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MATERIA MEDICA




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A
S U P P L E M E N T
T O
M E D I C A L B O T A N Y,
O R,
P A R T T H E S E C O N D :
C O N T A I N I N G
P L A T E S W I T H D E S C R I P T I O N S
O F M O S T O F T H E
P R I N C I P A L M E D I C I N A L P L A N T S
N O T I N C L U D E D I N T H E M A T E R I A M E D I C A
O F T H E
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A C C O M P A N I E D W I T H
A
C I R C U M S T A N T I A L D E T A I L O F T H E I R M E D I C I N A L E F F E C T S ,
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D I S E A S E S I N W H I C H T H E Y H A V E B E E N S U C C E S S F U L L Y E M P L O Y E D .

B Y W I L L I A M W O O D V I L L E , M . D . F . L . S .

Physician to the Small Pox and Inoculation Hospitals.

*Scire potestates herbarum usumque medendi
Maluit, et mutas agitare inglorius artes.*

VIRG. ÆN. l. XII.

L O N D O N :
P R I N T E D A N D S O L D F O R T H E A U T H O R ,

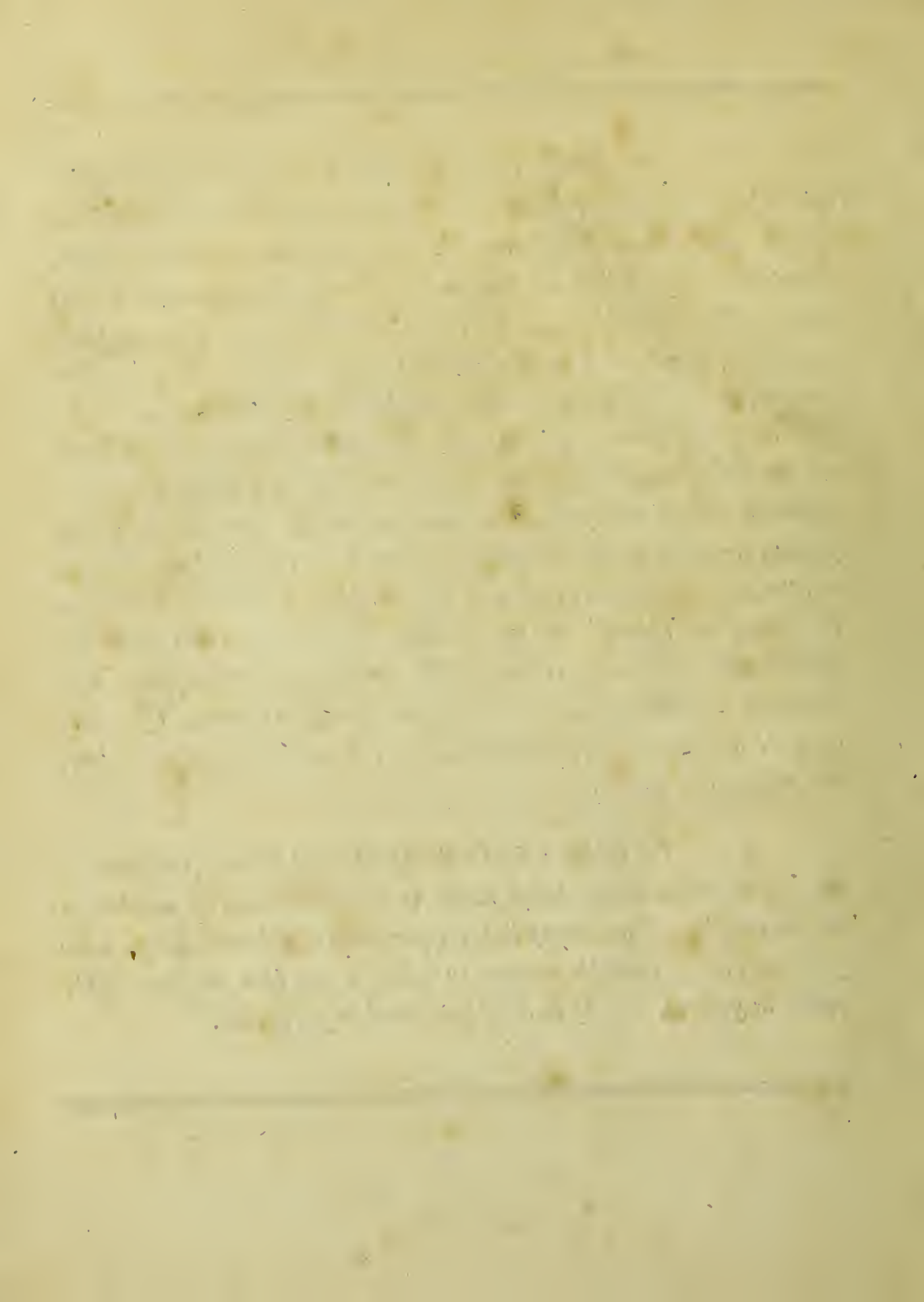
B Y
James Phillips,
G E O R G E Y A R D , L O M B A R D S T R E E T .

M . D C C . X C I V .



It will be readily perceived that the plan, upon which this volume was begun, has been considerably contracted. To illustrate all the natural orders with an adequate number of medicinal plants, which was my original intention, would, as I found upon more fully investigating the subject, lead to the introduction of a great many vegetables, which, in a medical point of view, might be thought unimportant, or entirely useless;—Influenced by this consideration, and at the same time finding that the more immediate duties of my profession afforded me but little leisure for prosecuting a work of this kind, I did not hesitate to reduce this part to the narrow compass in which it is here presented.—This volume is therefore rather to be regarded as a Supplement to the three former, than as a Second Part; and more especially as containing an appendix to the *Materia Medica*, and the following articles admitted into one or both of the collegiate pharmacopæias, viz. *agaricus*, *angelica sylvestris*, *aristolochia tenuis*, *cajeputa*, *cascarilla*, *curfuta*, *lactuca virofa*, *santalum rubrum*, & *citrinum*, *scolopendrium*, and *winteranus cortex*.

ON taking a final leave of Medical Botany, which owes much of the merit it may possess rather to the execution of the artist than to the compiler, I am happy in the opportunity of acknowledging, with gratitude, the favourable manner in which it has been received by the public in general, and by medical gentlemen in particular.



A QUESTION has been asked, to which it may be necessary here briefly to reply, viz. Why we have not figured all the Plants enumerated in the Catalogues of the First Part of MEDICAL BOTANY, but have omitted *Hordium distichon*, *Triticum hybernum*, *Avena sativa*, *Piper Cubeba*, *Santalum album*, *Amyris Elemifera*, *Myroxylon peruiferum*, *Stalagmitis Cambogioides*, *Boletus igniarius*, *Cocos butyracea*,

THE three first, barley, wheat, and oat, are so well known, and have so little claim to a place in Medical Botany, that it was supposed a majority of our readers would deem their figures superfluous. Besides, their seeds are unquestionably to be considered as articles of food rather than of medicine. Of *Piper Cubeba*, *Santalum album*, *Myroxylon peruiferum*, *Stalagmitis Cambogioides*, and *Cocos butyracea*, we have not been able to procure proper specimens, nor are there any perfect figures of them published; so that the plates of these were unavoidably omitted. Respecting the *Amyris Elemifera* Lin. we have to observe, that after fully investigating the authorities for admitting this to be the tree which produces the officinal drug Elemi, we are convinced of their insufficiency, and that the name *Elemifera* is here erroneously applied; and therefore, though we obtained a good specimen of this species, we had no plate of it engraved.

BOLETUS igniarius, or *agaricus chirurgorum*, is not properly a medicinal article, nor is it of much importance in surgery; and

it may be further observed, that it is a fungous substance, varying in its appearance, and not easily admitting of being characteristically represented by a drawing; it is presumed therefore that our work sustains no disadvantage by its omission.

THE Author takes this opportunity of observing, that all the figures which he has published, were taken either from dried or recent specimens, excepting in very few instances, where he was under the necessity of resorting to the plates of others; this, however, was never done but upon unquestionably good authorities. — And whenever future discoveries shall shew that he has been misled, he will not fail to acknowledge it: the only instance that has yet occurred to him is the following of Cascarilla.

CLUTIA ELUTERIA.

CASCARILLA CLUTIA.

SYNONYMA. Cascarilla. *Pharm. Lond. & Edinb.* Elutheria et Eluteria, Auctorum. Clutia (*Elutheria*) foliis cordato-lanceolatis. *Mill. Dict. Amæn. Acad. vol. 5. p. 411. Hort. Cliff. 486. Flor. Zeyl. 366.*

Class Dioecia. *Ord.* Pentandria. *Lin. Gen. Plant. 1140.*

Gen. Ch. *MASC.* Cal. 5-phyllus. Cor. 5-petala.

FEM. Cal. 5-phyllus. Cor. 5-petala. *Styli 3. Caps. 3-locularis. Sem. 1.*

Sp. Ch. C. foliis cordato-lanceolatis.

THIS



Clusia Eluteria s. *Cascarilla*.

THIS small tree grows several feet in height, and sends off numerous branches, especially towards the top: the bark which covers the branches is brown and smooth, but that of the trunk is externally more white and rough: the leaves are entire, lanceolate, somewhat cordate, and elongated towards the apex, which is blunt, on the upper side of a bright green, on the under side paler, and placed alternately upon long footstalks. Both the male and female flowers stand in spikes, and are composed of a calyx divided into five ovate leaflets, enclosing an equal number of small whitish petals, and within these the nectaria are placed. The female flower produces a roundish germen, supporting three bifid spreading styles, terminated by obtuse stigmata: the capsule is globular, rough, marked with six furrows, and divided into three cells, containing a solitary oval shining seed.

We have been desirous of introducing the annexed plate into early notice, in order to determine what was left doubtful in the former part of this work, where the *Croton Cascarilla* is figured, on the authority of Linnæus;^a though at the same time we observed that it did not appear "sufficiently ascertained" whether or no it furnished the officinal *Cascarilla*. This point however we can now confidently decide in the negative.

Among other circumstances, which tended to involve the parental source of *Cascarilla* long in uncertainty, was the assertion of some authors,^b that it was a native of the Spanish Main, and was thence imported into Europe; thus founding a presumption, that the *Cascarilla* and *Elutheria* Barks were different, and that the latter only was the produce of the Bahama Islands. But this assertion we have discovered to be contrary to fact; for, upon inquiry, we do not find that this drug was ever exported from Spanish America, but that the Bahamas have constantly supplied the European markets with *Cascarilla* bark, a parcel of which was sent here from one of those Islands, along with specimens of the tree producing it; of which the figure here given is a faithful representation, as may be seen by comparing it with the original in the herbarium of Sir Joseph Banks.

^a The bark of this plant, according to Dr. Wright, has none of the sensible qualities of *Cascarilla*.

^b See Boulduc. *Hist. de l'Ac. des Sc.* 1719. p. 14. Spielmann *M. M.* p. 249.

But it will be necessary to observe here, that Dr. Wright, in his account of the medicinal plants growing in Jamaica,^c gives the name *Croton Elutheria* to a tree, the bark of which he says "is the same as the *Cascarilla* or *Elutheria* of the shops:" it seems therefore probable, that different species of *Clusia* may produce bark of the same, or of similar qualities to that of *Cascarilla*, as we find several instances in which the same drug is produced by various species of plants.

That the tree here called by Dr. Wright *Croton* does not belong to this genus, but it is evidently a *Clusia*, appears by the dioicous specimens of it sent by him to the President of the Royal Society; a part of which, with the male flowers, is delineated in the present plate, in order that the Jamaica and Bahama *Cascarilla* may be compared together; the former being distinguished by figure I.

The *Clusia Elutheria* seems to have been first introduced into Britain by Mr. P. Miller; but it is not to be found in the King's garden at Kew, nor have we seen it cultivated any where near the Metropolis. According to a late German author,^d it grows abundantly in the Bahama Islands, where the bark, which forms a principal export, is sold at the very low rate of 10s. 6d. ⚡ ⚡.

Respecting the medical history, qualities, and uses of *Cascarilla* bark, we have nothing to add to what is given in the first volume of Medical Botany.

^c *Med. Journ.* vol. 8. p. 3.

^d Vide J. D. Schæpf. *Reise durch einige der mittlern und südlichen vereinigten nordamerikanischen Staaten nach ost-Florida und den Bahama Inseln.*



Pulmonaria officinalis.

what ovate, or rather lanceolate, broad pointed, hairy, alternate, and on the upper side speckled with whitish maculæ: the radical leaves are broader, and more elongated towards the base: the flowers appear in terminal fasciculi, and are reddish and purple: the calyx is a prism of five sides, rough, and divided at the mouth into five short pointed segments: the corolla is funnel-shaped, consisting of a cylindrical tube, open at the mouth, and a spreading limb, cut at the margin into five obtuse segments: the five filaments are very short, placed at the mouth of the tube, and furnished with simple yellow antheræ: the germen is quadrifid, supporting a tapering style of the length of the calyx, and crowned with a blunt notched stigma: the seeds are four, roundish, and lodged at the base of the calyx.

This plant is rarely found to grow wild in England, but is very commonly cultivated in gardens, where its leaves become broader, and approach more to a cordate shape, as appears by the detached leaves represented in the plate. The figure itself, however, exhibits a specimen of the spontaneous growth of this country.

The leaves, which are the part medicinally used, have no peculiar smell, but in their recent state manifest a slightly astringent and mucilaginous taste; hence it seems not wholly without foundation, that they have been supposed to be demulcent and pectoral.

They have been recommended in hemoptoës, tickling coughs, and catarrhal disfluencies upon the lungs. The name *Pulmonaria*, however, seems to have arisen rather from the speckled appearance of these leaves, resembling that of the lungs, than from any intrinsic quality which experience discovered to be useful in pulmonary complaints.



Lithospermum officinale

LITHOSPERMUM OFFICINALE. COMMON GROMWELL.

SYNONYMA. Lithospermum, seu Miliun Solis. *Pharm.* Vide *Geoffroy. Traët. de M. M. vol. 3. p. 742.* *Dale. Pharmacol.* 139. *Alston. M. M. vol. ii. 361.* *Lewis, M. M. 399.* *Edinb. New Dispens.* 223. *Murray, App. Med. vol. ii. p. 98.* *Ray, Synop.* 228. Lithospermum majus erectum. *Baub. Pin.* 258. *L. minus. Gerard, Emac.* 609. *L. vulgare minus. Park. Theat.* 432. *L. officinale. Hudson Flor. Ang.* 79. *With. Bot. Arr.* 189. *Relb. Fl. Cant.* 76. *Sowerby. Eng. Bot.* 134. *t.* 134.

Pentandria Monogynia. Lin. Gen. Plant. 181.

Gen. Ch. *Cor.* infundib. fauce perforata, nuda. *Cal.* 5-partitus.

Sp. Ch. *L.* feminibus lævibus, corollis vix calycem superantibus, foliis lanceolatis.

THE root is perennial, sending forth a long stalk, which is erect, strong, round, branched, and beset with short bristly hairs: the leaves are alternate, sessile, lanceolate, entire, pointed, hairy beneath, above closely studded with minute cartilaginous tubercles, which render them rough to the touch: the flowers are small, of a pale yellow colour, and are placed irregularly near the ends of the branches, which are recurved, but become straight on the maturation of the seeds: the calyx is divided into five segments, which are tapering, narrow, pointed, and permanent: the corolla is monopetalous, funnel-shaped, mouth naked and nearly closed; the tube is short, cylindrical; the limb is divided at the border into five blunt teeth: the filaments are short, and furnished with oblong antheræ: the germen is quadrifid: style filiform, of the length of the tube, terminated by a blunt cloven stigma: the seeds are four, but seldom more than two arrive at perfection, when they are egg-shaped, shining, extremely hard, and of a grey or yellowish hue.

It is found in various parts of England, affecting a dry gravelly soil. Its flowers appear in May and June.

This plant, according to Haller,^a possesses narcotic powers; but its seeds only have been employed for medical purposes. These seeds, which we have described above, by their exquisitely polished surface, and stony hardness, (from which latter circumstance the name *Lithospermum* is taken,) have long excited the attention of naturalists. Pliny considered them as the greatest curiosity in the vegetable world: “Nec quicquam inter herbas majore quidem miraculo aspexi. Tantus est decor, velut aurificum arte alternis inter folia candicantibus margaritis: tam exquisita difficultas lapidis ex herba nascentis.”^b

Grew relates, that the hard crustaceous part effervesces with acids;^c but the experiment has been since tried by others without effect: the internal substance of the seed is softer, and seems to consist of a farinaceous, sweet, and oily matter, becoming rancid on being long kept.

Formerly, when medicine was under the dominion of superstition and absurd conceits, a notion prevailed, that nature pointed out remedies for different complaints, by bearing a certain resemblance and sign of the disease or part affected: hence the stony appearance of these seeds was deemed a certain indication of their efficacy in calculous and gravelly disorders. And though modern writers on the *Materia Medica* give no credit to the lithontriptic character of *sem. milii solis*, yet they generally ascribe to them a diuretic quality, a power of cleansing the urinary passages, and of obviating strangury, especially when employed in the form of an emulsion;^d but probably the free use of any bland diluent would answer these purposes equally well.

The absorbent virtue attributed to these seeds is wholly without foundation, being irreconcilable to the principles of chemistry.

^a *Hist. Stirp. Helv. n. 595.*

^b *Plin. lib. 27. c. 11.*

^c *Grew. Mixt. corp. p. 22.*

^d *Lotum movere hisce quidem credo, et in stranguria efficere aliquid posse, quum ob nucleum emulsivæ naturæ sit. Murray, l. c.* See others also of this opinion.



Anchusa officinalis

ANCHUSA OFFICINALIS.

OFFICINAL BUGLOSS,
Or ALKANET.

SYNONYMA. Buglossum. *Pharm. Park. Parad.* 249. *Geoff.* v. iii. 226. *Dale.* 136. *Alston.* vol. ii. 91. *Lewis.* 167. *Bergius.* 79. *Murray.* vol. ii. 98. *New Edinb. Dispens.* 152. Buglossum angustifolium majus. *Baub. Pin.* 256. Buglossa vulgaris. *Ger. Emac.* 798. *Flor. Dan.* t. 572.

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

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

Sp. Ch. A. foliis lanceolatis strigosis, spicis secundis imbricatis, calycibus quinquepartitis. *Hort. Kew.*

ROOT perennial, large, tapering. Stem about two feet high, erect, angular, strong, rough, hairy branched towards the top. Leaves alternate, narrow, lanceolate, pointed, rough, hairy, edges eroded, and somewhat undulated. Flowers purple, produced in corymbi, both lateral and terminal. Calyx rough, cut into five acute erect segments. Corolla funnel-shaped, tube long, cylindrical: limb divided into five obtuse segments: mouth of the tube closed by five nectarious scales. Filaments five, short, placed in the upper part of the tube, and furnished with simple brownish antheræ. Germen quadrifid: style nearly as long as the tube, tapering, and terminated by an emarginated stigma. Seeds four, hollowed out at the base.—The flowers appear in succession from June till October.

It is a native of the Continent of Europe, but not indigenous to this Island. Mr. P. Miller cultivated it here in 1748, and we now find it in most gardens where variety of herbaceous ornamental plants is an object of attention.

The root, leaves, and flowers of this plant have all been admitted of the *Materia Medica*, though it would seem without any just claim to that distinction. To the taste they discover no other quality than that of being sweetish and glutinous, excepting only a slight bitterness of the flowers.

Bergius ascribes an aperient and refrigerant virtue to this plant, and states its use to be in "ardor viscerum," and also in hypochondriasis. However, as all the common odoraceous plants are cooling and laxative, these properties are no peculiar recommendation of Bugloss.

The utility of this herb in melancholic and hypochondriacal disorders has been asserted ever since the time of Dioscorides;* and when it is considered that wine was generally the vehicle in which the plant was administered, we are not surprised that it so long maintained the character of exhilarating the spirits. In this way likewise may be explained why the flowers of Bugloss have been reckoned one of the *four cordial flowers*.

* ——— "quo vino inditum animi voluptatis augere, hilaritatemque offerre creditur," &c. *Diosc. l. iv. c. 128.*

SYMPHYTUM OFFICINALE. COMMON COMFREY.

SYNONYMA. *Consolida.* *Pharm. Geoff. vol. iii. 353. Dale. 138. Alston. vol. i. 525. Lewis. 248. Edin. New Disp. 176. Bergius. 85. Murray. vol. ii. 92. Cullen. v. ii. 413. Symphytum. Hall. Stirp. Helv. No. 600. Scop. Flor. Carn. No. 195. Symphytum Consolida major. Bauh. Pin. 259. Gerard. Emac. 806. Symphytum majus vulgare. Park. Theat. 523. Raii. Synop. 230. S. officinale. Hudf. Ang. p. 81. With. Bot. Arr. 195. Curt. Flor. Lond. Flor. Dan. 664.*



Symphytum officinale.

Published by Dr. Woodville Jan? 4. 1794



Pentandria Monogynia. *Lin. Gen. Plant.* 185.

Gen. Ch. *Cor.* limbus tubulato-ventricosus: fauce clausa radiis fubulatis.

Sp. Ch. *S.* foliis ovato-lanceolatis decurrentibus.

ROOT perennial, large, branched, on the outside blackish, within whitish. Stalk about two feet high, erect, branched, somewhat angular, covered with short rigid hairs. Leaves large alternate, those below standing on footstalks; those above sessile, decurrent, ovate, pointed, entire, rough, and fringed with short hairs. Flowers tubular, of a yellowish white, placed in spikes, which turn inwards in a spiral manner. Calyx divided into five segments, which are rough, erect, and pointed. Corolla funnel-shaped, consisting of a short thick tube, and a limb slightly cut at the edges into five short obtuse reflexed segments; the mouth of the tube closed by five narrow pointed nectarious teeth. Filaments five, short, terminated by yellow erect bifid antheræ. Germen divided into four parts. Style tapering, longer than the corolla, and furnished with a small blunt stigma. Seeds four, angular, blackish, shining, and lodged in the bottom of the calyx. It is a common British plant about ditches, flowering from June till September.

A supposed vulnerary efficacy, for which this plant was formerly in great repute, and to which it seems to owe its name, will now be considered as nothing in its recommendation.

However, the root of Comfrey, though rarely used, promises all the advantages to be derived from that of marshmallow; for according to Lewis "the dried root, boiled in water, renders a large proportion of the fluid slimy; and the decoctions inspissated, yield a strong flavourless mucilage, similar to that obtained from althæa, but somewhat stronger-bodied, or more tenacious, and in somewhat larger quantity, amounting to about three-fourths the weight of the Comfrey." Hence it is inferred, that the consolida is rather superior to the althæa in the several intentions for which that root is employed; the mucilaginous matter being in both roots the only medicinal principle. Therefore, as the root of this plant is easily obtained, it
may

may be conveniently substituted for that of althæa in all the compositions in which the latter is officinally directed, or extemporaneously, for the general purposes of an emollient and demulcent. This opinion seems also to have the authority of Dr. Cullen, who says, " while mucilaginous matters are retained in our lists, I do not perceive why both the British Colleges have entirely omitted the Symphytum. It may be of service as alleged in diarrhoeas and dysenteries."

CYNOGLOSSUM OFFICINALE.

COMMON HOUNDS-
TONGUE.

SYNONYMA. Cynoglossum. *Pharm. Geoff.* v. 3. 394. *Dale.* 135. *Alston.* v. 1. 428. *Lewis.* 268. *Ed. New Dispens.* 181. *Bergius.* 82. *Murray.* V. 2. 102. *Cullen.* v. ii. 413. Cynoglossum majus vulgare. *Baub. Pin.* 257. *Ger. Emac.* 804. *Park. Theat.* 511. *Raii. Hist.* 489. *Synop.* 226. Cynoglossum foliis ellipticis lanceolatis, fericeis, caule folioso. *Hall. Hist. Stirp. Helv. n.* 587. C. officinale. *Scop. Flor. Carn.* 191. *Hudson. Fl. Ang.* 80. *With. Bot. Arr.* 192. *Curt. Fl. Lond.*

Pentandria Monogynia. *Lin. Gen. Pl.* 183.

Gen. Ch. Cor. infundibuliformis, fauce clausa fornicibus. *Semina* depressa, interiore tantum latere stylo affixa.

Sp. Ch. C. staminibus corolla brevioribus, foliis lato-lanceolatis basi attenuatis tormentosis sessilibus, laciniis calycinis oblongis. *Hort. Kew.*

ROOT perennial, long, tapering, blackish on the outside, whitish within. Stalk two or three feet in height, erect, grooved, villous, leafy, branched. Radical leaves large, on long footstalks, exceeding
a foot



Cynoglossum officinale

a foot in length, ovate, pointed, covered with a short shining greyish down; cauline leaves sessile, numerous, lanceolate, broad towards the base. Flowers of a dull red, changing to a bluish colour, and placed on slender peduncles, in spikes. Segments of the calyx five, deeply divided. Corolla monopetalous, funnel-shaped: tube cylindrical, thick, half the length of the calyx: limb concave, cut into five roundish segments: nectary consisting of five purple scales, closing together, and inserted at the mouth of the tube. Filaments five, very short. Antheræ oblong, green. Germens four, smooth, of a yellowish green colour, supporting a tapering style, terminated by a blunt emarginated stigma. Capsules four, roundish, rough. Seeds solitary, ovate, gibbous, pointed, smooth.

It is common in this country, and usually found in waste grounds, or sides of roads, and flowers in June and July.

Hounds-tongue, thus named from the shape of the leaves, like most of the other plants of this natural order, is succulent, and somewhat mucilaginous, especially its root, which, for medicinal purposes, has been generally preferred to the leaves. The taste of the plant is bitterish, and its smell is disagreeable, resembling that of mice. *Cynoglossum* is reported to be deleterious, and the dingy lurid appearance of its leaves, peculiar to poisonous herbs of the narcotic kind, seems to favour the opinion; nor are facts wanting to confirm it. A relation is given of a whole family at Oxford, who, by mistake, ate the boiled leaves of this plant for those of comfrey: soon afterwards they were all seized with vomiting, stupor, sleepiness, &c. which symptoms continued alternately for almost forty hours, and with such severity, that one person died.^a But what degree of narcotic power Hounds-tongue possesses, or to what quantity it may be safely employed as a medicine, experience has not yet determined. The pil. de cynoglossa of the Wirtemberg and Danish Pharmacopœias contain so small a proportion of this root, that their common use cannot be considered as affording sufficient proof of its innocence. Ray however informs us, that Dr. Hulse frequently

^a Vide Morison *Hist. Oxon.* iii. p. 450. Haller also, (*Hist. Stirp. Helv.* n. 587.) cites a similar instance, mentioned by Dr. Blair; but the plant used does not appear to have been the *cynoglossum*. See Blair's *Miscellaneous Observations*, p. 55.

prescribed a decoction of the roots of Hounds-tongue for internal use, and at the same time applied the roots as a poultice to scrophulous tumours with safety and advantage.^b Hence it appears that this part of the plant at least cannot be considered as an active poison.

The leaves and roots of *Cynoglossum* have been employed with the same intention, and principally with a view to their mucilaginous, astringent, and sedative qualities, as in coughs, hæmoptysis, diarrhœas, dysenteries, &c.^c Their external use is also recommended in ill-conditioned ulcers and tumours.

^b Vide *l. c.*

^c Vide Schreckius *Diff. de Cynoglosso*.

BORAGO OFFICINALIS.

COMMON BORAGE.

SYNONYMA. Borago. *Pharm. Geoff.* v. 3. 201. *Dale.* 136. *Alston.* v. ii. 91. *Lewis.* 158. *Ed. New Dispens.* 150. *Bergius.* 86. *Murray.* v. ii. 95. Buglossum latifolium, Borrago. *Baub.* Pin. 256. Borrago hortensis. *Gerard. Emac.* 797. Borago floribus cæruleis & albis. *Raii. Hist.* 493. *Synop.* 228. B. officinalis. *Hudson. Flor. Ang.* 82. *With. Bot. Arr.* 196. *Lc. Hort. Roman. T. 2. t. 20.* 21. *Eng. Bot.* 36.

Pentandria Monogynia. *Lin. Gen. Pl.* 188.

Gen. Ch. Cor. rotata: fauce radiis clausa.

Sp. Ch. B. foliis omnibus alternis, calycibus patentibus.

ROOT divided, fibrous, and in Britain scarcely more than biennial. Stalks branched, round, succulent, hairy, erect, rising to the height of two feet. Leaves ovate, alternate, undulated, hairy, ciliated, irregularly defined at the edges, and at their bases embracing the stem.

Flowers



Perago officinalis

Flowers large, blue, placed in loose panicles, upon rough peduncles turning downwards. Calyx divided into five narrow ovate rough permanent segments. Corolla monopetalous, wheel-shaped: tube short: limb deeply cut into five spreading pointed divisions, which are longer than the calyx; faux or mouth of the tube closed by five prominences, which are blunt, and notched at the end. Filaments five, tapering, converging: antheræ oblong, approaching, and fixed to the middle and inner side of the filaments. Germens four: style filiform, longer than the stamina, and furnished with a simple stigma: the calyx supplies the office of capsule, containing the seeds, which are four, of an irregular roundish shape.

The Borage, although commonly found growing about rubbish, and in waste grounds, is however not originally a native of this Island, but has now been long enough naturalized here to be considered as a British plant. Its flowers, which appear from June till September, are of a beautiful blue colour: hence this plant, in many gardens, is cultivated for ornament, as well as for its popular use as an ingredient in that grateful summer-beverage, known by the name of Cool Tankard.

This plant appears to be the buglossum of the ancients;^a and its reputed medicinal character seems also to correspond most exactly with that of our common bugloss, or *anchusa officinalis* L. The flowers of both have been termed cordial, and hence, formerly, much recommended in melancholia, and other affections of the nervous system;^b and as these flowers were found to possess neither warmth, pungency, nor fragrance, their cordial efficacy has been ascribed to a saline quality, which, by abating inordinate heat, was said to be peculiarly grateful and refreshing. But though the herbaceous substance of Borage has been discovered to contain a saline matter, there is no evidence of its existence in the flowers; so that the advantages supposed to be derived by a vinous infusion of these, like those of bugloss, can only be imputed to the menstruum.

^a The following lines therefore apply to this plant:

Vinum potatum quo sit macerata buglossa,

Mærorem cerebri dicunt auferre periti.

Fertur convivas decoctio reddere lætos.—*Schol Salern. c. 21.*

^b Hence the trite remark, “Borago, gaudia semper ago.”

The leaves of Borage manifest nothing remarkable either to the smell or to the taste; but they abound with a juice, which, in its expressed state, is said to be saltish, and which, on being boiled a sufficient time, forms crystals of nitre:^c similar crystals have also been obtained from a decoction of the leaves;^d and hence it may be inferred, that this plant has a peculiar claim to the possession of refrigerating and aperient virtues. Dr. Withering observes, that the young and tender leaves are good in fallads, or as a pot-herb.

Cordia Myxa, whose fruit is of the drupaceous or plumb kind, and was formerly known in the shops by the name *sebesten*, is the only remaining medicinal plant placed by botanists in this natural order which we have not figured. The leaves of the *Myxa*, however, unlike those of the other species of *Cordia*, are smooth and naked; it therefore cannot properly belong to the *asperifoliæ*; and as *sebestens* seem to have no medical advantages over many other dried fruits, we shall, without further apology, proceed to the order *Personatæ*.

^c Marcgraf in *Mem. de L'Acad. des Sc. de Berlin*. 1747. p. 79.

^d Boulduc *Mem. de L'Acad. des Sc. de Paris*, 1734. p. 101.



Verbena officinalis

Published by D. Woodville, F.R.S. 1. 1799.

P E R S O N A T Æ.

VERBENA OFFICINALIS.

COMMON VERVAIN.

SYNONYMA. *Verbena Pharm. Dale. 148. Alston. vol. ii. 242. Lewis. 660. Murray. ii. 209. Verbena communis cæruleo flore. Baub. Pin. 269. V. mas seu recta et vulgaris. Park. Theat. 674. V. communis. Gerard. Emac. 718. Raii. Hist. 535. Synop. 236. V. officinalis. Hudf. Flor. Ang. 505. With. Bot. Arr. 595. Flor. Dan. 628. Flor. Lond. i. 5.*

Didynamia Gymnospermia.*

Gen. Ch. *Cor. infundib. subæqualis, curva. Calycis unico dente truncato. Semina 2. s. 4. nuda. Stam. 2. s. 4.*

Sp. Ch. *V. tetrandra, spicis filiformibus paniculatis, foliis multifido-laciniatis, caule solitario.*

ROOT perennial, tapering, fibrous, of a yellowish colour. Stalks above a foot high, erect, tapering, obtusely quadrangular, beset with short prickles: the branches are opposite, slender, and simple. Leaves opposite, sessile, pinnatifid, or deeply and irregularly indented. Flowers numerous, purplish, placed in long slender spikes. Calyx

* Linnæus places the *Verbena* in the class diandria, dividing the different species into the *diandrous* and *tetrandrous*; but our English species, included among the latter, has also the characters of the fourteenth class, and is arranged accordingly by British botanists.

small, tubular, five-toothed, angular, permanent. Corolla monopetalous, unequal: tube cylindrical, towards the top bent inward; limb expanding, divided into five segments, which are rounded, and nearly equal. Filaments extremely short: antheræ commonly four, two of which are placed above the others. Germen square: style thread-shaped, terminated by an obtuse stigma. Seeds usually four, oblong, obtuse, on the inside flattish, and white, and on the outside brown, convex, grooved, and reticulated.

Mr. Curtis observes that “the Vervain may be considered as a kind of domestic plant, not confined to any particular soil, but growing by the road sides, pretty universally at the entrance into towns and villages”; and Miller declares that it is never found more than a quarter of a mile from a house: hence it has been also called Simpler’s Joy.

Ancient writers have distinguished this plant by the names *Verbena*, *Verbenaca*, and *Peristerium*.^a It is destitute of odour, and to the taste manifests but a slight degree of bitterness and astringency.

In former times the *Verbena* seems to have been held sacred, and was employed in celebrating the sacrificial rites;^b and with a view to this more than the natural power of the plant, it was worn suspended about the neck as an amulet. This practice, thus founded in superstition, was, however, in process of time, adopted in medicine; and therefore to obtain its virtues more effectually, the Vervain was directed to be bruised before it was appended to the neck; and of its good effects thus used for inveterate headaches, *Forestus* relates a remarkable instance.^c In still later times it has been employed in the way of cataplasm, by which we are told the most severe and obstinate cases

^a Vide *Plin. l. 25. c. 9.*

^b It appears to be the *λεγα βοτάνη*, or *πεγιστευμενη* of *Dioscorides*. *Alston* says, *Verbena* quasi *herbena*, because all herbs used in sacred rites were so called. Hence *Virgil*, *Verbenasque adole pingues & mascula thura. Ecl. viii. v. 65.* And *Terence* in *Andria*, *Ex ara hac fume Verbenas tibi.* But *Virgil* also uses the word to denote a particular plant. Vide *Georg. iv. 131.*

^c *Oper. Omn. L. 9. Obs. 52.*



Veronica officinalis

of cephalalgia have been cured; for which we have the authorities of Etmuller, Hartmann, and more especially De Haen.^d

Notwithstanding these testimonies in favour of Vervain, it has deservedly fallen into disuse in Britain; nor has the pamphlet of Mr. Morley,^e written professedly to recommend its use in scrophulous affections, had the effect of restoring its medical character. This gentleman directs the root of Vervain to be tied with a *yard of white sattin ribband* round the neck, where it is to remain till the patient recovers. He also has recourse to infusions and ointments prepared from the leaves of the plant; and occasionally calls in aid the most active medicines of the *Materia Medica*.

^d *De Haen Rat. Med. P. 6. p. 304.*

^e See his Essay on Schrophula.

VERONICA OFFICINALIS.

OFFICINAL VERONICA;
Or, MALE SPEEDWELL.

SYNONYMA. Veronica. *Pharm. Dale.* 186. *Alston.* ii. 244. *Bergius.* 17. *Murray.* ii. 205. *Rutty.* 535. *Lewis.* 660. *Edinb. New Dispensf.* 301. Veronica mas supina et vulgatissima. *Baub. Pin.* 246. V. vera et major. *Gerard. Emac.* 626. V. mas vulgaris supina. *Park. Theat.* 550. *Raii. Hist.* 851. *Synop.* 281. *Hall. n.* 540. V. officinalis. *Hudson. Ang.* 4. *Lightf. Scot.* 27. *Withering. Bot. Arr.* 9. *Flor. Dan.* 248. *Flor. Lond. n.* 33.

Diandria Monogynia. *Lin. Gen. Plant.* 25.

Gen. Ch. Cor. Limbo 4-partito: lacinia infima angustiore. *Capsula* bilocularis.

Sp. Ch.

Sp. Cb. V. *spicis lateralibus pedunculatis, foliis oppositis, caule procumbente.*

ROOT perennial, small, fibrous. Stalks about six inches in length, procumbent, creeping, firm, hairy, or woolly. Leaves oblong, obtuse, slightly serrated, or toothed, rough, placed in pairs, sessile, or on very short footstalks. Flowers purplish, in spikes, either terminal or axillary, each flower standing upon a short peduncle, supported by a linear bracteal leaf. Calyx divided into four segments, which are ovate, obtuse, and beset with glandular hairs. Corolla monopetalous, wheel-shaped, consisting of a short tube, terminated by a spreading limb, of a pale blue colour, and divided into four unequal portions. Filaments two, white, furnished with blue heart-shaped antheræ. Germen roundish, depressed, viscous, and at the base glandular. Style filiform, purplish, and furnished with a stigma, of a truncated appearance. Capsule irregularly heart-shaped, divided into two valves, containing numerous small brown compressed seeds.

It is not unfrequent on dry barren grounds, and heaths, as that of Hampstead, flowering in June and July.

“ The leaves of *Veronica* have a weak not disagreeable smell, which in drying is dissipated, and which they give over in distillation with water, but without yielding any separable oil. To the taste they are bitterish, and roughish: an extract made from them by rectified spirit is moderately bitter and astringent.”^a

This plant, a century ago, was much recommended, especially in Germany, as a substitute for tea; and the French still distinguish it by the name of *Thé d'Europe*. But though this European tea has a roughness and a slight bitterness, which is not ungrateful to the taste, yet these qualities are so unlike those which we discover in the foreign tea, that the extremely high price of the latter, at that time, must have been the chief reason for causing a contrary opinion, and of reconciling Europeans to a substitute so imperfect as the leaves of *Veronica*.

^a *Lewis. l. c.*



Euphrasia officinalis.

As a medicine also this plant has had a considerable share of fame. Francus^b and Hoffmann^c ascribe to it numerous virtues, the former calling it *Polychresta herba Veronica*. The disorders in which it has been esteemed most useful are those of the lungs, as coughs, asthmas, consumptions, &c. in which it is said not only to prove expectorant, but by its extraordinary vulnerary power to heal internal ulcers.

Its use has likewise been recommended by several authors in various other complaints requiring medicines of very different characters; but if we judge of the utility of the Veronica by its sensible qualities, it is only to be recognized as an astringent; and not sufficiently powerful as such to produce any considerable effect, and is therefore now disregarded by medical practitioners.

^b Vide *Polychresta herba Veronica*, published in 1690.

^c Vide Fr. Hoffmann in *Diff. de infusi Veronicæ efficacia præferenda herbæ Theæ*.—Also Haller. l. c.

EUPHRASIA OFFICINALIS. COMMON EYEBRIGHT.

SYNONYMA. Euphrasia. *Pharm. Geoff.* iii. 454. *Dale.* 196. *Alston.* ii. 138. *Rutty.* 189. *Bergius.* 543. *Murray.* ii. 186. *Lewis.* 292. *Cullen.* i. 42. *Edinb. New Disp.* 187. Euphrasia officinarum. *Baub. Pin.* 233. *Ger. Emac.* 663. *Park. Theat.* 1329. *Raii Hist.* 771. *Synop.* 284. Euphrasia officinalis. *Hudsf. Ang.* 268. *With. Bot. Arr.* 635. *Curt. Flor. Lond.* 335.

Didynamia Angiospermia. *Lin. Gen. Plant.* 741.

Gen. Ch. Cor. 4-fidus cylindricus. Caps. 2-locularis, ovato-oblonga. Antheræ inferiores altero lobo basi spinosæ.

Sp. Ch. E. foliis ovatis lineatis argute dentatis.

No. 2.—Part II.

F

ROOT

ROOT annual, slender, divided, furnished with numerous minute fibres: stalk about three or four inches high, branched, round, somewhat hoary, reddish. Leaves sessile, opposite, ovate, deeply serrated, concave, rather hairy, and on the upper side marked with linear impressions. Flowers without peduncles, in racemi, arising at the axæ of the leaves. Calyx pentagonal, permanent, divided at the brim into four segments, which are unequal, of a dingy purplish colour, and beset with small glands. Corolla monopetalous, bilabiated, white: tube cylindrical, crooked, somewhat hairy, at the mouth yellowish: limb separated into two lips: upper lip erect, bifid, toothed, streaked with three purple lines: lower lip largest, divided into three emarginated lobes, of which those placed laterally are painted with purple streaks, and that in the middle tinged with yellow. Filaments four, tapering, purplish. Antheræ brown, bilobed, bearded with a few white hairs at the bottom. Germen egg-shaped, hairy. Style filiform, downy. Stigma blunt, fringed with minute glands. Capsule egg-shaped, notched at the end, divided into two cells, containing several whitish striated seeds.

It is common on barren meadows, heaths, and pastures, producing its flowers from July till September.

Eyebright, without any sensible odour, is somewhat bitterish and astringent, communicating a black colour to a solution of ferrum vitriolatum. It derives its name from its reputed efficacy in various disorders of the eyes, for which it was used both externally^a and internally, and has long^b been so much celebrated as to be considered almost in the character of a specific, the "*verum oculorum solamen*."—But as there cannot possibly be a general remedy for all diseases of the eyes, the absurd and indiscriminate recommendation of Euphrasia as such, must receive but little credit from those who practice medicine on rational principles. It must be acknowledged however, that some authors have stated peculiar complaints of the eyes, in which the use

^a The usual way of employing it as an external application was by mixing its juice with wine, and then adding a small quantity of honey.

^b It is mentioned in this character by Gordon, (*Lilium Medicinæ. Fol. 146. ed. 1305*) Also by Arnoldus de Villa Nova, Sylvaticus, and others.

of this plant was thought more remarkably evident; and, judging by these, we should say, that eyes weakened by a long continued exertion, and those that are dim and watery, as in a senile state, are the cases in which Euphrasia promises most advantage; nor are old people to despair, for according to Hildanus^c and Lanzonus^d several, at the age of seventy and eighty years, were recovered almost from entire blindness.

But though the great reputation which Eyebright formerly supported for several ages, must have induced some practitioners of later days to have tried its ophthalmic power; yet we do not find a single instance of its efficacy recorded in modern times. How far this remark ought to invalidate the positive testimonies in its favour, we leave others to determine.^e

The Icelanders are said to be in the constant habit of using the juice of Euphrasia in all affections of the eyes.^f

In common with many other plants, the Euphrasia has also been recommended in the jaundice.

^c *V. cent. epist. n. 59.*

^d *Oper. Omn. ed. 1738. Tom. 2. p. 394.*

The character of Euphrasia was not unknown to Milton:

—— “ then purged with euphrasy and rue,
The visual nerve, for he had much to see.”

^e Bergius says, “ Ego ex propria experientia nihil certi de hac herba adhuc scio, sed tamen non spernenda arbitror testimonia priscorum.”

^f *Eggert Olafsen. Reise, &c. vol. i. p. 433.*

ANTIRRHINUM LINARIA. COMMON TOAD-FLAX.

SYNONYMA. *Linaria. Pharm. Geoff. iii. 730. Dale. 193. Ruty. 289. Bergius, 545. Murray. ii. 183. Lewis. 395. Ed. New Dispensf. 222. Linaria vulgaris lutea, flore majore. Bauh. Pin. 212. Linaria lutea vulgaris. Gerard, Emac. 550. L. vulgaris nostras. Park. 458. Raii. Hist. 752. Synop. 281. Antirrhinum Linaria, Hudsf. Ang. 238. Withering. Bot. Arr. 648. Curt. Flor. Lond. i. 5.*

Didynamia Angiospermia. Lin. Gen. Plant. 750.

Gen. Ch. Cal. 5-phyllus. Cor, basis deorsum prominens, nectarifera. Caps. 2-locularis.

Sp. Ch. A. foliis lanceolato-linearibus confertis, caule erecto, spicis terminalibus seffilibus, floribus imbricatis.

ROOT perennial, woody, crooked, creeping, white, fibrous. Stalks round, erect, simple, tapering, smooth, from one to two feet in height. Leaves nearly linear, pointed, smooth, entire, thickly scattered over the stalk. Flowers large, yellow, and partly orange, crowded over each other in a terminal spike. Calyx divided into five small oval segments, of which the uppermost is the largest. Corolla monopetalous, bilabiated, or ringent, yellow, consisting of a short tube, and a limb composed of two lips; upper lip bifid, having its segments bending down, afterwards turned back, and closing together; lower lip divided into three segments, of which that in the middle is the least; the mouth is closed by a palate, which is bifid, prominent, villous at the bottom, and of a saffron colour. Filaments four, white, two long and two short, glandular at the base: antheræ yellow, bifid, joined in pairs. Germen round. Style filiform. Stigma clubbed. Capsule of a cylindrical form, opening by several divisions at the top,



Antirrhinum Linaria

Published by Dr. Woodville. March 1. 1791.

top, divided into two cells, containing numerous black irregularly shaped seeds.

It is frequent in barren pastures, hedges, and sides of roads, flowering from July till September.

The leaves of *Linaria* have a bitterish and somewhat saline taste, and when rubbed betwixt the fingers yield a faint smell, resembling that of elder. They are reported to be diuretic and cathartic, and in both characters to act so powerfully as to give names to this plant expressive of these qualities.^a Hence they have been recommended internally in dropsies, and other disorders requiring copious evacuations. The *Linaria* has also been used as a resolvent in jaundice, and in such diseases as have been supposed to proceed from visceral obstructions. But the plant has been chiefly valued for its effects when externally applied, especially in hemorrhoidal affections;^b for which both the leaves and flowers have been employed in the various forms of ointment, fomentation, and cataplasim.*

An infusion of the flowers is said to be very efficacious in cutaneous disorders; and Hammerin^c gives an instance in which these flowers, with those of *verbascum*, used as tea, cured an exanthematous disorder, which had resisted various other remedies tried during the course of three years.

An Unguentum de *linaria* is to be found in the Wirtemberg, Brandenburg, and Danish Pharmacopœias.^d

^a Viz. *Urinalis*, *Harnkrout*, *Kreutterbuch*.

^b Vide *Horst. Obs. et epist. med. lib. 4. obs. 50. Sim. Paulli. Bot. 415. Chesnax. Obs. 360.*

* See *Chomel. Pl. Ufuell. Tom. 3. 34. Geaff. l. c.*

^c Cited by *Murr. l. c.*

^d The inventor of this ointment, for the piles, was a Dr. Wolph, who at that time was physician to the Landgrave of Hesse, by whom the doctor was continually interrogated to discover the composition of this ointment; but Wolph obstinately refused, till the prince promised to give him a fat ox annually for the discovery. Hence to the following verse, which was made to distinguish the *Linaria* from the *Esula*, viz.

“*Esula lactescit, sine lacte Linaria crescit,*”

The Hereditary Marshal of Hesse, added :

“*Esula nil nobis, sed dat Linaria taurum.*” *Horst. l. c. a Murr. cit.*

Linnæus (Flor. Suec.) says this plant is used as a poison for flies.

VITEX AGNUS CASTUS.

CHASTE-TREE.

SYNONYMA. *Agnus castus.* *Pharm. Geoff.* iii. 44. *Dale.* 297. *Alston.* ii. 321. *Bergius.* 550. *Murray.* ii. 195. *Lewis.* 27. *Edinb. New Dispensf.* 119. *Vitex foliis angustioribus cannabis modo dispositis.* *Baub. Pin.* 475. *Vitex five Agnus castus.* *Ger. Emac.* 1387. *Vitex folio angusto.* *Park. Theat.* 1437. *Agnus folio non ferrato.* *Raii. Hist.* 1696.

Didynamia Angiospermia. *Lin. Gen. Plant.* 790.

Gen. Ch. *Cal.* 5-dentatus. *Cor.* limbus 6-fidus. *Bacca* 4-sperma.

Sp. Ch. *V.* foliis digitatis ferratis, spicis verticillatis.

THIS small tree or shrub divides into numerous branches; is covered with a greyish bark, and the young shoots are clothed with a downy substance. Leaves digitated, opposite, on long footstalks, separating into five or seven portions, which are long, narrow, elliptical, entire, pointed, on the upper side smooth, under side downy. Flowers purplish, on short peduncles, in whorled spikes. Calyx short, tubular, downy: margin irregular, toothed. Corolla monopetalous, ringent: tube short, cylindrical: limb divided into four segments, of which the undermost is the largest. Filaments four, two long, and two short, of the length of the tube, capillary. Antheræ vesatile. Germen roundish. Style filiform, about the length of the tube. Stigmata two, tapering, spreading. Capsule a roundish berry, divided into four parts, each containing a solitary ovate seed, of a blackish grey colour.

The



Vitae Agnus castus

Published by Dr. Woodville March. 1. 1794.

The Chaste-tree is a native of Sicily, affecting humid and shady places. It has long been introduced into the gardens of this country,* where it is found to brave the cold of winter in the open ground.

Miller says that he has seen it in full flower in October, when it made a beautiful appearance; but we have not been fortunate enough to meet with it in that state, and therefore had the annexed figure taken from a dried specimen in the Herbarium of Sir Joseph Banks.

The seeds, which have long been medicinally used, and were formerly received as an article of the *Materia Medica*, have a pungent acrid taste, and an unpleasant aromatic odour. These, from the days of Dioscorides, have been highly celebrated for possessing a power of subduing the inclination natural between the sexes. Hence the name *Agnus castus*;^a and from being therefore thought more especially useful to those leading a monastic life, these seeds have been called *Piper monachorum*, or Monk's pepper. The seeds of the Chaste-tree are, however, so far from being thought antiaphrodisiac, that writers of later times have ascribed to them an opposite quality; and their aromatic pungency seems to favour this opinion, and also that of Bergius, who states them to be carminative and emmenagogue. We are aware that Lewis says, "the seeds in substance, as met with in the shops, have little taste, and scarcely any smell;" but Dr. J. E. Smith, who examined them in their recent state, observes, that "they have an unpleasant aromatic smell:"^b it is therefore probable that on being long kept they lose much of their sensible qualities, nor is this to be regretted from any medical advantage they seem to promise in our Island; and the plant has been figured here rather with a view to illustrate this natural order, by its variety, than to serve the purposes of medicine.

* It was cultivated here in 1570. *Lobel. Advers.* 423.

^a *Agnos*, (i. e. *castus*) nominatur, quod, in *Thesmophoriis* (i. e. *sacris Cereris*) *matronæ castitatem custodientes*, eo ad *strata* uterentur: *Lygos* vero (quasi *vimen*) propter *virgarum ipsius firmitatem*. *Dioscor. l. i. c. 135.* *Gal. Sim. vi. p. 40.* and cited by *Alston. l. c.*

^b Sketch of a tour on the Continent, *vol. i. p. 223.*

Having,

Having, in the first part of Medical Botany, published a plate of Gratiola and Beccabunga, we have now figured all the medicinal plants classed by Professor Murray in the order Personatæ, except Scrophularia nodosa and aquatica, Avicennia tomentosa, or Anacardium orientale, and Acanthus mollis. The two first are both natives of this country, and known by the names of Great or knobby-rooted Figwort, and Water Figwort. They have an ungrateful smell, resembling that of the Linaria, and like it also have been chiefly employed, with a view to their sedative and antiphlogistic effects, as an application to hemorrhoidal tumours. The synonyma of the Avicennia tomentosa *Syst. Veg.* are Bontia germinans *Sp. pl.* Bontia foliis subtus tomentosis. *Jacq. Sel. Stirp. Amer.* Anacardium orientale *off.* The Malacca Bean.

Jacquin, however, contrary to the opinion of Linnæus, thinks that this tree, which is a native of both Indies, does not produce the Malacca bean, but that the parent of this fruit is still undescribed. It may also be added, that the medicinal qualities of Anacardium orientale are not yet sufficiently ascertained.

Acanthus mollis, Smooth Acanthus, or Bear's-breech, or Branca urfina, of the foreign pharmacopœias, is a native of Italy and Sicily; and, as containing a mucilaginous matter, has been recommended in the character of an emollient and demulcent; but we do not find any instances of its efficacy recorded.



Strychnos Nux vomica

S O L A N A C E Æ,

SEU LURID Æ.

STRYCHNOS NUX VOMICA.

VOMIC NUT,
Or, POISON-NUT.

SYNONYMA. Nux vomica. *Pharm. Dale.* 327. *Alston. ii.* 37. *Lewis.* 453. *Bergius.* 144. *Murray. i.* 477. *Edinb. New Dis.* 239. Nux vomica officinarum. *Baub. Pin.* 511. *Ger. Emac.* 1546. *Park. Theat.* 1601. *Raii. Hist.* 1661. & 1814. *Caniram. Hort. Malab. T. i. t.* 37. p. 67. *Burm. Thes. Zeyl.* 171.

Pentandria Monogynia. *Lin. Gen. Plant.* 253.*Gen. Ch.* Cor. 5-fida. Bacca 1-locularis, cortice lignoso.*Sp. Ch.* S. foliis ovatis, caule inermi.

THIS large tree sends off numerous strong branches, covered with dark grey smooth bark. The young branches have swelled articulations, or a knotty jointed appearance, scandent, and covered with bark of a dark green colour. The leaves arise at the joints in pairs, upon short footstalks, and are ovate, broad, pointed, entire, with three or five ribs, and on the upper side of a shining green colour. The flowers terminate the branches in a kind of fasciculated umbel. Calyx small, tubular, five toothed. Corolla monopetalous: tube cylindrical, or rather inflated at the middle, very long, and at the limb cut into five small ovate segments. Filaments five, short, fixed at the mouth of the tube, and furnished with simple antheræ. Germen roundish, supporting a simple style, terminated by a blunt stigma. Fruit a round smooth large pulpy berry, externally yellow, and containing round depressed seeds, covered with downy radiated hairs.

It is a native of the East Indies, and, according to the Hortus Kewensis was introduced into England in 1778, by Dr. Patrick Ruffell; but it has not yet been cultivated with success in this country. The plate prefixed is taken from a very perfect specimen in the possession of Sir Joseph Banks, to whose liberality every branch of natural knowledge is much indebted, and this work for some of its most valuable figures.

The *nux vomica*, *lignum colubrinum*, and *faba sancti Ignatii*, have been long known in the Materia Medica as narcotic poisons, brought from the East Indies, while the vegetables which produced them were unknown, or at least not botanically ascertained.

By the judicious discrimination of Linnæus, the *Nux vomica* was found to be the fruit of the tree described and figured in the Hortus Malabaricus under the name Caniram, now called Strychnos. To this genus also, but upon evidence less conclusive, he likewise justly referred the colubrinum.^a But the *faba sancti Ignatii* he merely conjectured might belong to this family, as appears by the query *an Strychni species?*^b which subsequent discoveries have enabled us to decide in the negative; for in the Supp. plant. it constitutes the new genus Ignatia, which Loureiro has lately confirmed, changing the specific name amara to that of philippinica.^c The Strychnos and Ignatia are however nearly allied, and both rank under the order Solanaceæ.

We have thought it necessary to inquire thus far into the botanical origin of these productions, from finding that by medical writers they are generally treated of under the same head, and in a very confused and indiscriminate manner.

The seed of the fruit or berry of this tree is the officinal *nux vomica*: it is flat, round, about an inch broad, and near a quarter of an inch thick, with a prominence in the middle on both sides, of a grey colour, covered with a kind of woolly matter, and internally hard and tough like horn; to the taste it is extremely bitter, but has no remarkable smell. It consists chiefly of a gummy matter, which is moderately bitter; the resinous part is very inconsiderable in quan-

^a Contendunt Indiæ Botanici hanc a *S. Nuce vomica* non esse diversam: *Supp. Plant.* 149. ^b Vide *Mat. Med. Lin.* ^c *Flor. Coch.* 125.

tity, but intensely bitter ; hence rectified spirit has been considered its best menstruum.^d

Nux vomica is reckoned amongst the most powerful poisons of the narcotic kind, especially to brute animals, nor are instances wanting of its deleterious effects upon the human species. It proves fatal to dogs in a very short time, as appears by various authorities.^e Hillefeld and others found that it also poisoned hares, foxes, wolves, cats, rabbits, and even some birds, as crows and ducks ;^f and Loureiro relates that a horse died in four hours after taking a dram of the seed in an half-roasted state. The effects of this baneful drug upon different animals, and even upon those of the same species, appear to be rather uncertain, and not always in proportion to the quantity of the poison given.^g With some animals it produces its effects almost instantaneously ; with others not till after several hours, when laborious respiration, followed by torpor, tremblings, coma, and convulsions, usually precede the fatal spasms, or tetanus, with which this drug commonly extinguishes life.

From four cases related of its mortal effects upon human subjects,* we find the symptoms corresponded nearly with those which we have here mentioned of brutes ; and these, as well as the dissections of dogs, killed by this poison, not shewing any injury done to the stomach, or intestines, prove that the Nux vomica acts immediately upon the nervous system, and destroys life by the virulence of its narcotic influence.

The quantity of the seed necessary to produce this effect upon a strong dog, as appears by experiments, need not be more than a scruple :^h a rabbit was killed by five and a cat by four grains : and of the four persons to whom we have alluded, and who unfortunately perished by this deleterious drug, one was a girl ten years of age, to whom 15 grains were exhibited at twice for the cure of an ague. Lofs,

^d Junghanns *diff. de Nuce vom.* &c.

^e Heyde. *Observ.* 50. p. 116. Seutter. *Diff. de Nuce vomica.* Courten. *Phil. Transf.* Wepfer. *De Cicuta.* 194. Brunner. *ibd.* Lofs. *Diff. de Nuce vomica.* Hillefeld. *Diff. Experim. circa venena.* Gesner. *Epist.* 33.—^f Hillef. *l. c.* Lofs. *l. c.* Brunner. *l. c.*

^g It was given in a large quantity to a swine without producing any effect. Lofs. *l. c.*

* Vide *Matthiol. in Dioscor. Lib.* 4. Fred. Hoffinan. *Phil. corp. human. morbos.* P. ii. c. viii. §. 8. Seutter. *l. c.* Linn. & Tillæus *de feb. intermit. cur.* p. 40. ^h Hillef.

however,

however, tells us that he took one or two grains of it in substance without discovering any bad effect; and that a friend of his swallowed a whole seed without injury.

In Britain, where physicians seem to observe the rule *saltem non nocere*, more strictly than in many other countries, the *Nux vomica* has been rarely if ever employed as a medicine. On the Continent, however, and especially in Germany, they have certainly been guided more by the axiom "what is incapable of doing much harm, is equally unable to do much good." The truth of this remark was lately very fully exemplified by the practice of Baron Stoeck; and is farther illustrated by the medicinal character given of *Nux vomica*, which, from the time of Gesner till that of a modern date, has been recommended by a succession of authors, as an antidote to the plague,ⁱ as a febrifuge,^k as a vermifuge,^l and as a remedy in mania,^m hypochondriasis,ⁿ hysteria,^o rheumatism,^p gout,^q and canine madness.^r

In Sweden it has of late years been successfully used in dysentery;^s but Bergius,^t who tried its effects in this disease, says, that it suppressed the flux for twelve hours, which afterwards returned again. A woman, who took a scruple of this drug night and morning, two successive days, is said to have been seized with convulsions and vertigo; notwithstanding which the dysenteric symptoms returned, and the disorder was cured by other medicines; but a pain in the stomach, the effect of the *Nux vomica*, continued afterwards for a long time. Bergius therefore thinks it should only be administered in the character of a tonic and anodyne in small doses, (from 5 to 10 grains) and not till after proper laxatives have been employed.

Loureiro recommends it as a valuable internal medicine in fluor albus, for which purpose he roasts it till it becomes perfectly black and friable, which renders its medicinal use safe without impairing its efficacy.

ⁱ Gesner, *Epist.* p. 144. ^k Wedel. *Amœn. Mat. Med.* p. 337. ^l Buchner. *Ph. Brand.* 61. ^m Hartman. *De Cicuta. &c.* p. 17. ⁿ Schulz. *M. M.* 404. ^o Albinus, cited by Alston. *l. c.* ^p Buchner. *l. c.* ^q Ibid. ^r Wiel. *Diff. de usu Nucis vom. et vitr. alb.* p. 17. ^s Ibid. ^t Schultz. *l. c.* ^u By Hagstrom, Odhelius, Dahlberg. ^v *L. c.*



Physalis Alkekengi

PHYSALIS ALKEKENGI. COMMON WINTER CHERRY.

SYNONYMA. Alkekengi feu Halicacabum. *Pharm. Geoff.* iii. 55. *Dale.* 172. *Alston.* ii. 254. *Rutty.* 13. *Cullen.* ii. 553. *Bergius.* 130. *Murray.* i. 463. *Lewis.* 30. *Ed. New Dispens.* 120. *Gerard. Emac.* 342. *Ray. Hist.* 681. *Hall. Stirp. Helv.* n. 597. *Solanum vesicarium.* *Baub. Pin.* 166. *Park. Theat.* 462.

Pentandria Monogynia. *Lin. Gen. Pl.* 250.

Gen. Ch. Cor. rotata. Stam. conniventia. Bacca intra calycem inflatum, bilocularis.

Sp. Ch. P. foliis geminis integris acutis, caule herbaceo inferne subramoso.

THE root is perennial, long, creeping, fibrous. Stalks annual, round, crooked, smooth, simple, about a foot high. Leaves in pairs, upon footstalks, of an irregular shape, undulated, pointed, veined, entire. Calyx persistent, becoming a large orbicular inflated pentangular membrane inclosing the fruit; segments five, pointed. Corolla monopetalous, wheel-shaped; tube very short; limb five-parted; segments five, broad, short, pointed. Filaments five, small, tapering, approaching together: antheræ erect: germen roundish: style filiform, longer than the filaments, terminated by a blunt stigma. Fruit a red round two-celled berry, inclosed in the calyx, and containing numerous flat kidney-shaped seeds.

This plant, which is a native of the South of Europe, is not unfrequently found in the gardens of this country, in which it has been cultivated ever since the days of Gerard, in 1597. It flowers from July till September, and ripens its fruit in October.

The berries of the Alkekengi, commonly called Winter Cherries, were well known to the ancients, and are characteristically described by Dioscorides.*

They have an acidulous and not unpleasant taste, followed by a slight bitterness, which they are said to derive in a considerable degree from the investing calyx, if not gathered with great care.^a

Winter Cherries, though esteemed to be detergent and aperient, have been chiefly recommended in the character of a diuretic in suppressions of urine, and for removing obstructions occasioned by gravel or mucous. With this intention, from six to twelve cherries, or an ounce of their expressed juice, have been the dose usually employed: there seems, however, to be no danger from a much larger quantity; for in some parts of Germany we are told that the country people eat them by handfuls with much benefit:^b and in Spain and Switzerland^c they frequently supply the place of other eatable fruits. Ray informs us, that a gouty person prevented the returns of the disorder by taking eight of these cherries at each change of the moon:^d we find also instances related of their good effects in dropical and calculous complaints,^e but at present they are wholly disregarded.

* See Στενυχιον αλικακαβον.

^a Lewis. l. c.

^b C. Hoffman. *De Medicam. off.* L. 2. c. 217.

^c *Quer. Flor. Espann. Tom. ii. p. 224.* Hall. l. c.

^d L. c.

^e See Löfseke, *Arnold. de Villa Nova*, & *Lifter*, as cited by Murr. l. c.



Atropa Mandragora

ATROPA MANDRAGORA.

MANDRAKE.

SYNONYMA. Mandragora. *Pharm. Geoff.* iii. 808. *Dale.* 170. *Alston.* i. 478. *Rutty.* 306. *Bergius.* 126. *Murray.* i. 441. *Edinb. New Disp.* 225. Mandragora fructu rotundo. *Baub. Pin.* 169. *Ray. Hist.* 668. M. fructu majore. *Hist. Oxon.* iii. 531. Mandragoras mas. *Ger. Emac.* 352. *Park. Theat.* 343. *Conf. Miller's Figures,* t. 173.

Pentandria Monogynia. *Lin. Gen. Plant.* 249.

Gen. Ch. Cor. campanulata. *Stam.* distantia. *Bacca* globosa, 2-locularis.

Sp. Ch. A. acaulis, scapis unifloris.

ROOT perennial, large, fusiform, three or four feet long, externally brown, internally whitish. Leaves radical, sessile, ovate, entire, veined, pointed, waved, smooth, at first erect, but on attaining their full size resting upon the ground. There is no stem. Flowers whitish, each standing upon a simple stalk, or scapus, which rises from the crown of the root. Calyx quinquefid; segments pointed, persistent. Corolla bell-shaped; tube very short; limb divided into five acute spreading segments. Filaments five, tapering, hairy, inserted at the base of the corolla, at the top diverging, and furnished with erect yellow antheræ. Germen round: style filiform, of the length of the filaments, and crowned with a round stigma. Fruit a large round two-celled berry, of an orange colour, containing many kidney-shaped seeds.

Its flowers appear in March and April.

This plant is a native of the southern parts of Europe: it is not a stranger to our English gardens, in which it was cultivated by Turner in 1562.^a

^a *Hort. Kew.*

The superstitious and absurd stories, formerly told of the Mandrake, would not now for a moment impose upon the most credulous and ignorant: the great resemblance of some of the roots to the human form, the danger of taking them out of the ground, and their surprising effects, were all the invention of charlatanical knavery and imposture.^b

The roots of Mandrake vary both in form and colour, being either divided or entire, and externally brown or black; hence they have been distinguished into male and female: the internal substance is white, and to the taste somewhat viscid, bitter, and nauseous.

All the ancient writers on Mandrake represent this root to be an anodyne and soporific, but in large doses it is said to excite maniacal fury.^c They employed it principally in continued watchings, and in those more painful and obstinate affections which were found to resist less powerful medicines.^d

It was also used in melancholia, convulsions, rheumatic pains, scrophulous tumours, &c. and to answer these purposes, either the expressed juice of the cortical part of the root, inspissated, or a vinous decoction, or infusion of the root, was directed.^e

The leaves of Mandrake, boiled in milk, and used as a cataplasm, are, according to Boerhaave, likewise to be considered as an useful application to indurated tumours.^f

The root also, employed externally, from the later and less equivocal experience of Hoffberg,^g was found extremely efficacious in discussing various glandular tumefactions. And in some cases of gout this author tried its effects internally; from which we find that in a

^b Ferunt has præstantissimas radices ex urina suspensi hominis sub patibulo morientis irrigatas tales efformari, & ideo adeo raras esse, easdem non sine vitæ periculo manu effodi, quapropter eas primum circumfodiendas esse, ita ut minimum ex radice terra sit conditum, deinde ab ea religandum canem, a quo postea fugiente radix extrahitur & sequitur, sed non adeo longe, quandoquidem statim atque effossa est, canis moritur: nullum postea accipientibus amplius metum esse, imo summe proficuas esse, maleficia & infortunia quæcunque avertendo, & felicitates quasunque desiderabiles afferendo. *Geoff. l. c.* See also Matthiol. and others.

^c *Hippocr. de locis in hom. Ed. Foes. p. 240. Aretæus. Acut. curat. L. i. cap. 6. Cel. Aurel. L. i. c. 4.*

^d *Dioscord. M. M. l. 4. c. 76.*

^e *Dios. l. c.*

^f *Hort. Lugd. Bat. Tom. 2. 512.*

^g *Vet. Acad. Handl. 1763. vol. 24. p. 229.* Pallas also mentions it as of frequent use for chronic diseases in some parts of Russia. See *Reise d. Russ. 1. Th. p. 49.*

dose



*Solanum nigrum*

dose of three grains it mitigated the pains, which afterwards returned. A similar effect was produced in other cases by a proportionate quantity of the root in the form of a tincture.

These experiments shew that the Mandrake acts as an opiate, which confirms the opinion entertained of it by the ancients; and hence it may be concluded, that, if not administered with great care, it may prove a deleterious and mortal narcotic. This caution is the more necessary, as the berries of Mandrake are said to have been eaten without producing any bad effect.^b

^b See *Ray. l. c.*

SOLANUM NIGRUM. GARDEN NIGHTSHADE.

SYNONYMA. Solanum. *Pharm. Dale.* 170. *Rutty.* 489. *Bergius.* 140. *Murray. v. i.* 427. *Lewis.* 608. Solanum officinarum. *Baub. Pin.* 166. Solanum vulgare. *Park. Theat.* 346. Solanum hortense. *Gerard. Emac.* 339. *Ray. Syn.* 254. *Hist.* 672. Solanum nigrum. *Hall. Helv. n.* 579. *Hudson. Flor. Ang.* 78. *With. Bot. Arr.* 236. *Flor. Dan.* 460. *Curt. Flor. Lond. ii.* 16.

Pentandria Monogynia. *Lin. Gen. Pl.* 251.

Eff. Gen. Ch. Cor. rotata. Antheræ subcoalitæ, apice poro gemino dehiscentes. Bacca 2-locularis.

Sp. Ch. S. caule inermi herbaceo, fol. ovatis dentato-angulatis, racemis distichis nutantibus.

ROOT annual, branched, whitish, hung with numerous small fibres. Stalk above a foot in height, alternately branched, formed into angles by a foliaceous membrane, swelled at the base of each branch, rough, and of a dingy purple colour. Leaves on footstalks, alternate, irregularly ovate, sinuated, or indentated, and clothed with soft hairs. Flowers in a species of umbel, upon a common lateral flower stalk. Calyx divided into five small short permanent segments. Corolla separated into five segments, which are oval, pointed, spreading, and of a whitish colour. Filaments five, short, downy, terminated by yellow oblong contiguous antheræ. Germen roundish, supporting a tapering downy style, furnished with a round stigma. Fruit a round two-celled berry, changing from a green to a black colour, and containing several kidney-shaped yellowish seeds.

It is common about rubbish, dunghills, and in neglected gardens, producing its flowers during all the summer months.

The smell of this plant is faint and disagreeable; to the taste it manifests no peculiar flavour, being simply herbaceous. It appears to possess the deleterious qualities of the other Nightshades in a very considerable degree; even the odour of the plant is said to be so powerfully narcotic as to cause sleep.^a

The berries are equally poisonous with the leaves. Three children, upon eating them, were suddenly seized with cardialgia and delirium, accompanied with spasms, and remarkable distortions of the limbs:^b and to poultry they proved fatal in a short time.^c

The plant, or rather the leaves which were boiled and eaten by a mother and four children, produced swellings of the face and limbs, followed by inflammation and gangrene; but the husband, who likewise ate of this vegetable at the same time, found no consequent disorder.^d

Its deleterious effects appear still more certain from the experiments

^a *Boccone. Museo di fis. p. 284.*

^b *Vide Wepfer De cicut. p. 226.*

^c *Haller. l. c.*

^d *Rucker. Commerc. Noric. 1731. p. 372.*

of Messrs. Gataker and Bromfield; the latter asserts that in doses of one grain it had a mortal effect upon one of his patients.*

As this species of Nightshade is thought to be the *Ερεχνος κνημιος* of Dioscorides,^f its external use was resorted to in ancient times as a discutient and anodyne in various affections of the skin, tumefactions of the glands, ulcers, and disorders of the eyes; nor does the utility of this practice want the confirmation of later experience.^g

Of its internal use we find very little evidence in the writings of the ancients; though, according to Cæsalpinus,^h it appears not to have been wholly neglected.

In the year 1757, Mr. Gataker, surgeon to the Westminster Hospital, called the attention of the faculty to this plant, by a publicationⁱ recommending its internal use in old sores, scrophulous, and cancerous ulcers, cutaneous eruptions, and even in dropsies; all of which were much relieved, or completely cured, by the Solanum. It appears from his experiments, that one grain of the dried leaves of the plant, infused in an ounce of water, sometimes produced a considerable effect; that in the dose of two or three grains it seldom failed to evacuate the first passages, or to increase very sensibly either the discharge by the skin, or that by the kidneys, and it not unfrequently occasioned head-ach, giddiness, dimness, and drowsiness. Mr. Gataker's pamphlet was soon followed by another, published on the same subject by Mr.

* It ought to be remarked, however, that Dioscorides and Theophrastus mention it as an esculent plant; and Guerin (*de vegetat. venen. Asiae*. 1766. p. 66.) relates that he drank an infusion of fifteen grains of the Solanum nigrum without suffering any consequent complaint; and that an epileptic patient took from half a dram to two drams of the expressed juice of the plant without perceiving any narcotic symptom to follow; nor with some soldiers, to whom a still larger dose was given, together with two drams of the juice of the berries, was any other effect produced than that of an increased quantity of urine. See Murray. l. c.

^f *Mat. Med. Lib. 4. c. 71.*

^g With the Arabians it is a common application to burns and ulcers. See Forskal. *Descript. plant. c. 2. p. 46.* Ray also speaks highly of its effects in indurations of the breast. See *Hist. l. c.*

^h *De plant. 213.*

ⁱ *Observations on the internal use of Solanum.*

Bromfield,^k who declares that the cases in which he tried the Solanum were much aggravated by it, and therefore he contends that its use is prejudicial and dangerous.

Which of these contradictory accounts may be most worthy of credit it is not for us to determine; but if we judge from the disuse of the Solanum, the opinion of Mr. Bromfield seems to have been tacitly confirmed. However, in the year 1764, Mr. Gataker again renewed his assertion of the efficacy of Nightshade,^l which he does not attribute to any specific power, but to the evacuation it produces.

^k See his *Account of the English Nightshades*.

^l *Essays on Medical Subjects*. See Introduction, and p. 38.

C O N T O R T Æ.

ASCLEPIAS VINCETOXICUM. OFFICINAL SWALLOW-
WORT.

SYNONYMA. Vincetoxicum, Asclepias, Hirundinaria, *Pharm. Dale*. 179. *Alston*. v. i. 536. *Bergius*. 172. *Murray*. i. 543. *Lewis*. 661. *Ed. New Dispens.* 301. Asclepias albo flore. *Bauh. Pin.* 303. *Gerard. Emac.* 898. *Park. Theat.* 387. *Ray. Hist.* 1091. *Flor. Dan.* 849. ^β Asclepias foliis ovatis acutis, caule infirmo, umbellis simplicibus. *Mill. Dict. Hort. Kew.*

Pentandria Digynia, *Lin. Gen. Plant.* 306.

Gen. Ch. Contorta. *Nectaria* 5, ovata, concava, corniculum exferentia.

Sp. Ch. A. foliis ovatis basi barbatis, caule erecto, umbellis proliferis,

ROOT



Asclepias Vincetoxicum.

ROOT perennial, large, knobbed, from which issue a number of small, slender, yellowish fibres. Stalks above a foot in height, erect, round, simple, somewhat downy, jointed, at the base purplish, above green. Leaves on short footstalks, opposite, ovate, long, pointed, and bearded with short hairs at the base. Flowers white, arising in clusters at the axillæ of the leaves. Calyx downy, divided into five narrow pointed segments. Corolla monopetalous, divided into five ovate, obtuse, spreading segments. Nectaria five, fleshy, adhering to the filaments; from the bottom horn-shaped, and bent inwards. Filaments five, of a tubular appearance. Antheræ oblong, erect, within the scales of the nectary. Germina two, oblong, tapering. Styles two, short, tapering. Stigmata simple. Follicles two, large, oblong, pointed, ventricose, one-celled, one-valved. Seeds numerous, crowned with pappus.

This plant, which is not uncommon in the northern parts of Europe, has been cultivated in Britain since the time of Parkinson, in 1640. Its root, which is the part medicinally employed, has, "when, fresh, a moderately strong not agreeable smell, approaching to that of wild valerian, which, in drying, is in great part dissipated; chewed, it impresses first a considerable sweetness, which is soon succeeded by an unpleasant subacid bitterishness."^a

Bergius states the virtues of this root to be pullens, diuretica, sudorifica, emmenagoga, alexipharmica.

By F. Hoffman it was found to possess an anodyne quality;^b but we are told by others that it sometimes excites nausea and vomiting.^c It has been chiefly used in dropical disorders; and several cases are related in which it was given with great success;^d but as other medicines were at the same time employed, the good effects of the Vincetoxicum may not be yet thought sufficiently established. The same observation will apply to Stahl's pulvis antihydropsicus, a composition in which the Vincetoxicum is an ingredient.*

^a Lewis. l. c. ^b Med. Syst. T. 4. P. 3. p. 305.

^c Durr. Eph. Nat. Cur. Dec. 2. A. 7. p. 105. See also Geoff.

^d Vide Baub. hist. ii. p. 139. Durr. l. c.

* Stahl made also other compositions of the Vincetoxicum, which were received in the Pharm. Wurt. & Brand.

This root has also been recommended in malignant fevers, and even in the plague,^e especially by some German authors; hence it has been called *Contrayerva Germanorum*. Other disorders, in which it is said to be useful, are small-pox,^f scrophula, and uterine obstructions.

The dose, in powder, is from a scruple to a dram, or an infusion of three or four drams.

Vinca minor, (Vinca peruvica, or Periwinkle) Nerium antidysentericum, (Profluvii cortex, or Tili-cherry bark) if we except the cinchona already noticed, are the only two remaining medicinal plants belonging to the order Contortæ. The former is a native of Britain, and has been used in the character of an astringent, especially in hemorrhagic disorders. The latter is a native of the East Indies.

Its bark, which possesses an aromatic bitter astringent, and, according to Dr. Brocklesby, an anodyne quality, has been employed in dysenteries, diarrhœas, and in intermittent fevers, occurring in warm climates.*

^e *Palmar. de feb. pest. c. 18. Antzér. Antid. pest. L. 2.*

^f *Linn. Fl. Suec. p. 77.*

* See *Monro, sen. Med. Essays. 3. p. 32. Brocklesby. Observ. on camp. diseases. p. 194. Lind. on diseases in hot climates. p. 308.*

P U T A M I N E Æ.

CAPPARIS SPINOSA.

COMMON CAPER-BUSH.*

SYNONYMA. Capparis. *Pharm. Geoff. iii. 250. Dale. 324. Alston. i. 370. Bergius. 449. Murray. ii. 305. Edinb. New Disp. 160. Καππαρίς. Dioscor. Capparis spinosa fructu minori, folio rotundo. Bauh. Pin. 480. Capparis rotundiore folio. Ger. Emac. 895. Park. Theat. 1023. Ray. Hist. 1629. Ic. Smith. Specileg. Bot. t. 20.*

* The only medicinal plant of this order.

Polyandria



Cupparis spinosa

Polyandria Monogynia. *Lin. Gen. Plant.* 643.

Gen. Ch. *Cal.* 4-phyllus, coriaceus. *Petala* 4. *Stam.* longa. *Bacca* corticosa, unilocularis, pedunculata.

Sp. Ch. *C.* pedunculis solitariis unifloris, stipulis spinosis, foliis annuis, capsulis ovalibus.

ROOT woody, crooked. Stem trailing, much branched, round, smooth: branches alternate, spreading, often downy, leafy, many flowered. Leaves alternate, on short footstalks, spreading, oval, or roundish, in the wild plant often terminated by a little sharp point, which disappears by culture, entire, veiny, succulent, bright green, deciduous. Stipulæ none: but in their stead are two spines at the base of the footstalks, acute, somewhat recurved, yellowish, which are nearly obliterated in the cultivated plant. Flowers numerous, axillary, solitary, on footstalks, without bractæ, large, handsome, inodorous. Flower-stalks round, longer than the leaves. Calyx of four unequal concave leaves, tipped with purple. Petals much larger than the calyx, spreading, obovate, waved, white, with a faint tincture of red. Stamina very numerous, the length of the petals, spreading, slender, in the upper part, pale purple like the antheræ. Germen oval, small, green, standing on a round purplish footstalk, which is longer than the stamina. Stigma small, blunt. Capsule oblong, oval, coriaceous.

It is a native of the south of France, Italy, and the Levant.

Dr. Smith, of whose figure and description of the Caper-bush we have here availed ourselves, says, "it is surprising that this beautiful shrub, which is as common in the south of France as the bramble with us, and which grows luxuriantly in the open air, when trained against a wall, even at Paris, should be almost unknown in the English gardens, where it can scarcely be made to flower, except in a stove, with all possible care."^a

^a *Specil. Bot. t.* 20.

The buds, or unexpanded flowers of this plant, are in common use as a pickle; and for this purpose the smaller or younger buds are most esteemed.

This grateful pickle has the character of an antiscorbutic, and of removing hepatic and other visceral obstructions; but the part of the plant which has been chiefly recommended for medicinal purposes, is the bark of the root. This is of considerable thickness, externally of an ash colour, and transversely wrinkled; on drying it rolls up into quills of about a third of an inch in diameter; its taste is somewhat aromatic, bitterish, and acrid.

By Dioscorides, and other ancient writers, it was thought of great efficacy as a deobstruent, and was generally employed in obstructions of the liver and spleen, menstrual suppressions, and sciatica; in this view it has also been used by Forestus^b and Sennertus;^c and on the presumption of its deobstruent power, it is reckoned one of the five less aperient roots: at present, however, its use is wholly laid aside.

^b *Oper. Lib. 29. Obs. 2. § 3.*

^c *Pract. Lib. 3. P. 4. c. 2. § 3.*

H E S P E R I D E Æ.

MELALEUCA LEUCADENDRON. CAJEPUT-TREE,
Or AROMATIC MELALEUCA.

Cajeput (oleum.) *Pharm. Murray. iii. 319. Bergius. 639. Ed. New Dispens. 153.*

SYNONYMA. Arbor alba (major) Caju Puti. *Rumph. Herb. Amb. vol. 2. p. 72. t. 16.* Melaleuca Kajupoetie. *Houttuyn Natuurlyke Historie. P. 2. Sect. 3. p. 212. t. 15.* Melal. Leucadendra. *De Loureiro Flor. Cochin. p. 468.*

^a *M. latifolia, fol. falcatis lanceolatis acutis majoribus.*

^b *M. angustifolia, fol. angustioribus oblongis vix falcatis brevioribus obtusis glaucis.*

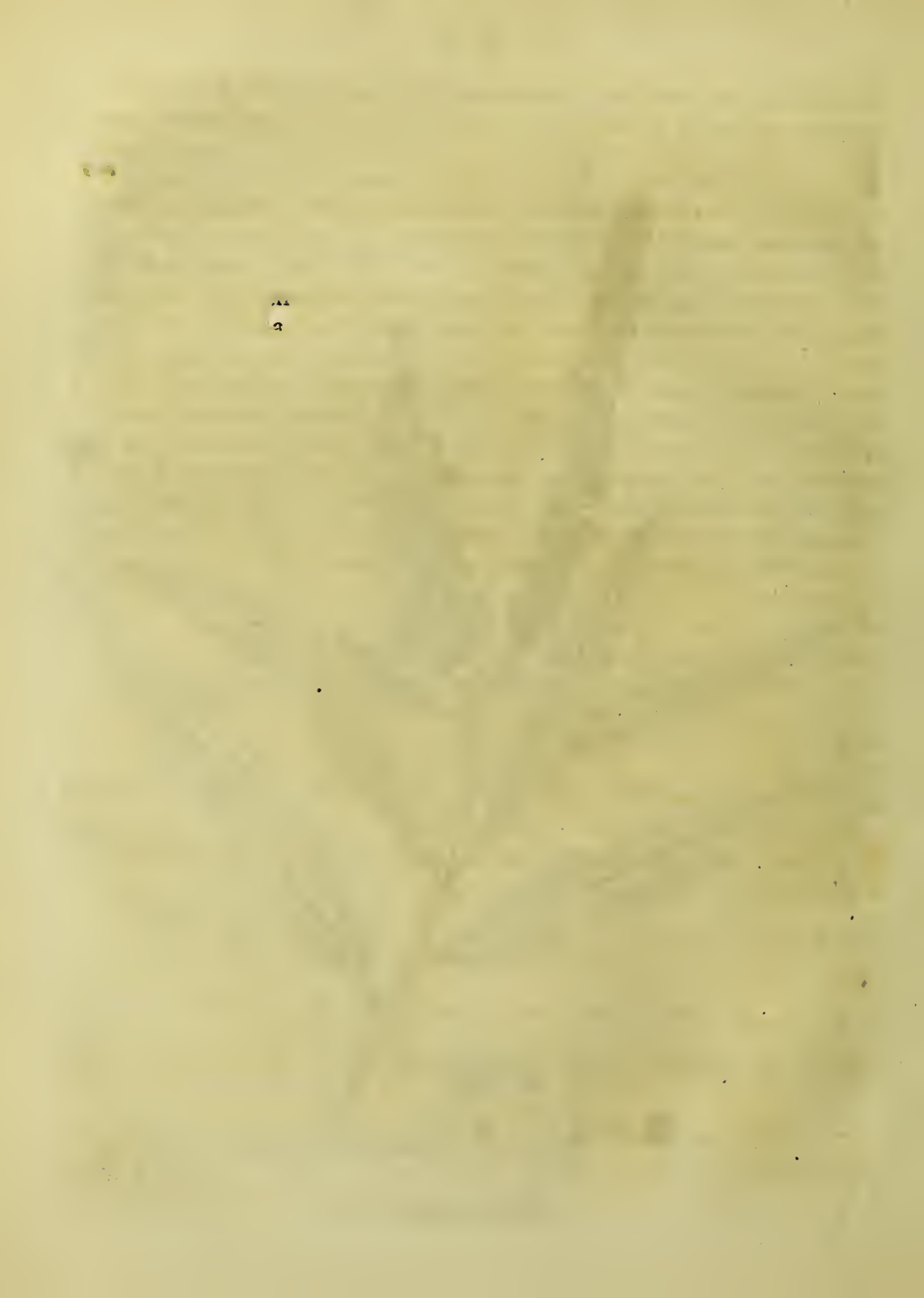
Polyadelphia Polyandria. *Lin. Mant. 14.*

Gen. Ch.

111.



Melaleuca Leucadendron



Gen. Ch. *Cal.* 5-partitus, superus. *Cor.* 5-petala. *Filam.* multa, connata in 5 corpora. *Stylus* 1. *Caps.* semivestita calyce baccato, 3-valvis, 3-locularis.

Sp. Ch. *M.* polyadelphia, foliis alternis lanceolatis subfalcatis quinquenerviis, spica elongata.

THIS tree rises with a long flexible trunk, sending off irregular ascending branches, covered with a pale thick lamellated tough bark. Leaves linearly-lanceolate, entire, smooth, dense, five-nerved, ash-coloured, odorous, alternate, on short footstalks. Flowers white, sessile, in long subterminal spikes. Bractæ floral, minute, ovate, pointed. Calyx tubular, five-parted, deciduous, of a brownish red. Corolla of five petals, roundish, concave, much longer than the calyx. Filaments about forty, united at the base in five or six bundles, long, capillary, unequal, inserted in the tube of the calyx, and furnished with small ovate incumbent antheræ. Germen below, roundish. Style filiform, somewhat swelled at the stigma. Capsule roundish, three-celled, three-valved, opening at the apex, and half inclosed by the calyx. Seeds numerous, oblong, small, compressed, angular.^a

It is a native of India, where it commonly grows in the woods: the annexed figure was drawn from a very perfect botanical specimen of it in the herbarium of Sir Joseph Banks. The narrow leaved variety of this species was introduced into the Royal Garden at Kew, in 1775, from New Caledonia, by J. R. Forster; L. L. D.^b

The origin of Cajeput oil, or the vegetable from which it is obtained, was long unknown, and continued a matter of conjecture. As this essential oil is said to be somewhat similar in flavour and odour to the cardamom, an opinion very generally prevailed, that it was procured from a species of it. It is now however clearly proved to be derived from the *Melaleuca Leucadendron*, as observed by Linnæus in 1772,^c and since confirmed by his son in the sup. plant.

That the leaves of this tree have an aromatic odour, resembling that of cardamom seed, and afford, by distillation, a fragrant essential

^a This description is given on the authority of De Loureiro, l. c.

^b *Hort. Kew.* ^c *Diff. obs. in M. M.* p. 5

oil, manifesting this aromatic principle still more strongly, is asserted by Valentynus and Rumphius; but as they called the oil by no peculiar name, it was not recognized as the Cajeput oil until some of these leaves were sent to Amsterdam, where, upon being subjected to distillation, an oil was obtained, agreeing, in every respect, with that of the best Cajeput.^d This essential oil appears to be lodged in the minute glands or vesicles of the leaves, analogously to that noticed of the *hypericum perforatum*.^e

Cajeput oil, (called also *Oleum Wittnebianum*, from Wittneben, who gave an account of the process for obtaining it,) though unknown in Britain, is now admitted into the *Materia Medica* of all the principal foreign pharmacopœias.

It is imported into Europe from the East Indies, and is distilled chiefly in the Island of Banda. Thunberg^f says that it has the appearance of an inflammable spirit, of a green colour, and so completely volatile that it evaporates entirely, leaving no residuum; its odour is of the camphoraceous kind, with a terebinthinate admixture: when it is applied to the nostrils copiously, its smell is at first ungrateful, but in a small quantity, or at a distance, its odour is very agreeable. Goetz,^g on the contrary, says that it is limpid, or rather yellowish, and that on being kept in a vial not closely corked, it diffuses at first a pleasant odour, which gradually changes to one somewhat like that of turpentine, and at length becomes similar to that of favine. Its taste, he says, is aromatic, and approaching to that of the oil of rosemary. A single drop, applied to the temples, produces a peculiar sensation in the interior canthus of the eyes, and excites tears, which he considers as the most certain criterion of the genuineness of the oil. From its exorbitant price it is frequently adulterated, and therefore is seldom found in perfect purity in Europe.

Cajeput oil appears to be a powerful medicine, and is much esteemed in Germany, as well as in India, in the character of a general remedy

^d Vide *Nieuwe vaderlandsche Letter-Oeffningen*. P. 3. n. 3. blad. 104.

^e The leaves of this *melaleuca*, according to De Loureiro, are an useful medicine; he says, they are "attenuant, strengthening, stomachic, diuretic, emmenagogue, and of service in obstructions of the liver, dropsy, debility of the stomach, and dyspnoea.

^f In *Vet. Acad. Handl.* 1782. p. 223.

^g *Comm. Nor.* 1731. p. 5.

in chronic and painful complaints; it is used for the same purposes for which we employ the officinal æthers, to which it seems to have a considerable affinity; the Cajeput however is more potent and pungent: taken into the stomach, in the dose of five or six drops, it heats and stimulates the whole system, proving at the same time a very certain diaphoretic, by which probably the good effects it is said to have in dropsies and intermittent fevers, are to be explained. For its efficacy in various spasmodic and convulsive affections, it is highly esteemed; and numerous instances of its successful employment are published by different authors.^h It has been also used both internally and externally with much advantage in several other obstinate disorders, as palsy, hypochondrical and hysterical affections, deafness, defective vision, tooth-ach, gout, rheumatism, menstrual obstructions, herpetic eruptions, &c. of which Thunberg gives a particular relation.ⁱ

The dose is from two to six and even twelve drops.

The berries and leaves of *Myrtus communis*, and the bark of *Myrtus caryophyllata*, or *cassia caryophyllata cortex*, referable to this order, have also been admitted into the *Materia Medica*; the former in the character of an aromatic and astringent, and the latter as a substitute for cloves.

^h These are respectively cited by Murray, to whose work we refer those readers who wish for a fuller account of this article.

ⁱ *L. c.*

The odour of cajeput oil is remarkably destructive to insects: a few drops, in a cabinet or drawer, wherein animal or vegetable specimens of natural history are kept in a dried state, have on this account been found very useful.

C Y M O S Æ.

COFFEA ARABICA.

COFFEE TREE.

SYNONYMA. Euonymo similis ægyptiaca, fructu baccis lauri simili. *Baub. Pin.* 498. Coffee frutex, ex cujus fructu fit potus. *Ray. Hist.* 1691. Bon. *Alpin. Pl. Ægypt.* 63. Jasminum arabicum, lauri folio, cujus semen apud nos Coffé dicitur. *Jussieu. Mem. de L'Acad. des Sc. de Paris.* 1713. p. 388. t. 7. Conf. Monogr. in *Linn. Amoen. Ac. T. 6. p. 160.* Also *Ellis. Histor. Account of Coffee.* 1774.

COFFEA, (semen) *Pharm. Dale.* 317. *Alston. ii.* 274. *Murray. i.* 386. *Bergius.* 111. *Lewis.* 243. *Edinb. New Dispensf.* 174.

Pentandria Monogynia. *Lin. Gen. Plant.* 230.

Gen. Ch. Cor. hypocrateriformis. *Stamina* supra tubum. *Bacca* infera disperma. *Sem.* arillata.

Sp. Ch. C. floribus quinquefidis dispermis.

A TREE of low stature, seldom exceeding twelve feet in height, slender, at the upper part sending off long trailing branches: bark brown, and almost smooth. Leaves nearly elliptical, smooth, entire, pointed, waved, three or four inches in length, opposite, on short footstalks. Stipulæ in pairs, pointed. Flowers white, axillary, on short simple peduncles, or sessile, two or three together. Calyx very small, tubular, five-toothed. Corolla monopetalous, funnel-shaped, cut at the limb into five reflexed oval or lanceolate segments: tube long, narrow, almost cylindrical. Filaments five, tapering, inserted at the mouth of the tube: antheræ linear, incumbent, of the length
of

*Coffea arabica*



the filaments. Germen roundish. Style simple, longer than the stamina. Stigma cloven, reflexed. Fruit a round fleshy red berry, containing two seeds, invested by a cartilaginous arillus: the appearance of the seed is well known.

The Coffee tree is a native of Arabia Felix and Ethiopia, and was first noticed by Rauwolfius in 1573; but Alpinus, in 1591, was the first who described it. It was cultivated in Britain by Bishop Compton in 1696,^a and is now to be found in many of the well stored hot-houses of this country. For the specimen of it here figured we are obliged to Dr. Lettsom, who possesses the best plant of this species which we have seen, and which was highly valued by its late owner Dr. John Fothergill.

The use of Coffee, or the seed of the fruit of this tree, appears to have originated in Ethiopia, but the practice of drinking it in Arabia was introduced from Persia by the Mufti of Aden in the fifteenth century. In 1554 its use first began at Constantinople. From whence it was gradually adopted in the western parts of Europe. At Marseilles it was begun in 1644. At Paris, if we except the family of Monsr. Thevenot,^b it was unknown till the arrival of the Turkish Ambassador, Soliman Aga, in 1669; and in 1672 the first coffee-house was established in Paris by an Armenian, named Pascal, but he met with little encouragement, and therefore came to London, where this beverage had been previously introduced in the year 1652, when Mr. Edwards, a Turkey merchant, brought from that country a Greek servant, of the name of Pasqua, who understood the method of preparing coffee, and first sold it in London in a house which he kept for that purpose, in George-yard, Lombard-street. Eight years after this it contributed to the public revenue, by a duty of fourpence laid upon every gallon made and sold here.^c

The general consumption of Coffee in Europe suggested the idea of cultivating it for the advantage of commerce; and in this view the Dutch took the lead, and first planted it at Batavia in 1690; and

^a Vide *Douglas. History of the Coffee tree. p. 21.*

^b This gentleman had resided some time in the East, and returned to Paris in 1657.

^c See *Ellis. l. c.*

at Surinam in 1718. This example was followed by the French at Cayenne, and in Martinico; nor were our Colonies neglected, for in 1732 it was cultivated in Jamaica, and patronized by act of parliament.

But whether from mismanagement, or from causes unavoidable, it is a lamentable truth, that our colonial coffee is of less estimation than that of other states, and the Mocha coffee is superior to all others. We shall therefore present our readers with an account of the culture and management of Coffee, practised in Arabia Felix, and related by La Roque, who says, “ that the Coffee tree is there raised from seed, “ which they sow in nurseries, and plant them out as they have “ occasion. They chuse for their plantations a moist shady situation, “ on a small eminence, or at the foot of the mountains, and take “ great care to conduct from the mountains little rills of water, in “ small channels, to the roots of the trees; for it is absolutely “ necessary that they should be constantly watered, in order to pro- “ duce and ripen the fruit. For that purpose, when they remove or “ transplant the tree, they make a trench three feet wide, and five “ feet deep, which they line or cover with stones, that the water may “ the more readily sink deep into the earth with which the trench is “ filled, in order to preserve the moisture from evaporating. When “ they observe that there is a good deal of fruit upon the tree, and “ that it is nearly ripe, they turn off the water from the roots, to “ lessen that succulency in the fruit which too much moisture would “ occasion. In places much exposed to the south they plant their “ Coffee trees in regular lines, sheltered by a kind of poplar tree, “ which extends its branches on every side to a great distance, afford- “ ing a necessary shade when the heat of the sun is too intense. “ When they perceive the fruit advanced to maturity, they spread “ cloths under the trees, which they shake, and the ripe fruit readily “ drops off. They afterwards spread the berries upon mats, and “ expose them to the sun until they are perfectly dry: after which “ they break the husk with large heavy rollers, made either with “ wood or stone. When the Coffee is thus cleared of its husk, it is “ again dried in the sun, and lastly winnowed with a large fan.”^d

^d See *La Roque. Voyage de l'Arabie heureuse.* p. 285. of which we have followed Ellis's translation.

Both the outer pulpy part of the berry, and the inner membrane immediately investing the seed, are prepared for use by the Arabians; the former is much esteemed, and constitutes the Coffee *à la Sultane*; the latter is chiefly employed by the common people, and sold under the name of *Kissher*.^c The seeds used by us, and which by the Arabians are thought too heating, are principally imported into Europe from Yemen, where the Coffee is most abundantly cultivated; they are smaller than the other kinds produced in the Colonies, of a yellow hue, and more grateful in taste and odour. The manner of roasting and preparing Coffee for use is too well known to require being detailed here; we shall therefore proceed to consider its effects on the human body.

From various experiments instituted by Dr. Percival upon Coffee, he infers that this beverage “ is slightly astringent and antiseptic; “ that it moderates alimentary fermentation, and is powerfully sedative. Its action upon the nervous system probably depends on the “ oil it contains; which receives its flavour, and is rendered mildly “ empyreumatic by the process of roasting. The medicinal qualities “ of Coffee seem to be derived from the grateful sensation which it “ produces in the stomach, and from the sedative powers it exerts on “ the *vis vitæ*. Hence it assists digestion, and relieves the head- “ ach; and is taken in large quantities with peculiar propriety by the “ Turks and Arabians, because it counteracts the narcotic effects of “ opium, to the use of which those nations are much addicted. In “ delicate habits it often occasions watchfulness, tremors, and many “ of those complaints which are denominated nervous. It has been “ even suspected of producing pallsies; and from my own observa- “ tion, I should apprehend not entirely without foundation. Stare “ affirms that he became paralytic by the too liberal use of Coffee, “ and that his disorder was removed by abstinence from that liquor.”^f

Dr. Percival cites a letter from Sir John Pringle, who asserts that strong Coffee is the most powerful remedy, with which he is acquainted, in abating spasmodic asthma.

^c Braad, Niebuhr, Aublet, &c.

^f See *Essays*, vol. ii.

The late Dr. Fothergill has observed, that " it is a question often proposed to physicians, which is best Tea or Coffee?" The solution of this point would perhaps be a difficult one. We neither find the Chinese or Turks subjected to any such discriminating effects as to enable the faculty to say, with precision, that one is more injurious than the other; for my own part I leave it to the experience of individuals. Dr. F. recommends the Coffee to be made strong, and as much boiled milk to be added to it before it is taken from the fire as there is water; it is then suffered to settle, and drunk either with or without cream. This the Dr. substituted for tea, which was not quite favourable to his health.

The French custom of drinking Coffee immediately after dinner, is certainly much better than that which prevails with us of taking it at a late hour in the evening. For, from the observations of Dr. Percival, and indeed from the experience of mankind in general, this beverage very commonly suspends the inclination to sleep, and therefore may protract the time of watchfulness beyond the usual hour of rest. By habit, however, these and other unfavourable effects both of Coffee and tea, are often subdued, though certain constitutions may suffer much in the struggle, and a morbid irritability of the nervous system has not unfrequently been the consequence.

The complaints said to have been produced by the frequent or excessive use of Coffee are head-achs, vertigo, tremors, imbecility, pimples of the face, weakened vision,^s and according to Professor Murray, apoplexy. It has been said that it produces or aggravates hysterical and hypochondriacal affections; and therefore Tissot^b cautions literary and sedentary people against its use. It is also accused of favouring an hemorrhagic disposition, especially in feverish, choleric, plethoric, and emaciated constitutions.

How far these disorders were really caused by the use of Coffee, appears to admit of much doubt; and therefore until its ill effects are experienced, this catalogue of disorders ought not to alarm those

^s See *Lin. Amoen. Acad.* vol. 6. p. 176. *F. Hoffman. Med. Syst.* T. 4. P. i. 209. *Plaz. Diff. de potus coffe abusu*, &c. *Zimmerman. Erfahr.* P. 2. p. 347. *Willis. Pharm. Ration.* p. 203.

^b *Santé des gens de lettres.* p. 200.

who perceive no ill effects from its use. As an article of diet it is very generally drunk, and found, with very few exceptions, not only to be innocent but salubrious: to a stomach oppressed with animal food a cup or two of strong Coffee affords considerable relief, consequently it promotes digestion; this effect, and that of its obviating drowsiness, are better ascertained than any other ascribed to this article.

A great variety of substitutes for Coffee has been recommended, which it would be unnecessary here to enumerate. The fact is, that in most farinaceous matter, on being roasted or burnt to that degree to which Coffee too frequently is, the peculiar sapid principle is totally dissipated by the heat, and nothing but the more fixed part common to all remains.

Two species of *Lonicera*, viz. *Periclymenum* and *Diervilla*, or the common, and the yellow-flowered upright Honey-suckle, and the *Linnæa borealis*, or Two-flowered *Linnæa*, belonging to the order *Cymosæ*, have been ranked as medicinal plants; but they are not noticed in the British Dispensatories, nor do they seem interesting enough to deserve particular attention.

S U C C U L E N T Æ.

SEDUM ACRE. WALL STONE-CROP, or WALL PEPPER.

SYNONYMA. Sedum acre feu minus. *Pharm. Murray. v. iii. p. 344.* *Bergius. 375.* *Ed. New. Dispensf. 281.* Sempervivum minus vermiculatum acre. *Bauh. Pin. 283.* Vermicularis feu Illecebra minor acris. *Ger. Emac. 517.* Illecebra minor feu sedum tertium Dioscoridis. *Park. Theat. 735.* *Ray. Synop. 270.* Sedum acre. *Hall. Stirp. Helv. n. 966.* *Hudson. Flor. Ang. 171.* *With. Bot. Arr. 467.* *IC. Curt. Flor. Lond.*

Decandria Pentagynia. *Lin. Gen. Plant. 579.*

Gen. Ch. Cal. 5-fidus. Cor. 5-petala. Squamæ nectariferæ 5, ad basin germinis. Caps. 5.

Sp. Ch. S. fol. subovatis adnato-fessilibus gibbis erectiusculis alternis, cyma trifida.

ROOT perennial, slender, creeping. Stalks several together, about three inches high, covered with leaves. Leaves oval, blunt, short, fleshy, smooth, numerous, without footstalks, closely investing the stalk, placed in an imbricated order. Flowers yellow, in subterminal trifid cymæ. Calyx permanent, divided into five segments, which are tapering, thick, blunt. Corolla composed of five pointed petals, which are more than twice the size of the segments of the calyx. Filaments ten, tapering, about the length of the corolla, and furnished with yellow antheræ. Germen oblong, yellow, terminating in five styles, furnished with simple stigmata. Capsules five, pointed, containing minute oval brownish seeds.

This is a common British plant, growing on houses, walls, and gravelly banks. Like many other plants of this natural order it receives



Sedum acre

receives its nourishment principally from the air, in proof of which it continues to grow when detached from the ground, and suspended by the root.

It resembles the *Sedum sexangulare* very much, so that some botanists have considered the latter as only a variety of the former. The difference however is sufficiently specific both in a botanical and medical sense;^a the latter being devoid of the pungent biting taste which characterizes the plant here figured.

This species of *Sedum*, in its recent state, is extremely acrid, like the *Hydropiper*; hence, if taken in large doses, it acts powerfully on the *primæ viæ*, proving both emetic and cathartic; applied to the skin, as a cataplasm, it frequently produces vesications and erosions. Boerhaave therefore imagined that its internal employment must be unsafe; but experience has discovered that a decoction of this plant is not only safe, but of great efficacy in scorbutic complaints; for which purpose a handful of the herb is directed by Below^b to be boiled in eight pints of beer till they are reduced to four, of which three or four ounces are to be taken every, or every other, morning. Milk has been found to answer this purpose better than beer.^c—Not only ulcers simply scorbutic, but those of a scrophulous and even cancerous tendency, have been cured by the use of this plant, of which Marquet^d relates several instances. He likewise found it useful as an external application in destroying fungous flesh, and in promoting a discharge in gangrenes and carbuncles.

Another effect for which this plant has been esteemed is that of stopping intermittent fevers.

^a Mr. Curtis has remarked, that “ the leaves of *S. Acre* are short, broad at the base, and at a considerable distance asunder, while those of the *Sexangulare* are nearly of the same thickness throughout, longer, more numerous, and placed in six rows or angles.”

^b A Swedish Physician. *V. Misc. Nat. Cur. Dec. 1. Ann. 6. Obs. 22. p. 49.*

^c *Lange. Remed. Brunf. Domest. p. 121.*

^d *Mem. sur L'illecebra. &c.*

SAXIFRAGA GRANULATA.

WHITE SAXIFRAGE.

SYNONYMA. Saxifraga alba. *Pharm. Dale.* 235. *Lewis.* 590. *Murray.* iii. 355. *Bergius.* 367. Saxifraga rotundifolia alba. *Baub. Pin.* 309. Saxifraga alba. *Ger. Emac.* 841. Saxifraga alba vulgaris. *Park. Theat.* 424. *Ray. Hist.* 1048. *Synop.* 354. *Haller. Stirp. Helv. n.* 976. *S. granulata.* *Hudson. Flor. Angl.* 159. *Wither. Bot. Arr.* 434. *Ic. Flor. Dan.* 514. & *Flor. Lond.*

Decandria Digynia. *Lin. Gen. Plant.* 559.

Gen. Ch. Cal. 5-partitus. *Cor.* 5-petala. *Caps.* 2-rostris, 1-locularis polysperma.

Sp. Ch. S. foliis caulinis reniformibus lobatis, caule ramoso, radice granulata.

ROOT perennial, consisting of a number of small bulbs adhering to the fibrous part. Stalk somewhat branched, about a foot high, round, hairy towards the bottom, and scantily supplied with leaves. Leaves irregularly kidney-shaped, a little hairy, slightly divided into lobes, concave, those near the root furnished with long hairy footstalks. Calyx divided into five segments, which are hairy, oval, pointed, viscous. Corolla consisting of five white spreading petals, which at the upper extremity are broad, at the base narrow, and of a yellow colour. Filaments ten, tapering, supporting yellow antheræ. Germen roundish, standing below the corolla, and surrounded by a green gland. Styles two, shorter than the filaments, furnished with hollow stigmata. Capsule somewhat oval, two-celled, and furnished with two beaks or horns. Seeds numerous, very small, black.

It is a native of England, but not very commonly met with: dry meadows and pastures are the situations it affects. Its flowers appear in April and May.

Linnæus



Saxifraga granulata

Published by D^r Woodville May. A. 1791



Linnæus describes the taste of this plant to be acrid and pungent, which we have not been able to discover: neither the tubercles of the root, nor the leaves manifest to the organs of taste any quality likely to be of medicinal use, and therefore though this species of Saxifrage has been long employed as a popular remedy in nephritic and gravelly disorders, yet we do not find either from its sensible qualities, or from any published instances of its efficacy, that it deserves a place in the *Materia Medica*.

The superstitious doctrine of *Signatures* suggested the use of the root, which is a good example of what Linnæus has termed *radix granulata*. The bulbs or tubercles of such roots answer an important purpose in vegetation, by supplying the plants with nourishment and moisture, and thereby enabling them to resist the effects of that drought to which the dry soils they inhabit peculiarly expose them.

Sedum Telephium (Orpine) is also admitted of the *Materia Medica* in the foreign pharmacopœias; it has not the acrid characters of the species here figured, but on the contrary is bland and mucilaginous. It is said to be diuretic, and, according to Dr. Withering, is used with success to cure the piles. *Simpervivum tectorum* (common House-leek) which is nearly allied to the *Telephium* in botanical affinity, likewise abounds with a mucilaginous juice, said to be an useful application to burns, creeping ulcers, and in apthous cases. *Cactus Opuntia* (common Indian Fig) and *Portulaca oleracea* (Garden Purslane) both of this natural order, afford a similar juice, which also has been applied to medical purposes.

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T R I H I L A T Æ.

TROPÆOLUM MAJUS.

GREATER INDIAN CRESS,
Or NASTURTIIUM.

SYNONYMA. Nasturtium indicum. *Pharm. Dale.* 134. *Berg.* 293. *Murray. iv.* 77. *Gerard. Emac.* 252. *Park. Parad.* 280. *Ray. Hist.* 487. Nasturtium indicum majus. *Baub. Pin.* 306. Viola indica scandens, Nasturtii sapore & odore, flore flavo. *Herm. Hort. Lugd. Bat.* 628. *Ic. Curt. Bot. Magaz.* 23.

Octandria Monogynia. *Lin. Gen. Plant.* 466.

Gen. Ch. Cal. 1-phyllus, calcaratus. *Petala* 5, inæqualia. *Bacca* 3, fixæ.

Sp. Ch. T. foliis peltatis subquinelobis, petalis obtusis.

ROOT annual. Stalk trailing, climbing, round, branched, smooth, succulent, several feet in length. Leaves roundish, marked by several radiated ribs, entire, obscurely five-lobed, standing singly upon long bending footstalks, which are attached to the centre of each leaf. Flowers large, solitary, of a tawny yellow, on long peduncles. Calyx yellowish, large, forming a horn-like nectarium behind, divided at the mouth into five irregular segments, which are acute, erect, striated. Corolla consisting of five petals, roundish, of which the two uppermost are bent backwards, marked with black lines at the base, and inserted into the segments of the calyx: the three undermost have long claws or ungues, and are bearded at the base. Filaments eight, yellow, tapering, spreading. Antheræ yellow, four-celled, ovate. Germen triangular. Style simple, erect, yellow. Stigma trifid, acute. Fruit three adhering berries, compact, externally



Tropaeolum majus

nally striated, containing three irregular shaped seeds. Its flowers appear from June till October.

This plant is a native of Peru; it was first brought to France in 1684, and there called *La grande Capucine*; two years afterwards it was introduced into this country by Dr. Lumley Lloyd,^a and since that time has been constantly cultivated in British gardens.

In its recent state this plant, and more especially its flowers, have a smell and taste resembling those of water cress; and the leaves, on being bruised in a mortar, emit a pungent odour, somewhat like that of horse radish. By distillation with water they impregnate the fluid in a considerable degree with the smell and flavour of the plant.^b Hence the antiscorbutic character of the *Nasturtium* seems to be well founded, at least as far as we are able to judge from its sensible qualities: therefore in all those cases where the warm antiscorbutic vegetables are recommended, this plant may be occasionally adopted as a pleasant and effectual variety.

Patients, to whom the nauseous taste of scurvy-grass is intolerable, may find a grateful substitute in the *Nasturtium*.

The flowers are frequently used in sallads, and the capsules are by many highly esteemed as a pickle.

The flowers, in the warm summer months, about the time of sun-set, have been observed to emit sparks like those of the electrical kind.^c

^a Vide *Hort. Kew.*

^b *Cartheus. Diff. de Cardam. p. 9.*

^c *Vet. Acad. Handl. 1762. p. 284.*

BERBERIS VULGARIS.

COMMON BARBERRY.

SYNONYMA. Berberis. *Pharm. Dale.* 318. *Geoff. iii.* 172. *Alston. ii.* 255. *Lewis.* 144. *Edinb. New Disp.* 146. *Bergius.* 276. *Murr. iv.* 79. *Park. Theat.* 561. *Berberis dumetorum.* *Baub. Pin.* 454. *Ray. Hist.* 1605. *Synop.* 465. *Gerard. Emac.* 1325. *Berberis vulgaris.* *Hudsf. Flor. Ang.* 137. *Withering. Bot. Arr.* 366. *IC. Eng. Bot.* 49.

Hexandria Monogynia. *Lin. Gen. Pl.* 442.

Gen. Ch. Cal. 6-phyllus. *Petala* 6: ad ungues glandulis 2. *Stylus.* o. *Bacca* 2-sperma.

Sp. Ch. B. pedunculis racemosis: spinis triplicibus.

A LARGE spreading shrub, furnished with spines, covered with a light grey bark. Leaves inversely ovate, blunt, entire, smooth, minutely serrated, four or five standing together upon simple footstalks. Flowers yellow, in slender pendent racemi. Calyx composed of six leaflets, which are ovate, concave, coloured, deciduous, alternately larger and smaller. Corolla consists of six petals, which are roundish, concave, and at the base each furnished with two small oblong orange-coloured corpuseles or nectaries. Filaments six, erect, compressed, tapering, shorter than the petals, and terminated by double antheræ, which adhere to their sides. Germen cylindrical, of the length of the filaments. Style none. Stigma circular, flat, encompassed by a sharp border. Fruit a cylindrical one-celled red berry, containing two oblong seeds.

It is a native of England, growing in woods and hedges, and flowering in June. In shrubberies, and in gardens where it is very generally cultivated, its flowers usually appear much sooner.

It





It has been discovered, that the filaments of this shrub possess a remarkable degree of irritability; for on being touched near the base with the point of a pin, a sudden contraction is produced, which may be repeated several times. This contraction of the stamina is evidently for the purpose of throwing the pollen upon the stigma, and is effected by means of insects passing over the bottom of the filaments, which is the part in which their sensibility resides.^a

Another peculiarity ascribed to this shrub is, that ears of corn growing near it constantly prove abortive, and that it extends this sterile influence over them to the distance of three or four hundred yards across a field;^b but Mons. Broussonet, a celebrated French naturalist, has refuted this very extraordinary though prevalent opinion.

The fruit or berries, which are gratefully acid^c and moderately restraining, are said to be of great use in bilious fluxes, and in all cases where heat, acrimony, and putridity of the humours prevail. On the authority of Alpinus^d we are informed, that the Egyptians employ them in pestilential fevers and fluxes, with great success; and Simon Paulli relates,^e that he was cured of a malignant fever, accompanied with a bilious diarrhœa, by using these berries conformably to the Egyptian practice, viz. macerating the fruit for a day and a night in twelve times its quantity of water, with the addition of a little fennel seed; the liquor was then strained, sweetened, and used as a common drink.

^a See Mr. Whatley's remark from Dr. Sims, in *Bot. Arr.* p. 366. and Dr. Smith's paper in the *Phil. Transf. for 1788.* p. 158.

^b Dr. Withering says, "this shrub should never be permitted to grow in corn lands, for the ears of wheat that grow near it never fill, and its influence in this respect has been known to extend as far as three or four hundred yards." *l. c.*

^c Retzius says that it approaches very nearly to that of Tamarinds. *Vet. Acad. Handl.* 1776. p. 135. Scheele obtained from it a considerable quantity of the acid of sugar. *Vet. Acad. Handl.* 1785. p. 17.

^d *P. Alpinus. Med. Ægypt. L. 4. c. 1.*

^e Vide *Quadrif. Bot.* 118.

That these berries are well calculated to allay heat and thirst, and to correct a putrid tendency in the fluids, will be readily admitted; but in this respect they seem to possess no peculiar advantage over most of the other acid fruits; hence the Colleges of London and Edinburgh have expunged this fruit from the *Materia Medica*, and retained that of the currant. Barberries however are much more acid, inasmuch that they cannot be eaten without the addition of sugar, but when boiled with this, they form a most agreeable rob or jelly; they are also much liked as a sweet-meat, and as a pickle. The bark is said to be purgative,^f and Ray experienced its good effects in jaundice.

^f “ The roots, boiled in lye, dye wool yellow. In Poland they dye leather of a most beautiful yellow with the bark of the root. The inner bark of the stems dyes linen of a fine yellow with the assistance of allum.” *With. l. c.*

SWIETENIA MAHAGONI.

MAHOGANY TREE.

(*Swietenia* Cortex. *Pharm. Murray. App. Med. vi. 132.*)

SYNONYMA. *Swietenia* foliis abrupte pinnatis, pinnulis ovato-lanceolatis obliquis, &c. *Cavanill. Diff. Bot. 7. p. 365. t. 209.*
Cedrela foliis pinnatis, floribus sparsis, ligno graviore. *Browne. Jam. p. 158.* Arbor foliis pinnatis, nullo impari alam claudente, nervo ad latus unum excurrente, &c. *Catesby. Carol. vol. 2. p. 81.*
 Conf. *Jacquin. Select. Stirp. Amer. p. 127.*

Decandria Monogynia. Lin. Gen. Plant. 521.

Eff. Gen. Ch. Cal. 5-fidus. Petala 5. Nectarium cylindricum, ore antheras gerens. Caps. 5-locularis, lignosa, basi dehiscens. Sem. imbricata, alata.

S. Mahagoni. Sp. Pl. 548.

A VERY



Swietenia Mahagoni

Enligné par D^r W. de Lillo. - Hesp. 1. 1704.



A VERY large tree, which, by sending off numerous spreading branches, makes a beautiful appearance. Wood hard, compact, of a brownish red, and from its general use well known in England. The bark is rough, scaly, and brown, but upon the young branches grey, and much smoother. Leaves pinnated, alternate, consisting of three, four, or five pairs of pinnulæ, which are entire, ovately lance-shaped, acute, oblique, reclining, on short footstalks. Flowers numerous, small, whitish, in axillary open spikes. Calyx small, bell-shaped, deciduous, cut into five segments. Petals five, inversely ovate, concave, obtuse, spreading. Nectarium monophyllous, cylindrical, erect, of the length of the corolla, divided at the brim into ten pointed teeth. Filaments ten, scarcely visible, inserted beneath the teeth of the nectarium. Antheræ oblong, erect. German ovate. Style tapering, erect, of the length of the nectarium. Stigma large, depressed at the top. Capsule ovate, large, obtuse, five-celled, five-valved; valves woody, thick, opening at the base. Seeds numerous, compressed, imbricated, furnished with oblong membranous wings. Receptacle of the seed large, oblong, obtuse, pentagonal.

It is a native of the West Indies, and was first cultivated in England in 1739 by Mr. P. Miller, who then considered it as a species of *Cedrus*; but Jacquin discovered the Mahogany to be a distinct genus, and called it *Swietenia*, in honour of Gerard L. B. a Swieten, whose influence with the House of Austria caused the botanic garden at Vienna to be founded.

For the botanical specimen of the tree figured in the annexed plate, we are obliged to Sir Joseph Banks.

The bark of the *Swietenia* has lately been found, in a considerable degree, to emulate that of the cinchona in its medicinal characters; we have therefore followed the late professor Murray in considering it as an article of the *Materia Medica*.

This bark, according to Dr. Wright, is "rough, scaly, and brown," as found upon the trunk of a tree, but "that on the boughs and twigs is grey and smoother."^a That intended for medicinal use should be the growth of the trunk, or rather of the larger branches, and is brought here in flattish or somewhat convex pieces, about a foot in

^a See London Medical Journal, vol. 8. p. 286.

length: its epidermis is rough, and immediately under it a thick spongy dark extraneous coat is observed; the inner efficient part of the bark is of a lamellated texture, tough, and of a deep reddish brown;^b its taste is astringent and bitter, resembling the Peruvian bark, but, in the opinion of Murray, more bitter.

On the testimony of Wright, Lind, and several other respectable authorities, this bark has been found to answer the general purposes of that of the cinchona, and like it also the different species of the tree agree in affording barks possessing in common a certain share of febrifuge power, though in different degrees, and somewhat variable in their sensible qualities. Thus of the nine species of cinchona, lately described by Vahl, the febrifuge character pervades the whole, at least as far as experiments have been made:^c and Mr. Roxburgh, botanist to the East India Company, has discovered a new species of Swietenia, or Mahogany, the bark of which promises, from his account of it, to be a more efficacious medicine than that here described. This new species of mahogany is called by Mr. Roxburgh *Swietenia febrifuga*;^d and from numerous experiments which he made from its bark, he draws the following conclusions:*

1. "The active parts of the bark of *Swietenia febrifuga* are much more soluble than those of Peruvian bark, particularly in watery menstruums."

2. "That it contains a much larger proportion of active (bitter and astringent) powers than Peruvian bark."

^b This description nearly agrees with that of Murray; but I have found the bark to vary considerably in its appearance, and in its taste.

^c *Yellow Peruvian bark*, the produce of a species of cinchona, of which we find no botanical account, has been lately brought to London. I have used it at the Small-pox Hospital with more advantage than I ever experienced from the best common bark. Its intense bitterness is the leading character in its sapidity.

^d This and several other East India plants have been engraved at the expense of the East India Company, but have not yet been published; it differs from the common Mahogany, in having its flowers in large terminal compound spikes, and in its foliola being oblong, and very obtuse.

* See "a botanical description of a new species of *Swietenia*, (Mahogany) with experiments and observations on the bark thereof, addressed to the Honourable the Court of Directors of the United East India Company, by William Roxburgh."

3. "The



Smilax China.

Enligné par M. W. Woodville, Junr. s. 1798.

3. "The watery preparations of this bark remain good much longer than similar preparations of Peruvian bark."

4. "The spirituous and watery preparations bear being mixed in any proportion without decomposition."

5. "That this bark in powder, and its preparations, are much more antiseptic than Peruvian bark, or similar preparations of it."

He adds, "From the evident qualities of this new bark, and from the successful experience I have had of it in intermittent fevers, &c. I have every reason to imagine it will prove equal, if not superior, to the Peruvian bark for every purpose where that medicine is used."

Having before given an account of *Æsculus Hippocastanum*, or Horse-chestnut, the only remaining plant referred to the *Materia Medica* in the order *Trihilatæ* is the *Trapa natans*, called in the *Pharmacopœias* *Tribulus aquaticus*, or *Nux aquatica* (floating water caltrops). Its fruit or nut is of a quadrangular form, and contains a farinaceous kernel, which was formerly in estimation for its supposed astringent qualities.

S A R M E N T A C E Æ.

SMILAX CHINA.

CHINESE SMILAX.

SYNONYMA. *China* (radix). *Pharm, Geoff. V. 2. p. 30.* *Dale.* 167. *Alston. i. 409.* *Lewis. 226.* *Edinb. New Dispens. 170.* *Murray. i. 339.* *Bergius 803.* *China vulgaris off. Ger. Emac. 1618.* *Baub. Pin. 296.* *Park. Theat. 1578.* *Ray. Hist. 657.* *Smilax minus spinosa, fructu rubicundo, radice virtuosa China dicta. Kæmpf. Amæn. 781. t. 782.* *Conf. Sam. Gottl. Gmelin's Reise durch Rußland. T. iii. p. 32. t. 36.*

Dioecia Hexandria. Lin. Gen. Plant. 1120.

Gen. Ch. *MASC.* *Cal.* 6-phyllus. *Cor.* 6.

FEM. *Cal.* 6-phyllus. *Cor.* 6. *Styli* 3. *Bacca* 3-locularis. *Sem.* 2.

Sp. Ch. *S.* caule aculeato teretiusculo, fol. inermibus ovato-cordatis quinquenerviis.

ROOT perennial, ligneous, beset with irregular knobs; externally of a reddish brown colour, internally paler. Stems long, roundish, slender, jointed, woody, prickly, climbing, branched, furnished with clasps. Leaves smooth, ovate, or heart-shaped, pointed, five-nerved, placed on footstalks. Flowers male and female on different plants, in clusters, of a yellowish white, upon a slender common footstalk, arising at the axillæ of the leaves. The calyx of the male flower is divided into six leaflets, which are oblong, reflexed, and appear to occupy the place of the corolla, which is wanting. Filaments six, simple, furnished with oblong antheræ. The female flower differs from the male, in having no stamina, but is supplied with an ovate germen, supporting three minute styles, terminated by oblong reflexed downy stigmata. Fruit a small round berry, of three cells; when ripe of a red colour, and contains two round seeds.

This species of *Smilax* is tolerably well described by Kæmpfer and Rumphius, but still more fully by Gmelin. It is a much taller shrub than the *S. Saraparilla*, and grows to the greatest perfection in China, Japan, and in some parts of Persia. It is also a native of Jamaica, but the occidental species has been accounted less efficacious than the oriental. Mr. Aiton informs us, that it was first cultivated in Britain by Miller: it seems however to be a tender plant, and is rarely brought to flower in this country, even when placed in the best stoves, and under the direction of the most scientific gardeners.

According to Lewis, "two sorts of the roots are common in the shops, an oriental, and occidental; the first, which is accounted the best, is considerably paler coloured, and harder than the other. Of either kind, such should be chosen, as is fresh and heavy, and which, when cut, exhibits a close smooth glossy surface."

"These

“ These roots have scarcely any smell, or particular taste; when fresh they are said to be somewhat acrid, but as brought to us they discover, even when long chewed, no other than a slight unctuousity in the mouth. Boiled in water they impart a reddish colour, and a kind of vapid softness: the decoction, inspissated, yields an unctuous farinaceous almost insipid mass, amounting to upwards of half the weight of the root.”^a

About the year 1535 this root was first brought to Europe with the character of being an incomparable medicine for the cure of the venereal disease.^b For this purpose it was given in the form of a decoction, of which a large cupful was ordered to be made hot, and taken by the patient every morning while in bed, in order to produce a diaphoretic effect for two or three hours.

This, and the occasional use of purgatives, was to be pursued for twenty-four days, after which the decoction was to be used as a common drink.^c

This root was also recommended in many other disorders, especially those of a chronic and inveterate kind, as some cutaneous diseases, obstructions, rheumatisms, &c. But whatever may have been the opinion formerly entertained of the efficacy of China root, physicians, at this time, agree in considering it as a very inert substance, and therefore it is rarely employed. Like the sarsaparilla, by which it has been superseded, it contains a considerable share of bland nutritive matter, and appears to us not less adapted to the auxilliary purposes of medicine.

^a Lewis. *l. c.*

^b Thevet. *Cosmogr. univers. L. 11. c. 25.*

^c Vesalius. *Epist. de rad. chinæ in Apbor. p. 598. &c.* Astruc, *de morb. ven. p. 112.*

RUSCUS ACULEATUS.

BUTCHER'S BROOM,
Or KNEE HOLLY.

SYNONYMA. *Ruscus.* *Pharm. Geoff. Dale.* 169. *Alfon. i.* 386. *Lewis.* 546. *Murray. i. p.* 341. *Bergius.* 816. *Edinb. New Dispensf.* 267. *Baub. Pin.* 470. *Ger. Emac.* 907. *Park. Theat.* 253. *Raii. Hist.* 664. *Synop.* 262. *Hudson. Flor. Ang.* 437. *Haller. Hist. Stirp. Helv. n.* 1238. *With. Bot. Arr.* 1132. *Miller. Illust. t.* 155.

Dioecia Syngenefia. Lin. Gen. Plant. 1139.

Gen. Ch. MASC. Cal. 6-phyllus. *Cor. o. Nectarium centrale,* ovatum, apice perforatum.

FEM. Calyx, Corolla, et Nectarium maris. Stylus 1. Bacca 3-locularis. *Sem. 2.*

Sp. Ch. R. foliis supra floriferis nudis.

A SMALL evergreen shrub, seldom much exceeding a foot in height. Stalk strong, smooth, channelled. Leaves floriferous, sessile, or on very short footstalks, ovate, rigid, sharply pointed,^a entire, marked with numerous parallel veins. Flowers male and female on different plants, solitary, appearing on the upper disc of the leaves. Calyx of the male flower composed of six small oval spreading leaves, of a yellowish green. Corolla none. Nectarium egg-shaped, inflated, upright, purple, open at the rim, of the length of the calyx. Filaments none. Antheræ three, expanding, uniting at the base, placed at the mouth of the nectarium. In the female flower the germen is oblong,

^a Hence Virgil says, *Horridior rusco.* Ec. 7. V. 41.

And again

aspera rusci
Vimina per silvam,

enclosed



Ruscus aculeatus



Aristolochia Clematites.

enclosed in the nectarium, supporting a cylindrical style, supplied with a blunt stigma. Fruit a three-celled red berry, containing two globular seeds.

It usually grows in woods and thickets, flowering in March and April.

The root, which is somewhat thick, knotty, and furnished with long fibres, externally brown, internally white, and of a bitterish taste, has been recommended as an aperient and diuretic in dropsies, urinary obstructions, and nephritic cases. Hence it has been termed one of the five greater aperient roots.

It is manifestly the *μυρσίνη αγγία* of Dioscorides,^b who speaks highly of its deobstruent and diuretic powers; and Riverius relates a case of dropsy successfully treated by a decoction of the roots of *Ruscus*; but at present this plant is very rarely, if ever, employed in medicine.

^b *Lib. 4. c. 146.*

ARISTOLOCHIA CLEMATITIS. CLIMBING BIRTHWORT.

SYNONYMA. *Aristolochia tenuis.* *Pharm. Edinb. Geoff. ii. 13. Dale. 194. Alston. i. 391. Lewis. 111. Murray. i. 356. Bergius. 719. Edinb. New Disp. 132. Aristolochia Clematidis recta. Bauh. Pin. 307. Gerard. Emac. 847. Park. Theat. 292. Raii Hist. 762. Hall. Stirp. Helv. n. 1029. Hudf. Flor. Ang. 394. Withering. Bot. Arr. 1003. Mill. Illust.*

Gynandria Hexandria. Lin. Gen. Plant. 1022.

Gen. Cb. Hexagynia. Cal. o. Cor. 1-petala, lingulata, integra, Caps. 6-locularis, infera.

Sp. Cb. A. foliis cordatis, caule erecto, floribus axillaribus confertis.

ROOT perennial, cylindrical, long, slender, creeping, fibrous. Stalks simple, slender, striated, two feet in height, round, smooth, in a somewhat zigzag direction. Leaves on footstalks, alternate, smooth, heart-shaped, blunt, of a shining bright green on the upper side, beneath veined. Flowers numerous, at the axillæ of the leaves, of a greenish yellow. Calyx none. Corolla monopetalous, tubular, tube nearly cylindrical, at the base round, at the mouth wider, and extended downwards into a long tongue. Filaments none. Antheræ six, growing underneath the stigma. Germen oblong, angular, placed below the corolla. Style very short. Stigma roundish, divided into six portions. Capsule hexagonal, six-celled. Seeds numerous, small, flattish.

It is a native of this country, growing in woods and hedges, and producing its flowers from July till September.

Various species of *Aristolochia* were formerly included in the *Materia Medica*, as noticed in the first part of this work; but the *Clematitis* here figured is the only species still retained in the *Edinburgh Pharmacopœia*, and therefore ought to have superseded the *A. longa*, of which a plate is given at page 294.

The root, which is the part medicinally used, has a somewhat aromatic smell, and a warm bitterish taste.

Not only writers on the *Materia Medica*, but most authors on the practice of medicine, from the remotest times, have ascribed many virtues to the roots of *Aristolochia*, which it would be useless here to enumerate. The qualities for which they have been chiefly esteemed are sufficiently noticed in the following extract from Dr. Cullen:—
 “ Which of the species of *Aristolochia* are to be preferred I cannot
 “ determine, and believe the difference between the *rotunda*, *longa*,
 “ and *tenuis*, is not considerable, though the latter seems now to be
 “ preferred by both the Colleges of London and Edinburgh. They
 “ are all of them considerably bitter, with more acrimony than in
 “ any other of the bitters commonly employed. Its name seems to
 “ have arisen from the supposition of its emmenagogue virtues, and
 “ in some cases of retention and chlorosis, as a warm and stimulating
 “ medicine, I have found it useful; but in cases of suppression I
 “ never found it of any use: and the commendation of it by the
 “ ancients in promoting the lochia, facilitating birth, &c. is very ill
 “ founded.



Amygdalus Persica

“founded. The *Aristolochia* has been long commended as a cure
 “for the gout. It makes a considerable part of the Portland powder,*
 “and has often been employed by itself in the same manner as that
 “powder, to be taken every day for a length of time.”^a

But Dr. Cullen thinks with Werlhoff,^b that though it may prevent the recurrence of the gouty paroxysms, yet the long continued use of such medicines is extremely hurtful, and commonly brings on a general state of disease more fatal than the original distemper.

* For the composition of this powder, see *Med. Bot.* vol. ii. p. 296.

^a *M. M.* ii. 83.

^b See *Cautiones Medicæ* Ed. Wickman. p. 346.

AMYGDALUS PERSICA.

COMMON PEACH TREE.

SYNONYMA. *Persica.* *Pharm. Dale.* 301. *Alston.* ii. 365. *Geoff.* iii. 798. *Lewis.* 483. *Edinb. New Dispens.* 249. *Murray.* iii. 241. *Bergius.* 413. *Persica Malus.* *Gerard. Emac.* 1447. *Park. Parad.* 580. *Raii. Hist.* 1515. *Du Hamel. Arb. fruit. T.* ii. t. 30.

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

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

Sp. Ch. A. foliorum ferraturis omnibus acutis, floribus sessilibus solitariis.

THE common Peach-tree grows to a considerable height, and sends off numerous spreading branches. Leaves long, narrow, pointed, elliptical, acutely ferrated, on footstalks, alternate. Flowers sessile, purplish, solitary, large. Calyx tubular, divided at the margin into five ovate segments, and at the base beset with numerous scales. Petals five, inversely ovate, spreading, attached by short claws. Filaments numerous, tapering, inserted into the calyx, furnished with purplish

purplish antheræ. Germen roundish, downy. Style short, simple, terminated by a round stigma. Fruit too well known to require description.

The varieties of this species are α , *fructibus lanuginosis*, Common Peach. β , *fructibus glabris*, Nectarine. γ , *flore pleno*, the double-flowered Peach-tree.

It is not known of what country this tree is a native, but it was cultivated here in the time of Turner, 1562, and probably long before that period. From the name Persica, it may be supposed to have been brought from Persia; but this is conjecture, nor is it ascertained to be the *Περσικὴ μήλη* of Dioscorides, or *Περσεα* of Theophrastus.

The fruit is known to be grateful and wholesome, seldom disagreeing with the stomach, unless this organ is not in a healthy state, or the fruit has been eaten to excess, when effects similar to those of the other dulco-acid summer fruits may be produced.

The flowers, including the calyx, as well as the corolla, are the parts of the Persica used for medicinal purposes; these have an agreeable but weak smell, and a bitterish taste. Boulduc^a observes, "that when distilled without addition by the heat of a water bath, they yield one-sixth their weight, or more, of a whitish liquor, which communicates to a considerable quantity of other liquids a flavour like that of the kernels of fruits."

These flowers have a cathartic effect, and especially to children have been successfully given in the character of a vermifuge; for this purpose an infusion of a dram of the flowers dried, or half an ounce in their recent state, is the requisite dose. The leaves of the Persica are also found to possess an anthelmintic power, and from a great number of experiments appear to have been given with invariable success both to children and adults.

However, as the leaves and flowers of the Persica manifest in some degree the quality of those of the laurocerasus, they ought to be used with caution.

We find a "Syrupus florum persicorum," ordered in the Pharm. Wurt.

^a Mem. de L'Acad. 1714. p. 37.

^b See Coste et Willemet. *Ess. de Mat. Med. indig.* p. 32.





Prunus Laure-cerasus



Menispermum Cocculus of Linnæus, which produces the *Cocculus Indus*, formerly an officinal article, belongs also to this natural order. It is figured by Rumphius under the name of *Tuba baccifera*.

The fruit, which is brought here from the East Indies, is said to be powerfully narcotic, and used for the purpose of intoxication.

P O M A C E Æ.

PRUNUS LAUROCERASUS. COMMON, or CHERRY
LAUREL.

SYNONYMA. *Laurocerasus.* *Pharm. Dale.* 309. *Lewis.* 380. *Bergius.* 399. *Murray.* iii. 213. *Cullen.* ii. 282. *Cerasus folio laurino.* *Baub. Pin.* 410. *Ger. Emac.* 1603. *Raii Hist.* 1549. *Dubamel. Traité des Arbres.* t. 133.

Icosandria Monogynia. *Lin. Gen. Plant.* 620.

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

Sp. Ch. *P.* floribus racemosis fol. sempervirentibus dorso biglandulosis.

A SHRUB or small tree, sending off long spreading branches, and covered with smooth brown bark. Leaves evergreen, elliptical, or obovate, blunt, rather serrated, furnished with yellowish glands at the base, of a shining deep green, placed alternately upon strong short footstalks. Flowers on short peduncles, in spikes, which arise at the axæ of the leaves. Calyx tubular, ovate, divided at the brim into five pointed reflexed segments. Corolla composed of five petals, which are small, white, roundish. Filaments about eighteen, tapering, in-

serted in the calyx, furnished with simple antheræ. Germen oblong, supporting a columnar style, terminated by a blunt stigma. Fruit drupous, resembling a small cherry both in its external and internal structure.

It is a native of the Levant, and appears to have been long cultivated in Britain, and by its polished evergreen leaves adds much to the beauty of our shrubberies.

The leaves of the *Lauro Cerasus* have a bitter styptic taste, accompanied with a flavour resembling that of bitter almonds, or other kernels of the drupaceous fruits. The flowers of this plant also manifest a similar flavour. The powdered leaves, applied to the nostrils, excite sneezing, though not so strongly as tobacco.

The kernel-like flavour which these leaves impart being generally esteemed grateful, has sometimes caused them to be employed for culinary purposes, and especially in custards, puddings, blancmange, &c. and as the proportion of this sapid matter of the leaf to the quantity of the milk is commonly inconsiderable, bad effects have seldom ensued. But as the poisonous quality of this laurel is now indubitably proved, the public ought to be cautioned against its internal use.

The following communication to the Royal Society, by Dr. Madden of Dublin, contains the first and principal proofs of the deleterious effects of this vegetable upon mankind: “ A very extraordinary
“ accident that fell out here some months ago, has discovered to us a
“ most dangerous poison, which was never before known to be so,
“ though it has been in frequent use among us. The thing I mean
“ is a simple water, distilled from the leaves of the *Lauro-cerasus*.—
“ The water is at first of a milky colour, but the oil which comes
“ over the helm with it, being in a good measure separated from the
“ phlegm, by passing it through a flannel-bag, it becomes as clear as
“ common water. It has the smell of bitter almond, or peach kernel,
“ and has been for many years in frequent use among our house-
“ wives and cooks, to give that agreeable flavour to their creams and
“ puddings. It has also been much in use among our drinkers of
“ drams; and the proportion they generally use it in, has been one
“ part of laurel-water to four of brandy. Nor has this practice,
“ (however frequent) ever been attended with any apparent ill con-
“ sequences,

“ sequences, till some time in the month of September, 1728, when
 “ it happened that one Martha Boyse, a servant, who lived with a
 “ person that sold great quantities of this water, got a bottle of it
 “ from her mistress, and gave it to her mother, Ann Boyse, as a
 “ very rich cordial. Ann Boyse made a present of it to Frances
 “ Eaton, her sister, who was a shopkeeper in town, and who she
 “ thought might oblige her customers with it. Accordingly, in a
 “ few days, she gave about two ounces of the water to a woman
 “ called Mary Whaley, who drank about two-thirds of what was
 “ filled out, and went away. Frances Eaton drank the rest. In a
 “ quarter of an hour after Mary Whaley had drank the water, (as I
 “ am informed) she complained of a violent disorder in her stomach,
 “ soon after lost her speech, and died in about an hour, without
 “ vomiting or purging, or any convulsion.

“ The shopkeeper, F. Eaton, sent word to her sister, Ann Boyse,
 “ of what had happened, who came to her upon the message, and
 “ affirmed that it was not possible the cordial (as she called it) could
 “ have occasioned the death of the woman; and to convince her of
 “ it, she filled out about three spoonfuls, and drank it. She con-
 “ tinued talking with F. Eaton about two minutes longer, and was
 “ so earnest to persuade her of the liquor’s being inoffensive, that she
 “ drank two spoonfuls more, but was hardly well seated in her chair
 “ when she died without the least groan or convulsion. Frances
 “ Eaton, who, as before observed, had drank somewhat above a
 “ spoonful, found no disorder in her stomach or elsewhere; but to
 “ prevent any ill consequence she took a vomit immediately, and
 “ has been well ever since.”^a

Dr. Madden mentions another case of a gentleman at Kilkenny, who “ mistook a bottle of this laurel water for a bottle of ptisan; what quantity he drank is uncertain, but he died in a few minutes, complaining of a violent disorder in his stomach.”

^a See *Phil. Trans.* vol. 37. p. 84. “ A letter from T. Madden. M. D. giving an account of two women being poisoned by the simple distilled water of Laurel-leaves, and of several experiments upon dogs, by which it appears, that this laurel is one of the most dangerous poisons hitherto known.”

In addition to this, we may refer to the unfortunate case of Sir Theodosius Boughton, whose death, in 1780, an English jury declared to be occasioned by this poison. In this case the active principle of the *Laurocerasus* was concentrated by repeated distillations, and given to the quantity of an ounce; the suddenly fatal effects of which must be still in the recollection of the public.

To brute animals this poison is almost instantaneously mortal, as amply appears by the experiments of Madden, Mortimer,^b Nicholls,^c Langrish,^d Vater,^e Fontana, and others.

The experiments, conducted by these gentlemen, show, that the laurel-water is destructive to animal life, not only when taken into the stomach, but also on being injected into the intestines, or applied externally to different organs of the body. It is remarked by Abbé Fontana, that this poison, even "when applied in a very small quantity to the eyes, or to the inner part of the mouth, without touching the oesophagus, or being carried into the stomach, is capable of killing an animal in a few instants; whilst applied in a much greater quantity to wounds, it has so little activity, that the weakest animals, such as pigeons, resist its action."^f

The most volatile is the most active part of the *Laurocerasus*; and if we judge from its sensible qualities, an analagous principle seems to pervade many other vegetable substances, especially the kernels of drupaceous fruits; and in various species of the *amygdalus*, this sapid principle extends to the flowers and leaves.

It is of importance to notice, that this is much less powerful in its action upon human subjects than upon dogs, rabbits, pigeons, and reptiles. To poison man the essential oil of the *Laurocerasus* must be separated by distillation, as in the spirituous or common laurel-water; and unless this is strongly imbued with the oil, or given in a large dose, it proves innocent.

^b *Phil. Transf. v. 37. p. 163.*

^c & ^d Vide Langrish. *Phil. Experiments upon brutes, to which is added a course of experiments with the Laurocerasus.*

^e *Diff. de Laurocerasi indole venenata.* Also in his *Progr. de olei animal. contra hydrop.*

^f See Skinner's *Translation. ii. p. 180.*

Dr. Cullen observes, that the fedative power of the *Laurocerasus* acts upon the nervous system in a different manner from opium and other narcotic substances, whose primary action is upon the animal functions: for the *Laurocerasus* does not occasion sleep, nor does it produce local inflammation, but seems to act directly upon the vital powers. Abbé Fontana supposes that this poison destroys animal life, by exerting its effects upon the blood; but the experiments and observations from which he draws this opinion are evidently inconclusive. It may also be remarked, that many of the Abbé's experiments contradict each other.

Thus it appears, from the citation given above, that the poison of this vegetable, when applied to wounds, does not produce a fatal effect; but future experiments led the Abbé to assert, that the oil of the *Laurocerasus*, "whether given internally, or applied to the wounds of animals, is one of the most terrible and deadly poisons known."

Though this vegetable seems to have escaped the notice of Stœrck, yet it is not without advocates for its medicinal use. Linnæus informs us, that in Switzerland it is commonly and successfully used in pulmonary complaints. Langrish mentions its efficacy in agues; and as Bergius found bitter almonds to have this effect, we may from analogy conclude, that this power of the *Laurocerasus* is well established. Baylies found that it possessed a remarkable power of diluting the blood, and from experience recommended it in all cases of disease supposed to proceed from too dense a state of that fluid; adducing particular instances of its efficacy in rheumatism, asthma, and in scirrhus affections. Nor does this author seem to have been much afraid of the deleterious quality of the *Laurocerasus*, as he directs a pound of its leaves to be macerated in a pint of water, of which he gives from thirty to sixty drops three or four times a day.

Of the other species of *Prunus*, or Cherry, we find nothing deserving of particular attention.

The *Sorbus aucuparia*, or Mountain Ash, belongs to this order. Its berries, which appear in large beautiful clusters, are by some writers esteemed for their cathartic and antiscorbutic qualities.

V E R T I C I L L A T Æ.

BETONICA OFFICINALIS.

WOOD BETONY.

SYNONYMA. *Betonica.* *Pharm. Geoff.* iii. 183. *Dale.* 151. *Alston.* ii. 88. *Lewis.* 146. *Edinb. New Disp.* 146. *Murray.* ii. 158. *Bergius.* 524. *Cullen.* ii. 145. *Betonica purpurea.* *Baub. Pin.* 235. *Gerard. Emac.* 714. *Raii. Synop.* 238. *Hall. Stirp. Helv.* 264. *Park. Theat.* 238. *B. officinalis.* *Hudson. Flor. Ang.* 258. *Withering. Bot. Arr.* 611. *Ic. Flor. Dan.* 726. *Flor. Lond.* 154.

Didynamia Gymnospermia. *Lin. Gen. Plant.* 718.

Gen. Ch. Cal. aristatus. *Corollæ* lab. super. adscendens, planiusculum.
Tubus cylindricus.

Sp. Ch. *B. spica interrupta*, corollarum labii lacinia intermedia emarginata.

ROOT perennial, tapering, woody, brownish, furnished with long white fibres. Stalks usually more than a foot in height, erect, square, simple, channelled towards the top, nearer the base hairy. Lower leaves on footstalks, cordate, or lance-shaped, notched, obtuse, veiny, somewhat hairy, and wrinkled: upper leaves narrower, opposite, reflexed. Flowers purple, in spikes composed of several whorls. Bractæ abundant, placed under the flowers, of the length of the calyx. Calyx permanent, tubular, divided at the edge into five narrow teeth. Corolla monopetalous; tube longer than the calyx, bending inwards, below smooth and white, above purple, downy: upper lip roundish, entire, erect; lower one divided into three segments, of which the middle one is the broadest. Filaments four,



Betonica officinalis

four, longer than the tube, two long and two short, furnished with purple antheræ. Germen divided into four parts. Style tapering, white, longer than the filaments, and terminated by a bifid stigma. Seeds four, of an irregular shape, and lodged in the calyx.

It is common in woods and heaths, flowering in August and September.

The description of the *ΒΕΤΟΝΙΚΗ* by Dioscorides applies equally to many of the other verticillated plants: he also states it to be purgative, so that it seems very doubtful if by that name he meant the plant here figured.

The leaves and tops of the Betony have an agreeable but weak smell: to the taste they discover a slight warmth, accompanied with some degree of astringency and bitterness. They yield very little essential oil, inasmuch that only a few drops can be obtained from a large quantity of the herb.

Betony, like many other plants formerly in great medical estimation, is at this time almost entirely disregarded. Antonius Musa, physician to the Emperor Augustus, filled a whole volume with enumerating its virtues, stating it as a remedy for no less than forty-seven disorders; and hence in Italy arose this proverbial compliment *You have more virtues than Betony*.^a

Simon Paulli also ascribes to it powers, which may be considered as rather miraculous than natural, and which did not seem to require contradiction from the experiments of Alston.^b

Modern writers do not allow the Betony to possess any considerable efficacy: Scopoli indeed says that he experienced its cephalic and corroborant effects; but its sensible qualities show it to be more inert than most of the other verticillatæ. Both this plant and Eyebright enter into the composition of Rowley's British herb tobacco and snuff.

^a The Italians also introduced the maxim *Vende la tonica et compra la Betonica*.

^b See *Alston. l. c.*

^c *Flor. Carn. Ed. 1. p. 460.*

ORIGANUM DICTAMNUS.

DITTANY of CRETE.

SYNONYMA. Dictamnus creticus. *Pharm. Geoff. ii. 272. Dale.*
148. Alston. ii. 129. Lewis. 274. Edinb. New Dispensf. 183.
Murray. ii. 139. Bergius. 529. Baub. Pin. 222. Park. Theat.
27. Ray. Hist. 537. Ger. Emac. 795.

Didynamia Gymnospermia. Lin. Gen. Plant. 726.

Gen. Ch. Strobilus tetragonus, spicatus, calyces colligens.

Sp. Ch. O. foliis inferioribus tomentosis, spicis nutantibus.

ROOT fibrous, perennial. Stalk about a foot in height, branched, downy, ligneous. Leaves ovate, blunt, opposite, on short footstalks, thick, covered with soft white hairs. Flowers purple, in spikes. Bractæa roundish, smooth, coloured, numerous, forming quadrangular spikes. Calyx small, five-toothed, concealed by the bractæa. Corolla monopetalous, consisting of a long tube, divided at the limb into two lips, of which the upper is straight, and encloses the filaments: the under lip is cut into three obtuse lobes, of which the middle one is the largest. Filaments two long and two short, filiform, longer than the corolla, and furnished with simple antheræ. Germen divided into four parts. Style slender. Stigma bifid. Seeds four, of an irregular ovate shape, and lodged at the bottom of the calyx.

It flowers from June till August.

This plant, which is a native of the Island of Candia, appears from Turner to have been cultivated in Britain previous to the year 1568, by Mr. Riche. The specimen here delineated grew in the Royal garden at Kew.

The



Origanum Dictamnus

Engraved by W. Woodville, del. & 1791.

The leaves of this plant are apparently very warm and aromatic; of an agreeable smell, and hot biting taste. They impart their virtues both to water and rectified spirit. Distilled with water, they give over a moderately strong impregnation to the aqueous fluid; from which, if the quantity of Dittany be large, there separates, as Neuman observes, a small portion of a yellowish essential oil, of a highly pungent aromatic taste and smell, and which congeals in the cold into the appearance of camphor.^a

Both the Greek and Roman writers have fabled this plant into great celebrity; of which a single instance, related by the Latin Poet, affords a beautiful illustration.^b

Though rarely used at this day, it certainly possesses, in a very considerable degree, the stimulant and aromatic qualities which characterize this class of plants; and has at least an equal share of emmenagogue, carminative, and stomachic virtue.

^a *Lewis. l. c.*

^b Hic Venus, indigno nati concussa dolore,
 Dictamnu n genitrix Cretæa carpit ab Idæ,
 Puberibus caulem foliis, et flore comantem
 Purpureo: non illa feris incognita capris
 Gramina, cum tergo volucres hæfere sagittæ.

ÆN. L. XII. 411.

TEUCRIUM CHAMÆDRYS. COMMON GERMANDER.

SYNONYMA. Chamædrys. *Pharm. Geoff.* iii. 296. *Dale.* 145. *Alston.* ii. 105. *Lewis.* 219. *Cullen.* ii. 8. *Ed. New. Dispensf.* 169. *Murray.* ii. 119. *Bergius.* 506. Chamædrys minor repens. *Baub. Pin.* 148. *Ger. Emac.* 656. Chamædrys vulgaris. *Park. Theat.* 104. *Ray. Hist.* 527. *Synop.* 231. *Hudson. Flor. Ang.* 248. *With. Bot. Arr.* 592. *Ik. Flor. Dan.* p. 448.

Didynamia Gymnospermia. *Lin. Gen. Plant.* 706.

Gen. Ch. Corollæ labium superius (nullum) ultra basin 2-partitum, divaricatum ubi stamina.

Sp. Ch. T. foliis cuneiformi-ovatis incisfis crenatis petiolatis, floribus ternis, caulibus procumbentibus subpilosis.

ROOT perennial, branched, fibrous. Stalk about a foot in height, decumbent, roundish, branched, rough. Leaves in pairs, on foot-stalks, ovate, narrow, irregularly toothed, veined, hairy. Flowers purple, placed in whorls at the axæ of the leaves. Calyx rough, quinquefid. Segments pointed. Corolla consists of a short curved tube, at the limb divided into two lips, of which the upper is short, and cut in the middle in such a manner as to disappear: the lower lip separates into spreading lobes, of which the middlemost is large, and of a roundish form. Filaments two long and two short, slender, white, and furnished with simple antheræ. Germen four, parted. Style filiform. Stigma bifid. Seeds four, enclosed in the calyx.

It is a native of England, flowering in June and July. The annexed figure is taken from a garden specimen.

The leaves and tops of Germander have a moderately bitter taste, accompanied with a weak aromatic flavour, which is diminished but not totally dissipated when the plant is dried. They give out their virtues both to watery and spirituous menstua. Water seems to dissolve the bitter matter more perfectly than pure spirit, the watery
extract



Teucrium Chamædrys

extract being stronger in taste than the spirituous;^a though the quantity of both extracts, according to Cartheuser's experiments, is very nearly alike.

The Chamædrys has been esteemed chiefly in the character of a mild aperient and corroborant: it is recommended in uterine obstructions,^b intermitting fevers,^c and in the rheumatism and gout. Of the last mentioned complaint, Charles the Vth is said to have been cured by a vinous decoction of this, with some other herbs, taken daily for sixty successive days.^d

Other and less equivocal evidence of the good effects of the Chamædrys, in this disorder, are recorded by different authors, who appear to have employed it in various forms and combinations, of which the celebrated antiarthritic, or Portland powder, is an instance.

According to Murray the virtues of this plant should be nearly allied to those of the Marrubium, and therefore promises to be equally useful in asthmatic affections, coughs, and infarctions of the lungs. However, while we admit this conclusion, we consider the virtues of both as somewhat problematical.

^a *Lewis. l. c.*

^b *See Ray. l. c.*

^c *Alpinus. Med. Ægypt. p. 316. Riverius. Observ. Cent. 4. — 82. Chomel. Us. ii. 139. Seguier. Pl. Veron. T. i. p. 319.*

^d *Vesal. Rad. Chin. 111.*

MANY other medicinal plants of the order VERTICILLATÆ still remain unnoticed; but considering the great number of this class figured in our former volumes, it has been thought that the medical reader will not regret the suppression of the following:

LIN. NAME.	OFFICIAL.	ENGLISH.
Ajuga pyramidalis	Consolida media	Mountain Bugle
Teucrium creticum	Polium creticum	Poley of Candia
..... Chamæpitys	Chamæpitys	Ground pine
..... Montanum	Polium montanum	Mountain poley
Melittis Melissophyllum	Melissophyllum	Bastard balm
Melissa Calamintha	Calamintha	Calamint
Lavendula Stoechas	Stoechas	French Lavender
Satureja hortensis	Satureja	Summer Savory
Nepeta Cataria	Nepeta	Catmint
Origanum creticum	Origanum creticum	Marjoram of Candia
Salvia Sclarea	Sclarea	Clary
Leonurus Cardiaca	Cardiaca	Mother-wort
Prunella vulgaris	Prunella	Self-heal
Lamium album	Lamium album	Dead-nettle

S I L I Q U O S Æ.

ERYSIMUM OFFICINALE.

HEDGE MUSTARD.

SYNONYMA. Erysimum. *Pharm. Geoff.* iii. 444. *Dale.* 203. *Alston.* ii. 135. *Lewis.* 289. *Cullen.* ii. 166. *Edinb. New Disp.* 186. *Murray.* ii. 315. *Bergius.* 561. *Hall.* 478. Erysimum vulgare. *Baub. Pin.* 100. Erysimum Dioscoridis Lobelii. *Ger. Emac.* 254. Irio five Erysimum vulgare. *Park. Theat.* 833. *Eruca filiqua cauli appressa, Erysimum dicta.* *Ray. Hist.* 810. *Synop.* 298. Erysimum officinale. *Hudson. Ang.* 286. *Wither. Bot. Arr.* 695. *Ik. Flor. Dan.* 560. *Curt. Flor. Lond.*

Tetradynamia Siliquosa. *Lin. Gen. Plant.* 814.*Gen. Ch.* *Siliqua* columnaris, exactè tetraëdra. *Cal.* clausus.*Sp. Ch.* E. filiquis spicæ adpressis, foliis runcinatis.

ROOT annual, tapering, furnished with long fibres. Stalk from one to two feet in height, erect, round, branched, hairy. Leaves on footstalks, rough, downy, pinnatifid segments, opposite, ovate, toothed, terminal one the largest. Flowers yellow, small, placed in long racemi or spikes. Calyx of four leaflets, which are ovate, narrow, blunt, hairy. Corolla composed of four petals, placed oppositely, inversely ovate, standing upon long claws. Filaments six, tapering, two of which are shorter than the others, and having at the base two nectarious glands. Antheræ heart-shaped. Germen cylindrical, striated. Stigma roundish, compressed, notched. Pods nearly conical, obscurely quadrangular, hairy, pressed to the stalk. Seeds of a dingy yellow colour, obliquely truncated at each end.

It



It is common on dry banks and waste places, and flowers from June till September.

The taste of this herb is somewhat acrid, especially the tops of the flower spikes. Its seeds are considerably pungent, and appear to be nearly of the same quality with those of mustard, but weaker.

The Erysimum is said to be attenuant, expectorant, and diuretic, and has been strongly recommended in chronical coughs and hoarseness. Rondeletius informs us, that the last mentioned complaint, occasioned by loud speaking, was cured by this plant in three days. Other testimonies of its good effects in this disorder are recorded by writers on the *Materia Medica*, of whom we may mention Dr. Cullen, who, for this purpose recommends the juice of the Erysimum to be mixed with an equal quantity of honey or sugar. In this way also it is said to be a useful remedy in ulcerations of the mouth and throat.

In most cases of disease, perhaps the seeds of Erysimum, as more pungent, should be preferred to its leaves.

ERYSIMUM ALLIARIA.

SAUCE-ALONE, Or,
STINKING HEDGE-MUSTARD.

SYNONYMA. Alliaria. *Pharm. Geoff.* iii. 58. *Dale.* 200. *Alston.* ii. 79. *Lewis.* 31. *Edinb. New Dispensf.* 120. *Murray.* ii. 317. *Burgius.* 564. *Baub. Pin.* 110. *Gerard. Emac.* 794. *Park. Theat.* 112. *Ray. Hist.* 792. *Synop.* 293. *Hall. Hist. Stirp. Helv.* 480. *Erysimum Alliaria.* *Hudsf. Ang.* 286. *With. Bot. Arr.* 696. *IC. Curt. Flor. Lond.* 144.

Tetradynamia Siliquosa. *Lin. Gen. Plant.* 814.*Gen. Ch.* Siliqua columnaris, exacte tetraëdra. *Cal.* clausus.*Sp. Ch.* E. foliis cordatis.

ROOT biennial, whitish, tapering, fibrous. Stalk erect, two or three feet in height, round, smooth, channelled, sparingly branched. Leaves alternate, heart-shaped, on footstalks, unequally toothed, veiny: on the upper part of the stalk they are pointed, and narrower; at the root kidney-shaped, and standing on long footstalks. Flowers white, in terminal spikes. Calyx of four leaflets, which are ovate, concave, of a pale green. Corolla consists of four petals, which are inversely ovate, and placed in opposite directions upon erect claws. Filaments six, tapering, four of which are long and erect, two short, and bent inwards. Antheræ yellow, oblong, incumbent. Germen long, quadrangular. Style very short. Stigma roundish. Pod two inches long, obscurely quadrangular, marked with a prominent line between each angle; the cavity divided into two cells, containing oblong shining brown seeds, which appear obliquely truncated at each end.

It is common on hedge banks, and flowers in May and June.

The leaves of this plant have a moderate acrimony, and a strong flavour, resembling that of garlic or onions; they give the same kind of taint to the breath as those roots, and have been used for the same culinary



Erysimum affrica

culinary purposes: hence the name *Alliaria*. On drying, however, their sensible qualities are considerably diminished, or entirely lost.

“ The juice, expressed from the fresh leaves, is strongly impregnated with their active matter, but loses the greatest part of it on being inspissated to an extract with the gentlest warmth: in its liquid state, duly secured from the air, it may be kept uninjured for many months. On distilling the fresh herb with water, there arises a small portion of essential oil, which tastes and smells exceeding strongly.”^a

The medicinal character of *Alliaria* is that of a powerful diaphoretic, diuretic, and antiscorbutic; and as partaking of the qualities of garlick it has been deemed useful as an expectorant and deobstruent, in humoral asthmas, and other cases of dyspnoea. It has also been much esteemed as an external application, to promote suppuration; and Boerhaave informs us, that he cured a gangrene of the leg, arising from a neglected fracture and contusion, by applying the bruised leaves of *Alliaria* with wine.^b

It has been thought unavailing to publish figures of the remaining medical plants of this order, not only because they appear unimportant, but because they are nearly allied to each other both in their medicinal and botanical characters, and are sufficiently exemplified here and in the former volumes of this work.—See *Cochlearia*, *Sinapi*, *Cardamine*, *Raphanus rusticus*, *Nasturtium aquaticum*.

^a *Lewis. l. c.*

^b *Hist. Plant. Lugd. Bat. 437.*

Those omitted are

LIN. NAME.	OFFICIAL.	ENGLISH.
<i>Sisymbrium Sophia</i>	<i>Sophia chirurgorum</i>	Flix-weed
<i>Erysimum Barbaræa</i>	<i>Barbaræa</i>	Winter Hedge-mustard
<i>Raphanus sativus</i>	<i>Raphanus</i>	Garden-Radish
<i>Brassica oleracea</i>	<i>Brassica</i>	Cabbage
..... <i>Rapa</i>	<i>Rapa</i>	Turnep
..... <i>Napus</i>	<i>Napus</i>	Rape, or Wild-Cabbage
..... <i>Eruca</i>	<i>Eruca</i>	Garden-Rocket
<i>Cheiranthus Cheiri</i>	<i>Cheiri</i>	Wall-Flower
<i>Lepidium fativum</i>	<i>Nasturtium hortense</i>	Garden-Cress
<i>Thlaspi arvense</i>	<i>Thlaspi</i>	Bastard-Cress
..... <i>Bursa pastoris</i>	<i>Bursa pastoris</i>	Shepherd's-Purse

MULTESILIQÆ.

MULTISILIQUÆ.

RANUNCULUS ACRIS.

UPRIGHT MEADOW
CROWFOOT.

SYNONYMA. Ranunculus pratensis. *Pharm. Murray. iii. 75.*
 Ranunculus foliis hirsutis semitrilobis, lobis lateralibus bipartitis,
 foliis caulinis semitrilobis. *Hall. Stirp. Helv. n. 1169.* Ranun-
 culus pratensis erectus acris. *Bauh. Pin. 178.* *Ger. Emac. 951.*
Park. Theat. 329. *Ray. Synop. 248.* *R. acris. Hudf. Flor. Ang.*
211. Withering. Bot. Arr. 576. *Scop. Flor. Carniol. 398.* *Ic.*
Curt. Flor. Lond.

Polyandria Polygynia. *Lin. Gen. Plant. 699.*

Gen. Ch. *Cal. 5-phyllus. Petala 5 intra ungues poro mellifero.*
Sem. nuda.

Sp. Ch. *R. calycibus patulis, pedunculis teretibus, foliis tripartito-*
multifidis, fummis linearibus.

ROOT perennial, consisting entirely of long white slender fibres. Stalk erect, branched near the top, round, hairy, about two feet in height. Leaves on long upright footstalks, trifid, subdividing into smaller lacinated lobes, marked beneath with small prominent reticulated veins: at the base of the peduncles, the leaves are simple, linear, and fringed with hairs. Flowers yellow, terminal; on long round hairy peduncles. Calyx of five leaves; which are ovate, spreading, hairy, yellowish. Corolla of five petals, yellow, shining, heart-shaped, commonly notched at the top. Filaments numerous, short, furnished with yellow inclining antheræ. Nectarium, a small scale at the base of each petal. Germina numerous, forming an orbicular head. Styles none. Stigmata reflexed. Seeds numerous, roundish, of a brown colour.

*Ranunculus acris*

It is a native of meadows and moist pastures, flowering in June and July.

The great acrimony of this, and many of the other, species of *Ranunculus*, is such, that on being applied to the skin they excite itching, redness, and inflammation, and even produce blisters, tumefaction, and ulceration of the part. On being chewed they corrode the tongue; and, if taken into the stomach, bring on all the deleterious effects of an acrid poison.

The corrosive acrimony, which this family of plants possesses was not unknown to the ancients, as appears from the writings of Dioscorides; but its nature and extent had never been investigated by experiments before those instituted by C. Krapf^a at Vienna, by which we learn that the most virulent of the Linnean species of *Ranunculus* are the *bulbosus*, *sceleratus*, *acris*, *arvensis*, *thora*, and *illyricus*. The effects of these were tried either upon himself, or upon dogs, and show, that the acrimony of the different species is often confined to certain parts of the plant, manifesting itself either in the roots, stalks, leaves, flowers, or buds: the expressed juice, extract, decoction, and infusion of these plants were also subjected to experiments.

In addition to these species, mentioned by Krapf, we may also notice the *R. Fammula*, and especially the *R. Alpestris*, which, according to Haller, is the most acrid of this genus. However, as the species here delineated is a common English plant, and possesses this active principle diffused in a very considerable degree throughout the whole herb, it has been judged proper to select it for this work as a sufficient example and representative of the whole tribe.

Mr. Curtis observes that even pulling up this plant, and carrying it to some little distance, excited a considerable inflammation in the palm of the hand in which it was held.

It is necessary to remark, that the acrimonious quality of these plants is not of a fixed nature; for it may be completely dissipated by

^a Vide *Experimenta de nonnullorum Ranunculorum venenata qualitate, horum externo et interno usu.* 1766.

The *R. sceleratus* seems more corrosive than the *R. acris*; and we are told by Dr. Withering, that "beggars are said to use it to ulcerate their feet, which they expose in that state to excite compassion."

heat; and the plant on being thoroughly dried, becomes perfectly bland.

Krapf attempted to counteract this venomous acrimony of the *Ranunculus* by means of various other vegetables, none of which was found to answer the purpose, though he thought that the juice of sorrel, and that of unripe currants, had some effect in this way; yet these were much less availing than water; while vinegar, honey, sugar, wine, spirit, mineral acids, oil of tartar, p. d. and other sapid substances manifestly rendered the acrimony more corrosive. It may be also noticed, that the virulency of this plant, as well as of most others, depends much upon the situation in which they grow, and is greatly diminished in the cultivated plant.

This and some other species of *Ranunculus* have, for medical purposes, been chiefly employed externally as a vesicatory, and are said to have the advantage of a common blistering plaster, in producing a quicker effect, and never causing stranguary. But, on the other hand, it has been observed, that the *Ranunculus* is less certain in its operation, and that it sometimes occasions ulcers, which prove very troublesome and difficult to heal. Therefore their use seems to be applicable only to certain fixed pains,^b and such complaints as require a long continued topical stimulus, or discharge from the part, in the way of an issue, which in various cases has been found to be a powerful remedy.

^b Cases of its success in chronic rheumatism, and other complaints, are related by Chesneau (*obs. med.*). Bagliv. (*oper. p.* 113). Stoerck (*ann. med. ii. p.* 125).

The manner of using the plant is to bruise it in a mortar, and to apply it to the skin as a poultice or plaster.



Peonia officinalis.

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PÆONIA OFFICINALIS.

COMMON PEONY,

SYNONYMA. Pæonia. *Pharm. Dale.* 175. *Alston. i.* 485. *Lewis.* 470. *Edinb. New Disp.* 246. *Murray. iii.* 37. *Bergius.* 477. Pæonia folio nigricante splendido, quæ mas—et. Pæonia fœmina, &c. *Baub. Pin.* 323. *Ger. Emac.* 980. *Park. Theat.* 1381. *Ray. Hist.* 693. Pæonia foliis lobatis ex ovato-lanceolatis. *Hall, Helv. Miller. Dict. Ic. Mill. Illust.*

Polyandria Digynia. *Lin. Gen. Plant.* 678.

Gen. Ch. Cal. 5-phyllus. *Petala* 5. *Styli* 0. *Caps.* polyspermæ,

Sp. Ch. P. foliolis oblongis.

ROOT perennial, large, knobby, externally brown, internally white, compact. Stalks two feet in height, thick, smooth, succulent, branched. Leaves pinnated, or cut into lobes, which are oblong, few, terminated by an odd one. Flowers large, terminal, solitary, red. Calyx composed of five unequal ovate concave leaves. Corolla naturally consisting of five large petals, which are roundish and concave. Filaments about thirty, short, slender, supporting oblong quadrangular antheræ. Germina two, ovate, erect, hairy. Styles none. Stigmata hooked. Capsules two, hairy, oblong, inclining outwardly, single-celled, single-valved, and containing numerous small seeds.

Peony is a native of Switzerland: it has been cultivated in Britain since the time of Turner, and is now a common plant in the English gardens, where it flowers in May and June.

This

This plant has long been considered as a powerful medicine; and, till the late revision of the Pharmacopœia by the London College, it had a place in the catalogue of the Materia Medica; in which the two common varieties of this plant are indiscriminately directed for use, and, on the authority of C. Bauhine, improperly distinguished into male and female Peony.

“ The roots and seeds of Peony have, when fresh, a faint unpleasant smell, somewhat of the narcotic kind; and a mucilaginous subacid taste, with a slight degree of bitterness and astringency. In drying they lose their smell, and part of their taste. Extracts made from them by water are almost insipid, as well as inodorous; but extracts made by rectified spirit are manifestly bitterish and considerably astringent.”

“ The flowers have rather more smell than any of the other parts of the plant, and a rough sweetish taste, which they impart, together with their colour, both to water and spirit.”^a

The roots, flowers, and seeds of Peony have been esteemed in the character of an anodyne and corroborant, but more especially the roots; which since the days of Galen^b have been very commonly employed as a remedy for the epilepsy. For this purpose it was usual to cut the root into thin slices, which were to be attached to a string, and suspended about the neck as an amulet; if this failed of success, the patient was to have recourse to the internal use of this root, which Willis^c directs to be given in the form of powder, and in the quantity of a dram two or three times a day, by which, as we are informed, both infants and adults were cured of this disease. Other authors recommend the expressed juice to be given in wine, and sweetened with sugar, as the most effectual way of administering this plant. Many writers,^d however, especially in modern times, from repeated trials of the Peony in epileptic cases, have found it of no use whatever; though professor Home, who gave the radix pæoniæ to

^a *Lewis. l. c.*

^b *De simp. lib. 6. p. 807. Ricc.*

^c *Pathol. Cerebri. cap. 3.*

^d Boerhaave, Haller, Tissot, and others.

two Epileptics at the Edinburgh Infirmary, declares that one received a temporary advantage from its use.*

Of the good effects of this plant in other disorders we find no instances recorded.

* See *Clinical Experiments*, &c. p. 209.

The following are the remaining medicinal plants of this order which we have not thought sufficiently important to require any particular consideration :

SYSTEMATIC NAMES.	OFFICIAL.	ENGLISH.
<i>Aquilegia vulgaris</i>	<i>Aquilegia</i>	Columbine
<i>Aconitum Anthora</i>	<i>Anthora</i>	Wholesome Wolf's-bane
<i>Delphinium Consolida</i>	<i>Consolida regalis</i>	Branched Larkspur
<i>Nigella fativa</i>	<i>Nigella</i>	Fennel-flower
<i>Ranunculus sceleratus</i>	<i>R. palustris</i>	Marsh Crowfoot
----- <i>Flammula</i>	<i>Flammula</i>	Spearwort Crowfoot
----- <i>bulbosus</i>	<i>R. bulbosus</i>	Bulbous Crowfoot
----- <i>Ficaria</i>	<i>Chelidonium minus</i>	Pilewort Crowfoot
<i>Anemone nemorosa</i>	<i>Ranunculus albus</i>	Wood Anemone
----- <i>Hepatica</i>	<i>Hepatica nobilis</i>	Blue Hepatica
<i>Thalictrum flavum</i>	<i>Thalictrum</i>	Meadow Rue

C O M P O S I T Æ.

CICHORIUM INTYBUS.

WILD, or BLUE SUCCORY.

SYNONYMA. Cichoreum. *Pharm. Geoff.* iii. 319. *Dale.* 84. *Alston.* ii. 412. *Lewis.* 227. *Edinb. New Disp.* 171. *Murray.* i. 100. *Bergius.* 650. Cichorium sylvestre, five officinarum. *Baub. Pin.* 126. *Gerard. Emac.* 284. *Park. Theat.* 776. *Ray. Hist.* 255. *C. Intybus.* *Hudson. Flor. Ang.* 348. *Withering. Bot. Arr.* 862. *Curt. Flor. Lond.* 241.

Syngenesia Polygamia Æqualis. *Lin. Gen. Plant.* 921.

Gen. Ch. *Receptaculum* subpaleaceum. *Cal.* calyculatus.

Pappus sub-5-dentatus, obsolete pilosus.

Sp. Ch. *C. floribus* geminis sessilibus, foliis runcinatis.

ROOT perennial, long, tapering, branched, or spindle-shaped; externally yellowish, internally white, lactescent. Stalk erect, rough, branched, angular, from one to two or even three feet in height. Leaves at the root numerous, pinnatifid, or cut into irregular segments like those of dandelion: on the stalk they are alternate, sessile, somewhat spear-shaped, but indented and rough at the base. Flowers compound, large, blue, commonly in pairs. Calyx common to all the florets, composed of a double set of leaves, of which the outer are in number five, ovate, spreading, and fringed with glandular hairs; the inner set consists of about eight. Corolla composed of hermaphrodite florets, which are regular, blue, and about twenty in number, each consisting of a short white tube, from which arises a long flat ribbed limb, divided at the extremity into five teeth. Filaments



Cichorium intybus

Engraved by D. Woodville Aug. 1. 1794.

ments white, slender, unconnected. Antheræ blue, forming a hollow angular cylinder. Germen conical, crowned with short hairs. Style filiform. Stigmata two, rolled back, blue. Seeds numerous, naked, angular, lodged at the bottom of the calyx.

It commonly grows about the borders of corn fields, and flowers in July and August.

This plant belongs to the same family with the garden endive, and by some botanists has been supposed to be the same plant in its uncultivated state; but the endive commonly used as salad is an annual, or at most a biennial plant, and its parent is now known to be the *Cichorium Endivia*.

It appears from Horace and others,^a that the *Cichorea* was commonly eaten by the Romans; and according to Pliny^b this name signified the wild species of the plant. The *Intybus* and *Seris* are also mentioned as its congeners, the latter implying the cultivated species.

Wild Succory, or Cichory, as it has been called, "abounds with a milky juice, of a penetrating bitterish taste, and of no remarkable smell, or particular flavour: the roots are bitterer than the leaves or stalks, and these much more so than the flowers."

By culture in gardens, and blanching, it loses its bitterness, and may be eaten early in the spring in salads. The roots, if gathered before the stems shoot up, are also eatable, and when dried may be made into bread.^c

The roots and leaves of this plant are stated by Lewis to be "very useful aperients, acting mildly and without irritation, tending rather to abate than to increase heat, and which may therefore be given with safety in hectic and inflammatory cases. Taken freely, they keep the belly open, or produce a gentle diarrhæa; and when thus

^a ——— Me pascunt olivæ

Me cichorea, leveſque malvæ.

Hor. Od 31.

"Cichorea, & teneris frondens lactucula fibris."

Juvenal.

^b *Lib. xx. c. 8.*

^c *Withering. l. c.*

continued for some time, they have often proved salutary in beginning obstructions of the viscera, in jaundices, cachexies, hypochondriacal and other chronical disorders.”^d

A decoction of this herb, with others of the like kind, in whey, and rendered purgative by a suitable addition of polychrest salt, was found an useful remedy in cases of biliary calculi,^e and promises advantage in many complaints requiring what have been termed attenuants and resolvents. The virtues of Succory, like those of dandelion, reside in its milky juice; and in most of the plants of the order Semiflosculosæ, a juice of a similar nature is to be found: therefore what has been before observed of the effects of taraxacum, will, in a great measure, apply to the Cichorium; and we are warranted in saying, that the expressed juice of both these plants, taken in large doses, frequently repeated, has been found an efficacious remedy in phthisis, pulmonalis, as well as in the various other affections above mentioned.

The seeds of the Cichorium, which are small, angular, and of a brown colour, are reckoned among the *four smaller cooling seeds*.

^d Lewis. l. c.

^e Van Swieten. *Comment. T. iii. p. 137.*



Matricaria Parthenium

MATRICARIA PARTHENIUM. COMMON FEVERFEW.

SYNONYMA. *Matricaria.* *Pharm. Geoff.* iii. 825. *Dale.* 97. *Alston.* ii. 175. *Lewis.* 414. *Ed. New. Dispens.* 227. *Murray.* i. 148. *Bergius.* 687. *Cullen.* ii. 364. *Matricaria vulgaris* five fativa. *Baub. Pin.* 133. *Gerard. Emac.* 652. *Park. Theat.* 83. *Ray. Hist.* 357. *Synop.* 187. *Hall. Hist. Stirp. Helv. n.* 100. *M. Parthenium.* *Hudson. Flor. Ang.* 371. *Withering. Bot. Arr.* 931. *Ik. Flor. Dan.* 192.

Syngenesia. Polygamia Superflua. *Lin. Gen. Plant.* 967.

Gen. Ch. *Recept. nudum.* *Pappus nullus.* *Cal. hemisphæricus,* imbricatus: marginalibus solidis, acutiusculis.

Sp. Ch. *M. foliis compositis planis: foliolis ovatis incisif, pedunculis ramosis.*

ROOT perennial, composed of numerous long fibres. Stalk erect, firm, much branched, striated, round, smooth, rising above two feet in height. Leaves alternate, hairy, pinnated; lobes irregular, toothed, blunt; terminal lobe bifid. Flowers large, compound, at the centre yellow, at the radius white, upon long peduncles, forming a kind of umbel. Calyx common to all the florets, hemispherical, and composed of numerous ovate squamæ, which are membranous at the border. Florets at the radius, female, oblong, about two lines in breadth, terminated by three small teeth. Stigma bifid, turned in opposite directions. Florets of the disk numerous, tubular, hermaphrodite, five-toothed. Filaments five, capillary, very short. Antheræ forming a hollow cylinder. Seeds egg-shaped, truncated at the base, furrowed, whitish, without pappus.

It is common about hedges, walls, and waste grounds, flowering in June and July.

“ The leaves and flowers of Feverfew have a strong not agreeable smell, and a moderately bitter taste, both which they communicate, by warm infusion, to water and rectified spirit. The watery infusions, inspissated, leave an extract of considerable bitterness, and which discovers also a saline matter both to the taste and in a more sensible manner by throwing up to the surface small crystalline efflorescences in keeping: the peculiar flavour of the *Matricaria* exhales in the evaporation, and impregnates the distilled water, on which also a quantity of essential oil is found floating. The quantity of spirituous extract, according to Cartheuser’s experiments, is only about one-sixth the weight of the dry leaves, whereas the watery extract amounts to near one-half.”

This plant is evidently the *Parthenium* of Dioscorides, since whose time it has been very generally employed for medical purposes. In natural affinity it ranks with camomile and tansy, and its sensible qualities show it to be nearly allied to them in its medicinal character. Bergius states its virtues to be tonic, stomachic, resolvent, and emmenagogue. It has been given successfully as a vermifuge, and for the cure of intermittents; but its use is most celebrated in female disorders, especially in hysteria;^a and hence it is supposed to have derived the name *Matricaria*.^b

Its smell, taste, and analysis prove it to be a medicine of considerable activity; we may therefore say with Murray, “ *Rarius hodie præscribitur, quam debetur.*”

^a According to Sim. Paulli, its efficacy in this disorder was very remarkable.—*Quadrup. p.* 432.

^b “ *Παρθένιον*, quasi virginalis, quod morbis mulierum uterinis medeatur, hinc vulgo *matricaria.*” &c.—*C. B.*



Lactuca virosa

LACTUCA VIROSA. STRONG-SCENTED WILD LETTUCE.

SYNONYMA. *Lactuca virosa.* *Pharm. Edinb. nov. New Ed. Dispensf.* 217. *Murray. App. Med. vol. 6.* 13. *Lactuca sylvestris,* odore viroso. *Baub. Pin.* 123. *Lactuca sylvestris major,* odore opii. *Gerard. Emac.* 309. *Lactuca Endiviæ foliis,* odore viroso. *Park.* 813. *Ray. Hist.* 219. *Synop.* 161. *Haller. Hist.* 15. *L. virosa.* *Hudson. Flor. Ang.* 337. *Withering. Bot. Arr.* 835. *lc. Collin. Obs. vi. præf.*

Syngenesia. Polygamia Æqualis. *Lin. Gen. Plant.* 909.

Gen. Ch. *Recept.* nudum. *Cal.* imbricatus, cylindricus, margine membranaceo. *Pappus simplex,* stipitatus. *Sem.* lævia.

Sp. Ch. *L. foliis horizontalibus carina aculeatis dentatis.*

ROOT biennial, tapering, branched, firm, furnished with long fibres. Stalk from two to four feet high, slender, erect, round, prickly near the base, above smooth, branched. Branches spreading. Leaves at the root oblong, wedge-shaped, entire, or cut into winged clefts, toothed, commonly prickly at the underside of the midrib, sessile, horizontal: leaves on the stem arrow-shaped, embracing the stalk, either entire or cut into pinnated lobes: upper and floral leaves arrow-shaped, entire, pointed, embracing the branches at which they are placed. Flowers composed of numerous equal yellow florets. Calyx oblong, consisting of several small spear-shaped unequal scales. Florets numerous, uniform, hermaphrodite, each composed of narrow petals, cut at the extremity into four or five minute teeth. Filaments five, very short, hair-like. Antheræ forming a cylindrical tube. Germen egg-shaped. Style filiform. Stigmata two, reflexed. Seeds ovate, compressed, lodged upon the naked receptacle, and furnished with a simple hairy feather placed upon a footstalk.

It grows about ditch banks, borders of fields, and old walls, flowering in July and August.

This

This plant has a strong ungrateful smell, resembling that of opium, and a bitterish acrid taste; it abounds with a milky juice, in which its sensible qualities seem to reside, and which appears to have been noticed by Dioscorides, who describes the odour and taste of this juice as nearly agreeing with that of the white poppy; its effects are also said, according to Haller, to be powerfully narcotic.

Dr. Collin, at Vienna, (whose name has been frequently mentioned in the course of this work) first brought the *Lactuca virosa* into medical repute,^a and its character has lately induced the College of Physicians at Edinburgh to insert it in the catalogue of the *Materia Medica*. More than twenty-four cases of dropsy are said by Collin to have been successfully treated, by employing an extract prepared from the expressed juice of this plant; which is stated not only to be powerfully diuretic, but by attenuating the viscid humours to promote all the secretions, and to remove visceral obstructions. In the more simple cases, proceeding from debility, the extract, in doses of eighteen to thirty grains a day, proved sufficient to accomplish a cure; but when the disease was inveterate, and accompanied with visceral obstructions, the quantity of extract was increased to three drams: nor did larger doses, though they excited nausea, ever produce any other bad effect; and the patients continued so strong under the use of this remedy, that it was seldom necessary to employ any tonic medicines.

Though Dr. Collin began his experiments with the *Lactuca* at the Pazman hospital, at the time he was trying the *arnica* in 1771, yet very few physicians, even at Vienna, have since adopted the use of this plant.

Plenciz indeed has published a solitary instance^b of its efficacy, while Quarin^c informs us that he never experienced any good effect from its use, alledging that those, who were desirous of supporting its character, mixed with it a quantity of extractum scillæ. Under these circumstances we shall only say, that the recommendation of this medicine by Dr. Collin, will be scarcely thought sufficient to establish its use in England.

^a *Observ. circa Morb. P. vi.*

^b Joseph de Plenciz. *Act. & Obs. Med.* p. 107.

^c *Animadv. Pract.* p. 188.

The remaining medicinal plants of the order *Compositæ*, which have not been figured in this work, are

SYSTEMATIC NAMES.	OFFICINAL.	ENGLISH.
<i>Carduus marianus</i>	<i>Carduus Mariæ</i>	Milk Thistle
<i>Onopordon Acanthium</i>	<i>Carduus tomentosus</i>	Cotton Thistle
<i>Carlina acaulis</i>	<i>Carlina</i>	Dwarf Carlina
<i>Carthamus tinctorius</i>	<i>Carthamus</i>	Bastard Saffron
<i>Centaurea Cyanus</i>	<i>Cyanus</i>	Blue-bottle
<i>Centaurea Calcitrapa</i>	<i>Calcitrapa</i>	Star Thistle
<i>Cichorium Endivia</i>	<i>Endivia</i>	Common Endive
<i>Scorzonera humilis</i>	<i>Scorzonera</i>	Dwarf Viper's-grass
<i>Tragopogon pratense</i>	<i>Tragopogon</i>	Yellow Goat's-beard
<i>Lactuca fativa</i>	<i>Lactuca</i>	Garden Lettuce
<i>Sonchus oleraceus</i>	<i>Sonchus</i>	Common Sow-thistle
<i>Hieracium Pilosella</i>	<i>Pilosella</i>	Moose-ear Hawkweed
<i>Gnaphalium arenarium</i>	<i>Stœchas citrina</i>	German Cudweed
<i>Gnaphalium dioicum</i>	<i>Gnaphalium</i>	Cat's-foot Cudweed
<i>Artemisia rupestris</i>	<i>Genipi album</i>	Creeping Wormwood
<i>Tanacetum Balsamita</i>	<i>Balsamita mas</i>	Cost-mary
<i>Eupatorium cannabinum</i>	<i>Eupatorium</i>	Hemp Agrimony
<i>Santolina Chamæ-Cyparissus</i>	<i>Santolina</i>	Lavender Cotton
<i>Spilanthus Acmella</i>	<i>Acmella</i>	Balm-leav'd Spilanthus
<i>Tussilago Petasites</i>	<i>Petasites</i>	Butter-bur
<i>Xanthium strumarium</i>	<i>Xanthium</i>	Lesser Xanthium
<i>Matricaria Chamomilla</i>	<i>Chamomilla nostras</i>	Corn Feverfew
<i>Chrysanthemum Leucanthemum</i>	<i>Bellis major</i>	Ox-eye Daisy
<i>Anthemis Cotula</i>	<i>Cotula foetida</i>	Stinking Camomile
<i>Bellis perennis</i>	<i>Bellis minor</i>	Common Daisy
<i>Inula dysenterica</i>	<i>Conyza media</i>	Middle Elecampane
<i>Doronicum Pardalianches</i>	<i>Doronicum</i>	Great Leopard's-bane
<i>Achillea Ptarmica</i>	<i>Ptarmica</i>	Sneeze-wort Milfoil
<i>Achillea Ageratum</i>	<i>Ageratum</i>	Sweet Milfoil
<i>Solidago Virgaurea</i>	<i>Virga aurea</i>	Golden-rod
<i>Senecio vulgaris</i>	<i>Senecio</i>	Common Groundsel
<i>Erigeron acre</i>	<i>Conyza cœrulea</i>	Blue Erigeron
<i>Calendula officinalis</i>	<i>Calendula</i>	Common Marygold

CARYOPHYLLÆ.

SAPONARIA OFFICINALIS.

SOAPWORT.

SYNONYMA. Saponaria. *Pharm. Dale.* 230. *Rutty.* 463. *Lewis.* 584. *Edinb. New Dispensf.* 277. *Murray.* iii. 505. *Bergius.* 369. *Hall. Hist. Helv. n.* 980. Saponaria major lævis. *Baub. Pin.* 206. *Gerard. Emac.* 444. Saponaria vulgaris. *Park.* 641. *Ray. Hist.* 999. *Lychnis Saponaria dicta.* *Ray. Synop.* 339. *S. officinalis.* *Hudsf. Ang.* 183. *With. Bot. Arr.* 438. *Ic. Flor. Dan.* 543. *Flor. Lond.*

Decandria Digynia. *Lin. Gen. Plant.* 564.

Gen. Ch. *Cal.* 1-phyllus nudus. *Petala* 5, unguiculata. *Caps.* oblonga, 1-ocularis.

Sp. Ch. *S. calyc.* cylindricis, fol. ovato-lanceolatis.

ROOT perennial, spreading, widely branched, covered with a reddish cuticle. Stalks about a foot in height, erect, firm, round, jointed, sending off opposite branches. Leaves oval, entire, pointed, connate, furnished with three ribs. Flowers numerous, terminal, of a pale flesh or white colour. Calyx cylindrical, rigid, oblong, divided at the apex into five pointed teeth. Corolla composed of five petals, which are furnished with long angular claws: the limb is inversely heart-shaped, and at its base supplied with two nectarious teeth, placed in the centre. Filaments ten, tapering, longer than the calyx, furnished with oblong antheræ. Germen oblong, beset with transverse rugæ. Styles two, tapering, white. Stigmata simple. Capsule one-celled, containing numerous black kidney-shaped seeds.

It is a native of England, affecting moist situations, and flowering in July and August.

A double-flowered variety of this plant is not unfrequently met with in gardens.

The



Saponaria officinalis.

Published by D^r Woodville, August A^d 1794.

The root has no peculiar smell; its taste is sweetish, glutinous, and somewhat bitter; on being chewed for some time, it is said to discover a degree of acrimony, which continues to affect the mouth a considerable time. According to Neuman, two ounces of the root yielded eleven drams of watery extract; but Cartheuser, from a like quantity, only obtained six drams, and twenty-four grains. This extract manifested a sweetish taste, followed by an acrid quality. The spirituous extract is less in quantity, but of a more penetrating acrid taste. Decoctions of the root, on being sufficiently agitated, produce a saponaceous froth; a similar soapy quality is observable also in the extract, and still more manifestly in the leaves, inasmuch that they have been used by the mendicant monks as a substitute for soap in washing of their clothes; and Bergius, who made several experiments with the Saponaria, declares that it has all the effects of soap itself.^a

From these peculiar qualities ^b of the Saponaria there can be little doubt of its possessing a considerable share of medical efficacy, which we could wish to find faithfully ascertained.

The diseases for which the Saponaria is recommended, as syphilis, gout, rheumatism, and jaundice, are not perhaps the complaints in which its use is most availing; for a fancied resemblance of the roots of Saponaria with those of sarsaparilla, seems to have led physicians to think them similar in their effects, and hence they have both been administered with the same intentions, particularly in fixed pains, and venereal affections. Bergius says, “in arthritide, cura mercuriale, &c. nullum aptiorem potum novi.”

However, according to several writers, the most inveterate cases of syphilis were cured by a decoction of this plant, without the use of mercury.^c

Haller informs us, that Boerhaave entertained an high opinion of its efficacy in jaundice, and other visceral obstructions.

^a He observes also, that the Saponaceous quality is not injured by acids, like that of the common soap.

^b Perhaps we should except the kernels of the fruit of the *Sapindus Saponaria*, the root of *Gypsophila Struthium*, and the flowers of the *Lychnis chalcidonica*.

^c Vide Rudius. *De morb. occult. et venenat.* L. 5. c. 18. p. 215. Septalius, *Animadv. et caut. med.* p. 275. Zapata, *Memorab. medico-chir.* Werner. *Diff. de virtute saponar.*

CAMPANACEÆ.

VIOLA TRICOLOR.

PANSIE, Or
THREE-COLOURED VIOLET.

SYNONYMA. *Viola tricolor.* *Pharm. Dale.* 239. *Bergius.* 708. *Murray. vi.* 33. *Viola tricolor arvensis.* *Baub. Pin.* 200. *V. tricolor fylvestris.* *Park.* 755. *Ger. Emac.* 854. *Jacea tricolor five Trinitatis flos.* *J. Baub. iii.* 546. *Ray. Synop.* 336. *Hall. Hist. Stirp. Helv.* 569. *Hudf. Flor. Ang.* 331. *Withering. Bot. Arr.* 957. *Curt. Flor. Lond. Flor. Dan.* 623. β *Viola tricolor hortensis repens.* *C. B.*

Syngenefia Monogamia. *Lin. Gen. Plant.* 1007.

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

Sp. Ch. *V. caule triquetro diffuso, fol. oblongis incis, stipulis pinnatifidis.*

ROOT annual, simple, tapering, fibrous. Stalk from four to six inches high, branched, thick, angular, succulent. Leaves various shaped, ovate, or elliptical, crenated, narrowest at the upper part of the plant, often three together, on long footstalks. Stipulæ compound; cut into linear segments. Flowers solitary, tricoloured, placed on long angular footstalks furnished with a pair of membranous stipulæ near the flower. Calyx of five pointed leaves, of which the three uppermost are somewhat smaller than the others. Corolla pentapetalous, irregular. The two uppermost petals roundish, erect, dark purple; the two lateral petals elliptical, obtuse, yellowish, rough at the base, and marked with purple lines; lower petal broad, notched in the middle, yellow, tinged with dark radiated lines, forming behind

*Viola tricolor*

behind a spur-like process or nectarium. Filaments five, very short. Antheræ scaly, lax, united, two-celled, terminated by an orange-coloured membrane. Germen conical. Style twisted at the base. Stigma round, obliquely perforated, permanent. Capsule one-celled, three valved, containing numerous oval shining seeds.

It grows in corn fields, waste and cultivated grounds, flowering all the summer months.

This plant varies much by cultivation, and by the vivid colouring of its flowers often becomes extremely beautiful in gardens, where it is distinguished by various names.

To the taste this plant, in its recent state, is extremely glutinous, or mucilaginous, accompanied with the common herbaceous flavour and roughness. By distillation with water, according to Haase,^a it affords a small quantity of odorous essential oil, of a somewhat acrid taste. The dried herb yields about half its weight of watery extract, the fresh plant about one eighth.

Though many of the old writers on the Materia Medica represent this plant as a powerful medicine in epilepsy, asthma, ulcers, scabies, and cutaneous complaints, yet the *viola tricolor* owes its present character as a medicine to the modern authorities of Starck,^b Metzger,^c Haase,^d and others,^e especially as a remedy for the *crusta lactea*. For this purpose, a handful of the fresh herb, or half a dram of it dried, and boiled two hours in milk, is to be strained and taken night and morning. Bread, with this decoction, is also to be formed into a poultice, and applied to the part. By this treatment it has been observed, that the eruption during the first eight days increases, and that the urine, when the medicine succeeds, has an odour similar to that of cats; but on continuing the use of the plant a sufficient time, this smell goes off, the scabs disappear, and the skin recovers its natural purity.

^a *De viola tricolore*. Erlang. 1782.

^b *De crusta lactea infantum ejusdemque remedio dissertatio, quam Acad. scient. Lugd. Gall. præmio coronavit*. 1776. Franc. ad Moen. 1779. See also *London Medical Journal*. vol. ii.

^c *Verm. Med. Schriften*. vol. 2.

^d *L. c.*

^e Armstrong's publication on this subject we have not seen. In Sweden many testimonies of the good effects of this plant have been published. See *Murray*. l. c.

Instances of the successful exhibition of this medicine, as cited by these authors, are very numerous ; indeed this remedy, under their management, seems rarely, if ever, to have failed. It appears, however, that Murfinna,^f Ackermann,^g and Henning,^h were less fortunate in the employment of this plant ; the last of whom declares, that in the different cutaneous disorders in which he used it, no benefit was derived.

Haase, who administered this species of violet in various forms, and large doses, extended its use to many chronic disorders ; and from the great number of cases in which it proved successful, we are desirous of recommending it to a further trial in this country.

It is remarkable that Bergius speaks of this plant as a useful mucilaginous purgative, and takes no notice of its efficacy in the crusta lactea, or in any other disease.

^f *Med. chirurg. Beobacht.* 2. *Samml.* p. 107. &c.

^g See *Comment. de rebus*, &c. vol. 27. 170.

^h See *Beob. über einige Arzneimittel.* p. 65.

The remaining medicinal plants, belonging to this order, are the species of the convolvulus, officinally called Mechoacanna, convolvulus major, Turpethum and Soldanella ; Dentaria or Plumbago europæa : Viola canina, or dog's violet, the roots of which have lately been discovered to be both emetic and cathartic.



Astragalus arscapus.

Delighted by Dr. Woodville Sept. 2. 1790.

P A P I L O N A C E Æ.

ASTRAGALUS EXSCAPUS. STEMLESS MILK VETCH.

SYNONYMA. Astragalus exscapus. *Off. Murray.* vi. 83. *Jacquin Collect. ad bot.* vol. 2. p. 269. *Icon, ejusd. Plant. rar.* vol. 2. fasc. 1. t. 17. *Cf. Winterl. Ind. Hort. bot. Pestin.* p. 14. Astragalus perennis supinus, foliis et filiquis hispidis, flore luteo. *Knauth. Fl. Hal.* p. 41. *Buxbaum. Pl. Hal.* p. 32. Cicer montanum *ακαυλος.* *Baub. Pin.* 341. Glaux lanuginosa montana acaulos. *Rupp. Fl. Jen. ed. Hall.* 270. *Id. Girtanner. l. c. inf.*

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

Gen. Ch. Legumen biloculare, gibbum.

Sp. Ch. A. acaulis exscapus, leguminibus lanatis, foliis villosis.

ROOT perennial, simple, or generally branched towards the extremity; very long, slender, running deeply in the ground. Leaves all radical, long, pinnated, consisting of numerous pinnæ, which are regular, ovate, opposite, villous, entire, gradually smaller towards the top of the leaf, at which stands a single leaflet. The flowers are large, of a pale yellow colour, and placed at the crown of the root. Calyx tubular, deeply cut into five long pointed teeth. Corolla papilionaceous, consisting of the vexillum, which is large, straight, closing, emarginated at the apex, two alæ or oblong lateral petals, and a short blunt carina or keel-shaped under-petal. Filaments ten, nine of which are united, and all furnished with small roundish antheræ. Germen oblong. Style tapering, bent upwards, and supplied with a blunt stigma. Pod oblong, hairy, two-valved, containing kidney-shaped seeds.

This species of Astragalus is a native of Hungary, growing in mountainous situations. It was first introduced into the Royal Garden at Kew by Jacquin in 1787.^a

^a See *Hort. Kew.*

The root, which is the medicinal part of the plant, is, in its dried state, rough, and wrinkled, in long slender pieces, externally brown, internally white, and easily dividing longitudinally into filamentous fibres. It is destitute of odour, but to the taste it is bitterish, and somewhat astringent. In decoction its taste approaches to that of liquorice; some however compare its flavour to that of bitter almonds.^b It yields about a third part of its weight of extract by means of water, but by spirit a very inconsiderable quantity is obtained.

Since the year 1786 this plant has been much celebrated as a remedy in syphilitic complaints. It was first brought into notice by Professor Winterl, at Pest, who wrote to his friends in Vienna, that on the borders of Hungary it was in common use as a remedy for the venereal disease; in consequence of this information it was tried with success at the General Hospital by Quarin.* From Vienna its reputation spread over all Germany; nor does its character rest wholly on the testimony of foreigners, as Dr. Crichton,† during his residence at Vienna had occasion to witness its efficacy. This root is employed in decoction in the proportion of half an ounce to a pint of water, and taken warm night and morning: it is also occasionally to be used externally. By persevering a few weeks in the use of this decoction, we are told that, without mercury, the various symptoms of the most inveterate syphilis, as nodes, exostoses, tophi, scabies, venereal blotches, buboes, ulcers, &c. have been effectually cured. Besides the authors above noticed, we may remark, that the subsequent publications of Endter,^d Wegerich,^e Girtanner,^f Werner,^g Tietz,^h Carmanti,ⁱ all tend in some measure to confirm the efficacy of this root.

Its use is perfectly safe; and Carmanti and others found it necessary to make the decoction much stronger than that before mentioned. Professor Hunczowsky, though unable to discover its anti-venereal powers, admits it to be an useful remedy in rheumatism.

Its sensible effects are an increase of the cutaneous and urinary discharges.

^b Endter. *Diff. de Astrag. exscapo*. p. 12.

* Vide *Animadv. præf.*

† Dr. C's letter is published by Girtanner, and in the London Med. Journal. v. 9. 405.

^d L. c.

^e *Diff. de Astragali exscapi radice*. Erf. 1789.

^f *Abb. über d. vener. krankh. vol. i. p. 406. & seq.* ^g See *Diff. de virtute Saponariæ* off. 1789. ^h Vide *Diff. de virtute Astrag. &c.* 1790. ⁱ Vide *Opusc. therapeut.* v. 2.



Perocarpus santalinus

Engraved by W. Woodville. Sept. 4. 1791.

PTEROCARPUS SANTALINUS. RED SAUNDERS TREE.

SYNONYMA. Santalum rubrum. *Pharm. Lond. & Edinb.* Santalum rubrum. *Rumph. Amb. vol. 2. p. 47.* Moutouchi fuberosa. *Aublet. Guian. vol. 2. p. 742. t. 200.* Conf. *Supp. Plant. 318.*

Diadelphia Decandria. *Lin. Gen. Plant. 854.*

Gen. Ch. Cal. 5-dentatus. Caps. falcata, foliacea, varicosa. Sem. aliquot solitaria.

Sp. Ch. P. foliis ternatis subrotundis retusis glaberrimis, petalis crenatis undulatis.

A LARGE tree, sending off lofty alternate branches, and covered with rough bark, resembling that of common alder. Leaves alternate, on footstalks, in our specimen placed in pairs, and divided into three simple leaves, but according to the *Supp. plant.* the leaves are three together, and each separating into four or five alternate pinnæ: simple leaves roundish or ovate, blunt, retuse, or somewhat notched at the apex, entire, veined, above smooth, beneath hoary. Flowers yellow, in axillary spikes. Stipulæ none. Bractææ none. Calyx rough, cut at the brim into five short segments. Corolla papilionaceous; vexillum obcordate, erect, somewhat reflexed at the sides, dentated, waved, yellow, striated with red; alæ spreading, edges appearing toothed; carina oblong, a little inflated, short. Filaments ten, diadelphous, furnished with white round antheræ. Germen on a footstalk, oblong, compressed, hairy. Style curved. Stigma obtuse. Pod roundish, compressed, smooth, falcated upwards, lower margin keel-shaped, containing a round compressed seed.

This tree is a native of India, affecting mountainous situations.

Its characters were first ascertained by König, who sent a specimen and description of it to the younger Linnæus, by whom it is published in the *Species plantarum.*

The annexed figure, which should have been given in the first part of Medical Botany, is taken from a very perfect specimen in the Herbarium of Sir Joseph Banks.^a

There is reason to believe, that several red woods, capable of communicating this colour to spirituous liquors, are sold as Red Saunders; but the true officinal kind appears, on the best authority, to be of this tree, which is extremely hard, of a bright garnet red colour, and bears a fine polish. It is only the inner substance of the wood that is used as a colouring matter, and the more florid red is most esteemed. On being cut it is said to manifest a fragrant odour, which is more especially perceptible in old trees.

According to Lewis, this wood “ is of a dull red almost blackish colour on the outside, and a deep brighter red within; its fibres are now and then curled, as in knots. It has no manifest smell, and little or no taste: even of extracts made from it with water, or with spirit, the taste is inconsiderable. To watery liquors it communicates only a yellowish tinge, but to rectified spirit a fine deep red: a small quantity of an extract, made with this menstruum, tinges a large one of fresh spirit of the same elegant colour; though it does not, like most other resinous bodies, dissolve in expressed oils: of distilled oils, there are some, as that of lavender, which receive a red tincture from the wood itself, and from its resinous extract, but the greater number does not.”^b

Red Saunders has been esteemed as a medicine; but its only use attaches to its colouring property.

The juice of this tree, like that of some others, affords a species of sanguis draconis.

^a The specimen is accompanied with a piece of the wood, which answers to the description here given.

^b *M. M.* 579.

The medicinal plants of this order, which remain unnoticed, are

SYSTEMATIC NAMES.	OFFICINAL.	ENGLISH.
<i>Lupinus albus</i>	<i>Lupinus</i>	White Lupine
<i>Genista canariensis</i>	<i>Rhodium lignum</i>	Rhodium Wood
<i>Ononis arvensis</i>	<i>Ononis</i>	Rest-harrow
<i>Vicia Faba</i>	<i>Faba</i>	Garden-bean
<i>Ervum Lens</i>	<i>Lentes</i>	Lentil, or flat Tare
<i>Ervum Ervilia</i>	<i>Ervum</i>	Officinal Tare
<i>Cicer arietinum</i>	<i>Cicer</i>	Chick Pea
<i>Galega officinalis</i>	<i>Galega</i>	Goat's-rue
<i>Trifolium melilotus</i> off.	<i>Melilotus</i>	Melilot Trefoil

TRICOCCÆ.



Sphonia elastica

Published by Dr. W. Woodville, Sept. 1st, 1794.

T R I C O C C Æ.

SIPHONIA ELASTICA.

INDIA RUBBER; Or
ELASTIC RESIN TREE.

SYNONYMA. Hevea guianensis. *Aublet. Histoire des plantes de la Guiane Française. tom. 2. p. 871. tab. 335.* Caoutchouc. *Richard, in Rozier obs. sur la physique. tom. 27. p. 138. t. 2.* Jatropha elastica. *Supp. Plant.* The figure by Fresnau in *Mem. de L'Acad. des Scien. a. 175. t. 20.* is erroneous.

Monoecia Monadelphia. *Schr. Gen. Plant. 1465.*

Gen. Ch. Masc. Cor. o. Cal. globofo-campanulatus, semiquinquefidus. Filament. colum. Antheræ 5, adnatæ.

FEM. Cor. o. Cal. 5-fidus, patens, solitarius, racemum terminans. Stylus o. Stigmaia 3. Caps. 3-locularis, lignosa, durissima.

Sp. Ch. S. foliis ternatis ellipticis integerrimis subtus canis longe petiolatis. Supp. Plant.

A LARGE straight tree, growing to the height of fifty or sixty feet; at the upper part sending off numerous branches, covered with rough bark. Leaves on long footstalks, ternate, elliptical, somewhat pointed, entire, veined, smooth, on the under side whitish. Flowers male and female on the same tree, small, in dividing racemi at the ends of the branches. *Male flowers* numerous: calyx globofo-campanulate, five-cleft, segments erect, pointed. Corolla none. Filaments in a column, shorter than the calyx. Antheræ five, united. *Female flower* solitary, larger than the male, and placed at the extremity of the racemus: calyx bell-shaped, cut into five teeth, which are acute, patent, or recurved, deciduous. Germen roundish, shorter than the calyx. Style none. Stigmata three, depressed. Capsule large, three-parted, woody, very hard, covered with fibrous bark, three-celled, valves opening. Seeds ovate, spotted.

This

This tree is a native of South America, growing abundantly in the woods of Guiana, in the Province of Quito, and along the borders of the River of Amazons, in the kingdom of Mexico.

The younger Linnæus admitted this tree into the *Supp. Plant.* under the genus *Jatropa*, to which its fruit seemed to bear a greater affinity than to that of any other; but by the diligence of Richard^a its characters have been found sufficiently different to constitute a new genus, which Schreber calls *Siphonia*. This we have therefore adopted, still preserving the specific name *elastica*.

The substance, known by the names India rubber, elastic gum, Cayenne resin, cautchuc, and by the French caoutchouc, is prepared from the juice of this tree: as subservient to several medical or surgical purposes, it comes within the scope of this work, and must therefore prove sufficiently interesting to the medical reader.

This singular substance was little known in Europe till long after the commencement of the present century; and its origin and composition was first learned from M. de la Condamine,^b who by travelling into the interior parts of South America had an opportunity of acquiring the necessary information. This active and enterprising member of the French Academy found that the Caoutchouc was formed from the juice of a large tree, which has since been botanically examined and ascertained to be that here represented.^c

The manner of obtaining this juice is by making incisions through the bark of the lower part of the trunc of the tree, from which the fluid resin issues in great abundance, appearing of a milky whiteness as it flows into the vessel placed to receive it, and into which it is conducted by means of a tube or leaf fixed in the incision, and supported with clay. On exposure to the air this milky juice, according to Aublet, gradually inspissates into a soft reddish elastic resin; but M. de la Borde, and some others, assert that the juice undergoes a certain preparation before its inspissation, which is effected by a pecu-

^a Vide Rozier *obs. sur la physique*. tom. 27.

^b *Relation d'un voyage dans l'intérieur de l'Amérique méridionale*, in *Mém. de l'Acad.* 1751. p. 322.

^c It was taken from a very complete specimen in the possession of Sir Joseph Banks. We must remark however, that some other vegetable juices admit of being formed into a species of caoutchouc, of which Fresneau has given an account. *L. c.* p. 324.

liar process, which the Indians keep a profound secret.^d To suit the different purposes for which it is employed in South America, the Caoutchouc is shaped into various forms;^e but it is commonly brought to Europe in that of pear-shaped bottles, which are said to be formed by spreading the juice of the *Siphonia* over a proper mould of clay, and as soon as one layer is dry another is added till the bottle be of the thickness desired. It is then exposed to a dense smoke, or to a fire, until it becomes so dry as not to stick to the fingers, when by means of certain instruments of iron or wood it is ornamented on the outside with various figures. This being done it remains only to pick out the mould, which is easily effected, on being first softened with water.

The substance, thus manufactured, is so well known as to render any particular description of it unnecessary. It may be subjected to the action of some of the most powerful menstrua without suffering the least change, while its pliability and elasticity are eminently peculiar to itself. It is true that the lactescent juice of several vegetables may be converted into a substance resembling the Caoutchouc, but no art has yet been discovered to give it the same properties.

The Chinese elastic resin is said to be prepared of castor oil and lime;^f or, according to Retzius, it is nothing but a certain expressed oil evaporated by heat:^g hence its easy solubility.

With a view to investigate the interesting nature of the Caoutchouc, and to render it of more general utility, several able chemists have been diligently employed, especially Macquer,^h Achard,ⁱ Juliaans,^k and Berniard,^l from whom its chemical history is to be learned: our duty however is to state only some of the principal facts.

^d Vide Rozier. *obs. et mem. sur la physique. tom. 1. p. 464.*

^e The curious diversity of figures in which this substance was sold in Portugal is noticed by Mr. Twiss. See *Travels through Portugal and Spain. 323.*

^f V. Faujas de Saint-Fond *Suite de la description des experiences aërostatiques tom. 2. p. 258.*

^g *Pharm. reg. veg. p. 60.*

^h *Mem. de l'Acad. des Sc. de Paris, pour 1768.*

ⁱ *Chymisch phys. Schriften cap. De resina elastica.* ^k *Diff. de Resina elastica Cayennensi.*

^l See Rozier *Obs. sur la Physique. tom. 17.*

Though it appears that neither water nor alcohol, aided by all the heat capable of being produced in Papin's digester, could dissolve this substance; yet its solution was effected not only by the concentrated mineral acids, but in a considerable degree even by most of the unctuous, distilled, and empyreumatic oils. However, as it was found that the solutions of this inspissated juice by these menstrua irrecoverably lost their elasticity, and became useless, the great desideratum of re-forming the Caoutchouc was not attained till ether was employed as its solvent; which was first done by Macquer, who for this purpose found it necessary to use the vitriolic ether in a highly rectified state.

The Caoutchouc, cut into small pieces, and put into a proper vessel with as much of the ether as was sufficient to cover it, was completely dissolved without the application of heat. This solution, which was transparent, and of an amber colour, on being thrown into water, did not produce a milky liquor; but there arose to the surface a solid membrane, possessing the elasticity and other properties of the Caoutchouc. This experiment was also executed with success by Theden;^m therefore those with whom it failed must have used ether in a less concentrated state. According to Theden one dram of the Caoutchouc requires for its perfect solution an ounce of ether. Nitrous ether dissolves but a small proportion of the Caoutchouc, and at the same time destroys its elastic power.

It has been asserted that the elastic resin not only dissolves in oil of guaiacum by digestion, but that on evaporating the oil, the resin in a little time recovers its elastic property. By the industry of Achard, who made this discovery, we likewise learn that solutions of this substance, made by the etherial oils, may be decomposed by the addition of spirit of wine, when the Caoutchouc separates from the oil in the form of mucilage, and on being sufficiently exposed to the air, is restored to its former firmness and elasticity.

However Juliaans, who attempted this process, was unable to re-produce a substance possessing the characters of the elastic resin: it is therefore to be feared that this method, which seemed to promise an easy and cheap way of forming various instruments of the Caoutchouc, has been prematurely recommended: nor does the method of

^m *N. Bemerk. a. d. Wundarzneyk. P. 2. p. 152.*

softening the elastic resin with the animal oil of Dippelius, or with oil of turpentine, as proposed by Herissant, for the purpose of forming it into probes, &c. produce the effect desired. It appears therefore that Macquer's process of dissolving this substance in ether, by which he was enabled to give a coat of Caoutchouc of considerable thickness to a cylindrical mould of wax, is the best way yet discovered of adapting this substance to surgical and other purposes: for on immersing the waxen mould, thus covered with the elastic resin, in boiling water, the wax soon melts and rises to the surface, leaving behind a regular tube of Caoutchouc. In order to render the tubes of sufficient firmness to be used as catheters, it has been recommended that gold or silver wire, rolled in a close spiral manner, should be coated with the elastic resin, and these, as possessing both pliability and firmness, are said to succeed very well. Various other methods of forming catheters, bougies, pessaries, trusses, &c. of this substance, are to be found in the *Journal de Medicine*,^a especially by Durand and Juville; and by its remarkable flexibility and elasticity it accommodates itself to the motion of the body, and thereby possesses peculiar advantages. For a syringe, or injecting machine, the common form in which it is brought here is exceedingly well adapted, and only requires that a proper pipe be fixed to the neck of the elastic bottle to render it fit for use, which is now well known.

We are told that in Quito one of these bottles, fastened to a hollow reed, and filled with water, is always presented at entertainments to each of the guests, who use it as an injection before eating.

The Indians make boots of the Caoutchouc; also a kind of cloth which they use for the same purposes as we use oil cloth. Flambeaux are likewise made of this resin, which yield a beautiful light without any disagreeable smell. In this country it is much used for rubbing out black-lead pencil marks.

^a See *tom.* 60. & 62.

THE A.

TEA-TREE.

SYNONYMA. Thea. *Pharm. V. Dale, Geoffroy, Alston, Lewis, Ed. New Dispensf. Bergius, Murray, Cullen, &c. Chaa. Baub. Pin.* The Sinensium feu Tsia Japonensibus. *Breyn. Exot. Plant. Tsja, Thea frutex folio Cerasi flore Rosæ sylvestris. Kämpfer. Amæn. exot. Le Thee. Fougereux de Bondaroi in Roxier, Obs. et Mem. sur la Physique. tom. 1. f. 1. See Lettsom's Natural History of the Tea-tree.*

Polyandria Monogynia. *Lin. Gen. Plant. 668.*

Gen. Ch. Cor. 6-f. 9-petala. *Cal.* 5-f. 6-phyllus. *Caps.* 3-cocca.

Sp. Ch. ^α (*Bohea*) foliis elliptico-oblongis rugosis.

BROAD-LEAV'D TEA.

^β foliis lanceolatis planis.

NARROW-LEAV'D TEA.

Aiton. Hort. Kew.

A SMALL evergreen tree or shrub, much branched, and covered with a rough dark grey bark. Leaves elliptical, or lanceolate, entire, alternate, obtusely ferrated, veined, placed on short footstalks. Calyx small, smooth, persistent, divided into five obtuse segments. Flowers white, often two or three together, on separate peduncles, placed at the axillæ of the leaves. Corolla varying in the number and size of its petals, but commonly six, of an irregular roundish form. Filaments very numerous, short, inserted at the base of the corolla. Antheræ large, yellow. Germen roundish, or rather triangular. Style trifid, spreading at the top, and furnished with simple stigmata. Capsule three-celled, opening. Seeds three, oblong, brown.

This shrub is a native of China and Japan, and (according to Mr. Aiton) was first introduced into this country in 1768 by John Ellis, Esq. who raised it from seed, and presented it to the King's gardener at Kew. But we are told that the Tea-plant which first flowered in Europe, belonged to his Grace the Duke of Northumberland, at Sion-house.



All the various kinds of Tea imported here come under the denomination of Bohea and Green, and even these are supposed to be the produce of the same species of the plant. Linnæus however has described them as specifically different, founding the distinction in the number of their petals. Others have also observed, that the leaves of Tea plants differ considerably both in form and colour, and this difference we have frequently noticed in the Tea growing in the vicinity of London; but whether these which the gardeners sell by the name of Bohea and Green Tea plants are to be regarded as permanent varieties, or distinct species, we have not the means to decide. De Loureiro^a has described three species of Thea, viz. *Thea cochinchinensis*, *Thea cantonensis*, and *Thea oleosa*. The first is a native of Cochin-China, where it is also cultivated, and used medicinally in hot weather as a sudorific and refrigerant. The *Thea oleosa* grows wild in the neighbourhood of Canton, where an oil obtained from its seed is used for various domestic purposes. The *Thea cantonensis*, which Loureiro carefully examined in its native soil, was found to bear a close resemblance to another variety called *Siaò chong chá*, and by the Europeans Souchong. Both these are brown, but more fragrant and valuable than the common green Tea, which grows in the province of *Fo kien*. Notwithstanding that this author has described the three species of Thea above mentioned, he says that on examining the dried flowers of the green Tea, brought from the province of Kiang si, he observed a great diversity in the number of the parts of the calyx and corolla: hence he concludes that all the various Chinese Teas are taken from the same botanical species, and that the different flavour and appearance of Teas depend upon the nature of the soil, the culture, and method of preparing the leaves.

This opinion, which is founded on the sportive tendency of the flowers of the Tea plant, clearly shows the fallacy of distinguishing the bohea and green Tea trees by the number of their petals, which even in this country have been found to vary from three to nine; yet this circumstance, though it proves the insufficiency of the Linnean characters, by no means determines the botanical identity of the green and bohea Teas; and while the present narrow and jealous policy of

^a Flor. Cochinchinensis.

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^a Flor. Cochinchinensis.

the Chinese continues, many interesting particulars respecting the natural history of Tea must still remain unknown to Europeans: hence I have thought myself unauthorized to add a specific name to the plate of the Tea plant here annexed, *which represents the variety β in the *Hort. Kew.* or the *Thea viridis* of the London gardeners.

The various Teas imported into Europe are obtained both from the wild and cultivated plant. The manner of gathering and preparing the leaves, as practiced in Japan, is very fully described by Kämpfer, and is, as far as our information extends, conformable to the method used by the Chinese.

The first gathering of the Tea leaves, according to this author, commences about the latter end of February, when the leaves are young and unexpanded. The second collection is made about the beginning of April, and the third in June. The first collection, which consists only of the fine tender leaves, is most esteemed, and is called Imperial Tea. The second is called Tootsjaa, or Chinese Tea, because it is infused and drunk after the Chinese manner. The last, which is the coarsest and cheapest, is chiefly consumed by the lower class of people. Besides the three kinds of Tea here noticed, it may be observed, that by garbling or sorting these, the varieties of Tea become still farther multiplied. As many Tea plants grow on cliffs and places of difficult access, the Chinese Tea gatherers are said† to have occasional recourse to the assistance of monkies, which are chased up the Tea trees, and so much irritated that in their fury they bite off the branches, and throw them down in resentment: the branches are then taken up, and the leaves picked off. The leaves are not collected from the cultivated plant till it is three years old; and after growing seven or ten years it is cut down, in order that the numerous young shoots may afford a greater supply of leaves.

The leaves should be dried as soon as possible after they are collected; and for this purpose Kämpfer relates, that publick buildings are erected, containing from five to ten and even twenty small furnaces about three feet high, each having at the top a large iron pan. There is also a long table covered with mats, on which the leaves are

* Taken from the plant now in flower in the stove of John Liptrap, Esq.

† See *Lettsem. l. c.*

laid and rolled by workmen who sit round it. The iron pan being heated to a certain degree, by a fire made in the furnace beneath, a few pounds of the leaves are put upon the pan, and continually turned and shifted by the hands till they become too hot to be endured; they are then thrown upon the mats to be rolled, which is done between the palms of the hands, after which they are cooled as speedily as possible.

In order that all the moisture of the leaves may be completely dissipated, and their twisted form be better preserved, the above process is repeated several times with the same leaves, but less heat is employed than at first. The Tea thus manufactured is afterwards sorted according to its kinds or goodness. Some of the young tender leaves are never rolled, and are immersed in hot water before they are dried.

From this account of the Japanese method of curing their Teas it appears, that a prompt and complete exsiccation is the chief art employed. We suspect however, that the Chinese are more indebted to art than to nature for the various kinds of Tea with which they supply this country. Many of their Teas are so widely different in taste, odour, colour, and form, that instead of appearing to be the leaves of the same species of plant, they are so much disguised as scarcely to manifest any resemblance to each other. It is true that some species and varieties of the Tea, as appears by Loureiro, are naturally more odorous than others; yet we cannot suppose that nature ever made them totally different. The same observation will be equally applicable to the various flavours and colours of this exotic. We may therefore infer, that the Chinese method of curing their fine Teas is not quite so *simple* as that practised by the Japanese.

Tea was first introduced into Europe by the Dutch East India Company, and into England about the year 1666, when it sold for sixty shillings £ lb, and for many years its great price limited its use only to the most opulent. However, for a long time past it has been the common beverage of both the rich and poor; and its effects have been very variously represented; but as to enter fully upon this subject would far exceed the limits of this work, I shall refer the reader for a more full account to Dr. Lettsom's elaborate history of the Tea tree; and conclude this article with a transcript of its medicinal powers,

as given by Dr. Cullen, whose opinion in this place cannot fail to be well received.

“ With respect to its qualities as a medicine, that is, its power of changing the state of the human body, we might suppose it ascertained by the experience of its daily use; but from the universality of this use in very different conditions of the plant, and in every possible condition of the persons employing it, the conclusions drawn from its effects must be very precarious and ambiguous, and we must attempt by other means to ascertain its qualities with more certainty.

“ To this purpose it appears, from the accurate Dr. Smith’s experiments *De Actione Musculari*, No. 36, that an infusion of green Tea has the effect of destroying the sensibility of the nerves, and the irritability of the muscles; and from the experiments of Dr. Lettsom, it appears that green Tea gives out in distillation an odorous water, which is powerfully narcotic.

“ That the recent plant contains such an odorous narcotic power, we might presume from the necessity which the Chinese find of drying it with much heat before it can be brought into use; and that, even after such preparation, they must abstain from the use of it for a year or more, that is, till its volatile parts are still farther dissipated: and it is said, that unless they use this precaution, the Tea in a more recent state manifestly shows strong narcotic powers. Even in this country, the more odorous Teas often show their sedative powers in weakening the nerves of the stomach, and indeed of the whole system.

“ From these considerations we conclude very firmly, that Tea is to be considered as a narcotic and sedative substance; and that it is especially such in its most odorous state, and therefore less in the bohea than in the green Tea, and the most so in the more odorous, or what are called the finer kinds of the latter.

“ Its effects, however, seem to be very different in different persons; and hence the different, and even contradictory accounts that are reported of these effects. But if we consider the difference of constitution, which occasions some difference of the operation of the same medicine in different persons, and of which we have

“ a remark-

“ a remarkable proof in the operation of opium, we shall not be surpris'd at the different operations of Tea.

“ If to this we add the fallacy arising from the condition of the Tea employed, which is often so inert as to have no effects at all; and if we still add to this the power of habit, which can destroy the powers of the most powerful substances, we shall not allow the various and even contradictory reports of its effects to alter our judgment, with respect to its ordinary and more general qualities in affecting the human body.

“ These, from the experiments above mentioned, and from the observations which I have made in the course of fifty years, in all sorts of persons, I am convinced that the qualities of Tea are narcotic and sedative.

“ It has been often alleged, that some of the bad effects imputed to Tea are truly owing to the large quantity of warm water which commonly accompanies it; and it is possible that some bad effects may arise from this cause: but from attentive observation I can assert, that wherever any considerable effects appear, they are in nine of every ten persons entirely from the qualities of the Tea; and that any like effects of warm water do not appear in one of a hundred who take in this very largely.

“ But while we thus endeavour to establish the poisonous nature of Tea, we do not at the same time deny that it may sometimes show useful qualities. It is very possible, that in certain persons, taken in moderate quantity, it may, like other narcotics in a moderate dose, prove exhilarating, or, like these, have some effect in taking off irritability, or in quieting some irregularities of the nervous system.

“ As its bad effects have been often imputed to the warm water that accompanies it, so we have no doubt that some of its good effects may also be ascribed to the same cause, and particularly its being so often grateful after a full meal.”^a

^a *Mat. Med.* vol. 2. p. 309.

WINTERA AROMATICA.

WINTER'S BARK TREE.

SYNONYMA. Winterana aromatica. Solander in *Med. Observations & Inquiries*. vol. 5. p. 41. t. 1. Drimys Winteri pedunculis aggregatis terminalibus. Forster in *Nov. Act. Upsal.* vol. 3. p. 181. Laurifolia magelliana, cortice acri. Baub. *Pin.* Periclymenum rectum foliis laurinis cortice acri aromatico. Sloane in *Phil. Transf.* vol. 17. p. 923. tab. 1. f. 1. 2.

Winteranus cortex. *Pharm. Edinb.*

Polyandria Tetragynia. Schreb. *Gen. Plant.* 929.

Gen. Ch. Cal. 3-lobus. Petala 6. f. 12. Germina clavata. Stylus 0. Bacca clavata.

Sp. Ch. W. pedunculis aggregatis terminalibus, pistillis quatuor.

THIS very large tree often rises to the height of fifty feet. The bark of the trunk is grey, and somewhat wrinkled, but that on the branches is green and smooth. Leaves oval, or elliptical, entire, obtuse, flat, smooth, shining, evergreen, of a pale bluish colour underneath, and placed irregularly upon thick footstalks. Flowers white, placed on long peduncles, which proceed from the axæ of the leaves at the tops of the branches. Bractææ oblong, entire, concave, pointed, whitish, placed at the base of the peduncles. Calyx of one leaf, firm, dividing into three irregular pointed lobes. Corolla of seven petals, which are unequal, oval, obtuse, concave, erect, white. Filaments numerous, (from 15 to 30) much shorter than the petals. Antheræ large, oval, divided longitudinally. Germina from three to six, turbinate. Styles none. Stigmata divided, flat. Capsules fleshy, containing four triangular seeds.

It is a native of the Straights of Magellan and Terra del Fuego.

Dr. Solander

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Wintera arumatifolia

Published by W. Woodville Oct 1870.



Dr. Solander relates that “ the tree which produces the Winter’s Bark was utterly unknown to the Europeans till the return of Captain John Winter, who, in the year 1577, failed with Sir Francis Drake, as commander of a ship called the Elizabeth, destined for the South Seas; but immediately after they had got through the Streights of Magellan, Captain Winter, on the 8th of October, was obliged, by stress of weather, to part company, and to go back again into the Streights, from whence he returned into England in June 1579, and brought with him several pieces of this aromatic bark, which Clusius called after him Cortex Winteranus. Several authors have mentioned it since in their botanical works; but all they have said has been copied from Clusius. No more was heard of this bark till the Dutch Fleet, under Admiral Van Nort, returned from the Streights of Magellan, in the year 1600. Afterwards all the navigators who passed through the Streights of Magellan took notice of the tree, on account of the usefulness of its bark: but none furnished any description that could make it botanically known before Mr. George Handasyd came back from the Streights of Magellan in 1691, and brought with him some dried specimens, which he gave to Sir Hans Sloane, and are now preserved in the British Museum. From these specimens, and the account Mr. Handasyd gave of this tree, Sir Hans Sloane drew up a history, and gave a figure in the Philosophical Transactions. Still the systematical botanists could not give it a place in their catalogues, being unacquainted with its flowers and fruit.” However this loss was supplied by the industry of Mr. Wallis, Captain of the Dolphin, who returned from the South Seas in 1768, bringing with him several botanical specimens of the Winter’s Bark Tree, one of which came into the possession of Dr. John Fothergill, who caused an engraving of it to be made by Ehret, which is published, together with its botanical description written by Dr. Solander, in the fifth volume of the *Medical Observations and Inquiries*. From the plate here alluded to, the annexed figure is taken.

Though Winter’s Bark has been very generally confounded with the canella alba, yet they are well known to be totally different, as we have already stated, when speaking of the latter. See Med. Bot. p. 320.)

Winter's Bark is of a dark brown cinnamon colour, with an aromatic smell when rubbed, and of a pungent hot spicy taste, which is lasting on the palate, though imparted slowly.

This bark has been thought to be a useful antiscorbutic; but in this character it seems to possess no advantage over the other pungent aromatics, and is now generally superseded by the canella alba, the uses of which we have before noticed.

In natural order the Wintera has been ranked with the oleraceæ, but to this class it seems to have very little affinity.

S E N T I C O S Æ.

AGRIMONIA EUPATORIA.

COMMON AGRIMONY.

SYNONYMA. Agrimonia. *Pharm. Geoff.* iii. 46. *Dale.* 112. *Alston.* i. 76. *Lewis.* 28. *Edinb. New Dispensf.* 119. *Bergius.* 386. *Murray.* iii. 147. *Eupatorium veterum seu Agrimonia.* *Baub. Pin.* 321. *Agrimonia.* *Gerard. Emac.* 712. *Agrimonia vulgaris.* *Park.* 594. *Ray. Syn.* 202. *Agrimonia foliis pinnatis, pinnulis alterne minimis.* *Hall. Hist. Stirp. Helv.* 991. *A. Eupatoria.* *Hudson. Flor. Ang.* 206. *Withering. Bot. Arr.* 490. *Id. Flor. Dan.* 588. *Curt. Flor. Lond.* *Mill. Illustr.*

Dodecandria Digynia. *Lin. Gen. Plant.* 607.

Gen. Ch. *Cal.* 5-dentatus, altero obvallatus. *Petala* 5. *Sem.* 2. in fundo calycis.

Sp. Ch. *A. foliis caulinis pinnatis, impari petiolata, fructibus hispidis.*

ROOT perennial, reddish, scaly. Stalk erect, round, hairy, reddish, varying from one to three feet in height. Leaves alternate, interruptedly pinnated, composed of five or six pair of pinnæ, with an odd one at the



Agrimonia Eupatoria
Published by Dr. Wadswell, Oct. 1. 1794.



the end; the large pinnæ are commonly sessile, opposite, ovate, deeply ferrated, rough. Stipulæ two, opposite, ferrated, spreading. Bractææ trifid. Flowers yellow, on short peduncles, in long simple spikes. Calyx permanent, divided into five segments, which are ovate, pointed, externally surrounded with rigid hairs, internally closed with a yellow substance of a glandular appearance: involucre at the base of the germen, composed of two dentated leaves. Corolla composed of five petals, which are ovate, yellow, spreading, inserted into the glandular substance of the calyx. Filaments eleven or twelve, yellowish. Antheræ two-lobed. Germen beneath the calyx, supporting two styles, with blunt stigmata. Capsule formed of the calyx, containing two roundish smooth seeds.

It is common in fields about hedges and shady places, flowering in June and July.

“ The leaves of Agrimony have a slightly bitterish roughish taste, accompanied with an agreeable though very weak aromatic flavour: the flowers are in smell stronger and more agreeable than the leaves, and in taste somewhat weaker. They readily give out their virtues both to water and to rectified spirit. In distillation with water the leaves afford a small portion of a yellowish essential oil, which smells strongly and agreeably of the herb.”*

This plant has been principally regarded in the character of a mild astringent and corroborant, and many authors recommend it as a deobstruent, especially in hepatic and other visceral obstructions. Chomell relates two instances of its successful use in cases where the liver was much enlarged and indurated.^a It has been used with advantage in hæmorrhagic affections, and to give tone to a lax and weak state of the solids. In cutaneous disorders, particularly in scabies, we have been lately told that it manifests great efficacy;^b for this purpose it was given infused with liquorice in the form of tea: but according to Alston it should be always exhibited in the state of powder.

* Lewis. l. c.

^a Usuelles. t. 2. p. 165.

^b Becker Diff. de Eupatorio Græcorum seu Agrimoniz viribus. Erf. 1783.

GEUM URBANUM.

COMMON AVENS.

SYNONYMA. Caryophyllata. *Pharm. Dale.* 160. *Geoff.* iii. 263. *Alston.* i. 404. *Lewis.* 205. *Edinb. New Dispensf.* 164. *Bergius.* 445. *Murray.* iii. 122. Caryophyllata vulgaris. *Baub. Pin.* 321. *Park. Theat.* 136. *Ray. Hist.* 606. *Synop.* 253. *Ger. Emac.* 995. *G. urbanum.* *Hudson. Flor. Ang.* 198. *With. Bot. Arr.* 537. *Ik. Curt. Flor. Dan. t.* 672.

Icosandria Polygynia. *Lin. Gen. Plant.* 636.

Gen. Ch. *Cal.* 10-fidus. *Petala* 5. *Sem.* arista geniculata.

Sp. Ch. *G.* flor. erectis, fruct. globosis villosis, aristis uncinatis nudis, foliis lyratis.

ROOT perennial, fibrous, brown. Stalks branched, somewhat angular, hairy, about two feet in height. Leaves varying, commonly pinnated, hairy, toothed; pinnæ two pair, of which the lower are almost circular; the upper pair elliptical; terminal leaf the largest, and frequently cut into three lobes. Flowers terminal, on long hairy peduncles. Calyx divided into ten segments, which are alternately large and small. Corolla composed of five roundish yellow petals, widely spreading from each other. Filaments numerous, yellowish, tapering, inserted into the calyx. Antheræ roundish. Germina many, hairy, collected into an orbicular shape. Styles jointed in the middle, enlarged at the top, and furnished with simple stigmata. Seeds numerous, compressed, rough, crooked near the extremity, terminated by a long arista.

It is a common British plant, in woods and hedges, flowering from June till August.

The root, which is the part of this plant medicinally employed, has an aromatic and somewhat astringent taste, and a pleasant smell of the clove kind, especially when it is produced in dry and warm soils.



Geum urbanum

Enlighted by D^r Woodville Oct^r 1794.



foils. “ It gives out its astringent matter equally to watery and spirituous menstrua; its aromatic part most perfectly to the latter. In distillation with water it yields a small quantity of a whitish concrete oily matter, of a very grateful fragrance.” ^a

According to Buchhave it yields a greater proportion of watery than of resinous extract.

This plant, though little used in Britain, is held in great estimation on the Continent, where its virtues have been long considered as extremely various: but the character in which it has been lately received, and most particularly celebrated since the year 1780, is that of a febrifuge; thus Buchhave,^b Aaskow, Callisen, Bang, Schönheyder, and Tode, also Weber and Koch,^c Anjou,^d &c. all bear testimony of its efficacy, adducing numerous instances of its successful exhibition in obstinate intermittents, many of which yielded to the root of this plant, after the Peruvian bark had failed.

It is said that a tincture of this root, made in the proportion of four ounces of the root digested with a quart of brandy in a sand heat, and given to the quantity of half an ounce or more, two, three, or four times a day, seldom failed to cure agues. Others gave it with equal success in decoction, powder, or electuary, in the proportion in which the Cinchona bark is commonly employed.

This root has also been found an useful medicine in several chronic disorders, as a general tonic and astringent; and experiments made by Buchhave show its antiseptic power to exceed that of Peruvian bark.

^a Lewis. l. c.

^b *Obs. circa radicem Gei urb.*

^c *Diff. de nonnullorum febrifugorum virtute, et speciatim Gei urbani radicis efficacia.*

^d *Diff. de radice Caryophyllatæ.*

Medicinal plants of this order not introduced into this work, are

SYSTEMATIC	OFFICINAL	ENGLISH NAME
Spiræa Filipendula	Filipendula	Dropwort
Spiræa Ulmaria	Ulmaria	Meadow-sweet
Geum rivale	Geum rivale	Water Avens
Potentilla Anserina	Anserina	Silvery Cinquefoil
Fragaria vesca	Fragaria	Strawberry
Alchemilla vulgaris	Alchemilla	Ladies-Mantle

DUMOSÆ.

D U M O S Æ.

SAMBUCUS EBULUS.

DWARF ELDER.

SYNONYMA. *Ebulus.* *Pharm. Geoff.* iii. 415. *Dale.* 319. *Alston.* i. 485. *Lewis.* 376. *Ed. New Dis.* 184. *Cullen.* ii. 534. *Bergius.* 240. *Murray.* iv. 22. *Sambucus humilis* feu *Ebulus.* *Baub.* *Pin.* 456. *Ebulus* five *Sambucus humilis.* *Gerard. Emac.* 1426. *Park.* 209. *Ray. Syn.* 461. *Hall. Stirp. Helv.* n. 671. *S. Ebulus.* *Huds. Ang.* 130. *Withering. Bot. Arr.* 319. *Flor. Lond.* 213.

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

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

Sp. Ch. *S. cymis tripartitis*, stipulis foliaceis, caule herbaceo.

ROOT long, creeping. Stalk six feet in height, herbaceous, erect, roundish, smooth, channelled, swelled at the joints, sending off opposite branches. Leaves opposite, pinnated, composed of four or five pair, with an odd one at the extremity: pinnæ somewhat lanceolate, unequal at the base, serrated, veiny, downy underneath. Stipulæ quadruple, nearly heart-shaped. Flowers in a terminal corymbus, divided into three branches, composed of numerous cymæ. Calyx divided into five teeth, which are short, erect, pointed. Corolla monopetalous, wheel-shaped, divided into five segments, which are ovate, pointed, hollow, reflexed. Filaments five, thick, white, of the length of the corolla. Antheræ large, double, changing from a reddish to a blackish colour. Germen below the corolla, ovate, somewhat angular, smooth. Style none. Stigmata three, glutinous, reniform. Fruit a roundish black single-celled berry, containing three irregularly-shaped seeds.

It is not unfrequent in hedges, flowering in June and July, but seldom bringing its fruit to maturity.

Every



Sambucus Ebulus

Engraved by D. Woodville Oct 18. 1798.





Every part of the plant has a faint disagreeable smell, resembling that of common elder, but stronger and more ungrateful; and when taken into the stomach manifests a greater share of active power.

The *root* of the *Ebulus*, which is white, fleshy, and of a nauseous bitter taste, was formerly very generally employed in dropsies. A decoction of two drams of it, or a small quantity of its expressed juice, promotes both the alvine and urinary discharges; and if the decoction is prepared from the bark of the fresh root, its activity is so much increased, that it commonly proves both emetic and cathartic.

The inner bark of the stalk, when recent, is equally powerful in evacuating the primæ viæ; and its effects, as a diuretic, on the testimony of Dr. Brocklesby,^a were found to be very considerable; but its operation is so violent and precarious, that it is now very rarely employed.

The berries, in their recent state, according to Scopoli,^b prove a gentle cathartic, though Haller^c says that he never experienced this effect from their use.

The seeds are said to be diuretic, and to have been given with advantage in dropical complaints: they also afford an oil, which Haller applied with success in painful affections of the joints.

The leaves,^d boiled in wine, and formed into a cataplasm, have been recommended in France as a discutient application to contusions and tumours.

^a See *Oecon. & Med. Observations*. p. 277.

^b *Flor. Carn.*

^c *Hist. Stirp. Helv. n.* 671.

^d The odour of the green leaves drives away mice from granaries; and the Silesians strew these leaves where their pigs lie, under a persuasion that they prevent some of the diseases to which these animals are liable.

RHUS CORIARIA.

ELM-LEAVED SUMACH.

SYNONYMA. Sumach. *Pharm. Dale.* 314. *Alston. ii.* 370. *Lewis.* 630. *Ed. New Dispensf.* 292. *Bergius.* 237. *Murray. iv.* 25. *Rhus folio ulmi.* *Baub. Pin.* 414. *Rhus Coriaria.* *Ger. Emac.* 1474. Sumach five *Rhus obsoniorum & coriariorum.* *Park. Theat.* 1450. *Pers Græcis.* *Jc. Du Hamel, Traité des arbres. vol. i. p.* 218. *tab.* 52.

Pentandria Trigynia. *Lin. Gen. Plant.* 369.

Gen. Ch. *Cal.* 5-partitus. *Petala* 5. *Bacca* 1-sperma.

Sp. Ch. *R. foliis pinnatis obtusiusculè ferratis ovalibus subtus villosis.*

A SMALL tree rising to the height of ten feet, sending off many divaricating branches, and covered with a brown hairy bark. Leaves pinnated, alternate, consisting of several pair of pinnæ, which are ovato-lance-shaped, obtusely ferrated, smooth above, hairy beneath, on short footstalks. Common footstalk somewhat winged, and terminated by a single leaflet. Flowers often dioicous, numerous, small, white, placed in large branched spikes. Calyx five toothed, erect, persistent, placed below the germen. Corolla of five petals, which are ovate, white, mostly erect. Filaments five, very short. Antheræ small. Germen roundish, about the length of the corolla. Style scarcely visible. Stigmata three, somewhat cordate. Fruit a roundish one-celled red berry, containing a solitary round hard seed.

This species of Sumach is a native of the South of Europe, and appears from the *Catalogus horti Oxoniensis* to have been cultivated in that garden previous to the year 1648, though it is still a scarce plant in this country.

The genus, to which this species belongs, comprehends several species which are known to be extremely poisonous, especially the *Rhus Toxicodendron*, *radicans*, and *Vernix*; but the *Coriaria* is perfectly



Rhus Coriaria



perfectly innocent, and its berries are in some places used for culinary purposes.

Its medicinal qualities are wholly to be ascribed to its stypticity or astringency; a property which it possesses in a sufficient degree to render it useful in dyeing, and also in tanning of leather, for which it was used in the time of Dioscorides.

Both the leaves and berries have been employed in medicine, but the former are more astringent and tonic, and have been long in common use in various complaints indicating this class of remedies.

The berries, which are red and of a roundish compressed figure, contain a pulpy matter, in which is lodged a brown hard oval seed, manifesting a considerable degree of astringency. The pulp, even when dry, is gratefully acid, and has been discovered to contain an essential salt^a similar to that of wood-sorrel, or perhaps more nearly allied to crystals of tartar.

An infusion of the dry fruit is not rendered black by a solution of iron; hence it appears to be destitute of astringency: but its acidity is extremely grateful, which has caused the tree to be called by the French *le Vinaigrier*. Therefore like many other acid summer fruits these berries^b may be advantageously taken to allay febrile heat, and to correct bilious putrescency.

Lately the *Rhus Toxicodendron* and *radicans* have been recommended in paralytic affections; the latter by *Monf. Fresnoi*, and the former by *Dr. Alderfon*,^c of Hull; but the cases in which these virulent plants were employed are but few and indecisive.

^a See *Trommsdorff* in *Act. Mogunt.* 1778-9. *Comment. Chem.* p. 25.

^b In eastern countries they are commonly used as a pickle.

^c See an *Essay on the Rhus Toxicodendron*.

The medicinal plants of this order not figured in Medical Botany, are,

SYSTEMATIC NAMES.	OFFICINAL.	ENGLISH.
<i>Rhamnus Frangula</i>	Frangula	Berry-bearing Alder.
<i>Rhamnus Zizyphus</i>	Jujuba	Shining-leav'd Rhamnus.
<i>Ilex aquifolium</i>	Aquifolium	Common Holly.

ROTACEÆ.

R O T A C E Æ.

GENTIANA PURPUREA.

PURPLE GENTIAN.

SYNONYMA. *Cursuta.* *Pharm. Edinb.* *Gentiana major purpurea.* *Baub. Pin.* 187. *Gentiana major flore purpureo.* *Flor. Dan. t.* 50. *Gentiana corollis campaniformibus verticillatis, foliis imis petiolatis ellipticis.* *Hall. Helv.* *Gentiana purpurea.* *Ait. Hort. Kew.* *Jacquin. Obs.* 2. t. 39.

Pentandria Digynia. *Lin. Gen. Plant.* 322.

Gen. Ch. *Cor.* monopetala. *Caps.* 2-valvis, 1-locularis: *Receptaculis* 2, longitudinalibus.

Sp. Ch. *G.* corollis subquinquefidis campanulatis verticillatis, calycibus truncatis.

ROOT perennial, cylindrical, slender, branched; externally brown, internally yellowish. Stem erect, simple, smooth, strong, succulent, rising to a foot in height. Lower leaves nearly elliptical, ribbed, entire. Upper leaves in pairs, sheath-like, concave, embracing the stem, pointed, ribbed, enclosing the flowers. Flowers large, purple, standing in whorls, upon short peduncles. Calyx a deciduous spatha. Corolla bell-shaped, purplish, plicated, divided at the limb into five ovate dotted segments. Filaments commonly five, of the length of the germen, and furnished with conical antheræ. Germen oblong. Style cleft, points reflexed, furnished with blunt stigmata. Capsule ovate, two-celled, containing numerous small seeds.

It is a native of the Alps, and was first introduced for cultivation in this country by Professor de Saussure in 1768.^a

^a See *Hort. Kew. i. p.* 322.



Gentiana purpurea

The annexed plate is given on the authority of the Edinburgh Pharmacopœia, in which the *Curfuta*, or root of this plant, has been lately received into the *Materia Medica*.

This root, both in appearance and taste, so exactly resembles that of the yellow or common officinal *Gentian*, that they are not to be distinguished from each other; and in some northern countries, where the latter is scarce, the former is usually employed in its stead.^b

Its medical character is therefore to be regarded as the same with that of the *gentiana lutea*, of which an account is given in *Medical Botany*, p. 433.

^b See *Linn. Flor. Suec.* & *Haller. l. c.*



The remaining medicinal plants of the order *Rotaceæ*, are,

SYSTEMATIC NAMES.	OFFICINAL.	ENGLISH.
<i>Anagallis arvensis</i>	<i>Anagallis</i>	Pimpernel
<i>Lyfimachia Nummularia</i>	<i>Nummularia</i>	Money-wort
<i>Primula veris</i>	<i>Paralyfis</i>	Cowslip
<i>Cyclamen europæum</i>	<i>Cyclamen</i>	Common Cyclamen

R H O E A D E S.

CHELIDONIUM MAJUS.

GREATER, or COMMON
CELANDINE.

SYNONYMA. *Chelidonium majus.* *Pharm. Geoff. iii. 309.*
Dale. 210. Alben. i. 407. Lewis. 224. Edinb. New Dispens.
170. Murray. ii. 300. Bergius. 451. Ger. Emac. 1069. Raii.
Hist. 858. Synop. 309. Hall. Helv. n. 1059. Chelidonium
majus vulgare. Baub. Pin. 144. Park. Theat. 616. C. majus.
Hudf. Ang. 228. Wühering. Bot. Arr. 547. Flor. Dan. t. 542.

Polyandria Monogynia. *Lin. Gen. Plant. 647.*

Gen. Ch. *Cor. 4-petala. Cal. 2-phyllus. Siliqua 1-locularis, linearis.*

Sp. Ch. *C. pedunculis umbellatis.*

ROOT perennial, tapering, branched, externally brown, internally yellow. Stalks erect, cylindrical, branched, somewhat hairy, from one to two feet in height. Leaves pinnated, terminal leaflet large, and often lobed; pinnæ roundish, with deeply scalloped edges. Flowers yellow, in small umbels, upon long hairy footstalks. Calyx consisting of two ovate, entire, hairy, deciduous leaves. Corolla of four petals, which are circular, large, spreading, narrow at the base. Filaments from twenty to thirty, compressed, tapering, shorter than the corolla. Antheræ double, oblong, flattish. Germen cylindrical, long, bent. Stigma blunt. Pod long, valved, somewhat tapering at each end, containing several oval shining seeds attached to the receptacle, which is placed at the junction of the valves.

It grows in hedges, or rough uncultivated places, flowering in most of the summer months.

“ The leaves and roots of Celandine have a faint unpleasant smell, and a bitterish very acrid and very durable taste, which is considerably stronger in the roots than in the leaves. Both water and rectified spirit



Chelidonium majus

spirit extract nearly the whole of their pungent matter: the leaves, notwithstanding the yellow juice which issues so plentifully from a slight wound, and in which their activity seems to reside, give to rectified spirit a green tincture: the roots, which yield a copious saffron red juice, tinge the same menstruum of a brownish yellow."

"The pungency of this plant is not of the volatile kind, little or nothing of it rising in distillation with water any more than with spirit: it is nevertheless greatly abated by drying the plant itself, or by inspissating with a gentle heat the spirituous or watery infusions."

This acrid plant has been much recommended in the general character of an aperient and attenuant. In jaundice it was long considered as the most effectual remedy that could be employed, as appears from the writings of Dioscorides, Galen, Forestus, and other authors of more recent date; hence it was a principal ingredient in the *decoctum ad ictericos* in the Edinburgh Pharmacopœia. Nor has its use been confined to hepatic obstructions; in those of the other viscera, as well as in the mesenteric and lymphatic glands, it is said to have been equally efficacious.^b

It has also been successfully employed as an expectorant; and several writers found it of great efficacy in curing intermittents.^c It has been administered in various forms and doses. Half a dram, or a dram of the dry root in powder, or an infusion in wine or water of a dram, or a dram and an half, of the fresh root, or three or four drops of its yellow juice in any convenient vehicle, are directed for a dose. We have little doubt but that the virtues of Celandine have been greatly exaggerated, and its general employment in jaundice seems to have originated in the absurd doctrine of signatures: in certain cases however we should expect to find it an useful remedy, for it evidently possesses active powers; and thus it is externally used to destroy warts, clean foul ulcers, and remove opacities of the cornea.

^a Lewis. l. c.

^b Lange. De Med. Brunf. p. 124.

^c See Murray. l. c.

This plant, and the two species of papaver, figured in the first part of Medical Botany, are all the medicinal plants belonging to this natural order.

BICORNES.

B I C O R N E S.

SANTALUM ALBUM. WHITE or YELLOW SAUNDERS.

SYNONYMA. Santalum citrinum. *Pharm. Edinb. Park. Theat.* 1604. *Raii Hist.* 1804. Santalum pallidum. *Baub. Pin.* 392. *Ger. Emac.* 1586. Sandalum. *Rumph. Herb. Amb. Tom.* 2. p. 42. t. 11. *Breyn. Icon. et Descript.* p. 19. t. 5. f. 1.

Tetrandria Monogynia. *Schr. Gen. Plant.* 215.

Gen. Ch. Cor. subinfundibulif. 4-fida staminifera: glandulis 4, staminibus alternantibus. *Drupa* rotunda monosperma. *Woodv.*

A LARGE tree, covered with reddish brown bark. Leaves ovate, somewhat lanceolate, entire, pointed, smooth, opposite, on footstalks. Flowers numerous, purple, terminating the younger branches in compound spikes. Calyx small, four-toothed, deciduous. Corolla monopetalous, consisting of a short ovate tube, divided at the limb into four sharp teeth. Filaments four, short, hairy, placed at the mouth of the tube, and furnished with large antheræ: between each filament stands a glandular nectarium, crenated at the top. Germen ovate. Style tapering, of the length of the tube of the corolla. Stigma four-parted. Fruit drupaceous, round, containing a hard seed or stone.

It is a native of the East Indies, especially of the Island of Timor, and has not yet been cultivated in this country. The plate of it here prefixed is taken from a specimen in the possession of Sir Joseph Banks.

From



Tantalum album



From the structure of the flower of the *Santalum*, as here delineated, and from the description of it which is given above, it does not appear to have been sufficiently understood by any of the botanists, who have hitherto described it; so that we have been under the necessity of assigning to this genus a new essential character.^a

The four glands, placed within the corolla, were probably mistaken for stamina, which induced Linnæus at first to class the *Santalum* among the octandria.

In the last edition of the *Systema Vegetabilium* this error is corrected, and had nothing more been done, the character would have remained tolerably complete; but unfortunately Cor. 1-petala was changed to 4-petala; and thus a new error was introduced, which we hope will in future be adjusted.

White Saunders wood is of a pale white, often with a yellowish tinge; and being destitute of taste or odour, it is superseded by the *Santalum trinum*, which is of a brownish yellow colour, of a bitterish aromatic taste, and of a pleasant smell, approaching to that of the rose.

Both kinds are brought from the East Indies in billets, consisting of large thick pieces, which, according to Rumphius, are sometimes taken from the same, and sometimes from different trees. For though the white and the yellow Saunders are the wood of the same species of tree, yet the latter, which forms the central part of the tree, is not always to be found in sufficient quantity to repay the trouble and expence of procuring it, especially unless the trees be old; while the white, which is the exterior part of the wood, is always more abundant, and is consequently much cheaper.

“ Yellow Saunders, distilled with water, yields a fragrant essential oil, which thickens in the cold into the consistence of a balsam, approaching in smell to ambergris, or a mixture of ambergris and roses: the remaining decoction, inspissated to the consistence of an extract, is bitterish and slightly pungent. Rectified spirit extracts by digestion considerably more than water: the colour of the tincture is

^a Respecting the calyx we are unable to speak decidedly from our own observation.

a rich yellow. The spirit, distilled off, is slightly impregnated with the fine flavour of the wood; the remaining brownish extract has a weak smell, and a moderate balsamic pungency.”^b

The wood is chiefly valued on account of its fragrance; hence the Chinese are said to fumigate their clothes with it, and to burn it in their temples in honour of their gods. Though still retained in the *Materia Medica* of the *Edinburgh Pharmacopœia*, it cannot be thought to possess any considerable share of medicinal power. Hoffman considers its virtues as similar to those of ambergris; and some others have esteemed it in the character of a corroborant and restorative.

^b *Lewis. M. M. p. 578.*

Other medicinal plants of the order Bicornes, which have not been noticed in this work, are,

SYSTEMATIC NAMES.	OFFICIAL.	ENGLISH.
Vaccinium Vitis idæa	Vitis idæa	Red Bilberry
———— Oxycoccus	Oxycoccus	Cranberry
———— Myrtillus	Myrtillus	Blea-berry
Ledum palustre	Rosmarinus sylvestris	Wild Rosemary
Pyrola rotundifolia	Pyrola	Winter-green
Lawsonia inermis	Alkanna vera	Smooth Lawsonia
Tamarix gallica	Tamariscus	French Tamarisk

UMBELLATÆ.



Angelica sylvestris

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U M B E L L A T Æ.

ANGELICA SYLVESTRIS.

WILD ANGELICA.

SYNONYMA. Angelica sylvestris. *Pharm. Edinb.* *Ger. Emac.* 999. *Raii. Hist.* 437. *Synop.* 208. *Park. Theat.* 940. Angelica sylvestris major. *Baub. Pin.* 155. *A. sylvestris.* *Hudf. Flor. Ang.* 118. *Withering. Bot. Arr.* 290. *Hall. Helv. n.* 806. *Flor. Dan. t.* 178.

Pentandria Digynia. *Lin. Gen. Plant.* 347.

Gen. Ch. *Fruetus* subrotundus angulatus solidus, styli reflexis.

Corollæ æquales, petalis incurvis.

Sp. Ch. *A. foliolis* æqualibus ovato-lanceolatis ferratis.

ROOT perennial, long, thick, tapering, branched, externally brown, internally white. Stalk thick, hollow, jointed, scored, branched, round, smooth, several feet in height. Leaves pinnated, composed of ovate serrated equal pinnæ, with an odd one at the end. Leaf-stalks channelled on the upper surface, standing upon a large membranous sheath inclosing the stem. Flowers white, in large umbels, which are convex, and placed on long stalks arising from the sheaths of the leaf-stalks. General involucre most commonly wanting, or sometimes composed of small slender leaves. Partial involucre, consisting of from five to twelve permanent narrow pointed unequal leaves. Corolla of five petals, which are nearly equal, ovate, pointed, bent inwards. Filaments five, spreading, longer than the petals. Antheræ roundish. Germen beneath. Styles two, bent downwards. Stigmata blunt. Fruit furnished with four winged appendages, and on each side three striæ. Seeds two, egg-shaped,

shaped, plano-convex, with a membranaceous border, convex side, marked with three ridges.

It grows in marshy woods and hedges, flowering in June and July.

As the root of this species of *Angelica* is still retained in the catalogue of the *Materia Medica* of the *Edinburgh Pharmacopœia*, we have judged it expedient to present a figure of the plant; and it is only in compliance with this authority that we have been induced to do so: for the garden *Angelica*, of which a plate is given in the first volume of *Medical Botany*, not only possesses all the medicinal properties of this species in a superior degree, but may always be more readily procured.

PHELLANDRIUM AQUATICUM.

FINE LEAVED
WATER-HEMLOCK.

SYNONYMA. *Fœniculum aquaticum.* *Pharm. Murray. App. Med. i. p. 267. Rivin. Pent. tab. 65. Ernstingii Phellandrologia. Lange, vom Wasserfenchel. 1771. Cicutaria palustris tenuifolia. Bauh. Pin. 161. Park. 933. Cicutaria palustris. Ger. Emac. 1063. Ray. Hist. 452. Synop. 215. Petiv, t. 28. f. 4. Hall. n. 757. P. aquaticum. Hudson. Flor. Ang. 122. Lightf. Flor. Scot. 163. Withering. Bot. Arr. 298.*

Pentandria Digynia. Lin. Gen. Plant. 353.

Gen. Ch. Flosculi disci minores. Fructus ovatus lævis coronatus perianthio et pistillo.

Sp. Ch. P. foliorum ramificationibus divaricatis.

ROOT



Rhellandrium aquaticum



ROOT biennial, thick, tapering, jointed, sending off numerous long slender fibres. Stalk thick, hollow, smooth, jointed, branched, scored, usually about two feet in height. Leaves large, triply pinnated, ramifying at right angles, or divaricating; leaflets irregularly pinnatifid; leaves under the water filiform. Flowers small, white, in terminal umbels. General involucre none. Partial involucre of seven leaves, which are pointed, and about the length of the proper umbel. Calyx five-toothed, permanent. Flowers all fertile, and forming a flat uniform surface. Individual florets unequal, smaller at the centre. Petals five, heart-shaped, bent inwards. Filaments five, capillary longer than the petals. Antheræ roundish. Germen ovate. Styles two, tapering, upright, permanent. Stigmata blunt. Fruit ovate, smooth, divisible into two parts or seeds.

It grows in rivers, ditches, and pools, flowering in June and July.

This plant is generally supposed to possess deleterious qualities. Horses, on eating it, are said to become paralytic; but this effect should not be ascribed to the *Phellandrium*, but to an insect which resides within its stalks, viz. the *Curculio paraplecticus*.

The seeds of the plant, however, according to Dr. Lange,^a when taken in large doses, produce a remarkable sensation of weight in the head, accompanied with giddiness, intoxication, &c. and therefore may be deemed capable of proving an active medicine. They are oblong, striated, of a greenish yellow, about the size of those of dill, and manifesting an aromatic acid taste, approaching nearly to that of the seeds of lovage. Distilled with water they yield an essential oil, of a pale yellow colour, and of a strong penetrating smell. One pound of the seeds affords an ounce of watery extract, but nearly double this quantity of spirituous extract, of which more than three drams consists of resin.^b

Pliny^c states the seeds of *Phellandrium* to be an efficacious medicine in calculous complaints, and disorders of the bladder; and in this opinion he is followed by Dodonæus,^d who mentions them also as possessing diuretic and emmenagogue powers. But on these autho-

^a See *Rem. Brunf.* 235. ^b *Ernstingius, l. c.* ^c *Lib. 17. c. 13.* ^d *Pempt. 591.*

rities little reliance is to be placed ; so that the efficacy of this plant rests chiefly on the testimonies of Ernstingius and Lange, by whom various cases of its successful use are published, especially in wounds and inveterate ulcers of different kinds, and even in cancers ; also in phthisis pulmonalis, asthma, dyspepsia, intermittent fevers, &c.

About two scruples of the seed, two or three times a day, was the ordinary dose given.

Though the disorders here noticed are so multifarious and dissimilar as to afford no satisfactory evidence of the medicinal qualities of these seeds, yet they appear to us well deserving of farther investigation, according to the maxim ‘ *Ubi virus ibi virtus.*’

* Boerhaave also speaks highly of its discutient power in all kinds of tumours. *Hist. Plant. Hort. Ludg. Bat.* i. p. 94.

OENANTHE CROCATÆ. HEMLOCK WATER-DROPWORT.

SYNONYMA. Oenanthe Chærophylli foliis. *Baub. Pin.* 162. Filipendula cicutæ facie. *Ger. Emac.* 1057. Oenanthe, succo viroso, cicutæ facie *Lobelii.* *Baub. Hist.* iii. 193. *Park. Theat.* 894. *Raii. Synop.* 210. *Morris. Sect.* 9. tab. 9. *Watson. Phil. Transf.* v. 44. n. 480. tab. 3. Oenanthe crocata. *Huds. Flor. Ang.* 121. *Withering. Bot. Arr.* 297. *Lightfoot. Flor. Scot.* 162. *IC. Jacquin. Hort.* iii. t. 55.

Pentandria Digynia. *Lin. Gen. Plant.* 352.

Gen. Ch. *Flosculi* diffformes : in disco sessiles, steriles. *Fructus* calyce et pistillo coronatus.

Sp. Ch. *Æ.* foliis omnibus multifidis obtusis subæqualibus.

ROOT perennial, divided into numerous parts, or oblong tubercles, furnished with long slender fibres. Stalks erect, channelled, round, smooth, branched, of a yellowish red colour, two or three feet



Oenanthe crocata

feet in height. Leaves simply and doubly pinnated; smaller pinnæ wedge-shaped, smooth, streaked, jagged at the edges: larger pinnæ three-lobed, indented, resembling those of smalage. Flowers in umbels, which are terminal, spreading, and almost globular. General involucre none. Partial involucre composed of many small leaves. Calyx permanent, five-toothed. Florets unequal, those at the circumference often sterile. Petals five, heart-shaped, broad, bent inwards, emarginated. Filaments five, slender, tapering, twice the length of the petals. Antheræ oblong, brown. Germen beneath the corolla. Styles two, awl-shaped, reddish, permanent. Stigmata pointed. Fruit oblong, striated, divisible into two parts or seeds, which are convex on one side, and flat on the other.

It grows on the banks of rivers, and in ditches, flowering in June and July.

We have selected this plant, to record it as a powerful poison, rather than as medicine. Its root, which is not unpleasant to the taste, is, by Dr. Poultney, esteemed to be the most deleterious of all the vegetables which this country produces.

Mr. Howell, surgeon at Haverfordwest, relates, that “ eleven
 “ French prisoners had the liberty of walking in and about the town
 “ of Pembroke; three of them, being in the fields a little before noon,
 “ dug up a large quantity of this plant, which they took to be wild
 “ celery, to eat with their bread and butter for dinner. After washing
 “ it, they all three ate or rather tasted of the roots. As they were
 “ entering the town, without any previous notice of sickness at the
 “ stomach, or disorder in the head, one of them was seized with
 “ convulsions. The other two ran home, and sent a surgeon to him.
 “ The surgeon endeavoured first to bleed, and then to vomit him; but
 “ those endeavours were fruitless, and he died presently. Ignorant
 “ of the cause of their comrade’s death, and of their own danger,
 “ they gave of these roots to the other eight prisoners, who all ate
 “ some of them with their dinner. A few minutes afterwards the
 “ remaining two, who gathered the plants, were seized in the same
 “ manner as the first; of which one died; the other was bled, and
 “ a vomit, with great difficulty forced down, on account of his jaws
 “ being as it were locked together. This operated, and he recovered,
 “ but was sometime affected with dizziness in his head, though not
 “ sick.

“ sick or the least disordered in his stomach. The other eight being
“ bled and vomited immediately, were soon well.”^a

At Clonmel, in Ireland, eight boys mistaking this plant for water-parsnep, ate plentifully of its roots: about four or five hours after, the eldest boy became suddenly convulsed, and died; and before the next morning four of the other boys died in a similar manner. Of the other three, one was maniacal several hours, another lost his hair and nails, but the third escaped unhurt.^b

Stalpaart vander Wiel mentions two cases of the fatal effects of this root; these, however, were attended with great heat in the throat and stomach, sickness, vertigo, and purging. They both died in the course of two or three hours after eating the root.

Allen, in his *Synopsis Medicinæ*, also relates that four children suffered greatly by eating this poison. In these cases great agony was experienced before the convulsions supervened; vomitings likewise came on, which were encouraged by large draughts of oil and warm water, to which their recovery is ascribed.

The late Sir William Watson,^c who refers to the instances here cited, also says that a Dutchman was poisoned by the *leaves* of the plant boiled in pottage.

It appears from various authorities that most brute animals are not less affected by this poison than man; and Mr. Lightfoot informs us that a spoonful of the juice of this plant, given to a dog, rendered him sick and stupid; but a goat was observed to eat the plant with impunity.

The great virulence of this plant has not however prevented it from being taken medicinally. In a letter from Dr. Poultney to Sir William Watson,^d we are told that a severe and inveterate cutaneous disorder was cured by the juice of the root, though not without exciting the most alarming symptoms. Taken in the dose of a spoonful, in two hours afterwards the head was affected in a very extraordinary manner, followed with violent sickness and vomiting, cold sweats and rigors; but this did not deter the patient from continuing the medicine, in somewhat less doses, till it effected a cure.

^a Phil. Transf. vol. 44.

^b Ibid. l. c.

^c Sir William likewise inform us, that Mr. Miller knew a whole family at Battersea, who were poisoned with this plant. And that Mr. Ehret, while drawing the fresh plant, was affected with universal uneasiness and vertigo.

^d Phil. Transf. vol. 62.





CICUTA VIROSA.

WATER HEMLOCK.

SYNONYMA. *Cicuta aquatica.* *Pharm. Murray. i. 271. Bergius. 212. Wepfer. Hist. Cicutæ Aquat. p. 4. Sium alterum olusatrici facie. Lobel. Ic. 208. Ger. Emac. 256. Ray. Hist. 450. Synop. 212. Sium erucæ folio. Baub. Pin. 154. Sium majus angustifolium. Park. Theat. 1241. Conf. Phil. Transf. v. 44. 242. tab. 4. Hall. n. 781. Flor. Dan. 208. Cicuta virofa. Hudsf. Flor. Ang. 122. Lightfoot. Scot. 164. With. Bot. Arr. 299.*

Pentandria Digynia. Lin. Gen. Plant. 354.

Gen. Ch. Fructus subovatus, sulcatus.

Sp. Ch. C. umbellis oppositifoliis, petiolis marginatis obtusis.

ROOT perennial, thick, short, hollow, beset at the joints with numerous slender fibres. Stalk thick, round, fistular, striated, smooth, sparingly branched, about four feet in height. Leaves pinnated, leaflets usually placed in ternaries, spear-shaped, serrated; serratures white at the points. Flowers in large expanding umbels. Partial involucre composed of several short bristle-shaped leaves. Calyx scarcely discernible. Florets all uniform, fertile, each consisting of five petals, which are ovate, turned inwards, of a greenish white. Filaments five, capillary, longer than the petals. Antheræ simple, purplish. Styles two, at first close, afterwards divaricating. Stigmata simple. Fruit egg-shaped, divisible into two seeds, which are ribbed and convex on one side, and flat on the other.

It grows on the borders of pools and rivers, flowering in July and August.

This plant, which in its recent state has a smell resembling that of smallage, and a taste somewhat like that of parsley, is well known to be a powerful poison. Haller supposes it to be the *Κικυδιον* of Dioscorides; but whether it is the Athenian cicuta, or the plant of which the

poisonous potion of the Greeks was composed, cannot possibly be ascertained.

The root has a strong smell, and a warm somewhat acrid taste; by distillation with water it yields a volatile matter, which is of a narcotic quality, and of a very ungrateful odour.

It appears from Bergius, that Water-Hemlock, in its dried state, may be taken in a considerable quantity without producing any bad effect;^a but of the fatal effects of its root when fresh, numerous instances are recorded. Of two boys and six girls, who ate of this root for that of parsnep, the greater part died in a short time afterwards, those only escaping who were enabled to discharge it by vomiting. The symptoms it produced were intoxication, vertigo, great heat and pain in the stomach, convulsions, and even epilepsy, distortions of the eyes, vomiting or retching, a discharge of blood from the ears, swelling of the abdomen, hiccup, spasms, &c.^b In the case of a man who had eaten of this poisonous root, we are told the symptoms were vertigo, succeeded by delirium, with constant heat at the stomach, and inextinguishable thirst: these symptoms were of long continuance, and followed by an erysipelatous tumour of the neck.^d

To cite all the instances related of the deleterious effects of this root would be unnecessary, as those here stated from Wepfer will sufficiently show the train of symptoms which usually follow the taking of this poison. It may be observed however that in most of the cases in which it proved fatal, the patients died in a convulsed or epileptic state, and that whenever the root was rejected by vomiting, only a slight degree of stupefaction was for a few hours experienced.^e

^a Recentem cicutam nunquam adhibui; pilulas vero e succo cicutæ expresso & inspissato, cum pulvere foliorum formatas, dedi foeminæ, cancro vero mammarum laboranti, incipiendo a parca dosi, sensim ascendendo ad dracm. 3. quotidie; sed nullum effectum inde sensit, neque bonum, nec malum. Præscripsi famulo cuidam decoct. saturat. herbæ cicutæ ficcatae libr. 4. quod externe adhiberet, sed per errorem intra binas horas totam ebibit lagunculam, absque ullo tamen insequente damno." *Vide l. c.*

^b *Wepfer. l. c.*

^d See *Eph. Nat. Cur. Cent. 10. Obs. 58. p. 355.*

^e See *Bresl. Samml. 1722. p. 286.* Schwencke gives an account of four boys who had the misfortune to eat this root, three of whom died in convulsions; the other was saved by the timely administration of an emetic.

On examination of the bodies of those who perished by eating this root, we are told that the stomach and intestines were discovered to be inflamed, and even in a gangrenous or eroded state, and the blood-vessels of the brain much distended.^f

To several brutes this plant has likewise proved mortal; but the facts upon this point are somewhat vague and various. Though said to be a fatal poison to cows, it is eaten with impunity by goats and sheep.^g

As an internal medicine the *Cicuta aquatica* is universally superseded by the common hemlock; but externally employed in the way of a poultice, it is said to afford relief in various fixed pains, especially those of the rheumatic and arthritic kind.

^f Vide Wepfer, Schwencke, *Bresl. Samml.* 1722. p. 286. *Eph. Nat. Cur. Dec.* 2. a. 6. p. 321.

^g ———videre licet pinguescere sæpe cicuta

Barbigeras pecudes, hominique est acre venenum.

LUCRET.

Other medicinal plants of this Order, are

SYSTEMATIC NAMES.	OFFICIAL.	ENGLISH.
<i>Sanicula europæa</i>	<i>Sanicula</i>	Common Sanicle
<i>Tordylium officinale</i>	<i>Sefeli creticum</i>	Hartwort
<i>Athamanta cretensis</i>	<i>Daucus creticus</i>	Cretan Spignel
<i>Athamanta Oreofelinum</i>	<i>Oreofelinum</i>	Divaricated Spignel
<i>Peucedanum officinale</i>	<i>Peucedanum</i>	Sulphur-wort
<i>Laserpitium latifolium</i>	<i>Gentiana alba</i>	Broad leav'd Lasser-wort
<i>Laserpitium Siler</i>	<i>Siler montanum</i>	Mountain Lasser-wort
<i>Heracleum Sphondylium</i>	<i>Branca ursina</i>	Cow Parsnep
<i>Sium Ninfæ</i>	<i>Ninfæ</i>	Bastard Ginseng
<i>Sifon Ammi</i>	<i>Ammi verum</i>	True Bishopsweed
<i>Bubon macedonicum</i>	<i>Petrofelinum macedon.</i>	Macedonian Parsley
<i>Aethusa Meum</i>	<i>Meu</i>	Common Spignel
<i>Scandix Cerefolium</i>	<i>Cerefolium</i>	Chervil
<i>Chærophyllyum sylvestre</i>	<i>Cicutaria</i>	Common Cow-weed
<i>Sefeli tortuosum</i>	<i>Sefeli massiliense</i>	Hard Meadow Saxifrage
<i>Pastinaca fativa</i>	<i>Pastinaca</i>	Garden Parsnep
<i>Apium graveolens</i>	<i>Apium</i>	Smallage
<i>Bupleurum rotundifolium</i>	<i>Perfoliata</i>	Thorow-wax

GALUM

S T E L L A T Æ.

GALIUM APARINE.

CLEAVERS, or GOOSE GRASS.

SYNONYMA. Aparine. *Pharm. Murray.* vi. 24. *Dale.* 133. *Rutty.* 321. Aparine vulgaris. *Baub Pin.* 334. Aparine. *Ger. Emac.* 1122. *Park. Theat.* 567. *Ray. Syn.* 225. Galium caule ferrato, foliis senis linearibus lanceolatis ferratis, petiolis unifloris. *Hall. Hist. Stirp. Helv. n.* 723. Galium Aparine. *Scop. Fl. Carn. n.* 157. *Hudson. Flor. Ang.* 57. *Withering. Bot. Arr.* 157. *Lightfoot. Flor. Scot.* 117. *Flor. Dan. Icon.* 495. *Curt. Flor. Lond.*

Tetrandria Monogynia. *Lin. Gen. Plant.* 125.*Gen. Ch.* Cor. 1-petala, plana. *Sem.* 2, subrotunda.*Sp. Ch.* G. foliis octonis lanceolatis carinatis scabris retrorsum aculeatis, geniculis villosis, fructu hispido.

ROOT branched, fibrous, annual. Stalk quadrangular, three or four feet in height, weak, climbing, jointed branched: angles beset with short prickles, which are bent backwards, and fasten hold of neighbouring plants. Leaves standing at the joints of the stalk six or eight together, lanceolate, narrow, finely pointed, on the upper side rough, with sharp prickles. Flowers small, white, on rough footstalks. Calyx none. Corolla very small, wheel-shaped, divided into four oval pointed segments. Filaments four, white, shorter than the corolla. Antheræ yellow. Germen below the corolla, double, rough. Styles two, short. Stigmata globular. Fruit two dry roundish berries, slightly adhering together, covered with hooked prickles. Seeds solitary, kidney-shaped.

It is common in cultivated ground and hedges, producing its flowers from June till September.

This



Galium . Aparine



This succulent plant is destitute of odour, but to the taste it is bitterish, and somewhat acrid. Dioscorides ^a speaks of an ointment made of the bruised herb, mixed with lard, as an useful application to disperse stumorous swellings; and Gaspari,^b an Italian, adopted a similar practice with great success. He also informs us, that a decoction of the plant, employed in the way of fomentation, was found to be very efficacious in swellings of the glands of the neck, which followed a certain epidemic at Verona. Dr. Cullen, however, relates that he tried the Aparine in some glandular indurations, but without deriving any advantage.^c

It is said by Mayerne, that three ounces of the juice of the plant, taken twice a day in wine, were experienced to be an useful aperient and diuretic in incipient dropsies. But the character in which the Aparine has of late been chiefly esteemed, is that of an antiscorbutic; for this purpose, a tea-cupful of its expressed juice is to be taken every morning for nine or ten days. When the fresh plant cannot be procured, it may be used in a dried state as tea.^d

Other species of *Galium* have been used for the purposes of medicine, especially the *G. verum*, or yellow lady's bed-straw, the flowers of which have been recommended in hysterical and epileptic complaints. It has been asserted, that these flowers contain an acid, which coagulates milk; but neither Bergius, Cullen, nor Young, observed this effect from them, after repeated trials.

^a *M. M. Lib. 3. cap. 104.*

^b See *Osservazioni Storiche, Mediche, &c. 1731. p. 17.*

^c *M. M. vol. 2. p. 37.*

^d See *Med. & Philos. Commentaries. vol. 5. p. 326.* Also Edward's *Treatise on the Goose-grass, or Clivers, and its efficacy in the cure of the most inveterate Scurvy.*

Other medicinal plants of this Order, are

SYSTEMATIC NAMES.	OFFICINAL.	ENGLISH.
<i>Galium verum</i>	<i>Galium luteum</i>	Yellow Ladies bedstraw
<i>Galium Mollugo</i>	<i>Galium album</i>	White ditto
<i>Asperula odorata</i>	<i>Matrifylva</i>	Sweet Woodroof

C O N G L O M E R A T Æ.

VISCUM ALBUM.

MISSELTOE.

SYNONYMA. Viscus. *Pharm. Dale.* 313. *Alston.* ii. 53. *Lewis.* 666. *Edinb. New Dispensf.* 302. *Cullen.* ii. 47. *Murray.* i. 199. *Bergius.* 788. *Ger. Emac.* 153. *Ray. Syn.* 464. *Hist.* 1583. Viscum baccis albis. *Bauh. Pin.* 423. Viscum vulgare. *Park. Theat.* 1392. *Hall. n.* 1609. V. album. *Hudson. Flor.* Ang. 431. *Withering. Bot. Arr.* 1112. *IC. Mill. Illust.*

Dioecia Tetrandria. *Lin. Gen. Plant.* 1105.

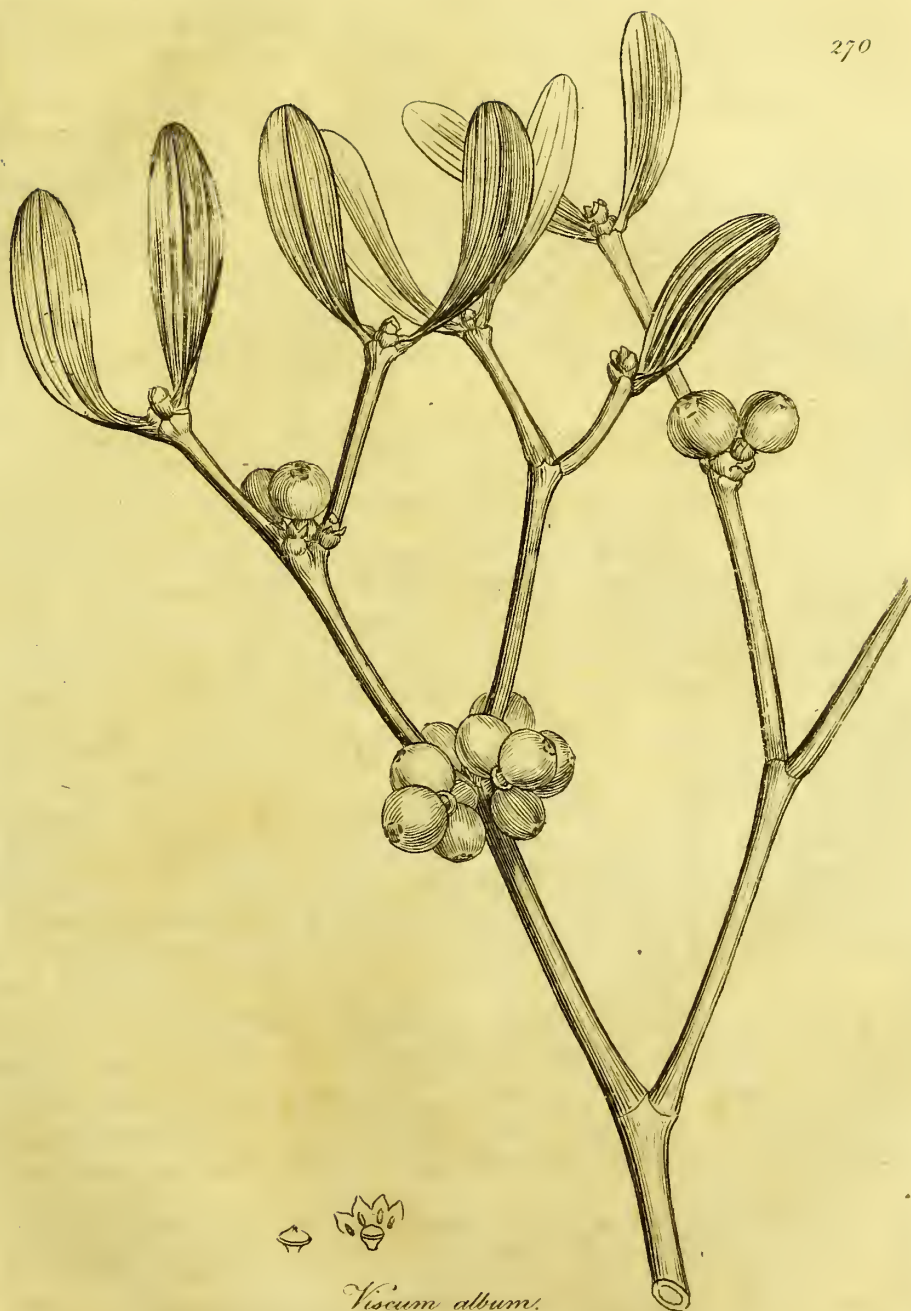
Gen. Ch. *MASC. Cal.* 4-partitus. *Cor.* o. *Filamenta* o. *Antherae* calyci adnatæ.

FEM. Cal. 4-phyllus, superus. *Cor.* o. *Stylus* o. *Bacca* 1-sperma, *Sem.* cordatum.

Sp. Ch. V. foliis lanceolatis obtusis, caule dichotomo, spicis axillaribus.

A PARASITICAL evergreen shrub, insinuating its radical fibres into the wood of the trees on which it grows. Branches numerous, regularly dichotomous, covered with smooth bark, of a yellowish green colour. Leaves spear-shaped, blunt, entire, striated, standing in pairs upon short footstalks. Flowers male and female in different plants, small, axillary, in close spikes. Calyx of the *male flower* divided into four ovate equal segments. Corolla none. Filaments none. Antherae four, oblong, attached to the calyx. Calyx of the *female flower* divided into four leaves, which are small, ovate, deciduous, placed on the common germen. Corolla none. Germen beneath, oblong, three-edged, indistinctly crowned with a border with four clefts. Style none. Stigma blunt, and somewhat notched.

Fruit



Viscum album.

Fruit a globular white smooth one-celled berry, containing a fleshy seed, which is inversely heart-shaped, blunt, compressed.

It grows on various kinds of trees, producing its flowers in May; but its berries remain throughout the winter.

This singular parasitical plant most commonly grows on apple trees, also on the pear, hawthorn, service, oak, hazel, maple, ash, lime-tree, willow, elm, hornbeam, &c. It is supposed to be propagated by birds, especially by the fieldfare and thrush, which feed upon its berries, the seeds of which pass through the bowels unchanged, and along with the excrements adhere to the branches of trees where they vegetate.*

The Mistletoe of the oak, has, from the times of the antient druids been always preferred to that produced on other trees; but it is now well known that the *viscus quernus* differs in no respect from others.

This plant is the *ξύον* of the Greeks, and was in former times thought to possess many medicinal virtues; however, we learn but little concerning its efficacy from the ancient writers on the *Materia Medica*; nor will it be deemed necessary to state the extraordinary powers ascribed to the Mistletoe by the crafty designs of druidical knavery.

“ Both the leaves and branches of the plant have very little smell, and a very weak taste of the nauseous kind. In distillation they impregnate water with their faint unpleasant smell, but yield no essential oil. Extracts, made from them by water, are bitterish, roughish, and subsaline. The spirituous extract of the wood has the greatest austerity, and that of the leaves the greatest bitterness. The berries abound with an extremely tenacious most ungrateful sweet mucilage.” §

The *Viscus Quernus* obtained great reputation for the cure of epilepsy; and a case of this disease, of a woman of quality, in which it proved remarkably successful, is mentioned by Boyle.^a Some years afterwards its use was strongly recommended in various convulsive disorders by Colbach, who has related several instances of

* Or if the berries, when fully ripe, be rubbed on the smooth bark of almost any tree, they will adhere closely and produce plants the following Winter.

§ *Lewis. l. c.*

^a See *Usefulness of Nat. & Exper. Philos.* 174.

its good effects.* He administered it in substance in doses of half a dram, or a dram, of the wood or leaves, or an infusion of an ounce.

This author was followed by others, who have not only given testimony of the efficacy of the Mistletoe in different convulsive affections, but also in those complaints denominated nervous, in which it was supposed to act in the character of a tonic. But all that has been written in favour of this remedy, which is certainly well deserving of notice, has not prevented it from falling into general neglect; and the Colleges of London and Edinburgh have, perhaps not without reason, expunged it from their catalogues of the *Materia Medica*.

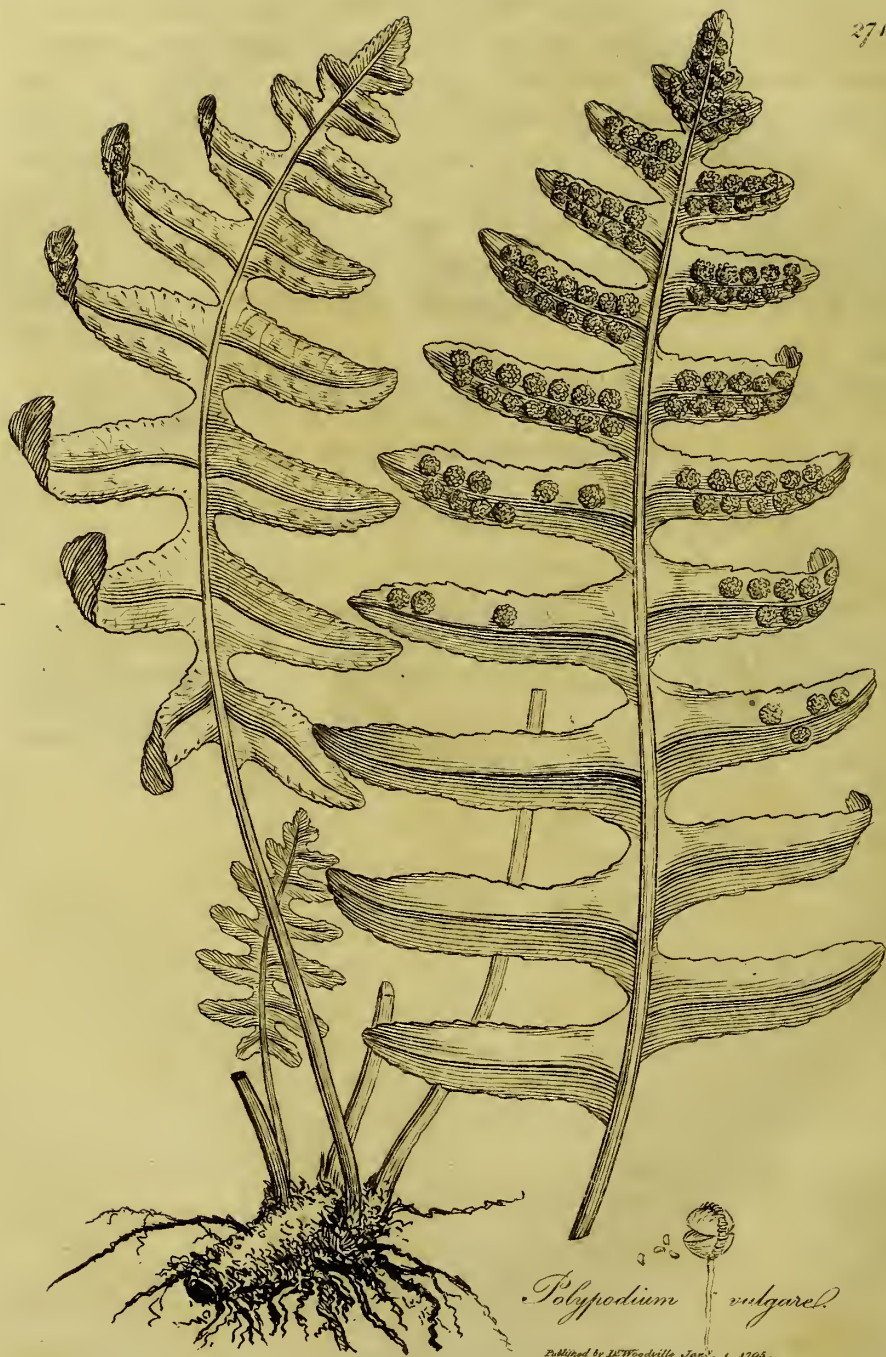
* *Dissertation concerning the Mistletoe, a most wonderful specifick remedy for the cure of convulsive distempers.*

Other medicinal plants of this Order, are

SYSTEMATIC NAMES.	OFFICINAL.	ENGLISH.
Poterium Sanguisorba	Pimpinella italica (berba)	Common Burnet
Sanguisorba officinalis	Pimpinella italica (radix)	Burnet Blood-wort
Plantago Psyllium	Psyllium	Clammy Plantain
Cuscuta europæa	Cuscuta	Common Dodder.
Cuscuta epithymum.	Epithymum.	Lesser Dodder.

FILICES.





Polypodium vulgare

Published by D. Woodville Jan. 1. 1795.

F I L I C E S.

POLYPODIUM VULGARE.

COMMON POLYPODY.

SYNONYMA. Polypodium. *Pharm. Dale.* 63. *Alston. i.* 496. *Rutty.* 405. *Lewis.* 519. *Edinb. New Dispensf.* 259. *Bergius.* 844. *Murray. v.* 449. *Gerard. Emac.* 1132. *Raii. Hist.* 137. *Synop.* 117. Polypodium foliis pinnatis lanceolatis radice squamata. *Hall. Hist. n.* 1696. Polypodium vulgare. *Baub. Pin.* 359. *Park. Theat.* 1039. *Hudson. Aug.* 387. *Withering. Bot. Arr.* iii. 55. *IC. Curtis. Lond.* *Bolton. Fil. Brit. t.* 18.

Cryptogamia Filices. *Lin. Gen. Plant.* 1179.

Gen. Ch. *Fructif.* in punctis subrotundis, sparsis per discum frondis.

Sp. Ch. P. frondibus pinnatifidis: pinnis oblongis subferratis obtusis, radice squamata.

ROOT perennial, creeping, in an horizontal direction, somewhat thicker than a goose's quill, externally yellowish, internally greenish, covered with brown scales, and beset with small tubercles, from which issue numerous fibres. Stalks or stipites smooth, tapering, grooved on the upper side. Frondes or leaves from half a foot to a foot in length, pinnated; pinnæ oblong, slightly serrated, obtuse. Capsules placed in a row on each side of the midrib of the leaf: they are of a roundish form, and granulated appearance, furnished with footstalks, and opening horizontally into two hemispheres, which are surrounded by an elastic ring. Seeds numerous, oval or reniform, yellow.

It grows on old walls, stumps and roots of trees, and various shady places, fructifying from June till October.

No. 13.—Part. II.

2 Q

“ The

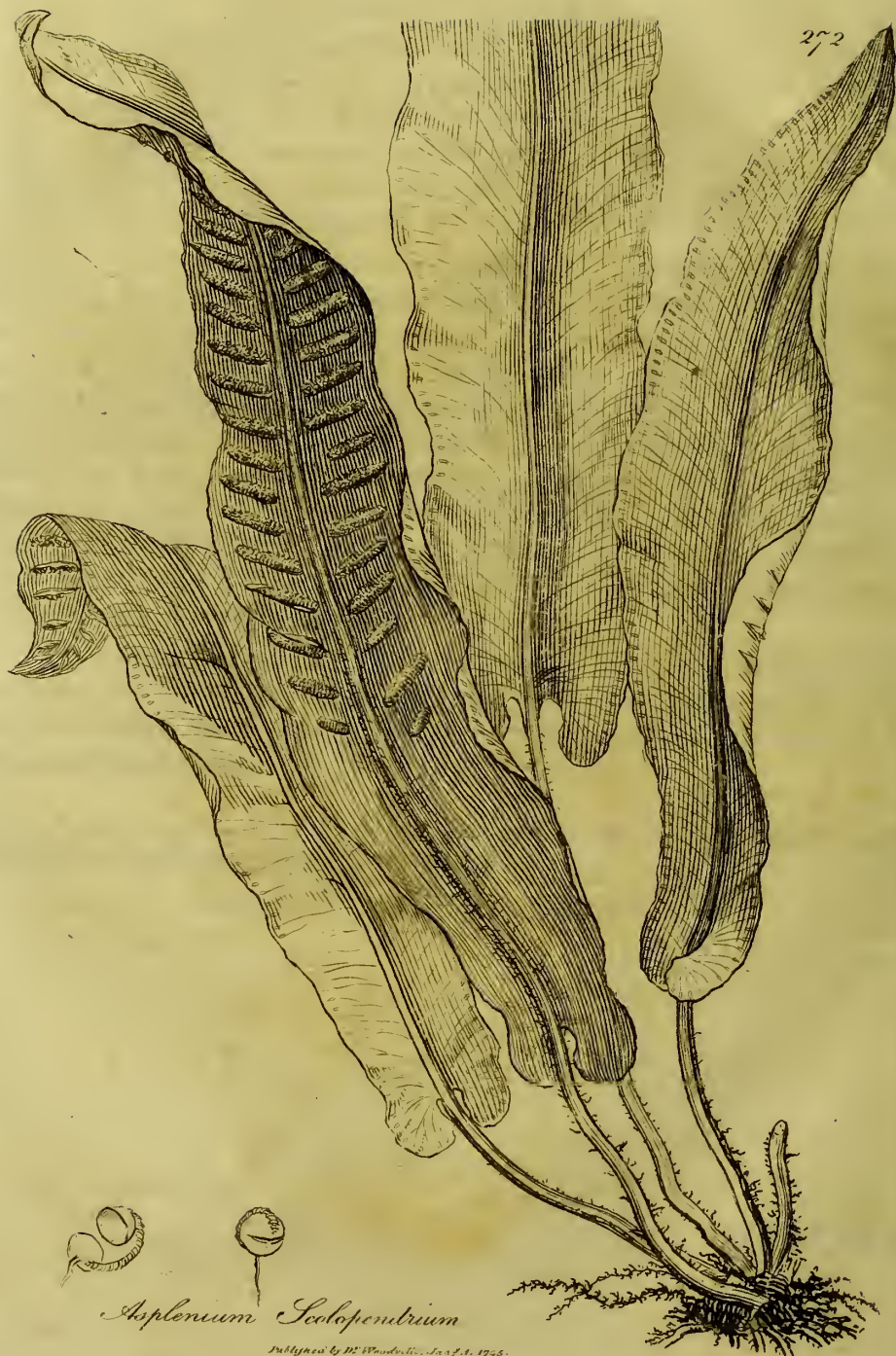
“ The leaves of Polypody have a weak ungrateful smell, and a nauseous sweet taste, leaving a kind of roughness and slight acrimony in the mouth. They give out their smell and taste, together with a yellow colour, both to water and rectified spirit: the spirituous tincture is sweeter than the watery; but in inspissation its sweetness is in great part destroyed, or covered by the other matter; the spirituous extract, as Cartheuser observes, being to the taste only subastringent and subacid, with very little sweetness, while the watery extract retains the full sweetness of the polypody.”^a

The root of the *Polypodium quercinum*, or those that grow on the oak, has been most esteemed for medicinal use, though no just reason can be assigned for this preference. By the ancients it was employed as a purgative, and thought to be peculiarly useful in expelling bile and pituitous humours; therefore much used in maniacal melancholical disorders; but to act as cathartic the root must be exhibited in its recent state, and in a large dose. Another character in which it has been recommended, and for which from its sensible qualities it seems to promise more advantage, is that of a demulcent or pectoral; thus joined with liquorice its good effects have been experienced in coughs and asthmatic affections.

However it is now rarely used in this country; nor have the French authors, Poissoner and Malouin,^b who have cited instances of its success in mania, been able to restore to it its antient reputation in this calamitous disorder.

^a *Lewis. l. c.* Gmelin tried to obtain sugar from this root, but without success. See *Dissert. Consideratio generalis filicium. p. 38.*

^b See *Med. de L'Acad. de Scien. de Paris. 1751.*



Asplenium scolopendrium

Published by W. Woodcutters, London, 1778.

ASPLENIUM SCOLOPENDRIUM.

HARTS-TONGUE.

SYNONYMA. Scolopendrium seu Lingua cervina. *Pharm. Ed.*
 Lingua cervina officinarum. *Baub. Pin.* 350. *Ger. Emac.* 1138.
Park. Theat. 1046. *Ray. Hist.* 134. *Synop.* 116. Asplenium
 petiolis hirsutis, folio longe lineari lanceolata, integerrimo circa
 petiolum exsicco. *Hall. Hist. n.* 1695. Asplenium, Frondes lan-
 ceolatae, &c. *Scop. Fl. Carn.* A. Scolopendrium. *Hudson. Flor.*
Ang. 384. *Withering. Bot. Arr.* iii. 51. *Ic. Bolton. Fil. Brit. t.*
 11. *Curt. Flor. Lond.*

Cryptogamia Filices. *Lin. Gen. Plant.* 1178.

Gen. Ch. *Fructific.* in lineolis disci frondis sparsis.

Sp. Ch. A. frondibus simplicibus cordato-lingulatis integerrimis, sti-
 tibis hirsutis.

ROOT perennial, furnished with numerous fibres, which are brown and subdividing. Stipites or stalks simple, beset with mossy hair, extending along the midrib. Leaves long, tongue-shaped, pointed, entire, smooth, often a foot in length, of a shining yellowish green colour, and waved at the margin. Fructifications placed in oblique lines on each side of the midrib of the leaf. Involucrum a membranous linear-shaped vesicle, opening longitudinally. Capsules numerous, on footstalks, globular, furnished with an elastic ring like those of Polypodium. The seeds, which are exceedingly minute, and very numerous, are thrown to a considerable distance by the vessel containing them, being violently forced open by the elastic power of the ring.

It grows on moist shady rocks, old walls, and at the mouths of wells and caverns, producing its fructifications in August and September.

Besides

Besides the names above-mentioned, this plant has also been called hemionitis and phyllitis: it is supposed to possess medicinal qualities in common with several other species of the same genus, as golden and common maiden hair, wall-rue, and common spleen-wort, which were termed the *five capillary herbs*, and formerly held in great estimation. To the taste they are slightly astringent, mucilaginous, and sweetish; and they change a solution of iron to a black colour; their smell is inconsiderable, except the scolopendrium, which, when recent, and rubbed, manifests a disagreeable odour.

They have been formerly used to strengthen the viscera, restrain hæmorrhages, and alvine fluxes, expel gravel, and to open obstructions of the liver and spleen; as well as for the general purposes of demulcents and pectorals, as noticed when speaking of common maidenhair, which with the present plant are the only two of the five capillary herbs retained in the *Materia Medica* of the *Edinburgh Pharmacopœia*.

The other Medicinal Plants of this Order, are

SYSTEMATIC NAMES.	OFFICIAL.	ENGLISH.
<i>Pteris aquilina</i>	<i>Filix femina</i>	Common Fern
<i>Adiantum capillus veneris</i>	<i>Capillus veneris</i>	True Maidenhair
<i>Asplenium Ceterach</i>	<i>Ceterach</i>	Common Spleenwort
<i>Asplenium ruta muraria</i>	<i>Ruta muraria</i>	Wall-rue
<i>Equisetum arvense</i>	<i>Equisetum</i>	Corn Horse-tail



Lecanora cominus

Redwood & Dr. Marshall, Amer. J., 1793

A L G Æ.

LICHEN CANINUS.

ASH-COLOURED GROUND
LIVERWORT.

SYNONYMA. Lichen cinereus terrestris. *Pharm. Dale.* 59. *Alston.* 353. *Lewis.* 386. *Ed. New Dispensf.* 219. *Murray.* v. 524. *Raii. Hist.* 117. *Synop.* 76. *Hall. Hist. n.* 1988. Lichen caninus. *Hudson. Flor. Ang.* 546. *Relban. Flor. Cant.* 434. *Withering. Bot. Arr.* iii. 203. *IC. Blackw.* 336. *Dill. Hist. Musc.* p. 200. t. 27. f. 102. *Flor. Dan.* 767.

Cryptogamia Algæ. *Lin. Gen. Plant.* 1202.

Gen. Ch. *MASC.* *Receptaculum* subrotundum; planiusculum, nitidum.

FEM. *Farina* foliis adspersa.

E. CORIACEI.

Sp. Ch. *L. coriaceus* repens lobatus obtusus planus: subtus venosus villosus, pelta marginali adscendente.

GROWING on the ground, consisting of creeping leaves, of a leather-like substance, greenish, or ash-coloured, and appearing as if covered with a farinaceous substance, about a span in length, one or two inches in breadth, widening towards their extremities, separated into lobes, which are short, blunt, single, or in strata; beneath woolly, veined, and attached by slender white fibres. Peltæ or targets round or oblong, terminal, hard, solid, ascending, of a reddish brown colour. It grows on heaths, dry pastures, and woods.

This vegetable has a weak faint smell, and a mucid sharpish taste. It was for a long time highly extolled as a medicine of singular virtue in preventing and curing that dreadful disorder which is produced by

the bite of rabid animals. The pulvis antilyssus, a powder composed of equal parts of this lichen and black pepper,^a was first recommended as a preservative against the rabies canina by Mr. Dampier, brother of the celebrated circumnavigator of that name; and by the authority of Sir Hans Sloane it was published in the Philosophical Transactions.^b This powder was afterwards adopted in the London Pharmacopœia in 1721, at the desire of Dr. Mead, who appears to have had repeated experience of its good effects, and who declares that he had never known it to fail where it had been used, with the assistance of cold bathing before the hydrophobia came on. He directs the patient to be bled to the extent of nine or ten ounces; afterwards a dram and a half of the powder is to be taken in the morning fasting in half a pint of cow's milk warm, for four mornings successively. After these four doses are taken, the patient is directed to go into the cold bath every morning for a month, and then three times a week for a fortnight longer.

On the character of Mead the pulvis antilyssus was long retained in the London Pharmacopœia; but on the revision of that book in 1788 it was deservedly expunged.

^a This was the original composition; but the quantity of pepper rendering the medicine too hot, the powder was prepared of two parts of the lichen and one of pepper.

^b Vol. 20. p. 49. In the *History of the Royal Society* we are told that a dog became rabid, and bit several other dogs belonging to the Duke of York; but by the timely administration of this lichen, they were all preserved from madness. Vol. 492. and vol. 3. 19.



Boletus ignicarius

F U N G I.

BOLETUS IGNIARIUS.

TOUCHWOOD BOLETUS,
Or AGARIC.

SYNONYMA. Agaricus chirurgorum. *Pharm. Edinb.* Agaricus quernus. *Pharm. gener.* Fungus in caudicibus nascens, unguis equini figura. *Baub. Pin.* 372. Polyporus sessilis, convexo-planus, durissimus, cinereus, inferne albus. *Hall. Helv. n.* 2288. *Raii. Synop.* 22. n. 7. B. igniarius. *Hudson. Flor. Ang.* 625. *Withering. Bot. Arr.* iii. 425. *Lightfoot. Flor. Scot.* 1034. *IC. Flor. Dan.* 953. *Bulliard.* 82. & 491. *Schæffer.* 137, 138 *Battarra.* 37. f. e.

Cryptogamia Fungi. *Lin. Gen. Plant.* 1210.*Gen. Ch.* Fungus horizontalis: subtus porosus.* *PARASITICI, ACAULES.**Sp. Ch.* B. acaulis pulvinatus lævis, poris tenuissimis.

TUBES green, grey, red; or brownish. *Pores* yellowish, changing to red brown, very fine. *Pileus* shaped like a horse's hoof, smooth, blackish. *With. l. c.*

This fungus is sessile, horizontal, consisting of a very hard woody substance, shaped somewhat like a horse's hoof; on the upper side smooth, but marked with circular ridges of different colours: the under side is flat, white, or yellowish, full of very minute pores: the internal substance is fibrous, hard, tough, of a tawny brown colour. Seeds oval, contained in the tubes.

Tubes very slender, equal, colour of tanned leather; in old plants stratified, a fresh layer being added every year. *Pileus* very hard, admitting

admitting of a polish by rubbing; marked with concentric bands or ridges, each broad ridge indicating a year's growth, and three or four small ones that of the different seasons of the year, varying extremely in colour. *Flesh* fibrous. *Bulliard*.

It grows on the trunks of trees, and varies in size from two to seven or eight inches in diameter.

This fungus has been specifically named *Ignarius*, from being used in some places as tinder. For this purpose the Germans boil it in strong lye, dry it, and boil it again in a solution of saltpetre.^a

This Agaric has been much used by surgeons as an external styptic, and that produced on the oak has been generally preferred. Its use was first borrowed from the French; and it was successively recommended by Broffard, Morand, Bouquot, Faget, Rochard, De Mey, who employed it not only to restrain the bleedings in wounds, but to prevent hæmorrhages after amputations, which it is reported to have done as effectually as the ligature. Several English surgeons have also published cases in which the Agaric was successfully used, as Sharp, Warner, Gooch, and others.

It must not be concealed, however, that several others, soon after the introduction of the use of the Agaric in this country, declared it to be an ineffectual application; and at this day, though it may be useful in certain cases, yet in hæmorrhages from the larger arteries, the ligature is the only remedy depended on both in France and England.

To prepare the Agaric for surgical purposes, the hard outer part is cut off, and the soft inner substance is divided into pieces of different sizes, and beat with a hammer to render it still softer.

^a We are informed by Gleditch, that in Franconia they beat pieces of the inner substance of this fungus, so as to resemble soft leather, and sew them together to form garments.

In order that this work should contain the whole of the vegetable MATERIA MEDICA, included in the LONDON and EDINBURGH PHARMACOPOEIAS, it has been thought necessary to add the following

A P P E N D I X.

AMMONIACUM (gummi resina) *Pharm. Lond. & Edinb.*

THIS concrete gummy-resinous juice is composed of little lumps, or tears, of a milky whiteness: the external parts of the mass are yellowish or brownish, and the white tears change to the same colour on being exposed for some time to the air.

We have hitherto had no information concerning the plant which produces this drug, nor of the manner in which it is obtained: judging however from the seeds and pieces of an umbelliferous plant, with which it is often intermixed, there is no doubt of its being the produce of a vegetable of this kind; and as Ammoniacum is very analogous to galbanum, the former, as well as the latter, is probably procured from a species of the Bubon. According to the antient account of this drug, it was produced in the west of Egypt, where the famous temple of Jupiter Ammon formerly stood, now the kingdom of Barca. At present it is brought here from Turkey, and from the East Indies.

Ammoniacum has a strong and somewhat ungrateful smell, and a nauseous sweetish taste, followed by bitterness. Its effects are similar to those of galbanum, or rather of assafoetida, but it has been generally preferred to either of these for resolving obstructions of the lungs; hence it is chiefly employed in asthmas and difficulty of expectoration. In large doses it opens the bowels.

ANGUSTURA (cortex) *Pharm. Edinb.*

ANGUSTURA Bark is imported here in thin convex pieces, of about an inch and an half or less in breadth, and about six inches in length. It is not fibrous, but hard, compact, of a yellowish brown colour, and covered with a whitish uneven epidermis. Reduced to powder it has the yellow appearance of rhubarb. To the taste it manifests a bitterish and an aromatic quality, leaving a sensation of heat upon the tongue, which continues for some time. Its odour, when recent, is said to be ungrateful, but in its dried state this is not perceptible. An ounce of this bark affords, by means of alcohol, about two drams of a resinous bitter extract; and nearly three drams and an half of a gummy extract may be obtained from the like quantity, by water.

Some have contended that this drug should be called Augustine, from St. Augustin in East Florida; but it seems more properly named Angustura, which is a place in South America, whence it was brought by the Spaniards to the Island of Trinidad.

From what tree it is obtained we find no certain account. It has been supposed to be the bark of the *Magnolia glauca*; but, with more probability, it has been since thought to be that of the *Brucea antidysenterica*; (see *Bruce's Travels*, &c. vol. 5. p. 69. and *J. F. Miller*, tab. 25.) or *Brucea ferruginea* of L'Heritier and Aiton: (*Hort. Kew.* iii. 397) for the description of the bark of this tree, given by Mr. Bruce, agrees very well with the cortex angusturæ; and as far as can be judged by the bark of a living plant of this species, now growing in the Royal Garden at Kew, this opinion is still further confirmed.

During the last five years, in which the Angustura bark has been known as a medicine in this country, it has been successfully used in the characters of a febrifuge, tonic, and astringent. In intermittents it has been found equally effectual as Peruvian bark, and generally more acceptable to the stomach; and in cases of diarrhæa, dyspepsia, scrophula, and great debility, it has been found to be an useful remedy. (See *Brande, in London Med. Journal for 1790.*)

BALSAMUM PERUVIANUM. *Pharm. Lond. & Edinb.*

THE tree which produces this balsam was not botanically ascertained till the year 1781, when a specimen of it was sent by Mutis, from Terra Firma, to the younger Linnæus, who has described it in the *Supplementum plantarum* under the name of *Myroxylon peruiferum*. Its synonyma are Hoitziloxitl. *Hernand. Thes. rer. Med. Nov. Hisp. p. 51. cum fig.* and Cabureiba Pif. *Ind. Hist. Nat. et Med. p. 119.*

It grows in Peru, Brasil, Mexico, and Terra Firma.

Two kinds of this balsam are imported here; the common or black, and the white. The first, which is chiefly used, is about the consistence of a syrup, of a dark opaque reddish brown colour, inclining to black, and of an agreeable aromatic smell, and a very hot pungent taste.

Balsam of Peru is a very warm aromatic medicine, hotter than any of the other natural balsams; hence, in cold phlegmatic habits, it has been given to warm the constitution, strengthen the nervous system, and attenuate viscid humours. It has been also used by surgeons in certain wounds and ulcers.

The White Balsam of Peru, or white storax, is brought here in gourd shells, and is of a pale yellow colour, thick, and tenacious, becoming by age solid and brittle.

This balsam is less hot than the former, but of a more agreeable fragrant smell, approaching somewhat to that of storax.

BALSAMUM CANADENSE. *Pharm. Lond. & Edinb.*

THIS balsam is the resinous juice of the *Pinus Balfamea*, or Balm of Gilead Fir; a tree now well known in this country: which should have been figured with the other pines, but the drawing of it was at that time unfortunately mislaid.

This balsam, which is transparent, of a light amber colour, and tolerably firm consistence, is brought to this country from Canada; and hence receives the name of Canada balsam. It may be considered

sidered as one of the purest of the turpentine; and on this account it has lately been received into the *Materia Medica*; and from being less offensive to the stomach, promises to supersede the balsam of Copaiva.

CASSIA LIGNEA. (*cortex, flores nondum explicatæ.*) *Pharm. Edinb.*

IN the Edinburgh Pharmacopœia this is referred to the *Laurus Cassia*; but we have already stated the cassia to be only a variety of the *Cinnamomum*, and late observations tend to confirm this opinion. As a medicine it is certainly in every respect inferior to cinnamon.

COLOMBA (*radix*) *Pharm. Lond. & Edinb.*

SYNONYMA. Calumba. Redi, Exp. circa varias res naturales, 1685.

p. 142. Raijs de Mosambique of the Portuguese.

WE have no botanical account of the vegetable which furnishes this root. It is brought from Colomba in Ceylon in knobs, or circular pieces, brown, and wrinkled on the outer surface, yellowish within, and consisting of cortical, woody, and medullary lamina. Its smell is aromatic; its taste is pungent, and nauseously bitter.

Practitioners in the East Indies first borrowed the use of this root from the natives of those countries where it is produced, and found it of great service in most disorders of the stomach and bowels, and especially in the cholera, so fatal in hot climates. It stopped the vomiting in this complaint, more speedily and effectually than any other medicine; an effect attributed to its property of correcting the putrid disposition of the bile. With this intention its use has been recommended by Dr. Percival; and it has been successfully used in this country, not only in bilious complaints, but in various cases of dyspepsia.

CUBEBA

CUBEBA. *Pharm. Lond. & Edinb.*

IT is generally admitted that this is a species of pepper, and in the Supplementum plantarum a description of the Piper Cubeba, a shrub growing in the woods of Java, is given: but we have no certain account that this is the species which furnishes the officinal cubebs; nor have we any information of the manner in which this fruit is collected.

The long footstalk attached to the Cubeba distinguishes it at first sight from the other kinds of pepper, and hence it has been called Piper caudatum. Though still retained in both the British Pharmacopœias, it is much inferior to pepper, and has justly fallen into disuse.

ELEMI (resina) *Pharm. Lond.*

THE London College refers this resin to the Amyris Elemifera of Linnæus; but this celebrated naturalist, in applying the name Elemifera to Catesby's Frutex trifolius resinofus floribus tetrapetalis albis racemosis, has since acknowledged himself to have been mistaken; as appears in the Amœn. Acad. vol. 7. where he supposes the Elemi to be produced by a species of Bursera.

However, the parent plant of this resin is still unascertained.

Elemi is brought here from the Spanish West Indies; it is most esteemed when softish, somewhat transparent, of a pale whitish colour, inclining a little to green, and of a strong, though not unpleasant smell.

Its use is confined to ointments and plasters.

GAMBOGIA (gummi-resina) *Pharm. Lond. & Edinb.*

BY the industry of Kœnig, a physician who resided many years at Tranquebar, it has been lately discovered that the genuine Gamboge is the concrete juice of a tree which constitutes a new genus, under the name Stalagmitis (*Schr. Gen.* 1585). It belongs to the class Polygamia monœcia, and is fully described by Professor Murray in the Comment. Gotting. (9. p. 175.) and App. Med. Vol. 4.

The Cambogia gutta of Linnæus, according to Kœnig, also affords a yellow juice ; but this, on drying, acquires a brownish hue, and is considered as a spurious kind of Gamboge.

Gamboge is brought from the East Indies, and is well known to operate powerfully both upwards and downwards. Geoffroy says, that its emetic tendency is counteracted, if given in combination with mercurius dulcis, and that it may be given with less danger from its violence, in a liquid form than in substance. In hydropic cases it is often used to quicken the operation of other purgatives.

Though the ordinary dose of this cathartic is two or three grains, yet for the expulsion of the tape worm it has been given, with an equal quantity of vegetable alkali, to the extent of fifteen grains.

KINO (resina) *Pharm. Lond. & Edinb.*

Seu gummi rubrum astringens gambiense.

THE tree, from which this resin is obtained, though not yet botanically ascertained, is known to grow on the banks of the river Gambia, in Africa. The first account of this drug is related by Moor in his "*Travels into the interior parts of Africa*," *Ed. 2. p. 113.* by which we learn, that on wounding the bark of the tree, the fluid Kino immediately issues drop by drop, and by the heat of the sun is formed into a hard mass. This, which was for some time considered as a species of sanguis draconis, was afterwards fully explained, and its medical character established, by Dr. John Fothergill. (*Med. Obs. & Inq. vol. 1.*)

Kino has a considerable resemblance to catechu, but redder, and is more firm, resinous, and astringent. It is now in common use, and is the most efficacious vegetable astringent, or styptic, in the *Materia Medica*.

MYRRHA (gummi-resina) *Pharm. Lond. & Edinb.*

THOUGH Mr. Bruce (*Travels to discover the Source of the Nile, vol. 5. 27.*) was unable to obtain a botanical specimen of the tree which

which produces Myrrh, yet, from his account of it, we have no doubt in referring it to the genus *mimosa*; for in his opinion it very nearly resembles the *acacia vera*, which is the *mimosa nilotica* figured by us in the second volume of Medical Botany; and this corresponds with the description of the tree given by Dioscorides. The trees producing Myrrh grow on the eastern coast of Arabia Felix, and in that part of Abyssinia which is situated near the Red Sea, and called by Mr. Bruce Troglodyte. The same author says, “ In order to have Myrrh of the first or more perfect sort, the
 “ Savages chuse a young vigorous tree, whose branches are without
 “ moss or any parasite plant, and above the first large branches give
 “ the tree a deep wound with an axe. The Myrrh which flows the
 “ first year through this wound is Myrrh of the first growth; and
 “ never is in any great quantity. This operation is performed some-
 “ time after the rains have ceased, that is, from April to June, and
 “ the Myrrh is produced in July and August. The sap, once
 “ accustomed to issue through the gash, continues so to do spon-
 “ taneously at the return of every season: but the tropical rains,
 “ which are very violent, and continue six months, wash so much
 “ dirt, and lodge so much water in the cut, that in the second year
 “ the tree has begun to rot and turn foul in that part, and the Myrrh
 “ is of a second quality, and sells in Cairo about a third cheaper than
 “ the first. The Myrrh also produced from gashes near the roots,
 “ and in the trunks of old trees, is of the second growth and quality,
 “ and sometimes worse. This, however, is the good Myrrh of the
 “ Italian shops every where in Venice. It is of a black red foul
 “ colour, solid, and heavy, losing nothing in weight, and easily
 “ distinguished from that of Arabia Felix. The third and worst kind
 “ is gathered from old wounds or gashes formerly made in old trees,
 “ or Myrrh that, passing unnoticed, has hung upon the tree a whole
 “ year, of a black earth-like colour, heavy, with little smell or bit-
 “ terness.” (*Phil. Transf. vol. 65.*)—Mr. Bruce also says, that *assa-
 gum* is fraudulently mixed with the Myrrh.

The medical effects of Myrrh are warm, corroborant, and antiseptic; it has also been successfully employed in phthical cases as a pectoral; and though allied to some of the balsams, it is found to be more efficacious and less irritating to the system.

PALMA (fructus oleum expreffum) *Pharm. Edinb.*

PALM Oil is produced chiefly from the *Cocos butyracea*, thus specifically named from the butter-like appearance of the oil which it yields. It is well known, however, that other palms furnish this unctuous substance, as the *Elaeis Guineensis* L. (see *Jacquin*); also "The palm-oil tree" of Sloane, or *Palma oleosa* of Hughes. To these we may add the *Palma dactylifera aculeata fructu corallino* major of Barrere (*de la France equinoxiale*), and the spinous palms (*Palmiers Avoira*) mentioned by Aublet (*Guiane Franc. tom. 2. App. p. 95.*)

In the *Supplementum plantarum* we find not only a full description of the *Cocos butyracea*, on the authority of Mutis, but also an account of the method used to obtain the oil by the inhabitants of the warmer parts of America, where this palm is a native.

The fruit of this palm, which is triangular, yellow, and about the size of a plum, is bruised and thrown into water, by which the kernels are gradually dissolved without the aid of heat; the oil then rises to the surface, and on being washed two or three times is rendered fit for use.

When brought to this country, it is of the consistence of an ointment, and of an orange yellow colour, with little taste, and of a strong though not disagreeable smell. When it becomes white it is rancid, and ought to be rejected. In the countries where this oil is produced, it is used for culinary and dietetic purposes; with us it has been confined to external application, in pains, tumours, and sprains; but it seems to have no advantage over the other bland oils.

SAGAPENUM (gummi-resina) *Pharm. Lond. & Edinb.*

IT is conjectured that this concrete juice is the production of an umbelliferous plant, like ammoniacum, and for the same reasons. It is brought from Persia and Alexandria in large masses, externally yellowish, internally paler, and of a horny clearness. Its taste is hot and biting, its smell of the alliaceous or foetid kind.

Its virtues are similar to those which we have ascribed to assafoetida, but weaker, and consequently it is less powerful in its effects.

SARCACOLLA

SARCOCOLLA (gummi-refina) *Pharm. Lond.*

LINNÆUS supposes this to be produced by the *Penæa mucronata*, an Ethiopian shrub of the order conglomeratæ. Others however have, in this instance, doubted his authority, and the fact is still undetermined.

Sarcocolla is a concrete juice, brought from Persia and Arabia in small grains of a pale yellow, having also sometimes mixed with them a few of a deep red colour. Its taste is bitter, but followed with some degree of sweetness. It has been chiefly used for external purposes, and, as its name imports, has been thought to conglutinate wounds and ulcers; but this opinion now no longer exists.

It is an ingredient in the pulvis à cerussa.

RADIX INDICA LOPEZIANA. *Pharm. Edinb.*

THIS root is called after Lopez, a Portuguese, who, according to Redi, found it growing in the province of Zanzibar in Africa; but Gaubius states it to be a native of Asia, and brought from Goa in Malacca to Batavia.

To what tree this root is to be referred we have not the means to determine.

The root is brought in pieces of eight or nine inches in length, and from one to two inches in thickness, though generally smaller, consisting of a whitish or straw-coloured light wood, having a brownish firm medullary substance. Its bark is soft, wrinkled, brown, somewhat spongy, and covered with a thin yellowish epidermis.

This root, which possesses no remarkably sensible qualities, is regarded in the East Indies as a medicine of extraordinary efficacy in diarrhoeas; and the numerous trials of it, made by Gaubius and others, have tended greatly to confirm its reputation.

Its dose, in powder, is from 15 to 30 grains, repeated three or four times a day.

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