less than the standard, and united to the filaments: the keel is composed of the two undermost petals, which are connected together by soft hairs at the margin, so as to appear keel-shaped: the filaments are ten, nine of which are united at the base, of unequal length, curled inwards, and furnished with oblong antheræ: the germen is flat, oblong, hairy, and supports a slender style, with an oblong stigma: the seeds are round, or somewhat kidney-shaped, and contained in a long cylindrical pod, like that of the garden pea. It is common in dry sandy pastures, and flowers in April and May.

Linnæus, Bergius,^a and several other writers seem to have confounded the medicinal qualities of this plant with those of *Genista tinctoria*: the officinal *Genista* is however by the British Pharmacopœias considered to be the common Broom, of which the tops and seeds are directed for use. The tops and leaves of Broom have a nauseous bitter taste, which they impart by infusion both to water and spirit. They are commended for their purgative and diuretic qualities, and have therefore been successfully employed in hydropic cases, of which particular instances are related by Mead^b and others, to which we may add the following from Dr. Cullen: “*Genista*, though very little in use, I have inserted in my catalogue (of

^a They both say of *G. tinctoria*, “*VIRTUS*: pellens, purgans, *USUS*: Hydrops;” while the common broom is passed unnoticed. See *M. M. Lin.* p. 170. *Berg.* p. 598.

^b *Mon. & Præc.* p. 138. where we are told that a patient by taking half a pint of a decoction of green Broom tops, with a spoonful of whole mustard seed, every morning and evening, was cured, after being tapped three times, and trying the usual remedies given in dropsies. See also *Möhring Aët. N. C.* vol. v. p. 32.

cathartics) from my own experience of it. I found it first in use among our common people; but I have since prescribed it to some of my patients in the manner following: I order half an ounce of fresh Broom tops to be boiled in a pound of water till one half of this is consumed, and of this decoction I give two table-spoonfuls every hour till it operates by stool, or till the whole is taken. It seldom fails to operate both by stool and urine, and by repeating this exhibition every day, or every second day, some dropfies have been cured.”^c The ashes of Broom have also been much used in dropfies, and principally on the authority of Sydenham,^d whose account of their good effects has been since confirmed by the testimony of Dr. Monro,^e and other writers.^f We may observe however that the efficacy of this medicine must depend entirely upon the alkaline salt, and not in the least upon the vegetable from which it is obtained. The seeds and flowers of Broom are said to be emetic and cathartic; but the evidence upon which this assertion rests is not wholly to be relied upon, as the former when roasted have been used as a substitute for coffee, and the latter employed as a pickle.^g

^c *Mat. Med. vol. ii. p. 534.*

^d *Opera, p. 497.*

^e He gave a dram divided into three doses every day. *On Dropsy, p. 64.*

^f See Othelius in *Vet. Acad. Handl. 1762. p. 82.*

^g Purgat genistæ semen non minùs potenter fere quàm Spartium aut Helleborus, &c. Idem confirmat Lobelius, semine Genistæ scopariæ vomitum non secus ac Spartio Diosc. sæpius ℥ii decocto propinato citra magnam contentionem se movisse scribens. Verùm flores recens decerptos sæpissimè quamplurimos & per se acetariis inditos vorat, (inquit) plebecula Arverna and Aquitanix maximà copiâ innocuos non modò sed etiam admodum gustui suaves; nec quicquam vomitionis nausæve, aut commotionis movere solent. Quin apud Brabantos, & Anglos non minùs, gemmantes dum adhuc virides sunt condiuntur sale & aceto flores, menisque inferuntur, Capparum Olearumve pari commendatione. *Ray l. c.* Ray also informs us, that from the MS. of Dr. Hulse, he learned that the flor. genist. given in the form of electuary, with honey of roses, were found of great efficacy in scrophulous affections.

ORCHIS MASCULA.

MALE ORCHIS.

SYNONYMA. Satyrion. *Pharm. Edinb.* Orchis morio mas foliis maculatis. *Baub. Pin. p. 81.* *Park. Theat. p. 1346.* *Raii Hist. p. 1214.* *Synop. p. 376.* Cynosorchis morio mas. *Gerard. Emac. p. 208.* Orchis radicibus subrotundis; petalis lateralibus reflexis; labello trifido; segmento medio longiori, bifido. *Hal. Stirp. Helv. n. 1286. tab. 33.* Orchis mascula. *Hudson Flor. Ang. p. 333.* *Lightfoot Flor. Scot. p. 515.* *Flor. Dan. t. 457.* *Curt. Flor. Lond. t. 121.*

Class Gynandria. *Ord.* Diandria. *Lin. Gen. Plant.* 1009.

Eff. Gen. Ch. Nectarium corniforme pone florem.

Sp. Ch. O. bulbis indivisis, nectarii labio quadrilobo crenulato: cornu obtuso, petalis dorsalibus reflexis.

THE root is perennial, consisting of two roundish bulbs, from the upper part of which several small fibres are produced: the stalk is upright, round, smooth, solid, simple, purplish towards the top, and rises about a foot in height: the leaves are radical, long, pointed with a sharp prominent midrib, and commonly marked with dark coloured spots: the flowers are purplish, and terminate the stem in a long regular spike: the bractæ are membranous, purple, lance-shaped, and generally twisted at their points: the corolla is composed of five petals, two of which are upright, of an oval pointed shape, and their tips bent inwards: the other three are placed outwardly, and approach so as to form a galea, or helmet: the lip is large, with three lobes, of which that in the middle is the longest; they are notched, and spotted towards the base, which is white; the nectarium is lengthened out behind into a tubular part, resembling a little horn: the filaments are two, short, inserted in the germen, and furnished with oval antheræ, which are incased in the limb of the nectary: the germen is oblong and twisted: the style is short, with a compressed stigma: the capsule is oblong, and contains numerous small seeds. It is common in meadows, and flowers in April and May.

This



Orchis mascula

Published by D^r Woodville June 1. 1791.

This plant has a place in the *Materia Medica* of the *Edinburgh Pharmacopœia* only on account of its roots, which abound with a glutinous slimy juice, of a sweetish taste; to the smell they are faint, and somewhat unpleasant.

This mucilaginous or gelatinous quality of the *Orchis* root has recommended it as a demulcent, and it has been generally employed with the same intentions and in the same complaints as the root of *althæa* and gum arabic, both of which we have already noticed.

Salep, which is imported here from the East, and formerly held in great estimation, is now well known to be a preparation of the root of *Orchis* || which was first suggested by Mr. J. Miller, † and different methods of preparing it have been since proposed and practised: of these the latest and most approved is that by Mr. Mault, of Rochdale, ^a which we shall transcribe from the words of Dr. Percival, ^b who follows Mr. Mault in recommending the cultivation of a plant in Britain which promises to afford so useful and wholesome a food as the Salep.

Dr. Percival says, “ Mr. Mault has lately favoured the public with a new manner of curing the *Orchis* root, and as I have seen many specimens of his Salep, at least equal if not superior to any brought from the Levant, I can recommend the following, which is his process, from my own knowledge of its success. The new root is to be washed in water, and the fine brown skin which covers it is to be separated by means of a small brush, or by dipping the root in hot water, and rubbing it with a coarse linen cloth. When a sufficient number of roots have been thus cleaned, they are to be spread on a tin plate, and placed in an oven heated to the usual degree, where they are to remain six or ten minutes, in which time they will have lost their milky whiteness, and acquired a transparency like horn, without any diminution of bulk. Being arrived at this state, they are to be removed, in order to dry and harden in the air, which will require

|| *Orchis mascula*, though the chief, is not the only species from which the Salep is prepared.

† Joseph Miller (*Botan. offic.* 1722. p. 385) to which we may add the names of *Seba* and *Heister*. This was first confirmed by *Buxbaum* (*Plant. min. cogn. Cent. 3. p. 5.*) See *Murray, Ap. Med.* vol. 5. p. 280.

^a See *Phil. Transf.* vol. 59. p. 2.

^b Percival's *Essays Med. & Exper.* vol. ii. p. 39.

several days to effect; or by using a very gentle heat they may be finished in a few hours.”^c

Salep, considered as an article of diet, is accounted extremely nutritious, as containing a great quantity of farinaceous matter in a small bulk, and hence it has been thought fit to constitute a part of the provisions of every ship's company to prevent a famine at sea. For it is observed by Dr. Percival, that this powder and the dried gelatinous part of flesh, or portable soup, dissolved in boiling water, form a rich thick jelly, capable of supporting life for a considerable length of time. An ounce of each of these articles, with two quarts of boiling water, will be sufficient subsistence for one man a day.^d Dr. Percival not only recommends the use of Salep as other authors have done in diarrhœa, dysentery, dysury, and calculous complaints; but he thinks “in the symptomatic fever, which arises from the absorption of pus, from ulcers in the lungs, from wounds, or from amputations, Salep used plentifully is an admirable demulcent, and well adapted to resist that dissolution of the crasis of the blood which is so evident in these cases.”

The supposed aphrodisiac qualities of this root, which have been noticed ever since the time of Dioscorides, seem to be founded on the fanciful doctrine of signatures.^e

^c The properest time for gathering the roots is when the seed is formed, and the stalk is ready to fall, because the new bulb, of which the Salep is made, is then arrived to its full maturity, and may be distinguished from the old one by a white bud rising from the top of it, which is the germ of the orchis of the succeeding year. *Percival, l. c.*

^d Percival l. c. See also Lind's Appendix to his Essay on the Diseases of Hot Climates.

“Salep ex orchide morione in Suecia paratum citius solvi se passum est, quam Persicum, et tam tenacem mucilaginem exhibuit octo ejus grana in aquæ fervidæ unica una h. e. radicem in 60-plo aquæ solvendo, ut per pannum linteum non perfecte transigi posset, sed affundi insuper deberet aquæ fervidæ uncia dimidia, quo auxilio mucilago ista densitate æquavit alteram ex Salep Persico uncia una aquæ elicitam: remansit vero residui ex isto Suecico Salep granum $1\frac{1}{2}$ et Persico gr. i. Murray l. c. See *Vet. Acad. Handl.* 1764. p. 245. §9.

^e Orchis, i. e. *Orchis*, Testiculus, habet radices instar testiculorum.

CISTUS CRETICUS.



Cistus creticus



CISTUS CRETICUS. CRETAN CISTUS.

Planta à qua colligitur *LADANUM*. *Pharm. Lond.*

SYNONYMA. Cistus ladanifera cretica, flore purpureo. *Tournef. Coroll. Inst. rei herb. p. 19. Voyage du Levant. t. i. p. 29.* Cistus ladanifera vera. *Park. Theat. p. 666.* Cistus, Ledon Cretense. *Baub. Pin. p. 467.* Cistus Ledon Matthioli. *Gerard. Emac. p. 1286.* Cistus (*creticus*) arborefcens, foliis ovato-lanceolatis, hirsutis, marginibus undulatis, floribus terminalibus. *Miller. Dict. Jacqu. ic. collect. i. p. 80.*

Class Polyandria. *Ord.* Monogynia. *Lin. Gen. Plant. 673.*

Eff. Gen. Ch. *Cor.* 5-petala. *Cal.* 5-phyllus: foliolis duobus minoribus. *Capsula.*

Sp. Ch. *C.* arborefcens exstipulatus, foliis spatulato-ovatis petiolatis enerviis scabris, calycinis lanceolatis.

THIS handsome shrub seldom rises to any considerable height; it is covered with a dark coloured bark, and sends off several simple branches: the leaves are oblong, pointed, waved, rough, viscous, veined, and stand in pairs upon short footstalks, which are broad at the base, so as nearly to surround the younger branches: the flowers are produced in succession at the extremities of the branches in June and July; they are large, of a purplish red colour, marked with dark spots at the base of each petal, and stand on short peduncles: the calyx is divided in five large oval pointed persistent segments, of which the two outermost are the smallest: the corolla is composed of five petals, which are large, roundish, spreading, and readily fall off on being touched: the filaments are numerous, very short, slender, and supplied with simple antheræ of an orange colour: the germen is oval, and supports a short style, furnished with a flat circular stigma: the capsule is roundish, and contains many small orbicular seeds.

This

This shrub, which is a native of Candia and some of the islands of Archipelago, was first cultivated in England by Mr. P. Miller in the year 1731,^a and is now to be had of several of the London gardeners, though it is not so commonly met with as many other exotic species of this genus. Not only this plant, but most of its congeners, abound with a glutinous liquor, which in summer exudes upon their leaves, and seems to be of the ladanum kind: but it is well known, that the *Cistus creticus* is the species from which the officinal Ladanum is collected. This is done in Candia by means of an instrument call there *Ergastiri*, made in the form of a rake, to which several leathern thongs are fixed instead of teeth, and with which the leaves of the shrub are lightly brushed backwards and forwards, so that the fluid Ladanum may adhere to the leather, from which it is afterwards scraped off with knives, and formed into regular masses for exportation.^b

As this drug is observed to issue most copiously in the hottest weather, the method of gathering above described must be performed when the intensity of the sun's heat renders it a very laborious and troublesome employment.

Three sorts of Ladanum have been described by authors, but only two are now to be met with in the shops. "The best, which is very rare, is in dark-coloured masses, of the consistence of a soft plaster, growing still softer on being handled: the other is in long rolls, coiled up, much harder than the preceding, and not so dark. The first has commonly a small and the last a large admixture of fine sand, which in the Labdanum examined by the French Academy amounted to three-fourths of the mass. It is scarcely indeed to be collected pure, independently of designed abuses; the dust blown on the plant by winds from the loose sands among which it grows, being retained by the tenacious juice. The soft kind has an agreeable smell, and a lightly pungent bitterish taste: the hard is much weaker.

^a See Aiton's Hort. Kew.

^b See Belon. *Observations de plusieurs singularités en Grece, Asie, &c.* Lib. i. c. 7. and Tournefort. *Voyage au Levant.* t. i. p. 29. where the Ergastiri is described and figured.

By the ancients we are told, that the *Λαδάνον* was collected by combing the beards and thighs of goats who browsed upon the cistus, and to whose hair the drug was found to adhere: another method of gathering it, was by drawing cords over those shrubs which produced it. See Dioscorides, *Mat. Med.* Lib. i. p. 128. and Pliny, *Hist. Nat.* Lib. xii. cap. xvii.



Anchusa tinctoria

Rectified spirit of wine dissolves nearly the whole of pure Labdanum into a golden-coloured liquor: on inspissating the filtered solution, the finer parts of the Labdanum rises with the spirit, and the remaining resin proves both weaker and less agreeable than the juice at first. On infusing the Labdanum in water, it impregnates the liquor considerably with its smell and taste, and in distillation with water, there comes over a fragrant essential oil." ^d

This resin was formerly much employed internally as a pectoral and astringent in catarrhal affections, dysenteries, and several other diseases; at present however it is wholly confined to external use, and is an ingredient in the stomachic plaster, or emplastrum landani of the London Pharm. It is also sometimes used in the way of fumigation.

^d Lewis, *M. M.* p. 368.

ANCHUSA TINCTORIA. DIERS BUGLOSS, or ALKANET.

SYNONYMA. Anchusa. *Pharm. Edinb.* Anchusa puniceis floribus. *Baub. Pin.* p. 255. Anchusa Monspeliana. *J. Baub. Hist. vol. iii.* p. 583. *Raii Hist.* p. 496. Anchusa Alcibiadion. *Gerard. Emac.* p. 800. Anchusa minor purpurea. *Park. Theat.* p. 517. Alkanna. *Pharm. Suic. Wert. &c.*

Class Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 182.

Eff. Gen. Ch. Cor. infundibulif. fauce clausa fornicibus. *Sem.* basi insculpta.

Sp. Ch. A. tomentosa, fol. lanceolatis obtusis, stamin. corolla brevioribus.

THE root is perennial, long, round, fibrous, and externally of a dark purplish red colour: the stalk is thick, round, rough, hairy, branched, and rises about two feet in height: the leaves are long, lance-shaped, obtuse, hairy, and without footstalks: the flowers vary from a purplish to reddish colour, and terminate the branches in close clusters: the calyx is divided into five oblong erect rough persistent

segments: the corolla is monopetalous, and funnel-shaped, consisting of a cylindrical tube, equal in length to the calyx, divided at the limb into five blunt teeth, and closed at the faux or centre by five small prominent scaly leaflets: the five filaments are short, included in the tube of the corolla, and furnished with simple antheræ: the germens are four: the style is filiform, about the length of the stamina, and supplied with an obtuse notched stigma: the seeds are four, of an irregular shape, and lodged within the calyx. It flowers from June till October.

This species of *Anchusa* * is a native of Montpellier, and was cultivated in Britain by Mr. James Sutherland, in the year 1683.^a It is propagated by our gardeners for the beauty of its flowers, but in this climate its roots never acquire that deep colour on which its utility depends. The red cortical part of the root of this plant, as imported here from the southern parts of Europe, when separated from the interior white part, imparts a fine deep red to oils, wax, and all unctuous substances, and to rectified spirit of wine; on this account the Edinburgh College introduces it into their catalogue of the *Materia Medica*. "To water this root gives only a dull brownish hue. The spirituous tincture, on being inspissated to the consistence of an extract, changes its fine red to a dark brown. In these general properties the deep and pale roots agree one with another, and differ from all the rest of the red drugs we know of: it is not therefore probable, that the deep colour of the foreign roots is owing, as some have supposed, to the introduction of an extraneous tincture."^b Formerly the Alkanet root was recommended in several diseases, particularly as an astringent, and it manifests this quality in some degree to the taste;^c but it is now used in no other way than for colouring oils,^d ointments, and plasters, which receive a fine deep red from one fortieth their weight of the root.

* *Anchusa* ab *αρχω* strangulo, suffico, quod serpentes strangulet necetque. Hac vi pollere est auctor Nicander, Dioscorides, Plinius, Galenus, &c. *Bod. in Theoph.* p. 835.

^a Sutherland. *Hort. Edin.* 24. no. 7. See Aiton's *Hort. Kew.*

^b Lewis *Mat. Med.* p. 56.

^c Alston could not discover this quality in the *Anchusa*. *M. M. vol. i.* p. 365.

^d It is also used with oil by the cabinet-makers to stain mahogany and other woods.



Polygala Senega

Published by D^r Woodville July. 1. 1791.

POLYGALA SENEGA.

RATTLESNAKE-ROOT
MILK-WORT.

SYNONYMA. Seneka. *Pharm. Lond. & Edinb.* Polygala marilandica, caule non ramoso, spica in fastigio singulari gracili e flosculis albis composita. *Raii App. vel. Hist. tom. iii. p. 670.* Polygala caule simplici erecto, foliis ovato-lanceolatis alternis integerrimis, racemo terminali erecto. *Gron. Flor. Virgin. i. p. 80.* Polygala Senega. *Amæn. Acad. Tom. iii. p. 124.* *Miller's Dict. Fig. Ed. 7.* Senegau. *Trew. Comm. Litt. Nor. 1741. Tab. 4.*

Class Diadelphia. *Ord.* Octandria. *Lin. Gen. Plant. 851.*

Eff. Gen. Ch. *Cal.* 5-phyllus: foliolis alæformibus, coloratis.
Legumen obcordatum, biloculare.

Sp. Ch. P. floribus imberbibus spicatis, caule erecto herbaceo simplicissimo, foliis lato-lanceolatis.

THE root is perennial, woody, branched, contorted, about the thickness of a finger, and covered with ash-coloured bark: it sends up several stems, which are simple, erect, slender, round, smooth, of a dark reddish colour, and rise nearly a foot in height: the leaves are oblong, or lance-shaped, acutely pointed, of a pale green colour, and stand alternately upon short footstalks: the flowers appear in June, they are white, of the papilionaceous kind, and grow in a close terminal spike: the calyx is divided into three narrow persistent segments, two of which are placed beneath and one above the corolla: the corolla is composed of two exterior petals, or *wings*, which are flat, and of an oval shape; a short tubular *standard*, undivided at the mouth; and a flattened *keel* distended towards the end, from whence proceeds a pencil-shaped appendage: the filaments are eight, united at the base into two portions, and supplied with simple antheræ: the
germen

germen is oblong, and supports a simple erect style, furnished with a cloven stigma: the capsule is inversely heart-shaped, and contains several small oblong seeds.

This plant is a native of Virginia, and other parts of North America. It was first cultivated in England in 1759, by Mr. P. Miller,^a who has published a figure of it, which will be found to accord very accurately with the icon here annexed, which was drawn from the plant now in flower at the Royal garden at Kew. "This root, of no remarkable smell, has a peculiar kind of subtile pungent penetrating taste."^b Its virtue is extracted both by water and spirit, though the powder in substance is supposed to be more effectual than either the decoction or tincture. The watery decoction, on first tasting, seems not unpleasent, but the peculiar pungency of the root quickly discovers itself, spreading through the fauces, or exciting a copious discharge of saliva, and frequently, as Linnæus observes, a short cough: those to whom I have directed this medicine, have generally found a little Madeira most effectual for removing its taste from the mouth, and making it sit easy on the stomach. A tincture of the root, in rectified spirit, is of more fiery pungency, extremely durable in the mouth and throat, and apt to promote vomiting or reaching."^c Rattlesnake-root was first introduced to the attention of physicians about sixty years ago, by Dr. John Tennent,^d whose intercourse with the Indian nations led him to discover that they possessed a specific medicine against the poison of the rattlesnake,|| which, in consequence of a suitable reward, was revealed to him, and found to be the root of this plant, which the Indians employed both internally and externally.^e Cases afterwards occurred, by which he was fully convinced of the efficacy of this medicine from his own experience. And as the Doctor observed,

^a *Diæt. Ed.* 7. n. 5. See *Hort. Kew.*

^b Bergius says, "Sapor primum calidiusculus, deinde acidulus in faucibus sentitur cum specie acrimoniæ, inhærens cum siccitate." *M. M.* p. 596.

^c Lewis, *M. M.* p. 518. ^d See his *Physical Disquisitions*, P. 2. Lond. 1735.

|| A fortiori, it is presumed to cure the poisonous effects of other serpents, as being less virulent. Testatur exemplum ancillæ Suecicæ, quæ alvi dejectiendæ causa ruri pone fruticem secedens a serpente quodam (Colubro Bero sine dubio) et in mulieribus ipsis vulnerabatur sub gravissimorum symptomatum satellitio, sed duabus unice dosibus ab ill.
^e Linné subministratis convaluit. *Amæn. Acad.* vol. vi. p. 214.

^e Chewed and applied to the wound, or in the form of a cataplasm.

that pleuretic or peripneumonic symptoms † were generally produced by the action of this poison, he hence inferred, that the Rattle-snake-root might also be an useful remedy in diseases of this kind. It was accordingly tried in pleurifies not only by Tennent himself,^f but by several of the French academicians and others,^g who all unite in testimony of its good effects. However, in many of these cases, recourse was had to the lancet, and even the warmest advocates for the Seneka say, that in the true pleurify repeated bleeding is at the same time not to be neglected. The repute which this root obtained in peripneumonic affections, induced some to employ it in other inflammatory disorders, in which it proved serviceable, particularly in rheumatism.^h It has also been prescribed with much success in dropfies,ⁱ and this we can the more easily credit from its effects in increasing the different secretions, for it is remarked that it produces a plentiful spitting, increases perspiration and urine, and frequently purges or vomits. It is likewise reported to be a medicine of great power, in rendering the sifiness of the blood more fluid; De Haen however brings a strong fact to contradict this opinion.^k The usual dose is from one scruple to two of the powder, or two or three spoonfuls of a decoction, prepared by boiling an ounce of the root in a pint and a half of water till it is reduced to one pint.

† As difficulty of breathing, cough, hæmoptysis, a strong quick pulse, &c.

^f See his *Ess. on the Pleurisy. Philad. 1736.* Also his *Epistle to Dr. Mead.*

^g Lemery, De Jessieu, Du Hamel, Bouvart, for which see *Mem. de l'Acad. de Paris, 1739, & 1744.*

^h *Comm. Noric. 1741. p. 362.* Sarcone *Geschichte d. Krankh. in Neapel, Tom. i. p. 108, 169, 173, 199.* And Dr. Cullen says, "We have had some instances of its being useful, especially where it operated by producing sweat." *M. M. vol. ii. p. 533.*

ⁱ Bouvart. l. c. Mackenzie, *Med. Obs. & Inq. vol. ii. p. 288.* See also Percival, *Essays, vol. ii. p. 178.*

^k *Ratio Medend. P. 4. p. 252.*

JUNIPERUS SABINA.

COMMON SAVIN.

SYNONYMA. Sabina. *Pharm. Lond. & Edinb.*

Varietates sunt,†

- α Sabina foliis Cupressi. *Baub. Pin. p. 487.* Sabina baccifera. *J. Baub. Hist. vol. i. p. 288.* Gerard. *Emac. p. 1376.* Sabina baccifera major. *Park. Theat. p. 1026.* Cedrus baccifera fructu minore cæruleo. *Raii Hist. p. 1415.* Juniperus foliis cauli adpressis lanceolatis, alterne conjugatis. *Hal. Stirp. Helv. n. 1662.*
- β Sabina folio Tamarisci Dioscoridis. *Baub. Pin. p. 487.* Sabina sterilis. *Gerard. Emac. p. 1378.* Sabina vulgaris. *Park. Theat. p. 1027.* *Raii Hist. p. 1415.* *Spadus Græcorum.*

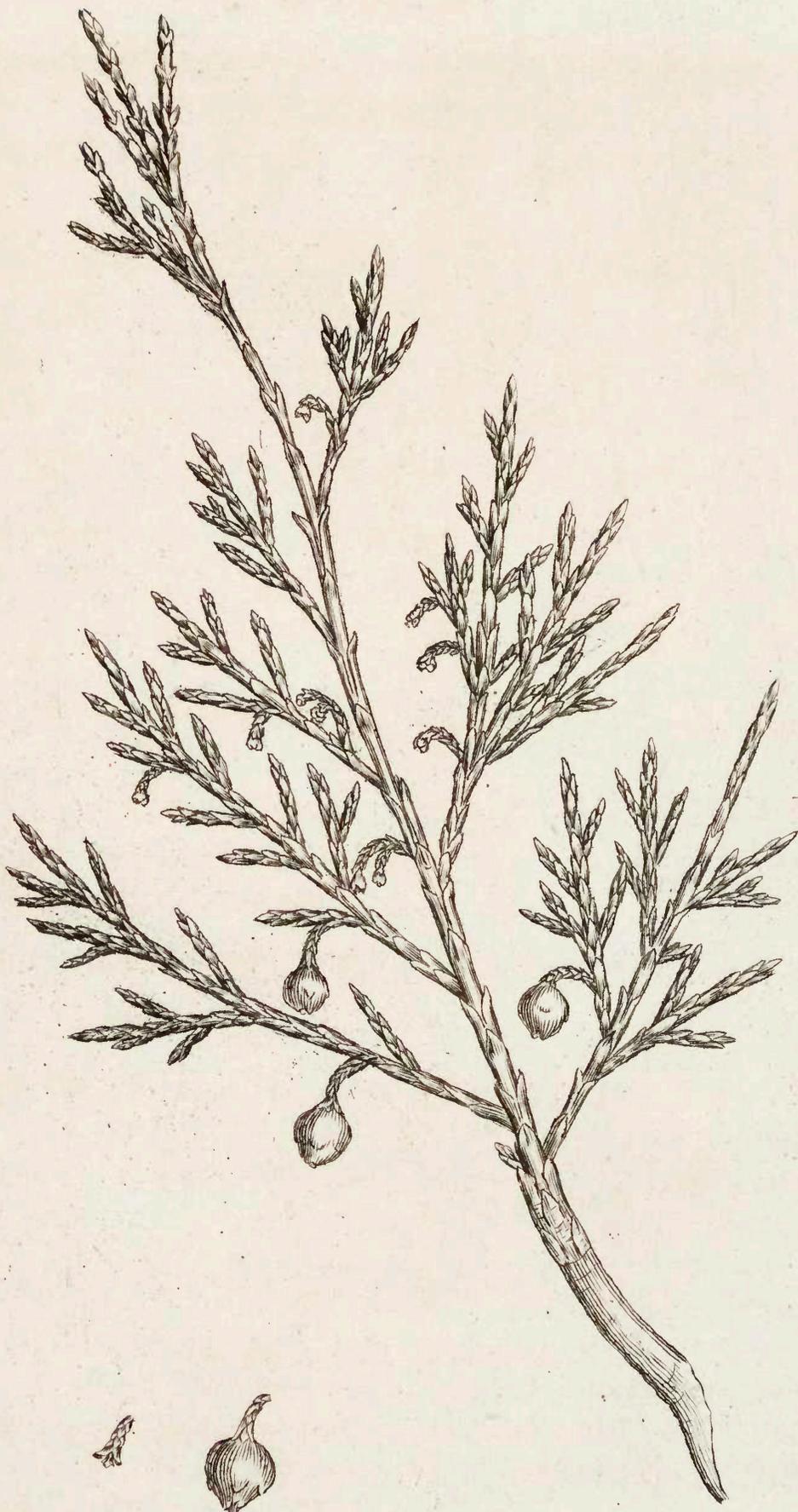
Class Dioecia. *Ord.* Monadelphia. *Lin. Gen. Plant.* 1134.

Eff. Gen. Ch. M A S C. *Amenti* Calyx squamæ. *Cor.* 0. *Stam.* 3.
F E M. *Cal.* 3-partitus. *Petala* 3. *Styli* 3. *Bacca*
 3-sperma, tribus tuberculis calycis inæqualis.

Sp. Ch. J. foliis oppositis erectis decurrentibus: oppositionibus pyxidatis.

THIS shrub rises but a few feet in height: it is covered with a reddish brown bark, and sends off many branches, which are numerously subdivided: the leaves are numerous, small, erect, opposite, firm, and wholly invest the younger branches, which they terminate in sharp points: the flowers are male and female on different plants: the calyces of the *male flowers* stand in a conical catkin, which consists of a common spike-stalk, in which three opposite flowers are placed in a triple row, and a tenth flower at the end. At the base of each flower is a broad short *scale* fixed laterally to a columnar pedicle: there is no corolla: the filaments in the *terminating* flower are three, taper-

† These two varieties are precisely the same as those noticed by Dioscorides. See L. I. C. 104.



Juniperus Sabina

Published by D. Woodville, July 1. 1791.

ing, united at the bottom into one body, and furnished with simple antheræ, but in the lateral flowers the filaments are scarcely perceptible, and the antheræ are fixed to the scale of the calyx; the calyx of the *female flowers* is composed of three small permanent scaly segments, growing to the germen: the petals are three, stiff, sharp, permanent: the germen supports three styles, supplied with simple stigmata: the fruit is a roundish fleshy berry, marked with tubercles, which are the vestiges of the petals and calyx; when ripe the berry is of a blackish purple colour, and contains three small hard irregular shaped seeds. It flowers in May and June.

Savin is a native of the South of Europe and the Levant: it has been long cultivated in our gardens,^a and from producing male and female flowers on separate plants it was formerly distinguished into the barren and berry bearing Savin: the latter of these our plate represents.^b “The leaves and tops of Savin have a moderately strong smell of the disagreeable kind, and a hot, bitterish, acrid taste; they give out great part of their active matter to watery liquors, and the whole to rectified spirit. Distilled with water they yield a large quantity of essential oil.^c Decoctions of the leaves, freed from the volatile principle by inspissation to the consistence of an extract, retain a considerable share of their pungency and warmth along with their bitterness, and have some degree of smell, but not resembling that of the plant itself. On inspissating the spirituous tincture, there remains an extract, consisting of two distinct substances, of which one is yellow, unctuous or oily, bitterish, and very pungent; the other black resinous, tenacious, less pungent, and subastringent.” ||

Savin is a powerful and active medicine, and has been long reputed the most efficacious in the *Materia Medica*, for producing a determination to the uterus, and thereby proving emmenagogue;^d it heats and stimulates the whole system very considerably, and is said to promote the fluid secretions.

^a Cultivated in 1562. Turn. herb. part 2. fol. 124. *Aiton's Hort. Kew.*

^b For the male inflorescence of this genus, see the next plate, viz. n. 95.

^c From thirty-two ounces Hoffman obtained five ounces of this essential oil, in which the whole virtue of the plant seems to reside.

^d Bergius states its *virtus* to be emmenagoga, abortiens, diuretica, sanguinem movens.
Mat. Med. p. 314. || Lewis *Mat. Med.*

The power which this plant possesses in opening uterine obstructions is considered to be so great, that we are told it has been frequently employed, and with too much success, for purposes the most infamous and unnatural.^o It seems probable however that its effects in this way have been somewhat over rated, as it is found very frequently to fail as an emmenagogue, though this, in some measure, may be ascribed to the smallness of the dose in which it has been usually prescribed by physicians; for Dr. Cullen observes, “ that
 “ Savin is a very acrid and heating substance, and I have been often
 “ upon account of these qualities, prevented from employing it in
 “ the quantity perhaps necessary to render it emmenagogue. I must
 “ own however that it shows a more powerful determination to the
 “ uterus than any other plant I have employed; but I have been
 “ frequently disappointed in this, and its heating qualities always
 “ require a great deal of caution.”^f Dr. Home appears to have had very great success with this medicine, for in five cases of amenorrhœa which occurred at the Royal Infirmary at Edinburgh, four were cured by the Sabina,^g which he gave in powder from a scruple to a dram twice a day. He says it is well suited to the debile, but improper in plethoric habits, and therefore orders repeated bleedings before its exhibition. Externally Savin is recommended as an escharotic to foul ulcers, syphilitic, warts, &c.^h

^o Hinc in uterino fluxu ciendo adeo potens, qua vi abusæ subinde feruntur communi fere effato, a Galeno inde tempore deducto, scelestæ matres ad abortum excitandum, sed haud absque proprio vitæ periculo vel ante partum vel mox post istum. (Storch *Hebammenb.* p. 220.) Suspectæ huic naturæ subscripsit judicium Facultatis medicæ Lipsiensis. (Ammann. *med. crit.* p. 42. See Murray *App. Med.* vol. i. p. 42. And Haller l. c.

^f *M. M.* vol. ii. p. 366. ^g Clinical Experiments, p. 387. ^h Fabre, *Mal. vener.* T. i. p. 365.

JUNIPERUS COMMUNIS.



Juniperus communis

Painted by Dr Woodville July 1. 1791.

JUNIPERUS COMMUNIS. COMMON JUNIPER.

SYNONYMA. Juniperus. *Pharm. Lond. & Edinb.* Juniperus vulgaris fruticoso. *Baub. Pin. p. 488.* Juniperus vulgaris. *Park. Theat. p. 1028.* Gerard. *Emac. p. 1372.* Raii *Hist. p. 1411.* *Synop. p. 44.* Juniperus foliis convexo-concavis, aristatis, baccis alaribus, sessilibus. *Hal. Stirp. Helv. n. 1661.* Hudson. *Flor. Ang. p. 436.* Withering. *Bot. Arrang. p. 1129.* Mill. *illust. ic.*

β Juniperus foliis ternis patentibus, acutioribus, ramis erectioribus, bacca longioribus. *Mill. Dict.* Swedish Juniper.

γ Juniperus minor montana, folio latiore, fructuque longiore. *Baub. Pin. 489.* Procumbent Juniper.

Class Dioecia. *Ord.* Monadelphia. *Lin. Gen. Plant. 1134.*

Ess. Gen. Ch. MASC. Amenti Calyx squamæ. Cor. 0. Stam. 3.

FEM. Cal. 3-partitus. Petala 3. Styli 3. Bacca 3-sperma, tribus tuberculis calycis inæqualis.

Sp. Ch. J. foliis ternis patentibus mucronatis bacca longioribus.

THIS species usually rises much higher than the Sabina; it is covered with brownish bark, and divides into many branches: the leaves are very numerous, long, narrow, pointed, of a deep green colour, and stand in ternaries: the flowers are male and female on different plants, and answer to the description of those which we have given of Juniperus Sabina:^a the berries continue two years upon the tree before they become perfectly ripe, when they are of a blackish colour, round, filled with a brownish pulp, and each contain

^a Of the Sabina we ought to have remarked, that the essential oil and the watery extract, are kept in the shops, and that it is an ingredient in the pulv. e myrrha compositus.

three irregular hard seeds. It grows in several heathy parts of England, and flowers in May.

Juniper is supposed to be the *ἀρνειόσπορος* of the ancients,|| who distinguished it into two kinds.^b Both the tops and berries of this plant are directed for use in our Pharmacopœias, but the latter are usually preferred, and are brought to us chiefly from Holland and Italy. “They have a moderately strong not disagreeable smell, and a warm pungent sweetish taste, which if they are long chewed or previously well bruised, is followed by a considerable bitterness. The sweetness appears to reside in the juice or soft pulpy part of the berry; the bitterness, in the seeds; and the aromatic flavour, in oily vesicles, spread throughout the substance both of the pulp and the seeds, and distinguishable even by the eye. The fresh berries yield, on expression, a rich sweet honey-like aromatic juice: if previously powdered so as to thoroughly break the seeds, which is not done without great difficulty, the juice proves tart and bitter. The same differences are observable also in tinctures and infusions made from the dry berries, according as the berry is taken entire or thoroughly bruised. They give out nearly all their virtue both to water and rectified spirit. Distilled with water they yield a yellowish essential oil, very subtle and pungent, in smell greatly resembling the berries, in quantity (if they have been sufficiently bruised) about one ounce from forty: the decoction, inspissated to the consistence of a rob or extract, has a pleasant, balsamic, sweet taste, with a greater or less degree of bitterness. A part of the flavour of the berries arises also in distillation with rectified spirit: the inspissated tincture consists of two distinct substances; one oily and sweet; the other tenacious, resinous, and aromatic.”^c

These berries are chiefly used for their diuretic effects; they are also considered to be stomachic, carminative, and diaphoretic.—

|| The odour of the Juniper-tree, though extremely fragrant, was, by Virgil, thought to be noxious:

Surgamus; solet esse gravis cantantibus umbra:
Juniperi gravis umbra: nocent & frugibus umbræ.

ECL. x. v. 75.

^b See *Pliny. Lib. xvi. cap. 25.* Gum Sandrach, known also by the name of pounce, is the product of this species of Juniper: it exudes through the crevices of the bark, or the perforations made by insects.

^c *Lewis, Mat. Med. p. 362.*

Of

Of the efficacy of Juniper berries in many hydropical affections, we have various relations by physicians of great authority, as Du Verney, Hoffman, Boerhaave, and his illustrious commentator, Baron Van Swieten, &c. Authors however seem not to be perfectly agreed which preparation of the Juniper is most efficacious, many prefer the rob or inspissated decoction, but Dr. Cullen observes,* that this is an inert medicine, alleging that the essential oil must be almost entirely dissipated by the boiling; for to this oil, which is much the same as that of turpentine, only of a more agreeable odour, he thinks all the virtues ascribed to the different parts of Juniper are to be referred. Hoffman, on the contrary, strongly recommends the rob, and declares it to be of great use in debility of the stomach and intestines; and he experienced it to be particularly serviceable to such old people as are subject to these disorders, or labour under a difficulty with regard to the urinary excretion; from hence it appears, that the berries still retain medicinal powers, though deprived of the stimulating effects of the essential oil.^d But as the Juniper is now seldom if ever relied upon for the cure of dropsies, and only called to the aid of more powerful remedies, it is justly observed by a modern author, that “perhaps one of the best forms under which the berries can be used is that of a simple infusion. This either by itself, or with the addition of a little gin, is a very useful drink for hydropic patients.”^e Medical writers have also spoken of the utility of Juniper in nephritic cases, uterine obstructions, scorbutic affections, and some cutaneous diseases, and in the two last mentioned complaints, the wood and tops of the plant are said to have been employed with more advantage than the berries.^f

We are told by Linnæus,^g that the Laplanders drink infusions of the Juniper berries as we do tea and coffee, and that the Swedes pre-

* *M. M.* vol. ii. p. 187.

^d Van Swieten prescribed the following formula: *R.* Rob. Bacc. Junip. ℥ii. dilue in aquæ Junip. ℥ii. add. spirit. bacc. Junip. ℥ii. Quandoque spiritus nitri dulcis ℥ss ad sitim sedandam additur. *Comment. in Boerb. aph. T. 4. p. 258.* Of this mixture one or two ounces were given every three hours. ^e *Duncan New Ed. Dispens. p. 214.*

^f Bergius says, “Virtus: ligni & summitat. diuretica, sudorifera, mundificans. *Bacca* diuretica, nutriens, diaphoretica.” *M. M.* p. 810.

^g Flor, Lapp. p. 301. They are likewise known to afford a pleasant wine. See Du Hamel, *Arbres, T. i. p. 325.*

pare a beer from them, in great estimation for its diuretic and antiscorbutic qualities. Our Pharmacopœias direct the essential oil and a spirituous distillation of the Juniper berries, to be kept in the shops: the former, in doses of two or three drops, is found to be an active and stimulating medicine; the latter contains this oil, and that of some other aromatic seeds united to the spirit, and therefore differs not considerably from the genuine geneva imported from Holland; but there is great reason to believe, that the gin usually sold here is frequently nothing but the common fumentacious spirit, imbued with turpentine, or other materials to give it a flavour.

VALERIANA OFFICINALIS. OFFICINAL VALERIAN.

SYNONYMA. Valeriana sylvestris. *Pharm. Lond. & Edinb.*
 Valeriana sylvestris major. *Bauh. Fin. p. 164. Gerard. Emac. p. 1075. Park. Theat. p. 122. Raii Hist. p. 388. Synop. p. 200.*
 Valeriana foliis pinnatis, pinnis dentatis. *Hal. Hist. Stirp. Helv. n. 210.* Valeriana officinalis. *Hudson. Flor. Ang. p. 12. Withering. Bot. Arr. p. 36. Flor. Dan. p. 570.*

ae Foliis angustioribus.

Class Triandria. Ord. Monogynia. Lin. Gen. Plant. 44.

Eff. Gen. Ch. Cal. 0. Cor. 1-petala, basi hinc gibba, supera. Sem. 1.

Sp. Ch. V. floribus triandris, foliis omnibus pinnatis.

THE root is perennial, consisting of a great number of simple fibres, which unite at their origin: the stalk is upright, smooth, channelled, round, branched, and rises from two to four feet in height: the leaves on the stem are placed in pairs upon short broad sheathes; they are composed of several lance-shaped, partially dentated, veined, smooth pinnæ, with an odd one at the end, which is the



Valeriana officinalis.

the largest: the radical leaves are larger, stand upon long footstalks, and the pinnæ are elliptical, and deeply ferrated: the floral leaves are spear-shaped and pointed: the flowers are small, of a white or purplish colour, and terminate the stem and branches in large bunches: there is no calyx, or only a small narrow rim: the corolla consists of a narrow tube, somewhat swelled on the under side, and divided at the limb into five obtuse segments: the three filaments are tapering, longer than the corolla, and furnished with round antheræ: the germen is placed beneath the corolla, and supports a slender style, shorter than the filaments, and terminated by a thick bearded stigma: the capsule is crowned with a radiated feather, and contains one seed of an oblong shape. It flowers in June, and commonly grows about hedges and woods.

The narrower-leaved variety of this species of Valerian, which does not exceed two feet in height, and affects dry heaths and high pastures, is justly in more repute than the other; its roots manifest stronger sensible qualities, and consequently possess more medicinal power; their smell is strong, and has been compared to that of a mixture of aromatics with fetids; their taste unpleasantly warm, bitterish, and subacid. "The powdered root, infused in water or digested in rectified spirit, impregnates both menstrua strongly with its smell and taste. Water distilled from it smells considerably of the root, but no essential oil separates, though several pounds be submitted to the operation at once." †

Valerian is supposed to be the ϕ of Dioscorides and Galen,^a by whom it is mentioned as an aromatic and diuretic: it was first brought into estimation in convulsive affections by Fabius Columna,^b who relates that he cured himself of an epilepsy by the root of this plant; we are told however, that Columna suffered a relapse of the disorder, and no further accounts of the efficacy of Valerian in epilepsy followed till those published by Dominicus Panarolus^c fifty years afterwards,

† *Lewis, M. M.*

^a Græcis ϕ esse credo, a ϕ abominantis: olet enim radix felinum quid, non tamen sine grato odore nardi *Hoff.* "This smell is highly delightful to cats; rats are also said to be equally fond of these roots, and that rat-catchers employ them to draw the rats together." *Withering. l. c.*

^b *Phytobasamos Neapol. 1592. p. 97.*

^c *Iatrologism. s. medicin. hist. pentac. quinque Rom. 1643. Pentec. i. Obs. 33. p. 20.*

in which three cases of its success are given. To these may be added many other instances of the good effects of Valerian root in this disease, since published by Cruger,^d Schuchmann,^e Riverius,^f Sylvius,^g Marchant,^h Chomel,ⁱ Sauvages,^k Tissot,^l and others.

The advantages said to be derived from this root in epilepsy caused it to be tried in several other complaints termed nervous, particularly those produced by increased mobility and irritability of the nervous system, in which it has been found highly serviceable.^m Bergiusⁿ states its *virtus* to be antispasmodic, diaphoretic, emmenagogue, diuretic, anthelminthic.* Under the head *usus* he enumerates Epilepsia, Convulsiones, Hysteria, Hemicrania,^o Visus hebetudo. Dr. Cullen says, "its antispasmodic powers are very well established, and I trust to many of the reports that have been given of its efficacy; and if it has sometimes failed, I have just now accounted for it,^p adding only this, that it seems to me, in almost all cases, it should be given in larger doses than is commonly done. On this footing, I have frequently found it useful in epileptic, hysterical, and other spasmodic affections."^q It is said however, that in some cases of epilepsy at the Edinburgh Dispensary, it was given to the extent of two ounces a day without effect;^r and our own experience warrants us in saying,

^d *Eph. Nat. Cur. Dec. 2. A. 7. Obs. 78.*

^e *Eph. Nat. Cur. Dec. 2. A. 4. Obs. 44. p. 116. & App. ad Dec. 3. A. 3. p. 86.*

^f *Prax. Med. Lib. i. p. 62.*

^g *Opera, p. 427.*

^h *Mem. de L'Acad. d. Sc. de Paris, 1706. p. 333.*

ⁱ *Pl. Usuelles. T. i. p. 228.*

^k *Nosol. Method. T. iii. P. 2. p. 231. Ed. 8vo.*

^l *Traité de l'épilepsie, p. 310.*

^m Haller says, "Ego certe ad hystericos morbos, nimiamque nervorum sensibilitatem, frequenter cum bono eventu hac radice usus sum; et in ipsa epilepsia, non malo successu. *Stirp. Helv. n. 210.*"

ⁿ *Mat. Med. p. 30.*

* He says, "Emeticam illam nunquam vidi, nec laxantem." The latter quality is however very generally ascribed to it by medical writers.

^o Fordyce commends it highly in this disease, *De Hemicrania, p. 91.* Whytt, who joined it with manna, experienced its utility in epilepsy, *On Nerv. Dis. p. 513.* Joined with guaiacum, Morgan found it useful in resolving glandular or strumous humours. *Phil. princ. p. 424.*

^p From the disease depending upon different causes, and from the root being frequently employed in an improper condition.

^q *Mat. Med. vol. ii. p. 372.*

^r *New Ed. Dispens. by Dr. Duncan, p. 300.*



Marrubium vulgare

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that it will be seldom found to answer the expectations of the prescriber. The root, in substance, is most effectual, and is usually given in powder from a scruple to a dram: its unpleasant flavour may be concealed by a small addition of mace. A tincture of Valerian in proof spirit, and in volatile spirit, are ordered in the London Pharmacopœia.

MARRUBRUM VULGARE. COMMON WHITE
HOREHOUND.

SYNONYMA. Marrubium. *Pharm. Lond. & Edinb.* Marrubium album vulgare. *Baub. Pin.* p. 230. *Park. Theat.* p. 44. Marrubium album. *Gerard Emac.* p. 693. *Raii Hist.* p. 556. *Synop.* p. 239. Marrubium dentibus calycinis denis, recurvis. *Hal. Stirp. Helv. n.* 258. *Hudson. Flor. Ang.* p. 260. *Withering. Bot. Arrang.* p. 617.

Class Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant.* 721.

Eff. Gen. Ch. *Cal.* hypocateriformis, rigidus 10-striatus. *Corollæ*
lab. sup. 2-fidum, lineare, rectum.

Sp. Ch. *M.* dentibus calycinis setaceis uncinatis.

THE root is perennial, and furnished with numerous fibres: the stalks are upright, strong, square, hairy, or downy, and rise about a foot and a half in height: the leaves are roundish or oblong, deeply ferrated, veined, wrinkled, hoary, and stand in pairs upon thick broad footstalks: the flowers are white, and produced in whorls at the footstalks of the leaves: the calyx is tubular, scored, and divided at the mouth into ten narrow segments, which are hooked at the end: the corolla is monopetalous, gaping, compressed, consisting of a cylindrical tube, opening at the mouth into two lips: the upper lip is narrow, and cloven or notched; the under lip is broader, reflected,
and

and divided into three segments, the middlemost of which is broad, and slightly scolloped at the end; the lateral segments are spear-shaped and short: the filaments are two long and two short, supplied with simple antheræ, which are concealed in the tube: the germen is divided into four parts, from which issues a slender style, furnished with a cloven stigma: the seeds are four, of an oblong shape. It grows near the sides of roads and rubbish, and flowers in June.

“ The leaves of Horehound have a moderately strong smell of the aromatic kind, but not agreeable, which by drying is improved, and in keeping for some months is in great part dissipated: their taste is very bitter, penetrating, diffusive, and durable in the mouth.” “ The dry herb gives out its virtue both to watery and spirituous menstua: on inspissating the watery infusion, the smell of the Horehound wholly exhales, and the remaining extract proves a strong and almost flavourless bitter: rectified spirit carries off likewise greatest part of the flavour of the herb, leaving an extract in less quantity than that obtained by water, and of more penetrating bitterness.”^a

This plant is the *Περασιον* of the ancients, by whom it is greatly extolled for its efficacy in removing obstructions of the lungs and other viscera.^b It has chiefly been employed in humoural asthmas,^c obstinate coughs, and pulmonary consumptions;^d instances are also mentioned of its successful use in scirrhus affections of the liver,^e jaundice,^f cachexies, and menstrual suppressions.^g

That Horehound possesses some share of medicinal power may be inferred from its sensible qualities,* but its virtues do not appear to

^a *Lewis, M. M. p. 411.* ^b *Dioscorides, Lib. iii. c. 119.* See also *Pliny, Lib. xx. c. 22.*

^c *Rhazes ad Mansor. 3. n. 42.* Particularly, infarctions of the lungs and difficulty of breathing from viscid mucous.

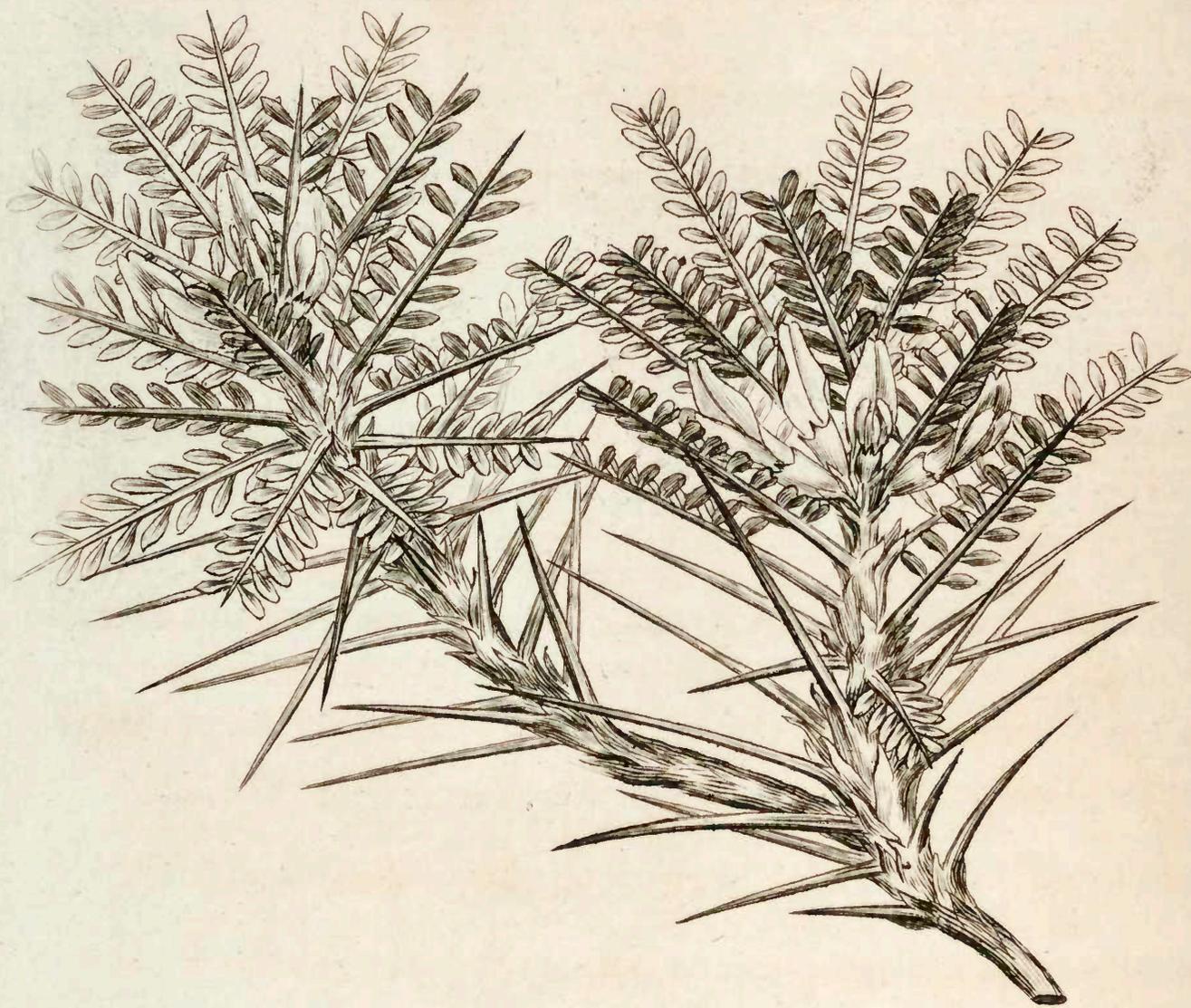
Lösecke, Arzneym. p. 382. Lange, Miscell. verit. med. p. 57.

^d *Alex. Trallian. Lib. v. Vide Celsus, Lib. iii. cap. 22. Caelius Aurelianus, Morb. chron. Lib. ii. p. 423. De Haen Rat. Medend. P. iv. p. 252.* But he and Haller often found it fail; the latter says, *Ego quidem in morbis similibus cum difficili sputorum excreatione infusum aquosum utiliter dedi: & in phthisi satis profecta semel vidi utile fuisse, non autem in aliis exemplis: potius vero mihi movere videtur, quam reprimere. l. c.*

^e *Zacutus Lusitanus, Prax. admir. Lib. 2. Obs 48. Chomel, Ujuell. T. i. p. 232.*

^f *Forrest. Op. Lib. 19. Obs. 19. § 40. Borellus, Hist. et Observ. Cent. iv. p. 14.*

* Taken in considerable quantities it is said to loosen the body.



Astragalus Fragacantha

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be clearly ascertained,^h and the character it formerly obtained is so far depreciated, that it is now rarely prescribed by physicians. A dram of the dry leaves in powder, or two or three ounces of the expressed juice, or an infusion of half a handful of the fresh leaves have been directed for a dose. This last mode is usually practised by the common people, with whom it is still a favourite remedy in coughs and asthmas.ⁱ

^h Bergius says, *Virtus* : tonica, emmenagoga, diuretica. *Ufus* : Cachexia, ob. mensium, Hysteria, Asthma pituitosum.

ⁱ “ It has had the reputation of a pectoral : but in many trials, its virtues in that way have not been observed ; and in several cases it has been judged hurtful. For its use in Asthma and Phthisis, and for its power in resolving indurations of the liver, I consider the authorities of Forrestus, Zacutus Lusitanus, and Chomel, to be very insufficient ; and the events they have ascribed to it seem to be very improbable.” *Cullen Mat. Med. vol. ii. p. 155.*

ASTRAGALUS TRAGACANTHA.

GOAT'S THORN
MILK VETCH.

Ex hac planta exudat Gummi Tragacantha. *Pharm. Lond. & Edinb.*

SYNONYMA. Astragalus aculeatus fruticosus Massiliensis. *Pluk. Alm. p. 60.* Tragacantha. *Baub. Pin. p. 388.* Tragacantha, five spina hirci. *Gerard Emac. p. 1328.* Tragacantha vera. *Park. Theat. p. 995.* Tragacantha Massiliensis. *J. Baub. Hist. i. p. 407.* *Raii Hist. p. 933.* *Du Hamel, Traité des Arbres, t. ii. p. 343.* *Tournefort, Voyage du Levant, t. i. p. 21.*

Class Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant.* 892.

Ess. Gen. Ch. Legumen biloculare, gibbum.

Sp. Ch. A. caudice arborecente, petiolis spinescensibus.

THE root is perennial, long, tapering, and fibrous : the stems are shrubby, short, thick, branched, procumbent, clothed with brown

rigid fibres, and beset with long sharp spines: the leaves are pinnated, consisting of about eight pairs of small oblong pinnulæ, or leaflets, which are attached to a strong spinous persistent footstalk, or midrib: the flowers are large, of a pale yellow colour, and terminate the branches in close clusters: the calyx is tubular and divided at the rim into five sharp teeth: the corolla is of the papilionaceous kind, consisting of a *vexillum* or upper petal, which is longer than the others, straight, blunt, reflected at the sides, and notched at the end; two *alæ* or lateral petals, which are of an oblong form, and a *carina* or keel-shaped under-petal: the filaments are ten, nine of which are united, and one separate: the antheræ are small and round: the germen is long and roundish: the style tapering, and furnished with a blunt stigma: the seeds are kidney-shaped, and contained in a two-celled pod. It flowers from May till July.

This plant was cultivated in England in the time of Parkinson, (1640): it is a native of Asiatic Turkey, and the Southern parts of Europe, particularly of Italy, Sicily, and Crete. Tournefort discovered it growing plentifully about Mount Ida,^a where he examined the plant in the month of July, when both the bark and wood were found distended with gum Tragacanth, which by the intensity of the sun's heat forces its way through the bark, and concretes into irregular lumps, or long vermicular pieces, bent into a variety of shapes, and larger or smaller in proportion to its quantity, and the size of the wounds from whence it issues. This gum is imported here chiefly from Turkey: it varies in its colour; but that most esteemed is white, semitransparent, dry, yet somewhat soft to the touch.

M. de la Billardièrè's late account^b of the production of this gum differs in some respects from that of Tournefort's. He says, that he visited Mount Lebanon in August, 1786, the season when the gum Tragacanth is collected: he then found the species of *Astragalus* which afforded it, to be different from that figured and described by

^a *Voyage, T. i. p. 21.*

^b See Description d'une nouvelle espece d'astragale, qui produit au Liban la gomme adragant, *Hist. de l'Acad. R. des Scien. du 16 Dec. 1788. et Rozier, Observ. sur la physique, pour Janvier, 1790.*

Tournefort, and consequently not the Tragacantha of Linnæus.^c He also contradicts the opinion of Tournefort, who attributes the flowing of the gum to the contraction of the fibres of the bark, occasioned by the intensity of the solar heat; observing that it is only during the night, or when the sun is obscured by clouds, that the gum issues from the plant, and that the same has been remarked at Crete.

“ Gum Tragacanth differs from all other known gums, in giving a thick consistence to a much larger quantity of water;* and in being much more difficultly dissoluble, or rather dissolving only imperfectly.^d Put into water, it slowly imbibes a great quantity of the liquid, swells into a large volume, and forms a soft but not fluid mucilage: if more water be added, a fluid solution may be obtained by agitation, but the liquor looks turbid and wheyish; and on standing the mucilage subsides, the limpid water on the surface retaining little of the gum:” † nor does the mixture of gum arabic promote their union.

The demulcent qualities of this gum are to be considered as similar to those of gum arabic:° it is seldom given alone, but frequently in combination with more powerful medicines, especially in the form of troches, for which it is peculiarly well adapted. It gives name to an officinal powder, and is an ingredient in the compound powder of cerufs.

^c He makes the following distinctions: The stem of the Cretan Astragalus is blackish, that of Libanon is yellow; the leaves of the first are downy, of the second they are smooth. The flowers of one are red, those of the other are of a pale yellow. From hence he infers that there are various species of Astragalus which produce gum tragacanth.

* Multo fortius est hoc gummi, quam G. arabicum, sc. ut 1 ad 24. Etenim dum G. Tragac. scrup. 8 aquæ puræ libr. 2 in consistentiam Syrupi redigunt, requiruntur G. Arab. unc. 8 ad eundem effectum præstandum. *Berg. M. M. p. 622.*

^d Ruttý asserts, that in five or six hours it will dissolve in cold water. *Observ. on the Lond. & Edin. Dispens. p. 179.*

† *Lewis's M. M.*

^e See p. 189. Bergius says, *Virtus*: demulcens, obtundens, incrassans. *Ufus*: Dysenteria, Diarrhœa, Stranguria. *l. c. p. 621.*

PANAX QUINQUEFOLIUM.

GINSENG.

SYNONYMA. Ginfeng. *Pharm. Lond. & Edinb. Raii Hist.* p. 1338. Aureliana canadensis. *Lafiteau in Memoires concernant la precieuse plante de Ginfeng. Paris, 1718. Et Hist. de L'Acad.* 1718. p. 42. *Catesby's Car.* 3. p. 16. t. 16. *Breyn. in Prod. rar. pl.* 2. p. 35. *Fig. ad.* p. 52. *Araliastrum foliis ternis quinquepartitis Ginfeng f. Ninfin officinarum. Ebret. tabul. a Trew, t. 6. fig. 1. Gin-feng Chinenfibus. Fartoux Phil. Transf. vol. xxviii. p. 237. Conf. Des lettres edifiantes & curieuses, tom. x. p. 172. Araliastrum, quinquefolii folio, majus Ninfin^a vocatum. Vall. Sex. 43.*

Class Polygamia. *Ord.* Dioecia. *Lin. Gen. Plant.* 1166.

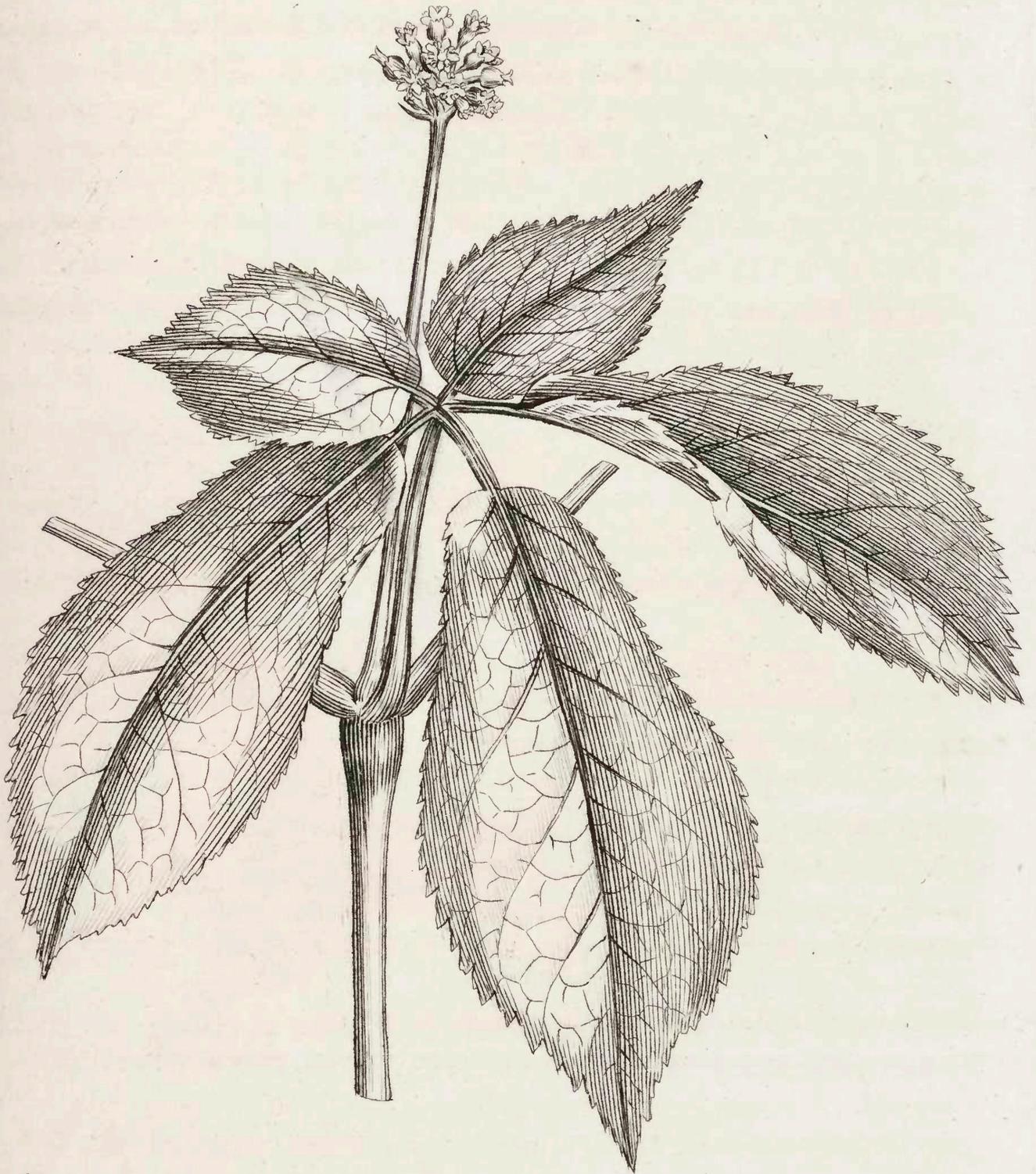
Eff. Gen. Ch. HERMAPHROD. Umbella. *Cal.* 5-dentatus, superus. *Cor.* 5-petala. *Stam.* 5. *Styli* 2. *Bacca* disperma.

MASC. Umbella. *Cal.* integer. *Cor.* 5-petala. *Stam.* 5.

Sp. Ch. P. foliis ternis quinatis.

THE root is perennial, small, wrinkled, branched, of a pale yellowish colour, and sends off many short slender fibres: the stalk is erect, smooth, round, simple, tinged of a deep purple colour, and above a foot in height: the leaves arise with the flower stem from a thick joint at the extremity of the stalk; they are generally three, but sometimes more, of the digitated kind, each dividing into five simple leaves, which are of an irregular oval shape, serrated, veined, pointed, smooth, of a deep green colour above, and stand upon short footstalks proceeding from a common petiolus, which is long, round, and almost

^a The plant formerly known by this name is now understood to be the Sion Ninsi, of Linnæus.



Panax quinquefolium

Published by D^r Woodville, Aug^r A. 1794.

erect: the flowers are white, produced in a roundish terminal umbel, and are hermaphrodite or male on separate plants: the former, which we have figured, stand in close simple umbels: the involucre consists of several small, tapering, pointed, permanent leaves; the proper calyx is tubular, and divided at the rim into five small teeth: the corolla consists of five petals, which are small, oval, equal, and reflexed: the filaments are five, short, and furnished with simple antheræ: the germen is roundish, placed below the corolla, and supports two short erect styles, crowned by simple stigmata: the fruit is an umbilicated two-celled berry, each containing a single irregularly heart-shaped seed. The flowers appear in June.

Ginseng was formerly supposed to grow only in Chinese Tartary, affecting mountainous situations, shaded by close woods; but it has now been long known that this plant is also a native of North America, whence M. Sarrafin transmitted specimens of it to Paris in the year 1704;^b and the Ginseng since discovered in Canada, Pennsylvania, and Virginia by Lafiteau,^c Kalm,^d Bartram,^e and others, has been found to correspond exactly with the Tartarian species, and its roots are now regularly purchased by the Chinese, who consider them to be the same as those of eastern growth, which are known to undergo a certain preparation, whereby they assume an appearance somewhat different. For it is said that in China the roots are washed and soaked in a decoction of rice, or millet-seed, and afterwards exposed to the steam of the liquor, by which they acquire a greater firmness and clearness than in their natural state.* The plant was first introduced into England in 1740 by that industrious naturalist Peter Collinson,^f and our figure was drawn from a good specimen, growing in the Royal Botanic garden at Kew.

The dried root of Ginseng, as imported here, is scarcely the thickness of the little finger, about three or four inches long, frequently

^b Sarrafin was correspondent of the Royal Academy of Sciences, in the history of which his account was published in 1718. See p. 44.

^c L. c. ^d *Rosa til N. America*, t. iii. p. 334. ^e *Comm. Nor.* 1741. p. 361.

^f See *Hort. Kew.*

* The Chinese value these roots in some measure according to their figure, esteeming those very highly which are regularly forked, or have a fancied resemblance to the human form.

forked, transversely wrinkled, of a horny texture, and both internally and externally of a yellowish white colour. "To the taste it discovers a mucilaginous sweetness, approaching to that of liquorice, accompanied with some degree of bitterishness, and a slight aromatic warmth, with little or no smell. It is far sweeter and of a more grateful smell than the roots of fennel, to which it has by some been supposed similar; and differs likewise remarkably from those roots, in the nature and pharmaceutic properties of its active principles; the sweet matter of the Ginseng being preserved entire in the watery as well as the spirituous extract, whereas that of fennel roots is destroyed or dissipated in the inspissation of the watery tincture. The slight aromatic impregnation of the Ginseng is likewise in good measure retained in the watery extract, and perfectly in the spirituous."^g

The Chinese ascribe extraordinary virtues to the root of Ginseng, and have long considered it as a sovereign remedy in almost all diseases to which they are liable, having no confidence in any medicine unless in combination with it. It is observed by Jartoux, that the most eminent Physicians in China have written volumes on the medicinal powers of this plant, asserting that it gives immediate relief in extreme fatigue, either of body or mind, that it dissolves pituitous humours, and renders respiration easy, strengthens the stomach, promotes appetite, stops vomitings, removes hysterical, hypochondriacal, and all nervous affections, and gives a vigorous tone of body, even in extreme old age.^h These, and many other effects of this root, equally improbable and extravagant, are related by various authors, and Jartoux was so much biassed by this eastern prejudice in favour of Ginseng, that he seems to have given them full credit, and confirms them in some measure from his own experience.ⁱ But we know of no proofs of the

^g Lewis, *M. M.* p. 325.

^h L. c. See also Decker, (*Exercit. pract.* p. m. 670.)

ⁱ He says, "Nobody can imagine that the Chinese and Tartars would set so high a value upon this root, if it did not constantly produce a good effect."—"I observed the state of my pulse, and then took half of a root raw: in an hour after I found my pulse much fuller and quicker; I had an appetite, and found myself much more vigorous, and could bear labour much better and easier than before. But I did not rely on this trial alone, imagining that this alteration might proceed from the rest we had that day: but
four



Veratrum album

Published by D. Woodville Aug^r A. 1791.

the efficacy of Ginseng in Europe, and from its sensible qualities we judge it to possess very little power as a medicine.^k It is recommended in decoction, viz. a dram of the root to be long boiled in a sufficient quantity of water for one dose.

four days after, finding myself so fatigued and weary that I could scarce sit on horseback, a Mandarin who was in company with us perceiving it, gave me one of these roots: I took half of it immediately, and an hour after I was not the least sensible of any weariness. I have often made use of it since, and always with the same success. I have observed also, that the green leaves, and especially the fibrous parts of them chewed, would produce nearly the same effect." *Phil. Transf. vol. xxviii. p. 239.*

^k Dr. Cullen says, " We are told that the Chinese consider Ginseng as a powerful aphrodisiac; but I have long neglected the authority of popular opinions, and this is one instance that has confirmed my judgment. I have known a gentleman, a little advanced in life, who chewed a quantity of this root every day for several years, but who acknowledged he never found his faculties in this way improved by it." *M. M. vol. ii. p. 161.*

VERATRUM ALBUM. WHITE HELLEBORE,
Or, VERATRUM.

SYNONYMA. Helleborus albus. *Pharm. Lond. & Edinb.*
Gerard Emac. p. 440. Raii Hist. p. 168. Helleborus Albus,
flore subviridi. *Baub. Pin. p. 186.* Helleborus albus vulgaris.
Park. Theat. p. 217. Veratrum flore subviridi. *Tournef. Inst.*
p. 272. Veratrum spica paniculata, floribus maribus & feminis.
Hall. Stirp. Helv. n. 1204. Veratrum album. *Jacq. Flor. Aust.*
v. iv. t. 335. Mill. Illustr. ic.

Class Polygamia. *Ord.* Monoecia. *Lin. Gen. Plant.* 1144.

Ess. Gen. Ch. HERMAPHROD. *Cal.* o. *Cor.* 6-petala. *Stam.* 6.
Pist. 3. *Caps.* 3, polyspermæ.

MASC. *Cal.* o. *Cor.* 6-petala. *Stam.* 6. *Pist.* rudimentum.

Sp. Ch. V. racemo supradecomposito, corollis erectis.

THE root is perennial, about an inch thick, externally brown, internally white, and beset with many strong fibres: the stalk is thick, strong, round, upright, hairy, and usually rises four feet in height: the leaves are numerous, very large, oval, entire, ribbed, plaited, without footstalks, of a yellowish green colour, and surround the stem at its base: the flowers are both hermaphrodite and male, of a greenish colour, and appear from June to August, in very long branched terminal spikes: the hermaphrodite flowers are without calyces: the corolla consists of six petals, which are oblong, or lance-shaped, veined, persistent, of a pale green colour: the filaments are six, closely surrounding the germens, shorter than the corolla, and terminated by quadrangular antheræ: the germens are three in each flower, erect, oblong, ending in short hairy styles, which are crowned with flat spreading stigmata: the capsules are three, oblong, compressed, erect, two-celled, opening inwardly, and containing many oblong compressed membranous seeds. The male flowers differ from these only in wanting the germens.

This plant is a native of Italy, Switzerland, Austria, and Russia: its first cultivation in this country is ascribed to Gerard, and of course was previous to the year 1596.

The *ελληβορος λευκος* of the Greek writers is by many supposed to be our *Helleborus albus*; but this opinion, like many others respecting the identity of the ancient nomenclature of plants with that of the modern, seems drawn rather from the similarity of their effects upon the body, than from an agreement in their botanical descriptions. This will evidently appear upon comparing the plant here figured with the description given by Dioscorides:* and yet Geoffroy says, “*Apud Dioscoridem hellebori albi descriptio, veratro albo nostro fatis apte convenit.*”^a

* “*Helleborus albus folia fert Plantaginis aut Betæ sylvestris similia, sed breviora, nigriora, & dorso rubescentia: caulem palmi altitudine, concavum; qui quidem tunicas quibus convolvitur abdicat cum arescere incipit. Radices subjacent numerosæ, tenues ac fibratæ, ab exiguo & oblongo capitulo, ceu cæpa, exeuntes, eidemque annexæ. Nascitur in montosis & asperis,*” *Dioscorid. M. M. L. iv. c. 150.* This description of the plant, though imperfect, is the only one given by the ancients.

^a *Mat. Med. vol. ii. p. 63.*

The *ελληβορος μελας*, or famous Anticyran Hellebore,^b is likewise thought to be the *Helleborus niger* of Linnæus, an account of which has been given at page 50; but the descriptions of the former by the ancients are so vague that their identity is equally doubtful;^c the application therefore of what has formerly been said of the Hellebores of the Greeks to those known to us, can only be admitted but as a matter of probability.

Hippocrates frequently mentions Hellebore simply, or generically, by which we are told the white is to be understood, as he adds the word black or purging when the other species is meant; and as the purgative powers of *Veratrum* are known to be weaker than those of *helleborus niger*, the distinction is so far applicable to the effects now experienced of the roots of our Hellebores.

It appears from various instances, that not only the roots of white Hellebore but that every part of the plant is extremely acrid and poisonous, as its leaves and even seeds proved deleterious to different animals.^d The dried root has no peculiar smell, but a durable nauseous acrid bitterish taste, burning the mouth and fauces; when powdered and applied to issues or ulcers it produces griping and purging; if snuffed up the nose it proves a violent sternutatory. Gesner made an infusion of half an ounce of this root with two ounces of water, of this he took two drams, which produced great heat about the scapulæ, and in the face and head, as well as the tongue

^b “ Naviget Anticyram.” —

Danda est hellebori multo pars maxima avaris:

Necio, an Anticyram ratio illis destinet omnem.

HOR. SAT. Lib. ii. v. 82.

It is said that both the white and black hellebore grew at Anticyra, but the latter was accounted safer, and therefore more commonly employed. *Pausanias, Lib. x. p. 623.*

^c Though Tournefort says, “ Nous connûmes deux Herboristes à Pruse, l’un Emir & l’autre Armenien, qui passoient pour de grands Docteurs. Ils nous fournirent des racines du véritable Ellebore noir des anciens, autant que nous voulumes pour en faire l’extrait. C’est la même espece que celle des Anticyres & des côtes de la Mer Noir.” See his account of Mount Olympus. *Voyage du Levant.* But his description of the plant differs widely from that of our *Helleborus niger*.

^d See Pallas, *Russ. Reise, vol. i. p. 49.* Kalm’s *N. Amer. tom. iii. p. 43.* Gunner, *Fl. Norveg. P. ii. p. 2.* For the poisonous effects of the roots, when applied to wounds of different animals, Vide *Phil. Transf. vol. xlvi. p. 82.*

and throat, followed with singultus, which continued till vomiting was excited.^e Bergius also experienced very distressing symptoms merely by tasting this infusion.^f The root, taken in large doses, discovers such acrimony, and operates upwards and downwards with such violence that blood is usually discharged:^g it likewise acts very powerfully upon the nervous system, producing great anxiety, tremors, vertigo, syncope, loss of voice, interrupted respiration, sinking of the pulse, convulsions, spasms, cold sweats, &c.^h Upon opening those who have died by the effects of this poison, the stomach discovered marks of inflammation, with corrosions of its interior coat, and the lungs have been found inflamed, and their vessels much distended with dark blood.ⁱ

The ancients, though sufficiently acquainted with the virulency of their white Hellebore, were not deterred from employing it internally in several diseases, especially those of a chronic and obstinate kind, as mania, melancholia, hydrops, elephantiasis, epilepsia, vitiligo, lepra, rabies canina, &c. they considered it the safer when it excited vomiting, and Hippocrates wished this to be its first effect. To those of weak constitutions, as women, children, old men, and those labouring under pulmonary complaints, its exhibition was deemed unsafe; and even when given to the robust it was thought necessary to moderate its violence by different combinations and preparations; for it was frequently observed to effect a cure not only by its immediate action upon the primæ viæ, but when no sensible evacuations was promoted by its use.^k

^e *Epist. Med.* p. 69.

^f *M. M.* p. 819. ^g *Ettmuller. Oper. tom. ii. P. 2. p. 435.* ^h *Wepfer, de Cicut.* p. 48. *Lorry de Melanch. ii. p. 313.* *Borrigh. Act. Haf. vol. vi. p. 145.* *Albert. Jurisprud. Med. vol. vi. p. 718.* *Bressl. Samml. 1724. P. 2. p. 269. p. 537.* *Act. Berol. Dec. 2. vol. 6.* *Misc. Nat. Cur. Dec. 2. Ann. 2. p. 239.* ⁱ *Act. Berol. cit. Misc. Nat. Cur. cit.*

Bergius says, “ Ego vix a memet impetrare potero, ut radicis, ita intense venenatæ, usum internum cuiquam suafurus sim, nisi summa adhibita circumspicientia; etenim constat, eam, in fatis parca dosi propinatam, sæpe horrenda symptomata excitasse, ut sitim, cardialgiam, tormina, singultum, suffocationes, convulsiones, tremores, inflammationem primarum viarum, lipothymias, sudorem frigidum, immo & mortem.” *l. c.*

^k *Hippocr. περι Ελληβορισμῶ in Oper. ed. Lind. tom. i. p. 610.* *Et Aphorism. Sect. iv. Aph. 13—16.*

Similar

Similar observations have been made of Veratrum by authors of later times: Mayerne^l gave from two to three grains of an extract of this root with considerable advantage in maniacal cases, where no remarkable evacuation took place; and Con. Gefner,^m who investigated the qualities of Veratrum by repeated experiments, and whose encomiums on its efficacy seemed for a while to restore it to the ancient character of Hellebore, expressly declares, that he did not give it as an evacuant, but to produce the more gradual effects of those medicines termed alteratives. Gefner's account of Veratrum was followed by those of several other authors,ⁿ in which it is said to have been serviceable in various chronic diseases. But the fullest trial which seems to have been lately made of the efficacy of Veratrum is by Greding,^o who employed it in a great number of cases, (twenty-eight) of the maniacal and melancholic kind; the majority of these, as might be expected, derived no permanent benefit; several however were relieved, and five completely cured by this medicine. It was the bark of the root, collected in the spring, which he gave in powder, beginning with one grain: this dose was gradually increased according to its effects. With some patients one or two grains excited nausea and vomiting, but generally eight grains were required to produce this effect, though in a few instances a scruple, and even more, was given. We may also remark, that he sometimes used the extract prepared after Stoerck's manner.—In almost every case which he relates, the medicine acted more or less upon all the excretions:

^l Prax. Med. Lib. i. c. 7. p. 69. sq.

^m He says, "non ad purgandum, sed ad referandos meatus & crassos humores attenuandum, eosque a centro & interioribus corporis ad superficiem & vias excretionum variarum educendum." Adding, "recreat & roberat, & hilariorem facit, & acuit ingenium: quod in me & aliis sæpissime expertus scribo." Had Gefner lived long enough, he had still more to say on this subject. "Ego, si vixero, in Ellebori historia multa proferam, quæ medici admirentur." l. c.

ⁿ Hannemann, Quercetanus, Screta, Wepfer, Muralto, Linder.

^o Vermischte Med. u. chirurg. Schriften. Altenb. 1781. to p. 30.

Wendt relates a case of mania, brought on by taking pepper and spirits of wine as a remedy for the ague; the disease continued thirty-three weeks, when it was said to have been cured by a decoction of white hellebore; but as copious and repeated bleedings, with other means, were employed, the cure cannot wholly be ascribed to the hellebore. See Agassiz. *Diss. de therapia maniaæ.* Erl. 1785. p. 37.

vomiting and purging were very generally produced, and the matter thrown off the stomach was constantly mixed with bile; a florid redness frequently appeared on the face, and various cutaneous efflorescences upon the body; and, in some pleuretic, symptoms with fever supervened, so as to require bleeding, nor were the more alarming affections of spasms and convulsions unfrequent. Critical evacuations, we are told, were often very evident, many sweated profusely, in some the urine was considerably increased, in others the saliva and the mucous discharges: also uterine obstructions, of long continuance, were often removed by this drug.

Veratrum has likewise been found useful in epilepsy, and other convulsive complaints,^p but the diseases in which its efficacy seems least equivocal, are those of the skin,^q as scabies and different prurient eruptions, herpes, morbus pediculofus, lepra, scrophula, &c. and in many of these it has been successfully employed both internally and externally.

As a powerful stimulant, and irritating medicine, its use has been resorted to only in desperate cases, and then it is first to be tried in very small doses, in a diluted state, and to be gradually increased, according to the effects.

^p Greding, *l. c.* See also Smyth in *Medical Communications*, vol. i. p. 207.

^q Its success in these complaints is mentioned both by the ancient and modern writers. Smyth relates three cases. See *l. c.*

The Veratrum nigrum of Lin. or Helleborus albus flore atro-rubente of C. Bauh. is said to produce the same effects as the Veratrum album. See Lorry, *de melanch.* tom. ii. p. 289. & Linnæus, *Amoen. Acad.* vol. ix. p. 261. Helleborus is supposed to be derived ἀπο τῆ ἐλεῖν βορᾶ quod esu perimat. Veratrum dicitur quod mentem vertat, or, à verare i. e. vera loqui. *V. C. Bauh. l. c.*

LILIUM CANDIDUM.



Lilium candidum

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LILIUM CANDIDUM.

COMMON WHITE LILY.

SYNONYMA. Liliū album. *Pharm. Edinb.* Gerard *Emac.*
p. 190. *Raii Hist. p.* 1109. Liliū album vulgare. *Park. Parad.*
 39. *J. Baub. Hist. ii. p.* 685.

* Liliū album flore erecto et vulgare. *Baub. Pin. p.* 76.

β Liliū album floribus dependentibus five peregrinum. *Baub. Pin.*
p. 76. *Nodding-Flowered White Lily.*

Class Hexandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 410.

Eff. Gen. Ch. Cor. 6-petala, campanulata: linea longitudinali nec-
 tarifera. *Capsf.* valvulis pilo cancellato connexis.

Sp. Ch. L. foliis sparsis, corollis campanulatis: intus glabris.

THE root is a large bulb, from which proceed several succulent fibres: the stem is firm, round, upright, simple, and usually rises about three feet in height: the leaves are numerous, long, narrow pointed, smooth, without footstalks, and irregularly scattered over the stem: the flowers are large, white, and terminate the stem in clusters upon short peduncles: it has no calyx: the corolla is bell-shaped, consisting of six petals, which within are of a beautiful shining white, but without ridged, and of a less luminous whiteness: the filaments are six, tapering, much shorter than the corolla, upon which are placed transversely large orange-coloured antheræ: the style is longer than the filaments, and furnished with a fleshy triangular stigma: the germen becomes an oblong capsule, marked with six furrows, and divided into three cells, which contain many flattish seeds of a semi-circular form. It flowers in June and July.

This Lily, which now very commonly decorates the borders of our gardens with the beautiful whiteness^a of its flowers, is a native of the Levant, and has been cultivated here since the time of Gerard. The flowers of this plant have a pleasant sweet smell, and were formerly used for medicinal purposes;^b a watery distillation of them was employed as a cosmetic, and the oleum liliorum was supposed to possess anodyne and nervine powers; but the odorous matter of these flowers is of a very volatile kind, being totally dissipated in drying, and entirely carried off in evaporation by rectified spirit as well as water; and though both menstrua become impregnated with their agreeable odour by infusion or distillation, yet no essential oil could be obtained from several pounds of the flowers. It is therefore the roots only which are now directed by the Edinburgh College: they are extremely mucilaginous, and are chiefly used, boiled with milk or water, in emollient and suppurating cataplasms: it is probable however, that the poultices formed of bread or farina, possess every advantage of those prepared of Lily root.

Lilium ἂ λειριον vel λυριον. By the Greeks it is called κρινον.

^a Alluding to this, Ovid, in the luxuriancy of his imagination, ascribes its origin to the milk of Juno.

“ Dum puer Alcides Divæ vagus ubera fuxit
 “ Junonis, dulci pressa sapore fuit;
 “ Ambrosiumque alto lac distillavit Olympo
 “ In terras fufum Lilia pulchra dedit.”

Pliny says, *Lilium Rosæ* nobilitate proximum est; and both these flowers have furnished their share of metaphor to ancient and modern poets.

Either singly,

——— vel mixta rubent ubi lilia multâ
 Alba rosâ: tales virgo dabat ore colores.

ÆN. lib. xii. 68.

^b Particularly as an antiepileptic and anodyne.

ERYNGIUM MARITIMUM.



Eryngium maritimum

Published by D^r Woodville Sep^r A. 1791.

ERYNGIUM * MARITIMUM. SEA ERYNGO, or HOLLY.

SYNONYMA. Eryngium. *Pharm. Lond.* *Baub. Pin.* p. 386.
 Eryngium marinum. *Gerard Emac.* p. 1162. *Park. Theat.* p. 986.
 ꝑ. *Baub. Hist.* vol. iii. p. 86. *Raii Hist.* p. 384. *Synop.* p. 222.
 Eryngium maritimum. *Baub. Pinax.* p. 386. *Hudson. Flor. Ang.*
Withering. Bot. Arrang. p. 264. *Flor. Dan. tab.* 875.

Class Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 324.

Eff. Gen. Ch. Flores capitati. *Receptaculum* paleaceum.

Sp. Ch. E. foliis radicalibus subrotundis plicatis spinosis, capitulis pedunculatis, paleis tricuspидatis.

THE root is perennial, long, round, tough, externally of a brown colour, internally whitish: the stalk is thick, fleshy, round, striated, white, branched, and rises from one to two feet in height: the leaves, which grow from the root, are roundish, plaited, trifid, firm, spinous like those of the holly, marked with white reticulated veins, and of a very pale bluish green colour; those proceeding from the stalk are sessile, and surround the branches: the flowers are small, of a blue colour, and terminate the branches in round heads: the common receptacle is conical, and supplied with *paleæ*, which separate the florets: the involucre of the receptacle is composed of many pointed leaves, which are longer than the florets: the calyx consists of five erect sharp leaves, placed above the germen: the corolla is composed of five oblong petals, with their points turned inwards: the filaments are five, slender, upright, longer than the corolla, and supplied with oblong antheræ: the two styles are filiform,

* Græci Philosophi Eryngium, quasi ερυγγιδος, id est ructum, dictum putant, quod capræ quæ morfu furculum Eryngii præciderint, vel deglutiverint, cunctum gregem pone sequentem quasi stupore attonitum sicut, donec Eryngium ructu rejecerint. *C. Baub. l. c.*

and furnished with simple stigmata: the germen is beset with short hairs, and stands beneath the corolla: the fruit is two oblong seeds, connected together. It grows abundantly on the sea coasts, and flowers from July till October.

In the *Materia Medica* of Linnæus, and in almost all the foreign pharmacopœias, the *Eryngium campestre* is considered to be the officinal plant: Geoffroy, however, has observed that the *E. maritimum* is by many thought to be a more powerful medicine, and Simon Paulli^a gives it the preference; but Boerhaave^b attributes the same virtues to both, and indeed it seems of little importance which is preferred. *Eryngo* is supposed to be the *νεργυγιον* of Dioscorides,^c who with other ancient writers speak highly of its medicinal efficacy. The root, which is the part directed for medicinal use, has no peculiar smell, but to the taste it manifests a grateful sweetness, and on being chewed for some time it discovers a light aromatic warmth or pungency. By Boerhaave this was esteemed the principal of the aperient roots, and he usually prescribed it as a diuretic and antiscorbutic:^d it has likewise been celebrated for its aphrodisiac powers.^e But this and the other effects ascribed to *Eryngo* seem now to obtain very little credit.

^a *Quadrip.* p. 324.

^b *Hist. pl. T. i.* p. 194.

^c *Lib. 3. c. 24.* He recommends it ad menses obstructos, tormina, inflationes hepaticos, venena, venenatos morsus, episthotonicos, & comitiales.

^d Vide, *l. c.*

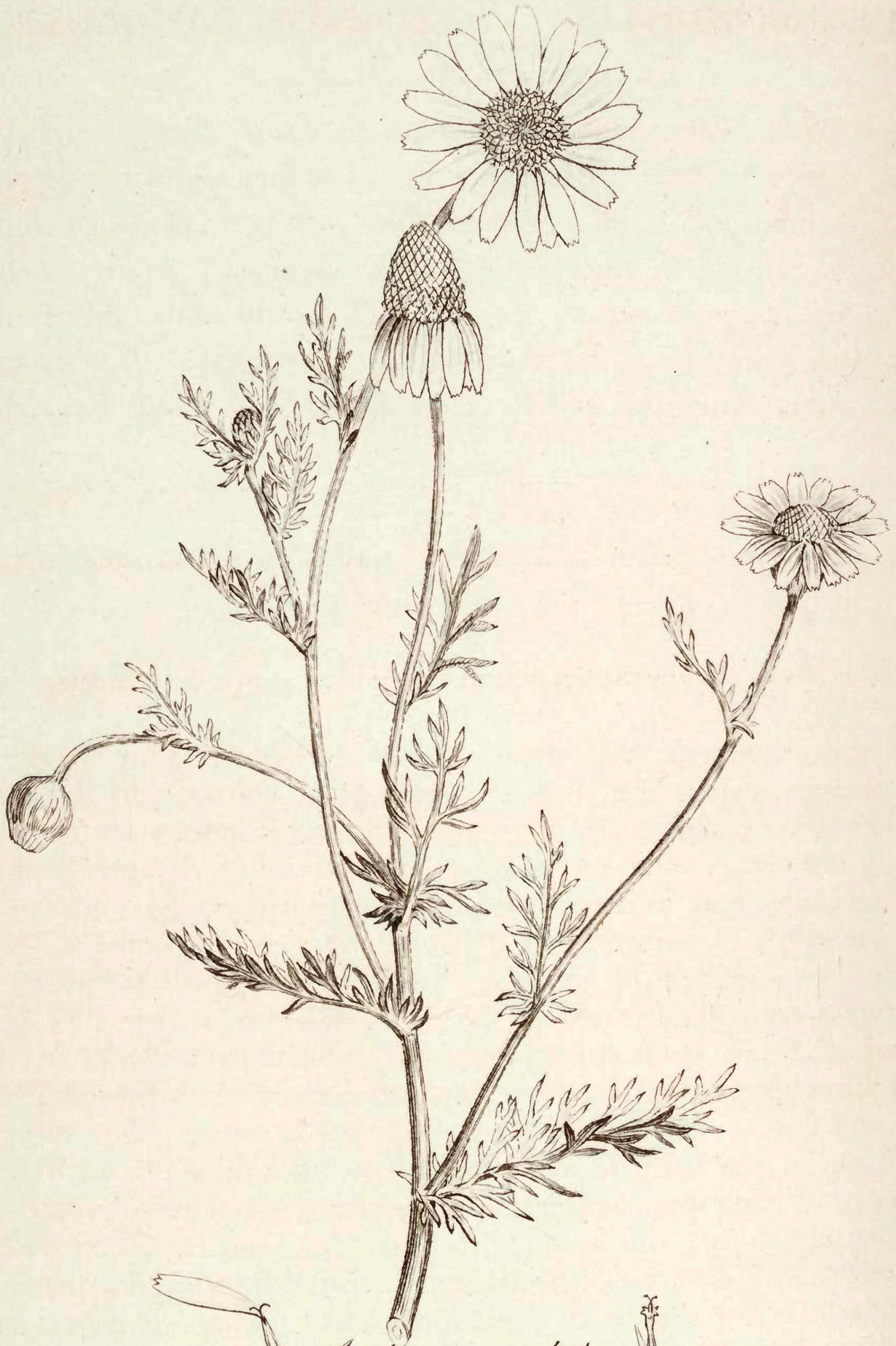
^e “ Non male tum Graiis florens *Eryngus* in hortis
 “ Quæritur: hunc gremio portet si nupta virentem
 “ Nunquam inconcessos conjux meditabitur ignes.

Rapinus in Boer. Hist.

The root is frequently candied, or made into a sweet meat.

The young flowering shoots boiled, have the flavour of asparagus. *Lin. Flor. Suec.*

ANTHEMIS NOBILIS.



Anthemis nobilis

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ANTHEMIS NOBILIS.

COMMON CAMOMILE.

SYNONYMA. Chamæmelum. *Pharm. Lond. & Edinb. Gerard Emac. p. 755. Park. Parad. p. 289.* Chamæmelum nobile feu Leucanthemum odoratius. *Baub. Pin. p. 135.* Chamæmelum odoratissimum repens, flore simplici. *J. Baub. Hist. v. iii. p. 118. Raii Hist. p. 353. Synop. p. 185.* Chamæmelum foliis subhirsutis, nervo duro, pinnis pinnatis, pinnulis lanceolatis incis. *Hal. Stirp. Helv. n. 102.* Anthemis nobilis. *Hudson, Flor. Ang. With. Bot. Arr.*

Class Syngenesia. Ord. Polygamia Superflua. Lin. Gen. Plant. 970.

Eff. Gen. Ch. Recept. paleaceum. Pappus nullus. Cal. hemisphæricus, subæqualis. Flosculi radii plures quam 5.

Sp. Ch. A. foliis pinnato-compositis linearibus acutis subvillosis.

THE roots are perennial, fibrous, spreading: the stems are slender, round, trailing, hairy, branched, of a pale green colour, and about a foot in length: the leaves are doubly pinnated; the pinnæ are linear, pointed, a little hairy, and divided into three terminal segments: the flowers are compound, radiated, white, at the centre yellow, and stand singly: the calyx is common to all the florets, of an hemispherical form, and composed of several small imbricated scales: the flowers of the *radius* are female, and usually about eighteen, narrow, white, and terminated with three small teeth: the tubular part of the floret encloses the whole of the style, but does not conceal the bifid reflexed stigma: the flowers of the *disc* are numerous, hermaphrodite, tubular,* and cut at the brim into five segments: the filaments are five, very short, and have their antheræ united, forming a hollow cylinder: the germen is oblong: the style is short, slender, and furnished with a bifid reflexed stigma: the seeds are small, and of an irregular shape: the receptacle is supplied with rigid bristle-like paleæ. It grows in most pastures, and flowers in July and August.

The name Camomile is supposed to be expressive of the smell of the plant *χαμάμηλον*, quoniam odorem mali habeat.^a It is referred to the *ανθεμης* of Dioscorides, and to the *ανθεμον* of Theophrastus. *Matricaria Chamomilla*, or Corn Feverfew, is similar in its general appearance to the *Anthemis nobilis*, and is directed for officinal use by most of the foreign pharmacopœias; but the plant which we have here figured has a more fragrant and a more powerful odour, yields more essential oil, and of course is the more efficacious.

A double-flower'd variety of Camomile is very common, and usually kept in the shops, but as the odorous and sapid matter chiefly resides in the disc, or tubular part of the florets, the London College therefore judiciously prefer the simple flowers, in which this matter is most abundant.^b

Both the leaves and flowers of this plant have a strong though not ungrateful smell, and a very bitter nauseous taste, but the latter are the bitterer, and considerably more aromatic. "Camomile flowers give out their virtues both to water and rectified spirit: when the flowers have been dried so as to be pulverable, the infusions prove more grateful than when they are fresh or but moderately dried. Distilled with water, they impregnate the aqueous fluid pretty strongly with their flavour: if the quantity of camomile, submitted to the operation, is large, a little essential oil^c separates and rises to the surface of the water, in colour yellow, with a cast of greenish or brown, of a pungent taste, and a strong smell, exactly resembling that of the camomile. Rectified spirit, drawn off from the spirituous tincture, brings over likewise a part of the flavour of the chamomile, but leaves a considerable part behind in the extract. The smell is in great measure covered or suppressed by the spirit, in all the spirituous preparations; but the taste both in the spirituous tincture and extract, is considerable stronger than in the watery."^d

^a *Plin. L. 22. c. 21.*

^b The tubes of the florets appear beset with minute glands, which probably secrete the essential oil.

^c Baumé obtained from 82 ℥ of the flowers 13 drams, and once 18 drams of essential oil. But from a like quantity of the herb, without the flowers, only half a dram of this oil was procured. See *Berg. M. M. p. 695.*

^d *Lewis, M. M. p. 221.*

These flowers possess the tonic and stomachic qualities usually ascribed to simple bitters, having very little astringency, but a strong odour of the aromatic and penetrating kind, from which they are also judged to be carminative, emmenagogue, and in some measure antispasmodic and anodyne. They have been long successfully employed for the cure of intermittents;° as well as of fevers of the irregular nervous kind, accompanied with visceral obstructions, for which we have the authority of Sir John Pringle.†

That camomile flowers may be effectually substituted for Peruvian bark in the cure of intermittent fevers, appears from the testimony of several respectable physicians, to which we have referred; and to which we may add that of Dr. Cullen, who says, “ I have employed these flowers, and agreeable to the method of Hoffman, by giving several times during the intermission, from half a dram to a dram of the flowers in powder, have cured intermittent fevers. I have found however that the flowers were attended with this inconvenience, that, given in a large quantity, they readily run off by stool, defeating thereby the purpose of preventing the return of paroxysms; and I have found, indeed, that without joining with them an opiate, or an astringent, I could not commonly employ them.”‡

These flowers have been found useful in hysterical affections, flatulent or spasmodic colics, and dysentery, but from their laxative quality, Dr. Cullen tells us, they proved hurtful in diarrhœas. A simple watery infusion of them is frequently taken, in a tepid state, for the purpose of exciting vomiting or for promoting the operation of emetics. Externally the flowers are used in the decoctum pro fomento, and they are an ingredient in the decoctum pro enemate.

° Morton, (*Exercit. 1. de febr. interm. cap. 6.*) Hoffman, (*Diss. de præstan. rem. dom. p. 29.*) Heister, (*Diss. de Medic. Germ. indig. p. 13.*) found these flowers more effectual in the cure of intermittents than the peruv. bark: and Dr. Cullen observes, that his celebrated countryman, Dr. Pitcairn, was of opinion that the powers of Cam. flowers were in this respect equal to the bark.

† *Dis. of the Army*, p. 216.

‡ *M. M. vol. ii. p. 79.*

ANTHEMIS PYRETHRUM. SPANISH CAMOMILE,
Or, PELLITORY of SPAIN.

SYNONYMA. Pyrethrum. *Pharm. Lond. & Edinb.* Pyrethrum flore bellidis. *Baub. Pin. p. 148.* Pyrethrum officinarum. *Lob. 447. Gerard Emac. p. 758. Park. Theat. p. 858. Raii Hist. p. 353.* Chamæmelum specioso flore, radice longa fervida. *Shaw, Afr. p. 138.* Anthemis caulibus simplicibus unifloris decumbentibus. *Mill. Fig. t. 38. Πύρεθρον Dioscorid. Lib. 3. c. 85.**

Class Syngenesia. *Ord.* Polygamia Superflua, *Lin. Gen. Plant. 970.*

Eff. Gen. Ch. Recept. paleaceum. *Pappus* nullus. *Cal.* hemisphæricus, subæqualis. *Flosculi* radii plures quam 5.

Sp. Ch. A. caulibus simplicibus unifloris decumbentibus, foliis pinnato-multifidis.

THE root is perennial, tapering, long, externally whitish, and sends off several small fibres: the stems are usually simple, round, trailing, bearing one flower, and scarcely a foot in height; but the specimen here figured was extremely luxuriant, and has in some degree departed from its more common and simple appearance: the leaves are doubly pinnated, segments narrow, nearly linear, and of a pale green colour: the flowers are large, at the disc of a yellow colour, at the radius white on the upper side, on the under side of a purple colour: the different florets answer to the description given of the Anthemis nobilis. It flowers in June and July.

This plant is a native of the Levant and the southern parts of Europe; it was cultivated in England by Lobel in 1570,^a but it does

* Ab igne nomen habet, ob radicis ejus fervorem igneum. *V. Baub. l. c.*

^a *Adver. p. 346. Vide Hort. Kew.*



Anthemis Pyrethrum

Published by Dr. Woodville, Sep. 4. 1791.

not ripen its seeds here unless the season proves very warm and dry.^b The root of *Pyrethrum* has a very hot pungent taste, without any sensible smell.^c Its pungency resides in a resinous matter, of the more fixed kind; being extracted completely by rectified spirit, and only in small part by water; and not being carried off, in evaporation or distillation by either menstruum.^c

The ancient Romans, we are told, employed this root as a pickle,^d and indeed it seems less acrid than many other substances now used for this purpose. In its recent state this root is not so pungent as when dried, yet if applied to the skin it is said to act like the bark of mezerion, and in four days produces inflammation of the part.^e

From the aromatic and stimulating qualities of *Pyrethrum* there can be no doubt but that it might be found an efficacious remedy, and equally fitted for an internal medicine, as many others of this class now constantly prescribed. Its use however has been long confined to that of a masticatory,^f for on being chewed, or long retained in the mouth, it excites a glowing heat, stimulates the excretories of saliva, and thereby produces a discharge, which has been found to relieve toothachs, and rheumatic affections of the face; in this way too, it is recommended in lethargic complaints, and paralyzes of the tongue.

^b *Miller Diet.*

^c *Lewis M. M. p. 527.*

^d See *Berg. M. M. p. 698.*

^e *Bergius, V. l. c.*

^f Its use in this way is mentioned by Serenus Samonicus,

“Purgatur cerebrum mansa radice pyrethri.”

SPIGELIA MARILANDICA. PERENNIAL WORM-GRASS,
Or, INDIAN PINK.

SYNONYMA. Spigelia. *Pharm. Lond. & Edinb.* Periclymeni virginiani flore coccineo planta marilandica, spica erecta, foliis conjugatis. *Catesby Carol. vol. ii. p. 78.* Lonicera marilandica spicis terminalibus, foliis ovato-oblongis acuminatis distinctis sessilibus. *Sp. Plant. p. 249.* Spigelia marilandica fol. ovatis oppositis spica secunda terminali. *Walter Flor. Carol. p. 92.* Vide *Mantiss. Lin. ii. p. 338.* *Ess. & Obs. Phys. & Lit. vol. iii. p. 151.* *Curt. Bot. Mag. 80.*

Class. Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant. 209.*

Ess. Gen. Ch. Cor. infundibulif. *Caps.* didyma, 2-locularis, polysperma.

Sp. Ch. S. caule tetragono, foliis omnibus oppositis.

THE root is perennial, unequal, simple, sends off many slender fibres, and grows in an horizontal direction: the stalk is simple, erect, smooth, obscurely quadrangular, of a purplish colour, and commonly rises above a foot in height: the leaves are ovate, sessile, somewhat undulated, entire, of a deep green colour, and stand in pairs upon the stem: the flowers are large, funnel-shaped, and terminate the stem in a spike: the calyx divides into five long narrow pointed smooth segments: the corolla is monopetalous, consisting of a long tube, gradually swelling towards the middle, of a bright purplish red colour, and divided at the mouth into five pointed segments, which are yellow on the inside: the five filaments are about the length of the tube, and crowned with halberd-shaped antheræ: the germen is small, ovate, placed above the insertion of the corolla, and supports a round style, which is longer than the corolla, furnished with a joint near its base, and bearded towards the extremity, which is supplied with an obtuse stigma: the capsule is double, two-celled, and contains many small angular plano-convex seeds. It is a native of America, and flowers in July and August.

Linnaeus



Spigelia maritandica

Published by Dr Woodville Sep^r 1. 1791.

Linnæus first supposed this plant to be a *Lonicera*, or Honey-suckle, but afterwards he ascertained its characters, and called it *Spigelia*, in honour of the botanist Spigelius, whose first work was published in 1606.*

Two species of *Spigelia* are now known to botanists, viz. *S. Anthelmia* and *marilandica*; they have both been used as anthelmintics; the effects of the former are noticed by Dr. Browne in the Gentleman's Magazine for the year 1751, and in his History of Jamaica;^a also by Dr. Bocklesby,^b and several foreign writers. But the accounts of the vermifuge virtues of *Spigelia*, given by Drs. Linning^c and Garden,^d from Charlestown, South Carolina, evidently refer to the latter species, which is here figured; and as the anthelmintic efficacy resides chiefly in the root of the plant, that of the *Anthelmia*, or Annual *Spigelia*, which is very small, must be incomparably less powerful than the root of the *marilandica*, which is perennial. Dr. Garden, in his first letter to Dr. Hope, which was written about the year 1763, says, "About forty years ago, the anthelmintic virtues of the root of this plant were discovered by the Indians; since which time it has been much used here by physicians, practitioners, and planters; yet its true dose is not generally ascertained. I have given it in hundreds of cases, and have been very attentive to its effects. I never found it do much service, except when it proved gently purgative. Its purgative quality naturally led me to give it in febrile diseases, which seemed to arise from viscidities in the *primæ viæ*; and, in these cases, it succeeded to admiration, even when the sick did not void worms.

"I have of late, previous to the use of the Indian Pink, given a vomit, when the circumstances of the case permitted it; and I have found this method answer so well, that I think a vomit should never be omitted. I have known half a dram of this root purge as briskly as the same quantity of rhubarb; at other times I have known it, though given in large quantities, produce no effect upon the belly: in such cases, it becomes necessary to add a grain or two

* *Adriani Spigelii in rem herbariam Isagoge*, Patavii.

^a *P.* 156.

^b *Oec. & Med. Observations*, p. 282.

^c See *Ess. & Observ. Physical & Literary*, vol. i. p. 386.

^d *L. c.*

“ of sweet mercury, or some grains of rhubarb ; but it is to be ob-
 “ served, that the same happy effects did not follow its use in this
 “ way, as when it was purgative without addition. The addition
 “ however of the purgative renders its use safe, and removes all
 “ danger of convulsions of the eyes,° although neither *ol. ruta*, *sabina*,
 “ or any other nervous substance, is given along with it. It is, in
 “ general, safer to give it in large doses than in small ; for, from the
 “ latter more frequently the giddiness, dimness of the sight, and
 “ convulsions, &c. follow ; whereas, from large doses, I have not
 “ known any other effect than its proving emetic or violently cathar-
 “ tic. To a child of two years of age, who had been taking ten
 “ grains of the root twice a-day, without having any other effect
 “ than making her dull and giddy, I prescribed twenty-two grains
 “ morning and evening, which purged her briskly, and brought
 “ away five large worms.† After some months an increased dose had
 “ the same good effects. I prefer the root to the other parts of the
 “ plant, of which, when properly dried, I gave from twelve to sixty
 “ or seventy grains in substance. In infusion it may be given to the
 “ quantity of two, three, or four drams twice a day. I have found
 “ that, by keeping, the plant loses its virtue in part ; for forty grains
 “ of the root which has not been gathered above two months, will
 “ operate as strongly as sixty which has been kept for fifteen
 “ months.”‡

In Dr. Garden's subsequent letters, addressed to Dr. Hope in the
 years 1764 and 1766, the efficacy of this root in worm cases is further
 confirmed, and he observes, that the root keeps better than he at first
 thought, having lately used it several years old with great success.
 In what he calls continued or remitting low worm fevers, he found
 its efficacy promoted by the addition of *rad. serpentar. virg.*

° This root, when taken in large doses, and not readily passing off by stool or vomit-
 ing, is observed not only to affect the head but in a peculiar way the muscles which move
 the eyes ; an effect which is noticed both by Linning and Garden, and is to be removed
 by administering a cathartic.

† According to Linning, “ thirty large worms, the *teretes*, were at once voided” by
 a Negro girl from the use of this root. *l. c.*

‡ As this plant seems to be received into the *Materia Medica* principally on the autho-
 rity of Dr. Garden, we have judged it proper to give his account in his own words.



Aristolochia Serpentaria

Published by D. Woodville Oct. 1. 1791.

ARISTOLOCHIA SERPENTARIA.

SNAKE-ROOT
BIRTHWORT.

SYNONYMA. *Serpentaria virginiana.* *Pharm. Lond. & Edinb.*
Aristolochia Piftolochia f. *Serpentaria virginiana*, caule nodoso.
Pluk. Alm. 50. t. 148. Catesby Hist. of Carol. t. i. p. 29. tab. 29.
Raii Hist. vol. iii. p. 394. Aristolochia polyrrhizos virginiana, &c.
Morris. Hist. iii. p. 310. Park. Theat. p. 420.

Class Gynandria. *Ord.* Hexandria. *Lin. Gen. Plant.* 1022.

Eff. Gen. Ch. Hexagyna. *Cal.* 0. *Cor.* 1-petala, lingulata, integra.
Caps. 6-locularis, infera.

Sp. Ch. A. fol. cordato-oblongis planis, caulibus infirmis flexuosis teretibus, flor solitariis. *Caulis geniculata valde nodosa. Flores ad radicem.*

THE root is perennial, and composed of a number of small fibres, proceeding from a common trunk; externally brown, and internally whitish: the stems are slender, round, crooked, jointed, and rise about eight or ten inches in height: the leaves are heart-shaped, entire, pointed, veined, and stand upon strong footstalks, to which they are attached by three prominent ribs: it has no calyx: the flowers are monopetalous, solitary, of a purplish brown colour, and placed upon long sheathed jointed peduncles, which rise from the lower articulations of the stem: the corolla is tubular, irregular; at the base distended into a globular figure, at the middle contracted and twisted, at the extremity spreading, and of a triangular form: it has no filaments, but six antheræ, which are attached to the under side of the stigma: the germen is oblong, angular, and placed below the corolla: the style is extremely short: the stigma is roundish, and divided into six parts: the capsule is hexagonal, separated into six cells, which contain several small flat seeds. It is a native of Virginia, and flowers in August.

The first account we have of *Serpentaria* is that given in Johnson's edition of Gerard, in which we are told that it was brought from Virginia, and grew in the garden of Mr. John Tradescant, of South Lambeth, in 1632. But Johnson evidently confounds the *Serpentaria* with the *Pistolochia cretica* of Clusius. In 1635, Dr. J. Cornutus published at Paris, *Canadensium plantarum, aliarumque nondum editarum, Historia*, wherein the *Serpentaria* is noticed under the name of *Radix Snagroel Nothæ Angliæ*, and highly extolled as an effectual remedy for the bites of the most poisonous serpents.*

Plukenet, whose botanical knowledge of this plant will not be doubted, informed Dale, that the roots of three different species of *Aristolochia* were sent to Europe for those of snake-root;^a but though this might have happened a century ago, at present the practice appears to be no longer continued, for we have carefully examined several parcels of snake-root, without discovering these roots intermixed with those of the others referred to by Dale. We may notice however, that among these roots, some specimens of the whole plant were found, which differed from the annexed figure, having lance-shaped leaves. And this variety of *Serpentaria* seems to accord with that noticed by Alston, who says, "the dried specimen I have of the whole plant, brought directly from America by Mr. Richard Lightbody, surgeon, agrees with none of them; (meaning the three mentioned by Dale) the leaves no way resembling a heart at the footstalk, being there all roundish, or obtusely pointed."^b The plant, from which the present figure was designed, is now growing in the Royal Botanic

* "Missa quoque est ad me ex notha Anglia radix quam *Serpentariæ* vocant, vernacule Snagroel cum hac inscriptione. Hæc radix alexiterium præsentissimum est, contra morsum serpentis ingentis perniciosissimique in notha Anglia, cujus morsus intra duodecim horas interficit, nisi hujus radice sumatur portio, qua sumpta nullus unquam auditus est periclitari de vita." p. 214.

^a "Tres radices sub hoc nomine in officinis nostris veniunt, ut nos monuit eruditissimus ille Botanicus *Leonard Plukenetius*, M. D. in literis ad me datis, viz. 1. *Aristolochia polyrrhizos, auriculatis foliis Virginiana*. *Pluk. Phytog. Tab. 78. Almag. 50. Tourn. Inst. 162. &c.* 2. *Aristolochia Violæ fruticosæ foliis Virginiana*, cujus radix *Serpentaria* dicitur. *Pluk. Phytog. T. 15. Almag. 50. &c.* 3. *Aristolochia Pistolochia, seu Serpentaria Virginiana, caule nodoso.*" This last is the plant we have figured. See Dale, *Pharmacol. p. 194.*

^b *M. M. vol. i. p. 521.*

Garden at Kew, where it was introduced by Mr. William Young about the year 1770.^c

“ Snake-root has an aromatic smell, approaching to that of valerian, but more agreeable, and a warm bitterish pungent taste, which is not easily concealed or overpowered by a large admixture of other materials. It gives out its active matter both to water and rectified spirit, and tinges the former of a deep brown, the latter of an orange colour. Greatest part of its smell and flavour is carried off in evaporation or distillation by both menstrua: along with water there arises, if the quantity of the root submitted to the operation be large, a small portion of pale-coloured essential oil, of a considerable smell, but no very strong taste, greatest part of the camphorated pungency, as well as bitterness of the root, remaining in the inspissated extract. The spirituous extract is stronger than the watery: not so much from its having lost less in the evaporation, as from its containing the active parts of the root concentrated into a smaller volume; its quantity amounting only to about one-half of that of the other.”^d

The root, as we have already observed, was first recommended as a medicine of extraordinary power in counteracting the poisonous effects of the bites of serpents, and it has since been much employed in fevers, particularly those of the malignant kind: a practice which seems founded on a supposition that the morbid matter of these fevers is somewhat analogous to the poison of serpents, and that its influence upon the human system might be obviated by the same means: hence *Serpentaria* has been considered the most powerful of those medicines termed alexipharmics. Modern physicians however have exploded this theory of antidotes, and the alexiterials and theriacas so industriously studied ever since the first ages of Greece, are now wholly disregarded.

Serpentaria is thought to possess tonic and antiseptic virtues, and is generally admitted to be a powerful stimulant and diaphoretic; and in some fevers where these effects are required, both this and *contrayerva* have been found very useful medicines, as abundantly

^c We had this information from Mr. Aiton, who desires us to say, that, by mistake, this plant was passed unnoticed in the *Hort. Kew.*

^d *Lewis, M. M. p. 602.*

appears from the experience of Huxham, Pringle, Hillary, Lysons, and others: yet it may be remarked, that by some of these authors this root has been employed too indiscriminately, for there seems to us some inconsistency in the practice of bleeding and giving snake-root in the same fever.

It is thought by many, that peruvian bark and wine may in every case supersede the use of *Serpentaria*;^e but this opinion is also liable to exceptions, as a mixed state of fever has been frequently observed to prevail, in which the bark has proved hurtful, though this root has evidently had a good effect; and even in intermittent fevers the bark has been found more efficacious when joined with *Serpentaria* than when given alone;^f and this has been also the case in continued fevers. The dose of snake-root is usually from ten to thirty grains in substance, and to a dram or two in infusion. A *tinctura serpentariæ* is directed both in the London and Edinburgh Pharmacopœias.

^e In cases marked with progressive signs of debility and putridity, there cannot be a doubt but that the bark, wine, and a suitable application of cold, are the remedies chiefly to be trusted; but by admitting this, we are not to reject *Serpentaria* as utterly useless in all fevers.

^f Vide Lysons, *Practical Essays upon intermitting fevers*, p. 13. seq.

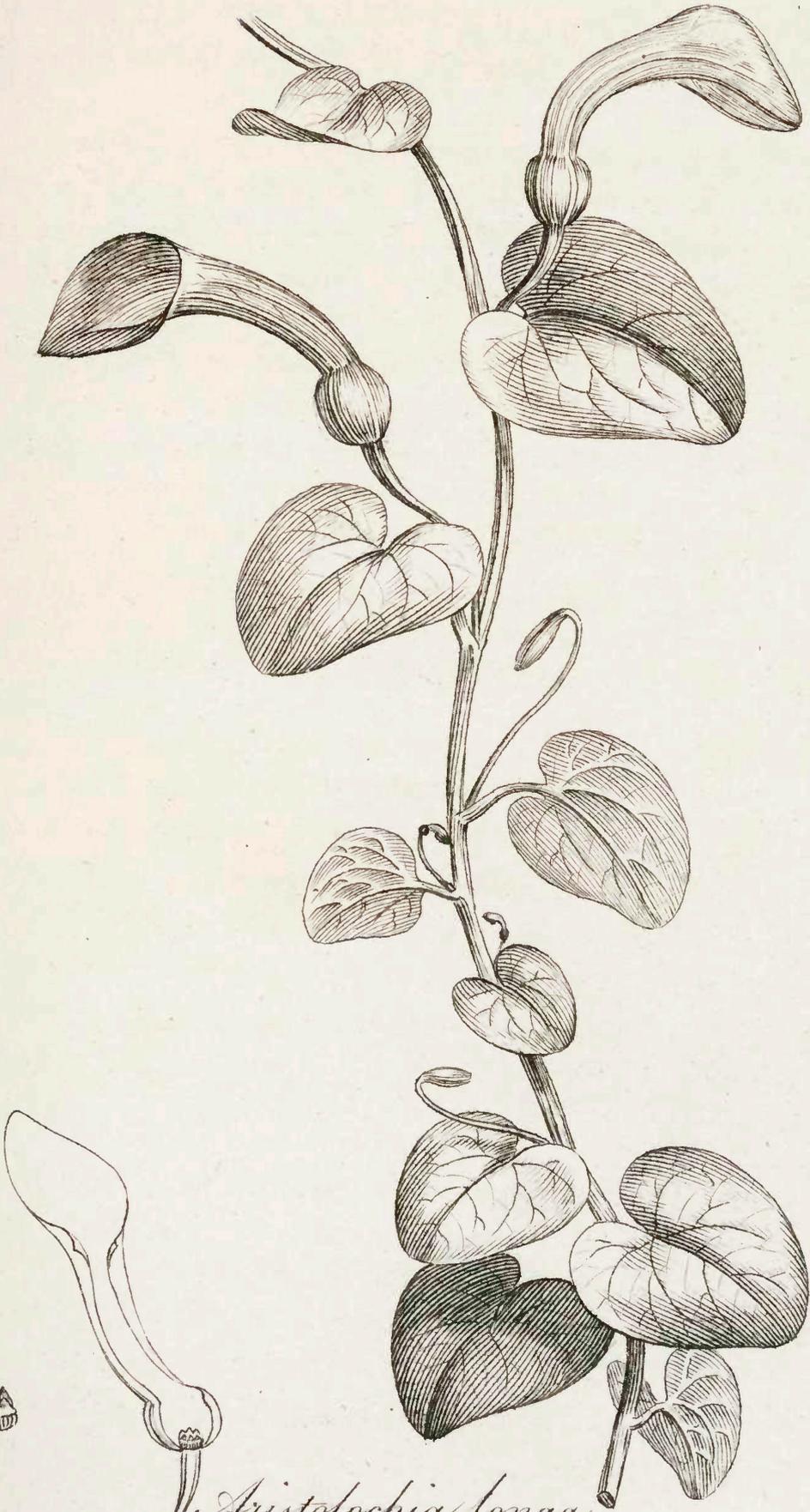
ARISTOLOCHIA LONGA. LONG-ROOTED BIRTHWORT.

SYNONYMA. *Aristolochia.* *Pharm. Edinb.* *Aristolochia-longa.*
Clus. Hist. ii. p. 70. *J. Bauh. Hist. iii. p. 560.* *Gerard Emac. p.*
846. *Raii Hist. p. 762.* *Aristolochia longa vera.* *Bauh. Pin. p.*
307. *Park. Theat. p. 291.* *Tourn. Inst. p. 162.* *Miller's Fig.*
tab. 61.

Class Gynandria. *Ord.* Hexandria. *Lin. Gen. Plant.* 1022.

Eff. Gen. Ch. Hexandria. *Cal.* 0. *Cor.* 1-petala, lingulata, integra.
Caps. 6-locularis, infera.

Sp. Ch. A. fol. cordatis petiolatis integerrimis obtusiusculis, caule infirmo, flor. solitariis.



Aristolochia longa

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THE root is perennial, long, tapering, branched, externally wrinkled and brown, internally yellowish: the stems are slender, round, branched, trailing, and usually exceed a foot in length: the leaves are heart-shaped, obtuse, entire, veined, of a pale green colour, and placed alternately upon round footstalks, which are about the length of the leaves: the flowers are solitary, and stand upon peduncles, which arise close to the leaf-stalks: the corolla forms a more regular tube than that of the *Serpentaria*, and is tongue-shaped at the extremity: the other parts of fructification are similar to those described of *Serpentaria*. It is a native of the South of Europe, and flowers from June till October.

The medicinal character of *Aristolochia* was formerly in great repute, and physicians very generally employed various species of the plant. Those received into our pharmacopœias, were 1. *Aristolochia longa*. 2. *A. rotunda*. 3. *A. tenuis* or *clematitis* of Linnæus. But the roots of these plants have for a long time been gradually falling into disuse, and at present, we believe, are rarely if ever prescribed: they are all expunged from the *Mat. Med.* of the London Pharmacopœia, but in that of the Edinburgh the last species is still retained, and therefore, according to our plan, it might have been figured here; but as these different species are generally allowed to be similar in their medicinal qualities, we trust that the first, which is the most rare and curious, will be found the most acceptable to our readers.

All the Birthwort roots have somewhat of an aromatic smell, and a warm bitterish taste. That of the long and round species, on first being chewed, scarcely discover any taste, but in a little time prove nauseously bitter, accompanied with a slight degree of pungency. "They give out their virtue, by infusion, both to spirituous and watery menstrua; to the first most perfectly. In distillation, pure spirit brings over little or nothing: with water there arises, at least from the slender-rooted sort, a small portion of essential oil, possessing the smell and flavour of the roots."^a

The virtues which the ancients ascribed to *Aristolochia* were very considerable, and it was consequently employed in various diseases,

^a Lewis, *M. M.* p. 112.

particularly those thought to proceed from obstructions,^b more especially of the uterine system:^c hence the name Aristolochia is said to have arisen from its supposed emmenagogue powers.^d And as a warm stimulating medicine, Dr. Cullen tells us^e he found it useful in some cases of retention and chlorosis, but never in cases of suppression. Aristolochia has also been long very generally commended as a remedy for the gout, and it is the first ingredient in the Portland powder,^f which has been much celebrated for the cure of this disease. It appears however that the long continued use of this powder, which is necessary for preventing the return of arthritic paroxysms, seldom fails to superinduce a premature senile state of body, and to lay a foundation for more fatal diseases.^g It is probable that the medicinal qualities of this plant are somewhat allied to those of its congener, the *Serpentaria*; but the sensible properties of the latter demonstrate it to be a more active medicine.

Aristolochia is given in substance from a scruple to two drams for a dose.

^b Fernelius *Method. Med. Lib. 6. cap. 12. p. 163.*

^c Hippocr. *De nat. muliebri. p. 572. Oper. Foesii.*

^d Ab ἀριστος & λοχεια. It has also been derived from Aristolochius, who is said to have first discovered its virtues.

^e See *Mat. Med. vol. ii. p. 83.*

^f The powder is thus prepared: — R_x. Aristol. rotund. gentian. summit. et fol. chamædr. chamæpit. centaur. min. \overline{aa} p. æ. f. pulvis. A dram of this powder is directed to be taken every morning (jejuno ventriculo) for the space of three months, when the dose is to be diminished to three quarters of a dram for the next three months, and afterwards continued for six months in doses of half a dram, which, during the second year is to be taken every other morning.

^g Brunner, *De pancr. p. 143. Werlboff. Caut. Med. Traët. i. p. 32.* See also Cullen's *First Lin.*



Inula Helonium

Published by D^r Woodville, Oct. 1. 1791.

INULA HELENIUM.

COMMON INULA, Or,
ELECAMPANE.

SYNONYMA. Enula Campana. *Pharm. Lond.* Helenium. *Gerard Emac.* p. 793. *Raii Hist.* p. 273. *Synop.* p. 176. Helenium vulgare. *Baub. Pin.* p. 276. Helenium five Enula campana. *J. Baub. Hist.* iii. p. 108. *Park. Theat.* p. 654. After foliis ovato-lanceolatis, ferratis, subtus tomentosis, calycinis ovato-lanceolatis, maximis. *Hal. Stirp. Helv.* n. 72. Inula Helenium. *Hudson Flor. Ang.* p. 368. *With. Bot. Arr.* p. 922. *Flor. Dan.* 728.

Class Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 956.

Ess. Gen. Ch. Recept. nudum. *Pappus* simplex. *Antherae* basi in fetas duas desinentes.

Sp. Ch. T. foliis amplexicaulibus ovatis rugosis subtus tomentosis, calycum squamis ovatis.

THE root is perennial, large, thick, branched, externally brown or grey, internally whitish: the stalk is upright, strong, round, striated, branched, beset with soft hairs, and rises three or four feet in height: the leaves are large, ovate, ferrated, crowded with reticular veins, supplied with a strong fleshy midrib, on the upper pagina smooth, on the under downy: the leaves, which are placed on the upper part of the stem are sessile, and surround the branches, but those towards the bottom stand upon footstalks: the flowers are large, yellow, of the compound kind, and terminate the stem and branches: the calyx is composed of several rows of strong imbricated ovate segments: the corolla consists of numerous florets, which are of two kinds; those occupying the *centre* are of a regular tubular form, divided at the brim into five small segments, and are *hermaphrodite*, each containing five short filaments, which have their antheræ united so as to form a hollow cylinder and a long germen, which supports a slender

slender style, about the length of the tube, and furnished with a bifid stigma: the florets at the *circumference* are *female*, and at the lower part tubular, but at the upper ligulated or strap-shaped, and cut at the extremity into three narrow pointed teeth; the female part is similar to that in the hermaphrodite florets: the seeds are solitary, striated, quadrangular, and furnished with a simple feather or pappus: the receptacle is naked and flat. It is a native of England, growing in moist meadows, and flowers in July and August.

It is probable, that Elecampane is the *Helenium foliis verbasci* of Dioscorides,^a and the *Inula* of Pliny,^b who also mentions *Helenium* but as a very different plant.^c Elecampane is seldom to be met with in its wild state, but it is commonly cultivated in gardens, from whence the shops are supplied with the root, which is the part directed for medicinal use. “This root, in its recent state, has a weaker and less grateful smell than when thoroughly dried and kept for a length of time, by which it is greatly improved, its odour then approaching to that of Florence orris. Its taste, on first being chewed, is glutinous and somewhat rancid, quickly succeeded by an aromatic bitterness and pungency. Spirituous liquors extract its virtues in greater perfection than watery; the former scarce elevate any thing in distillation; with the latter an essential oil arises, which concretes into white flakes: this possesses at first the flavour of the Elecampane, but generally loses it on keeping. An extract, made with water, possesses the bitterness and pungency of the root, but in a less degree than that made with spirit.”

The high opinion entertained by the ancients of the virtues of Elecampane may be collected from the words of Schroder, who says, “*Abstergit, discutit, aperit, pulmonica est. Stomacha, alexipharmaca, sudorifera, &c. Usus præcip. in tartaro pulmonum renumque attenu-*

^a *Lib. i. cap. 27.*

^b *Lib. xix. cap. 5.*

^c “*Helenium e lacrymis Helenæ natum, & ideo in Helena insula laudatissimum. Est autem frutex humi se spargens odorantibus ramulis, folio simili serpyllo.*” *Lib. xxi. c. 9.*

The *Innula* is noticed by Horace:

“*Erucas virides, inulas ego primus amaras
Monstravi incoquere.*”

SAT. 8. v. 51.

———— quum rapula plenus
Atque acidas mavult inulas.

SAT. 2. v. 44.

ando,



Thymus vulgaris.

Published by D^r Woodville Oct: 31. 1791.

ando, ac educendo, & hinc in tussi, asthmae, in cruditatibus ventriculi emendandis, ureteribus referandis, in peste, contagiosisque morbis arcendis, in scabie." ^d Bergius also ascribes many virtues to this root, and from its sensible and chemical qualities it promises to be a medicine of some efficacy; but in the diseases in which it is principally recommended, as dyspepsia, pulmonary affections, and uterine obstructions, we have no satisfactory evidence of its medicinal powers. ^e One dram of this root in infusion, and from two drams to half an ounce in decoction, is said to be the dose usually given.

^d P. 602. See *Alston's M. M. vol. i. p. 454.*

^e See *Cullen's M. M. vol. ii. p. 459.*

THYMUS VULGARIS. COMMON GARDEN THYME.

SYNONYMA. Thymus. *Pharm. Edinb.* Thymus vulgaris folio tenuiore. *Baub. Pin. p. 219.* *Tourn. Inst. p. 196.* Thymum durius. *Dod. Pempt. p. 275.* *Gerard Emac. p. 573.* *Raii Hist. p. 521.* *Park. Theat. p. 7.*

^a Thymus vulgaris folio tenuiore. *C. B.*
Narrow-leav'd Garden Thyme.

^b Thymus vulgaris folio latiore.* *C. B.*
Broad-leav'd Garden Thyme. *Hort. Kew.*

Class Didynamia. *Ord.* Gymnospermia. *Lin. Gen. Plant. 727.*

Eff. Gen. Ch. *Calycis bilabiati faux villis clausa.*

Sp. Ch. T. erectus, foliis revolutis ovatis, floribus verticillato-spicatis.

THE root is perennial, woody, and subdivided into small fibres: the stems are numerous, round, hard, branched, and usually rise about a foot

* This is the variety to which the figure and description here given apply.

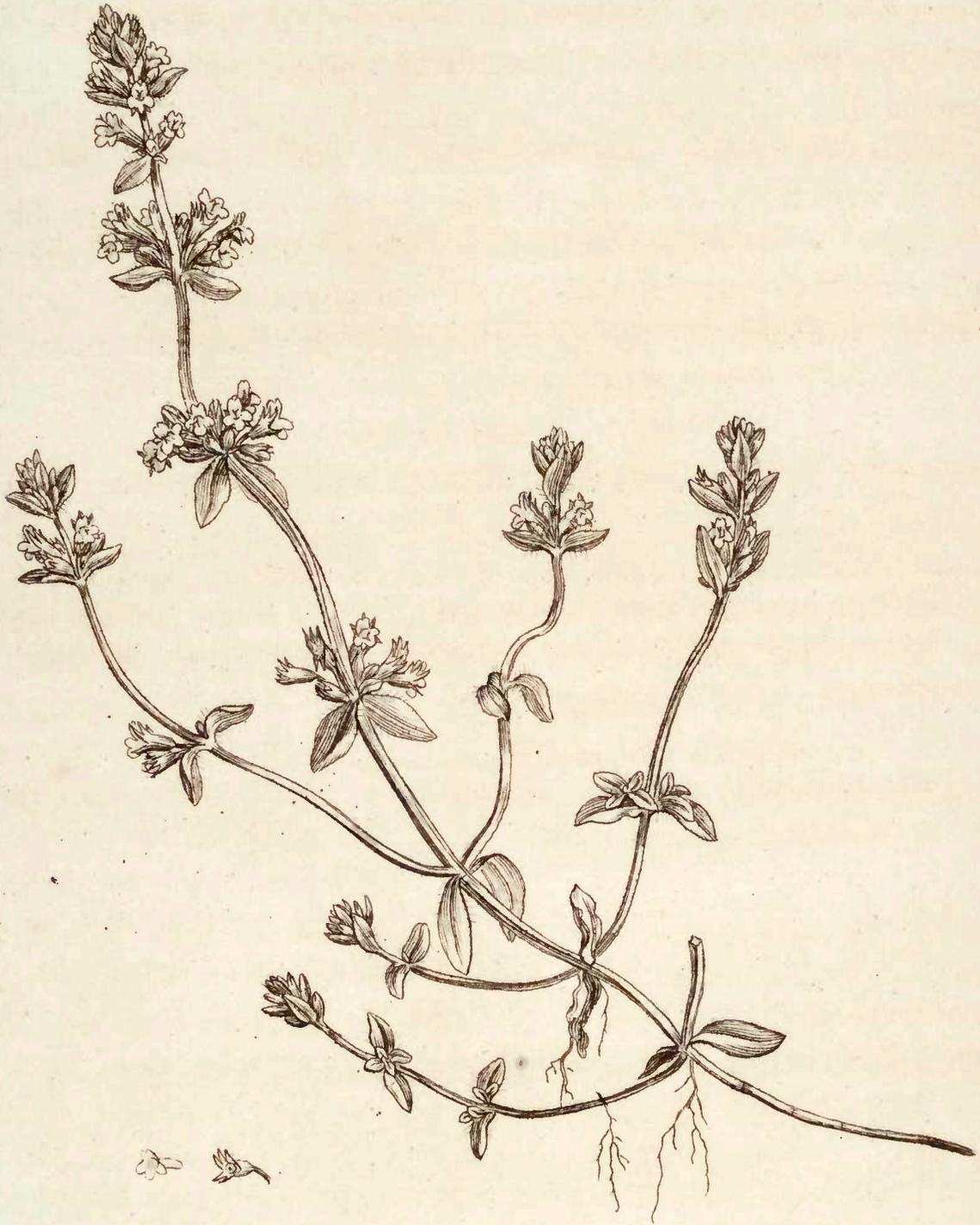
in height: the leaves are small, narrow, elliptical, often slightly indented at the edges, beset with small glands, and stand in pairs upon very short footstalks: the flowers terminate the branches in whorls or round clusters: the calyx is tubular, striated, closed at the mouth with small hairs, and divided into two lips; of these the uppermost is cut into three teeth, the lowermost into two: the corolla is monopetalous, consisting of a tube, which is about the length of the calyx, and divided at the brim into two lips, of a pale purple colour; the *upper lip* is erect, or turned back, and notched at the end; the *under lip* is longer, expanding, and divided into three segments; of these the middle segment is the broadest: the filaments are two long, and two short: the antheræ small and round: the germen is divided into four parts, from the centre of which issues the style, which is thread-shaped, and furnished with a bifid stigma: the seeds are four, small, roundish, and lodged at the bottom of the calyx. It is a native of the South of Europe, and flowers from May till August.

According to C. Bauhin, this plant is the *συμνος* of Dioscorides and Theophrastus.^a It grows wild abundantly in the mountainous parts of Italy and Spain; we are therefore the more induced to suppose it to be the plant of this name so frequently mentioned by the Latin poet.^b It was cultivated by Gerard, and usually finds place in our gardens with the other pot-herbs.

This herb has an agreeable aromatic smell, and a warm pungent taste. "To water it imparts, by infusion, its aromatic odour, but only a weak taste: in distillation, it gives over an essential oil, in quantity about an ounce, from thirty pounds of the herb in flower; of a gold yellow colour if distilled by a gentle fire, of a deep brownish red if by a strong one, of a penetrating smell, resembling that of the Thyme itself, in taste excessively hot and fiery: the remaining decoction inspissated, leaves a bitterish, roughish, subsaline extract. The

^a "Dioscorid. L. 3. c. 44. Theophrast. 4. hist. 7. & 6. hist. 2. 1. caus. 5. *απο τῆς συμνος*. quod iis qui animi deliquium patiuntur adhibeatur: alii *απο τῆς θυμαστεος καὶ τῆς θυνης* deducunt, quod hoc veteres in sacris, quæ igne accenso fiebant, primum usi sint, ut apud Rhodiginum, L. 3. c. 23. legere est."

^b 'Nerine Galatea, thymo mihi dulcior Hyblæ.' Both this species and the Serpyllum are probably alluded to; they are equally fragrant, and coveted by bees.



Thymus serpyllum.

Published by D. Woodville. Oct. 1791.

active matter, which by water is only partially dissolved, is by rectified spirit dissolved completely, though the tincture discovers less of the smell of the Thyme than the watery infusion: the spirit brings over, in distillation, a part of its flavour, leaving an extract of a weak smell, and of a penetrating camphorated† pungency.”^c

By Bergius the virtues of Thyme are said to be resolvent, emmenagogue, diuretic, tonic, and stomachic; but we find no disease mentioned in which its use is particularly recommended either by him or other writers on the *Materia Medica*. As agreeing in common with the natural order of *verticillatæ*, its aromatic qualities may be found equally useful in some of those complaints for which lavender, sage, rosemary, &c. are usually employed.

^c Lewis, *M. M.* p. 650.

† This plant seems actually to contain a species of camphor, thus noticed by Murray: *Camphoræ speciem continet herba, quæ sese declarat mox post destillationem ejus cum aqua, dum oleum ab ea separaretur, tam in gossypio quam orificio vitri, crystallis exiguis, dein post aliquot dierum moram in fundo vitri crystallis, avellanæ nucis adeo magnitudinis, cubicis, saccharo candi similibus.*” *App. Med. vol. ii. p. 125.* These with the odour of Thyme, had in every other respect the qualities of camphor. See *Phil. Trans. vol. xxxiii. p. 321. sqq. & p. 361.*

^c *M. M.* p. 536.

THYMUS SERPYLLUM. WILD, or MOTHER of THYME.

SYNONYMA. Serpyllum. *Pharm. Edinb.* Serpyllum vulgare minus. *Baub. Pin. p. 220. Park. Theat. p. 8.* Serpyllum vulgare. *Gerard Emac. p. 570. Raii Hist. p. 521. Synop. p. 230.* Thymus foliis ovatis ad basin ciliatis. *Hal. Stirp. Helv. n. 235.* Thymus Serpyllum. *Hudson. Flor. Ang. p. 229. Withering. Bot. Arrang. p. 623. Curt. Flor. Lond.*

^a Serpyllum vulgare minus. C. B.

Common smooth Mother of Thyme.

^b Serpyllum foliis citri odore. C. B.

Lemon Thyme.

^v Serpyllum

γ *Serpyllum villosum fruticosius, floribus dilute rubentibus.* *Ray Synop.*
Hoary Mother of Thyme.

δ *Serpyllum angustifolium hirsutum.* *C. B.*
Hairy Mother of Thyme. *See Hort. Kew.*

Class Didynamia. Ord. Gymnospermia. Lin. Gen. Plant. 727.

Ess. Gen. Ch. Calycis bilabiati faux villis clausa.

Sp. Ch. T. floribus capitatis, caulibus repentibus, foliis planis obtusis basi ciliatis.

THE root is perennial, woody, fibrous, and of a brown colour: the stems are numerous, hard, square, branched, procumbent, and rise from four inches to a foot in height: the flowers are of a purplish colour, and stand in whorls towards the top of the stem and branches: the leaves are ovate, entire, smooth, beset with numerous small glands, fringed with hairs towards the base, and stand in pairs upon very short footstalks: the calyx, the corolla, and sexual parts, correspond with those mentioned of the *Thymus vulgaris*. It is a native of Britain, affecting heaths and mountainous situations, flowering in July and August.

It is observed by Mr. Curtis, that “ few plants are subject to so many varieties as the Wild Thyme. In its most natural state, when found on dry exposed downs,^a it is small and procumbent: when growing among furze or other plants, which afford it shelter, it runs up with a slender stalk to a foot or more in height, and assumes an appearance which might puzzle the young botanist.” The specimen, from which the drawing for the annexed plate was taken, grew in a situation which subjected it to neither of these extremes; but it has been so far sheltered as to participate more of the character of the

^a It has been a received opinion, that this and other aromatic herbs give a flavour to the flesh of sheep that feed where these plants abound: but it is well known that sheep refuse these aromatics when they have a choice of other pasturage. *Curt.* See Account of Sheep Walks in Spain. *Gent. Mag.* 1764.



Linum usitatissimum.

Published by Dr. Woodville Nov. 1. 1791.

latter than the former. This plant has the same sensible qualities as those of the garden thyme, but has a milder, and rather more grateful flavour. "Its essential oil is both in smaller quantity, and less acrid, and its spirituous extract comes greatly short of the penetrating warmth and pungency of that of the other."^b From this it appears, that the Serpyllum, though possessing similar qualities, is evidently less medicinal than the foregoing species.^c

^b Lewis, *M. M.* p. 651.

^c If this is the same as the Serpyllum of Dioscorides, he is of a different opinion, as he says, "Sylvestre ad medendi usum aptius quam sit hortense." *Ερπυλλον*, ab *ερπω*, according to Pliny, who commends its use in various diseases. *L. xx. c. 22.* See *Diosc. L. iii. c. 46.* *Theoph. 6. hist. 7.* Serpyllum is thus mentioned by Virgil:

Thestylis et rapido fessis messoribus æstu
Allia serpyllumque herbas contundit olentes.

Ec. ii. 10.

LINUM USITATISSIMUM.

COMMON FLAX.

SYNONYMA. *Linum. Pharm. Lond. & Edinb. Linum arvense. Baub. Pin. p. 214. Linum fativum. Gerard, Emac. p. 556. Park. Theat. p. 1335. Raii Hist. p. 1072. Synop. p. 362. Linum. J. Baub. Hist. iii. p. 451. Hall. Stirp. Helv. n. 836. L. usitatissimum. Hudf. Flor. Ang. p. 133. Withering. Bot. Arrang. p. 328. Curt. Flor. Lond. Διων Dioscor. L. 2. c. 125. Theoph. 8. Hist. 7.*

Class Pentandria. Ord. Pentagynia. Lin. Gen. Plant. 389.

Ess. Gen. Ch. Cal. 5-phyllus. Petala 5. Caps. 5-valvis, 10-locularis. Sem. solitaria.

Sp. Ch. L. calycibus capsulisque mucronatis, petalis crenatis, foliis lanceolatis alternis, caule subfolitario.

THE root is annual: the stalk is erect, round, smooth, branched towards the top, and rises about a foot and a half in height:^a the branches are simple, alternate, and terminated by the flowers, which are solitary, and of a sky-blue colour: the leaves are lance-shaped, acute, sessile, smooth, glaucous, vertical, and alternately scattered over the stalk and branches: the calyx is divided into five segments, which are semi-lance-shaped, pointed, and slightly fringed with small hairs: the corolla is funnel-shaped, consisting of five petals, which are large, obovate, striated, and minutely scolloped at their extremities: the filaments are five, tapering, upright, about the length of the calyx, united at the base, and crowned with simple antheræ: the germen is oval: the five styles are filiform, erect, of the length of the filaments, and furnished with blunt stigmata: the capsule is globular, divided into five valves, and ten cells: the seeds are solitary, glossy, and of a flattish oval shape. It is a native of Britain, and grows in corn fields and sandy pastures: the flowers appear in July.

Flax^b is an article of such extensive utility for various œconomical purposes, that the plant which furnishes it has obtained the trivial name of usitatissimum; and when it is considered that its seeds afford an oil equally useful in arts and in medicine, it may well be deemed an object of national importance. Sensible of this, the Society for the Encouragement of Arts, Manufactures, and Commerce, has laudably endeavoured to promote and extend the cultivation of this plant in Britain, and not without success. But still the greatest part of Flax and Linseed used in this country is the growth of the northern parts of Europe, where it is cultivated most abundantly.

“ The seeds have an unctuous mucilaginous sweetish taste, but no remarkable smell; on expression, they yield a large quantity of oil, which, when carefully drawn without the application of heat, has no

^a It is remarked by Haselquist, that in Egypt this plant rises with a strong stem to the height of four feet. *Resa til hel. Landet. p. 462.*

^b The bark of the plant is composed of numerous small tough longitudinal fibres, connected together with a glutinous matter which is dissolved by maceration in water, leaving the naked fibres, which are then to be dried and beaten, by which means the inner membranous parts are easily separated; after this it is combed, and fit to be spun into thread.—It has been observed that the water in which this bark has been macerated, becomes poisonous to cattle, and on this account the practice of steeping it in any running stream or common pond, was prohibited by Statute 33d Henry VIII. cap. 17.

particular taste or flavour: in some properties it differs considerably from most of the other oils of this kind; not congealing in winter; not forming a solid soap with fixed alkaline salts;* acting more powerfully as a menstruum on sulphureous bodies, than any other expressed oil that has been tried. The seeds, boiled in water, yield a large proportion of a strong flavourless mucilage: to rectified spirit they give out little or nothing.”^c

Linseed appears to afford but little nourishment, and when taken as food has been found to impair the stomach, and produce great flatulency: effects, which are noticed of these seeds by Galen,^d and since amply confirmed by Tragus, who relates ^e that, in consequence of a scarcity of corn in Zealand, the inhabitants were urged to the necessity of eating boiled Linseed, which occasioned a remarkable distention of the hypochondria, swellings of the face and other parts, which in several instances proved fatal.

Infusions and decoctions of these seeds, like other vegetable mucilages, are used as emollients or demulcents in hoarsenesses, coughs, and pleuretic symptoms, which frequently prevail in catarrhal affections; they are also recommended in nephritic pains and stranguries: for these purposes, a spoonful of the seeds unbruised is said to be sufficient for a quart of water.^f The seeds are also much used externally in emollient and maturating cataplasms. The expressed oil is an officinal preparation, and is supposed to be of a more healing and balsamic nature than the other oils of this class;^g it has therefore been very generally employed in pulmonary complaints, also in colics,^h and constipations of the bowels.ⁱ

* Geoffroy, *Mem. de l'acad. des scien. de Paris l'ann. 1741.*

^c Lewis, *M. M.* p. 397.

^d Simp. L. 7. de alim. fac. l. i. c. 32.

^e See Raii *Hist.* p. 1073. ^f Lewis, *l. c.*

^g This subject is examined on treating of *Olea europæa.* See *Med. Bot. vol. iii.*

^h See Sydenham, (*Oper. cap. de pleur. p. 265.*) Haen, (*Rat. Med. P. i. p. 24. P. ii. p. 103.*) and others.

ⁱ Haen, *l. c. P. ii. p. 204.* V. Swieten, *Com. vol. ii. p. 143.* Galesky mentions several cases of constipation and colic, proceeding from different causes, successfully treated by this oil, See *Abhandl. v. Miserere u. d. Kräften d. Leinöls in dies. Krankh. p. 75. seq.* Also Lentin, *Beob. einiger Krankh. p. 149.* Vide Murray, *App. Med. vol. iii. p. 485. seq.*—It is used in common with other oils as a vermifuge.

GEOFFROYA INERMIS. SMOOTH GEOFFROYA,
Or, BASTARD CABBAGE-TREE.

SYNONYMA. Geoffræa. *Pharm. Edinb.* Geoffræa jamaicensis inermis. *Wright's Description and Use of the Cabbage-bark Tree of Jamaica. Phil. Transf. vol. 67. p. 507.* Geoffroya inermis, foliolis lanceolatis. *Swartz. Prodr. 106.*

Class Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant. 876.*

Eff. Gen. Ch. Cal. 5-fidus. *Drupa* ovata. *Nucleus* compressus.

Sp. Ch. G. inermis, foliolis lanceolatis. *Swartz. l. c.*

THIS tree rises to a considerable height, and towards the top sends off several branches: the wood is hard enough to admit of being polished: the external bark is smooth and grey, internally it is black and furrowed: the leaves are pinnated, consisting of several pairs of pinnae, which are lance-shaped, pointed, veined, smooth, standing in pairs upon short footstalks, but with an odd one at the end: the flowers appear in clusters upon large branched spikes: the calyx is bell-shaped, and divided into five short obtuse segments: the corolla is of the papilionaceous kind, of a pale rose colour, consisting of a *vexillum*, which is roundish, concave, and notched at the apex; two *alæ*, which are oblong, obtuse, concave, and somewhat shorter than the vexillum, and an obtuse divided *carina*: the filaments are ten, nine of which are united at the base: the antheræ are simple, and roundish: the germen is oval, and furnished with a tapering curved style, which is terminated by a hooked stigma: the fruit is pulpy, resembling a small plum, and containing a hard nut or seed, separated into two valves, and marked on each side with a longitudinal furrow.

This tree is a native of Jamaica, where it is distinguished by the name of Cabbage-bark tree, or Worm-bark tree: the bark, which has a mucilaginous and sweetish taste, and a disagreeable smell, was first



Geosroya

inermis.

first noticed as a vermifuge by Mr. Peter Duguid.* Since that time several accounts of its anthelmintic virtues have been given in the Medical Commentaries by different authors: but Dr. Wright, who resided a long time at Jamaica, has communicated the fullest information concerning this tree, both in respect to its medical and botanical characters. Linnæus enumerates only one species of this genus, which is called after Geoffroy, viz. *G. spinosa*; and, in contradistinction to this, Dr. Wright, on discovering that the plant here figured belonged to the same family, and was destitute of spines, very properly gave it the trivial name of *inermis*, and it has since been recognized and confirmed in this name upon the authorities of Swartz and Aiton, though, it is not yet admitted into any of the editions of the *Systema Vegetabilium* of Linnæus. This species was first introduced into this country by Messrs. Kennedy and Lee, who cultivated it at Hammer Smith about the year 1778. According to Dr. Wright, the bark of this tree is powerfully medicinal, and its anthelmintic effects have been established at Jamaica by long experience.

It may be given in different forms, as in decoction, syrup, powder, and extract; and the manner of preparing and exhibiting these are thus stated by Dr. Wright:

“The decoction. Take fresh-dried or well-preserved cabbage-bark, one ounce. Boil it in a quart of water, over a slow fire, till the water is of an amber colour, or rather of deep coloured Madeira wine; strain it off, sweeten it with sugar, and let it be used immediately, as it does not keep many days.

“Syrup of Cabbage-bark. To any quantity of the above decoction add a double portion of sugar, and make a syrup. This will retain its virtues for years.

“The extract of cabbage-bark is made by evaporating the strong decoction in *balneo mariæ* to the proper consistence; it must be continually stirred, as otherwise the resinous part rises to the top, and on this probably its efficacy depends.

* This author thinks that the inhabitants of Jamaica are more subject to worms, “on account of their *sweet viscid bread-kind*, to wit, plaintains, yams, bananos, sweetish potatoes, &c.” and considers it particularly fortunate, that the island supplies them with this bark, which “appears to be the most powerful vermifuge yet known, for it frequently brings away as many worms by stool as would fill a large hat.” See *Essays and Observations Physical and Literary*, vol. ii. p. 264.

“ The powder of well-dried bark is easily made, and looks like jallap, though not of equal specific gravity.

“ This bark, like most other powerful anthelmintics, has a narcotic effect; and on this account it is always proper to begin with small doses, which may be gradually increased till a nausea is excited, when the dose for that patient is ascertained. But by frequent use we can in common determine the dose, though we chuse to err rather on the safe side.

“ A strong healthy grown person may, at first, take four table spoonfuls of the decoction or syrup, three grains of the extract, or thirty grains of the powder for a dose.

“ A youth, three table spoonfuls of the decoction or syrup, two grains of extract, or twenty grains of powder.

“ A person of ten years of age, two table spoonfuls of the decoction or syrup, one grain and a half of extract, or fifteen grains of the powder.

“ Children of two or three years old, a table spoonful of the decoction or syrup, one grain of extract, or ten grains of the powder. Children of a year old, half the quantity.

“ These may be increased, as above observed, till a nausea is excited, which will depend on the strength, sex, and habit of body of the patient.

“ Care must be taken that cold water be not drank during the operation of this medicine, as it is in this case apt to occasion sickness, vomiting, fever, and delirium. When this happens, or when an over large dose has been given, the stomach must be washed with warm water: the patient must speedily be purged with Castor-oil, and use plenty of lime-juice beverage for common drink; vegetable acid being a powerful antidote in this case, as well as in an over dose of opium.

“ The decoction is what is mostly given here, and seldom fails to perform every thing that can be expected from an anthelmintic medicine, by destroying worms in the intestines, and bringing them away in great quantities. By frequent use, however, these animals become familiarized, and we find it necessary to intermit it, or have recourse to others of inferior merit.

“ The



Pastinaca Oporonax

Published by D. Woodville, Nov. 1. 1791.

“ The writers of the Edinburgh Medical Commentaries take notice, that the decoction of cabbage-bark always excites vomiting. We find no such effect from it here, and may account for it by their receiving it in a mouldy state. A syrup, therefore, is given there with better effect. They observe also that it has a diuretic virtue, which we have not taken notice of here.

“ This bark purges pretty briskly, especially in powder, thirty or forty grains working as well as jallap by stool; but in this way it does not seem to kill worms so well as in decoction.

“ Five grains of the extract made a strong man sick, and purged him several times; but, by frequent use, he took ten grains to produce at length the same effect.

“ It must not be concealed that fatal accidents have happened from the imprudent administration of this bark, chiefly from over-dosing the medicine. But this cannot detract from the merit of the cabbage-bark, since the best medicines, when abused, become deleterious; and even our best aliments, in too great quantity, prove destructive. Upon the whole, the cabbage-bark is a most valuable remedy, and I hope will become an addition to the *materia medica*.”

PASTINACA OPOPANAX.

OPOPANAX,
Or, ROUGH PARSNEP.

Opopanax, *gummi-resina*. Pharm. Lond.

SYNONYMA. Panax costinum. *Baub. Pin. p. 156.* Panax Heracleum. *Morris Hist. t. iii. p. 315.* *Boccone, Journ. des Sçav. 1676. p. 28.* *Gerard Emac. p. 1003.* *Raii Hist. p. 410.* Heracleum alterum, sive peregrinum Dodonæi. *Park. Theat. p. 948.* Pastinaca sylvestris altissima. *Tourn. Inst. p. 319.* P. Opopanax. *Gouan, Illustr. 19. t. 13, 14.*

Class

Class Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 362.

Eff. Gen. Ch. *Fructus* ellipticus, compresso-planus. *Petala* involuta, integra.

Sp. Ch. P. foliis pinnatis: foliolis basi antica excisis. *Syst. Veg.*

THE root is perennial, thick, fleshy, tapering like the garden parsnep: the stalk is strong, branched, rough towards the bottom, and rises seven or eight feet in height: the leaves are pinnated, consisting of several pairs of pinnæ, which are oblong, serrated, veined, and towards the base appear unformed on the upper side: the flowers are small, of a yellowish colour, and terminate the stem and branches in flat umbels: the general and partial umbels are composed of many radii: the general and partial involucra are commonly both wanting: all the florets are fertile, and have an uniform appearance: the petals are five, lance-shaped, and curled inwards: the five filaments are spreading, curved, longer than the petals, and furnished with roundish antheræ: the germen is placed below the corolla, supporting two reflexed styles, which are supplied with blunt stigmata: the fruit is elliptical, compressed, divided into two parts, containing two flat seeds, encompassed with a narrow border. It is a native of the South of Europe, and flowers in June and July.

This species of Parsnep was cultivated in 1731 by Mr. P. Miller, who observes that its "roots are large, sweet, and accounted very nourishing," therefore recommended for cultivation in kitchen-gardens.^a It bears the cold of our climate very well, and commonly matures its seeds, and its juice here manifests some of those qualities which are discovered in the officinal opopanax;^b but it is only in the warm regions of the East, and where this plant is a native, that its juice concretes into this gummy resinous drug. Opopanax is obtained by

^a See his *Dict.*

^b Alston says, "with regard to these plants growing here, I venture to say, that, if their juice be not the opopanax, it is very like it." *M. M. v. ii. p. 443.*

^c We find no account of the manner of obtaining this drug since that mentioned by Dodonaeus, *Pempt.* (p. 309.) & Boccone, (l. c.)

means of incisions made at the bottom of the stalk of the plant, from whence the juice gradually exudes,^c and by undergoing spontaneous concretion, assumes the appearance under which we have it imported from Turkey and the East-Indies, viz. “ sometimes in little round drops or tears, more commonly in irregular lumps, of a reddish yellow colour, on the outside with specks of white, internally of a paler colour, and frequently variegated with large white pieces.”

“ This gummy-resin has a strong disagreeable smell, and a bitter acrid somewhat nauseous taste. It readily mingles with water, by triture, into a milky liquor, which on standing deposits a portion of resinous matter, and becomes yellowish: to rectified spirit it yields a gold-coloured tincture, which tastes and smells strongly of Opopanax. Water distilled from it is impregnated with its smell, but no essential oil is obtained on committing moderate quantities to the operation.”^d

Opopanax has been long employed by physicians, and esteemed for its attenuating, deobstruent, and aperient virtues; but as it is commonly prescribed in combination with other medicines, these qualities are by no means ascertained, nor do its sensible qualities indicate it to be a medicine of much power. Dr. Cullen classes it with the antispasmodics; it is however less fetid than galbanum, though more so than ammoniacum, and therefore may be supposed to have some affinity to a union of these two. It has commonly been given in hypochondriacal affections, visceral obstructions, menstrual suppressions, and asthmas, especially when connected with a phlegmatic habit of body. It has no place in the Mat. Med. of the Edinburgh Pharmacopœia, but, by the London College it is directed in the *pillulæ e gummi*.

^d *Lewis, M. M. p. 468.*

RHAMNUS CATHARTICUS. PURGING BUCKTHORN.

SYNONYMA. Spina cervina. *Pharm. Lond. & Edinb.* Rhamnus catharticus. *Baub. Pin. p. 478.* *Raii Hist. p. 1625.* *Synop. p. 466.* *Hudson. Flor. Ang. p. 98.* *Withering. Bot. Arrang. p. 239.* *Flor. Dan. 850.* Rhamnus solutivus. *Gerard Emac. p. 1337.* Rhamnus solutivus five Spina infectoria vulgaris. *Park. Theat. p. 243.* Rhamnus foliis spinosis, ovato-lanceolatis, ferratis. *Hal. Stirp. Helv. n. 824.*

Class Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant. 265.*

Eff. Gen. Ch. Cal. tubulosus: squamis stamina munientibus. *Cor.* nulla. *Bacca.*

Sp. Ch. R. spinis terminalibus, floribus quadrifidis dioicis, foliis ovatis, caule erecto.

THIS shrub is covered with dark brownish bark, divided into many branches, beset with strong spines, and usually rises seven or eight feet in height: the leaves are nearly elliptical, ferrated, veined, and stand on shortish footstalks: the flowers are commonly male and female upon different plants, small, greenish, and placed in clusters upon simple peduncles: the calyx supplies the place of a corolla, it is funnel-shaped, of a pale green colour, and divided at the extremity into four spreading pointed segments: the filaments are usually four, arising from the base of a small convex scale, very short, and furnished with round antheræ: the germen is round, and supports a slender style, terminated by a trifid stigma: the fruit is a round black berry, containing four seeds, which are compressed on one side, and protuberant on the other. It is a native of Britain, usually growing in woods and hedges near brooks, flowering in May and June, and ripening its seeds about the end of September.

The fruit or berries of this Shrub, which have been long received into the *Materia Medica*, are about the size of a small pea, and when
ripe



Rhamnus catharticus.

Published by D. Woodville Nov. 1. 1791.

ripe of a shining black colour: they contain a pulpy deep green juice,^a which has a faint unpleasant smell, and a bitterish, acrid, nauseous taste: they operate briskly by stool, and hence the plant derives the trivial name *catharticus*:^b their purgative effects are constantly accompanied with considerable thirst, and dryness of the mouth and throat, and frequently with severe griping of the bowels, especially unless some diluting liquor be plentifully drunk immediately after taking them.

“ The dose is said to be about twenty of the fresh berries in substance; twice or thrice that number in decoction: a dram or a dram and a half of the dried berries; an ounce of the expressed juice; or half an ounce of the rob or extract, obtained by inspissating the juice.”^c The juice made into a syrup is the officinal preparation, and in this state it has been generally preferred by physicians, who found that in doses of one ounce to two it proved a very powerful purgative, and was therefore much employed as a hydragogue.^d Few patients however are able to bear a frequent repetition of this medicine; and even Sydenham, who was partial to the purgative treatment of hydro-pical diseases, found that other cathartics more effectually answered this purpose: at present it is rarely prescribed except in conjunction with other medicines of this class.

The inner bark, like that of Elder, is said to be a strong cathartic, and to excite vomiting.^e

^a This juice is called by the French Verd de Vessie, or Sap Green, and is used for painting or staining paper: that of the unripe berries is yellow, and when the berries are gathered late in the autumn, the juice is purple. It is also used as a dye. See *Lin. Flor. Suec.* p. 72.

^b It is reported that the flesh of those birds which feed upon these berries is purgative. Homberg, *Mem. de l'Acad. des Sc. de Paris*, 1712. p. 9.

^c Lewis, *M. M.* p. 612.

^d Riverius, *Prax. lib. ii. cap. 6.* p. 44.—Boerhaave, *De virib. med.* p. 308.—Chomel, *Usuell. tom. i.* p. 19.—Sydenham, *Opera*, p. 488.

^e Allioni, *Fl. Pedemont, t. ii.* p. 130.

TANACETUM VULGARE. COMMON TANSY.

SYNONYMA. Tanacetum. *Pharm. Lond. & Edinb. Raii Hist.* p. 365. *Synop.* p. 188. *Gerard Emac.* p. 650. Tanacetum vulgare luteum. *Baub. Pin.* p. 132. Tanacetum vulgare. *Park. Theat.* p. 80. *Hudson Flor. Ang.* p. 357. *Withering. Bot. Arrang.* p. 887. *Flor. Dan.* p. 871. Tanacetum foliis pinnatis, pinnis semipinnatis, acute dentatis. *Hal. Stirp. Helv. n.* 132.

Class Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 944.

Eff. Gen. Ch. Recept. nudum. *Pappus* submarginatus. *Cal.* imbricatus, hemisphæricus. *Cor.* radii obsoletæ, 3-fidæ.

Sp. Ch. T. foliis bipinnatis incisiferratis.

THE root is perennial, long, creeping, and fibrous: the stem is strong, erect, often reddish, branched towards the top, smooth, beset with leaves, and rises two or three feet in height: the leaves are doubly pinnated; lesser pinnæ, numerous, notched, or deeply serrated; principal ribs edged with leafy clefts: the flowers are yellow, compound, and produced in a corymbus: the calyx consists of numerous small imbricated squamæ, forming a common perianthum of an hemispherical shape: *the florets at the disc are hermaphrodite*, tubular, divided at the mouth into five pointed segments: *the florets at the border are female*, and cut at the brim into three teeth: the filaments are five, very short, slender, and furnished with antheræ, which unite and form a hollow cylinder: the germen in both the hermaphrodite and female florets is oblong, small, and supports a filiform style, furnished with a cloven reflexed stigma: the seeds are naked, solitary, and of an oblong shape: the receptacle is convex and naked. It is a native of England, growing in moist pastures, borders of corn fields, roads, and rivers, and flowering in July and August.



Tanacetum vulgare.

This species, of which there is a variety, *foliis crispis*, the curled Tanfy, which is said to be more grateful to the stomach than the common Tanfy, and has therefore been preferred by some for medical purposes; but as the sensible qualities of the latter seem most powerful, we judge it to be most efficacious.

“ The leaves and flowers of Tanfy have a strong, not very disagreeable smell, and a bitter somewhat aromatic taste: the flowers are stronger though rather less unpleasant than the leaves. They give out their virtue both to water and spirit, most perfectly to the latter: the tincture made from the leaves is of a fine green; from the flowers of a bright pale yellow colour. Distilled with water they yield a greenish-yellow essential oil, smelling strongly of the herb: the remaining decoction, inspissated, affords a strong bitter subsaline extract. The spirituous tinctures give over also, in distillation, a considerable part of their flavour; a part of it remaining along with the bitter matter, in the extract.”^b

According to Bergius, the virtues of Tanfy are tonic, stomachic, anthelmintic, emmenagogue, and resolvent;^c qualities usually attributed to bitters of the warm or aromatic kind; many of which we shall soon have occasion to notice under the genus *Artemesia*, which is closely allied to that of *Tanacetum* in its botanical character. Tanfy has been much used as a vermifuge, and testimonies of its efficacy are given by many respectable physicians: not only the leaves but the seeds have been employed with this intention, and substituted for those of *Santonium*.

We are told by Dr. Clark, that in Scotland Tanfy was found to be of great service in various cases of gout;^f and Dr. Cullen, who afterwards was informed of the effects it produced upon those who had used the herb for this purpose, says, “ I have known several who have taken it without any advantage, and some others who reported that they had been relieved from the frequency of their gout.”^g

^a See *C. Bamb. l. c.* ^b *Lewis, M. M. p. 633.* ^c *Mat. Med. p. 664.*

^d Hoffman speaks highly of its efficacy. See *Med. Syst. T. 4. P. 2. p. 333.* See also *Supp. p. 87.* *Rosenstein, Bskd. cap. de vermibus.* ^e The latter however are much more bitter and aromatic. See *Lewis, l. c.* ^f Vide, *Essays and Obs. physical and lit. vol. iii. p. 438.* ^g *Mat. Med. vol. ii. p. 80.*

Tansy is also recommended in the hysteria, especially when this disease is supposed to proceed from menstrual obstructions.

This plant may be given in powder to the quantity of a dram, or more, for a dose; but it has been more commonly taken in infusion, or drunk as tea.

DICTAMNUS ALBUS.

WHITE FRAXINELLA,
Or, BASTARD DITTANY.

SYNONYMA. Dictamnus albus. *Pharm. Edinb.* Dictamnus albus five Fraxinella. *Baub. Pin.* p. 222. Fraxinella. *Gerard Emac.* p. 1245. *Morris, Hist.* iii. p. 456. *Tourn. Inst.* p. 430. Fraxinella flore purpureo & albo. *Park. Parad.* p. 333. Fraxinella, &c. *Raii Hist.* p. 698. *J. Baub.* iii. p. 494. *Hal. Stirp. Helv.* n. 1029. *Miller's Figures,* tab. 123. *Jacquin, Flor. Aust.* tab. 428. α Flore niveo. β Flore rubro.

Class Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 522.

Ess. Gen. Ch. *Cal.* 5-phyllus. *Petala* 5, patula. *Filamenta punctis glandulosis adspersa.* *Caps.* 5, coalitæ.

Sp. Ch. D. foliis pinnatis caule simplici. *Supp.* p. 232.

THE root is perennial, and sends off many long spreading fibres: the leaves are pinnated and large; pinnæ elliptical, veined, pointed, slightly ferrated, stand in pairs, and are terminated by an odd one, which is the largest: the stalk is round, smooth, erect, and rises about a foot and a half in height: the bractæ are stipular, and placed singly at the base of the peduncles: the flowers appear from May till July; they are numerous, large, white, terminate the stem, and stand alternately upon long peduncles, which towards the top are bent downwards, and beset with small glands: the corolla is composed of five white petals, of an obversely oval shape, and inserted into the calyx



Dictamnus albus

calyx by long claws: the calyx is rough, and divided into five short segments: the filaments are ten, about the length of the corolla, marked with minute glands, and furnished with large antheræ: the germen is pentangular: the style short, tapering, and supplied with a pointed stigma: the seed vessels are five united capsules, each of which contains two small oval seeds.

This plant, which is commonly called Fraxinella,* is a native of France, Germany, and Italy. It was cultivated here by Gerard, and frequently adorns the borders of our flower gardens, especially the red variety, which is the handsomer plant. It emits a fragrant bituminous odour, which seems to be the essential oil of the herb, secreted by numerous small glands, with which the peduncles and filaments are abundantly furnished. These odorous effluvia are so very inflammable, that on the application of flame, they take fire, especially on the evening of a hot dry day.^a

The root, which is the part directed for medicinal use, “when fresh, has a moderately strong, not disagreeable smell, but as met with in the shops it has scarcely any. To the taste it discovers a pretty strong and very durable bitterness, which is taken up both by watery and spirituous menstua, and on inspissating the filtered tinctures, remains entire in the extracts: the aqueous extract is in much larger quantity than the spirituous, and proportionably weaker in taste.”^b

Formerly this root was used as a stomachic, tonic, and alexipharmic, and was supposed to be a medicine of much efficacy in removing uterine obstructions, and destroying worms;^c but its medicinal powers became so little regarded by modern physicians, that it had fallen almost entirely into disuse, till Baron Stoerck brought it into notice by publishing several cases of its success,^d viz. in tertian intermittents, worms, (lumbrici) and menstrual suppressions. In all these cases he employed the powdered root to the extent of a scruple twice a day.

* From the resemblance its leaves have to those of the ash.

^a Vide Du Hamel, *Phys. des arbres*, tom. i. p. 150. Nollet, *Cours. de Phys.* vol. i. p. 300. ^b Lewis, *M. M.* p. 274. ^c See Geier, *Diētamnographia*. Buchner *Diss. de Fraxinella*. Matthiolus says, “ad multa utilis est.” p. 523. ^d Vide libell. de *Flammula Jovis*, *Diētanno albo*, &c.

He also made use of a tincture, prepared of two ounces of the fresh root digested in fourteen ounces of spirit of wine; of this twenty to fifty drops, two or three times a day, were successfully prescribed in epilepsies, &c. and when joined with steel, this root, we are told, was of great service to chlorotic patients.

The Dictamnus undoubtedly is a medicine of considerable power; but, notwithstanding the account of it given by Stoerck, who seems to have paid little attention to its *modus operandi*, we may still say with Haller, “*Nondum autem vires pro dignitate exploratus est.*” l. c.

CANELLA ALBA.

LAUREL-LEAVED CANELLA.

SYNONYMA. Canella alba. *Pharm. Lond. & Edinb.* Winterania Canella. *Lin. Supp. p.* 247. Arbor baccifera laurifolia aromatica, fructu viridi calyculato racemoso. *Sloane's Jamaica, vol. ii. p.* 87. *t.* 191. *f.* 2. *Catesby's Carolina, vol. ii. p.* 50. *t.* 50. Canella foliis oblongis obtusis nitidis, racemis terminalibus. *Browne's Jamaica, p.* 275. *t.* 27. *f.* 3. Cassia lignea Jamaicensis Laureolæ foliis subcinereis cortice piperis modo acri. *Pluckenet Almag. p.* 89. *t.* 81. *f.* 1. *Lin. Spec. Plant. p.* 636. *Conf. Swartz. Botanical History of the Canella Alba. Linnean Transactions. p.* 96.

Class Dodecandria. *Ord.* Monogynia. *Lin. Gen. Winterania. p.* 598.

Ess. Gen. Cb. Cal. 3-lobus. *Pet.* 5. *Antheræ* 16, adnatæ nectario urceolato. *Bacca* 3-ocularis. *Sem.* 2.

THE stem of this tree rises very straight, from ten to fifty feet in height, and branched only at the top; it is covered with a whitish bark, by which it is easily distinguished at a distance from other trees in the woods where it grows: the leaves are placed upon short footstalks, and stand alternately: they are oblong, obtuse, entire, of a dark shining



Canella alba.

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shining green hue, and thick like those of the laurel: the flowers are small, seldom opening, of a violet colour, and grow in clusters at the tops of the branches upon divided footstalks: the calyx is monophyllus, divided nearly to its base into three lobes, which are roundish, concave, incumbent, green, smooth, membranous, and persistent: the corolla is composed of five petals, which are much longer than the calyx, sessile, oblong, concave, erect, and two of them are somewhat narrower than the other three: the nectary is pitcher-shaped, of the length of the petals, and supports the antheræ instead of filaments, which are wanting: the antheræ are twenty-one, linear, parallel, distinct, single valved, and fixed longitudinally to the nectary: the germen is ovate, placed above the insertion of the corolla, and supports a cylindrical style, furnished with two obtuse rough convex stigmata: the fruit is an oblong berry, containing four kidney-shaped seeds of unequal size.*

It appears a little surprising, that the Canella, which is a native of the West Indies, and of which figures have been given by Plukenet, Sloane, Catesby, Browne,^a and others, should have been generally confounded with the tree which produces the cortex winteranus: even the younger Linnæus, who describes this tree under the genus Winterania, from a specimen in the herbarium of Montin, has acknowledged that he could not discover how far it differed from the Drimys, or Wintera of Murray.^b The present figure, which is given on the authority of Dr. Swartz, who presented it to the Linnæan Society, accompanied with a botanical history of the tree,|| will, we hope, re-

* "The whole tree (according to Dr. Swartz) 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 to 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. They are, when ripe, as well as the fruit of several kinds of laurel, very agreeable to the *White-bellied and Bald-pate Pigeons*, (*Columba Jamaicensis & leucocephala*) which feeding greedily upon them acquire that peculiar flavour so much admired in the places where they are found." l. c.

^a Swartz observes, that the only tolerable figure among these is that of Browne, l. c.

^b "Quantum differat a genere Drimys nondum bene scio." *Supp. p. 247.*

^c *Vide l. c.*

|| Read before the Linnæan in December 1788.

remove every doubt concerning the true characters of *Canella alba*; and by comparing the annexed plate with that published of the *Winterana aromatica*, in the fifth volume of *Medical Observations and Inquiries* by Drs. Fothergill and Solander,|| it may be observed how far the tree, which produces the cortex winteranus, differs from that of our plant, the bark of which is the officinal *Canella alba*. The latter appears from Clusius to have been first introduced into Britain about the year 1600;† the former was known in England twenty years before, and took its name from William Winter, captain of one of the ships which accompanied Sir Francis Drake to the Straits of Magellan, from whence he brought this bark to Europe in 1579. John Bauhin appears to be the first^d who confounded the names of these barks, by styling the cortex winteranus *Canella alba*; and as Sir Hans Sloane, who has given a separate description of both trees, and was sensible of a difference in the taste of their barks, seems to insinuate that this might depend upon the place of growth, his remarks did not wholly remove the error.^e

Professor Murray, in his 14th edition of the *Systema Vegetabilium*, was the first who made a distinct genus of *Canella*, and thus corrected the mistake of Linnæus,‡ who, disregarding the evidence of the old botanists,* combined two genera under the name of *Laurus Winterana*;^f but he afterwards made it a separate genus, and called it *Winterania*,^g a name by which it has been long universally, though improperly distinguished. Mr. Aiton, who has followed Murray in considering the *Canella*, as differing generically from the tree named after Winter, informs us, that it was cultivated by Mr. Phillip Miller, at Chelsea, in 1739.^h

|| "Some Account of the Cortex Winteranus, or Magellanicus, by Dr. John Fothergill, with a Botanical Description by Dr. Solander, and some Experiments by Dr. Morris." p. 41.

† He says, "Ante paucos annos (1605) cœpit exoticus cortex inferri, cui nomen Canellæ albæ indiderunt." *Exot. lib. iv. cap. 4.*

^d *Hist. vol. i. p. 460.*

^e *Phil. Trans. No. 192. p. 462.*

‡ P. 443. Though Murray has here said, "Cortex hujus est *Canella alba officinarum*," yet the London College has not availed itself of this authority, no botanical reference being given to *Canella alba* in the new pharmacopœia.

* Among these we may notice Plukenet, who, speaking of these two trees, says, "Varie inter se plurimum diversæ plantæ per illarum ignorationem plane confunduntur." *Almag. Mant. p. 40.*

^f *Sp. Plant. ed. 1. p. 371.* ^g See his *Hort. Cliff. 448.* and *Mat. Med.*

^h *Hort. Kew. vol. ii. p. 125.*

The officinal *Canella alba* is the bark of the branches of this tree, freed from its outward covering, and dried in the shade. It is brought to Europe in long quills, which are about three quarters of an inch in diameter, somewhat thicker than cinnamon, and both externally and internally of a whitish or light brown colour, with a yellowish hue, and commonly intermixed with thicker pieces, which are probably obtained from the trunk of the tree. This bark in taste is moderately warm, aromatic, and bitterish; its smell is agreeable, and resembles that of cloves. Its virtues are extracted most perfectly by proof spirit. "In distillation with water it yields an essential oil of a dark yellowish colour, of a thick tenacious consistence, difficultly separable from the aqueous fluid, in smell sufficiently grateful, though rather less so than the bark itself: the remaining decoction, inspissated, leaves an extract of great bitterness, in consistence not uniform, seemingly composed of a resinous and gummy matter, imperfectly mixed. On inspissating the spirituous tincture, the spirit which distils has no great smell or taste of the *Canella*, but is so far impregnated with its more volatile oil as to turn milky on the admixture of water: the remaining extract retains the bitterness of the bark, but has little more of its warmth or flavour than the extract made with water."¹

The use of *Canella alba* now supersedes that of the old bark of Winter, on the authority of both the London and Edinburgh pharmacopœias. It has been supposed to possess a considerable share of medicinal power, and is said to be an useful medicine in the scurvy, and some other complaints; but it is now considered merely in the character of an aromatic, and like many of the spices is chiefly employed for the purpose of correcting and rendering less disagreeable the more powerful and nauseous drugs. It is therefore an ingredient in the pulv. aloet. Pharm. Lond. and in the tinctura amara, vinum amarum, vinum rhei, &c. of the Pharm. Edinb. Swartz tells us that "this bark, together with the fruit of *Capficum*, was formerly a common ingredient in the food and drink of the Caribs, the ancient natives of the Antilles; and even at present it makes a necessary addition to the meagre pot of the negroes." l. c.

¹ Lewis, *M. M.* p. 186.

SCILLA MARITIMA.

OFFICINAL SQUILL,
Or, SEA ONION.

SYNONYMA. Scilla. *Pharm. Lond. & Edinb.* Scilla vulgaris radice rubra. *Baub. Pin. p. 73.* *Raii Hist. p. 1164.* Scilla rubra, five Pancratium verum. *Park. Parad. p. 133.* Scilla rubra magna vulgaris. *J. Baub. Hist. ii. p. 615.* Pancratium Clusii. *Gerard Emac. p. 172.* Ornithogalon maritimum, feu scilla radice rubra. *Tourn. Inst. p. 381.* β Scilla radice alba. *Baub. l. c.*

Class Hexandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 419.

Eff. Gen. Ch. Cor. 6-petala, patens, decidua. *Filamenta* filiformia.

Sp. Ch. S. nudiflora, bracteis refractis.

THE root is large, perennial, bulbous, coated, of a reddish hue, abounding with a tenacious juice, and furnished with many white fibres, which issue from its base: the stem is round, smooth, succulent, and rises two or three feet in height: the leaves are sword-shaped, radical, smooth, pointed, long, and of a deep green colour: the flowers are whitish, produced in a long close spike upon purplish peduncles, and appear in April and May: the bractæ are linear, twisted, and deciduous: it has no calyx: the corolla is composed of six petals, which are ovate, patent, with a reddish mark in the middle: the filaments are six, tapering, shorter than the corolla, and furnished with oblong antheræ, placed transversely: the germen is roundish, supporting a simple style about the length of the filaments, and furnished with a simple stigma: the capsule is oblong, smooth, marked with three furrows, and divided into three cells, which contain many roundish seeds.

This plant is a native of Spain, Sicily, and Syria, growing in sandy situations on the sea coast, and hence the name *maritima*. It was first cultivated in England at the botanic garden at Oxford about the year 1648.² The red rooted variety has been supposed to be more

Vide, *Hert. Oxon. ed. 1. p. 48.*

efficacious



Scilla maritima

efficacious than the white, and is therefore still preferred for medicinal use:^b it is to the taste very nauseous, intensely bitter, and acrimonious, but without any perceptible smell. “ Water, wine, proof spirit and rectified spirit, extract the virtues both of the fresh and the dry root. Nothing rises in distillation with any of these menstrua, the entire bitterness and pungency of the Squill remaining concentrated in the inspissated extracts: the spirituous extract is in smaller quantity than the watery, and of a proportionably stronger almost fiery taste.”

“ Alkalines considerably abate both the bitterness and acrimony of the Squill: vegetable acids make little alteration in either, though the admixture of the acid taste renders that of the Squill more supportable. These acids extract its virtue equally with watery or spirituous menstrua.”^c

The root of the Squill, which appears to have been known as a medicine in the early ages of Greece,^d and has so well maintained its character ever since, as to be deservedly in great estimation, and of very frequent use at this time, seems to manifest a poisonous quality to several animals. In proof of this, we have the testimonies of Hillefeld,^e Bergius,^f Vogel,^g and others. Its acrimony is so great that even if much handled it exulcerates the skin; and if given in large doses, and frequently repeated, it not only excites nausea, tormina, and violent vomitings, but it has been known to produce strangury, bloody urine, hypercatharsis, cardialgia, hæmorrhoids, convulsions, with fatal inflammation and gangrene of the stomach and bowels.^h But as many of the more active articles of the materia medica, by injudicious administration, become equally deleterious, these effects of the Scilla do not derogate from its medicinal virtues; on the contrary, we feel ourselves fully warranted in representing this drug, under proper management, and in certain cases and constitutions, to be a medicine of great

^b It may be observed, that this red colour is only confined to the outer coats of the root.

^c Lewis, *M. M.*

^d Some refer its introduction to medical use to Epimenides; others to Pythagoras. Vide Haller, *Bib. Bot.* p. 12. It was sometimes called *Σκίλλα*, and sometimes *Παχυματιον* and is noticed by Dioscorides, Hippocrates, Galen, Aëtius, Celsus, Pliny, Cælius Aurelianus, and the Arabian physicians.

^e *Diff. experim. circa venena*, p. 12. ^f *Mat. Med.* p. 265. ^g *V. in Hillef.* p. 18.

^h See Lange, *de remed. Brunf. domest.* p. 176. Also Quarin, *Animadv. pract.* p. 166.

practical utility, and real importance in the cure of many obstinate diseases. Its effects, as stated by Bergius, are incidens diuretica, emetica, subpurgans, hydragoga, expectorans, emmenagoga.ⁱ In hydropical cases it has long been esteemed the most certain and effectual diuretic with which we are acquainted; and in asthmatic affections,^k or dyspnoea, occasioned by the lodgment of tenacious phlegm, it has been the expectorant usually employed.^l The Squill, especially in large doses, is apt to stimulate the stomach, and to prove emetic; and it sometimes acts upon the intestines, and becomes purgative; but when these operations take place, the medicine is prevented from reaching the blood vessels and kidneys, and the patient is deprived of its diuretic effects; which are to be obtained by giving the Squill in smaller doses, repeated at more distant intervals,^m or by the joining of an opiate to this medicine, which was found by Dr. Cullen to answer the same purpose. The Dr. further observes, that from a continued repetition of the Squill, the dose may be gradually increased, and the intervals of its exhibition shortened; and when in this way the doses come to be tolerably large, the opiate may be most conveniently employed to direct the operation of the Squill more certainly to the kidneys. "In cases of dropsy; that is, when there is an effusion of water into the cavities, and therefore that less water goes to the kidneys, we are of opinion, that neutral salt, accompanying the Squill, may be of use in determining this more certainly to the kidneys: and whenever it can be perceived that it takes this course, we are persuaded that it will also be always useful, and generally safe during the exhibition of the Squills to increase the usual quantity of drink."ⁿ

The diuretic effects of Squills have been supposed to be promoted by the addition of some mercurial; and the less purgative preparations of mercury, in the opinion of Dr. Cullen, are best adapted to this purpose; he therefore recommends a solution of corrosive sublimate, as being more proper than any other, because most diuretic.

ⁱ *L. c.* ^k All the authors who have written on these diseases, might here be cited.

^l We do not notice its use as an emetic, as we think it entirely superseded by the ipecacuanha.

^m This is mentioned on the authority of Dr. Cullen. *M. M. v. ii. p. 558.*

ⁿ Cullen, *l. c.*

Where the primæ viæ abound with mucous matter, and the lungs are oppressed with viscid phlegm, this medicine is likewise in general estimation.

As an expectorant, the Squill may be supposed not only to attenuate the mucus, and thus facilitate its ejection, but by stimulating the secretory organs and mucous follicles, to excite a more copious excretion of it from the lungs, and thereby lessen the congestion, upon which the difficulty of respiration very generally depends. Therefore in all pulmonic affections, excepting only those of actual or violent inflammation, ulcer, and spasm, the Squill has been experienced to be an useful medicine.

The officinal preparations of Squills are a conserve, dried Squills,* a syrup, and vinegar, an oxymel, and pills. Practitioners have not however confined themselves to these:° when this root was intended as a diuretic, it has most commonly been used in powder, as being in this state less disposed to nauseate the stomach; and to the powder it has been the practice to add neutral salts, as nitre, or crystals of tartar, especially if the patient complained of much thirst; others recommend calomel; and with a view to render the Squills less offensive to the stomach, it has been usual to conjoin an aromatic. The dose of dried Squill is from two to four or six grains, once a day, or half this quantity twice a day; afterwards to be regulated according to its effects. The dose of the other preparations of this drug, when fresh, should be four times this weight; for this root loses in the process of drying four-fifths of its original weight, and this loss is merely a watery exhalation.^p

* “ We must not, however, miss to observe here, that the drying of the Squill is a business that requires much attention, as it may be readily over done, and thereby render the Squill entirely useless. This over drying in one way or other, happens more frequently than our apothecaries are aware of; and has led me to allow, that some operation on the stomach, some nausea excited by the Squill, is a necessary test of the activity of the portion of it employed.” *Cullen, l. c.*

° See on this subject Wagner, *obs. clin. sect. 2.* in Hall. *collect. diff.* Ludwig, *Advers. Medio-pract. vol. ii. p. 695.* Quarin, *l. c.* Werlhof, *Oper.* Stoll, *Prælect. in morb. chron.* Home, *Clin. Exper. & Hist. p. 357. &c.*

^p Duncan, *New Edinb. Dispens. p. 322.*

ARTEMISIA ABROTANUM.

ARTEMISIA ABROTANUM. COMMON SOUTHERNWOOD.

SYNONYMA. Abrotanum. *Pharm. Lond. & Edinb.* Abrotanum mas angustifolium majus. *Baub. Pin. p. 136. Tourn. Inst. p. 459. Dubamel, Arb. i. p. 20. t. 4.* Abrotanum mas vulgare. *Park. Theat. p. 92. Abrotanum mas. Gerard. Emac. p. 1105. Raii Hist. p. 371. Dodon. Pempt. p. 21.*

^a *A. caule erecto.*

^β *A. humilis foliis setaceis pinnatifidis, caule decumbente suffruticoso. Mill. Dict.*

Class Syngenesia. Ord. Polygamia Superflua. Lin. Gen. Plant. 945.

Eff. Gen. Ch. Recept. subvillosum vel nudiusculum. Pappus nullus. Cal. imbricatus, squamis rotundatis, conniventibus. Cor. radii nullæ.

Sp. Ch. A. fruticosa, foliis setaceis ramosissimis.

THE root is perennial, woody, and fibrous: the stalk is shrubby, round, covered with smooth brown bark, sends off vertical branches, and rises two or three feet in height: the leaves are numerous, somewhat hoary, doubly and irregularly pinnated; pinnæ, linear, long, narrow, entire, concave on the upper side, convex beneath, and stand upon long footstalks, which are also of this shape: the flowers are small, of a greenish yellow colour, and placed in close terminal spikes upon the branches: the calyx is imbricated, consisting of several membranous scales: the flowers are compound, composed of numerous florets; those in the *centre*, or *disc*, are *hermaphrodite*; but in the *margin* they are *female*: the corolla is tubular, and extremely minute: the filaments are five, short, and slender: the antheræ are united, and form a hollow cylinder: the style is longer than the stamina, and furnished with a cleft reflected stigma: the seeds are naked and solitary.

Southernwood



Artemisia Abrotanum

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Southernwood is a native of France, Spain, and Italy: it was cultivated here by Gerard, and its odour renders it so generally acceptable, that there are few gardens in which this plant is not to be found. Although it bears the cold of our winters very well, it so rarely flowers in Britain, that a specimen proper for delineation cannot without difficulty be obtained.

The leaves and tops of Southernwood, have a strong, and to most people an agreeable smell: its taste is pungent, bitter, and somewhat nauseous. These qualities are completely extracted by spirituous menstrua, the herb communicating to the spirit a beautiful green colour. Water extracts its virtues less perfectly, and the infusion is of a light brown colour. In distillation with water this plant affords but a small quantity of essential oil; for from sixteen pounds of the fresh leaves scarcely three drams of this oil could be obtained.^a

The Abrotanum mas & femina were regarded by the ancients^b as medicines of considerable efficacy; the latter is referred to Santolina Chamæ-Cyparissus, *Lin.* (Common Lavender Cotton); the former is the species now under consideration, and has been esteemed to be stomachic, carminative, and deobstruent: it is supposed to stimulate the whole system, more particularly that of the uterus. But though it still retains a place both in the London and Edinburgh pharmacopœias, it is now rarely used, unless in the way of fomentation.

^a Lewis, *M. M.* p. 4.

^b See Theophrast. *Hist. L.* 1. c. 15. p. 44. Dioscor. *L.* 3. c. 29. p. 184. Galen. *Simpl. L.* 6. p. 40. Pliny, *L.* 21. c. 21.

ARTEMISIA ABSINTHIUM. COMMON WORMWOOD.

SYNONYMA. Absinthium vulgare. *Pharm. Lond. & Edinb.*
 Absinthium ponticum seu Romanum officinarum, seu Dioscoridis.
Baub. Pin. p. 138. Absinthium latifolium sive Ponticum. *Gerard.*
Emac. p. 1096. Absinthium vulgare majus. *J. Baub. Hist. iii.*
p. 168. Absinthium vulgare. *Park. Theat. p. 98.* *Raii Hist. p.*
366. *Synop. p. 188.* *Hal. Stirp. Helv. n. 124.* Artemisia Absin-
 thium. *Huds. Ang. p. 358.* *Withering. Bot. Arrang. p. 891.*

Class Syngenesia. Ord. Polygamia Superflua. Lin. Gen. Plant. 945.

Eff. Gen. Ch. Recept. subvillosum vel nudiusculum. Pappus nullus.
Cal. imbricatus squamis rotundatis conniventibus. Cor. radii
nullæ.

Sp. Ch. A. foliis compositis multifidis, floribus subglobosis pendulis:
receptaculo villoso.

THE root is perennial, long, and fibrous: the stalks are round, channelled, somewhat downy, ligneous, rising two or three feet in height, and sending off several round branches: the leaves are compound, divided into many bluntish segments in a pinnated order, on the under side downy, of a whitish or pale green colour, and silky softness: the flowers are of a brownish yellow colour, pendent, and placed in numerous spikes, which stand alternately upon the branches: the calyx is composed of many oval scales: the florets are hermaphrodite and male, placed upon a villous receptacle, and in the structure of their different parts nearly resembling those described of the preceding species of Artemisia. This plant is a native of Britain, and grows about rubbish, rocks, and sides of roads.

The leaves of Wormwood have a strong disagreeable smell; their taste is nauseous, and so intensely bitter as to be proverbial.

The



Artemisia Absinthium

Published by D. Woodville Dec. 1. 1791

The flowers are more aromatic and less bitter than the leaves, and the roots discover an aromatic warmth without any bitterness.*

“ The leaves give out nearly the whole of their smell and taste both to aqueous and spirituous menstrua. Rectified spirit elevates little from this plant in distillation : water brings over almost the whole of its smell and flavour. Along with the aqueous fluid there arises an essential oil, which smells strongly and tastes nauseously of the Wormwood, though not bitter. The quantity of oil varies greatly, according to the soil and season in which the herb is produced. ”^a

“ The watery extract loses the distinguishing smell and ill flavour of the plant, but retains its bitterness almost entire. An extract, made with rectified spirit, contains, along with the bitter, nearly the whole of the nauseous part; ^b water carrying off, in the evaporation, all the oil in which the offensive flavour resides, while pure spirit elevates very little of it. ”^c

This species of Wormwood, which is thought by Professor Murray to be the *Abinthium ponticum* of Dioscorides and Pliny,^d may be considered the principal of the herbaceous bitters. Its *Virtus*, in the words of Bergius, is antiputredinosa, antacida, anthelminthica, resolvens, tonica, stomachica.^e And although it is now chiefly employed with a view to the two last mentioned qualities, yet we are told of its good effects in a great variety of diseases, as intermittent fevers,^f hypochondriasis,^g obstructions ^h of the liver and spleen, gout,ⁱ calculi,^k

* This plant communicates a bitter taste to the flesh and milk of cows and sheep which feed on it. *Lin. Flor. Suec. n. 735.* The milk of a woman, who took the extract, became extremely bitter. *Aët. Hafn. vol. 2. p. 165.*

^a *Baumé* from twenty-five pounds of the herb obtained six to ten drams of the oil.

^b The extract, triturated with salt of tartar, emits a volatile odour; and hence appears to contain sal ammoniacum. *Sulzer. Diff. An in plantis sal essentielle ammoniacum?* *Gott. 1769.*

^c *Lewis, M. M. p. 6.*

^d “ *Abinthium bathypicron herba est vulgo cognita. Præstantius in Ponto & Cappadocia in monte Tauro appellato nascitur.* ” *Dioscor. L. 3. c. 26. p. 183.*

^e *Mat. Med. p. 670.* ^f *Boerhaave, Elem. Chem. Processus. 39. Comm. Nor. 1734. p. 225.* ^g *Haller, l. c.*

^h *Lange, Brunov. p. 111.* ⁱ *Haller, l. c.* *Bomare, Dict.*

^k *Linnaeus, Am. Acad. T. 3. p. 160.*

scurvy,

scurvy,¹ dropfy,^m worms, &c. Lindestolpheⁿ has asserted, that by a continued use of this herb, great injury is done to the nervous system, from its narcotic and debilitating effects, which he experienced upon himself; observing also, that he could never taste the extract or essence of Wormwood without being immediately affected with head-ach and inflammation of the eyes: and it is noticed both by him and his commentator, Stenzelius, that Absinthium produced similar effects upon many others. These narcotic effects of Wormwood have however been attributed to a peculiar idiosyncrasy, as numerous instances have occurred in which this plant produced a contrary effect, though taken daily for the space of six months. Dr. Cullen, speaking on this subject, says, “ I have not had an opportunity of making proper experiments; but to me, with Bergius and Gleditsch, the odour of Wormwood seems temulentans, that is, giving some confusion of head: and formerly, when it was a fashion with some people in this country to drink Purl, that is, ale, in which Wormwood is infused, it was commonly alleged to be more intoxicating than other ales. This effect is improperly supposed to be owing to its volatile parts: but I am more ready to admit the general doctrine of a narcotic power; and I believe, from several considerations, particularly from the history of the Portland powder, that there is in every bitter, when largely employed, a power of destroying the sensibility and irritability of the nervous power.”^o

Externally Wormwood is used in discutient and antiseptic fomentations. This plant may be taken in powder, but it is more commonly preferred in infusion. The Edinburgh pharmacopœia directs a tincture of the flowers, which is, in the opinion of Dr. Cullen, a light and agreeable bitter, and at the same time a strong impregnation of the Wormwood.

¹ Eugal. *De Scorb.* p. 83. ^m Fehr, *Hiera. picra, vel de Absinth. analesta.* p. 117.
 Heister in Hall. *Disput. anat.* vol. 6. p. 713. *Misc. Nat. Cur.* Dec. 1. Ann. 3. Obs.
 322. ⁿ *De venenis.* p. 547. ^o *Mat. Med.* vol. 2. p. 81.



Artemisia vulgaris

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ARTEMISIA VULGARIS.

MUG-WORT.

SYNONYMA. Artemisia. † *Pharm. Edinb.* Artemisia vulgaris major. *Baub. Pin. p.* 137. Artemisia mater herbarum. *Gerard. Emac. p.* 1103. Artemisia foliis pinnatis inferne tomentosiss, pinnis acute dentatis, spica paniculata erecta. *Hal. Stirp. Helv. n.* 130. Artemisia vulgaris. *J. Baub. Hist. iii. p.* 184. *Park. Theat. p.* 90. *Raii Hist. p.* 372. *Synop. p.* 190. *Huds. Flor. Ang. p.* 359. *Withering. Bot. Arrang. p.* 891.

Class Syngenesia. Ord. Polygamia Superflua. Lin. Gen. Plant. 945.

Ess. Gen. Ch. Recept. subvillosum vel nudiusculum. *Pappus nullus. Cal. imbricatus, squamis rotundatis conniventibus. Cor. radii nullæ.*

Sp. Ch. A. foliis pinnatifidis planis incisis subtus tomentosiss, racemis simplicibus recurvatis floribus radio quinquefloro.

THE root is perennial, composed of numerous strong fibres: the stalk is erect, branched, angular, striated, reddish, and usually rises two or three feet in height: the leaves are irregularly and deeply divided into several lacinix or lobes, which are oval, pointed, on the upper side of a deep green colour, on the under downy, or covered with a cotton-like substance: the flowers are small, purplish, and produced in spikes, which stand alternately, and rise from the bottom of the leaves: the calyx is composed of several narrow scales, which are purplish, woolly, and placed in an imbricated order: the florets are longer than the calyx, stand upon a naked receptacle, and appear in August: the five florets of the circumference are female;

† "Artemisia dicta, ab *Artemisia Mausoli Carix regis uxore*, quæ hanc sibi, ut loquitur *Plinius l. 25. c. 7. p. 636.* adoptavit, cum antea *παρθενισ* i. e. *virginalis*, quod virgo dea illi nomen dederit, vocaretur. Sunt qui ab *Artemide Ilithia* cognominatam putent; quoniam privatim foeminarum malis, quibus *Αρτεμις* i. e. *Diana* præest, medeatur." *C. Baub. l. c.*

those of the centre are hermaphrodite, and both agree in their structure with those of the other species already described.

Mugwort is a native of Britain, and is commonly found growing in waste grounds, and the borders of fields. It is divided into red and white varieties; the former is distinguished by a reddish tinge of the stalk and flowers; in those of the latter they are of a pale green. "The leaves have a light agreeable smell, especially when rubbed a little; but scarcely any other than an herbaceous taste. An extract made from them by water is likewise almost insipid; and an extract made by spirit has only a weak aromatic bitterness. Baierus informs us, in a dissertation on this plant, that by fermenting a large quantity of it, and afterwards distilling, and cohobating the distilled water, a fragrant sapid liquor was obtained, with a thin fragrant oil on the surface. The flowery tops are considerably stronger than the leaves, and hence should seem to be preferable for medicinal use."^a

This plant, though rarely used at present, was by the ancients held in great estimation. Hippocrates^b very frequently mentions Artemisia: he thought it of great use in promoting uterine evacuations: with this intention it was also employed by Dioscorides;^c and Galen for this purpose used it in the way of fomentation; a practice which seems in some measure conformable to that of the Chinese women, who, as we are told,^d make a poultice of the leaves of this plant, mixed with rice and sugar, which in cases of amenorrhœa, and hysteria, instar bellarii ingerunt. If this herb however possesses any powers as an antihysterical or uterine, they are very weak; the London College has therefore properly expunged it from the materia medica.

MOXA is a substance prepared in Japan from the dried tops and leaves of Mugwort,^e by beating and rubbing them betwixt the hands till only the fine internal lanuginous fibres remain, which are then combed and formed into little cones. These, used as cauteries, are

^a Lewis, *M. M.* p. 117.

^b *De Morb. Mul. lib. 1.*

^c *Mat. Med. lib. 3. cap. 10.*

^d *Ten. Rhyne de Arthr. p. 133.*

^e This however is not the species of Artemisia from which the eastern Moxa is made, but that prepared from this plant in Germany was found to answer very well. See *Eph. Nat. Cur. Dec. 3. A. 7. 8. App. 141.*

It has also been made from the down of *Verbascum*.

greatly celebrated in eastern countries for preventing and curing many disorders;^f but chronic rheumatisms, gouty, and some other painful affections of the joints, seem to be the chief complaints for which they can be rationally employed. The manner of applying the Moxa is very simple: the part affected being previously moistened, a cone of the Moxa is laid, which being set on fire at the apex, gradually burns down to the skin, where it produces a dark coloured spot: by repeating the process several times, an eschar is formed of any desired extent, and this on separation leaves an ulcer, which is kept open or healed up as circumstances may require.

It is said that the use of the Moxa was originally introduced by the Jesuits;^g but it is probably of greater antiquity. From remote times it has been the practice to cauterize the affected parts by various means. Hippocrates for this purpose not only used iron but flax, also a species of Fungus;^h and the Laplanders still prefer the Agaric, (*Boletus igniarius*) which they prepare and use in a similar way, as the Japanese do their Moxaⁱ. The Ægyptians produced the same effects by means of cotton or linen cloth;^k and in Spain a Moxa is prepared from a species of the Echinops.

^f For a full account of these see Kæmpfer *Amoen. exot.* p. 502, &c. Also Abbé Grosier (*Hist. of China*) from whom it appears, that mirrors of ice or metal were used for the purpose of igniting the moxa; and that the ancient Chinese made paper, and a kind of cloth, of the down of artemisia.

^g See *Recueil d'observations curieuses*, tom. ii. p. 114.

^h *Lib. de affect.* §. 30.

ⁱ Harmens and Fiellstrom *Diff. Med. Lapp. in Hall. Collect. diff. pract.* tom. vi. p. 728.

^k Prosper Alpinus, *Lib. iii. c. 12.* p. 209.

ARTEMISIA MARITIMA.

SEA WORMWOOD.

SYNONYMA. Absinthium maritimum. *Pharm. Lond.* Absinthium seriphium Belgicum. *Baub. Pin.* p. 139. *J. Baub. Hist.* iii. p. 188. Absinthium seriphium sive marinum Anglicum. *Park. Theat.* p. 102. Absinthium marinum album. *Gerard. Emac.* p. 1099. *Raii Hist.* p. 370. *Synop.* p. 189. *Huds. Flor. Ang.* p. 359. *Withering. Bot. Arrang.* p. 890.

Class Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

Eff. Gen. Ch. *Recept.* subvillosum vel nudiusculum. *Pappus* nullus. *Cal.* imbricatus, squamis rotundatis, conniventibus. *Cor.* radii nullæ.

Sp. Ch. A. foliis multipartitis tomentosis racemis cernuis flosculis femineis ternis.

THE root is perennial, spreading, and fibrous: the stems are procumbent, branched, about a foot in height, and covered with a white down or cotton: the leaves are numerous, irregularly divided into many segments, which are narrow, linear, and covered both above and below with a fine cotton-like substance, giving the whole plant a whitish appearance: the flowers are of a brownish yellow colour, and placed in pendent spikes: the calyx is composed of many roundish scales: three florêts at the circumference are female, the others are hermaphrodite, and both in their structure resemble those of absinthium. It is a native of Britain, growing plentifully on the sea shore, and about salt marshes, and flowers in August and September.

This plant seems to have been formerly confounded with the *A. pontica*, or Roman Wormwood, as appears by Ray^a and Dale;^b their

^a "Absinthii speciem Londini & alibi in Anglia coli solitam nomine Absinthii Romani, non aliter ab hoc differre putamus quam culturâ & loco natali." &c. *Hist.* p. 370.

^b Speaking of this plant, he says, "Mulierculæ Botanopolæ Londinenses Absinthium romanum vocant." *Pharm.* p. 99.



Artemisia maritima

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Artemisia Santonica

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specific differences however are very evident. Its taste and smell are considerably less unpleasant than those of the common Wormwood; and even the essential oil, which contains the whole of its flavour concentrated, is somewhat less ungrateful, and the watery extract somewhat less bitter, than those of the common wormwood. Hence it is preferred by the London College in those cases where the *A. Absinthium* is supposed to be too offensive to the stomach.† But as the efficacy of these plants depends upon their sensible qualities, this species, though its virtues approach to those of common wormwood, yet from being less powerfully bitter, must be considered in a proportionate degree a less powerful medicine.

A conserve of the tops of this plant is directed by the London Pharmacopœia.

• “ In its wild state it smells like Marum or Camphor, but in our gardens it is less grateful.” *Withering, l. c.*

The salt of Wormwood, which is obtained from the ashes of the *A. Absinthium*, differs not from other vegetable fixed alkali, provided they be equally pure.

† It appears by Dioscorides, that the ancients believed it to disorder the stomach: — “ *Absinthium marinum, quidam περιφύον vocant, est herba prætenuibus furculis abrotoni parvi similitudine, minutulis referta feminibus, subamara stomacho inimica graveolens, & cum quadam calfactione astringens.*” *l. 3. c. 27.*

ARTEMISIA SANTONICA. TARTARIAN SOUTHERN- WOOD.

SYNONYMA. Santonicum. *Pharm. Lond. & Edinb.* Absinthium Santonicum Alexandrinum. *Baub. Pin. p. 139. Raii Hist. p. 368. Sementina. Gerard Emac. p. 1100. Semen sanctum. Lob. ic. 758. Absinthium Seriphium Ægyptium & semen sanctum, Scheba Arabum. Camer. Epit. p. 457. Absinthium Santonicum alexandrinum, sive sementina & semen sanctum. Park. Theat. p. 102. Artemisia fruticosa incana ramosissima, corymbis sessilibus spicatis subrotundis, foliis superioribus linearibus brevissimis obtusiusculis. Gmel. Lib. 11. p. 115. t. 51.*

Class Syngenesia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

Eff. Gen. Ch. *Recept.* subvillosum vel nudiusculum. *Pappus* nullus.

Cal. imbricatus squamis rotundatis conniventibus. *Cor.*
radii nullæ.

Sp. Ch. A. foliis caulinis linearibus pinnato-multifidis, ramis indivisis, spicis secundis reflexis, floribus quinquefloris.

THE root is perennial: the stem is round, smooth, branched, somewhat hoary, and rises about two feet in height: the lower leaves are divided into many narrow linear segments, standing in a pinnated order; those of the branches are sessile, narrow, and undivided; they are all of a pale green on the upper side, and whitish beneath: the flowers are roundish, brown, and placed in spikes upon short slender alternate peduncles: the calyx is composed of numerous narrow scales: the florets are male and female, placed upon a naked receptacle, and in their situation and structure agree with the other species of *Artemisia* already described. It is a native of Siberia, and flowers in September.

This species, which was first cultivated in England by Mr. P. Miller,^a we obtained at the Royal Garden at Kew; but whether it is the officinal *Santonium*, or not, seems very doubtful.*

It appears by the species plantarum, that though Linnæus first considered this plant to be the *Santonium*, afterwards however he changed his opinion, and referred it to another species, named *Artemisia judaica*;^b and in this he has been followed by Murray and Bergius; but as the evidence upon which this determination is founded, is admitted by Linnæus himself to be still inconclusive,^c we have in conformity to the London College adopted the *Artemisia* as originally referred to.

^a See *Aiton's Hort. Kew.*

* The following observation of Geoffroy on this subject is still, in some measure, applicable:—"Nulla quidem res in officinis magis usitata & cujus origo minus cognita sit. Num in Galliâ proveniat, in Palæstinâ, in Ægypto, vel in Persiâ, aut in solo regno, Boutan, in India orientali remotissima." *M. M. vol. ii. p. 466.*

^b *Mantissa, p. III. & p. 281.* And *Mat. Med.* second Edition.

^c He enumerates the seeds of this plant among those of the other plants hitherto not sufficiently ascertained. See his *Preface to the Materia Medica.*

The seed of Santonicum or Wormseed is small, light, oval, composed as it were of a number of thin membranous coats, of a yellowish green colour, with a cast of brown; easily friable on being rubbed between the fingers, into a fine chaffy kind of substance.

These seeds are brought from the Levant;^d they have a moderately strong and not agreeable smell, somewhat of the wormwood kind; and a very bitter subacid taste. Their virtues are extracted both by watery and spirituous menstrua.

These seeds, in common with the other Artemisias, are esteemed to be stomachic, emmenagogue,^e and anthelmintic; but it is especially for the last mentioned powers that they have been generally administered; and from their efficacy in this way they obtained the name of Wormseed. Their quality of destroying worms has been ascribed solely to their bitterness; but it appears from Baglivi, that worms (*lumbrici*) immersed in a strong infusion of these seeds, were killed in five, and according to Redi, in seven or eight hours,^f while in the infusion of Wormwood, and in that of Agaric the worms continued to live more than thirty hours; and hence it has been inferred that their vermifuge effects could not wholly depend upon the bitterness of this seed. To adults the dose in substance is from one to two drams twice a day. Lewis thinks that the spirituous extract is the most eligible preparation of the Santonicum for the purposes of an anthelmintic.

^d Lewis, *M. M.* p. 580.

^e Remarkable effects of the Santonicum in this way are related by Bergius:—"Puellæ eudem decenni, vermibus conflictanti, semina Santonici exhibui, sed per illud tempus quo iis utebatur, menses fluxerunt, qua re cognita, usum eorundem dissuasi, unde etiam fluxus sponte cessavit." *M. M.* p. 668.

^f Bagliv. *Oper.* p. 60. Redi *de animal. viv.* p. 159.

DATURA STRAMONIUM.

DATURA STRAMONIUM. COMMON THORN-APPLE.

SYNONYMA. Stramonium. *Pharm. Edinb.* Solanum foetidum, pomo spinoso oblongo. *Baub. Pin. p.* 168. Stramonium majus album. *Park. Parad. p.* 360. Stramonium spinosum. *Gerard. Emac. p.* 348. *Raii Hist. p.* 748. Stramonium foliis angulosis, fructu erecto, muricato calyce pentagonia. *Hall. Stirp. Helv. n.* 586. *D. stramonium. Withering. Bot. Arrang. p.* 230. *Flor. Danic. p.* 436. *Stoerck. Libell. de Stram. &c. Curt. Flor. Lond.*

Class Pentandria. Ord. Monogynia. Lin. Gen. Plant. p. 246.

Eff. Gen. Ch. Cor. infundib. plicata. Cal. tubulosus, angulatus, deciduus. Caps. 4-valvis.

Sp. Ch. D. pericarp. spinosis erectis ovatis, foliis ovatis glabris.

THE root is large, annual, white, divided, and fibrous: the stalk is thick, erect, round, smooth, shining, below simple, above dichotomous, and rises about two feet in height: the leaves are alternate, large, broad towards the base, pointed at the extremity, indented, and formed into several obtuse angles, smooth, of a dark green colour, and standing upon strong round short footstalks: the flowers are solitary, large, white, and placed on short erect peduncles at the junction of the branches: the calyx is composed of one leaf, tubular, pentangular, and divided at the brim into five teeth: the corolla is white, monopetalous, funnel-shaped, plicated, cut at the margin into five teeth, and furnished with a long cylindrical tube: the five filaments are tapering, about the length of the calyx, adhering to the tube, and supplied with oblong flat antheræ: the germen is oblong, and placed above the insertion of the corolla: the style is filiform, equal in length to the filaments, and terminated by a thick blunt stigma: the capsule is large, oval, fleshy, beset with spines, divided into the cells, and four valves, which contain numerous kidney-shaped seeds. It grows wild in



Datura Stramonium

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in this country, about dunghills, rubbish, and in gardens, flowering in July.

This plant has been long known as a powerful narcotic poison; its congener, the D. Metel, is thought to be *Στραχυος μαυικος* of Theophrastus and Dioscorides, and is therefore the species received by Linnæus into the *Materia Medica*. The Stramonium, in its recent state, has a bitterish taste, and a smell somewhat resembling that of poppies, or as called by Bergius, narcotic, especially if the leaves be rubbed betwixt the fingers. By holding the plant to the nose for some time, or sleeping in a bed where the leaves are strewed, giddiness of the head and stupor are said to have been produced.^a

Instances of the deleterious effects of this plant are numerous, especially of the seeds,^b some of which we shall relate for the purpose of stating the symptoms which they produce. A man, aged sixty-nine, labouring under a calculous complaint, by mistake boiled the capsules of the Stramonium in milk, and in consequence of drinking this decoction was affected with vertigo, dryness of the fauces, anxiety,

^a *Stoerck, l. c. p. 5.*

^b *Kramer, in Comm. Nor. A. 1733. p. 251. Kaauw. impet. n. 349. Lobsten epist. ad Gurrin. plant. venen. Alsat. Clauder. prax. med. leg. Cas. i. Eph. Nat. Cur. Cent. ix. obs. 94. Huckel, in Comm. Lit. Nor. 1744. p. 14. Kaauw. Act. Franc. i. p. 200. Buchner, Miscell. 1725. p. 611. Eph. Nat. cur. Dec. iii. a. 3. obs. 170. Barrere, Essai sur l'hist. nat. de la France (ed. nov.) p. 48. Deering. Catal. of Plants, &c. p. 209. Buchner, Misc. Phys. Math. Med. 1727. p. 122. Sauvages, Nosol. T. 2. P. 2. p. 430. Fowler, Med. Comm. vol. v. p. 164.*

The circumstances recited in the following advertisement, published by my friend Dr. Haygarth, shew the necessity of adopting the precautions, which he judiciously recommends, and which ought to be made public.

“Gardeners are particularly desired to take care never to throw poisonous plants out of gardens into the streets, lanes, or even the fields to which people can have access. Poor children, for diversion, curiosity, or hunger, are prompted to eat all kinds of vegetables which come in their way, especially seeds, fruits, or roots. This caution does not proceed from fanciful speculation, but from actual mischief, produced by the cause here specified. A physician has lately seen several children poisoned with the roots of the Aconite or Monkshood, thrown into an open field in the City of Chester, and with the seeds of the Stramonium or Thorn Apple, thrown into the street. The former were seized with very violent complaints of vomiting, an alarming pain of the head, stomach, and bowels; the latter with blindness, and a kind of madness, biting, scratching, shrieking, laughing, and crying, in a frightful manner. Many of them were very dangerously affected, and escaped very narrowly with life. These, and all other, poisonous plants, taken out of gardens, should be carefully buried or burned.”

followed with loss of voice and sense; the pulse became small and quick, the extremities cold, the limbs paralytic, the features distorted, accompanied with violent delirium, continual watchfulness, and a total suppression of all the evacuations; but in a few hours he was restored to his former state of health.^c

Every part of the plant appears to possess a narcotic power,^d but the seeds are the only part, of whose fatal effects we find instances recorded. Their soporiferous and intoxicating qualities are well known in eastern countries,^e and if we can credit the accounts of some authors, have been converted to purposes the most licentious and dishonourable.^f The internal use of Stramonium, as well as that of several other deleterious plants which we have had occasion to notice, was first ventured upon and recommended by Baron Stoerck, who gave an extract prepared of the expressed juice of the plant, with advantage, in cases of mania, epilepsy, and some other convulsive affections.^g But as the success of this plant, even in the hands of the Baron, was not remarkable enough to claim very extraordinary praise, his account of the efficacy of the Stramonium probably would not have procured it a place in the *Materia Medica* of the *Edinburgh Pharmacopœia*, had its character rested solely upon his representation. Othelius tells us, that of fourteen patients suffering under epileptic and convulsive affections, to whom he gave the Stra-

^c *Eff. & Obs. Phys. & Lit. v. ii. p. 247.*

According to Haller, "Deliria facit utique & sopores, inde amentiam, maniam, convulsiones, paralytes artuum, sudores frigidas, sitim vehementem, tremores." *l. c.*

^d For that of the root, see *Ray, l. c.* For that of the leaves, *Döderlin, Comm. Nor. l. c. p. 15.*

^e "Ab Indis inter alia inebriantia et aromatica in electuarium recipitur semen, ad grata phantasmata cienda, et, ut quidam volunt, quo ad celera patranda tanto audaciores evadant." *Kæmpher, Exot. p. 650.* Cited by *Murray, App. Med. vol. i. p. 458.*

It was a custom with the Chinese to infuse the seeds in beer. *Sprat, Hist. of the Royal Society, p. 162.*

^f "Somnum facit adeo profundum, ut impune pudicitia puellæ violari possit, quæ hoc toxicum sumserit." See *Haller, l. c.* A mulierculis infidis Turcis, gynecæis inclusis, ad consopiosos & dementandos maritos, quo aliorum magis desideratorum amplexibus fatientur, usurpari, et Hamburgi a vetula sic honestam feminam, quo se inscia moechum admitteret, intoxicatam narratur. *Lindenstolpe de ven. Ed. Stenzel. p. 531.* Cited by *Murray, l. c.*

^g *Lib. de Stram. &c.* published in 1762.

monium in an hospital at Stockholm, eight were completely cured, five were relieved, and only one received no benefit.^b Bergius relates three cases of its success, viz. one of mania, and two of convulsions.ⁱ Reef, a Swedish physician, mentions its utility in two cases of mania.^k Wedenberg cured four girls, affected with convulsive complaints, by the use of this medicine.^l Other instances of the kind might be added. Greding however, who made many experiments, with a view to ascertain the efficacy of this plant, was not so successful; for out of the great number of cases in which he employed the Stramonium, it was only in one instance that it effected a cure; and he objects to the cases stated by Dr. Odhelius, on the ground that the patients were dismissed before sufficient time was allowed to know whether the disease would return again or not.^m In this country we are unacquainted with any practitioners whose experience tends to throw any light on the medical character of this plant. It appears to us, that its effects as a medicine are to be referred to no other power than that of a narcotic; and Dr. Cullen, speaking on this subject, says, "I have no doubt that narcotics may be a remedy in certain cases of mania and epilepsy; but I have not, and I doubt if any other person has, learned to distinguish the cases to which such remedies are properly adapted. It is therefore that we find the other narcotics, as well as the Stramonium, to fail in the same hands in which they had in other cases seemed to succeed. It is this consideration that has occasioned my neglecting the use of Stramonium, and therefore prevented me from speaking more precisely from my own experience on this subject."ⁿ

The extract of this plant has been the preparation usually employed, and from one to ten grains and upwards, a day; but the powdered leaves, after the manner of those directed of hemlock, would seem for the reason there given, to be a preparation more cer-

^b See *Vetensk. Acad. Handl.* 1766. p. 277. sq.

ⁱ In his *Mat. Med.* he also says, "Delirium post puerperium sæpe curavi cum Datura, ubi alia sefellerunt;" adding, "Pariter illa profuit adversus ideam fixam ex mœrore cum deliratione mansueta conjuncta," p. 122.

^k Strandberg, *om. chron. spikd.* p. 16.

^l *Diff. de Stammonii usu, &c.*

^m *Ludwig. Adversf. vol. i.* p. 354.

ⁿ *Mat. Med. vol. ii.* p. 282.

tain and convenient. Greding found the strength of the extract to vary exceedingly; that which he obtained from Ludwig, was a much more powerful medicine than that which he had of Stoerck.

Externally the leaves of Stramonium have been used as an application to inflammatory tumours and burns; in the latter a remarkable instance is noticed by Gerard. l. c.

VERBASCUM THAPSUS. GREAT BROAD-LEAVED
MULLEIN.

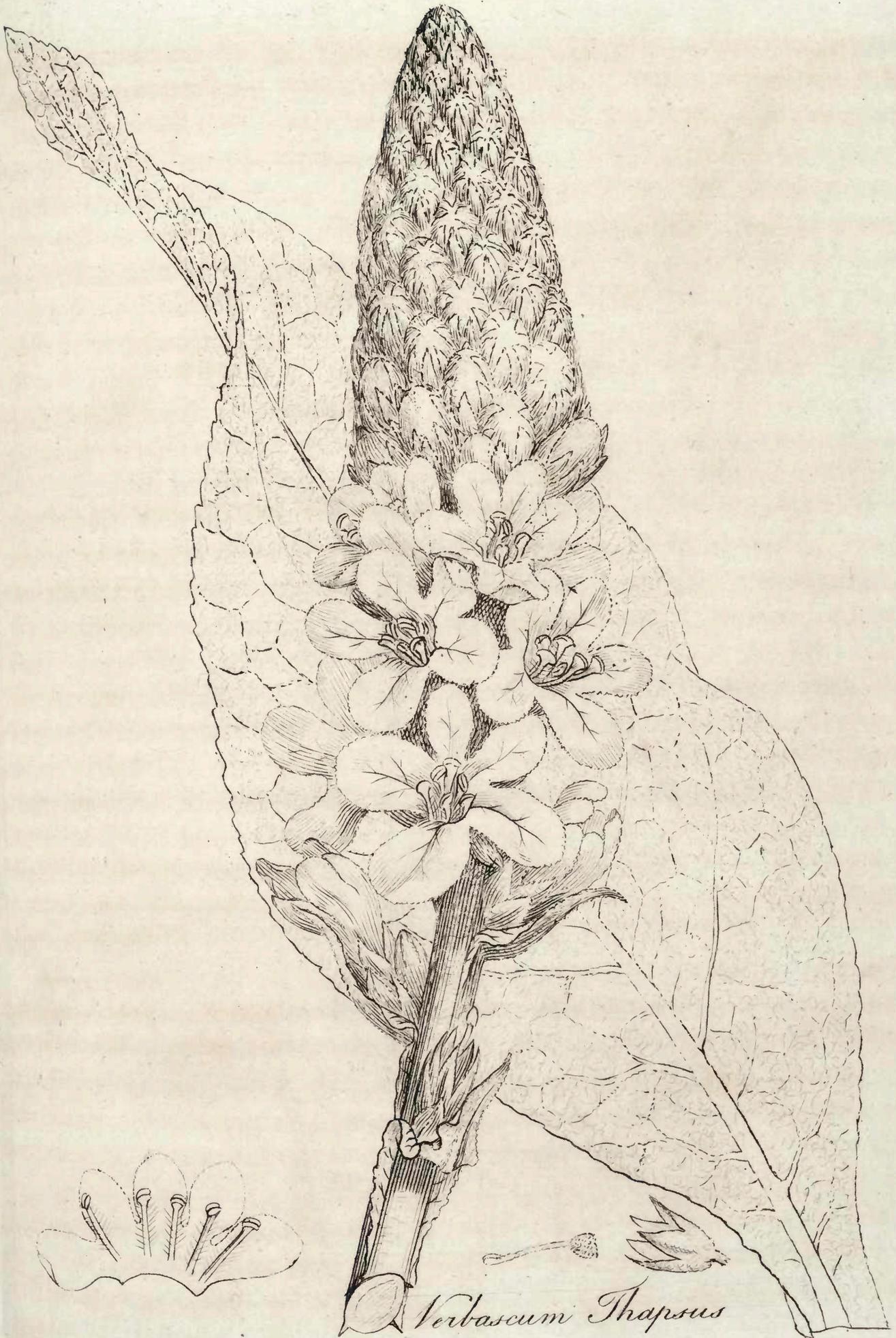
SYNONYMA. Verbasum. *Pharm. Edinb.* Verbasum mas latifolium luteum. *Baub. Pin. p. 239.* *Raii Hist. p. 1094. Synop. p. 287.* Verbasum album vulgare, sive Tapfus barbatus communis. *Park. Theat. p. 60.* Tapfus barbatus. *Gerard Emac. p. 773.* Verbasum foliis decurrentibus utrinque tomentosus (*lanatis*) *Hal. Stirp. Helv. n. 581.* V. Thapfus. *Flor. Dan. p. 631.* *Hudson. Ang. p. 89.* *Withering. Bot. Arr. p. 223.*

Class Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant. 243.*

Eff. Gen. Ch. Cor. rotata subinæqualis. *Caps.* 3-locularis, 2-valvis.

Sp. Ch. V. foliis decurrentibus utrinque tomentosus caule simplici.

THE root is biennial, long, divided, and descends deeply into the ground: the stalk is simple, erect, round, rigid, hairy, rises two or three feet in height, and is irregularly beset with leaves, which are large, without footstalks, at the base decurrent, or running along the stem, oblong or oval, somewhat pointed, indented at the margin, of a pale green colour, and covered on both sides with thick down, or white soft hairs: the bractæ are lance-shaped, with narrow points, hairy on the under side, on the upper smooth, and longer than the calyx: the flowers are yellow, and produced in long close terminal inclining spikes: the calyx is divided into five pointed segments, which



Verbascum Thapsus

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which are hairy on the outside: the corolla is monopetalous, yellow, divided at the limb into five unequal segments, which are blunt, oval, veined, and slightly indented at the edges: the five filaments are hairy, of unequal length, and furnished with double reddish antheræ: the germen is roundish, downy, and supports a simple style, crowned with a compressed stigma: the capsule is oblong, separated into two cells and valves, and contains many small angular seeds. It is a native of England, and usually grows on the banks of ditches, and flowers in July.

The *Verbascum*, according to C. Bauhin, is the *φλομος*^a of Dioscorides: it ranks with the natural order Solanaceæ, but does not seem to possess those narcotic powers for which this order is distinguished.* The leaves have an herbaceous, bitterish, subastringent taste, but no peculiar smell: upon being chewed they discover a mucilaginous quality; and hence they are recommended as emollients both internally and externally. In the way of fomentation and cataplasm they are said to be an useful application to hæmorrhoidal tumours; also for promoting the resolution or suppuration of glandular indurations.^b

Catarrhal coughs and diarrhœas are the complaints for which the *Verbascum* has been internally prescribed. Dr. Home tried it in both, but it was only in the latter disease that this plant succeeded. He relates four cases in which a decoction of *Verbascum* was given; and from which he concludes, that it “is useful in diminishing or stopping diarrhœas of an old standing, and often in easing the pains of the intestines. These acquire a great degree of irritability; and the ordinary irritating causes, aliment, bile, distention from air, keep up a quicker peristaltic motion. This is obviated by the emollient and perhaps gentle astringent qualities of this plant.”^c

The decoction was prepared of two ounces of the leaves, with a quart of water, of which four ounces were given every three hours. The flowers of this plant have likewise been employed medicinally, having been supposed to possess anodyne and pectoral virtues: it is probable, however, that neither the leaves nor flowers deserve to be considered as medicines of much efficacy.

^a Α φλεγων, uro, quasi φλογος, flamma, quia hujus pro elychniis usus est. C. Bauh, l. c.

* We are told, however, that by the seeds of this plant fishes become so stupified as to suffer themselves to be taken out of the water by the hand. Boccone, Vide Bergius, Mat. Med. p. 117. ^b See Mur. M. M. vol. i. p. 488. ^c Clinical Ex. & Hist. sect. 22.

In pulmonary complaints of cattle the *Verbascum* was found of great use, and hence is by Gerard called Cow's Lung-wort.

QUERCUS ROBUR.

COMMON OAK.

SYNONYMA. Quercus. *Pharm. Lond. & Edinb.* Quercus cum longo pediculo. *Baub. Pin. p. 420.* Quercus vulgaris. *Gerard Emac. p. 1340.* Quercus latifolia. *Park. Theat. p. 1386.* Quercus vulgaris longis pediculis. *J. Baub. Hist. vol. i. p. 70.* *Raii Hist. p. 1385.* *Synop. p. 440.* Quercus Robur. *Evel. Sylv. by Hunter, ed. 2. p. 67.* *Du Roy, Baumz. t. ii. p. 236.* *Huds. Ang. p. 421.* *Withering, Bot. Arr. p. 1083.* *Hall. Stirp. Helv. n. 1626.*

α Arborea, pedunculis elongatis (pedunculata) *Aiton, Hort. Kew.*
FEMALE OAK TREE.

β Arborea, fructibus subsessilibus (sessilis) *Aiton, Hort. Kew.*
COMMON OAK TREE.

γ Frutescens, ramis virgatis, fructibus sessilibus (humilis) *Aiton. l. c.*
DWARF COMMON OAK TREE.

Class Monoecia. *Ord.* Polyandria. *Lin. Gen. Plant. 1070.*

Ess. Gen. Ch. MASC. *Cal.* 5-fidus fere. *Cor.* 0. *Stam.* 5-10.

FEM. *Cal.* 1-phyllus, integerrimus, scaber. *Cor.* 0.
Styli 2-5. *Sem.* 1, ovatum.

Sp. Ch. Q. foliis oblongis glabris sinuatis: lobis rotundatis, glandibus oblongis. *Aiton. Hort. Kew.*

THIS tree frequently rises to a very considerable height,^a sends off

^a An Oak tree, in the parish of Little Shelfley, Worcestershire, measured in circumference, at about two yards from the ground, 22 feet 4 inches, and close to the ground nearly 48 feet, (Hollefeare).—Of one growing in 1764, in Broomfield Wood, near Ludlow, Shropshire, the trunk measured 68 feet in girth, and 23 in length: this tree, allowing 90 square feet for the larger branches, contained 1455 feet of thick timber, (Lightfoot).—The girth of the Green Dale Oak, near Welbeck, at eleven feet from the ground, was 38 feet; and one growing at Cowthorpe, near Wetherby, Yorkshire, measured 78 feet in circumference close to the ground. (Hunt. Evel.) See *Withering, l. c.*

This reminds us of the Oak alluded to by Virgil:

— & quantum vertice ad auras
Ætherias, tantum radice in Tartara tendit.

Æn. l. iv. 445.

strong



Quercus Robur

strong branches, and is covered with rough brown bark: the leaves are oblong, broader towards the end, deeply cut or sinuated at the edges, forming obtuse lobes, and stand upon short footstalks: the flowers are very small, and are male and female upon the same tree: the calyx of the *male flowers* is divided into five, six, or seven segments, which are pointed, and often cloven: there is no corolla: the filaments are from five to ten, and supplied with large double antheræ: the calyx of the *female flower* is membranous, hemispherical, and composed of numerous imbricated pointed segments: there is no corolla: the germen is oval: the styles from two to five, and furnished with simple permanent stigmata: its fruit is a nut, which is oblong, fixed to a short cup, and ripens in October, but the flowers appear in April.

This valuable tree is well known to be a native of Britain, where it has in some instances acquired an extraordinary magnitude: its wood is of general use in carpentry, and by uniting hardness with such a degree of toughness as not easily to splinter, has been long justly preferred for the purpose of building ships.^b

The astringent effects of the Oak were sufficiently known to the ancients, by whom different parts of the tree were used; but it is the bark which is now directed for medicinal use by our pharmacopœias. To this tree we may also refer the Gallæ, or Galls, which are produced from its leaves by means of a certain insect.

Oak bark manifests to the taste a strong astringency, accompanied with a moderate bitterness, qualities which are extracted both by water and by rectified spirit. Its universal use and preference in the tanning of leather is a proof of its great astringency, and like other astringents it has been recommended in agues, and for restraining hæmorrhagies, alvine fluxes, and other immoderate evacuations. A decoction of it has likewise been advantageously employed as a gargle, and as a fomentation or lotion in proidentia recti et uteri. Dr. Cullen tells us, that he has frequently employed the decoction with success in slight tumefactions of the mucous membrane of the fauces, and in

^b Oak saw-dust is the principal indigenous vegetable used in dying fustian. All the varieties of drabs, and different shades of brown, are made with oak saw-dust, variously managed and compounded. Oak apples are likewise used in dying, as a substitute for galls. An infusion of the bark, with a small quantity of copperas, is used by the common people to dye woollen of a purplish blue, which is sufficiently durable. *Withering, l. c.*
many

prolapsus uvulæ, and cynanche tonsillarum, to which some people are liable upon the least exposure to cold: and in many cases this decoction, early applied, has appeared useful in preventing these disorders. It must be remarked however, that the Dr. almost constantly added a portion of alum to these decoctions.^c

Some have supposed that this bark is not less efficacious than that of the Cinchona, especially in the form of extract; but this opinion now obtains little credit, though there be no doubt that Oak bark may have the power of curing intermittents.^d

Galls, which in the warm climate of the East are found upon the leaves of this tree, are occasioned by a small insect, with four wings, called *Cynips quercifolia*, which deposits an egg in the substance of the leaf, by making a small perforation through the under surface. The ball presently begins to grow, and the egg in the centre of it changes to a worm; this worm again changes to a nymph, and the nymph to the flying insect above mentioned,* which by eating its passage out leaves a round hole: and those galls which have no holes, are found to have the dead insect remaining in them.

Two sorts of galls are distinguished in the shops, one said to be brought from Aleppo, the other from the southern parts of Europe. The former are generally of a bluish colour, or of a greyish, or black, verging to blueness, unequal and warty on the surface, hard to break, and of a close compact texture: the others are of a light brownish or whitish colour, smooth, round, easily broken, less compact, and of a much larger size. The two sorts differ only in strength,

^c Dr. Cullen tried also a solution of the alum alone, "but it did not prove so effectual." See *Mat. Med. vol. ii. p. 45.*

^d "I have employed the Oak bark in powder, giving it to the quantity of half a dram every two or three hours during the intermissions of a fever; and, both by itself, and joined with camomile flowers, have prevented the return of the paroxysms of intermittents." *Cullen, l. c.*

* Many other excrescences are produced on this tree, and the insects which inhabit it are very numerous. For an enumeration of these, see *Withering, l. c.*

We have already noticed that the Oak in some parts of the East distills a species of manna, (p. 105) so that the words of Virgil seem literally verified:—

"Et duræ quercus sudabunt rosca mella."

Ecl. iv. 30.



Juglans regia

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two of the blue galls being supposed equivalent in this respect to three of the others.*

Galls appear to be the most powerful of the vegetable astringents, striking a deep black when mixed with a solution of ferrum vitriolatum, and therefore preferred to every other substance for the purpose of making ink. As a medicine, they are to be considered as applicable to the same indications as the querci cortex, and by possessing a greater degree of astringent and styptic power, seem to have an advantage over Oak bark, and to be better suited for external use. Reduced to fine powder, and made into an ointment, they have been found of great service in hæmorrhoidal affections.^f Their efficacy in intermittent fevers was tried by Mr. Poupert, by order of the Academy of Sciences, and from his report it appears, that the Galls succeeded in many cases; and also that they failed in many other cases, which were afterwards cured by the Peruvian bark.^g

* Lewis, M. M.

^f See Cullen, l. c.

^g See Mem. pour l'an. 1702.

JUGLANS REGIA.

COMMON WALNUT-TREE.

SYNONYMA. Juglans. *Pharm. Lond.* Nux Juglans five regia vulgaris. *Baub. Pin. p.* 417. *Tourn. Inst. p.* 501. Nux Juglans. *Gerard. Emac. p.* 1440. *Raii Hist. p.* 1376. *J. Baub. Hist. vol. i. p.* 241. Nux Juglans vulgaris. *Park. Theat. p.* 1413. Juglans foliis septenis, ovato-lanceolatis, integerrimis. *Hal. Stirp. Helv. n.* 1624. Juglans regia. *IC. Mill. Illust. Cramer Forstwesen. tab. 22.* *Du Ham. Arb. 2. p.* 50. *t. 13.* *Hunt. Evel.*

Class Monoecia. *Ord.* Polyandria. *Lin. Gen. Plant. p.* 1071.

Ess. Gen. Ch. *MASC.* *Cal.* 1-phyllus, squamiformis. *Cor.* 6-partita. *Filamenta,* 18.

FEM. *Cal.* 4-fidus, superus. *Cor.* 4-partita. *Styli* 2. *Drupa,* nucleo fulcato.

Sp. Ch. J. foliolis ovalibus glabris subferratis subæqualibus.

No. 26.

4 T

THIS

THIS is a large tree, and usually sends off many strong spreading branches, covered with a greyish bark: the leaves are large, pinnated, composed of several pairs of opposite pinnæ, with an odd one at the end; they are oval, entire, nerved, veined, pointed, of a pale green colour, and stand upon short footstalks: the flowers are male and female upon the same tree, appearing in April and May, and the fruit ripens about the end of September: the *male flowers* are placed in a close cylindrical catkin: the calyx is monophyllous and squamous: the corolla is divided into six oval petals: the filaments are numerous, (about eighteen) short, and furnished with erect pointed antheræ: the *female flowers* are generally three together; the calyx is divided into four segments, which are erect, short, evanescent, and stand upon the germen: the corolla is separated into four segments, which are pointed, erect, and longer than the calyx: the germen is oval, and placed below the corolla: the two styles are very short: the stigmata are large, expanding, reflexed, and indented: the fruit is of the drupous kind, large, unilocular, containing a large roundish nut, which is too well known to require a description here.

This tree, which is a native of Persia, has been long cultivated in this country, and bears our winters very well. Linnæus describes its leaves as somewhat ferrated; but this we have never observed, and therefore with Haller would rather substitute the word integerrimis for subferratis. The wood is of a dark colour, and beautifully variegated, especially that of the root, and by being hard enough to admit of polishing, was much used by Cabinet-makers before the introduction of mahogany.

The unripe fruit,^a which has an astringent bitterish taste, and has been long used as a pickle, is the part directed for medicinal use by the London College, on account of its anthelmintic virtues. Its effects in destroying worms seem confirmed by the testimony of several authors:^b and in proof of its possessing this vermifuge power, we are told

^a We may notice for curiosity a notion which formerly prevailed: Ut nuces in proximum annum copiosius proveniant, mos est hodie apud rusticos quosdam, ut nuces perticis decutiantur. Hinc non inconcinne quidam alludendo cecinit,

Nux, asinus, mulier simili sunt lege ligata;

Hæc tria nil fructûs faciunt, si verbera cessant.

Vide Ray, l. c.

^b Plater, Fischer, Andry, and others.



Aesculus Hippocastanum

that water, in which the green shells of Walnuts have been macerated, on being poured in a garden, was found to drive all the earth worms together as far as the water extended,^c and that the worms by being immersed in a strong infusion of these shells were immediately seized with spasms, and died in two minutes afterwards.^d An extract of the green fruit is the most convenient preparation, as it may be kept for a sufficient length of time, and made agreeable to the stomach of the patient by mixing it with cinnamon-water. This fruit, in its immature state, is also said to be laxative,^e and of use in apthous affections and sore throats.* To answer these purposes, the Wirtemberg Pharm. directs a rob to be prepared of its juice.

The kernel of the Walnut ^f is similar in its qualities to that of the almond and hazel-nut, and affords an oil which amounts to half the weight of the kernel: according to De la Hire,^g this oil does not congeal by cold, and answers the medicinal purposes of the oil of almonds.

^c Car. Stephan. *Agricult. lib. 3. c. 13.* Andry, *Génération des vers. p. 142.* J. G. Fischer, *Comm. de vermibus in C. H. et anthelmintico. Stadæ. 1751. p. 14.*

* Vinegar, in which Walnuts have been pickled, we have found to be a very useful gargle.

^d Fischer, *l. c.*

^e Bergius, *M. M. p. 744.*

^f *De la Glace. p. 499.*

^g According to the Salernitan maxim, nuts, eaten after fish, promote digestion.

“ Post pisces nux fit, post carnes caseus esto.”

ÆSCULUS HIPPOCASTANUM.

COMMON HORSE CHESNUT.

SYNONYMA. Hippocastanum. *Pharm. Edinb.* Castanea folio multifido. *Baub. Pin. p. 419.* Castanea equina. *Gerard. Emac. p. 1442.* *Park. Theat. p. 1401.* *Raii Hist. p. 1683.* Hippocastanum. *Hal. Stirp. Helv. n. 1029.* Æ. Hip. *Miller Illust. Hunt. Evel. vol. i. p. 359.*

Class Heptandria. *Ord.* Monogynia. *Lin. Gen. Plant. 462.*

Eff. Gen. Ch. *Cal.* 1-phyllus, 5-dentatus, ventricosus. *Cor.* 5-petala, inæqualiter colorata, calyci inserta. *Caps.* 3-ocularis.

Sp. Ch. Æ. foliolis septenis.

THIS

THIS tree frequently grows to a great height,^a and from the upper part of the trunk usually sends off numerous spreading branches, covered with rough brown bark: the leaves are digitated, composed commonly of seven large lobes, which are long, obversely oval, serrated, ribbed, of a pale green colour, and proceed from a common centre attached to a long footstalk: the flowers terminate the branches in large conical spikes, and make a beautiful appearance: the calyx is tubular, and divided at the brim into five short blunt segments: the corolla consists of five petals, which are roundish, spreading, undulated at the edges, inserted in the calyx by narrow claws, and of a fine white colour, irregularly spotted with red and yellow: the filaments are seven, tapering, about the length of the corolla, bending at the top, and supplied with pointed antheræ: the germen is round, supporting a short style, furnished with a pointed stigma: the capsule is round, tough, fleshy, beset with spines, divided into three valves, and containing two^b roundish compressed seeds. It is a native of the northern parts of Asia, and flowers in April and May.

Though the Castanea was well known to the ancients, yet Matthioli seems to be the first author who describes the Horse Chestnut;^c which was brought into Europe about the middle of the sixteenth century, and was so scarce in the time of Clusius, that there was then but one tree known at Vienna; which being too young to bear fruit,^d nuts were obtained from Constantinople in 1588; after which this tree was very generally propagated. It was cultivated in England by Mr. John Tradescant in 1633, and is now very common in this country. The wood is white, soft, soon decays, and is therefore of little value. The fruit in appearance resembles that of the Spanish Chestnut, and is eaten by sheep, goats, deer, oxen, and horses.^e

It

^a A Horse Chestnut-tree, above 80 years old, and 50 feet high, still continued in a healthy and growing state. *Samml. d. Berner landwirthschaftl. Gesellsch. vol. ii. p. 943.*

^b The ripe capsule seldom contains more than one, but on being examined in its embryo state, two are constantly found. *Lin. Gen. Plant.*

^c See his *Epist. medicinal. op. omn. p. 101. 125.* Afterwards in *Comm. in Dioscorid.*

^d *Murray, App. Med. vol. iv. p. 63.*

^e Horses are said to eat this fruit greedily, and by it to have been cured of coughs and pulmonary disorders, and hence the name Horse Chestnut. For the purpose of fattening cattle, and particularly sheep, it has been thought necessary to macerate the nuts in caustic

It contains much farinaceous matter, which by undergoing a proper process, so as to divest it of its bitterness and acrimony, probably might afford a kind of bread: starch has been made of it, and found to be very good: ^f it appears also to possess a saponaceous quality, as it is used, particularly in France and Switzerland, for the purpose of cleaning woollens, and in washing and bleaching linens. ^g

With a view to its errhine power the Edinburgh College has introduced it into the *Materia Medica*; as a small portion of the powder, snuffed up the nostrils, readily excites sneezing; even the infusion or decoction of this fruit produces this effect; it has therefore been recommended for the purpose of producing a discharge from the nose, which, in some complaints of the head and eyes, is found to be of considerable benefit.

On the Continent the bark of the Horse Chesnut-tree is held in great estimation as a febrifuge, and upon the credit of several respectable authors appears to be a medicine of great efficacy. Zannichelli^h at Venice was the first, who published its successful use in various cases of intermittents; since which its good effects have been confirmed by Leidenfrost, Peipers,ⁱ Junghans,^k Coste and Willemet,^l Sabarot De La Varniere,^m Turra,ⁿ Buchholz,^o and others: from whom it appears, that this bark may be substituted for the Peruvian bark in every case in which the latter is indicated, and with equal, if not superior, advantage.

caustic alkali, in order to take off the bitterness, afterwards to wash them in water, and then boil them to a paste. (See *Bon Mem. de l'Acad.* 1720. p. 460.) Lime water was also found to answer. (See *Hist. de la Société R. de Montpell.* tom. ii. p. 57.) But if the nuts are cut and mixed with oats or bran, this purpose may be effected with less trouble. *Hannov. Mag.* 1770. p. 226.

^f Parmentier, *Recherches sur les vegetaux nourissans*, p. 176. 218.

^g Marcandier, *Traité de Chanvre*, *Leipziger Intelligenzblatt.* 1764. p. 46. *De re rustica*, or the *Repository for papers in Agriculture*, vol. ii. p. 75. sq. &c.

^h J. Jac Zannichelli *Lettera intorno alle Facolta dell' Ippocastano*, &c.

ⁱ Leidenfrost in Peipers *Diss. de cortice Hippoc. Duisburg.* 1763. ^k *Diss. de nucis vomicae et corticis Hippocast. virtute med.* 1770. p. 25. sq. ^l *Essais sur les plantes indigenes.* p. 57.

^m *Journ. de Medec.* tom. 47. p. 324. ⁿ *Della febbrefuga Facolta dell' Ippocastano, in Vicenza.* 1780. ^o *Uber Antisept. Subst.* 1776.

See Murray, l. c.

The bark, intended for medicinal use, is to be taken from those branches, which are neither very old nor very young, and to be exhibited under similar forms and doses, as directed with respect to the cortex peruvianus. It rarely disagrees with the stomach; but its astringent effects generally require the occasional administration of a laxative.

MORUS NIGRA. COMMON MULBERRY TREE.

SYNONYMA. Morum. *Pharm. Lond.* Morus fructu nigro. *Baub. Pin. p.* 459. Morus. *Gerard. Emac. p.* 1507. Morus nigra. *J. Baub. Hist. vol. i. p.* 118. *Raii Hist. p.* 1429. *Park. Parad. p.* 596. *Du Hamel Traité des arbres fruitiers, tom. i. p.* 335. *Hunt. Evel. vol. ii. p.* 39.

Class Monoecia. *Ord.* Tetrandria. *Lin. Gen. Plant.* 1055.

Eff. Gen. Ch. MASC. Cal. 4-partitus. Cor. 0.

FEM. Cal. 4-phyllus. Cor. 0. Styli 2. Cal. baccatus. Sem. 1.

Sp. Ch. M. foliis cordatis scabris.

THIS tree never grows to a considerable height, but sends off several crooked branches, and is covered with rough brown bark: the leaves are numerous, heart-shaped, serrated, veined, rough, of a bright green colour, and stand upon short footstalks: the flowers are male and female upon the same tree:^a the *male flowers* are placed in close roundish catkins, each floret composed of a calyx, divided into four leaves, which are oval, concave, and erect: there is no corolla: the filaments are four, longer than the calyx, and furnished with simple antheræ: the calyx of the *female flower* is divided into four

^a This is not constantly the case, as it sometimes happens that all the flowers are male, or female, and consequently barren.



Morus nigra

obtuse persistent segments: there is no corolla: the germen is roundish, and supports two rough styles, supplied with simple stigmata: the fruit is a large succulent berry, composed of a number of smaller berries, each containing an oval seed, and affixed to a common receptacle. It flowers in June, and its fruit ripens in September.

The Mulberry-tree is a native of Italy, and is now cultivated in most parts of Europe,^b not only for the grateful fruit which it affords, but in many places for the more lucrative purpose of supplying Silk-worms with its leaves, upon which they feed.^c

The ripe fruit abounds with a deep violet-coloured juice, which in its general qualities agrees with that of the other acido-dulces, allaying thirst, partly by refrigerating, and partly by exciting an excretion of mucus from the mouth and fauces; a similar effect is also produced in the stomach, where, by correcting putrescency, a powerful cause of thirst is removed.^d This is more especially the case with all those fruits in which the acid much prevails over the saccharine part, as the currant, which we have already noticed;^e and to which the medicinal qualities of this fruit may be referred; but both these, and most of the other summer fruits, are to be considered rather as articles of diet than of medicine. The London College directs a syrupus mori, which is an agreeable vehicle for various medicines.

The bark of the root of the Mulberry-tree has an acrid bitter taste, and possesses a cathartic power. It has been successfully used as an anthelmintic, particularly in cases of *Tænia*.^f The dose is half a dram of the powder.

^b Gerard is the first who is known to have cultivated it in England.

^c The leaves of the white Mulberry are preferred for this purpose in Europe; but in China, where the best silk is made, the silk worms are fed with those of the *Morus tartarica*. (Forster, in a letter to Professor Murray. See *App. Med. vol. iv. p. 597. dated 1787.*) From the bark of another species of Mulberry, (*M. papyrifera*) the Japanese make paper, and the inhabitants of some of the islands of the South sea make a kind of cloth.

^d See Cullen's account of the fructus acido-dulces. *Mat. Med. vol. i. p. 242.*

^e Page 207. See also *Rubus* and *Citrus*.

^f Vide, Andry, *de la generation des vers, &c. p. 172.*

FICUS CARICA.

COMMON FIG-TREE.

SYNONYMA. Carica. *Pharm. Lond. & Edinb.* Ficus communis. *Baub. Pin. p.* 457. Ficus vulgaris. *Park. Theat. p.* 1494. Ficus. *Gerard. Emac. p.* 1410. *Raii Hist. p.* 1531. Ficus Carica. *Miller Illust. Syst. sex. Du Hamel Traité des arbres Fruitiérs. tom. i. p.* 207. *tab. 1. 2.* Bernard in *Obs. sur la physique, l'hist. nat. &c. tom. 29. tab. 1.* *ΣΥΧΗ Græc.*

Class Polygamia. *Ord.* Trioecia. *Lin. Gen. Plant.* 1168.

Eff. Gen. Ch. Receptaculum commune turbinatum, carnosum, connivens, occultans flosculos vel in eodem vel distincto.

MASC. Cal. 3-partitus. *Cor.* 0. *Stam.* 3.

FEM. Cal. 5-partitus. *Cor.* 0. *Pist.* 1. *Sem.* 1.

Sp. Ch. F. foliis palmatis.

THE Fig-tree is covered with smooth brown bark, and sends off many spreading branches: the leaves are large, succulent, smooth, irregularly divided into five lobes, of a deep green colour, and stand upon strong footstalks. The fruit, in its early stage, serves as the common receptacle, and contains upon its inner surface all the florets, which are both male and female; the former has the calyx (proper) divided into three segments, which are lance-shaped, erect, and equal: there is no corolla: the filaments are three, bristly, of the length of the calyx, and furnished with double antheræ. The calyx (proper) of the *female flower* is divided into five segments, which are pointed, and nearly equal: there is no corolla: the germen is oval: the style is tapering, inflexed, and furnished with two pointed reflexed stigmata: the calyx is oblique, and contains in its bosom a roundish compressed seed. It is a native of the south of Europe, and commonly produces its flowers in June and July.

The



Ficus Carica.

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From history, both sacred and profane, the Fig-tree appears to have been known in the most early times. It has been long cultivated in England, and if screened from the north-east winds, commonly ripens its fruit here. The Fig, which has always been found a wholesome food, was by the ancients^a ripened or brought to perfection by Caprification; a practice which in some countries is still continued.^b It had been observed, that the fruit of this tree frequently withered and dropped off before it arrived at a state of maturity, and upon examination it was discovered that those figs succeeded best which had been perforated by certain winged insects, which therefore were supposed to be instrumental in ripening the fruit. This gave rise to caprification, which formerly consisted in tying near the young figs the fruit of the wild fig tree, in which the flies above mentioned breed in abundance, and these insects, upon acquiring sufficient strength, issue from the wild fruit, and by penetrating the young figs produce the effect intended. That this insect, which by the ancients was called Pfenes, or Culex, and by Linnæus, Cynips Pfenes, produced this desirable effect, is generally admitted; but how it is to be explained has been the subject of some dispute.

To prevent ripe Figs from running into putrefaction, it is usual to dry them; which may be done either by the heat of the sun, or by means of an oven: the latter way is preferred, especially when the fruit has been caprifid, as the larva of the cynips is destroyed by the heat. The best Figs are imported from the southern parts of Europe in small chests, and are compressed into a circular form, of a yellowish colour, and filled with a viscid sweet pulp, in which are lodged numerous small yellow lenticular seeds. The surface of the Figs is commonly covered with a saccharine matter, which exudes from the the fruit, and hence they have been named *Caricæ pingues*, or fat Figs.

The recent fruit, completely ripe, is soft, succulent, and easily digested, unless eaten in immoderate quantities; when it is apt to occasion flatulency, pain of the bowels, and diarrhœa.^c The dried fruit is pleasanter to the taste, and is more wholesome and nutritive.

^a See *Theophrastus*, *Suidas*, *Pliny*, and others.

^b Caprification, as practised at some of the Archipelago Islands, when visited by Tournefort, appears to be a very curious but troublesome business. See *Tournefort, Voyages du Levant, vol. i. p. 130.*

^c *Murray, App. Med. vol. iv. p. 585.*

Figs are supposed to be more nutritious, by having their sugar united with a large portion of mucilaginous matter, which, from being thought to be of an oily nature, has been long esteemed an useful demulcent and pectoral; and it is chiefly with a view to these effects that they have been medicinally employed.

Figs are directed by the London Pharm. in the decoctum hordei compositum, and in the electuarium lenitivum. Externally applied they are supposed to promote the suppuration of tumours, and hence have a place in maturing cataplasms; with this intention they are also sometimes used by themselves, as warm as they can easily be borne, to phlegmons of the gums, and other parts where a poultice cannot conveniently be applied.

AMOMUM REPENS,
SEU CARDAMOMUM.

OFFICIAL CARDAMOM.

SYNONYMA. Cardamomum minus. *Pharm. Lond. & Edinb. Gerard. Emac. p. 1547. Park. Theat. p. 1576.* Cardamomum simpliciter in officinis dictum. *Baub. Pin. p. 414.* Cardamomum cum filiquis seu thecis brevibus. *J. Baub. Hist. vol. ii. p. 205.* Amomum repens, seu Le Cardamome de la Côte de Malabar. *Sonnerat Voyage aux Indes oriental. tom. ii. p. 240. tab. 136.* Alia species est Amomum Cardamomum L. scapo simplicissimo brevissimo.

Class Monandria. *Ord.* Monogynia. *Lin. Gen. Plant. 2.*

Eff. Gen. Ch. Cor. 4-fida: lacinia prima patente.

Sp. Ch. A. scapis ramosis elongatis decumbentibus.

Smith, Syst. Veg. ined.

THE root is perennial: the stalks are simple, sheathy, erect, grow to a considerable height, and beset with leaves, which are lance-shaped, large, entire, acutely pointed, ribbed, and stand alternately upon the sheaths of the stalk: the flower stalk proceeds immediately from

from the root, and creeps along the ground; it is commonly about a foot and a half in length, articulated, in a zig-zag form,* and producing numerous flowers, which are placed upon divided stipulated peduncles, arising from the articulations: the calyx is small, and obscurely divided into three teeth at the margin: the corolla is monopetalous, composed of a narrow tube, divided at the mouth into four segments; of these the three outermost are long, narrow, uniform, and of a straw colour, but the central one, which has been considered as a nectary, is large, broad, concave, of an irregular oval shape, and marked with violet coloured stripes: the filament is membranous, strap-shaped, shorter than the segments of the corolla, to the top of which the anthera is joined: the germen is roundish, and placed below the insertion of the tube of the corolla: the style is filiform, of the length of the filament, and supplied with an obtuse stigma: the capsule is triangular, divided into three cells and valves, containing several small dark coloured seeds.

This plant is a native of the East-Indies, and according to Sonnerat grows abundantly on the Malabar Coast:^a it differs considerably from the *Amomum Cardamomum* of Linnæus, as appears by the specific character he has given it, and the figures to which it is referred to in his *Species Plantarum*.^b Sonnerat, who first discovered the *Amomum repens*, and on whose authority it is considered to afford the seeds officinally known by the name of *Cardamomum minus*, informs us, that this plant abounds so plentifully on a certain mountain on the Coast of Malabar, that it is called the Mountain of Cardamoms, from which all India is supplied with the seeds.

The Cardamoms imported into Europe have been distinguished by the names *Cardamomum majus*, *medium*, & *minus*; the distinction depending upon the respective sizes of their seeds; but the different species from which the two former are said to have been produced, are so imperfectly described, and their botanical histories so confused, that we are unable to give any satisfactory information concerning them;

* In a specimen of this plant, which we have seen in the Herbarium of Sir Joseph Banks, this appearance was very remarkable.

^a L. c.

^b Elettari. *Hort. Malab. vol. ii. tab. 5.*
Rumph. *Amboin. vol. v. tab. 65.*

and whether the *Amomum verum* of the ancient Greek writers is referable to our Cardamom, seems also equally uncertain.

The seeds of the *Cardamomum minus*, which are now generally preferred for medicinal purposes, are brought to us in their capsules, or husks, by which they are preserved; for they soon lose a part of their flavour when freed from this covering. “ Their virtue is extracted not only by rectified spirit, but almost completely by water also; with this difference, that the watery infusion is cloudy or turbid, the spirituous clear and transparent. Scarcely any of the aromatic seeds give out so much of their warmth to watery menstrua, or abound so much with gummy matter, which appears to be the principle by which the aromatic part is made dissoluble in water: the infusion is so mucilaginous, even in a dilute state, as hardly to pass through a filter.”

“ In distillation with water, a considerable quantity of essential oil separates from the watery fluid, of a pale yellowish colour, in smell exactly resembling the Cardamoms, and of a very pungent taste: the remaining decoction is disagreeably bitterish, and mucilaginous. On inspissating the tincture made of rectified spirit, a part of the flavour of the Cardamoms arises with the spirit; but the greatest part remains behind, concentrated in the extract, which smells moderately of the seeds, and has a pungent aromatic taste, very durable in the mouth, and rather more grateful than that of the seeds in substance.”^c

Cardamom seeds, on being chewed, impart a glowing aromatic warmth, and grateful pungency: they are supposed gently to stimulate the stomach, and prove cordial, carminative, and antispasmodic, but without that irritation and heat which many of the other spicy aromatics are apt to produce. We are told by Sonnerat, that the Indians use it much, and believe it to strengthen the stomach, and assist digestion. Physicians however consider Cardamoms merely as an aromatic, and prescribe them in conjunction with other medicines, which they are intended to correct or assist.

Simple and compound spirituous tinctures of these seeds are directed by the Pharmacopœias; they are also ordered as a spicy ingredient in many of the officinal compositions.

^c Lewis, *Mat. Med.* p. 194.



Amomum repens seu *Cardamomum.*



Curcuma longa

Published by Dr. Woodville, March 1, 1792.

CURCUMĀ LONGA. LONG-ROOTED TURMERIC.

SYNONYMA. Curcuma. *Pharm. Lond. & Edinb.* Cannacorus radice crocea, sive Curcuma officinarum. *Tourn. Inst. p. 367.* Curcuma longa. *König, in Rez. obs. bot. fasc. 3. p. 72.* Curcuma radice longa. *Zanon. Hist. Pl. ed. Mont. p. 86. tab. 59.* Curcuma domestica major. *Rumph. Herb. Amboin. tom. 5. p. 162. tab. 67.* Manjella-Kura. *Hort. Malab. tom. 11. p. 21. tab. 11.* Amomum Curcuma. *Jacquin, Hort. Vindob. tom. 3. p. 5. tab. 4.*

Class Monandria. *Ord.* Monogynia. *Lin. Gen. Plant. 6.*

Ess. Gen. Ch. Stamina 4-sterilia, quinto fertili.

Sp. Ch. C. foliis lanceolatis: nervis lateralibus numerosissimis.

THE root is perennial, tuberous, and furnished with strong fibres, externally brownish, and internally of a deep yellow colour: the leaves are radical, large, lance-shaped, obliquely nerved; at the bottom, vaginal, and closely embracing each other: the scapus, or flower stem, rises from the centre of the leaves; it is short, thick, smooth, and forms a spike of numerous bracteal imbricated scales, between which the flowers successively issue: the corolla is monopetalous, consisting of a narrow tube, divided at the mouth into three oval segments: the nectarium occupies the wide under-sinus of the corolla, and is the most conspicuous part of the flower; it is of a flesh colour, petal-like, large, spreading, and cut into three divisions, of which the middlemost is the largest: the filaments are five, four of which are erect, slender, linear, contracted, sterile; the fifth is petal-formed, lodged within the nectarium, and cleft at the top, to which the anthera is adjoined: the germen is roundish, and placed below the corolla: the style is the length of the filament, and furnished with a simple hooked stigma: the capsule is roundish, three-celled, three-valved, and contains numerous small seeds.

Turmeric is a native of the East Indies, and common in the gardens of the Chinese; it grows abundantly in Malacca, Java, and Balega.^a It was first cultivated in England by Mr. P. Miller in 1759.^b The root of this plant has been long officinally known, and passed under different names, as *Crocus indicus*, *Terra merita*, &c. In its dried state, as imported here, it is various in shape; externally of a pale yellow colour, wrinkled, solid, ponderous, and the inner substance of a deep saffron or gold colour; its odour is somewhat fragrant, and to the taste it is bitterish, slightly acrid,^c exciting a moderate degree of warmth in the mouth, and on being chewed it tinges the saliva yellow. It has been very generally employed for the purpose of dyeing,^d and in eastern countries it is much used for colouring and seasoning of food.^e

“ This root gives out its active matter both to aqueous and spirituous menstrua. In distillation with water, it yields a small quantity of gold-coloured essential oil, of a moderately strong smell, and a pungent taste: the remaining decoction, inspissated, leaves a bitterish considerably saline mass. Rectified spirit elevates little or nothing of its virtue; all the active parts being left behind in the inspissated extract.”^f

This root has had the character of being a powerful aperient and resolvent: it has been commonly prescribed in obstructions of the liver, and other chronic visceral affections. The disease in which it has been thought most efficacious is the jaundice; but though the use of this root is highly recommended by several practical writers,^g

^a Vide König, Rumphius, and Bontius.

^b *Hort. Kew.*

^c The Chinese use it as a sternutatory.

^d “ This substance is very rich in colour, and there is no other which gives a yellow colour of such brightness; but it possesses no durability, nor can mordants give it a sufficient degree: common salt, and ammoniacal muriat, are those which fix the colour best, but they render it deeper.” Hamilton’s translation of Berthollet’s *Elements of the Art of Dying*, vol. ii. p. 280. See also on this subject, Hellot *L’art de la Teint.* p. 406. and Pörner, *Chym. Versuche z. Nuz. der Farbekunst*, vol. i. 1. *Abh.* Scharffs *Recepte üb. versch. Gattungen. v. Farb.* 1. *St.*

^e It enters the composition of the Curry powder which is now much used here.

^f *Lewis, M. M.*

^g Of these we may more particularly refer to Bontius, (*De Med. Indor.* p. 115.) F. Hoffman, (*Meth. Med. in Med. rat. tom. iii. p. 542.*) Coe, (*on Biliary Concret.* p. 285.)

it is now very rarely employed; and we are told by Dr. Cullen, that the decoctum ad Ictericos of the Edinburgh Dispensatory, (Ed. 1756) "never had any other foundation than the doctrine of signatures in favour of the Curcuma and Cheledonium majus." ^h

^h *Mat. Med. vol. i. p. 25.*

KÆMPFERIA ROTUNDA.

ZEDOARY.

SYNONYMA. Zedoaria. *Pharm. Lond. & Edinb.* I. Zedoaria longa. II. Zedoaria rotunda. *Baub. Pin. p. 31. Park. Theat. p. 1612. Raii Hist. p. 1340. Gerard, Emac. p. 1623. Malan-Kua. Rheed. Hort. Malab. tom. 11. p. 17. tab. 9.*

Class Monandria. *Ord.* Monogynia. *Lin. Gen. Plant. 7.*

Eff. Gen. Ch. *Cor.* 6-partita: laciniis 3 majoribus patulis, unica bipartita. *Stigma* bilamellatum.

Sp. Ch. K. fol. lanceolatis petiolatis.

THE root is perennial, tuberous, fleshy, compressed, externally of an ash colour, internally of a bluish grey: the flower stem is covered with sheaths, and rises very little above the ground: the leaves are large, radical, nearly elliptical, pointed, veined, and stand upon broad footstalks: the calyx is small and obscure: the corolla is monopetalous, consisting of a long slender conical tube, divided at the upper extremity into six parts, three of which are long, narrow, spreading, inserted below the others, of which two are oval, pointed, and erect; the remaining one is deeply cut into two obversely heart-shaped divisions, of a reddish colour, and beautifully striated with purple: there is but one filament, which is membranous, and notched at the end: the anthera is linear, doubled, entirely adherent, and scarcely rises above the tube of the corolla: the germen is roundish, and sup-
ports

ports a style, which is about the length of the tube, furnished with a folded roundish stigma: the capsule is triangular, divided into three cells, and as many valves, and contains numerous small seeds.

On the authority of Linnæus, the Colleges of London and Edinburgh have referred the officinal Zedoary to this plant, which is a native of the East Indies. But Bergius informs us, that he received a specimen of the Zedoary plant from India, which, upon examination, was found to be a species of *Amomum*;^a and it is observed by Murray, that this opinion receives additional weight by the description of Zedoary, or the *Indorum Tamogcansi*, given by Camellus.^b

It seems no easy task to discover with any tolerable probability, whether this drug was used by the ancients or not; some have supposed it to be the Costus of Dioscorides, the Guiduar of Avicenna, the Zerumbet of Serapion.* But this we leave to those who are ready to decide upon what is merely conjectural.

The roots of Zedoaria, longa and rotunda, are both produced by the same species of plant, and are indiscriminately used in the shops; the former are brought to us in oblong pieces, about the thickness of the little finger, two or three inches in length, bent, rough, and angular; the latter are roundish, about an inch in diameter, of an ash colour on the outside, and white within.

“ This root has an agreeable camphoraceous smell, and a bitterish aromatic taste. It impregnates water with its smell, a slight bitterness, a considerable warmth and pungency, and a yellowish brown colour: the reddish yellow spirituous tincture is in taste stronger, and in smell weaker, than the watery. In distillation with water it yields a thick ponderous essential oil, smelling strongly of the Zedoary, in taste very hot and pungent.”^c

Cartheuser, who ascribes the virtues of Zedoary to a camphoraceous volatile oil, considers it as a general remedy for most of the chronic

^a “ Plantam habui ex Cochinchina, figuræ Rheedeanæ convenientem, lectam a Cl. Joanne de Loureiro & comparatam sub itinere Chinensi, Cl. Car. G. Exeberg, Centurione & navis Gubernatore, de scientia botanices bene merito.” *Mat. Med.* p. 5. He calls it, *A. scapo nudo, spica laxa truncata*; and makes its synonyma to be, *Kua*. *Rheed. Malab.* 11. p. 13. t. 7. Tommon itam. *Rumph Amb.* 5. p. 169. *Zedoaria Camell. Stirp. Luz.* p. 23. ^b See *Raii, Hist. plant. vol. 3. in App.* ^c *Lewis, M. M.* p. 684.

* See on this subject, S. G. Manitiüs. *De ætatibus Zedoariæ relatio. Dresd.* 1691. diseases



Kamperferia rotunda

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Myristica Moschata

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diseases with which humanity is afflicted;° but as the camphor it contains can avail but little, and its effects as a bitter or aromatic are so very inconsiderable, this root is now deemed to possess very little medicinal power, and might safely be expunged from the materia medica;† though it still has a place in the confectio aromatica of the London pharmacopœia.

° Sect. xiv. §. 3. † Dr. Cullen says, "I am clear that it might safely be omitted in our lists of the Mat. Med." *Mat. Med. vol. ii. p. 207.*

MYRISTICA MOSCHATA. NUTMEG TREE.

SYNONYMA. Nux Moschata. *Pharm. Lond. & Edinb. Park. Theat. p. 1600. Raii Hist. p. 1522.* Nux Moschata, fructu rotundo. *Bauh. Pin. p. 407. Pluk. Almag. p. 267.* Nux Moschata rotunda, five femina. *Gerard, Emac. p. 1536. Breyn. Prod. vol. ii. p. 77.* Nux Myristica. *Rumph. Amb. vol. ii. tab. 4.* Myristica Moschata. *Thunb. Act. Stockholm. ann. 1782. p. 46. t. 1. Conf. Mémoire sur le genre du Muscadier Myristica, par Mr. De La Marck; Hist. de l'Acad. Royal des Scien. pour l'an. 1788. pub. en 1790. p. 148.*

Class Dioecia. *Ord.* Syngenesia. *Shreb. Gen. Plant. 1562.*

Ess. Gen. Ch. MASC. *Cal.* 3-fidus. *Cor.* o. *Antheræ* circum supremam partem filamenti adnatæ.

FEM. *Cal.* 3-fidus. *Cor.* o. *Styl.* brevis. *Stigma* bifida. *Caps.* drupacea. *Shreb.*

Sp. Ch. M. foliis lanceolatis fructu glabro. *Thunb.*

THIS tree attains the height of thirty feet, producing numerous branches which rise together in stories, and covered with bark, which of the trunk is a reddish brown, but that of the young branches is of a bright green colour: the leaves are nearly elliptical, pointed, undulated, obliquely nerved, on the upper side of a bright green, on the under whitish, and stand alternately upon footstalks: the flowers are small, and hang upon slender peduncles, proceeding from the axillæ of the leaves: they are both male and female upon separate trees.

Of the *male flower* the calyx consists of one bell-shaped leaf, divided at the brim into three small teeth: there is no corolla: the stamina, according to De La Marck, are from six to twelve, joined in a bundle, consisting of short filaments, inserted into the receptacle, and surrounded with antheræ, which are long, linear, and united.

Of the *female flower* the calyx is similar to that of the male flower: there is no corolla: the germen is above, oval, and supports a style, terminated by two stigmata: the fruit is round or oval, and of the drupous kind, of which the external covering is fleshy, tough, and by opening at the top separates into two valves, and discovers the Mace, which has a reticulated appearance, and divides into three portions, which closely invest a slender shell containing the seed or Nutmeg. This tree is a native of the East Indies, particularly the Molucca Islands.

The Nutmeg has been supposed to be the Comacum of Theophrastus, but there seems little foundation for this opinion, nor can it with more probability be thought to be the Chrysobalanos of Galen. Our first knowledge of it was evidently derived from the Arabians; by Avicenna it was called Jiaufiban, or Jausiband,^a which signifies Nut of Banda. Rumphius both figured and described this tree;^b but the figure given by him is so imperfect, and the description so confused, that Linnæus, who gave it the generic name Myristica, was unable to assign its proper characters. Sonnerat's account of the Muscadier is still more erroneous;^c and the younger Linnæus was unfortunately misled by this author, placing the Myristica in the class Polyandria, and describing the corolla as consisting of five petals.^d Thunberg, who examined the flower of the Nutmeg, places it in the class monoecia, and according to his description, the male flower has but one filament, surrounded at the upper part by the antheræ;^e and as the filaments are short and slender, and the antheræ united, this mistake might easily arise.*

^a *Lib. ii. cap. 503*, and by Serapion it was named Jeuzbave.

^b Vide, *l. c.* ^c *Voyage à la Nouvelle Guinée, p. 194. t. 116.* ^d *Suppl. Plant. p. 265.* ^e *Act. Stockholm. 1782. p. 46.*

* Since writing the above, Mr. Dryander informed me, that he had examined several specimens of these male flowers preserved in spirit, in each of which he found only one columnar filament, and concludes that De La Marck must have been deceived by dividing the fibres of this organ: consequently the myristica should in strictness be placed in the order monadelphia.

Mr. De La Marck informs us, that he received several branches of the Myristica, both in flower and fruit, from the Isle of France, where a Nutmeg-tree, which was introduced by Mons. Poivre, in 1770, is now very large, and continually producing flowers and fruit.^f From these branches, which were sent from Mons. Céré, Director of the King's garden in that island, Mons. De La Marck has been enabled to describe and figure this and other species of the Myristica with great accuracy; and the annexed plate will shew, that we have profited by his labours.

The seeds or kernels, called Nutmegs, are well known, as they have been long used both for culinary and medical purposes. Distilled with water, they yield a large quantity of essential oil, resembling in flavour the spice itself; after the distillation, an insipid sebaceous matter is found swimming on the water; the decoction, inspissated, gives an extract of an unctious, very lightly bitterish taste, and with little or no astringency. Rectified spirit extracts the whole virtue of Nutmegs by infusion, and elevates very little of it in distillation: hence the spirituous extract possesses the flavour of the spice in an eminent degree.

Nutmegs, when heated, yield to the press a considerable quantity of limpid yellow oil, which on cooling concretes into a sebaceous consistence. In the shops we meet with three sorts of unctious substances, called Oil of Mace, though really expressed from the Nutmeg. The best is brought from the East Indies in stone jars; this is of a thick consistence, of the colour of mace, and has an agreeable fragrant smell: the second sort, which is paler coloured, and much inferior in quality, comes from Holland in solid masses, generally flat, and of a square figure: the third, which is the worst of all, and usually called Common Oil of Mace, is an artificial composition of sebum, palm oil, and the like, flavoured with a little genuine oil of Nutmeg.^g

The medicinal qualities of Nutmeg are supposed to be aromatic, anodyne, stomachic, and restringent,^h and with a view to the last mentioned effects, it has been much used in diarrhœas, and dysenteries. To many people the aromatic flavour of Nutmeg is very agreeable; they, however, should be cautioned not to use it in large quantities, as it is apt to affect the head, and even to manifest an

^f L. c. ^g Ed. *New Dispens.* by Dr. Duncan. p. 238. ^h *Bergius, M. M.* p. 884.

hypnotic power in such a degree as to prove extremely dangerous. Bontius speaks of this as a frequent occurrence in India;ⁱ and Dr. Cullen relates a remarkable instance of this soporific effect of the Nutmeg, which fell under his own observation,^k and hence concludes, that in apoplectic and paralytic cases this spice may be very improper. The officinal preparations of Nutmeg are a spirit and essential oil, and the Nutmeg in substance roasted, to render it more astringent. Both the spice itself and its essential oil, enter several compositions, as the *confectio aromatica*, *spiritus amoniæ com.* &c. MACE possesses qualities similar to those of the Nutmeg, but is less astringent, and its oil is supposed to be more volatile and acrid.

ⁱ *De Medicina Indorum*, p. 20. See also *Miscell. Nat. Cur. dec. III. ann. II. obs. 120.*

^k “ A person by mistake took two drams or a little more of powdered Nutmeg: he felt it warm in his stomach, without any uneasiness; but in about an hour after he had taken it he was seized with a drowsiness, which gradually increased to a complete stupor and insensibility; and not long after he was found fallen from his chair, lying on the floor of his chamber in the state mentioned. Being laid a-bed he fell asleep; but waking a little from time to time, he was quite delirious: and he thus continued alternately sleeping and delirious for several hours. By degrees, however, both these symptoms diminished, so that in about six hours from the time of taking the Nutmeg he was pretty well recovered from both. Although he still complained of head-ach, and some drowsiness, he slept naturally and quietly the following night, and next day was quite in his ordinary health.” *Mat. Med. vol. ii. p. 204.*

CARYOPHYLLUS AROMATICUS.

CLOVE TREE.

SYNONYMA. Caryophyllum aromaticum. *Pharm. Lond. & Edinb.* Caryophyllus aromaticus, fructu oblongo. *Bauh. Pin. p. 410.* *Raii Hist. p. 1508.* Caryophylli. *Park. Theat. p. 1577.* *Gerard, Emac. p. 1535.* Caryophyllus aromaticus, Indiæ orientalis, fructu clavato monopolyreno. *Pluk. Alm. 88. t. 155. f. 1.* Caryophyllum. *Rumph. Herb. Amb. vol. ii. t. 1. 2. sq.* Caryophyllus Kruidnagelboom. *Houttuyn natuurlyke historie, vol. ii. P. 3. p. 44. tab. 12. fig. 1.* Le Geroffier. *Sonnerat Voyage à la Nouvelle Guinée. p. 196. tab. 119.*

Class Polyandria.



Caryophyllus aromaticus

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Glass Polyandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 669.*

Ess. Gen. Ch. *Cor.* 4-petala. *Cal.* 4-phyllus, duplicatus. *Bacca*
1-sperma, infera.

Sp. Ch. *C.* foliis ovato-lanceolatis oppositis, floribus terminalibus,
&c. *Mill. Dict.*

THIS tree never rises to any considerable height, but divides into large branches, which are covered with smooth greyish bark: the leaves are large, entire, oblong, lance-shaped, of a bright green colour, and stand in pairs upon short footstalks: the flowers terminate the branches in bunches or pannicles: the calyx of the fruit is divided at the brim into four permanent small pointed segments, and that of the flower is composed of four leaflets, which are roundish, concave, deciduous, and placed above the germen: the corolla consists of four petals, which are roundish, notched, very small, and of a bluish colour: † the filaments are numerous, slender, inserted in the calyx, and furnished with simple antheræ: the germen is oblong, large, terminated by the calyx of the fruit, and placed below the insertion of the corolla: the style is tapering, and the stigma simple: the pericarpium is one-celled, umbilicated, and terminated by the indurated converging calyx: the seed is a large oval berry.^a

It is a native of the East Indies, the Moluccas, &c. and was lately found by Sonnerat in New Guinea. It has been asserted that the Dutch, who have long been in possession of the principal spice islands, destroyed all the Clove trees growing in the other islands, in order to secure a lucrative branch of commerce to themselves, and confine the cultivation of this tree to the island of Ternate;^b but it appears that in 1770 and 1772, both the Clove and Nutmeg trees were brought from one of the Moluccas, and transplanted in the Isle of France, Bourbon, and Seickelles,^c where they have been found to thrive very well, (see Nutmeg) though the Clove tree has since succeeded better in Cayenne.^d To bring this tree to the highest perfection, a peculiar

* The Caryophyllus evidently belongs to the class Icosandria; and modern botanists refer it to the genus Eugenia. † We examined this plant preserved in spirit, in the possession of the President of the Royal Society, but without finding any corolla.

^a The fruit, in its mature state, is known by the name *Anthophyllus*.

^b Savary, *Dict. vol. ii. p. 653.* ^c *Hist. de l'Acad. de Sc. de Paris, 1772.* ^d Tessier, in *Rozier Journ. de Phys. 1779.*

mode of cultivation seems necessary, and is practised in Amboina by the Dutch, by whom it is kept a profound secret.^e If the Clove was known to the Greeks, it cannot be discovered by their writings, nor is there any distinct account of it given by Pliny; but it seems in some measure applicable to the description of the Carunfel of Serapion, and the Charumfel Bellun of Avicenna,^f so that this spice, as well as the Nutmeg, was probably known to the Arabians.

The spice used here, and known by the name of Cloves, is the unexpanded flowers or rather calyces, which are found to be more aromatic than in their advanced state; they are of a dark brown colour, which they acquire from the smoke to which they are exposed; for in order to preserve the Cloves it is customary first to immerse them in boiling water, and then subject them to fumigation, or merely to fumigate them, and afterwards expose them to the sun for further exsiccation.

The Clove has a strong agreeable smell, and a bitterish hot not very pungent taste: these qualities are completely extracted by rectified spirit. After inspissating the filtered tincture, the remaining extract has little smell, but its taste is excessively hot and fiery. Cloves impregnate water more strongly with their smell than they do spirit, but not near so much with their taste; and in distillation with water they yield one-sixth of their weight of essential oil, smelling strongly of the Cloves, but less pungent than the spirituous extract.

“The oil of Cloves commonly met with in the shops, and received from the Dutch, is indeed highly acrimonious: but this oil is plainly not the genuine distilled oil of Cloves, but considerably more pungent, containing half its weight of an insipid expressed oil: it is probably from an admixture of the resinous part of the Clove that this sophisticated oil receives both its acrimony and high colour.”^g

Clove is accounted the hottest and most acrid of the aromatics, and by acting as a powerful stimulant to the muscular fibres, may in some cases of atonic gout, paralysis, &c. supersede most others of the aromatic class; and the foreign oil, by its great acrimony, is also well adapted for several external purposes.

The essential oil is the preparation of this spice directed by the pharmacopœias, which, as well as the Clove itself, enters several officinal compositions.

^e *Rumph. l. c.* ^f *Vide J. Bauh. Hist. vol. i. p. 426.* ^g *Lewis, M. M. p. 203.*

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C A T A L O G U E II.

In which all the PLANTS composing the MATERIA MEDICA, as referred to by the COLLEGES of LONDON and EDINBURGH, are arranged according to their Botanical Affinities or Natural Orders, adopted by Professor MURRAY.

I. CONIFERÆ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
<i>Pinus sylvestris</i>	Scotch Fir	Pix liquida
— <i>Picea</i>	Silver Fir Tree	Terebinthina vulgaris
— <i>Abies</i>	Norway Spruce Fir Tree	Pix Burgundica
— <i>Larix</i>	Common White Larch Tree	Terbinthina veneta
<i>Juniperus communis</i>	Common Juniper	Juniperus
———— <i>Lycia</i>	Olibanum Juniper	Olibanum, <i>gummi resina</i>
———— <i>Sabina</i>	Common Savin	Sabina.

II. AMENTACÆ.

<i>Salix fragilis</i>	Crack Willow	Salix
<i>Juglans regia</i>	Common Walnut Tree	Juglans
<i>Quercus Robur</i>	Common Oak Tree	Quercus
<i>Pistacia Terebinthus</i>	Common Turpentine Tree	Terebinthina chia
———— <i>Lentiscus</i>	Common Mastich Tree	Mastiche

III. COMPOSITÆ.

<i>Arctium Lappa</i>	Common Burdock	Bardana
<i>Centaurea benedicta</i>	Holy Thistle	Carduus benedictus
<i>Leontodon Taraxacum</i>	Common Dandelion	Taraxacum
<i>Artemisia Abrotanum</i>	Common Southernwood	Abrotanum
———— <i>Abinthium</i>	Common Wormwood	Abinthium
———— <i>vulgaris</i>	Common Mugwort	Artemisia
———— <i>maritima</i>	Sea Wormwood	Abinthium maritimum
———— <i>Santonica</i>	Tartarian Wormwood	Santonicum
<i>Tanacetum vulgare</i>	Common Tanfy	Tanacetum
<i>Tuffilago Farfara</i>	Colt's Foot	Tuffilago
<i>Anthemis nobilis</i>	Common Camomile	Chamæmelum
———— <i>Pyrethrum</i>	Pellitory of Spain	Pyrethrum
<i>Inula Helenium</i>	Elecampane	Enula campana
<i>Arnica montana</i>	Mountain Arnica	Arnica
<i>Achillea Millefolium</i>	Common Yarrow	Millefolium.

IV. A G G R E G A T Æ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICIAL.
<i>Valeriana officinalis</i>	Officinal Valerian	<i>Valeriana sylvestris</i>

V. C O N G L O M E R A T Æ.

<i>Plantago major</i>	Great Plantane	<i>Plantago</i>
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VI. U M B E L L A T Æ.

<i>Eryngium maritimum</i>	Sea Eryngo	<i>Eryngium</i>
<i>Daucus Carota</i>	Wild Carrot	<i>Daucus sylvestris</i>
<i>Conium maculatum</i>	Common Hemlock	<i>Cicuta</i>
<i>Ferula Assa foetida</i>	Asafoetida Gigantic Fennel	<i>Asafoetida, gummi resina</i>
<i>Angelica Archangelica</i>	Garden Angelica	<i>Angelica</i>
<i>Bubon Galbanum</i>	Lovage-leaved Bubon	<i>Galbanum, gummi resina</i>
<i>Cuminum Cymyllum</i>	Cumin	<i>Cuminum</i>
<i>Coriandrum sativum</i>	Common Coriander	<i>Coriandrum</i>
<i>Sium nodiflorum</i>	Creeping Water Parsnep	<i>Sium</i>
<i>Imperatoria Ostruthium</i>	Common Masterwort	<i>Imperatoria</i>
<i>Pastinaca Opopanax</i>	Rough Parsnep	<i>Opopanax, gummi resina</i>
<i>Anethum graveolens</i>	Common Dill	<i>Anethum</i>
————— <i>Fœniculum</i>	Common Fennel	<i>Fœniculum</i>
<i>Carum Carui</i>	Common Carraway	<i>Caruon</i>
<i>Pimpinella Saxifraga</i>	Small Burnet Saxifrage	<i>Pimpinella</i>
————— <i>Anisum</i>	Anise	<i>Anisum</i>
<i>Apium Petroselinum</i>	Common Parsley	<i>Petroselinum</i>

VII. H E D E R A C E Æ.

<i>Vitis vinifera</i>	Common Vine	<i>Vitis</i>
<i>Panax quinquefolium</i>	Ginseng	<i>Ginseng</i>

VIII. S A R M E N T A C E Æ.

<i>Smilax Sarsaparilla</i>	Sarsaparilla Smilax	<i>Sarsaparilla</i>
<i>Cissampelos Pareira</i>	Pareira brava Cissampelos	<i>Pareira brava</i>
<i>Aristolochia Serpentaria</i>	Snakeroot Birthwort	<i>Serpentaria virginiana</i>
————— <i>clematitis</i>	Upright Birthwort	<i>Aristolochia tenuis</i>
<i>Afarum europæum</i>	Afarabacca	<i>Afarum</i>

IX. S T E L L A T Æ.

<i>Rubia tinctorum</i>	Dyer's Madder	<i>Rubia tinctorum</i>
<i>Spigelia marilandica</i>	Perennial Worm-grass	<i>Spigelia marilandica</i>

X. *CYMOSEÆ.*XI. *CUCURBITACEÆ.*

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
<i>Cucumis Colocynthis</i>	Bitter Cucumber	Colocynthis
<i>Momordica Elaterium</i>	Wild Cucumber	<i>Cucumis agrestis</i>
<i>Bryonia alba</i>	White Briony	Bryonia

XII. *SALONACEÆ.*

<i>Solanum Dulcamara</i>	Woody Nightshade	Dulcamara
<i>Atropa Belladonna</i>	Deadly Nightshade	Belladonna
<i>Hyoscyamus niger</i>	Black Henbane	Hyoscyamus
<i>Datura Stramonium</i>	Common Thorn Apple	Stramonium
<i>Nicotiana Tabacum</i>	Tobacco	Nicotiana
<i>Capficum annuum</i>	Annual Capsicum	Piper indicum
<i>Verbascum Thapsus</i>	Common Mullein	Verbascum
<i>Digitalis purpurea</i>	Common Foxglove	Digitalis

XIII. *CAMPANACEÆ.*

<i>Convolvulus Scammonia</i>	Scammony Bindweed	Scammonium
————— <i>Jalappa</i>	Jalap Bindweed	Jalapium
<i>Lobelia siphilitica</i>	Blue Lobelia	Lobelia
<i>Viola odorata</i>	Sweet Violet	Viola

XIV. *CONTORTÆ.*

<i>Cinchona officinalis</i>	Peruvian Bark Tree	Peruvianus cortex
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XV. *ROTACEÆ.*

<i>Gentiana lutea</i>	Yellow Gentian	Gentiana
<i>Chironia Centaurium</i>	Lesser Centaury	<i>Centaurium minus</i>
<i>Menyanthes trifoliata</i>	Buck-Bean	<i>Trifolium paludosum</i>

XVI. *SEPIARIÆ.*

<i>Olea europæa</i>	Common European Olive	Oliva
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XVII. *BICORNE S.*

<i>Arbutus Uva ursi</i>	Bear-Berry	<i>Uva ursi</i>
<i>Styrax officinale</i>	Storax Tree	<i>Styrax, resina</i>
<i>Styrax Benzoin</i>	Gum Benjamin Tree	<i>Benzoe, resina</i>
<i>Santalum Album</i>	Yellow Saunders Tree	<i>Santalum Citrinum</i>

XVIII. *ASPERIFOLIÆ.*

<i>Anchusa tinctoria</i>	Dier's Bugloss	Anchusa
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XIX. *VERTICILLATÆ.*

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
Teucrium <i>Marum</i>	Herb Mastich	Marum syriacum
———— <i>Scordium</i>	Water Germander	Scordium
Thymus <i>vulgaris</i>	Garden Thyme	Thymus
———— <i>Serpyllum</i>	Wild Thyme	Serpyllum
Melissa <i>officinalis</i>	Common Balm	Melissa
Hyssopus <i>officinalis</i>	Common Hyssop	Hyssopus
Lavandula <i>Spica</i>	Common Lavender	Lavendula
Origanum <i>vulgare</i>	Common Majoram	Origanum
———— <i>Marjorana</i>	Sweet Marjoram	Marjorana
Mentha <i>piperita</i>	Pepper-Mint	Mentha piperitis
———— <i>viridis</i>	Spear-Mint	———— <i>fativa</i>
———— <i>Pulegium</i>	Pennyroyal-Mint	Pulegium
Marrubium <i>vulgare</i>	Common Horehound	Marrubium
Salvia <i>officinalis</i>	Garden Sage	Salvia
Rosmarinus <i>officinalis</i>	Rosemary	Rosmarinus
Glecoma <i>hederacea</i>	Ground Ivy	Hedera terrestris

XX. *P E R S O N A T Æ.*

Gratiola <i>officinalis</i>	Hedge-Hyssop	Gratiola
Veronica <i>Beccabunga</i>	Brooklime	Becabunga

XXI. *R H O E A D E S.*

Papaver <i>Rhœas</i>	Red Poppy	Papaver erraticum
———— <i>somniferum</i>	Common White Poppy	Papaver album, Opium

XXII. *P U T A M I N E Æ.*XXIII. *S I L I Q U O S Æ.*

Sisymbrium <i>Nasturtium</i>	Water-Cresses	Nasturtium aquaticum
Cardamine <i>pratensis</i>	Ladies-Smock	Cardamine
Sinapis <i>nigra</i>	Common Mustard	Sinapi
Cochlearia <i>officinalis</i>	Scurvy-Grass	Cochlearia hortensis
———— <i>Armoracia</i>	Horse-Radish	Raphanus rusticanus

XXIV. *P A P I L I O N A C E Æ.*

Dolichos <i>pruriens</i>	Cowhage Dolichos	Dolichos
Geoffroya <i>inermis</i>	Smooth Bastard Cabbage-tree	Geoffræa
Spartium <i>scoparium</i>	Common Broom	Genista

SYSTEMATIC NAMES.	ENGLISH.	OFFICIAL.
<i>Glycyrrhiza glabra</i>	Common Liquorice	Glycyrrhiza
<i>Astragalus Tragacantha</i>	Goats Thorn Milk Vetch	Tragacantha, <i>gummi</i>
<i>Trigonella Fœnum græcum</i>	Common Fenugreek	Fœnum græcum

XXV. L O M E N T A C E Æ.

<i>Cassia Senna</i>	Senna Cassia	Senna
— <i>Fistula</i>	Purging Cassia	Cassia fistularis
<i>Mimosa Catechu</i>	Catechu Mimosa	Catechu, <i>extractum</i>
— — <i>nilotica</i>	Egyptian Thorn Mimosa	Arabicum, <i>gummi</i>
<i>Tamarindus indica</i>	Tamarind Tree	Tamarindus
<i>Hæmatoxylum campechianum</i>	Logwood Tree	Lignum Campechense
<i>Polygala Senega</i>	Rattlesnake-Root Milk-Wort	Senega
<i>Fumaria officinalis</i>	Common Fumitory	Fumaria

XXVI. M U L T I S I L I Q U Æ.

<i>Aconitum Napellus</i>	Common Wolf's-Bane	Napellus
<i>Delphinium Staphisagria</i>	Stavesacre	Staphisagria
<i>Helleborus niger</i>	Black Hellebore	Helleborus niger
— — — <i>fœtidus</i>	Bears'-Foot	Helleboraster
<i>Anemone pratensis</i>	Meadow Anemone	Pulsatilla nigricans
<i>Clematis recta</i>	Upright Virgin's Bower	Flammula Jovis
<i>Dictamnus albus</i>	Bastard Dittany	Dictamnus albus
<i>Ruta graveolens</i>	Common Rue	Ruta

XXVII. S E N T I C O S Æ.

<i>Potentilla reptans</i>	Cinquefoil	Pentaphyllum
<i>Rubus idæus</i>	Rasp-Berry	Rubus idæus
<i>Rosa centifolia</i>	Hundred-leaved Rose	Rosa damascena
— <i>gallica</i>	Red Official Rose	Rosa rubra
— <i>canina</i>	Hip, or Dog Rose	Cynosbatus, <i>fructus</i>

XXVIII. P O M A C E Æ.

<i>Pyrus Cydonia</i>	Quince Tree	Cydonium malum
<i>Prunus domestica</i>	Prune, or Plum Tree	Prunum gallicum
— — <i>spinosa</i>	Sloe Tree	— — sylvestre
<i>Amygdalus communis</i>	Common Almond	Amygdala
<i>Punica Granatum</i>	Pomegranate	Granatum
<i>Citrus Medica</i>	Lemon Tree	Limon
— — <i>Aurantium</i>	Orange Tree	Aurantium hispalense

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
<i>Ribes rubrum</i>	Red Currant	<i>Ribes rubrum</i>
— <i>nigrum</i>	Black Currant	— <i>nigrum</i>
XXIX. <i>HESPERIDÆ.</i>		
<i>Myrtus Pimenta</i>	All-Spice	Pimento
<i>Caryophyllus aromaticus</i>	Clove Tree	<i>Caryophyllum aromaticum</i>
XXX. <i>SUCCULENTÆ.</i>		
XXXI. <i>COLUMNIFERÆ, S. MALVACÆ.</i>		
<i>Althæa officinalis</i>	Marsh Mallow	<i>Althæa</i>
<i>Malva sylvestris</i>	Common Mallow	<i>Malva</i>
XXXII. <i>GRUINALES.</i>		
<i>Guaiacum officinalis</i>	Guaiacum	<i>Guaiacum</i>
<i>Quassia amara</i>	Bitter Quassia	<i>Quassia</i>
— <i>Simaruba</i>	Simaruba Quassia	<i>Simarouba</i>
<i>Linum usitatissimum</i>	Common Flax	<i>Linum</i>
<i>Oxalis Acetofella</i>	Wood-Sorrel	<i>Acetofella</i>
XXXIII. <i>CARYOPHYLLÆ.</i>		
<i>Dianthus Caryophyllus</i>	Clove Pink	<i>Caryophyllum rub.</i>
XXXIV. <i>CALYCANthemÆ.</i>		
XXXV. <i>ASCYROIDEÆ.</i>		
<i>Cistus creticus</i>	Cretan Cistus	<i>Ladanum, resina</i>
<i>Hypericum perforatum</i>	St. John's Wort	<i>Hypericum</i>
<i>Fraxinus Ornus</i>	Flowering Ash	<i>Manna</i>
XXXVI. <i>COADUNATÆ.</i>		
XXXVII. <i>DUMOSÆ.</i>		
<i>Rhamnus catharticus</i>	Purging Buckthorn	<i>Spina cervina</i>
<i>Sambucus nigra</i>	Common Black Elder	<i>Sambucus</i>
<i>Amyris Elemifera</i>	Gum Elemi Tree	<i>Elemi, resina</i>
— <i>gileadensis</i>	Balsam of Gilead Tree	<i>Balsamum gileadense</i>
<i>Copaifera officinalis</i>	Balsam of Capaiva Tree	<i>Balsamum Copaiva</i>
<i>Myroxylon peruvianum</i>	Balsam of Peru Tree	<i>Bals. peruvianum</i>
<i>Toluifera Balsamum</i>	Balsam of Tolu Tree	<i>Bals. toluitanum</i>
XXXVIII. <i>TRIHILOTÆ.</i>		
<i>Æsculus Hippo-castanum</i>	Horse-Chestnut	<i>Hippocastanum</i>

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
XXXIX. <i>T R I C O C C Æ.</i>		
<i>Croton Cascarilla</i>	Willow-leaved Croton	Cascarilla.
<i>Ricinus communis</i>	Palma Christi	Ricinus
<i>Stalagmitis Cambogioides</i>	Gamboge Tree	Gambogia.
XL. <i>O L E R A C E Æ.</i>		
<i>Salsola Kali</i>	Prickly Salt-Wort	Barilla, Natron
<i>Chenopodium Vulvaria</i>	Stinking Goosefoot	Atriplex foetida
<i>Rumex aquaticus</i>	Water Dock	Hydrolapathum
—— <i>Acetosa</i>	Common Sorrel	Acetosa
<i>Rheum palmatum</i>	Officinal Rhubarb	Rhabarbarum.
<i>Polygonum Bistorta</i>	Bristort Snakeweed	Bistorta

<i>Laurus Cinnamomum</i>	Cinnamon Tree	Cinnamomum
—— <i>nobilis</i>	Sweet Bay	Laurus
—— <i>Sassafras</i>	Sassafras Tree	Sassafras
—— <i>Camphora</i>	Camphor Tree	Camphora
<i>Canella alba</i>	Laurel-leaved Canella	Canella alba
<i>Myristica Moschata</i>	Nutmeg Tree	Nux moschata.
XLI. <i>S C A B R I D Æ.</i>		
<i>Parietaria officinalis</i>	Wall Pellitory	Parietaria
<i>Dorstenia Contrayerva</i>	Contrayerva	Contrayerva.
<i>Ficus Carica</i>	Fig Tree	Carica
<i>Urtica dioica</i>	Common Nettle	Urtica
<i>Morus nigra</i>	Mulberry Tree	Morum
<i>Ulmus campestris</i>	Common Elm	Ulmus
XLII. <i>V E R P E C U L Æ.</i>		
<i>Daphne Mezereum</i>	Mezereon	Mezereum.
XLIII. <i>P A L M Æ.</i>		
<i>Cocos butyracea</i>	Oil Palm Tree	Palma, <i>oleum.</i>
XLIV. <i>P I P E R I T Æ.</i>		
<i>Piper nigrum</i>	Black Pepper	Piper nigrum
—— <i>longum</i>	Long Pepper	—— longum
—— <i>Cubeba</i>	Cubeb Pepper	Cubeba
<i>Acorus Calamus</i>	Sweet Flag	Calamus aromaticus.
<i>Arum maculatum</i>	Common Arum	Arum

XLV. S C I T A M I N E Æ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
<i>Amomum Zingiber</i>	Ginger	Zingiber
———— <i>Cardamomum</i>	Cardamom	Cardamomum minus
<i>Curcuma longa</i>	Turmeric	Curcuma
<i>Kæmpferia rotunda</i>	Zedoary	Zedoaria

XLVI. L I L I A C E Æ.

<i>Lilium candidum</i>	Common White Lily	<i>Lilium album</i>
<i>Scilla maritima</i>	Officinal Squill	Scilla
<i>Allium sativum</i>	Common Garlick	Allium
<i>Veratrum album</i>	White Hellebore	Helleborus albus
<i>Colchicum autumnale</i>	Common Meadow Saffron	Colchicum
<i>Crocus sativus</i>	Saffron	Crocus
<i>Aloës species variæ</i>	Aloe	Aloë
<i>Convallaria Polygonatum</i>	Solomon's Seal	Convallaria

XLVII. E N S A T Æ.

<i>Iris florentina</i>	Florentine Orris	<i>Iris florentina</i>
— <i>Pseudo-acorus</i>	Yellow Water Flag	<i>Iris palustris</i>

XLVIII. O R C H I D E Æ.

<i>Orchis mascula</i>	Male Orchis	Satyrium
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XLIX. T R I P E T A L O I D E Æ.

<i>Calamus Rotang</i>	Dragon's Blood Tree	Sanguis draconis
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L. C A L A M A R I Æ.

LI. G R A M I N A.

<i>Triticum hybernum</i>	Wheat	Triticum
<i>Hordeum distichon</i>	Barley	Hordeum
<i>Avena sativa</i>	Oat	Avena
<i>Saccharum officinarum</i>	Sugar Cane	Saccharum

LII. F I L I C E S.

<i>Polypodium Filix mas</i>	Male Fern	Filix
<i>Asplenium Trichomanoides</i>	Maidenhair	Trichomanes

LIII. M U S C I.

LIV. A L G Æ.

<i>Lichen islandicus</i>	Eryngo-leaved Lichen	<i>Lichen islandicus</i>
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LV. F U N G I.

<i>Boletus igniarius</i>	Agaric	<i>Agaricus chirurgorum</i>
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