MEDICAL BOTANY,

CONTAINING

SYSTEMATIC AND GENERAL DESCRIPTIONS,

WITH

PLATES OF ALL THE MEDICINAL PLANTS,

INDIGENOUS AND EXOTIC,

COMPREHENDED IN THE

CATALOGUES OF THE MATERIA MEDICA,

AS PUBLISHED BY THE

ROYAL COLLEGES OF PHYSICIANS OF LONDON AND EDINBURGH:

ACCOMPANIED WITH A

CIRCUMSTANTIAL DETAIL OF THEIR MEDICINAL EFFECTS,

AND OF THE

DISEASES IN WHICH THEY HAVE BEEN MOST SUCCESSFULLY EMPLOYED.

By WILLIAM WOODVILLE, M. D.

FELLOW OF THE LINNEAN SOCIETY,

OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON,

AND

PHYSICIAN TO THE SMALL-POX AND INOCULATION HOSPITALS.

IN THREE VOLUMES.

VOL. II.

——— *et herbarum subjecta potentia nobis.* OVID.

LONDON:

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

M. DCC. XCII.

TO

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

PRESIDENT OF THE LINNEAN SOCIETY,

AND

POSSESSOR OF THE LINNEAN COLLECTION.

SIR,

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

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

WM. WOODVILLE.

PENTONVILLE,
February 20th, 1792.

CATALOGUE II.

In which all the PLANTS compoſing the MATERIA MEDICA, as referred to by the COLLEGES of LONDON and EDINBURGH, are arranged according to their Botanical Affinities or Natural Orders, adopted by Profeſſor MURRAY.

I. CONIFERÆ.

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
Pinus *ſylveſtris*	Scotch Fir	Pix liquida
—— *Picea*	Silver Fir Tree	Terebinthina vulgaris
—— *Abies*	Norway Spruce Fir Tree	Pix Burgundica
—— *Larix*	Common White Larch Tree	Terbinthina veneta
Juniperus *communis*	Common Juniper	Juniperus
—— *Lycia*	Olibanum Juniper	Olibanum, *gummi reſinæ*
—— *Sabina*	Common Savin	Sabina

II. *AMENTACEÆ.*

Salix *fragilis*	Crack Willow	Salix
Juglans *regia*	Common Wallnut Tree	Juglans
Quercus *Robur*	Common Oak Tree	Quercus
Piſtacia *Terebinthus*	Common Turpentine Tree	Terebinthina chia
—— *Lentiſcus*	Common Maſtich Tree	Maſtiche

III. *COMPOSITÆ.*

Arctium *Lappa*	Common Burdock	Bardana
Centaurea *benedicta*	Holy Thiſtle	Carduus benedictus
Leontodon *Taraxacum*	Common Dandelion	Taraxacum
Artemiſia *Abrotanum*	Common Southernwood	Abrotanum
—— *Abſinthium*	Common Wormwood	Abſinthium
—— *vulgaris*	Common Mugwort	Artemiſia
—— *maritima*	Sea Wormwood	Abſinthium maritimum
—— *Santonica*	Tartarian Wormwood	Santonicum
Tanacetum *vulgare*	Common Tanſy	Tanacetum
Tuſſilago *Farfara*	Colt's Foot	Tuſſilago
Anthemis *nobilis*	Common Camomile	Chamæmelum
—— *Pyrethrum*	Pellitory of Spain	Pyrethrum
Inula *Helenium*	Elecampane	Enula campana
Arnica *montana*	Mountain Arnica	Arnica
Achillea *Millefolium*	Common Yarrow	Millefolium

IV. *AGGREGATÆ.*

Systematic Names.	English.	Officinal.
Valeriana *officinalis*	Officinal Valerian	Valeriana ſylveſtris

V. *CONGLOMERATÆ.*

Plantago *major*	Great Plantane	Plantago

VI. *UMBELLATÆ.*

Eryngium *maritimum*	Sea Eryngo	Eryngium
Daucus *Carota*	Wild Carrot	Daucus ſylveſtris
Conium *maculatum*	Common Hemlock	Cicuta
Ferula *Aſſa fœtida*	Aſafœtida Gigantic Fennel	Aſafœtida, *gummi reſina*
Angelica *Archangelica*	Garden Angelica	Angelica
Bubon *Galbanum*	Lovage-leaved Bubon	Galbanum, *gummi reſina*
Cuminum *Cymynum*	Cumin	Cuminum
Coriandrum *ſativum*	Common Coriander	Coriandrum
Sium *nodiflorum*	Creeping Water Parſnep	Sium
Imperatoria *Oſtruthium*	Common Maſterwort	Imperatoria
Paſtinaca *Opopanax*	Rough Parſnep	Opopanax, *gummi reſina*
Anethum *graveolens*	Common Dill	Anethum
——— *Fœniculum*	Common Fennel	Fœniculum
Carum *Carui*	Common Carraway	Caruon
Pimpinella *Saxifraga*	Small Burnet Saxifrage	Pimpinella
——— *Aniſum*	Aniſe	Aniſum
Apium *Petroſelinum*	Common Parſley	Petroſelinum

VII. *HEDERACEÆ.*

Vitis *vinifera*	Common Vine	Vitis
Panax *quinqefolium*	Ginſeng	Ginſeng

VIII. *SARMENTACEÆ.*

Smilax *Sarſaparilla*	Sarſaparilla Smilax	Sarſaparilla
Ciſſampelos *Pareira*	Pareira brava Ciſſampelos	Pareira brava
Ariſtolochia *Serpentaria*	Snakeroot Birthwort	Serpentaria virginiana
——— *clematitis*	Upright Birthwort	Ariſtolochia tenuis
Aſarum *europæum*	Aſarabacca	Aſarum

IX. *STELLATÆ.*

Rubia *tinctorum*	Dyer's Madder	Rubia tinctorum
Spigelia *marilandica*	Perennial Worm-graſs	Spigelia marilandica

X. *CYMOSÆ.*

XI. *CUCURBITACEÆ.*

SYSTEMATIC NAMES.	ENGLISH.	OFFICINAL.
Cucumis *Colocynthis*	Bitter Cucumber	Colocynthis
Momordica *Elaterium*	Wild Cucumber	Cucumis agreſtis
Bryonia *alba*	White Briony	Bryonia

XII. *SALONACEÆ.*

Solanum *Dulcamara*	Woody Nightſhade	Dulcamara
Atropa *Belladonna*	Deadly Nightſhade	Belladonna
Hyoſcyamus *niger*	Black Henbane	Hyoſcyamus
Datura *Stramonium*	Common Thorn Apple	Stramonium
Nicotiana *Tabacum*	Tobacco	Nicotiana
Capſicum *annuum*	Annual Capſicum	Piper indicum
Verbaſcum *Thapſus*	Common Mullein	Verbaſcum
Digitalis *purpurea*	Common Foxglove	Digitalis

XIII. *CAMPANACEÆ.*

Convolvulus *Scammonia*	Scammony Bindweed	Scammonium
——— *Jalappa*	Jalap Bindweed	Jalapium
Lobelia *ſiphilitica*	Blue Lobelia	Lobelia
Viola *odorata*	Sweet Violet	Viola

XIV. *CONTORTÆ.*

Cinchona *officinalis*	Peruvian Bark Tree	Peruvianus cortex

XV. *ROTACEÆ.*

Gentiana *lutea*	Yellow Gentian	Gentiana
Chironia *Centaurium*	Leſſer Centaury	Centaurium minus
Menyanthes *trifoliata*	Buck-Bean	Trifolium paludoſum

XVI. *SEPIARIÆ.*

Olea *europæa*	Common European Olive	Oliva

XVII. *BICORNES.*

Arbutus *Uva urſi*	Bear-Berry	Uva urſi
Styrax *officinale*	Storax Tree	Styrax, *reſina*
Styrax *Benzoin*	Gum Benjamin Tree	Benzoe, *reſina*
Santalum *Album*	Yellow Saunders Tree	Santalum Citrinum

XVIII. *ASPERIFOLIÆ.*

Anchuſa *tinctoria*	Dier's Bugloſs	Anchuſa

XIX. *VERTICILLATÆ.*

Systematic Names.	English.	Officinal.
Teucrium *Marum*	Herb Maſtich	Marum ſyriacum
——— *Scordium*	Water Germander	Scordium
Thymus *vulgaris*	Garden Thyme	Thymus
——— *Serpyllum*	Wild Thyme	Serpyllum
Meliſſa *officinalis*	Common Balm	Meliſſa
Hyſſopus *officinalis*	Common Hyſſop	Hyſſopus
Lavandula *Spica*	Common Lavender	Lavendula
Origanum *vulgare*	Common Majoram	Origanum
——— *Marjorana*	Sweet Marjoram	Marjorana
Mentha *piperita*	Pepper-Mint	Mentha piperitis
——— *viridis*	Spear-Mint	——— ſativa
——— *Pulegium*	Pennyroyal-Mint	Pulegium
Marrubium *vulgare*	Common Horehound	Marrubium
Salvia *officinalis*	Garden Sage	Salvia
Roſmarinus *officinalis*	Roſemary	Roſmarinus
Glecoma *hederacea*	Ground Ivy	Hedera terreſtris

XX. *PERSONATÆ.*

Gratiola *officinalis*	Hedge-Hyſſop	Gratiola
Veronica *Beccabunga*	Brooklime	Becabunga

XXI. *RHOEADES.*

Papaver *Rhœas*	Red Poppy	Papaver erraticum
——— *ſomniferum*	Common White Poppy	Papaver album, Opium

XXII. *PUTAMINEÆ.*

XXIII. *SILIQUOSÆ.*

Siſymbrium *Naſturtium*	Water-Creſſes	Naſturtium aquaticum
Cardamine *pratenſis*	Ladies-Smock	Cardamine
Sinapis *nigra*	Common Muſtard	Sinapi
Cochlearia *officinalis*	Scurvy-Graſs	Cochlearia hortenſis
——— *Armoracia*	Horſe-Radiſh	Raphanus ruſticanus

XXIV. *PAPILIONACEÆ.*

Dolichos *pruriens*	Cowhage Dolichos	Dolichos
Geoffroya *inermis*	Smooth Baſtard Cabbage-tree	Geoffræa
Spartium *ſcoparium*	Common Broom	Geniſta

Systematic Names.	English.	Officinal.
Glycyrrhiza *glabra*	Common Liquorice	Glycyrrhiza
Aſtragalus *Tragacantha*	Goats Thorn Milk Vetch	Tragacantha, *gummi*
Trigonella *Fœnum græcum*	Common Fenugreek	Fœnum græcum
XXV. *LOMENTACEÆ.*		
Caſſia *Senna*	Senna Caſſia	Senna
—— *Fiſtula*	Purging Caſſia	Caſſia fiſtularis
Mimoſa *Catechu*	Catechu Mimoſa	Catechu, *extractum*
—— *nilotica*	Egyptian Thorn Mimoſa	Arabicum, *gummi*
Tamarindus *indica*	Tamarind Tree	Tamarindus
Hæmatoxylum *campechianum*	Logwood Tree	Lignum Campechenſe
Polygala *Senega*	Rattleſnake-Root Milk-Wort	Seneka
Fumaria *officinalis*	Common Fumitory	Fumaria
XXVI. *MULTISILIQUÆ.*		
Aconitum *Napellus*	Common Wolf's-Bane	Napellus
Delphinium *Staphiſagria*	Staveſacre	Staphiſagria
Helleborus *niger*	Black Hellebore	Helleborus niger
—— *fœtidus*	Bears'-Foot	Helleboraſter
Anemone *pratenſis*	Meadow Anemone	Pulſatilla nigricans
Clematis *recta*	Upright Virgin's Bower	Flammula Jovis
Dictamnus *albus*	Baſtard Dittany	Dictamnus albus
Ruta *graveolens*	Common Rue	Ruta
XXVII. *SENTICOSÆ.*		
Potentilla *reptans*	Cinquefoil	Pentaphyllum
Rubus *idæus*	Raſp-Berry	Rubus idæus
Roſa *centifolia*	Hundred-leaved Roſe	Roſa damaſcena
—— *gallica*	Red Officinal Roſe	Roſa rubra
—— *canina*	Hip, or Dog Roſe	Cynoſbatus, *fructus*
XXVIII. *POMACEÆ.*		
Pyrus *Cydonia*	Quince Tree	Cydonium malum
Prunus *domeſtica*	Prune, or Plum Tree	Prunum gallicum
—— *ſpinoſa*	Sloe Tree	—— ſylveſtre
Amygdalus *communis*	Common Almond	Amygdala
Punica *Granatum*	Pomegranate	Granatum
Citrus *Medica*	Lemon Tree	Limon
—— *Aurantium*	Orange Tree	Aurantium hiſpalenſe

Systematic Names.	English.	Officinal.
Ribes *rubrum*	Red Currant	Ribes rubrum
—— *nigrum*	Black Currant	—— nigrum
	XXIX. *HESPERIDEÆ.*	
Myrtus *Pimenta*	All-Spice	Pimento
Caryophyllus *aromaticus*	Clove Tree	Caryophyllum aromaticum
	XXX. *SUCCULENTÆ.*	
	XXXI. *COLUMNIFERÆ, S. MALVACEÆ.*	
Althæa *officinalis*	Marſh Mallow	Althæa
Malva *ſylveſtris*	Common Mallow	Malva
	XXXII. *GRUINALES.*	
Guaiacum *officinalis*	Guaiacum	Guaiacum
Quaſſia *amara*	Bitter Quaſſia	Quaſſia
—— *Simaruba*	Simaruba Quaſſia	Simarouba
Linum *uſitatiſſimum*	Common Flax	Linum
Oxalis *Acetoſella*	Wood-Sorrel	Acetoſella
	XXXIII. *CARYOPHYLLEÆ.*	
Dianthus *Caryophyllus*	Clove Pink	Caryophyllum rub.
	XXXIV. *CALYCANTHEMÆ.*	
	XXXV. *ASCYROIDEÆ.*	
Ciſtus *creticus*	Cretan Ciſtus	Ladanum, *reſina*
Hypericum *perforatum*	St. John's Wort	Hypericum
Fraxinus *Ornus*	Flowering Aſh	Manna
	XXXVI. *COADUNATÆ.*	
	XXXVII. *DUMOSÆ.*	
Rhamnus *catharticus*	Purging Buckthorn	Spina cervina
Sambucus *nigra*	Common Black Elder	Sambucus
Amyris *Elemifera*	Gum Elemi Tree	Elemi, reſina
—— *gileadenſis*	Balſam of Gilead Tree	Balſamum gileadenſe
Copaifera *officinalis*	Balſam of Capaiva Tree	Balſamum Copaiva
Myroxylon *peruiferum*	Balſam of Peru Tree	Balſ. peruvianum
Toluifera *Balſamum*	Balſam of Tolu Tree	Balſ. tolutanum
	XXXVIII. *TRIHILATÆ.*	
Æſculus *Hippo-caſtanum*	Horſe-Cheſnut	Hippocaſtanum

Systematic Names.	English.	Officinal.
	XXXIX. *TRICOCCÆ.*	
Croton *Caſcarilla*	Willow-leaved Croton	Caſcarilla
Ricinus *communis*	Palma Chriſti	Ricinus
Stalagmitis *Cambogioides*	Gamboge Tree	Gambogia
	XL. *OLERACEÆ.*	
Salſola *Kali*	Prickly Salt-Wort	Barilla, Natron
Chenopodium *Vulvaria*	Stinking Goofefoot	Atriplex fœtida
Rumex *aquaticus*	Water Dock	Hydrolapathum
—— *Acetoſa*	Common Sorrel	Acetoſa
Rheum *palmatum*	Officinal Rhubarb	Rhabarbarum
Polygonum *Biſtorta*	Briſtort Snakeweed	Biſtorta
Laurus *Cinnamomum*	Cinnamon Tree	Cinnamomum
—— *nobilis*	Sweet Bay	Laurus
—— *Saſſafras*	Saſſafras Tree	Saſſafras
—— *Camphora*	Camphor Tree	Camphora
Canella *alba*	Laurel-leaved Canella	Canella alba
Myriſtica *Moſchata*	Nutmeg Tree	Nux moſchata
	XLI. *SCABRIDÆ.*	
Parietaria *officinalis*	Wall Pellitory	Parietaria
Dorſtenia *Contrayerva*	Contrayerva	Contrayerva
Ficus *Carica*	Fig Tree	Carica
Urtica *dioica*	Common Nettle	Urtica
Morus *nigra*	Mulberry Tree	Morum
Ulmus *campeſtris*	Common Elm	Ulmus
	XLII. *VERPECULÆ.*	
Daphne *Mezereum*	Mezereon	Mezereum
	XLIII. *PALMÆ.*	
Cocos *butyracea*	Oil Palm Tree	Palma, *oleum*
	XLIV. *PIPERITÆ.*	
Piper *nigrum*	Black Pepper	Piper nigrum
—— *longum*	Long Pepper	—— longum
—— *Cubeba*	Cubeb Pepper	Cubebæ
Acorus *Calamus*	Sweet Flag	Calamus aromaticus
Arum *maculatum*	Common Arum	Arum

XLV. *SCITAMINEÆ.*

Systematic Names.	English.	Officinal.
Amomum *Zingiber*	Ginger	Zingiber
——— *Cardamomum*	Cardamom	Cardamomum minus
Curcuma *longa*	Turmeric	Curcuma
Kæmpferia *rotunda*	Zedoary	Zedoaria

XLVI. *LILIACEÆ.*

Lilium *candidum*	Common White Lily	Lilium album
Scilla *maritima*	Officinal Squill	Scilla
Allium *ſativum*	Common Garlick	Allium
Veratrum *album*	White Hellebore	Helleborus albus
Colchicum *autumnale*	Common Meadow Saffron	Colchicum
Crocus *ſativus*	Saffron	Crocus
Aloës *ſpecies variæ*	Aloe	Aloë
Convallaria *Polygonatum*	Solomon's Seal	Convallaria

XLVII. *ENSATÆ.*

Iris *florentina*	Florentine Orris	Iris florentina
—— *Pſeudo-acorus*	Yellow Water Flag	Iris paluſtris

XLVIII. *ORCHIDEÆ.*

Orchis *maſcula*	Male Orchis	Satyrium

XLIX. *TRIPETALOIDEÆ.*

Calamus *Rotang*	Dragon's Blood Tree	Sanguis draconis

L. *CALAMARIÆ.*

LI. *GRAMINA.*

Triticum *hybernum*	Wheat	Triticum
Hordeum *diſtichon*	Barley	Hordeum
Avena *ſativa*	Oat	Avena
Saccharum *officinarum*	Sugar Cane	Saccharum

LII. *FILICES.*

Polypodium *Filix mas*	Male Fern	Filix
Aſplenium *Trichomanoides*	Maidenhair	Trichomanes

LIII. *MUSCI.*

LIV. *ALGÆ.*

Lichen *iſlandicus*	Eryngo-leaved Lichen	Lichen iſlandicus

LV. *FUNGI.*

Boletus *igniarius*	Agaric	Agaricus chirurgorum

MIMOSA CATECHU. CATECHU MIMOSA.

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

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

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

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

Masc. *Cal.* 5-dentatus. *Cor.* 5-fida. *Stam.* 5, 10, plura.

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

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

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

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

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

[b] Hence the following lines:

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

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

ably,

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

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

This

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

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

[e] "In making the extract, the pale brown wood is preferred, as it produces the fine whitiſh

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

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

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

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

MIMOSA NILOTICA.

MIMOSA NILOTICA. EGYPTIAN MIMOSA, ACACIA, EGYPTIAN THORN.

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

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

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

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

Masc. *Cal.* 5-dentatus. *Cor.* 5-fida. *Stam.* 5, 10, plura.

Sp. Ch. M. ſpinis ſtipularibus patentibus, foliis bipinnatis: partialibus extimis glandula interſtinctis, ſpicis globoſis pedunculatis.

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

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

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

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

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

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

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

[c] Haſſelquiſt. Adanſon, Sparrman, and others. [d] Niebuhr Reiſebeſchr. Arab. 1. B. p. 143. [e] Adanſon Mem. de l'Ac. d Sc. d. Paris, 1773. p. 8. [f] Demanet Nouvelle Hiſt. de l'Afrique Françoiſe, t. 1. p. 56.

Gum

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

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

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

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

of

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

[h] Mat. Med. p. 415. vol. 2.

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

RUBIA TINCTORUM. DIER's MADDER.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

RUMEX ACETOSA.

RUMEX ACETOSA. COMMON SORREL.

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

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

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

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

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

Some writers have referred this plant to the Lapathum quartum[a] of

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

[a] *L ii. cap.* 108.

Dioſcorides,

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

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

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

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

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

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

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

The

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

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

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

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

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

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

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

[f] *De Haen*, *Gerhard*, *Quer*, *Girardi*, *Murray*, *Buchoz*, and others.

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

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

[k] See his *Exp. Eſſays*, *p.* 154.

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

his

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

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

STYRAX OFFICINALE. OFFICINAL STORAX.

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

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

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

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

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

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

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

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

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

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

woody

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

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

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

[c] Lewis Mat. Med. p. 621.

STYRAX BENZOIN. BENJAMIN TREE.

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

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

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

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

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

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

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

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

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

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

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

* Deſcriptio botanica a cl. Dryander.

Rami teretes, tomentoſi.

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

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

Calyx campanulatus, obſoletiſſime quinquedentatus, extus tomentoſus, linea longior.

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

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

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

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

[b] *Vide lib. in Synon. cit.*

Virginia,

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

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

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

[d] *Hort. Vindob. vol. iii. p.* 51.

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

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

[g] *Grimm. l. c.*

[h] *Marſden. l. c.*

bark

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

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

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

[i] *Grimm. l. c.* [k] Cfr. Eſchelſkron *Beſchreib. von Sumatra. p.* 62.
[l] *Lewis M. M. p.* 142.

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

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

APIUM PETROSELINUM.

APIUM PETROSELINUM. COMMON PARSLEY.

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

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

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

γ Apium radice eſculenta. *Hort. Upſ.* 67. Large rooted Parſley. *Aiton's Hort. Kew.*

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

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

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

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

All

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

[a] Cultivated in 1551. *Turn. Herb. part.* 1. *ſign.* D iiii. Vide *Aiton's Hort. Kew.*
[b] Lewis, *Mat. Med. p.* 499. [c] See Hoffman and others. [d] *Mat. Med. p.* 159.

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

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

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

RIBES RUBRUM.

RIBES RUBRUM. RED CURRANT.

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

α Ribes rutilum. *Red Currant.*

β Ribes album. *White Currant.*

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

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

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

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

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

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

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

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

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

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

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

RIBES NIGRUM. BLACK CURRANT.

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

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

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

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

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

The

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

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

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

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

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

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

[b] *Opp. Lib.* 25. *Obſ.* 10.

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

QUASSIMA SIMARUBA.

QUASSIA SIMARUBA. SIMARUBA QUASSIA.*

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

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

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

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

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

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

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

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

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

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

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

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

[b] L. c. p. 74.

[c] See Aiton's *Hort. Kew.*

[d] Lewis *Mat. Med. p.* 606.

|| See Wright, l. c.

and

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

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

—— " My own experience, and that of many living friends, are

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

convincing

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

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

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

QUASSIA AMARA. BITTER QUASSIA.

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

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

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

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

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

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

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

‖ *Hort. i. p.* 423. *t.* 94. [a] See *Vol. vi. p.* 416. [b] *Suppl. Plant. p.* 235.

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

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

The

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

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

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

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

tiveneſs,

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

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

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

SAMBUCUS NIGRA. COMMON BLACK ELDER.

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

Varietates ſunt,

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

γ Sambucus laciniato folio. *C. Bauh.*

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

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

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

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

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

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

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

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

[c] The leaves are purgative like the bark, but more nauſeous. *Oper. p.* 496. [e] *Hiſt. Plant. P. I. p.* 207.

fine

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

[f] *Lewis M. M. p.* 576.

PYRUS CYDONIA. COMMON QUINCE TREE.

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

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

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

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

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

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

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

* Vide *Aiton's Hort. Kew.*

[a] *Lib. xv. cap.* 11.

Heiſter *Diſſ. de Cydoniis, p.* 59.

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

[b] *Lewis Mat. Med. p.* 267.

DIANTHUS CARYOPHYLLUS.

DIANTHUS CARYOPHYLLUS.‖ CLOVE PINK.

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

α Caryophyllus hortenſis ſimplex flore majore. *C. Bauh.* CLOVE PINK.

β Caryophyllus maximus ruber & variegatus. *C. Bauh.* COMMON CARNATION.*

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

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

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

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

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

* Vide Aiton's *Hort. Kew.*

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

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

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

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

[a] Lewis's *Mat. Med. p.* 205. [b] *Quad. Bot. p.* 242.

VIOLA ODORATA.

VIOLA ODORATA. SWEET VIOLET.

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

Varietates ſunt,

α Viola martia purpurea, flore ſimplice odoro. *C. Bauh. l. c. p.* 199. *PURPLE FLOWERED SWEET VIOLET.*

β Viola martia alba. *C. Bauh. l. c. p.* 199. *WHITE FLOWERED SWEET VIOLET.*

γ Viola martia multiplici flore. *C. Bauh. l. c. p.* 199. *DOUBLE FLOWERED SWEET VIOLET.*[a]

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

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

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

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

[a] Vide Aiton's Hort. Kew.

five

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

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

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

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

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

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

ſyrup,

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

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

[h] Tournefort *Hiſt. des Plant. de Paris, t. i. p.* 291. Henninger *Diſſ. de Viola purpur.*

CISSAMPELOS PAREIRA. PAREIRA BRAVA CISSAMPELOS.

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

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

Eſſ. Gen. Ch. *Masc.* *Cal.* 4-phyllus. *Cor.* 0. *Nectarium* rotatum. *Stam.* 4: filamentis connatis.

Fem. *Cal.* monophyllus, ligulato-ſubrotundus. *Cor.* 0. *Styli* 3. *Bacca* 1-ſperma.

Sp. Ch. C. foliis peltatis cordatis emarginatis.

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

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

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

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

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

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

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

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

taſte

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

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

[e] *Lewis Mat. Med. p.* 480. [f] Vide l. c. in note ([d])

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

AMYGDALUS COMMUNIS.

AMYGDALUS COMMUNIS. THE ALMOND TREE.

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

Varietates ſunt,

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

SWEET ALMOND TREE.

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

BITTER ALMOND TREE.

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

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

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

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

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

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

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

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

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

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

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

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

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

[e] *Lewis Mat. Med. p.* 53.

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

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

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

[i] Vide *Nov. Act. Nat. Cur. tom. i. p.* 181.

[k] *Mat. Med. p.* 413.

PRUNUS SPINOSA. SLOE TREE.

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

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

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

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

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

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

The

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

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

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

[a] Lewis *Mat. Med. p.* 522. [b] Dioſc. *Mat. Med. Lib. i. cap.* 173.

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

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

PRUNUS DOMESTICA. COMMON PRUNE, Or PLUM TREE.

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

In

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

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

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

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

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

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

[a] See Withering, l. c.

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

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

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

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

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

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

[e] *Hiſt. Nat. L. xv. cap.* 13.

[f] It is alſo thus mentioned by Ovid:

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

MET. *Lib. xiii. v.* 818.

[g] *Mat. Med. vol. i. p.* 254.

ASARUM EUROPÆUM.

ASARUM EUROPÆUM. COMMON ASARABACCA.

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

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

Eſſ. Gen. Ch. Cal. 3-f. 4-fidus, germini inſidens. *Cor.* 0. *Caps.* coriacea, coronata.

Sp. Ch. A. foliis reniformibus obtuſis binis.

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

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

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

[b] *Hiſ. Nat. L. xii. c.* 13. *et L. xxi. cap.* 6.
Aſaron, ab *α priv.* & *σαιρω orno*, quoniam in coronis non addatur.

baccharis:

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

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

† Nardus Celtica L.

[c] *Lewis M. M. p.* 122.

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

[e] *Mat. Med. vol.* ii. *p.* 473.

[f] " Diureticum & emmenagogum inſigne: unde Meretriculæ plus ſatis frequentant decoctum ejus, cum ſentiunt ſe gravidas. Quò tenuiùs eſt tritum eò magis urinas movere, minus autem alvum ducere, creditur." *Ray Hiſt. p.* 208.

[g] *Raii l. c.*

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

ROSMARINUS OFFICINALIS.

ROSMARINUS OFFICINALIS. COMMON ROSEMARY.

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

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

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

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

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

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

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

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

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

Nam jejuna quidem clivoſi glarea ruris
Vix humiles apibus caſias roremque miniſtrat. GEORG. *ii. v.* 212.

[c] *Lewis M. M. p.* 544. [d] *Lewis, l. c.*

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

it

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

By many people Roſemary is drunk as tea for breakfaſt.

[f] "*Virtus:* reſolvens, nervina corroborans, emmenagoga. *Uſus.* Chloroſis."—M. M. p. 21.

FUMARIA OFFICINALIS. COMMON FUMITORY.

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

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

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

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

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

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

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

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

[b] *Lewis M. M. p.* 315.

[c] Aetius, Boerhaave, F. Hoffman, and many others.

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

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

employed

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

[d] *M. M. vol. ii. p.* 77.

SPARTIUM SCOPARIUM. COMMON BROOM.

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

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

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

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

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

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

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

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

cathartics)

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

[c] *Mat. Med. vol. ii. p.* 534. [d] *Opera, p.* 497.

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

[f] See Odhelius in *Vet. Acad. Handl.* 1762. *p.* 82.

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

ORCHIS MASCULA.

ORCHIS MASCULA. MALE ORCHIS.

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

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

Eſſ. Gen. Ch. *Nectarium* corniforme pone florem.

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

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

This

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

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

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

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

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

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

[a] See *Phil. Tranſ. vol.* 59. *p.* 2.

[b] Percival's Eſſays Med. & Exper. vol. ii. p. 39.

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

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

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

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

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

" Salep ex orchide morione in Suecia paratum citius ſolvi ſe paſſum eſt, quam Perſicum, et tam tenacem mucilaginem exhibuit octo ejus grana in aquæ fervidæ unica una h.e. radicem in 60-plo aquæ ſolvendo, ut per pannum linteum non perfecte tranſigi poſſet, ſed affundi inſuper deberet aquæ fervidæ uncia dimidia, quo auxilio mucilago iſta denſitate æquavit alteram ex Salep Perſico uncia una aquæ elicitam: remanſit vero reſidui ex iſto Suecico Salep granum 1½ et Perſico gr. i. Murray l. c. See *Vet. Acad. Handl.* 1764. *p.* 245. *ſq.*

[e] Orchis, i. e. ὄρχις, Teſticulus, habet radices inſtar teſticulorum.

CISTUS CRETICUS.

CISTUS CRETICUS. CRETAN CISTUS.

Planta à qua colligitur *Ladanum. Pharm. Loud.*

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

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

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

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

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

This

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

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

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

[a] See Aiton's Hort. Kew.

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

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

Rectified

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

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

[d] Lewis, *M. M. p.* 368.

ANCHUSA TINCTORIA. DIERS BUGLOSS, or ALKANET.

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

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

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

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

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

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

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

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

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

[b] Lewis *Mat. Med. p*, 56.

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

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

POLYGALA SENEGA.

POLYGALA SENEGA. RATTLESNAKE-ROOT MILK-WORT.

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

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

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

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

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

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

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

[a] *Dict. Ed.* 7. *n.* 5. *See Hort. Kew.*

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

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

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

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

that

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

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

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

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

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

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

[k] *Ratio Medend. P.* 4. *p.* 252.

JUNIPERUS SABINA. COMMON SAVIN.

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

Varietates ſunt,†

α Sabina foliis Cupreſſi. *Bauh. Pin. p.* 487. Sabina baccifera. *J. Bauh. Hiſt. vol. i. p.* 288. *Gerard. Emac. p.* 1376. Sabina baccifera major. *Park. Theat. p.* 1026. Cedrus baccifera fructu minore cæruleo. *Raii Hiſt. p.* 1415. Juniperus foliis cauli adpreſſis lanceolatis, alterne conjugatis. *Hal. Stirp. Helv. n.* 1662.

β Sabina folio Tamariſci Dioſcoridis. *Bauh. Pin. p.* 487. Sabina ſterilis. *Gerard. Emac. p.* 1378. Sabina vulgaris. *Park. Theat. p.* 1027. *Raii Hiſt. p.* 1415. βραθυς *Græcorum.*

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

Eſſ. Gen. Ch. *Masc.* *Amenti* Calyx ſquamæ. *Cor.* o. *Stam.* 3.
Fem. *Cal.* 3-partitus. *Petala* 3. *Styli* 3. *Bacca* 3-ſperma, tribus tuberculis calycis inæqualis.

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

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

† Theſe two varieties are preciſely the ſame as thoſe noticed by Dioſcorides. See L. 1. C. 104.

ing,

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

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

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

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

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

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

[d] Bergius ſtates its *virtus* to be emmenagoga, abortiens, diuretica, ſanguinem movens. *Mat. Med. p.* 814. ‖ Lewis Mat. Med.

The

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

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

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

JUNIPERUS COMMUNIS.

JUNIPERUS COMMUNIS. COMMON JUNIPER.

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

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

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

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

Eff. Gen. Ch. *Masc. Amenti* Calyx squamæ. *Cor.* 0. *Stam.* 3.

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

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

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

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

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

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

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

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

Surgamus; ſolet eſſe gravis cantantibus umbra:
Juniperi gravis umbra: nocent & frugibus umbræ.
ECL. x. v. 75.

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

[c] *Lewis, Mat. Med. p.* 362.

Of

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

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

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

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

[f] Bergius ſays, "Virtus: *ligni & ſummitat.* diuretica, ſudorifera, mundificans. *Bacca* diuretica, nutriens, diaphoretica." *M. M. p.* 810.

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

pare

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

VALERIANA OFFICINALIS. OFFICINAL VALERIAN.

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

α Foliis anguſtioribus.

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

Eſſ. Gen. Ch. *Cal.* o. *Cor.* 1-petala, baſi hinc gibba, ſupera. *Sem.* 1.

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

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

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

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

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

† *Lewis, M. M.*

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

[b] *Phytobaſamos Neapol.* 1592. *p.* 97.

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

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

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

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

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

[f] *Prax. Med. Lib. i. p.* 62. [g] *Opera, p.* 427.

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

[i] *Pl. Usuelles. T. i. p.* 228. [k] *Nosol. Method. T. iii. P.* 2. *p.* 231. *Ed.* 8*vo.*

[l] *Traité de l'epilepsie, p.* 310.

[m] Haller says, "Ego certe ad hysterícos morbos, nimiamque nervorum sensibilitatem, frequenter cum bono eventu hac radice usus sum; et in ipsa epilepsia, non malo successu. *Stirp. Helv. n.* 210. [n] *Mat. Med. p.* 30.

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

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

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

[q] *Mat. Med. vol. ii. p.* 372. [r] *New Ed. Dispens. by Dr. Duncan, p.* 300.

that

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

MARRUBRUM VULGARE. COMMON WHITE HOREHOUND.

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

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

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

Sp. Ch. M. dentibus calycinis ſetaceis uncinatis.

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

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

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

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

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

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

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

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

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

[e] *Zacutus Luſitanus, Prax. admir. Lib.* 2. *Obſ* 48. *Chomel, Uſuell. T. i. p.* 232.

[f] *Forreſt. Op. Lib.* 19. *Obſ.* 19. & 40. [g] *Borellus, Hiſt. et Obſerv. Cent. iv. p.* 14.

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

be

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

[h] Bergius ſays, *Virtus:* tonica, emmenagoga, diuretica. *Uſus:* Cachexia, ob. menſium, Hyſteria, Aſthma pituitoſum.

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

ASTRAGALUS TRAGACANTHA. GOAT'S THORN MILK VETCH.

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

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

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

Eſſ. Gen. Ch. *Legumen* biloculare, gibbum.

Sp. Ch. A. caudice arboreſcente, petiolis ſpineſcentibus.

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

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

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

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

[a] *Voyage, T. i. p.* 21.

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

Tournefort,

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

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

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

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

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

[d] Rutty aſſerts, that in five or ſix hours it will diſſolve in cold water. *Obſerv. on the Lond. & Edin. Diſpen. p.* 179. † *Lewis's M. M.*

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

PANAX QUINQUEFOLIUM.

PANAX QUINQUEFOLIUM. GINSENG.

SYNONYMA. Ginſeng. *Pharm. Lond. & Edinb.* *Raii Hiſt. p.* 1338. Aureliana canadenſis. *Laſiteau* in *Memoires concernant la precieuſe plante de Ginſeng. Paris*, 1718. Et *Hiſt. de L'Acad.* 1718. *p.* 42. *Cateſby's Car.* 3. *p.* 16. *t.* 16. *Breyn.* in *Prod. rar. pl.* 2. *p.* 35. *Fig. ad. p.* 52. Araliaſtrum foliis ternis quinquepartitis Gingſeng ſ. Ninſin officinarum. *Ehret. tabul. a Trew*, *t.* 6. *fig.* 1. Gin-ſeng Chinenſibus. *Jartoux Phil. Tranſ. vol. xxviii. p.* 237. *Conf. Des lettres edifiantes & curieuſes*, *tom. x. p.* 172. Araliaſtrum, quinquefolii folio, majus Ninſin[a] vocatum. *Vall. Sex.* 43.

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

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

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

Sp. Ch. P. foliis ternis quinatis.

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

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

erect:

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

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

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

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

[c] L. c. [d] *Roſa til N. America, t. iii. p.* 334. [e] *Comm. Nor.* 1741. *p.* 361.
[f] See *Hort. Kew.*

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

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

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

[g] *Lewis, M. M. p.* 325.

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

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

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

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

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

VERATRUM ALBUM. WHITE HELLEBORE, Or, VERATRUM.

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

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

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

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

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

THE

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

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

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

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

[a] *Mat. Med. vol. ii. p.* 68.

The

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

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

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

[b] "Naviget Anticyram."—
Danda eſt hellebori multo pars maxima avaris:
Necio, an Anticyram ratio illis deſtinet omnem.
HOR. SAT. Lib. ii. v. 82.

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

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

[d] See Pallas, *Ruſſ. Reiſe, vol. i. p.* 49. Kalm's *N. Amer. tom. iii. p.* 48. Gunner, *Fl. Norveg. P. ii. p.* 2. For the poiſonous effects of the roots, when applied to wounds of different animals, Vide *Phil. Tranſ. vol. xlvii. p.* 82.

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

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

[e] *Epiſt. Med. p.* 69.

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

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

[k] Hippocr. περὶ Ελλεβοριςμοῦ in Oper. ed. Lind. *tom. i. p.* 610. Et Aphoriſm. *Sect. iv. Aph.* 13—16.

Similar

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

[l] Prax. Med. *Lib. i. c.* 7. *p.* 69. *ſq.*

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

[n] *Hannemann*, *Quercetanus*, *Screta*, *Wepfer*, *Muralto*, *Linder*.

[o] *Vermiſchte Med. u. chirurg. Schriften. Altenb.* 1781. to *p.* 30.

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

vomiting

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

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

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

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

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

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

LILIUM CANDIDUM.

LILIUM CANDIDUM. COMMON WHITE LILY.

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

α Lilium album flore erecto et vulgare. *Bauh. Pin. p.* 76.

β Lilium album floribus dependentibus ſive peregrinum. *Bauh. Pin. p.* 76. *Nodding-Flowered White Lily.*

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

Eſſ. Gen. Ch. Cor. 6-petala, campanulata: *linea* longitudinali nectarifera. *Capſ.* valvulis pilo cancellato connexis.

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

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

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

Lilium ἀ λειριον vel λιριον. By the Greeks it is called κρινον.

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

" Dum puer Alcides Divæ vagus ubera ſuxit
" Junonis, dulci preſſa ſapore fuit;
" Ambroſiumque alto lac diſtillavit Olympo
" In terras fuſum Lilia pulchra dedit."

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

Either ſingly,

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

ÆN. lib. xii. 68.

[b] Particularly as an antiepileptic and anodyne.

ERYNGIUM MARITIMUM.

ERYNGIUM * MARITIMUM. SEA ERYNGO, or HOLLY.

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

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

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

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

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

* Græci Philoſophi Eryngium, quaſi ἐρυγμὸς, id eſt ructum, dictum putant, quòd capræ quæ morſu ſurculum Eryngii præciderint, vel deglutiverint, cunctum gregem pone ſequentem quaſi ſtupore attonitum ſiſtunt, donec Eryngium ructu rejecerint. *C. Bauh. l. c.*

and

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

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

[a] *Quadrip. p.* 324. [b] *Hiſt. pl. T. i. p.* 194.

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

[d] Vide, *l. c.*

[e] " Non male tum Graiis florens Eryngus in hortis
" Quæritur: hunc gremio portet ſi nupta virentem
" Nunquam inconceſſos conjux meditabitur ignes.
Rapinus in Boer. Hiſt.

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

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

ANTHEMIS NOBILIS.

ANTHEMIS NOBILIS. COMMON CAMOMILE.

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

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

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

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

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

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

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

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

[a] *Plin. L.* 22. *c.* 21.

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

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

[d] *Lewis, M. M. p.* 221.

Theſe

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

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

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

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

[f] *Diſ. of the Army, p. 216.*

[g] *M. M. vol. ii. p. 79.*

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

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

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

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

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

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

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

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

[a] *Adver. p.* 346. Vide *Hort. Kew.*

not

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

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

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

[b] *Miller Dict.*

[c] *Lewis M. M. p.* 527. [d] See *Berg. M. M. p.* 698.

[e] *Bergius, V. l. c.*

[f] Its uſe in this way is mentioned by Serenus Samonicus.
" Purgatur cerebrum manſa radice pyrethri."

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

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

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

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

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

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

Linnæus

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

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

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

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

[a] *P.* 156.

[b] *Oec. & Med. Obſervations, p.* 282.

[c] See *Eſſ. & Obſerv. Phyſical & Literary, vol. i. p.* 386. [d] *L. c.*

"of

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

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

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

[f] According to Linning, " thirty large worms, the *teretes*, were at once voided" by a Negro girl from the uſe of this root. *l. c.*

[g] As this plant ſeems to be received into the Materia Medica principally on the authority of Dr. Garden, we have judged it proper to give his account in his own words.

ARISTOLOCHIA SERPENTARIA. SNAKE-ROOT BIRTHWORT.

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

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

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

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

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

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

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

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

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

[b] *M. M. vol. i. p.* 521.

Garden

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

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

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

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

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

[d] *Lewis, M. M. p.* 602.

appears

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

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

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

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

ARISTOLOCHIA LONGA. LONG-ROOTED BIRTHWORT.

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

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

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

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

THE

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

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

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

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

[a] Lewis, *M. M. p.* 112.

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

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

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

[c] Hippocr. *De nat. muliebri. p.* 572. *Oper. Fœſii.*

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

[e] See *Mat. Med. vol. ii. p.* 83.

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

[g] Brunner, *De pancr. p.* 143. *Werlhoff. Caut. Med. Tract. i. p.* 32. See alſo Cullen's *Firſt Lin.*

INULA HELENIUM. COMMON INULA, Or, ELECAMPANE.

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

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

Eſſ. Gen. Ch. Recept. nudum. *Pappus* ſimplex. *Antheræ* baſi in ſetas duas deſinentes.

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

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

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

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

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

[a] *Lib. i. cap.* 27. [b] *Lib. xix. cap.* 5.

[c] "Helenium e lacrymis Helenæ natum, & ideo in Helena inſula laudatiſſimum. Eſt autem frutex humi ſe ſpargens dodorantibus ramulis, folio ſimili ſerpyllo." *Lib. xxi. c.* 9.

The Innula is noticed by Horace:

"Erucas virides, inulas ego primus amaras
Monſtravi incoquere." SAT. 8. v. 51.

——— quum rapula plenus
Atque acidas mavult inulas. SAT. 2. v. 44.

ando,

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

[d] P. 602. See *Alſton's M. M. vol. i. p.* 454.
[e] See Cullen's *M. M. vol. ii. p.* 459.

THYMUS VULGARIS. COMMON GARDEN THYME.

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

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

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

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

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

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

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

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

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

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

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

[a] "Dioſcorid. L. 3. c. 44. Theophraſt. 4. hiſt. 7. & 6. hiſt. 2. 1. caus. 5. απο τε θυμε, quod iis qui animi deliquium patiuntur adhibeatur: alii απο της θυμαστεος και της θυης deducunt, quod hoc veteres in ſacris, quæ igne accenſo fiebant, primum uſi ſint, ut apud Rhodiginum, L 3. c. 23. legere eſt."

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

active

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

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

[c] Lewis, *M. M. p.* 650.

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

[e] *M. M. p.* 536.

THYMUS SERPYLLUM. WILD, or MOTHER of THYME.

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

α Serpyllum vulgare minus. *C. B.*
Common ſmooth Mother of Thyme.

β Serpyllum foliis citri odore. *C. B.*
Lemon Thyme.

γ Serpyllum

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

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

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

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

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

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

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

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

latter

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

[b] Lewis, *M. M. p.* 651.

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

Theſtylis et rapido feſſis meſſoribus æſtu
Allia ſerpyllumque herbas contundit olentes. Ec. ii. 10.

LINUM USITATISSIMUM. COMMON FLAX.

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

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

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

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

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

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

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

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

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

particular

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

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

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

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

[c] Lewis, *M. M. p.* 397.

[d] Simp. L. 7. de alim. fac. l. 1. c. 32.

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

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

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

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

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

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

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

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

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

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

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

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

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

" The decoction. Take freſh-dried or well-preſerved cabbage-bark, one ounce. Boil it in a quart of water, over a ſlow fire, till the water is of an amber colour, or rather of deep coloured Madeira wine; ſtrain it off, ſweeten it with ſugar, and let it be uſed immediately, as it does not keep many days.

" Syrup of Cabbage-bark. To any quantity of the above decoction add a double portion of ſugar, and make a ſyrup. This will retain its virtues for years.

" The extract of cabbage-bark is made by evaporating the ſtrong decoction in *balneo mariæ* to the proper conſiſtence; it muſt be continually ſtirred, as otherwiſe the reſinous part riſes to the top, and on this probably its efficacy depends.

[a] This author thinks that the inhabitants of Jamaica are more ſubject to worms, " on account of their *ſweet vijcid bread-kind*, to wit, plaintains, yams, bananos, ſweetiſh potatoes, &c." and conſiders it particularly fortunate, that the iſland ſupplies them with this bark, which " appears to be the moſt powerful vermifuge yet known, for it frequently brings away as many worms by ſtool as would fill a large hat." See *Eſſays and Obſervations Phyſical and Literary, vol. ii. p.* 264.

" The powder of well-dried bark is eaſily made, and looks like jallap, though not of equal ſpecific gravity.

" This bark, like moſt other powerful anthelmintics, has a narcotic effect; and on this account it is always proper to begin with ſmall doſes, which may be gradually increaſed till a nauſea is excited, when the doſe for that patient is aſcertained. But by frequent uſe we can in common determine the doſe, though we chuſe to err rather on the ſafe ſide.

" A ſtrong healthy grown perſon may, at firſt, take four table ſpoonfuls of the decoction or ſyrup, three grains of the extract, or thirty grains of the powder for a doſe.

" A youth, three table ſpoonfuls of the decoction or ſyrup, two grains of extract, or twenty grains of powder.

" A perſon of ten years of age, two table ſpoonfuls of the decoction or ſyrup, one grain and a half of extract, or fifteen grains of the powder.

" Children of two or three years old, a table ſpoonful of the decoction or ſyrup, one grain of extract, or ten grains of the powder. Children of a year old, half the quantity.

" Theſe may be increaſed, as above obſerved, till a nauſea is excited, which will depend on the ſtrength, ſex, and habit of body of the patient.

" Care muſt be taken that cold water be not drank during the operation of this medicine, as it is in this caſe apt to occaſion ſickneſs, vomiting, fever, and delirium. When this happens, or when an over large doſe has been given, the ſtomach muſt be waſhed with warm water: the patient muſt ſpeedily be purged with Caſtor-oil, and uſe plenty of lime-juice beverage for common drink; vegetable acid being a powerful antidote in this caſe, as well as in an over doſe of opium.

" The decoction is what is moſtly given here, and ſeldom fails to perform every thing that can be expected from an anthelmintic medicine, by deſtroying worms in the inteſtines, and bringing them away in great quantities. By frequent uſe, however, theſe animals become familiarized, and we find it neceſſary to intermit it, or have recourſe to others of inferior merit.

" The

" The writers of the Edinburgh Medical Commentaries take notice, that the decoction of cabbage-bark always excites vomiting. We find no such effect from it here, and may account for it by their receiving it in a mouldy state. A syrup, therefore, is given there with better effect. They observe also that it has a diuretic virtue, which we have not taken notice of here.

" This bark purges pretty briskly, especially in powder, thirty or forty grains working as well as jallap by stool; but in this way it does not seem to kill worms so well as in decoction.

" Five grains of the extract made a strong man sick, and purged him several times; but, by frequent use, he took ten grains to produce at length the same effect.

" It must not be concealed that fatal accidents have happened from the imprudent administration of this bark, chiefly from over-dosing the medicine. But this cannot detract from the merit of the cabbage-bark, since the best medicines, when abused, become deleterious; and even our best aliments, in too great quantity, prove destructive. Upon the whole, the cabbage-bark is a most valuable remedy, and I hope will become an addition to the *materia medica*."

PASTINACA OPOPANAX. OPOPANAX, Or, ROUGH PARSNEP.

Opopanax, *gummi-resina. Pharm. Lond.*

SYNONYMA. Panax costinum. *Bauh. Pin. p.* 156. Panax Heracleum. *Morris Hist. t. iii. p.* 315. *Boccone, Journ. des Sçav.* 1676. *p.* 28. *Gerard Emac. p.* 1003. *Raii Hist. p.* 410. Heracleum alterum, sive peregrinum Dodonæi. *Park. Theat. p.* 948. Pastinaca sylvestris altissima. *Tourn. Inst. p.* 319. P. Opopanax. *Gouan, Illustr.* 19. *t.* 13, 14.

Class

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 362.

Eſſ. Gen. Ch. *Fructus* ellipticus, compreſſo-planus. *Petala* involuta, integra.

Sp. Ch. P. foliis pinnatis: foliolis baſi antica exciſis. *Syſt. Veg.*

THE root is perennial, thick, fleſhy, tapering like the garden parſnep: the ſtalk is ſtrong, branched, rough towards the bottom, and riſes ſeven or eight feet in height: the leaves are pinnated, conſiſting of ſeveral pairs of pinnæ, which are oblong, ſerrated, veined, and towards the baſe appear unformed on the upper ſide: the flowers are ſmall, of a yellowiſh colour, and terminate the ſtem and branches in flat umbels: the general and partial umbels are compoſed of many radii: the general and partial involucra are commonly both wanting: all the florets are fertile, and have an uniform appearance: the petals are five, lance-ſhaped, and curled inwards: the five filaments are ſpreading, curved, longer than the petals, and furniſhed with roundiſh antheræ: the germen is placed below the corolla, ſupporting two reflexed ſtyles, which are ſupplied with blunt ſtigmata: the fruit is elliptical, compreſſed, divided into two parts, containing two flat ſeeds, encompaſſed with a narrow border. It is a native of the South of Europe, and flowers in June and July.

This ſpecies of Parſnep was cultivated in 1731 by Mr. P. Miller, who obſerves that its "roots are large, ſweet, and accounted very nouriſhing," therefore recommended for cultivation in kitchen-gardens.[a] It bears the cold of our climate very well, and commonly maturates its ſeeds, and its juice here manifeſts ſome of thoſe qualities which are diſcovered in the officinal opopanax;[b] but it is only in the warm regions of the Eaſt, and where this plant is a native, that its juice concretes into this gummy reſinous drug. Opopanax is obtained by

[a] See his *Dict.*

[b] Alſton ſays, "with regard to theſe plants growing here, I venture to ſay, that, if their juice be not the opopanax, it is very like it." *M. M. v. ii. p.* 443.

means

means of inciſions made at the bottom of the ſtalk of the plant, from whence the juice gradually exudes,[c] and by undergoing ſpontaneous concretion, aſſumes the appearance under which we have it imported from Turkey and the Eaſt-Indies, viz. " ſometimes in little round drops or tears, more commonly in irregular lumps, of a reddiſh yellow colour, on the outſide with ſpecks of white, internally of a paler colour, and frequently variegated with large white pieces."

" This gummy-reſin has a ſtrong diſagreeable ſmell, and a bitter acrid ſomewhat nauſeous taſte. It readily mingles with water, by triture, into a milky liquor, which on ſtanding depoſits a portion of reſinous matter, and becomes yellowiſh: to rectified ſpirit it yields a gold-coloured tincture, which taſtes and ſmells ſtrongly of Opopanax. Water diſtilled from it is impregnated with its ſmell, but no eſſential oil is obtained on committing moderate quantities to the operation."[d]

Opopanax has been long employed by phyſicians, and eſteemed for its attenuating, deobſtruent, and aperient virtues; but as it is commonly preſcribed in combination with other medicines, theſe qualities are by no means aſcertained, nor do its ſenſible qualities indicate it to be a medicine of much power. Dr. Cullen claſſes it with the antiſpaſmodics; it is however leſs fetid than galbanum, though more ſo than ammoniacum, and therefore may be ſuppoſed to have ſome affinity to a union of theſe two. It has commonly been given in hypochondriacal affections, viſceral obſtructions, menſtrual ſuppreſſions, and aſthmas, eſpecially when connected with a phlegmatic habit of body. It has no place in the Mat. Med. of the Edinburgh Pharmacopœia, but, by the London College it is directed in the pillulæ e gummi.

[d] *Lewis, M. M. p.* 468.

RHAMNUS CATHARTICUS. PURGING BUCKTHORN.

SYNONYMA. Spina cervina. *Pharm. Lond. & Edinb.* Rhamnus catharticus. *Bauh. Pin. p.* 478. *Raii Hiſt. p.* 1625. *Synop. p.* 466. *Hudſon. Flor. Ang. p.* 98. *Withering. Bot. Arrang. p.* 239. *Flor. Dan.* 850. Rhamnus ſolutivus. *Gerard Emac. p.* 1337. Rhamnus ſolutivus ſive Spina infectoria vulgaris. *Park. Theat. p.* 243. Rhamnus foliis ſpinoſis, ovato-lanceolatis, ſerratis. *Hal. Stirp. Helv. n.* 824.

Claſs Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 265.

Eſſ. Gen. Ch. *Cal.* tubuloſus: ſquamis ſtamina munientibus. *Cor.* nulla. *Bacca.*

Sp. Ch. R. ſpinis terminalibus, floribus quadrifidis dioicis, foliis ovatis, caule erecto.

THIS ſhrub is covered with dark browniſh bark, divided into many branches, beſet with ſtrong ſpines, and uſually riſes ſeven or eight feet in height: the leaves are nearly elliptical, ſerrated, veined, and ſtand on ſhortiſh footſtalks: the flowers are commonly male and female upon different plants, ſmall, greeniſh, and placed in cluſters upon ſimple peduncles: the calyx ſupplies the place of a corolla, it is funnel-ſhaped, of a pale green colour, and divided at the extremity into four ſpreading pointed ſegments: the filaments are uſually four, ariſing from the baſe of a ſmall convex ſcale, very ſhort, and furniſhed with round antheræ: the germen is round, and ſupports a ſlender ſtyle, terminated by a trifid ſtigma: the fruit is a round black berry, containing four ſeeds, which are compreſſed on one ſide, and protuberant on the other. It is a native of Britain, uſually growing in woods and hedges near brooks, flowering in May and June, and ripening its ſeeds about the end of September.

The fruit or berries of this Shrub, which have been long received into the Materia Medica, are about the ſize of a ſmall pea, and when ripe

ripe of a ſhining black colour: they contain a pulpy deep green juice,[a] which has a faint unpleaſant ſmell, and a bitteriſh, acrid, nauſeous taſte: they operate briſkly by ſtool, and hence the plant derives the trivial name *catharticus*:[b] their purgative effects are conſtantly accompanied with conſiderable thirſt, and dryneſs of the mouth and throat, and frequently with ſevere griping of the bowels, eſpecially unleſs ſome diluting liquor be plentifully drunk immediately after taking them.

"The doſe is ſaid to be about twenty of the freſh berries in ſubſtance; twice or thrice that number in decoction: a dram or a dram and a half of the dried berries; an ounce of the expreſſed juice; or half an ounce of the rob or extract, obtained by inſpiſſating the juice."[c] The juice made into a ſyrup is the officinal preparation, and in this ſtate it has been generally preferred by phyſicians, who found that in doſes of one ounce to two it proved a very powerful purgative, and was therefore much employed as a hydragogue.[d] Few patients however are able to bear a frequent repetition of this medicine; and even Sydenham, who was partial to the purgative treatment of hydropical diſeaſes, found that other cathartics more effectually anſwered this purpoſe: at preſent it is rarely preſcribed except in conjunction with other medicines of this claſs.

The inner bark, like that of Elder, is ſaid to be a ſtrong cathartic, and to excite vomiting.[e]

[a] This juice is called by the French Verd de Veſſie, or Sap Green, and is uſed for painting or ſtaining paper: that of the unripe berries is yellow, and when the berries are gathered late in the autumn, the juice is purple. It is alſo uſed as a dye. See *Lin. Flor. Suec. p.* 72.

[b] It is reported that the fleſh of thoſe birds which feed upon theſe berries is purgative. Homberg, *Mem. de l'Acad. des Sc. de Paris*, 1712. *p.* 9.

[c] Lewis, *M. M. p.* 612.

[d] Riverius, *Prax. lib. ii. cap.* 6. *p.* 44.—Boerhaave, *De virib. med. p.* 308.—Chomel, *Uſuell. tom. i. p.* 19.—Sydenham, *Opera*, *p.* 488.

[e] Allioni, *Fl. Pedemont*, *t. ii. p.* 130.

TANACETUM VULGARE. COMMON TANSY.

SYNONYMA. Tanacetum. *Pharm. Lond. & Edinb. Raii Hiſt. p.* 365. *Synop. p.* 188. *Gerard Emac. p.* 650. Tanacetum vulgare luteum. *Bauh. Pin. p.* 132. Tanacetum vulgare. *Park. Theat. p.* 80. *Hudſon Flor. Ang. p.* 357. *Withering. Bot. Arrang. p.* 887. *Flor. Dan. p.* 871. Tanacetum foliis pinnatis, pinnis ſemipinnatis, acute dentatis. *Hal. Stirp. Helv. n.* 132.

Claſs Syngeneſia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 944.

Eſſ. Gen. Ch. Recept. nudum. *Pappus* ſubmarginatus. *Cal.* imbricatus, hemiſphæricus. *Cor.* radii obſoletæ, 3-fidæ.

Sp. Ch. T. foliis bipinnatis inciſis ſerratis.

THE root is perennial, long, creeping, and fibrous: the ſtem is ſtrong, erect, often reddiſh, branched towards the top, ſmooth, beſet with leaves, and riſes two or three feet in height: the leaves are doubly pinnated; leſſer pinnæ, numerous, notched, or deeply ſerrated; principal ribs edged with leafy clefts: the flowers are yellow, compound, and produced in a corymbus: the calyx conſiſts of numerous ſmall imbricated ſquamæ, forming a common perianthum of an hemiſpherical ſhape: *the florets at the diſc are hermaphrodite*, tubular, divided at the mouth into five pointed ſegments: *the florets at the border are female*, and cut at the brim into three teeth: the filaments are five, very ſhort, ſlender, and furniſhed with antheræ, which unite and form a hollow cylinder: the germen in both the hermaphrodite and female florets is oblong, ſmall, and ſupports a filiform ſtyle, furniſhed with a cloven reflexed ſtigma: the ſeeds are naked, ſolitary, and of an oblong ſhape: the receptacle is convex and naked. It is a native of England, growing in moiſt paſtures, borders of corn fields, roads, and rivers, and flowering in July and Auguſt.

This

This ſpecies, of which there is a variety, *foliis criſpis*, the curled Tanſy, which is ſaid to be more grateful to the ſtomach than the common Tanſy, and has therefore been preferred by ſome for medical purpoſes; but as the ſenſible qualities of the latter ſeem moſt powerful, we judge it to be moſt efficacious.

"The leaves and flowers of Tanſy have a ſtrong, not very diſagreeable ſmell, and a bitter ſomewhat aromatic taſte: the flowers are ſtronger though rather leſs unpleaſant than the leaves. They give out their virtue both to water and ſpirit, moſt perfectly to the latter: the tincture made from the leaves is of a fine green; from the flowers of a bright pale yellow colour. Diſtilled with water they yield a greeniſh-yellow eſſential oil, ſmelling ſtrongly of the herb: the remaining decoction, inſpiſſated, affords a ſtrong bitter ſubſaline extract. The ſpirituous tinctures give over alſo, in diſtillation, a conſiderable part of their flavour; a part of it remaining along with the bitter matter, in the extract." [b]

According to Bergius, the virtues of Tanſy are tonic, ſtomachic, anthelmintic, emmenagogue, and reſolvent;[c] qualities uſually attributed to bitters of the warm or aromatic kind; many of which we ſhall ſoon have occaſion to notice under the genus Artemeſia, which is cloſely allied to that of Tanacetum in its botanical character. Tanſy has been much uſed as a vermifuge, and teſtimonies of its efficacy are given by many reſpectable phyſicians: not only the leaves but the ſeeds have been employed with this intention, and ſubſtituted for thoſe of Santonicum.

We are told by Dr. Clark, that in Scotland Tanſy was found to be of great ſervice in various caſes of gout;[f] and Dr. Cullen, who afterwards was informed of the effects it produced upon thoſe who had uſed the herb for this purpoſe, ſays, "I have known ſeveral who have taken it without any advantage, and ſome others who reported that they had been relieved from the frequency of their gout."[g]

[a] See C. *Bauh. l. c.* [b] Lewis, *M. M. p.* 633. [c] *Mat. Med. p.* 664.

[d] Hoffman ſpeaks highly of its efficacy. See *Med. Syſt. T.* 4. *P.* 2. *p.* 333. See alſo *Supp. p.* 87. Roſenſtein, *Bſkd.* cap. de vermibus. [e] The latter however are much more bitter and aromatic. See *Lewis, l. c.* [f] Vide, *Eſſays and Obſ. phyſical and lit. vol. iii. p.* 438. [g] *Mat. Med. vol. ii. p.* 80.

Tanſy is alſo recommended in the hyſteria, eſpecially when this diſeaſe is ſuppoſed to proceed from menſtrual obſtructions.

This plant may be given in powder to the quantity of a dram, or more, for a doſe; but it has been more commonly taken in infuſion, or drunk as tea.

DICTAMNUS ALBUS. WHITE FRAXINELLA, Or, BASTARD DITTANY.

SYNONYMA. Dictamnus albus. *Pharm. Edinb.* Dictamnus albus ſive Fraxinella. *Bauh. Pin. p.* 222. Fraxinella. *Gerard Emac. p.* 1245. *Morris, Hiſt. iii. p.* 456. *Tourn. Inſt. p.* 430. Fraxinella flore purpureo & albo. *Park. Parad. p.* 333. Fraxinella, &c. *Raii Hiſt. p.* 698. *J. Bauh. iii. p.* 494. *Hal. Stirp. Helv. n.* 1029. *Miller's Figures, tab.* 123. *Jacquin, Flor. Auſt. tab.* 428. $^{\alpha}$ Flore niveo. $^{\beta}$ Flore rubro.

Claſs Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 522.

Eſſ. Gen. Ch. Cal. 5-phyllus. *Petala* 5, patula. *Filamenta* punctis glanduloſis adſperſa. *Caps.* 5, coalitæ.

Sp. Ch. D. foliis pinnatis caule ſimplici. *Supp. p.* 232.

THE root is perennial, and ſends off many long ſpreading fibres: the leaves are pinnated and large; pinnæ elliptical, veined, pointed, ſlightly ſerrated, ſtand in pairs, and are terminated by an odd one, which is the largeſt: the ſtalk is round, ſmooth, erect, and riſes about a foot and a half in height: the bracteæ are ſtipular, and placed ſingly at the baſe of the peduncles: the flowers appear from May till July; they are numerous, large, white, terminate the ſtem, and ſtand alternately upon long peduncles, which towards the top are bent downwards, and beſet with ſmall glands: the corolla is compoſed of five white petals, of an obverſely oval ſhape, and inſerted into the calyx

calyx by long claws: the calyx is rough, and divided into five ſhort ſegments: the filaments are ten, about the length of the corolla, marked with minute glands, and furniſhed with large antheræ: the germen is pentangular: the ſtyle ſhort, tapering, and ſupplied with a pointed ſtigma: the ſeed veſſels are five united capſules, each of which contains two ſmall oval ſeeds.

This plant, which is commonly called Fraxinella,* is a native of France, Germany, and Italy. It was cultivated here by Gerard, and frequently adorns the borders of our flower gardens, eſpecially the red variety, which is the handſomer plant. It emits a fragrant bituminous odour, which ſeems to be the eſſential oil of the herb, ſecreted by numerous ſmall glands, with which the peduncles and filaments are abundantly furniſhed. Theſe odorous effluvia are ſo very inflammable, that on the application of flame, they take fire, eſpecially on the evening of a hot dry day.[a]

The root, which is the part directed for medicinal uſe, "when freſh, has a moderately ſtrong, not diſagreeable ſmell, but as met with in the ſhops it has ſcarcely any. To the taſte it diſcovers a pretty ſtrong and very durable bitterneſs, which is taken up both by watery and ſpirituous menſtrua, and on inſpiſſating the filtered tinctures, remains entire in the extracts: the aqueous extract is in much larger quantity than the ſpirituous, and proportionably weaker in taſte."[b]

Formerly this root was uſed as a ſtomachic, tonic, and alexipharmic, and was ſuppoſed to be a medicine of much efficacy in removing uterine obſtructions, and deſtroying worms;[c] but its medicinal powers became ſo little regarded by modern phyſicians, that it had fallen almoſt entirely into diſuſe, till Baron Stoerck brought it into notice by publiſhing ſeveral caſes of its ſucceſs,[d] viz. in tertian intermittents, worms, (lumbrici) and menſtrual ſuppreſſions. In all theſe caſes he employed the powdered root to the extent of a ſcruple twice a day.

* From the reſemblance its leaves have to thoſe of the aſh.

[a] Vide Du Hamel, *Phyſ. des arbres, tom. i. p.* 150. Nollet, *Cours. de Phyſ. vol. i. p.* 300. [b] *Lewis, M. M. p.* 274. [c] See Geier, *Dictamnographia. Buchner Diſſ. de Fraxinella.* Matthiolus ſays, "ad multa utilis eſt." *p.* 523. [d] Vide *libell. de Flammula Jovis, Dictamno albo, &c.*

He

He alſo made uſe of a tincture, prepared of two ounces of the freſh root digeſted in fourteen ounces of ſpirit of wine; of this twenty to fifty drops, two or three times a day, were ſucceſsfully preſcribed in epilepſies, &c. and when joined with ſteel, this root, we are told, was of great ſervice to chlorotic patients.

The Dictamnus undoubtedly is a medicine of conſiderable power; but, notwithſtanding the account of it given by Stoerck, who ſeems to have paid little attention to its modus operandi, we may ſtill ſay with Haller, " Nondum autem vires pro dignitate exploratus eſt." l. c.

CANELLA ALBA. LAUREL-LEAVED CANELLA.

SYNONYMA. Canella alba. *Pharm. Lond. & Edinb.* Winterania Canella. *Lin. Supp. p.* 247. Arbor baccifera laurifolia aromatica, fructu viridi calyculato racemoſo. *Sloane's Jamaica, vol. ii. p.* 87. *t.* 191. *f.* 2. *Cateſby's Carolina, vol. ii. p.* 50. *t.* 50. Canella foliis oblongis obtuſis nitidis, racemis terminalibus. *Browne's Jamaica, p.* 275. *t.* 27. *f.* 3. Caſſia lignea Jamaicenſis Laureolæ foliis ſubcinereis cortice piperis modo acri. *Pluckenet Almag. p.* 89. *t.* 81. *f.* 1. *Lin. Spec. Plant. p.* 636. *Conf. Swartz. Botanical Hiſtory of the Canella Alba. Linnean Tranſactions. p.* 96.

Claſs Dodecandria. *Ord.* Monogynia. *Lin. Gen. Winterania. p.* 598.

Eſſ. Gen. Ch. Cal. 3-lobus. *Pet.* 5. *Antheræ* 16, adnatæ nectario urceolato. *Bacca* 3-locularis. *Sem.* 2.

THE ſtem of this tree riſes very ſtraight, from ten to fifty feet in height, and branched only at the top; it is covered with a whitiſh bark, by which it is eaſily diſtinguiſhed at a diſtance from other trees in the woods where it grows: the leaves are placed upon ſhort footſtalks, and ſtand alternately: they are oblong, obtuſe, entire, of a dark ſhining

ſhining green hue, and thick like thoſe of the laurel: the flowers are ſmall, ſeldom opening, of a violet colour, and grow in cluſters at the tops of the branches upon divided footſtalks: the calyx is monophyllus, divided nearly to its baſe into three lobes, which are roundiſh, concave, incumbent, green, ſmooth, membranous, and perſiſtent: the corolla is compoſed of five petals, which are much longer than the calyx, ſeſſile, oblong, concave, erect, and two of them are ſomewhat narrower than the other three: the nectary is pitcher-ſhaped, of the length of the petals, and ſupports the antheræ inſtead of filaments, which are wanting: the antheræ are twenty-one, linear, parallel, diſtinct, ſingle valved, and fixed longitudinally to the nectary: the germen is ovate, placed above the inſertion of the corolla, and ſupports a cylindrical ſtyle, furniſhed with two obtuſe rough convex ſtigmata: the fruit is an oblong berry, containing four kidney-ſhaped ſeeds of unequal ſize.*

It appears a little ſurpriſing, that the Canella, which is a native of the Weſt Indies, and of which figures have been given by Plukenet, Sloane, Cateſby, Browne,[a] and others, ſhould have been generally confounded with the tree which produces the cortex winteranus: even the younger Linnæus, who deſcribes this tree under the genus Winterania, from a ſpecimen in the herbarium of Montin, has acknowledged that he could not diſcover how far it differed from the Drimys, or Wintera of Murray.[b] The preſent figure, which is given on the authority of Dr. Swartz, who preſented it to the Linnean Society, accompanied with a botanical hiſtory of the tree,‖ will, we hope, re-

* "The whole tree (according to Dr. Swartz) is very aromatic, and when in bloſſom perfumes the whole neighbourhood. The flowers dried, and ſoftened again in warm water, have a fragrant odour, nearly approaching to that of muſk. The leaves have a ſtrong ſmell of laurel. The berries, after having been ſome time green, turn blue, and become at laſt of a black gloſſy colour, and have a faint aromatic taſte and ſmell. They are, when ripe, as well as the fruit of ſeveral kinds of laurel, very agreeable to the *White-bellied and Bald-pate Pigeons, (Columba Jamaicenſis & leucocephala)* which feeding greedily upon them acquire that peculiar flavour ſo much admired in the places where they are found." l. c.

[a] Swartz obſerves, that the only tolerable figure among theſe is that of Browne, l. c.

[b] "Quantum differat a genere Drimys nondum bene ſcio." *Supp. p.* 247.

[c] *Vide l. c.*.

‖ Read before the Linnean in December 1788.

move every doubt concerning the true characters of Canella alba; and by comparing the annexed plate with that publiſhed of the Winterana aromatica, in the fifth volume of Medical Obſervations and Inquiries by Drs. Fothergill and Solander,‖ it may be obſerved how far the tree, which produces the cortex winteranus, differs from that of our plant, the bark of which is the officinal Canella alba. The latter appears from Cluſius to have been firſt introduced into Britain about the year 1600;† the former was known in England twenty years before, and took its name from William Winter, captain of one of the ſhips which accompanied Sir Francis Drake to the Straits of Magellan, from whence he brought this bark to Europe in 1579. John Bauhin appears to be the firſt [d] who confounded the names of theſe barks, by ſtyling the cortex winteranus Canella alba; and as Sir Hans Sloane, who has given a ſeparate deſcription of both trees, and was ſenſible of a difference in the taſte of their barks, ſeems to inſinuate that this might depend upon the place of growth, his remarks did not wholly remove the error.[e]

Profeſſor Murray, in his 14th edition of the Syſtema Vegetabilium, was the firſt who made a diſtinct genus of Canella, and thus corrected the miſtake of Linnæus,‡ who, diſregarding the evidence of the old botaniſts,* combined two genera under the name of Laurus Winterana;[f] but he afterwards made it a ſeparate genus, and called it Winterania,[g] a name by which it has been long univerſally, though improperly diſtinguiſhed. Mr. Aiton, who has followed Murray in conſidering the Canella, as differing generically from the tree named after Winter, informs us, that it was cultivated by Mr. Phillip Miller, at Chelſea, in 1739.[h]

‖ "*Some Account of the Cortex Winteranus, or Magellanicus, by Dr. John Fothergill, with a Botanical Deſcription by Dr. Solander, and ſome Experiments by Dr. Morris.*" *p.* 41.

† He ſays, "Ante paucos annos (1605) cœpit exoticus cortex inferri, cui nomen Canellæ albæ indiderunt." *Exot. lib. iv. cap.* 4.

[d] *Hiſt. vol. i. p.* 460. [e] *Phil. Tranſ. No.* 192. *p.* 462.

‡ *P.* 443. Though Murray has here ſaid, "Cortex hujus eſt Canella alba officinarum," yet the London College has not availed itſelf of this authority, no botanical reference being given to Canella alba in the new pharmacopœia.

* Among theſe we may notice Plukenet, who, ſpeaking of theſe two trees, ſays, "Varie inter ſe plurimum diverſæ plantæ per illarum ignorationem plane confunduntur." *Almag. Mant. p.* 40.

[f] *Sp. Plant. ed.* 1. *p.* 371. [g] See his *Hort. Cliff.* 448. and *Mat. Med.*

[h] *Hort. Kew. vol. ii. p.* 125.

The

The officinal Canella alba is the bark of the branches of this tree, freed from its outward covering, and dried in the ſhade. It is brought to Europe in long quills, which are about three quarters of an inch in diameter, ſomewhat thicker than cinnamon, and both externally and internally of a whitiſh or light brown colour, with a yellowiſh hue, and commonly intermixed with thicker pieces, which are probably obtained from the trunk of the tree. This bark in taſte is moderately warm, aromatic, and bitteriſh; its ſmell is agreeable, and reſembles that of cloves. Its virtues are extracted moſt perfectly by proof ſpirit. "In diſtillation with water it yields an eſſential oil of a dark yellowiſh colour, of a thick tenacious conſiſtence, difficultly ſeparable from the aqueous fluid, in ſmell ſufficiently grateful, though rather leſs ſo than the bark itſelf: the remaining decoction, inſpiſſated, leaves an extract of great bitterneſs, in conſiſtence not uniform, ſeemingly compoſed of a reſinous and gummy matter, imperfectly mixed. On inſpiſſating the ſpirituous tincture, the ſpirit which diſtils has no great ſmell or taſte of the Canella, but is ſo far impregnated with its more volatile oil as to turn milky on the admixture of water: the remaining extract retains the bitterneſs of the bark, but has little more of its warmth or flavour than the extract made with water."[i]

The uſe of Canella alba now ſuperſedes that of the old bark of Winter, on the authority of both the London and Edinburgh pharmacopœias. It has been ſuppoſed to poſſeſs a conſiderable ſhare of medicinal power, and is ſaid to be an uſeful medicine in the ſcurvy, and ſome other complaints; but it is now conſidered merely in the character of an aromatic, and like many of the ſpices is chiefly employed for the purpoſe of correcting and rendering leſs diſagreeable the more powerful and nauſeous drugs. It is therefore an ingredient in the pulv. aloet. Pharm. Lond. and in the tinctura amara, vinum amarum, vinum rhei, &c. of the Pharm. Edinb. Swartz tells us that "this bark, together with the fruit of Capſicum, was formerly a common ingredient in the food and drink of the Caribs, the ancient natives of the Antilles; and even at preſent it makes a neceſſary addition to the meagre pot of the negroes." l. c.

[i] Lewis, *M. M. p.* 186.

SCILLA MARITIMA.

SCILLA MARITIMA. OFFICINAL SQUILL, Or, SEA ONION.

SYNONYMA. Scilla. *Pharm. Lond. & Edinb.* Scilla vulgaris radice rubra. *Bauh. Pin. p.* 73. *Raii Hiſt. p.* 1164. Scilla rubra, ſive Pancratium verum. *Park. Parad. p.* 133. Scilla rubra magna vulgaris. *J. Bauh. Hiſt. ii. p.* 615. Pancratium Cluſii. *Gerard Emac. p.* 172. Ornithogalon maritimum, ſeu ſcilla radice rubra. *Tourn. Inſt. p.* 381. β Scilla radice alba. *Bauh. l. c.*

Claſs Hexandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 419.

Eſſ. Gen. Ch. *Cor.* 6-petala, patens, decidua. *Filamenta* filiformia.

Sp. Ch. S. nudiflora, bracteis refractis.

THE root is large, perennial, bulbous, coated, of a reddiſh hue, abounding with a tenacious juice, and furniſhed with many white fibres, which iſſue from its baſe: the ſtem is round, ſmooth, ſucculent, and riſes two or three feet in height: the leaves are ſword-ſhaped, radical, ſmooth, pointed, long, and of a deep green colour: the flowers are whitiſh, produced in a long cloſe ſpike upon purpliſh peduncles, and appear in April and May: the bracteæ are linear, twiſted, and deciduous: it has no calyx: the corolla is compoſed of ſix petals, which are ovate, patent, with a reddiſh mark in the middle: the filaments are ſix, tapering, ſhorter than the corolla, and furniſhed with oblong antheræ, placed tranſverſely: the germen is roundiſh, ſupporting a ſimple ſtyle about the length of the filaments, and furniſhed with a ſimple ſtigma: the capſule is oblong, ſmooth, marked with three furrows, and divided into three cells, which contain many roundiſh ſeeds.

This plant is a native of Spain, Sicily, and Syria, growing in ſandy ſituations on the ſea coaſt, and hence the name *maritima*. It was firſt cultivated in England at the botanic garden at Oxford about the year 1648.[a] The red rooted variety has been ſuppoſed to be more

[a] Vide, *Hort. Oxon. ed.* 1. *p.* 48.

efficacious

efficacious than the white, and is therefore ſtill preferred for medicinal uſe :[b] it is to the taſte very nauſeous, intenſely bitter, and acrimonious, but without any perceptible ſmell. " Water, wine, proof ſpirit and rectified ſpirit, extract the virtues both of the freſh and the dry root. Nothing riſes in diſtillation with any of theſe menſtrua, the entire bitterneſs and pungency of the Squill remaining concentrated in the inſpiſſated extracts : the ſpirituous extract is in ſmaller quantity than the watery, and of a proportionably ſtronger almoſt fiery taſte."

" Alkalines conſiderably abate both the bitterneſs and acrimony of the Squill : vegetable acids make little alteration in either, though the admixture of the acid taſte renders that of the Squill more ſupportable. Theſe acids extract its virtue equally with watery or ſpirituous menſtrua." [c]

The root of the Squill, which appears to have been known as a medicine in the early ages of Greece,[d] and has ſo well maintained its character ever ſince, as to be deſervedly in great eſtimation, and of very frequent uſe at this time, ſeems to manifeſt a poiſonous quality to ſeveral animals. In proof of this, we have the teſtimonies of Hillefeild,[e] Bergius,[f] Vogel,[g] and others. Its acrimony is ſo great that even if much handled it exulcerates the ſkin ; and if given in large doſes, and frequently repeated, it not only excites nauſea, tormina, and violent vomitings, but it has been known to produce ſtrangury, bloody urine, hypercatharſis, cardialgia, hæmorrhoids, convulſions, with fatal inflammation and gangrene of the ſtomach and bowels.[h] But as many of the more active articles of the materia medica, by injudicious adminiſtration, become equally deleterious, theſe effects of the Scilla do not derogate from its medicinal virtues ; on the contrary, we feel ourſelves fully warranted in repreſenting this drug, under proper management, and in certain caſes and conſtitutions, to be a medicine of great

[b] It may be obſerved, that this red colour is only confined to the outer coats of the root. [c] Lewis, *M. M.*

[d] Some refer its introduction to medical uſe to Epimenides ; others to Pythagoras. Vide Haller, *Bib. Bot. p.* 12. It was ſometimes called Σκιλλα, and ſometimes Παγκρατιον and is noticed by Dioſcorides, Hippocrates, Galen, Aëtius, Celſus, Pliny, Cælius Aurelianus, and the Arabian phyſicians.

[e] *Diff. experim. circa venena, p.* 12. [f] *Mat. Med. p.* 265. [g] *V. in* Hillef. *p.* 18.

[h] See Lange, *de remed. Brunſ. domeſt. p.* 176. Alſo Quarin, *Animadv. pract. p.* 166.

practical utility, and real importance in the cure of many obſtinate diſeaſes. Its effects, as ſtated by Bergius, are incidens diuretica, emetica, ſubpurgans, hydragoga, expectorans, emmenagoga.[i] In hydropical caſes it has long been eſteemed the moſt certain and effectual diuretic with which we are acquainted; and in aſthmatic affections,[k] or dyſpnœa, occaſioned by the lodgment of tenacious phlegm, it has been the expectorant uſually employed.[l] The Squill, eſpecially in large doſes, is apt to ſtimulate the ſtomach, and to prove emetic; and it ſometimes acts upon the inteſtines, and becomes purgative; but when theſe operations take place, the medicine is prevented from reaching the blood veſſels and kidneys, and the patient is deprived of its diuretic effects; which are to be obtained by giving the Squill in ſmaller doſes, repeated at more diſtant intervals,[m] or by the joining of an opiate to this medicine, which was found by Dr. Cullen to anſwer the ſame purpoſe. The Dr. further obſerves, that from a continued repetition of the Squill, the doſe may be gradually increaſed, and the intervals of its exhibition ſhortened; and when in this way the doſes come to be tolerably large, the opiate may be moſt conveniently employed to direct the operation of the Squill more certainly to the kidneys. "In caſes of dropſy; that is, when there is an effuſion of water into the cavities, and therefore that leſs water goes to the kidneys, we are of opinion, that neutral ſalt, accompanying the Squill, may be of uſe in determining this more certainly to the kidneys: and whenever it can be perceived that it takes this courſe, we are perſuaded that it will alſo be always uſeful, and generally ſafe during the exhibition of the Squills to increaſe the uſual quantity of drink."[n]

The diuretic effects of Squills have been ſuppoſed to be promoted by the addition of ſome mercurial; and the leſs purgative preparations of mercury, in the opinion of Dr. Cullen, are beſt adapted to this purpoſe; he therefore recommends a ſolution of corroſive ſublimate, as being more proper than any other, becauſe moſt diuretic.

[i] *L. c.* [k] All the authors who have written on theſe diſeaſes, might here be cited.

[l] We do not notice its uſe as an emetic, as we think it entirely ſuperſeded by the ipecacuanha.

[m] This is mentioned on the authority of Dr. Cullen. *M. M. v. ii. p.* 558.

[n] Cullen, *l. c.*

Where

Where the primæ viæ abound with mucous matter, and the lungs are oppreſſed with viſcid phlegm, this medicine is likewiſe in general eſtimation.

As an expectorant, the Squill may be ſuppoſed not only to attenuate the mucus, and thus facilitate its ejection, but by ſtimulating the ſecretory organs and mucous follicles, to excite a more copious excretion of it from the lungs, and thereby leſſen the congeſtion, upon which the difficulty of reſpiration very generally depends. Therefore in all pulmonic affections, excepting only thoſe of actual or violent inflammation, ulcer, and ſpaſm, the Squill has been experienced to be an uſeful medicine.

The officinal preparations of Squills are a conſerve, dried Squills,* a ſyrup, and vinegar, an oxymel, and pills. Practitioners have not however confined themſelves to theſe:[o] when this root was intended as a diuretic, it has moſt commonly been uſed in powder, as being in this ſtate leſs diſpoſed to nauſeate the ſtomach; and to the powder it has been the practice to add neutral ſalts, as nitre, or cryſtals of tartar, eſpecially if the patient complained of much thirſt; others recommend calomel; and with a view to render the Squills leſs offenſive to the ſtomach, it has been uſual to conjoin an aromatic. The doſe of dried Squill is from two to four or ſix grains, once a day, or half this quantity twice a day; afterwards to be regulated according to its effects. The doſe of the other preparations of this drug, when freſh, ſhould be four times this weight; for this root loſes in the proceſs of drying four-fifths of its original weight, and this loſs is merely a watery exhalation.[p]

* "We muſt not, however, miſs to obſerve here, that the drying of the Squill is a buſineſs that requires much attention, as it may be readily over done, and thereby render the Squill entirely uſeleſs. This over drying in one way or other, happens more frequently than our apothecaries are aware of; and has led me to allow, that ſome operation on the ſtomach, ſome nauſea excited by the Squill, is a neceſſary teſt of the activity of the portion of it employed." *Cullen, l. c.*

[o] See on this ſubject Wagner, *obſ. clin. ſect.* 2. in Hall. *collect. diſſ.* Ludwig, *Advers Medio-pract. vol. ii. p.* 695. Quarin, *l. c.* Werlhof, *Oper.* Stoll, *Prælect. in morb. chron.* Home, *Clin. Exper. & Hiſt. p.* 357. *&c.*

[p] Duncan, *New Edinb. Diſpenſ. p.* 322.

ARTEMISIA ABROTANUM. COMMON SOUTHERNWOOD.

SYNONYMA. Abrotanum. *Pharm. Lond. & Edinb.* Abrotanum mas anguſtifolium majus. *Bauh. Pin. p.* 136. *Tourn. Inſt. p.* 459. *Duhamel, Arb. i. p.* 20. *t.* 4. Abrotanum mas vulgare. *Park. Theat. p.* 92. Abrotanum mas. *Gerard. Emac. p.* 1105. *Raii Hiſt. p.* 371. *Dodon. Pempt. p.* 21.

α A. caule *erecto.*

β A. *humilis* foliis ſetaceis pinnatifidis, caule decumbente ſuffruticoſo. *Mill. Dict.*

Claſs Syngeneſia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

Eſſ. Gen. Ch. Recept. ſubvilloſum vel nudiuſculum. *Pappus* nullus. *Cal.* imbricatus, ſquamis rotundatis, conniventibus. *Cor.* radii nullæ.

Sp. Ch. A. fruticoſa, foliis ſetaceis ramoſiſſimis.

THE root is perennial, woody, and fibrous: the ſtalk is ſhrubby, round, covered with ſmooth brown bark, ſends off vertical branches, and riſes two or three feet in height: the leaves are numerous, ſomewhat hoary, doubly and irregularly pinnated; pinnæ, linear, long, narrow, entire, concave on the upper ſide, convex beneath, and ſtand upon long footſtalks, which are alſo of this ſhape: the flowers are ſmall, of a greeniſh yellow colour, and placed in cloſe terminal ſpikes upon the branches: the calyx is imbricated, conſiſting of ſeveral membranous ſcales: the flowers are compound, compoſed of numerous florets; thoſe in the *centre*, or *diſc*, are *hermaphrodite*; but in the *margin* they are *female:* the corolla is tubular, and extremely minute: the filaments are five, ſhort, and ſlender: the antheræ are united, and form a hollow cylinder: the ſtyle is longer than the ſtamina, and furniſhed with a cleft reflected ſtigma: the ſeeds are naked and ſolitary.

Southernwood

Southernwood is a native of France, Spain, and Italy: it was cultivated here by Gerard, and its odour renders it ſo generally acceptable, that there are few gardens in which this plant is not to be found. Although it bears the cold of our winters very well, it ſo rarely flowers in Britain, that a ſpecimen proper for delineation cannot without difficulty be obtained.

The leaves and tops of Southernwood, have a ſtrong, and to moſt people an agreeable ſmell: its taſte is pungent, bitter, and ſomewhat nauſeous. Theſe qualities are completely extracted by ſpirituous menſtrua, the herb communicating to the ſpirit a beautiful green colour. Water extracts its virtues leſs perfectly, and the infuſion is of a light brown colour. In diſtillation with water this plant affords but a ſmall quantity of eſſential oil; for from ſixteen pounds of the freſh leaves ſcarcely three drams of this oil could be obtained.[a]

The Abrotanum mas & femina were regarded by the ancients [b] as medicines of conſiderable efficacy; the latter is referred to Santolina Chamæ-Cypariſſus, *Lin.* (Common Lavender Cotton); the former is the ſpecies now under conſideration, and has been eſteemed to be ſtomachic, carminative, and deobſtruent: it is ſuppoſed to ſtimulate the whole ſyſtem, more particularly that of the uterus. But though it ſtill retains a place both in the London and Edinburgh pharmacopœias, it is now rarely uſed, unleſs in the way of fomentation.

[a] Lewis, *M. M. p.* 4.

[b] See Theophraſt. *Hiſt. L.* 1. *c.* 15. *p.* 44. Dioſcor. *L.* 3. *c.* 29. *p.* 184. Galen, *Simpl. L.* 6. *p.* 40. Pliny, *L.* 21. *c.* 21.

ARTEMISIA ABSINTHIUM. COMMON WORMWOOD.

SYNONYMA. Abſinthium vulgare. *Pharm. Lond. & Edinb.* Abſinthium ponticum ſeu Romanum officinarum, ſeu Dioſcoridis. *Bauh. Pin. p.* 138. Abſinthium latifolium ſive Ponticum. *Gerard. Emac. p.* 1096. Abſinthium vulgare majus. *J. Bauh. Hiſt. iii. p.* 168. Abſinthium vulgare. *Park. Theat. p.* 98. *Raii Hiſt. p.* 366. *Synop. p.* 188. *Hal. Stirp. Helv. n.* 124. Artemiſia Abſinthium. *Hudſ. Ang. p.* 358. *Withering. Bot. Arrang. p.* 891.

Claſs Syngeneſia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

Eſſ. Gen. Ch. Recept. ſubvilloſum vel nudiuſculum. *Pappus* nullus. *Cal.* imbricatus ſquamis rotundatis conniventibus. *Cor.* radii nullæ.

Sp. Ch. A. foliis compoſitis multifidis, floribus ſubgloboſis pendulis: receptaculo villoſo.

THE root is perennial, long, and fibrous: the ſtalks are round, channelled, ſomewhat downy, ligneous, riſing two or three feet in height, and ſending off ſeveral round branches: the leaves are compound, divided into many bluntiſh ſegments in a pinnated order, on the under ſide downy, of a whitiſh or pale green colour, and ſilky ſoftneſs: the flowers are of a browniſh yellow colour, pendent, and placed in numerous ſpikes, which ſtand alternately upon the branches: the calyx is compoſed of many oval ſcales: the florets are hermaphrodite and male, placed upon a villous receptacle, and in the ſtructure of their different parts nearly reſembling thoſe deſcribed of the preceding ſpecies of Artemiſia. This plant is a native of Britain, and grows about rubbiſh, rocks, and ſides of roads.

The leaves of Wormwood have a ſtrong diſagreeable ſmell; their taſte is nauſeous, and ſo intenſely bitter as to be proverbial.

The

The flowers are more aromatic and leſs bitter than the leaves, and the roots diſcover an aromatic warmth without any bitterneſs.*

" The leaves give out nearly the whole of their ſmell and taſte both to aqueous and ſpirituous menſtrua. Rectified ſpirit elevates little from this plant in diſtillation: water brings over almoſt the whole of its ſmell and flavour. Along with the aqueous fluid there ariſes an eſſential oil, which ſmells ſtrongly and taſtes naufeouſly of the Wormwood, though not bitter. The quantity of oil varies greatly, according to the ſoil and ſeaſon in which the herb is produced. [a]

" The watery extract loſes the diſtinguiſhing ſmell and ill flavour of the plant, but retains its bitterneſs almoſt entire. An extract, made with rectified ſpirit, contains, along with the bitter, nearly the whole of the naufeous part; [b] water carrying off, in the evaporation, all the oil in which the offenſive flavour reſides, while pure ſpirit elevates very little of it." [c]

This ſpecies of Wormwood, which is thought by Profeſſor Murray to be the Abſinthium ponticum of Dioſcorides and Pliny, [d] may be conſidered the principal of the herbaceous bitters. Its *Virtus*, in the words of Bergius, is antiputredinoſa, antacida, anthelminthica, reſolvens, tonica, ſtomachica. [e] And although it is now chiefly employed with a view to the two laſt mentioned qualities, yet we are told of its good effects in a great variety of diſeaſes, as intermittent fevers, [f] hypochondriaſis, [g] obſtructions [h] of the liver and ſpleen, gout, [i] calculi, [k]

* This plant communicates a bitter taſte to the fleſh and milk of cows and ſheep which feed on it. *Lin. Flor. Suec. n.* 735. The milk of a woman, who took the extract, became extremely bitter. *Act. Hafn. vol.* 2. *p.* 165.

[a] *Baumé* from twenty-five pounds of the herb obtained ſix to ten drams of the oil.

[b] The extract, triturated with ſalt of tartar, emits a volatile odour; and hence appears to contain ſal ammoniacum. Sulzer. *Diſſ. An in plantis ſal eſſentiale ammoniacum? Gott.* 1769.

[c] Lewis, *M. M. p.* 6.

[d] " Abſinthium bathypicron herba eſt vulgo cognita. Præſtantius in Ponto & Cappadocia in monte Tauro appellato naſcitur." *Dioſcor. L.* 3. *c.* 26. *p.* 183.

[e] *Mat. Med. p.* 670. [f] Boerhaave, *Elem. Chem. Proceſſus.* 39. *Comm. Nor.* 1734. *p.* 225. [g] Haller, *l. c.*

[h] Lange, *Brunov. p.* 111. [i] Haller, *l. c.* Bomare, *Dict.*

[k] Linnæus, *Am. Acad. T.* 3. *p.* 160.

ſcurvy,

ſcurvy,[l] dropſy,[m] worms, &c. Lindeſtolphe[n] has aſſerted, that by a continued uſe of this herb, great injury is done to the nervous ſyſtem, from its narcotic and debilitating effects, which he experienced upon himſelf; obſerving alſo, that he could never taſte the extract or eſſence of Wormwood without being immediately affected with head-ach and inflammation of the eyes: and it is noticed both by him and his commentator, Stenzelius, that Abſinthium produced ſimilar effects upon many others. Theſe narcotic effects of Wormwood have however been attributed to a peculiar idioſyncraſy, as numerous inſtances have occurred in which this plant produced a contrary effect, though taken daily for the ſpace of ſix months. Dr. Cullen, ſpeaking on this ſubject, ſays, " I have not had an opportunity of making proper experiments; but to me, with Bergius and Gleditſch, the odour of Wormwood ſeems temulentans, that is, giving ſome confuſion of head: and formerly, when it was a faſhion with ſome people in this country to drink Purl, that is, ale, in which Wormwood is infuſed, it was commonly alleged to be more intoxicating than other ales. This effect is improperly ſuppoſed to be owing to its volatile parts: but I am more ready to admit the general doctrine of a narcotic power; and I believe, from ſeveral conſiderations, particularly from the hiſtory of the Portland powder, that there is in every bitter, when largely employed, a power of deſtroying the ſenſibility and irritability of the nervous power." [o]

Externally Wormwood is uſed in diſcutient and antiſeptic fomentations. This plant may be taken in powder, but it is more commonly preferred in infuſion. The Edinburgh pharmacopœia directs a tincture of the flowers, which is, in the opinion of Dr. Cullen, a light and agreeable bitter, and at the ſame time a ſtrong impregnation of the Wormwood.

[l] Eugal. *De Scorb. p.* 83. [m] Fehr, *Hiera. picra, vel de Abſinth. analecta. p.* 117. Heiſter *in* Hall. *Diſput. anat. vol.* 6. *p.* 713. *Miſc. Nat. Cur. Dec.* 1. *Ann.* 3. *Obſ.* 322. [n] *De venenis. p.* 547. [o] *Mat. Med. vol.* 2. *p.* 81.

ARTEMISIA VULGARIS. MUG-WORT.

SYNONYMA. Artemiſia.† *Pharm. Edinb.* Artemiſia vulgaris major. *Bauh. Pin. p.* 137. Artemiſia mater herbarum. *Gerard. Emac. p.* 1103. Artemiſia foliis pinnatis inferne tomentoſis, pinnis acute dentatis, ſpica paniculata erecta. *Hal. Stirp. Helv. n.* 130. Artemiſia vulgaris. *J. Bauh. Hiſt. iii. p.* 184. *Park. Theat. p.* 90. *Raii Hiſt. p.* 372. *Synop. p.* 190. *Hudſ. Flor. Ang. p.* 359. *Withering. Bot. Arrang. p.* 891.

Claſs Syngeneſia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

Eſſ. Gen. Ch. Recept. ſubvilloſum vel nudiuſculum. *Pappus* nullus. *Cal.* imbricatus, ſquamis rotundatis conniventibus. *Cor.* radii nullæ.

Sp. Ch. A. foliis pinnatifidis planis inciſis ſubtus tomentoſis, racemis ſimplicibus recurvatis floribus radio quinquefloro.

THE root is perennial, compoſed of numerous ſtrong fibres: the ſtalk is erect, branched, angular, ſtriated, reddiſh, and uſually riſes two or three feet in height: the leaves are irregularly and deeply divided into ſeveral laciniæ or lobes, which are oval, pointed, on the upper ſide of a deep green colour, on the under downy, or covered with a cotton-like ſubſtance: the flowers are ſmall, purpliſh, and produced in ſpikes, which ſtand alternately, and riſe from the bottom of the leaves: the calyx is compoſed of ſeveral narrow ſcales, which are purpliſh, woolly, and placed in an imbricated order: the florets are longer than the calyx, ſtand upon a naked receptacle, and appear in Auguſt: the five florets of the circumference are female;

† "Artemiſia dicta, ab *Artemiſia Mauſoli Cariæ regis uxore*, quæ hanc ſibi, ut loquitur *Plinius l.* 25. *c.* 7. *p.* 636. adoptavit, cum antea παρθενις i. e. virginalis, quod virgo dea illi nomen dederit, vocaretur. Sunt qui ab *Artemide Ilithia* cognominatam putent; quoniam privatim fœminarum malis, quibus Αρτεμις i. e. *Diana* præeſt, medeatur." *C. Bauh. l. c.*

thoſe of the centre are hermaphrodite, and both agree in their ſtructure with thoſe of the other ſpecies already deſcribed.

Mugwort is a native of Britain, and is commonly found growing in waſte grounds, and the borders of fields. It is divided into red and white varieties; the former is diſtinguiſhed by a reddiſh tinge of the ſtalk and flowers; in thoſe of the latter they are of a pale green. "The leaves have a light agreeable ſmell, eſpecially when rubbed a little; but ſcarcely any other than an herbaceous taſte. An extract made from them by water is likewiſe almoſt inſipid; and an extract made by ſpirit has only a weak aromatic bitterneſs. Baierus informs us, in a diſſertation on this plant, that by fermenting a large quantity of it, and afterwards diſtilling, and cohobating the diſtilled water, a fragrant ſapid liquor was obtained, with a thin fragrant oil on the ſurface. The flowery tops are conſiderably ſtronger than the leaves, and hence ſhould ſeem to be preferable for medicinal uſe."[a]

This plant, though rarely uſed at preſent, was by the ancients held in great eſtimation. Hippocrates[b] very frequently mentions Artemiſia: he thought it of great uſe in promoting uterine evacuations: with this intention it was alſo employed by Dioſcorides;[c] and Galen for this purpoſe uſed it in the way of fomentation; a practice which ſeems in ſome meaſure conformable to that of the Chineſe women, who, as we are told,[d] make a poultice of the leaves of this plant, mixed with rice and ſugar, which in caſes of amenorrhœa, and hyſteria, inſtar bellarii ingerunt. If this herb however poſſeſſes any powers as an antihyſteric or uterine, they are very weak; the London College has therefore properly expunged it from the materia medica.

Moxa is a ſubſtance prepared in Japan from the dryed tops and leaves of Mugwort,[e] by beating and rubbing them betwixt the hands till only the fine internal lanuginous fibres remain, which are then combed and formed into little cones. Theſe, uſed as cauteries, are

[a] *Lewis, M. M. p.* 117. [b] *De Morb. Mul. lib.* 1.

[c] *Mat. Med. lib.* 3. *cap.* 10. [d] *Ten. Rhyne de Arthr. p.* 133.

[e] This however is not the ſpecies of Artemiſia from which the eaſtern Moxa is made, but that prepared from this plant in Germany was found to anſwer very well. See *Eph. Nat. Cur. Dec.* 3. *A.* 7. 8. *App.* 141.

It has alſo been made from the down of Verbaſcum.

greatly

greatly celebrated in eaſtern countries for preventing and curing many diſorders;[f] but chronic rheumatiſms, gouty, and ſome other painful affections of the joints, ſeem to be the chief complaints for which they can be rationally employed. The manner of applying the Moxa is very ſimple: the part affected being previouſly moiſtened, a cone of the Moxa is laid, which being ſet on fire at the apex, gradually burns down to the ſkin, where it produces a dark coloured ſpot: by repeating the proceſs ſeveral times, an eſchar is formed of any deſired extent, and this on ſeparation leaves an ulcer, which is kept open or healed up as circumſtances may require.

It is ſaid that the uſe of the Moxa was originally introduced by the Jeſuits;[g] but it is probably of greater antiquity. From remote times it has been the practice to cauterize the affected parts by various means. Hippocrates for this purpoſe not only uſed iron but flax, alſo a ſpecies of Fungus;[h] and the Laplanders ſtill prefer the Agaric, (Boletus igniarius) which they prepare and uſe in a ſimilar way, as the Japaneſe do their Moxa[i]. The Ægyptians produced the ſame effects by means of cotton or linen cloth;[k] and in Spain a Moxa is prepared from a ſpecies of the Echinops.

[f] For a full account of theſe ſee Kæmpfer *Amœn. exot. p.* 502, *&c.* Alſo Abbé Groſier *(Hiſt. of China)* from whom it appears, that mirrors of ice or metal were uſed for the purpoſe of igniting the moxa; and that the ancient Chineſe made paper, and a kind of cloth, of the down of artemiſia.

[g] See *Recueil d'obſervations curieuſes, tom. ii. p.* 114.

[h] *Lib. de affect.* §. 30.

[i] Harmens and Fiellſtrom *Diſſ. Med. Lapp. in Hall. Collect. diſſ. pract. tom. vi. p.* 728. [k] Proſper Alpinus, *Lib. iii. c.* 12. *p.* 209.

ARTEMISIA MARITIMA. SEA WORMWOOD.

SYNONYMA. Abſinthium maritimum. *Pharm. Lond.* Abſinthium ſeriphium Belgicum. *Bauh. Pin. p.* 139. *J. Bauh. Hiſt. iii. p.* 188. Abſinthium ſeriphium ſive marinum Anglicum. *Park. Theat. p.* 102. Abſinthium marinum album. *Gerard. Emac. p.* 1099. *Raii Hiſt. p.* 370. *Synop. p.* 189. *Hudſ. Flor. Ang. p.* 359. *Withering. Bot. Arrang. p.* 890.

Claſs Syngeneſia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

Eſſ. Gen. Ch. *Recept.* ſubvilloſum vel nudiuſculum. *Pappus* nullus. *Cal.* imbricatus, ſquamis rotundatis, conniventibus. *Cor.* radii nullæ.

Sp. Ch. A. foliis multipartitis tomentoſis racemis cernuis floſculis femineis ternis.

THE root is perennial, ſpreading, and fibrous: the ſtems are procumbent, branched, about a foot in height, and covered with a white down or cotton: the leaves are numerous, irregularly divided into many ſegments, which are narrow, linear, and covered both above and below with a fine cotton-like ſubſtance, giving the whole plant a whitiſh appearance: the flowers are of a browniſh yellow colour, and placed in pendent ſpikes: the calyx is compoſed of many roundiſh ſcales: three florets at the circumference are female, the others are hermaphrodite, and both in their ſtructure reſemble thoſe of abſinthium. It is a native of Britain, growing plentifully on the ſea ſhore, and about ſalt marſhes, and flowers in Auguſt and September.

This plant ſeems to have been formerly confounded with the A. pontica, or Roman Wormwood, as appears by Ray[a] and Dale;[b] their

"[a] Abſinthii ſpeciem Londini & alibi in Anglia coli ſolitam nomine Abſinthii Romani, non aliter ab hoc differre putamus quam culturâ & loco natali." &c. *Hiſt. p.* 370.

[b] Speaking of this plant, he ſays, "Mulierculæ Botanopolæ Londinenſes Abſinthium romanum vocant." *Pharm. p.* 99.

ſpecific

ſpecific differences however are very evident. Its taſte and ſmell are conſiderably leſs unpleaſant [c] than thoſe of the common Wormwood; and even the eſſential oil, which contains the whole of its flavour concentrated, is ſomewhat leſs ungrateful, and the watery extract ſomewhat leſs bitter, than thoſe of the common wormwood. Hence it is preferred by the London College in thoſe caſes where the A. Abſinthium is ſuppoſed to be too offenſive to the ſtomach.‡ But as the efficacy of theſe plants depends upon their ſenſible qualities, this ſpecies, though its virtues approach to thoſe of common wormwood, yet from being leſs powerfully bitter, muſt be conſidered in a proportionate degree a leſs powerful medicine.

A conſerve of the tops of this plant is directed by the London Pharmacopœia.

[c] "In its wild ſtate it ſmells like Marum or Camphor, but in our gardens it is leſs grateful." *Withering*, *l. c.*

The ſalt of Wormwood, which is obtained from the aſhes of the A. Abſinthium, differs not from other vegetable fixed alkali, provided they be equally pure.

‡ It appears by Dioſcorides, that the ancients believed it to diſorder the ſtomach: — "Abſinthium marinum, quidam σεριφιον vocant, eſt herba prætenuibus ſurculis abrotoni parvi ſimilitudine, minutulis referta ſeminibus, ſubamara *ſtomacho inimica* graveolens, & cum quadam calfactione aſtringens." *l.* 3. *c.* 27.

ARTEMISIA SANTONICA. TARTARIAN SOUTHERN-WOOD.

SYNONYMA. Santonicum. *Pharm. Lond. & Edinb.* Abſinthium Santonicum Alexandrinum. *Bauh. Pin. p.* 139. *Raii Hiſt. p.* 368. Sementina. *Gerard Emac. p.* 1100. Semen ſanctum. *Lob. ic.* 758. Abſinthium Seriphium Ægyptium & ſemen ſanctum, Scheba Arabum. *Camer. Epit. p.* 457. Abſinthium Santonicum alexandrinum, ſive ſementina & ſemen ſanctum. *Park. Theat. p.* 102. Artemiſia fruticoſa incana ramoſiſſima, corymbis ſeſſilibus ſpicatis ſubrotundis, foliis ſuperioribus linearibus breviſſimis obtuſiuſculis. *Gmel. Lib.* 11. *p.* 115. *t.* 51.

Claſs Syngeneſia. *Ord.* Polygamia Superflua. *Lin. Gen. Plant.* 945.

Eſſ. Gen. Ch. *Recept.* ſubvilloſum vel nudiuſculum. *Pappus* nullus. *Cal.* imbricatus ſquamis rotundatis conniventibus. *Cor.* radii nullæ.

Sp. Ch. A. foliis caulinis linearibus pinnato-multifidis, ramis indiviſis, ſpicis ſecundis reflexis, floribus quinquefloris.

THE root is perennial: the ſtem is round, ſmooth, branched, ſomewhat hoary, and riſes about two feet in height: the lower leaves are divided into many narrow linear ſegments, ſtanding in a pinnated order; thoſe of the branches are ſeſſile, narrow, and undivided; they are all of a pale green on the upper ſide, and whitiſh beneath: the flowers are roundiſh, brown, and placed in ſpikes upon ſhort ſlender alternate peduncles: the calyx is compoſed of numerous narrow ſcales: the florets are male and female, placed upon a naked receptacle, and in their ſituation and ſtructure agree with the other ſpecies of Artemiſia already deſcribed. It is a native of Siberia, and flowers in September.

This ſpecies, which was firſt cultivated in England by Mr. P. Miller,[a] we obtained at the Royal Garden at Kew; but whether it is the officinal Santonicum, or not, ſeems very doubtful.*

It appears by the ſpecies plantarum, that though Linnæus firſt conſidered this plant to be the Santonicum, afterwards however he changed his opinion, and referred it to another ſpecies, named Artemiſia judaica;[b] and in this he has been followed by Murray and Bergius; but as the evidence upon which this determination is founded, is admitted by Linnæus himſelf to be ſtill inconcluſive,[c] we have in conformity to the London College adopted the Artemiſia as originally referred to.

[a] See *Aiton's Hort. Kew.*

* The following obſervation of Geoffroy on this ſubject is ſtill, in ſome meaſure, applicable:—"Nulla quidem res in officinis magis uſitata & cujus origo minus cognita ſit. Num in Galliâ proveniat, in Palæſtinâ, in Ægypto, vel in Perſiâ, aut in ſolo regno, *Boutan*, in India orientali remotiſſima." *M. M. vol. ii. p.* 466.

[b] *Mantiſſa*, *p.* 111. *& p.* 281. And *Mat. Med.* ſecond Edition.

[c] He enumerates the ſeeds of this plant among thoſe of the other plants hitherto not ſufficiently aſcertained. See his *Preface* to the *Materia Medica.*

The

The ſeed of Santonicum or Wormſeed is ſmall, light, oval, compoſed as it were of a number of thin membranous coats, of a yellowiſh green colour, with a caſt of brown; eaſily friable on being rubbed between the fingers, into a fine chaffy kind of ſubſtance.

Theſe ſeeds are brought from the Levant;[d] they have a moderately ſtrong and not agreeable ſmell, ſomewhat of the wormwood kind; and a very bitter ſubacrid taſte. Their virtues are extracted both by watery and ſpirituous menſtrua.

Theſe ſeeds, in common with the other Artemiſias, are eſteemed to be ſtomachic, emmenagogue,[e] and anthelmintic; but it is eſpecially for the laſt mentioned powers that they have been generally adminiſtered; and from their efficacy in this way they obtained the name of Wormſeed. Their quality of deſtroying worms has been aſcribed ſolely to their bitterneſs; but it appears from Baglivi, that worms (lumbrici) immerſed in a ſtrong infuſion of theſe ſeeds, were killed in five, and according to Redi, in ſeven or eight hours,[f] while in the infuſion of Wormwood, and in that of Agaric the worms continued to live more than thirty hours; and hence it has been inferred that their vermifuge effects could not wholly depend upon the bitterneſs of this ſeed. To adults the doſe in ſubſtance is from one to two drams twice a day. Lewis thinks that the ſpirituous extract is the moſt eligible preparation of the Santonicum for the purpoſes of an anthelmintic.

[d] *Lewis, M. M. p.* 580.

[e] Remarkable effects of the Santonicum in this way are related by Bergius:—"Puellæ quidem decenni, vermibus conflictanti, ſemina Santonici exhibui, ſed per illud tempus quo iis utebatur, menſes fluxerunt, qua re cognita, uſum eorundem diſſuaſi, unde etiam fluxus ſponte ceſſavit." *M. M. p.* 668.

[f] *Bagliv. Oper. p.* 60. *Redi de animal. viv. p.* 159.

DATURA STRAMONIUM.

DATURA STRAMONIUM. COMMON THORN-APPLE.

SYNONYMA. Stramonium. *Pharm. Edinb.* Solanum fœtidum, pomo ſpinoſo oblongo. *Bauh. Pin. p.* 168. Stramonium majus album. *Park. Parad. p.* 360. Stramonium ſpinoſum. *Gerard. Emac. p.* 348. *Raii Hiſt. p.* 748. Stramonium foliis anguloſis, fructu erecto, muricato calyce pentagonia. *Hall. Stirp. Helv. n.* 586. D. ſtramonium. *Withering. Bot. Arrang. p.* 230. *Flor. Danic. p.* 436. *Stoerck. Libell. de Stram. &c. Curt. Flor. Lond.*

Claſs Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant. p.* 246.

Eſſ. Gen. Ch. Cor. infundib. plicata. *Cal.* tubuloſus, angulatus, deciduus. *Caps.* 4-valvis.

Sp. Ch. D. pericarp. ſpinoſis erectis ovatis, foliis ovatis glabris.

THE root is large, annual, white, divided, and fibrous: the ſtalk is thick, erect, round, ſmooth, ſhining, below ſimple, above dichotomous, and riſes about two feet in height: the leaves are alternate, large, broad towards the baſe, pointed at the extremity, indented, and formed into ſeveral obtuſe angles, ſmooth, of a dark green colour, and ſtanding upon ſtrong round ſhort footſtalks: the flowers are ſolitary, large, white, and placed on ſhort erect peduncles at the junction of the branches: the calyx is compoſed of one leaf, tubular, pentangular, and divided at the brim into five teeth: the corolla is white, monopetalous, funnel-ſhaped, plicated, cut at the margin into five teeth, and furniſhed with a long cylindrical tube: the five filaments are tapering, about the length of the calyx, adhering to the tube, and ſupplied with oblong flat antheræ: the germen is oblong, and placed above the inſertion of the corolla: the ſtyle is filiform, equal in length to the filaments, and terminated by a thick blunt ſtigma: the capſule is large, oval, fleſhy, beſet with ſpines, divided into the cells, and four valves, which contain numerous kidney-ſhaped ſeeds. It grows wild in

in this country, about dunghills, rubbiſh, and in gardens, flowering in July.

This plant has been long known as a powerful narcotic poiſon; its congener, the D. Metel, is thought to be Στρυχνος μανικος of Theophraſtus and Dioſcorides, and is therefore the ſpecies received by Linnæus into the Materia Medica. The Stramonium, in its recent ſtate, has a bitteriſh taſte, and a ſmell ſomewhat reſembling that of poppies, or as called by Bergius, narcotic, eſpecially if the leaves be rubbed betwixt the fingers. By holding the plant to the noſe for ſome time, or ſleeping in a bed where the leaves are ſtrewed, giddineſs of the head and ſtupor are ſaid to have been produced.[a]

Inſtances of the deleterious effects of this plant are numerous, eſpecially of the ſeeds,[b] ſome of which we ſhall relate for the purpoſe of ſtating the ſymptoms which they produce. A man, aged ſixty-nine, labouring under a calculous complaint, by miſtake boiled the capſules of the Stramonium in milk, and in conſequence of drinking this decoction was affected with vertigo, dryneſs of the fauces, anxiety,

[a] *Stoerck, l. c. p.* 5.

[b] Kramer, in *Comm. Nor. A.* 1733. *p.* 251. Kaauw. *impet. n.* 349. Lobſten *epiſt. ad* Gurrin. *plant. venen. Alſat.* Clauder. *prax. med. leg. Cas. i. Eph. Nat. Cur. Cent. ix. obſ.* 94. Huckel, in *Comm. Lit. Nor.* 1744. *p.* 14. Kaauw. *Act. Franc. i. p.* 200. Buchner, *Miſcell.* 1725. *p.* 611. *Eph. Nat. cur. Dec. iii. a.* 3. *obſ.* 170. Barrere, *Eſſai ſur l'hiſt. nat. de la France* (ed. nov.) *p.* 48. Deering. *Catal. of Plants, &c. p.* 209. Buchner, *Miſc. Phyſ. Math. Med.* 1727. *p.* 122. Sauvages, *Noſol. T.* 2. *P.* 2. *p.* 430. Fowler, *Med. Comm. vol. v. p.* 164.

The circumſtances recited in the following advertiſement, publiſhed by my friend Dr. Haygarth, ſhew the neceſſity of adopting the precautions, which he judiciouſly recommends, and which ought to be made public.

"Gardeners are particularly deſired to take care never to throw poiſonous plants out "of gardens into the ſtreets, lanes, or even the fields to which people can have acceſs. "Poor children, for diverſion, curioſity, or hunger, are prompted to eat all kinds of "vegetables which come in their way, eſpecially ſeeds, fruits, or roots. This caution "does not proceed from fanciful ſpeculation, but from actual miſchief, produced by the "cauſe here ſpecified. A phyſician has lately ſeen ſeveral children poiſoned with the "roots of the Aconite or Monkſhood, thrown into an open field in the City of Cheſter, "and with the ſeeds of the Stramonium or Thorn Apple, thrown into the ſtreet. The "former were ſeized with very violent complaints of vomiting, an alarming pain of the "head, ſtomach, and bowels; the latter with blindneſs, and a kind of madneſs, biting, "ſcratching, ſhrieking, laughing, and crying, in a frightful manner. Many of them "were very dangerouſly affected, and eſcaped very narrowly with life. Theſe, and all "other, poiſonous plants, taken out of gardens, ſhould be carefully buried or burned."

followed with loſs of voice and ſenſe; the pulſe became ſmall and quick, the extremities cold, the limbs paralytic, the features diſtorted, accompanied with violent delirium, continual watchfulneſs, and a total ſuppreſſion of all the evacuations; but in a few hours he was reſtored to his former ſtate of health.[c]

Every part of the plant appears to poſſeſs a narcotic power,[d] but the ſeeds are the only part, of whoſe fatal effects we find inſtances recorded. Their ſoporiferous and intoxicating qualities are well known in eaſtern countries,[e] and if we can credit the accounts of ſome authors, have been converted to purpoſes the moſt licentious and diſhonourable.[f] The internal uſe of Stramonium, as well as that of ſeveral other deleterious plants which we have had occaſion to notice, was firſt ventured upon and recommended by Baron Stoerck, who gave an extract prepared of the expreſſed juice of the plant, with advantage, in caſes of mania, epilepſy, and ſome other convulſive affections.[g] But as the ſucceſs of this plant, even in the hands of the Baron, was not remarkable enough to claim very extraordinary praiſe, his account of the efficacy of the Stramonium probably would not have procured it a place in the Materia Medica of the Edinburgh Pharmacopœia, had its character reſted ſolely upon his repreſentation. Odhelius tells us, that of fourteen patients ſuffering under epileptic and convulſive affections, to whom he gave the Stra-

[c] *Eſſ. & Obſ. Phyſ. & Lit. v. ii. p.* 247.

According to Haller, "Deliria facit utique & ſopores, inde amentiam, maniam, convulſiones, paralyſes artuum, ſudores frigidas, ſitim vehementem, tremores." *l. c.*

[d] For that of the root, ſee *Ray*, *l. c.* For that of the leaves, *Döderlin*, *Comm. Nor. l. c. p.* 15.

[e] "Ab Indis inter alia inebriantia et aromatica in electuarium recipitur ſemen, ad grata phantaſmata cienda, et, ut quidam volunt, quo ad celera patranda tanto audaciores evadant." *Kæmpher*, *Exot. p.* 650. Cited by *Murray*, *App. Med. vol. i. p.* 458.

It was a cuſtom with the Chineſe to infuſe the ſeeds in beer. *Sprat*, *Hiſt. of the Royal Society*, *p.* 162.

[f] "Somnum facit adeo profundum, ut impune pudicitia puellæ violari poſſit, quæ hoc toxicum ſumſerit." See *Haller*, *l. c.* A mulierculis infidis Turcis, gynecæis incluſis, ad conſopiendos & dementandos maritos, quo aliorum magis deſideratorum amplexibus ſatientur, uſurpari, et Hamburgi a vetula ſic honeſtam feminam, quo ſe inſcia moechum admitteret, intoxicatam narratur. *Lindenſtolpe de ven. Ed. Stenzel. p.* 531. Cited by *Murray*, *l. c.*

[g] *Lib. de Stram. &c.* publiſhed in 1762.

monium

monium in an hoſpital at Stockholm, eight were completely cured, five were relieved, and only one received no benefit.[h] Bergius relates three caſes of its ſucceſs, viz. one of mania, and two of convulſions.[i] Reef, a Swediſh phyſician, mentions its utility in two caſes of mania.[k] Wedenberg cured four girls, affected with convulſive complaints, by the uſe of this medicine.[l] Other inſtances of the kind might be added. Greding however, who made many experiments, with a view to aſcertain the efficacy of this plant, was not ſo ſucceſsful; for out of the great number of caſes in which he employed the Stramonium, it was only in one inſtance that it effected a cure; and he objects to the caſes ſtated by Dr. Odhelius, on the ground that the patients were diſmiſſed before ſufficient time was allowed to know whether the diſeaſe would return again or not.[m] In this country we are unacquainted with any practitioners whoſe experience tends to throw any light on the medical character of this plant. It appears to us, that its effects as a medicine are to be referred to no other power than that of a narcotic; and Dr. Cullen, ſpeaking on this ſubject, ſays, "I have no doubt that narcotics may be a remedy in certain caſes of mania and epilepſy; but I have not, and I doubt if any other perſon has, learned to diſtinguiſh the caſes to which ſuch remedies are properly adapted. It is therefore that we find the other narcotics, as well as the Stramonium, to fail in the ſame hands in which they had in other caſes ſeemed to ſucceed. It is this conſideration that has occaſioned my neglecting the uſe of Stramonium, and therefore prevented me from ſpeaking more preciſely from my own experience on this ſubject."[n]

The extract of this plant has been the preparation uſually employed, and from one to ten grains and upwards, a day; but the powdered leaves, after the manner of thoſe directed of hemlock, would ſeem for the reaſon there given, to be a preparation more cer-

[h] See *Vetenſk. Acad. Handl.* 1766. *p.* 277. *ſq.*

[i] In his Mat. Med. he alſo ſays, "Delirium poſt puerperium ſæpe curavi cum Datura, ubi alia fefellerunt;" adding, "Pariter illa profuit adverſus ideam fixam ex mœrore cum deliratione manſueta conjuncta," *p.* 122.

[k] Strandberg, *om. chron. ſpikd. p.* 16.

[l] *Diſſ. de Stammonii uſu, &c.*

[m] *Ludwig. Adverſ. vol. i. p.* 354.

[n] *Mat. Med. vol. ii. p.* 282.

tain

tain and convenient. Greding found the ſtrength of the extract to vary exceedingly; that which he obtained from Ludwig, was a much more powerful medicine than that which he had of Stoerck.

Externally the leaves of Stramonium have been uſed as an application to inflammatory tumours and burns; in the latter a remarkable inſtance is noticed by Gerard. l. c.

VERBASCUM THAPSUS. GREAT BROAD-LEAVED MULLEIN.

SYNONYMA. Verbaſcum. *Pharm. Edinb.* Verbaſcum mas latifolium luteum. *Bauh. Pin. p.* 239. *Raii Hiſt. p.* 1094. *Synop. p.* 287. Verbaſcum album vulgare, ſive Tapſus barbatus communis. *Park. Theat. p.* 60. Tapſus barbatus. *Gerard Emac. p.* 773. Verbaſcum foliis decurrentibus utrinque tomentoſis *(lanatis) Hal. Stirp. Helv. n.* 581. V. Thapſus. *Flor. Dan. p.* 631. *Hudſon. Ang. p.* 89. *Withering. Bot. Arr. p.* 223.

Claſs Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 243.

Eſſ. Gen. Ch. *Cor.* rotata ſubinæqualis. *Caps.* 3-locularis, 2-valvis.

Sp. Ch. V. foliis decurrentibus utrinque tomentoſis caule ſimplici.

THE root is biennial, long, divided, and deſcends deeply into the ground: the ſtalk is ſimple, erect, round, rigid, hairy, riſes two or three feet in height, and is irregularly beſet with leaves, which are large, without footſtalks, at the baſe decurrent, or running along the ſtem, oblong or oval, ſomewhat pointed, indented at the margin, of a pale green colour, and covered on both ſides with thick down, or white ſoft hairs: the bracteæ are lance-ſhaped, with narrow points, hairy on the under ſide, on the upper ſmooth, and longer than the calyx: the flowers are yellow, and produced in long cloſe terminal inclining ſpikes: the calyx is divided into five pointed ſegments, which

which are hairy on the outſide: the corolla is monopetalous, yellow, divided at the limb into five unequal ſegments, which are blunt, oval, veined, and ſlightly indented at the edges: the five filaments are hairy, of unequal length, and furniſhed with double reddiſh antheræ: the germen is roundiſh, downy, and ſupports a ſimple ſtyle, crowned with a compreſſed ſtigma: the capſule is oblong, ſeparated into two cells and valves, and contains many ſmall angular ſeeds. It is a native of England, and uſually grows on the banks of ditches, and flowers in July.

The Verbaſcum, according to C. Bauhin, is the φλομος [a] of Dioſcorides: it ranks with the natural order Solanaceæ, but does not ſeem to poſſeſs thoſe narcotic powers for which this order is diſtinguiſhed.* The leaves have an herbaceous, bitteriſh, ſubaſtringent taſte, but no peculiar ſmell: upon being chewed they diſcover a mucilaginous quality; and hence they are recommended as emollients both internally and externally. In the way of fomentation and cataplaſm they are ſaid to be an uſeful application to hæmorrhoidal tumours; alſo for promoting the reſolution or ſuppuration of glandular indurations.[b]

Catarrhal coughs and diarrhœas are the complaints for which the Verbaſcum has been internally preſcribed. Dr. Home tried it in both, but it was only in the latter diſeaſe that this plant ſucceeded. He relates four caſes in which a decoction of Verbaſcum was given; and from which he concludes, that it "is uſeful in diminiſhing or ſtopping diarrhœas of an old ſtanding, and often in eaſing the pains of the inteſtines. Theſe acquire a great degree of irritability; and the ordinary irritating cauſes, aliment, bile, diſtention from air, keep up a quicker periſtaltic motion. This is obviated by the emollient and perhaps gentle aſtringent qualities of this plant." [c]

The decoction was prepared of two ounces of the leaves, with a quart of water, of which four ounces were given every three hours. The flowers of this plant have likewiſe been employed medicinally, having been ſuppoſed to poſſeſs anodyne and pectoral virtues: it is probable, however, that neither the leaves nor flowers deſerve to be conſidered as medicines of much efficacy.

[a] A φλεγω, uro, quaſi φλογος, flamma, quia hujus pro elychniis uſus eſt. *C. Bauh, l. c.*

* We are told, however, that by the ſeeds of this plant fiſhes become ſo ſtupified as to ſuffer themſelves to be taken out of the water by the hand. *Boccone*, Vide *Bergius*, *Mat. Med. p.* 117. [b] See *Mur. M. M. vol. i. p.* 488. [c] *Clinical Ex. & Hiſt. ſect.* 22.

In pulmonary complaints of cattle the Verbaſcum was found of great uſe, and hence is by Gerard called Cow's Lung-wort.

QUERCUS ROBUR. COMMON OAK.

SYNONYMA. Quercus. *Pharm. Lond. & Edinb.* Quercus cum longo pediculo. *Bauh. Pin. p.* 420. Quercus vulgaris. *Gerard. Emac. p.* 1340. Quercus latifolia. *Park. Theat. p.* 1386. Quercus vulgaris longis pediculis. *J. Bauh. Hiſt. vol. i. p.* 70. *Raii Hiſt. p.* 1385. *Synop. p.* 440. Quercus Robur. *Evel. Sylv.* by *Hunter*, *ed.* 2. *p.* 67. *Du Roy*, *Baumz. t. ii. p.* 236. *Hudſ. Ang. p.* 421. *Withering*, *Bot. Arr. p.* 1083. *Hall. Stirp. Helv. n.* 1626.

α Arborea, pedunculis elongatis (pedunculata) *Aiton*, *Hort. Kew.* FEMALE OAK TREE.

β Arborea, fructibus ſubſiſſilibus (ſeſſilis) *Aiton*, *Hort. Kew.* COMMON OAK TREE.

γ Fruteſcens, ramis virgatis, fructibus ſeſſilibus (humilis) *Aiton. l. c.* DWARF COMMON OAK TREE.

Claſs Monoecia. *Ord.* Polyandria. *Lin. Gen. Plant.* 1070.

Eſſ. Gen. Ch. *MASC.* *Cal.* 5-fidus fere. *Cor.* 0. *Stam.* 5-10.
FEM. *Cal.* 1-phyllus, integerrimus, ſcaber. *Cor.* 0. *Styli* 2-5. *Sem.* 1, ovatum.

Sp. Ch. Q. foliis oblongis glabris ſinuatis: lobis rotundatis, glandibus oblongis. *Aiton. Hort. Kew.*

THIS tree frequently riſes to a very conſiderable height,[a] ſends off

[a] An Oak tree, in the pariſh of Little Shelſley, Worceſterſhire, meaſured in circumference, at about two yards from the ground, 22 feet 4 inches, and cloſe to the ground nearly 48 feet, (Hollefear).—Of one growing in 1764, in Broomfield Wood, near Ludlow, Shropſhire, the trunk meaſured 68 feet in girth, and 23 in length: this tree, allowing 90 ſquare feet for the larger branches, contained 1455 feet of thick timber, (Lightfoot).—The girth of the Green Dale Oak, near Welbeck, at eleven feet from the ground, was 38 feet; and one growing at Cowthorpe, near Wetherby, Yorkſhire, meaſured 78 feet in circumference cloſe to the ground. (Hunt. Evel.) See *Withering*, *l. c.*
This reminds us of the Oak alluded to by Virgil:
——————— & quantùm vertice ad auras
Ætherias, tantùm radice in Tartara tendit. *Æn. l. iv.* 445.

ſtrong

ſtrong branches, and is covered with rough brown bark: the leaves are oblong, broader towards the end, deeply cut or ſinuated at the edges, forming obtuſe lobes, and ſtand upon ſhort footſtalks: the flowers are very ſmall, and are male and female upon the ſame tree: the calyx of the *male flowers* is divided into five, ſix, or ſeven ſegments, which are pointed, and often cloven: there is no corolla: the filaments are from five to ten, and ſupplied with large double antheræ: the calyx of the *female flower* is membranous, hemiſpherical, and compoſed of numerous imbricated pointed ſegments: there is no corolla: the germen is oval: the ſtyles from two to five, and furniſhed with ſimple permanent ſtigmata: its fruit is a nut, which is oblong, fixed to a ſhort cup, and ripens in October, but the flowers appear in April.

This valuable tree is well known to be a native of Britain, where it has in ſome inſtances acquired an extraordinary magnitude: its wood is of general uſe in carpentry, and by uniting hardneſs with ſuch a degree of toughneſs as not eaſily to ſplinter, has been long juſtly preferred for the purpoſe of building ſhips.[b]

The aſtringent effects of the Oak were ſufficiently known to the ancients, by whom different parts of the tree were uſed; but it is the bark which is now directed for medicinal uſe by our pharmacopœias. To this tree we may alſo refer the Gallæ, or Galls, which are produced from its leaves by means of a certain inſect.

Oak bark manifeſts to the taſte a ſtrong aſtringency, accompanied with a moderate bitterneſs, qualities which are extracted both by water and by rectified ſpirit. Its univerſal uſe and preference in the tanning of leather is a proof of its great aſtringency, and like other aſtringents it has been recommended in agues, and for reſtraining hæmorrhagies, alvine fluxes, and other immoderate evacuations. A decoction of it has likewiſe been advantageouſly employed as a gargle, and as a fomentation or lotion in procidentia recti et uteri. Dr. Cullen tells us, that he has frequently employed the decoction with ſucceſs in ſlight tumefactions of the mucous membrane of the fauces, and in

[b] Oak ſaw-duſt is the principal indigenous vegetable uſed in dying fuſtian. All the varieties of drabs, and different ſhades of brown, are made with oak ſaw-duſt, variouſly managed and compounded. Oak apples are likewiſe uſed in dying, as a ſubſtitute for galls. An infuſion of the bark, with a ſmall quantity of copperas, is uſed by the common people to dye woollen of a purpliſh blue, which is ſufficiently durable. *Withering*, *l. c.*

many

prolapſus uvulæ, and cynanche tonſillaris, to which ſome people are liable upon the leaſt expoſure to cold: and in many caſes this decoction, early applied, has appeared uſeful in preventing theſe diſorders. It muſt be remarked however, that the Dr. almoſt conſtantly added a portion of alum to theſe decoctions.[c]

Some have ſuppoſed that this bark is not leſs efficacious than that of the Cinchona, eſpecially in the form of extract; but this opinion now obtains little credit, though there be no doubt that Oak bark may have the power of curing intermittents.[d]

Galls, which in the warm climate of the Eaſt are found upon the leaves of this tree, are occaſioned by a ſmall inſect, with four wings, called *Cynips querci folii*, which depoſits an egg in the ſubſtance of the leaf, by making a ſmall perforation through the under ſurface. The ball preſently begins to grow, and the egg in the centre of it changes to a worm; this worm again changes to a nymph, and the nymph to the flying inſect above mentioned,* which by eating its paſſage out leaves a round hole: and thoſe galls which have no holes, are found to have the dead inſect remaining in them.

Two ſorts of galls are diſtinguiſhed in the ſhops, one ſaid to be brought from Aleppo, the other from the ſouthern parts of Europe. The former are generally of a bluiſh colour, or of a greyiſh, or black, verging to blueneſs, unequal and warty on the ſurface, hard to break, and of a cloſe compact texture: the others are of a light browniſh or whitiſh colour, ſmooth, round, eaſily broken, leſs compact, and of a much larger ſize. The two ſorts differ only in ſtrength,

[c] Dr. Cullen tried alſo a ſolution of the alum alone, "but it did not prove ſo effectual." See *Mat. Med. vol. ii. p.* 45.

[d] "I have employed the Oak bark in powder, giving it to the quantity o fhalf a dram every two or three hours during the intermiſſions of a fever; and, both by itſelf, and joined with camomile flowers, have prevented the return of the paroxyſms of intermittents." *Cullen, l. c.*

* Many other excreſcences are produced on this tree, and the inſects which inhabit it are very numerous. For an enumeration of theſe, ſee *Withering, l. c.*

We have already noticed that the Oak in ſome parts of the Eaſt diſtills a ſpecies of manna, (p, 105) ſo that the words of Virgil ſeem literally verified: —

"Et duræ quercus ſudabunt roſcida mella." *Ecl. iv.* 30.

two

two of the blue galls being ſuppoſed equivalent in this reſpect to three of the others.[e]

Galls appear to be the moſt powerful of the vegetable aſtringents, ſtriking a deep black when mixed with a ſolution of ferrum vitriolatum, and therefore preferred to every other ſubſtance for the purpoſe of making ink. As a medicine, they are to be conſidered as applicable to the ſame indications as the querci cortex, and by poſſeſſing a greater degree of aſtringent and ſtyptic power, ſeem to have an advantage over Oak bark, and to be better ſuited for external uſe. Reduced to fine powder, and made into an ointment, they have been found of great ſervice in hæmorrhoidal affections.[f] Their efficacy in intermittent fevers was tried by Mr. Poupart, by order of the Academy of Sciences, and from his report it appears, that the Galls ſucceeded in many caſes; and alſo that they failed in many other caſes, which were afterwards cured by the Peruvian bark.[g]

[e] *Lewis, M. M.* [f] See *Cullen, l. c.* [g] See *Mem. pour l'an.* 1702.

JUGLANS REGIA. COMMON WALNUT-TREE.

SYNONYMA. Juglans. *Pharm. Lond.* Nux Juglans ſive regia vulgaris. *Bauh. Pin. p.* 417. *Tourn. Inſt. p.* 501. Nux Juglans. *Gerard. Emac. p.* 1440. *Raii Hiſt. p.* 1376. *J. Bauh. Hiſt. vol. i. p.* 241. Nux Juglans vulgaris. *Park. Theat. p.* 1413. Juglans foliis ſeptenis, ovato-lanceolatis, integerrimis. *Hal. Stirp. Helv. n.* 1624. Juglans regia. *Ic. Mill. Illuſt. Cramer Forſtweſen. tab.* 22. *Du Ham. Arb.* 2. *p.* 50. *t.* 13. *Hunt. Evel.*

Claſs Monoecia. *Ord.* Polyandria. *Lin. Gen. Plant. p.* 1071.

Eſſ. Gen. Ch. *Masc.* *Cal.* 1-phyllus, ſquamiformis. *Cor.* 6-partita. *Filamenta*, 18.

Fem. *Cal.* 4-fidus, ſuperus. *Cor.* 4-partita. *Styli* 2. *Drupa*, nucleo ſulcato.

Sp. Ch. J. foliolis ovalibus glabris ſubſerratis ſubæqualibus.

THIS is a large tree, and uſually ſends off many ſtrong ſpreading branches, covered with a greyiſh bark: the leaves are large, pinnated, compoſed of ſeveral pairs of oppoſite pinnæ, with an odd one at the end; they are oval, entire, nerved, veined, pointed, of a pale green colour, and ſtand upon ſhort footſtalks: the flowers are male and female upon the ſame tree, appearing in April and May, and the fruit ripens about the end of September: the *male flowers* are placed in a cloſe cylindrical catkin: the calyx is monophyllous and ſquamous: the corolla is divided into ſix oval petals: the filaments are numerous, (about eighteen) ſhort, and furniſhed with erect pointed antheræ: the *female flowers* are generally three together; the calyx is divided into four ſegments, which are erect, ſhort, evaneſcent, and ſtand upon the germen: the corolla is ſeparated into four ſegments, which are pointed, erect, and longer than the calyx: the germen is oval, and placed below the corolla: the two ſtyles are very ſhort: the ſtigmata are large, expanding, reflexed, and indented: the fruit is of the drupous kind, large, unilocular, containing a large roundiſh nut, which is too well known to require a deſcription here.

This tree, which is a native of Perſia, has been long cultivated in this country, and bears our winters very well. Linnæus deſcribes its leaves as ſomewhat ſerrated; but this we have never obſerved, and therefore with Haller would rather ſubſtitute the word integerrimis for ſubſerratis. The wood is of a dark colour, and beautifully variegated, eſpecially that of the root, and by being hard enough to admit of poliſhing, was much uſed by Cabinet-makers before the introduction of mahogany.

The unripe fruit,[a] which has an aſtringent bitteriſh taſte, and has been long uſed as a pickle, is the part directed for medicinal uſe by the London College, on account of its anthelmintic virtues. Its effects in deſtroying worms ſeem confirmed by the teſtimony of ſeveral authors:[b] and in proof of its poſſeſſing this vermifuge power, we are told

[a] We may notice for curioſity a notion which formerly prevailed: Ut nuces in proximum annum copioſiùs proveniant, mos eſt hodie apud ruſticos quoſdam, ut nuces perticis decutiantur. Hinc non inconcinnè quidam alludendo cecinit,

Nux, aſinus, mulier ſimili ſunt lege ligata;
Hæc tria nil fructûs faciunt, ſi verbera ceſſant. Vide *Ray, l. c.*

[b] Plater, Fiſcher, Andry, and others.

that

that water, in which the green ſhells of Walnuts have been macerated, on being poured in a garden, was found to drive all the earth worms together as far as the water extended,[c] and that the worms by being immerſed in a ſtrong infuſion of theſe ſhells were immediately ſeized with ſpaſms, and died in two minutes afterwards.[d] An extract of the green fruit is the moſt convenient preparation, as it may be kept for a ſufficient length of time, and made agreeable to the ſtomach of the patient by mixing it with cinnamon-water. This fruit, in its immature ſtate, is alſo ſaid to be laxative,[e] and of uſe in apthous affections and ſore throats.* To anſwer theſe purpoſes, the Wirtemberg Pharm. directs a rob to be prepared of its juice.

The kernel of the Walnut[f] is ſimilar in its qualities to that of the almond and hazel-nut, and affords an oil which amounts to half the weight of the kernel: according to De la Hire,[g] this oil does not congeal by cold, and anſwers the medicinal purpoſes of the oil of almonds.

[c] Car. Stephan. *Agricult. lib.* 3. *c.* 13. Andry, *Generation des vers. p.* 142. J. G. Fiſcher, *Comm. de vermibus in C. H. et anthelmintico. Stadæ.* 1751. *p.* 14.

* Vinegar, in which Walnuts have been pickled, we have found to be a very uſeful gargle.

[d] Fiſcher, *l. c.* [e] Bergius, *M. M. p.* 744. [f] *De la Glace. p.* 499.

[g] According to the Salernitan maxim, nuts, eaten after fiſh, promote digeſtion.

" Poſt piſces nux ſit, poſt carnes caſeus eſto."

ÆSCULUS HIPPOCASTANUM. COMMON HORSE CHESNUT.

SYNONYMA. Hippocantanum. *Pharm. Edinb.* Caſtanea folio multifido. *Bauh. Pin. p.* 419. Caſtanea equina. *Gerard. Emac. p.* 1442. *Park. Theat. p.* 1401. *Raii Hiſt. p.* 1683. Hippocaſtanum. *Hal. Stirp. Helv. n.* 1029. Æ. Hip. *Miller Illuſt. Hunt. Evel. vol. i. p.* 359.

Claſs Heptandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 462.

Eſſ. Gen. Ch. *Cal.* 1-phyllus, 5-dentatus, ventricoſus. *Cor.* 5-petala, inæqualiter colorata, calyci inſerta. *Caps.* 3-locularis.

Sp. Ch. Æ. foliolis ſeptenis.

THIS

THIS tree frequently grows to a great height,[a] and from the upper part of the trunk uſually ſends off numerous ſpreading branches, covered with rough brown bark: the leaves are digitated, compoſed commonly of ſeven large lobes, which are long, obverſely oval, ſerrated, ribbed, of a pale green colour, and proceed from a common centre attached to a long footſtalk: the flowers terminate the branches in large conical ſpikes, and make a beautiful appearance: the calyx is tubular, and divided at the brim into five ſhort blunt ſegments: the corolla conſiſts of five petals, which are roundiſh, ſpreading, undulated at the edges, inſerted in the calyx by narrow claws, and of a fine white colour, irregularly ſpotted with red and yellow: the filaments are ſeven, tapering, about the length of the corolla, bending at the top, and ſupplied with pointed antheræ: the germen is round, ſupporting a ſhort ſtyle, furniſhed with a pointed ſtigma: the capſule is round, tough, fleſhy, beſet with ſpines, divided into three valves, and containing two [b] roundiſh compreſſed ſeeds. It is a native of the northern parts of Aſia, and flowers in April and May.

Though the Caſtanea was well known to the ancients, yet Matthiolus ſeems to be the firſt author who deſcribes the Horſe Cheſnut;[c] which was brought into Europe about the middle of the ſixteenth century, and was ſo ſcarce in the time of Cluſius, that there was then but one tree known at Vienna; which being too young to bear fruit,[d] nuts were obtained from Conſtantinople in 1588; after which this tree was very generally propagated. It was cultivated in England by Mr. John Tradeſcant in 1633, and is now very common in this country. The wood is white, ſoft, ſoon decays, and is therefore of little value. The fruit in appearance reſembles that of the Spaniſh Cheſnut, and is eaten by ſheep, goats, deer, oxen, and horſes.[e] It

[a] A Horſe Cheſnut-tree, above 80 years old, and 50 feet high, ſtill continued in a healthy and growing ſtate. *Samml. d. Berner landwirthſchaftl. Geſellſch. vol. ii. p.* 943.

[b] The ripe capſule ſeldom contains more than one, but on being examined in its embryo ſtate, two are conſtantly found. *Lin. Gen. Plant.*

[c] See his *Epiſt. medicinal. op. omn. p.* 101. 125. Afterwards in *Comm. in Dioſcorid.*

[d] *Murray, App. Med. vol. iv. p.* 63.

[e] Horſes are ſaid to eat this fruit greedily, and by it to have been cured of coughs and pulmonary diſorders, and hence the name Horſe Cheſnut. For the purpoſe of fattening cattle, and particularly ſheep, it has been thought neceſſary to macerate the nuts in cauſtic

It contains much farinaceous matter, which by undergoing a proper proceſs, ſo as to diveſt it of its bitterneſs and acrimony, probably might afford a kind of bread: ſtarch has been made of it, and found to be very good:[f] it appears alſo to poſſeſs a ſaponaceous quality, as it is uſed, particularly in France and Switzerland, for the purpoſe of cleaning woollens, and in waſhing and bleaching linens.[g]

With a view to its errhine power the Edinburgh College has introduced it into the Materia Medica; as a ſmall portion of the powder, ſnuffed up the noſtrils, readily excites ſneezing; even the infuſion or decoction of this fruit produces this effect; it has therefore been recommended for the purpoſe of producing a diſcharge from the noſe, which, in ſome complaints of the head and eyes, is found to be of conſiderable benefit.

On the Continent the bark of the Horſe Cheſnut-tree is held in great eſtimation as a febrifuge, and upon the credit of ſeveral reſpectable authors appears to be a medicine of great efficacy. Zannichelli[h] at Venice was the firſt, who publiſhed its ſucceſsful uſe in various caſes of intermittents; ſince which its good effects have been confirmed by Leidenfroſt, Peipers,[i] Junghanſs,[k] Coſte and Willemet,[l] Sabarot De La Varniere,[m] Turra,[n] Buchholz,[o] and others: from whom it appears, that this bark may be ſubſtituted for the Peruvian bark in every caſe in which the latter is indicated, and with equal, if not ſuperior, advantage.

cauſtic alkali, in order to take off the bitterneſs, afterwards to waſh them in water, and then boil them to a paſte. (See Bon *Mem. de l'Acad.* 1720. *p.* 460.) Lime water was alſo found to anſwer. (See *Hiſt. de la Société R. de Montpell. tom. ii. p.* 57.) But if the nuts are cut and mixed with oats or bran, this purpoſe may be effected with leſs trouble. *Hannov. Mag.* 1770. *p.* 226.

[f] Parmentier, *Recherches ſur les vegetaux nouriſſans, p.* 176. 218.

[g] Marcandier, *Traité de Chanvre, Leipziger Intelligenzblatt.* 1764. *p.* 46. *De re ruſtica*, or the *Repoſitory for papers in Agricuiture, vol. ii. p.* 75. *ſq. &c.*

[h] J. Jac Zannichelli *Lettera intorno alle Facolta dell' Ippocaſtano, &c.*

[i] Leidenfroſt in Peipers *Diſſ. de cortice Hippoc. Duiſburg.* 1763. [k] *Diſſ. de nucis vomicæ et corticis Hippocaſt. virtute med.* 1770. *p.* 25. *ſq.* [l] *Eſſais ſur les plantes indigenes. p.* 57. [m] *Journ. de Medec. tom.* 47. *p.* 324. [n] *Della febbrifuga Facolta dell' Ippocaſtano, in Vicenza.* 1780. [o] *Uber Antiſept. Subſt.* 1776.

See *Murray, l. c.*

The bark, intended for medicinal uſe, is to be taken from thoſe branches, which are neither very old nor very young, and to be exhibited under ſimilar forms and doſes, as directed with reſpect to the cortex peruvianus. It rarely diſagrees with the ſtomach; but its aſtringent effects generally require the occaſional adminiſtration of a laxative.

MORUS NIGRA. COMMON MULBERRY TREE.

SYNONYMA. Morum. *Pharm. Lond.* Morus fructu nigro. *Bauh. Pin. p.* 459. Morus. *Gerard. Emac. p.* 1507. Morus nigra. *J. Bauh. Hiſt. vol. i. p.* 118. *Raii Hiſt. p.* 1429. *Park. Parad. p.* 596. *Du Hamel Traité des arbres fruitiers, tom. i. p.* 335. *Hunt. Evel. vol. ii. p.* 39.

Claſs Monoecia. *Ord.* Tetrandria. *Lin. Gen. Plant.* 1055.

Eſſ. Gen. Ch. *Masc.* *Cal.* 4-partitus. *Cor.* 0.
Fem. *Cal.* 4-phyllus. *Cor.* 0. *Styli* 2. *Cal.* baccatus. *Sem.* 1.

Sp. Ch. M. foliis cordatis ſcabris.

THIS tree never grows to a conſiderable height, but ſends off ſeveral crooked branches, and is covered with rough brown bark: the leaves are numerous, heart-ſhaped, ſerrated, veined, rough, of a bright green colour, and ſtand upon ſhort footſtalks: the flowers are male and female upon the ſame tree:[a] the *male flowers* are placed in cloſe roundiſh catkins, each floret compoſed of a calyx, divided into four leaves, which are oval, concave, and erect: there is no corolla: the filaments are four, longer than the calyx, and furniſhed with ſimple antheræ: the calyx of the *female flower* is divided into four

[a] This is not conſtantly the caſe, as it ſometimes happens that all the flowers are male, or female, and conſequently barren.

obtuſe

obtuſe perſiſtent ſegments: there is no corolla: the germen is roundiſh, and ſupports two rough ſtyles, ſupplied with ſimple ſtigmata: the fruit is a large ſucculent berry, compoſed of a number of ſmaller berries, each containing an oval ſeed, and affixed to a common receptacle. It flowers in June, and its fruit ripens in September.

The Mulberry-tree is a native of Italy, and is now cultivated in moſt parts of Europe,[b] not only for the grateful fruit which it affords, but in many places for the more lucrative purpoſe of ſupplying Silk-worms with its leaves, upon which they feed.[c]

The ripe fruit abounds with a deep violet-coloured juice, which in its general qualities agrees with that of the other acido-dulces, allaying thirſt, partly by refrigerating, and partly by exciting an excretion of mucus from the mouth and fauces; a ſimilar effect is alſo produced in the ſtomach, where, by correcting putreſcency, a powerful cauſe of thirſt is removed.[d] This is more eſpecially the caſe with all thoſe fruits in which the acid much prevails over the ſaccharine part, as the currant, which we have already noticed;[e] and to which the medicinal qualities of this fruit may be referred; but both theſe, and moſt of the other ſummer fruits, are to be conſidered rather as articles of diet than of medicine. The London College directs a ſyrupus mori, which is an agreeable vehicle for various medicines.

The bark of the root of the Mulberry-tree has an acrid bitter taſte, and poſſeſſes a cathartic power. It has been ſucceſsfully uſed as an anthelmintic, particularly in caſes of Tænia.[f] The doſe is half a dram of the powder.

[b] Gerard is the firſt who is known to have cultivated it in England.

[c] The leaves of the white Mulberry are preferred for this purpoſe in Europe; but in China, where the beſt ſilk is made, the ſilk worms are fed with thoſe of the Morus tartarica. (Forſter, in a letter to Profeſſor Murray. See *App. Med. vol. iv. p.* 597. *dated* 1787.) From the bark of another ſpecies of Mulberry, (M. papyrifera) the Japaneſe make paper, and the inhabitants of ſome of the iſlands of the South ſea make a kind of cloth.

[d] See Cullen's account of the fructus acido-dulces. *Mat. Med. vol. i. p.* 242.

[e] Page 207. See alſo Rubus and Citrus.

[f] Vide, Andry, *de la generation des vers, &c. p.* 172.

FICUS CARICA. COMMON FIG-TREE.

SYNONYMA. Carica. *Pharm. Lond. & Edinb.* Ficus communis. *Bauh. Pin. p.* 457. Ficus vulgaris. *Park. Theat. p.* 1494. Ficus. *Gerard. Emac. p.* 1410. *Raii Hiſt. p.* 1531. Ficus Carica. *Miller Illuſt. Syſt. ſex. Du Hamel Traité des arbres Fruitiers. tom. i. p.* 207. *tab.* 1. 2. Bernard in *Obſ. ſur la phyſique, l'hiſt. nat. &c. tom.* 29. *tab.* 1. Συκη *Græc.*

Claſs Polygamia. *Ord.* Trioecia. *Lin. Gen. Plant.* 1168.

Eſſ. Gen. Ch. *Receptaculum* commune turbinatum, carnoſum, connivens, occultans floſculos vel in eodem vel diſtincto.
Masc. Cal. 3-partitus. *Cor.* 0. *Stam.* 3.
Fem. Cal. 5-partitus. *Cor.* 0. *Piſt.* 1. *Sem.* 1.

Sp. Ch. F. foliis palmatis.

THE Fig-tree is covered with ſmooth brown bark, and ſends off many ſpreading branches: the leaves are large, ſucculent, ſmooth, irregularly divided into five lobes, of a deep green colour, and ſtand upon ſtrong footſtalks. The fruit, in its early ſtage, ſerves as the common receptacle, and contains upon its inner ſurface all the florets, which are both male and female; the former has the calyx (proper) divided into three ſegments, which are lance-ſhaped, erect, and equal: there is no corolla: the filaments are three, briſtly, of the length of the calyx, and furniſhed with double antheræ. The calyx (proper) of the *female flower* is divided into five ſegments, which are pointed, and nearly equal: there is no corolla: the germen is oval: the ſtyle is tapering, inflexed, and furniſhed with two pointed reflexed ſtigmata: the calyx is oblique, and contains in its boſom a roundiſh compreſſed ſeed. It is a native of the ſouth of Europe, and commonly produces its flowers in June and July.

The

From hiſtory, both ſacred and profane, the Fig-tree appears to have been known in the moſt early times. It has been long cultivated in England, and if ſcreened from the north-eaſt winds, commonly ripens its fruit here. The Fig, which has always been found a wholeſome food, was by the ancients [a] ripened or brought to perfection by Caprification; a practice which in ſome countries is ſtill continued.[b] It had been obſerved, that the fruit of this tree frequently withered and dropped off before it arrived at a ſtate of maturity, and upon examination it was diſcovered that thoſe figs ſucceeded beſt which had been perforated by certain winged inſects, which therefore were ſuppoſed to be inſtrumental in ripening the fruit. This gave riſe to caprification, which formerly conſiſted in tying near the young figs the fruit of the wild fig tree, in which the flies above mentioned breed in abundance, and theſe inſects, upon acquiring ſufficient ſtrength, iſſue from the wild fruit, and by penetrating the young figs produce the effect intended. That this inſect, which by the ancients was called Pſenes, or Culex, and by Linnæus, Cynips Pſenes, produced this deſirable effect, is generally admitted; but how it is to be explained has been the ſubject of ſome diſpute.

To prevent ripe Figs from running into putrefaction, it is uſual to dry them; which may be done either by the heat of the ſun, or by means of an oven: the latter way is preferred, eſpecially when the fruit has been caprified, as the larva of the cynips is deſtroyed by the heat. The beſt Figs are imported from the ſouthern parts of Europe in ſmall cheſts, and are compreſſed into a circular form, of a yellowiſh colour, and filled with a viſcid ſweet pulp, in which are lodged numerous ſmall yellow lenticular ſeeds. The ſurface of the Figs is commonly covered with a ſaccharine matter, which exudes from the the fruit, and hence they have been named *Caricæ pingues*, or fat Figs.

The recent fruit, completely ripe, is ſoft, ſucculent, and eaſily digeſted, unleſs eaten in immoderate quantities; when it is apt to occaſion flatulency, pain of the bowels, and diarrhœa.[c] The dried fruit is pleaſanter to the taſte, and is more wholeſome and nutritive.

[a] See *Theophraſtus*, *Suidas*, *Pliny*, and others.

[b] Caprification, as practiſed at ſome of the Archipelago Iſlands, when viſited by Tournefort, appears to be a very curious but troubleſome buſineſs. See *Tournefort*, *Voyage du Levant*, *vol. i. p.* 130.

[c] *Murray*, *App. Med. vol. iv. p.* 585.

Figs are ſuppoſed to be more nutritious, by having their ſugar united with a large portion of mucilaginous matter, which, from being thought to be of an oily nature, has been long eſteemed an uſeful demulcent and pectoral; and it is chiefly with a view to theſe effects that they have been medicinally employed.

Figs are directed by the London Pharm. in the decoctum hordei compoſitum, and in the electuarium lenitivum. Externally applied they are ſuppoſed to promote the ſuppuration of tumours, and hence have a place in maturating cataplaſms; with this intention they are alſo ſometimes uſed by themſelves, as warm as they can eaſily be borne, to phlegmons of the gums, and other parts where a poultice cannot conveniently be applied.

AMOMUM REPENS, SEU CARDAMOMUM. OFFICINAL CARDAMOM.

SYNONYMA. Cardamomum minus. *Pharm. Lond. & Edinb. Gerard. Emac. p.* 1547. *Park. Theat. p.* 1576. Cardamomum ſimpliciter in officinis dictum. *Bauh. Pin. p.* 414. Cardamomum cum ſiliquis ſeu thecis brevibus. *J. Bauh. Hiſt. vol. ii. p.* 205. Amomum repens, ſeu Le Cardamome de la Côte de Malabar. *Sonnerat Voyage aux Indes oriental. tom. ii. p.* 240. *tab.* 136. Alia ſpecies eſt Amomum Cardamomum L. ſcapo ſimpliciſſimo breviſſimo.

Claſs Monandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 2.

Eſſ. Gen. Ch. *Cor.* 4-fida: lacinia prima patente.

Sp. Ch. A. ſcapis ramoſis elongatis decumbentibus.
Smith, Syſt. Veg. ined.

THE root is perennial: the ſtalks are ſimple, ſheathy, erect, grow to a conſiderable height, and beſet with leaves, which are lance-ſhaped, large, entire, acutely pointed, ribbed, and ſtand alternately upon the ſheaths of the ſtalk: the flower ſtalk proceeds immediately from

from the root, and creeps along the ground; it is commonly about a foot and a half in length, articulated, in a zig-zag form,* and producing numerous flowers, which are placed upon divided ſtipulated peduncles, ariſing from the articulations: the calyx is ſmall, and obſcurely divided into three teeth at the margin: the corolla is monopetalous, compoſed of a narrow tube, divided at the mouth into four ſegments; of theſe the three outermoſt are long, narrow, uniform, and of a ſtraw colour, but the central one, which has been conſidered as a nectary, is large, broad, concave, of an irregular oval ſhape, and marked with violet coloured ſtripes: the filament is membranous, ſtrap-ſhaped, ſhorter than the ſegments of the corolla, to the top of which the anthera is joined: the germen is roundiſh, and placed below the inſertion of the tube of the corolla: the ſtyle is filiform, of the length of the filament, and ſupplied with an obtuſe ſtigma: the capſule is triangular, divided into three cells and valves, containing ſeveral ſmall dark coloured ſeeds.

This plant is a native of the Eaſt-Indies, and according to Sonnerat grows abundantly on the Malabar Coaſt:[a] it differs conſiderably from the Amomum Cardamomum of Linnæus, as appears by the ſpecific character he has given it, and the figures to which it is referred to in his Species Plantarum.[b] Sonnerat, who firſt diſcovered the Amomum repens, and on whoſe authority it is conſidered to afford the ſeeds officinally known by the name of Cardamomum minus, informs us, that this plant abounds ſo plentifully on a certain mountain on the Coaſt of Malabar, that it is called the Mountain of Cardamoms, from which all India is ſupplied with the ſeeds.

The Cardamoms imported into Europe have been diſtinguiſhed by the names Cardamomum majus, medium, & minus; the diſtinction depending upon the reſpective ſizes of their ſeeds; but the different ſpecies from which the two former are ſaid to have been produced, are ſo imperfectly deſcribed, and their botanical hiſtories ſo confuſed, that we are unable to give any ſatisfactory information concerning them;

* In a ſpecimen of this plant, which we have ſeen in the Herbarium of Sir Joſeph Banks, this appearance was very remarkable.

[a] L. c.

[b] Elettari. *Hort. Malab. vol. ii. tab.* 5.
Rumph. *Amboin. vol. v. tab.* 65.

and

and whether the Amomum verum of the ancient Greek writers is referable to our Cardamom, ſeems alſo equally uncertain.

The ſeeds of the Cardamomum minus, which are now generally preferred for medicinal purpoſes, are brought to us in their capſules, or huſks, by which they are preſerved; for they ſoon loſe a part of their flavour when freed from this covering. "Their virtue is extracted not only by rectified ſpirit, but almoſt completely by water alſo; with this difference, that the watery infuſion is cloudy or turbid, the ſpirituous clear and tranſparent. Scarcely any of the aromatic ſeeds give out ſo much of their warmth to watery menſtrua, or abound ſo much with gummy matter, which appears to be the principle by which the aromatic part is made diſſoluble in water: the infuſion is ſo mucilaginous, even in a dilute ſtate, as hardly to paſs through a filter."

"In diſtillation with water, a conſiderable quantity of eſſential oil ſeparates from the watery fluid, of a pale yellowiſh colour, in ſmell exactly reſembling the Cardamoms, and of a very pungent taſte: the remaining decoction is diſagreeably bitteriſh, and mucilaginous. On inſpiſſating the tincture made of rectified ſpirit, a part of the flavour of the Cardamoms ariſes with the ſpirit; but the greateſt part remains behind, concentrated in the extract, which ſmells moderately of the ſeeds, and has a pungent aromatic taſte, very durable in the mouth, and rather more grateful than that of the ſeeds in ſubſtance."[c]

Cardamom ſeeds, on being chewed, impart a glowing aromatic warmth, and grateful pungency: they are ſuppoſed gently to ſtimulate the ſtomach, and prove cordial, carminative, and antiſpaſmodic, but without that irritation and heat which many of the other ſpicy aromatics are apt to produce. We are told by Sonnerat, that the Indians uſe it much, and believe it to ſtrengthen the ſtomach, and aſſiſt digeſtion. Phyſicians however conſider Cardamoms merely as an aromatic, and preſcribe them in conjunction with other medicines, which they are intended to correct or aſſiſt.

Simple and compound ſpirituous tinctures of theſe ſeeds are directed by the Pharmacopœias; they are alſo ordered as a ſpicy ingredient in many of the officinal compoſitions.

[c] Lewis, *Mat. Med. p.* 194.

CURCUMA

CURCUMA LONGA. LONG-ROOTED TURMERIC.

SYNONYMA. Curcuma. *Pharm. Lond. & Edinb.* Cannacorus radice crocea, ſive Curcuma officinarum. *Tourn. Inſt. p.* 367. Curcuma longa. *König, in Rez. obſ. bot. faſc.* 3. *p.* 72. Curcuma radice longa. *Zanon. Hiſt. Pl. ed. Mont. p.* 86. *tab.* 59. Curcuma domeſtica major. *Rumph. Herb. Amboin. tom.* 5. *p.* 162. *tab.* 67. Manjella-Kura. *Hort. Malab. tom.* 11. *p.* 21. *tab.* 11. Amomum Curcuma. *Jacquin, Hort. Vindob. tom.* 3. *p.* 5. *tab.* 4.

Claſs Monandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 6.

Eſſ. Gen. Ch. *Stamina* 4-ſterilia, quinto fertili.

Sp. Ch. C. foliis lanceolatis: nervis lateralibus numeroſiſſimis.

THE root is perennial, tuberous, and furniſhed with ſtrong fibres, externally browniſh, and internally of a deep yellow colour: the leaves are radical, large, lance-ſhaped, obliquely nerved; at the bottom, vaginal, and cloſely embracing each other: the ſcapus, or flower ſtem, riſes from the centre of the leaves; it is ſhort, thick, ſmooth, and forms a ſpike of numerous bracteal imbricated ſcales, between which the flowers ſucceſſively iſſue: the corolla is monopetalous, conſiſting of a narrow tube, divided at the mouth into three oval ſegments: the nectarium occupies the wide under-ſinus of the corolla, and is the moſt conſpicuous part of the flower; it is of a fleſh colour, petal-like, large, ſpreading, and cut into three diviſions, of which the middlemoſt is the largeſt: the filaments are five, four of which are erect, ſlender, linear, contracted, ſterile; the fifth is petal-formed, lodged within the nectarium, and cleft at the top, to which the anthera is adjoined: the germen is roundiſh, and placed below the corolla: the ſtyle is the length of the filament, and furniſhed with a ſimple hooked ſtigma: the capſule is roundiſh, three-celled, three-valved, and contains numerous ſmall ſeeds.

Turmeric is a native of the Eaſt Indies, and common in the gardens of the Chineſe; it grows abundantly in Malacca, Java, and Balega.[a] It was firſt cultivated in England by Mr. P. Miller in 1759.[b] The root of this plant has been long officinally known, and paſſed under different names, as Crocus indicus, Terra merita, &c. In its dried ſtate, as imported here, it is various in ſhape; externally of a pale yellow colour, wrinkled, ſolid, ponderous, and the inner ſubſtance of a deep ſaffron or gold colour; its odour is ſomewhat fragrant, and to the taſte it is bitteriſh, ſlightly acrid,[c] exciting a moderate degree of warmth in the mouth, and on being chewed it tinges the ſaliva yellow. It has been very generally employed for the purpoſe of dying,[d] and in eaſtern countries it is much uſed for colouring and ſeaſoning of food.[e]

" This root gives out its active matter both to aqueous and ſpirituous menſtrua. In diſtillation with water, it yields a ſmall quantity of gold-coloured eſſential oil, of a moderately ſtrong ſmell, and a pungent taſte: the remaining decoction, inſpiſſated, leaves a bitteriſh conſiderably ſaline maſs. Rectified ſpirit elevates little or nothing of its virtue; all the active parts being left behind in the inſpiſſated extract." [f]

This root has had the character of being a powerful aperient and reſolvent: it has been commonly preſcribed in obſtructions of the liver, and other chronic viſceral affections. The diſeaſe in which it has been thought moſt efficacious is the jaundice; but though the uſe of this root is highly recommended by ſeveral practical writers,[g]

[a] Vide König, Rumphius, and Bontius. [b] *Hort. Kew.*

[c] The Chineſe uſe it as a ſternutatory.

[d] " This ſubſtance is very rich in colour, and there is no other which gives a yellow colour of ſuch brightneſs; but it poſſeſſes no durability, nor can mordants give it a ſufficient degree: common ſalt, and ammoniacal muriat, are thoſe which fix the colour beſt, but they render it deeper." Hamilton's tranſlation of Berthollet's *Elements of the Art of Dying*, vol. ii. p. 280. See alſo on this ſubject, Hellot *L'art de la Teint. p.* 406. and Pörner, *Chym. Verſuche z. Nuz. der Farbekunſt, vol. i.* 1. *Abh.* Scharffs *Recepte üb. verſch. Gattungen. v. Farb.* 1. *St.*

[e] It enters the compoſition of the Curry powder which is now much uſed here.

[f] *Lewis, M. M.*

[g] Of theſe we may more particularly refer to Bontius, *(De Med. Indor. p.* 115.) F. Hoffman, *(Meth. Med.* in *Med. rat. tom. iii. p.* 542.) Coe, *(on Bileary Concret. p.* 285.)

it

it is now very rarely employed; and we are told by Dr. Cullen, that the decoctum ad Ictericos of the Edinburgh Diſpenſatory, (Ed. 1756) "never had any other foundation than the doctrine of ſignatures in favour of the Curcuma and Cheledonium majus." [h]

[h] *Mat. Med. vol. i. p.* 25.

KÆMPFERIA ROTUNDA. ZEDOARY.

SYNONYMA. Zedoaria. *Pharm. Lond. & Edinb.* I. Zedoaria longa. II. Zedoaria rotunda. *Bauh. Pin. p.* 31. *Park. Theat. p.* 1612. *Raii Hiſt. p.* 1340. *Gerard, Emac. p.* 1623. Malan-Kua. *Rheed. Hort. Malab. tom.* 11. *p.* 17. *tab.* 9.

Claſs Monandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 7.

Eſſ. Gen. Ch. *Cor.* 6-partita: laciniis 3 majoribus patulis, unica bipartita. *Stigma* bilamellatum.

Sp. Ch. K. fol. lanceolatis petiolatis.

THE root is perennial, tuberous, fleſhy, compreſſed, externally of an aſh colour, internally of a bluiſh grey: the flower ſtem is covered with ſheaths, and riſes very little above the ground: the leaves are large, radical, nearly elliptical, pointed, veined, and ſtand upon broad footſtalks: the calyx is ſmall and obſcure: the corolla is monopetalous, conſiſting of a long ſlender conical tube, divided at the upper extremity into ſix parts, three of which are long, narrow, ſpreading, inſerted below the others, of which two are oval, pointed, and erect; the remaining one is deeply cut into two obverſely heart-ſhaped diviſions, of a reddiſh colour, and beautifully ſtriated with purple: there is but one filament, which is membranous, and notched at the end: the anthera is linear, doubled, entirely adherent, and ſcarcely riſes above the tube of the corolla: the germen is roundiſh, and ſupports

ports a ſtyle, which is about the length of the tube, furniſhed with a folded roundiſh ſtigma: the capſule is triangular, divided into three cells, and as many valves, and contains numerous ſmall ſeeds.

On the authority of Linnæus, the Colleges of London and Edinburgh have referred the officinal Zedoary to this plant, which is a native of the Eaſt Indies. But Bergius informs us, that he received a ſpecimen of the Zedoary plant from India, which, upon examination, was found to be a ſpecies of Amomum;[a] and it is obſerved by Murray, that this opinion receives additional weight by the deſcription of Zedoary, or the *Indorum Tamogcanſi*, given by Camellus.[b]

It ſeems no eaſy taſk to diſcover with any tolerable probability, whether this drug was uſed by the ancients or not; ſome have ſuppoſed it to be the Coſtus of Dioſcorides, the Guiduar of Avicenna, the Zerumbet of Serapion.* But this we leave to thoſe who are ready to decide upon what is merely conjectural.

The roots of Zedoaria, longa and rotunda, are both produced by the ſame ſpecies of plant, and are indiſcriminately uſed in the ſhops; the former are brought to us in oblong pieces, about the thickneſs of the little finger, two or three inches in length, bent, rough, and angular; the latter are roundiſh, about an inch in diameter, of an aſh colour on the outſide, and white within.

" This root has an agreeable camphoraceous ſmell, and a bitteriſh aromatic taſte. It impregnates water with its ſmell, a ſlight bitterneſs, a conſiderable warmth and pungency, and a yellowiſh brown colour: the reddiſh yellow ſpirituous tincture is in taſte ſtronger, and in ſmell weaker, than the watery. In diſtillation with water it yields a thick ponderous eſſential oil, ſmelling ſtrongly of the Zedoary, in taſte very hot and pungent." [c]

Cartheuſer, who aſcribes the virtues of Zedoary to a camphoraceous volatile oil, conſiders it as a general remedy for moſt of the chronic

[a] " Plantam habui ex Cochinchina, figuræ Rheedeanæ convenientem, lectam a Cl. Joanne de Loureyro & comparatam ſub itinere Chinenſi, Cl. Car. G. Exeberg, Centurione & navis Gubernatore, de ſcientia botanices bene merito." *Mat. Med. p.* 5. He calls it, *A. ſcapo nudo, ſpica laxa truncata*; and makes its ſynonyma to be, Kua. *Rheed. Malab.* 11. *p.* 13. *t.* 7. Tommon itam. *Rumph Amb.* 5. *p.* 169. *Zedoaria Camell. Stirp. Luz. p.* 23. [b] See *Raii, Hiſt. plant. vol.* 3. *in App.* [c] *Lewis, M. M. p.* 684.

* See on this ſubject, S. G. Manitius. *De ætatibus Zedoariæ relatio. Dreſd.* 1691.

diſeaſes

diſeaſes with which humanity is afflicted;[e] but as the camphor it contains can avail but little, and its effects as a bitter or aromatic are ſo very inconſiderable, this root is now deemed to poſſeſs very little medicinal power, and might ſafely be expunged from the materia medica;[f] though it ſtill has a place in the confectio aromatica of the London pharmacopœia.

[e] Sect. xiv. §. 3. [f] Dr. Cullen ſays, "I am clear that it might ſafely be omitted in our liſts of the Mat. Med." *Mat. Med. vol. ii. p.* 207.

MYRISTICA MOSCHATA. NUTMEG TREE.

SYNONYMA. Nux Moſchata. *Pharm. Lond. & Edinb. Park. Theat. p.* 1600. *Raii Hiſt. p.* 1522. Nux Moſchata, fructu rotundo. *Bauh. Pin. p.* 407. *Pluk. Almag. p.* 267. Nux Moſchata rotunda, ſive femina. *Gerard, Emac. p.* 1536. *Breyn. Prod. vol. ii. p.* 77. Nux Myriſtica. *Rumph. Amb. vol. ii. tab.* 4. Myriſtica Moſchata. *Thumb. Act. Stockholm. ann.* 1782. *p.* 46. *t.* 1. *Conf. Mémoire ſur le genre du Muſcadier Myriſtica, par Mr. De La Marck; Hiſt. de l'Acad. Royal des Scien. pour l'an.* 1788. *pub. en* 1790. *p.* 148.

Claſs Dioecia. *Ord.* Syngeneſia. *Shreb. Gen. Plant.* 1562.

Eſſ. Gen. Ch. *Masc. Cal.* 3-fidus. *Cor.* 0. *Antheræ* circum ſupremam partem filamenti adnatæ.

Fem. Cal. 3-fidus. *Cor.* 0. *Styl.* breviſs. *Stigma* bifida. *Caps.* drupacea. *Shreb.*

Sp. Ch. M. foliis lanceolatis fructu glabro. *Thunb.*

THIS tree attains the height of thirty feet, producing numerous branches which riſe together in ſtories, and covered with bark, which of the trunk is a reddiſh brown, but that of the young branches is of a bright green colour: the leaves are nearly elliptical, pointed, undulated, obliquely nerved, on the upper ſide of a bright green, on the under whitiſh, and ſtand alternately upon footſtalks: the flowers are ſmall, and hang upon ſlender peduncles, proceeding from the axillæ of the leaves: they are both male and female upon ſeparate trees.

Of the *male flower* the calyx conſiſts of one bell-ſhaped leaf, divided at the brim into three ſmall teeth: there is no corolla: the ſtamina, according to De La Marck, are from ſix to twelve, joined in a bundle, conſiſting of ſhort filaments, inſerted into the receptacle, and ſurrounded with antheræ, which are long, linear, and united.

Of the *female flower* the calyx is ſimilar to that of the male flower: there is no corolla: the germen is above, oval, and ſupports a ſtyle, terminated by two ſtigmata: the fruit is round or oval, and of the drupous kind, of which the external covering is fleſhy, tough, and by opening at the top ſeparates into two valves, and diſcovers the Mace, which has a reticulated appearance, and divides into three portions, which cloſely inveſt a ſlender ſhell containing the ſeed or Nutmeg. This tree is a native of the Eaſt Indies, particularly the Molucca Iſlands.

The Nutmeg has been ſuppoſed to be the Comacum of Theophraſtus, but there ſeems little foundation for this opinion, nor can it with more probability be thought to be the Chryſobalanos of Galen. Our firſt knowledge of it was evidently derived from the Arabians; by Avicenna it was called Jiauſiban, or Jauſiband,[a] which ſignifies Nut of Banda. Rumphius both figured and deſcribed this tree;[b] but the figure given by him is ſo imperfect, and the deſcription ſo confuſed, that Linnæus, who gave it the generic name Myriſtica, was unable to aſſign its proper characters. Sonnerat's account of the Muſcadier is ſtill more erroneous;[c] and the younger Linnæus was unfortunately miſled by this author, placing the Myriſtica in the claſs Polyandria, and deſcribing the corolla as conſiſting of five petals.[d] Thunberg, who examined the flower of the Nutmeg, places it in the claſs monoecia, and according to his deſcription, the male flower has but one filament, ſurrounded at the upper part by the antheræ;[e] and as the filaments are ſhort and ſlender, and the antheræ united, this miſtake might eaſily ariſe.*

[a] *Lib. ii. cap.* 503, and by Serapion it was named Jeuzbave.
[b] Vide, *l. c.* [c] *Voyage à la Nouvelle Guinée, p.* 194. *t.* 116. [d] *Suppl. Plant. p.* 265. [e] *Act. Stockholm.* 1782. *p.* 46.

* Since writing the above, Mr. Dryander informed me, that he had examined ſeveral ſpecimens of theſe male flowers preſerved in ſpirit, in each of which he found only one columnar filament, and concludes that De La Marck muſt have been deceived by dividing the fibres of this organ: conſequently the myriſtica ſhould in ſtrictneſs be placed in the order monadelphia.

Mr.

Mr. De La Marck informs us, that he received ſeveral branches of the Myriſtica, both in flower and fruit, from the Iſle of France, where a Nutmeg-tree, which was introduced by Monſ. Poivre, in 1770, is now very large, and continually producing flowers and fruit.[f] From theſe branches, which were ſent from Monſ. Céré, Director of the King's garden in that iſland, Monſ. De La Marck has been enabled to deſcribe and figure this and other ſpecies of the Myriſtica with great accuracy; and the annexed plate will ſhew, that we have profited by his labours.

The ſeeds or kernels, called Nutmegs, are well known, as they have been long uſed both for culinary and medical purpoſes. Diſtilled with water, they yield a large quantity of eſſential oil, reſembling in flavour the ſpice itſelf; after the diſtillation, an inſipid ſebacious matter is found ſwimming on the water; the decoction, inſpiſſated, gives an extract of an unctious, very lightly bitteriſh taſte, and with little or no aſtringency. Rectified ſpirit extracts the whole virtue of Nutmegs by infuſion, and elevates very little of it in diſtillation: hence the ſpirituous extract poſſeſſes the flavour of the ſpice in an eminent degree.

Nutmegs, when heated, yield to the preſs a conſiderable quantity of limpid yellow oil, which on cooling concretes into a ſebacious conſiſtence. In the ſhops we meet with three ſorts of unctious ſubſtances, called Oil of Mace, though really expreſſed from the Nutmeg. The beſt is brought from the Eaſt Indies in ſtone jars; this is of a thick conſiſtence, of the colour of mace, and has an agreeable fragrant ſmell: the ſecond ſort, which is paler coloured, and much inferior in quality, comes from Holland in ſolid maſſes, generally flat, and of a ſquare figure: the third, which is the worſt of all, and uſually called Common Oil of Mace, is an artificial compoſition of ſevum, palm oil, and the like, flavoured with a little genuine oil of Nutmeg.[g]

The medicinal qualities of Nutmeg are ſuppoſed to be aromatic, anodyne, ſtomachic, and reſtringent,[h] and with a view to the laſt mentioned effects, it has been much uſed in diarrhœas, and dyſenteries. To many people the aromatic flavour of Nutmeg is very agreeable; they, however, ſhould be cautioned not to uſe it in large quantities, as it is apt to affect the head, and even to manifeſt an

[f] *L. c.* [g] *Ed. New Diſpenſ.* by *Dr. Duncan.* *p.* 238. [h] *Bergius, M. M. p.* 884.

hypnotic

hypnotic power in ſuch a degree as to prove extremely dangerous. Bontius ſpeaks of this as a frequent occurrence in India ;[i] and Dr. Cullen relates a remarkable inſtance of this ſoporific effect of the Nutmeg, which fell under his own obſervation,[k] and hence concludes, that in apoplectic and paralytic caſes this ſpice may be very improper. The officinal preparations of Nutmeg are a ſpirit and eſſential oil, and the Nutmeg in ſubſtance roaſted, to render it more aſtringent. Both the ſpice itſelf and its eſſential oil, enter ſeveral compoſitions, as the confectio aromatica, ſpiritus amoniæ com. &c. MACE poſſeſſes qualities ſimilar to thoſe of the Nutmeg, but is leſs aſtringent, and its oil is ſuppoſed to be more volatile and acrid.

[i] *De Medicina Indorum, p.* 20. See alſo *Miſcell. Nat. Cur. dec.* III. *ann.* II. *obſ.* 120.

[k] "A perſon by miſtake took two drams or a little more of powdered Nutmeg : he felt it warm in his ſtomach, without any uneaſineſs ; but in about an hour after he had taken it he was ſeized with a drowſineſs, which gradually increaſed to a complete ſtupor and inſenſibility ; and not long after he was found fallen from his chair, lying on the floor of his chamber in the ſtate mentioned. Being laid a-bed he fell aſleep ; but waking a little from time to time, he was quite delirious : and he thus continued alternately ſleeping and delirious for ſeveral hours. By degrees, however, both theſe ſymptoms diminiſhed, ſo that in about ſix hours from the time of taking the Nutmeg he was pretty well recovered from both. Although he ſtill complained of head-ach, and ſome drowſineſs, he ſlept naturally and quietly the following night, and next day was quite in his ordinary health." *Mat. Med. vol. ii. p.* 204.

CARYOPHYLLUS AROMATICUS. CLOVE TREE.

SYNONYMA. Caryophyllum aromaticum. *Pharm. Lond. & Edinb.* Caryophyllus aromaticus, fructu oblongo. *Bauh. Pin. p.* 410. *Raii Hiſt. p.* 1508. Caryophylli. *Park. Theat. p.* 1577. *Gerard, Emac. p.* 1535. Caryophyllus aromaticus, Indiæ orientalis, fructu clavato monopyreno. *Pluk. Alm.* 88. *t.* 155. *f.* 1. Caryophyllum. *Rumph. Herb. Amb. vol. ii. t.* 1. 2. *ſq.* Caryophyllus Kruidnagelboom. *Houttuyn natuurlyke hiſtorie, vol. ii. P.* 3. *p.* 44. *tab.* 12. *fig.* 1. Le Geroflier. *Sonnerat Voyage à la Nouvelle Guinée. p.* 196. *tab.* 119.

Claſs Polyandria.

Claſs Polyandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 669.*

Eſſ. Gen. Ch. *Cor.* 4-petala. *Cal.* 4-phyllus, duplicatus. *Bacca* 1-ſperma, infera.

Sp. Ch. C. foliis ovato-lanceolatis oppoſitis, floribus terminalibus, &c. *Mill. Dict.*

THIS tree never riſes to any conſiderable height, but divides into large branches, which are covered with ſmooth greyiſh bark: the leaves are large, entire, oblong, lance-ſhaped, of a bright green colour, and ſtand in pairs upon ſhort footſtalks: the flowers terminate the branches in bunches or pannicles: the calyx of the fruit is divided at the brim into four permanent ſmall pointed ſegments, and that of the flower is compoſed of four leafits, which are roundiſh, concave, deciduous, and placed above the germen: the corolla conſiſts of four petals, which are roundiſh, notched, very ſmall, and of a bluiſh colour:† the filaments are numerous, ſlender, inſerted in the calyx, and furniſhed with ſimple antheræ: the germen is oblong, large, terminated by the calyx of the fruit, and placed below the inſertion of the corolla: the ſtyle is tapering, and the ſtigma ſimple: the pericarpium is one-celled, umbilicated, and terminated by the indurated converging calyx: the ſeed is a large oval berry.[a]

It is a native of the Eaſt Indies, the Moluccas, &c. and was lately found by Sonnerat in New Guinea. It has been aſſerted that the Dutch, who have long been in poſſeſſion of the principal ſpice iſlands, deſtroyed all the Clove trees growing in the other iſlands, in order to ſecure a lucrative branch of commerce to themſelves, and confine the cultivation of this tree to the iſland of Ternate;[b] but it appears that in 1770 and 1772, both the Clove and Nutmeg trees were brought from one of the Moluccas, and tranſplanted in the Iſle of France, Bourbon, and Seickelles,[c] where they have been found to thrive very well, (ſee Nutmeg) though the Clove tree has ſince ſucceeded better in Cayenne.[d] To bring this tree to the higheſt perfection, a peculiar

* The Caryophyllus evidently belongs to the claſs Icoſandria; and modern botaniſts refer it to the genus Eugenia. † We examined this plant preſerved in ſpirit, in the poſſeſſion of the Preſident of the Royal Society, but without finding any corolla.

[a] The fruit, in its mature ſtate, is known by the name *Anthophyllus*.

[b] Savary, *Dict. vol. ii. p.* 653. [c] *Hiſt. de l'Acad. de Sc. de Paris*, 1772. [d] Teſſier, *in Rozier Journ. de Phyſ.* 1779.

mode of cultivation ſeems neceſſary, and is practiſed in Amboina by the Dutch, by whom it is kept a profound ſecret.[e] If the Clove was known to the Greeks, it cannot be diſcovered by their writings, nor is there any diſtinct account of it given by Pliny; but it ſeems in ſome meaſure applicable to the deſcription of the Carunfel of Serapion, and the Charumfel Bellun of Avicenna,[f] ſo that this ſpice, as well as the Nutmeg, was probably known to the Arabians.

The ſpice uſed here, and known by the name of Cloves, is the unexpanded flowers or rather calyces, which are found to be more aromatic than in their advanced ſtate; they are of a dark brown colour, which they acquire from the ſmoke to which they are expoſed; for in order to preſerve the Cloves it is cuſtomary firſt to immerſe them in boiling water, and then ſubject them to fumigation, or merely to fumigate them, and afterwards expoſe them to the ſun for further exſiccation.

The Clove has a ſtrong agreeable ſmell, and a bitteriſh hot not very pungent taſte: theſe qualities are completely extracted by rectified ſpirit. After inſpiſſating the filtered tincture, the remaining extract has little ſmell, but its taſte is exceſſively hot and fiery. Cloves impregnate water more ſtrongly with their ſmell than they do ſpirit, but not near ſo much with their taſte; and in diſtillation with water they yield one-ſixth of their weight of eſſential oil, ſmelling ſtrongly of the Cloves, but leſs pungent than the ſpirituous extract.

"The oil of Cloves commonly met with in the ſhops, and received from the Dutch, is indeed highly acrimonious: but this oil is plainly not the genuine diſtilled oil of Cloves, but conſiderably more pungent, containing half its weight of an inſipid expreſſed oil: it is probably from an admixture of the reſinous part of the Clove that this ſophiſticated oil receives both its acrimony and high colour."[g]

Clove is accounted the hotteſt and moſt acrid of the aromatics, and by acting as a powerful ſtimulant to the muſcular fibres, may in ſome caſes of atonic gout, paralyſis, &c. ſuperſede moſt others of the aromatic claſs; and the foreign oil, by its great acrimony, is alſo well adapted for ſeveral external purpoſes.

The eſſential oil is the preparation of this ſpice directed by the pharmacopœias, which, as well as the Clove itſelf, enters ſeveral officinal compoſitions.

[e] *Rumph. l. c.* [f] *Vide J. Bauh. Hiſt. vol. i. p.* 426. [g] *Lewis, M. M. p.* 203.

END OF THE SECOND VOLUME.