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.
OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

IN THREE VOLUMES.

VOL. I.

Iadem omnium Stirpium (si fieri potest) potestim habeat, seminum saltem quibus frequenter utimur.

Galen, Lib. De Antidot.

LONDON:
Printed and Sold for the Author, by JAMES PHILLIPS, George Yard, Lombard Street.
M. DC. XC.
Hodgson
To
Sir George Baker, Bart.
President,
The Fellows,
and the
Licentiates,
of the
Royal College of Physicians,
London:

This first volume of medical botany,
with their permission,
is most respectfully inscribed,
by
The Author.
 PREFACE.

IN the catalogues of the Materia Medica, the productions of the animal and mineral kingdoms bear a small proportion to those of the vegetable. Though it must be acknowledged that for some time past the medicinal uses of vegetable simples have been less regarded by physicians than they were formerly, which probably may be ascribed to the successive discoveries and improvements in chemistry; it would however be difficult to shew that this preference is supported by any conclusive reasoning drawn from a comparative superiority of Chemicals over Galenicals, or that the more general use of the former has actually led to a more successful practice.

Although what may be called the herbaceous part of the Materia Medica, as now received in the British pharmacopoeias, comprises but a very inconsiderable portion of the vegetable world; yet limited as it now is, few medicinal practitioners have a distinct botanical knowledge of the individual plants of which it is composed, though generally well acquainted with their effects and pharmaceutical uses. But the practitioner, who is unable to distinguish those plants which he prescribes, is not only subjected to the impositions of the ignorant and fraudulent, but must feel a dissatisfaction which the inquisitive and philosophic mind will be anxious to remove, and to such it is presumed MEDICAL BOTANY, by collecting and supplying the information necessary on this subject, will be found an acceptable and useful work; the professed design of which is not only to enable the
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the reader to distinguish with precision all those plants which are
directed for medicinal use by the Colleges of London and Edinburgh,
but to furnish him at the same time with a circumstantial detail of
their respective virtues, and of the diseases in which they have been
most successfully employed by different writers.

A distinctive and characteristic knowledge of natural objects should
certainly precede the consideration of their different properties and
qualities; and with respect to plants, this knowledge is seldom to be
adequately attained by a mere verbal description: accurate delineations
therefore become necessary, and this department is committed to Mr.
Sowerby, an artist of established reputation, whose talents are not less
conspicuous in the correctness than in the beauty of his designs.

It is justly a matter of surprise, that notwithstanding the universal
adoption of the Linnaean System of Botany, and the great advances
made in natural science, the works of Blackwell and Shelford
should still be the only books in this country in which copper-plate
figures of the medicinal plants are profusely given; while splendid
foreign publications of them, by Regnault, Zorn, and Plenk, have
appeared in the space of a very few years. These works however
are far from superseding that now offered to the public; for without
refraining to the invidious task of pointing out their errors and in-
perfections, the author has the satisfaction of having exhibited icons
of several rare and valuable plants, which have never been completely
figured in any preceding work whatever: and by subjoining some
account of the botanical and medical history of each species, curiosity
is more fully gratified, and a double interest is excited in the mind of
the student.

Duplex est dos libelli.

Respecting
Preface

Respecting the uses of Simples, the opinion of Oribasius will not be disputed, viz. "Simplicitium medicamentorum, & facultatum quar "in eis infint, cognitio ita necessaria est, ut sine ea nemo rite medicari quae?" and it is a lamentable truth, that our experimental knowledge of many of the herbaceous simples is extremely defective; for as writers on the Materia Medica have usually done little more than copy the accounts given by their predecessors, the virtues now ascribed to several plants are wholly referrible to the authority of Dioscorides. It is however hoped that the medical reader will find what relates to this part of the work as complete as the flow progressive state of experience in phytic will admit: with this intention, facts and opinions have been industriously collected from various authorities; and those adduced by Professor Murray, and the works of the late Dr. Cullen, have furnished the largest contribution.

The publication of this work in monthly numbers has afforded the author an opportunity of knowing already the sentiments entertained of it, by several Gentlemen of great medical and botanical authority; from whose unfoncited communications he has derived considerable assistance, and for whose friendly suggestions he desires to make his most grateful acknowledgments.

Catalogue
CATALOGUE,

In which all the plants composing the MATERIA MEDICA,
as referred to by the Colleges of London and Edinburgh,
are arranged according to the System of Linnaeus, and distinguished
respectively by the letters L E.

**CLASS I. MONANDRIA.**

**ORD. MONOGYNIA.**

<table>
<thead>
<tr>
<th>Plant</th>
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<tbody>
<tr>
<td>Amomum Zingiber</td>
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<tr>
<td>Cardamomum</td>
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</tr>
<tr>
<td>Kämpferia rotunda</td>
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<td>Curcuma longa</td>
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**MONOGYNIA.**

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<tr>
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<tr>
<td>Veronica Beccabunga</td>
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<tr>
<td>Gratiola officinalis</td>
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<td>Rofimarinus officinalis</td>
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**TRIGYNIA.**

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<td>longum</td>
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<td>Cubeba</td>
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**CLASS III. TRIANDRIA.**

**MONOGYNIA.**

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<td>Tamarindus indica</td>
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<tr>
<td>Crocus sativus</td>
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<td>L E</td>
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<tr>
<td>Iris florentina</td>
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<tr>
<td>Pseudo Acorus</td>
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**DIGYNIA.**

<table>
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<td>Saccharum officinarum</td>
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<tr>
<td>Hordeum distichon</td>
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<tr>
<td>Triticum hibernum</td>
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<td>Avena sativa</td>
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**CLASS IV. TETRANDRIA.**

**MONOGYNIA.**

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**CLASS V. PENTANDRIA.**

**MONOGYNIA.**

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<td>Hyoecyamus niger</td>
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<td>Atropa Belladonna</td>
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<td>Solanum Dulcamara</td>
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<td>Phychotria emetica</td>
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<td>Caplicum annuum</td>
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<td>Chironia Centaurium</td>
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## CATALOGUE.

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<td>UMBELLATÆ.</td>
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<td>VI. H E X A N D R I A.</td>
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<td>MONOGYNIA.</td>
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<td>Convallaria Polygonatum</td>
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<td>Aloë perfoliata, &amp;c.</td>
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<tr>
<td>Acorus Calamus</td>
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<tr>
<td>Calamus Rotang, &amp;c.</td>
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<td>T R I G Y N I A.</td>
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<td>Rumex aquaticus</td>
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<td>Acerola</td>
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<td>Colchicum autumnale</td>
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<td>VII. H E P T A N D R I A.</td>
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<td>Æsculus hippocastanum</td>
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<td>VIII. O C T A N D R I A.</td>
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<td>Amyris Elemifera</td>
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<td>gileadeniis</td>
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<td>IX. E N N E A N D R I A.</td>
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<td>MONOGYNIA.</td>
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# CATALOGUE

## X. DECANDRIA
### MONOGYNIA

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<td>Dictamnus albus</td>
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<td>Rutaceae graveolens</td>
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<td>Toluifera Balsamum</td>
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<td>Myroxyron meurantherum</td>
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<td>Haematoxyllum Campechianum</td>
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<td>Quassia amara</td>
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<td>Simaruba</td>
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<td>Rhododendron candifolium</td>
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<tr>
<td>Copaifera officinalis</td>
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<td>Arbutus Uva urbi</td>
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<td>Styrax officinale</td>
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## DIGYNIA

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<td>Dianthus Caryophyllus</td>
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## PENTAGYNIA

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## XI. DODECANDRIA
### MONOGYNIA

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## XII. ICOSANDRIA
### MONOGYNIA

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## XIV. DIDYNAMIA
### GYMNOSPERMIA

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<td>Teucrium Scordium</td>
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<td>Hyssopus officinalis</td>
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<td>Lavandula Spica</td>
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<td>Mentha piperita</td>
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<td>spicata, Hud.</td>
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<td>Pulegium</td>
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<td>Glecoma hedræcea</td>
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<td>Marrubium vulgare</td>
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<td>Origanum vulgare</td>
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<td>Majorana</td>
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<td>Thymus Serpyllum</td>
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<td>vulgaris</td>
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<td>Melissa officinalis</td>
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<td>ANGIOSPERMIA</td>
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<td>Digitalis purpurea</td>
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<td>XV. TETRADYNAMIA</td>
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<td>SILICULOSA</td>
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<td>Cochlearia officinalis</td>
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<td>SILIQUOSA</td>
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<td>Sifymbium Nafurium</td>
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<td>Sinapis nigra</td>
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<td>Cardamine pratensis</td>
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<td>XVI. MONADELPHIA</td>
<td>POLYANDRIA</td>
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<td>POLYANDRIA</td>
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<tr>
<td>Althaea officinalis</td>
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<td>Malva sylvestris</td>
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<td>XVII. DIADELPHIA</td>
<td>HEXANDRIA</td>
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<td>HEXANDRIA</td>
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<tr>
<td>Fumaria officinalis</td>
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XVIII. POLYADELPHIA

| IOCUSANDRIA                                   |                    |
| Citrus Medic allocator                       | L E                |                    |
| Aurantium                                    |                    |                    |

XIX. SYNGENESIA

| POLYGAMIA AQUALIS                            |                    |
| Cynara Scolyms                               | L E                |                    |
| Leontodon Taraxacum                          | L E                |                    |
| Arctium Loppa                                 | L E                |                    |

<p>| POLYGAMIA SUPERFLUA                          |                    |
| Tancetum vulgare                              | L E                |                    |
| Artémisia Abrotanum                           | L E                |                    |
| Abrotanum vulgaris                            | E E                |                    |
| maritima                                      | L -                |                    |
| Santonicum                                    |                    |                    |</p>
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<th>Catalogue</th>
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<td>POLYANDRIA.</td>
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<td>Quercus Robur</td>
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<td>Juglans regia</td>
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<td>MONADELPHIA.</td>
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<td></td>
<td>Pinus species varia</td>
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<td>Croton Calycynthia</td>
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<td>Ricinus communis</td>
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<td>SYNGENESIA.</td>
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<td>Momordica Elaterium</td>
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<td>Cucumis Colocynthis</td>
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<td>Bryonia alba</td>
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<td>XX. GYNANDRIA.</td>
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<td>Dianthus</td>
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<td>Orchis mascula</td>
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<td>HEXANDRIA.</td>
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<td>Aristolochia Serpentina</td>
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<td>POLYANDRIA.</td>
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<td>Arum maculatum</td>
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<td>XXI. MONOECIA.</td>
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<td>MONANDRIA.</td>
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<td>Myristica moschata Thunb.</td>
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<td>TETRANDRIA.</td>
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<td>Urtica dioica</td>
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<td>Morus nigra</td>
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<td>MONADELPHIA.</td>
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<td></td>
<td>Juniperus communis</td>
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<td>Lycia</td>
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<td>Sabina</td>
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<td>Cissampelos Pareira</td>
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CATALOGUE.

XXIII. POLYGAMIA. XXIV. CRYPTOGRAMIA.

MONOECIA.

Veratrum album L E Asplenium Trichomanoides — E
Parietaria officinalis L E Polypodium Filix mas L E
Stalagmitis Cambogiodes, Mur. L E Algæ.
Mimosa nilotica L E A L GÆ.
Catechu L E Lichen islandicus — E

FILICES.

DIOECIA.

Fraxinus Ornus, &c. L E Boletus ignarius — E
Panax quinquefolium L E

TRIOECIA.

Ficus Carica L E Cocos butyracea — E

For an Arrangement of the above, according to their Medicinal Effects, see the last Volume.

ATROPA BELLADONNA.
Atropa Belladonna.
Published as the Act directs by D. Woodville Jan 4, 1790.
ATROPA BELLADONNA. DEADLY NIGHTSHADE.


The Belladonna has a thick, whitish root, which is perennial, and sends forth strong, branched, annual, purple-coloured stems, from three to five feet high. The leaves are of unequal size, entire, oval, pointed, and stand in pairs upon short footstalks. The flowers are of a dark or brownish purple colour, large, pendent, bell-shaped, furrowed, and the limb cut into five segments. The whole plant is covered with fine hairs or down: the flowers appear in June or July, but the berries are not ripe till September, when they acquire a shining black colour. It grows in shady and stony waste grounds, but is not very common near London.

Whether this plant is the ἡφικος μανις of Dioscorides or not, botanists have not yet ascertained, but it has certainly been long known as a strong poison of the narcotic kind; and the berries, though less powerful than the leaves, furnish us with many instances No. 1. A
of their fatal effects, particularly upon children, who are readily tempted to eat this fruit by its alluring appearance and sweet taste. The number of these berries necessary to produce deleterious effects, may probably depend upon the state of maturity in which they are eaten: if not more than three or four be swallowed, according to Haller’s account, no bad consequence ensues; “Bacca fapore satio dulci possunt abique noxa edo” fi numeros tres quatuorve non “excesserit; plures etiam ad studio suo medicinæ Colonieni nomine “Simonis vidi deglutiri.” Hal. Stirp. Helv. No. 579.


Ray relates a curious instance of the effects of this plant in the following words. Hist. Plant. p. 680. Accedit, ni fallor, tempore Pontificis Maximii Urbani ultimi, ut quidam de familia Cardinales magni nominis (ut mihi hic Augusti retulit ejus hortulanus) infuderat in vino Malvatico herbam illam quam Bellam Donnam vocant, daturam alias per noctem ut ejus herbae effectus dicerent; infusum hoc propinavant cubidam fratri mendicanti ex convento S. Hieronymi, qui Patavii Fratrum ignorantiae dicitur, a primo breve delirium, cachinnis, gesticulationes variæ; dein insania vera, post flupor mendas qualis e tertiorum vigilantium. Cardinales pro ebrio in carcere includit; deinde ad medicos qui rem subfollicerator innocens prouentit, qui acet viridii opliato, a dementia quam Bella Donna causavit eum liberat. Hachibellerus Decad. 7 Ob.

And Shakespeare in his Macbeth makes Banquo say,

Or have we eaten of the infant root
That takes the reason prisoner.


But
But when a greater number of the berries are taken into the stomach, scarcely half an hour elapses before violent symptoms supervene; viz. vertigo, delirium, great thirst, painful deglutition, and retching, followed by furore, stridor dentium, and convulsions; the eye-lids are drawn down, the uvea dilated and immovable; the face becomes red and tumult, and spasms affect the mouth and jaw; the general sensibility and irritability of the body suffer such great diminution, that the stomach often bears large and repeated doses of tart. emet. (gr. 14.) without being brought into action; the pulse is small, hard, quick, and subfutius tendinum, rifles fardonis & coma, generally precede death. The body being opened, inflammation has been discovered in the intestines, mefentery, and liver, Comm. Nor. 1743, p. 61. And Boulduc, Hist. de l'Acad. des Sc. de Paris, 1703, p. 56. found the stomach of a child eroded in three places. It may be necessary to remark, that vinegar, liberally drunk, has been found very efficacious in obviating the effects of this poison; evacuations should however be always first promoted.

The leaves of the Belladonna were first used externally to distract scirrhous and cancerous tumours, and also as an application to ill conditioned ulcers: their good effects in this way at length induced physicians to employ them internally for the same disorders, and we have a considerable number of well authenticated facts which prove them a very serviceable and important remedy. But it must likewise be confessed, that many cases of this sort have occurred in which the Belladonna has been employed without success: this, however, may

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Footnotes:
7. To which we may add the later authorities of Bergius (Mat. Med. p. 128, vol. 1.) and Murray, App. Med. vol. 1. p. 440. who used them successfully in convulsions and epilepsy. The good effects of the berries may be learned from Gesner, Epist. p. 34.
8. Eph. N. C. ann. 3. Obs. 64.
16. And some accounts given of this plant by our own countrymen Gataker and Bromfield.
be said of every medicine; and though Dr. Cullen repeatedly experienced its inefficacy, yet the facts he adduces in confirmation of the utility of this plant, are clear and decisive: "I have had a cancer of the lip entirely cured by it; a scirrhosity in a woman's breast, of such a kind as frequently proceeds to cancer, I have found entirely dispersed by the use of it; a sore a little below the eye, which had put on a cancerous appearance, was much mended by the internal use of the Belladonna: but the patient having learned somewhat of the poisonous nature of the medicine, refused to continue the use of it, upon which the sore again spread, and was painful; but upon a return to the use of the Belladonna, was again mended to a considerable degree: when the same fears again returning, the use of it was again laid aside, and with the same consequence of the sore becoming worse. Of these alternate states, connected with the alternate use of, and abstinence from, the Belladonna, there were several of these alternations which fell under my own observation."

The sensible effects produced by the leaves of this plant taken in medicinal doses, are usually by the skin, the urinary passages, and sometimes by stool; in larger doses troublesome dryness of the mouth and throat, giddiness, and dimness of sight are experienced.

That the advantages derived from the internal use of Belladonna are only in proportion to the evacuations effected by it, is a conclusion we cannot admit as sufficiently warranted by the facts adduced upon this point.

As this plant is very uncertain in its operation, the proper dose is with difficulty ascertained; the most prudent manner of administering it is by beginning with one grain or less, which may be gradually increased according to its effects. Six grains are considered as a very large dose.—With respect to the berries, so successfully employed as an anodyne, by Gesner and others, in dysenteries, a small spoonful (coch. parvum) of a syrup of the juice was the dose given.

The root seems to partake of the same qualities as the leaves, but is less virulent.

MENYANTHES TRIFOLIATA.
MENYANTHES TRIFOLIATA. WATER TREFOIL, OR BUCKBEAN.


This plant is common in every part of England; it grows in marshes and ponds, producing its flowers in an open terminal spike about the latter end of June. The scapus, or stalk, rises from six to twelve inches in height. The petals are sometimes entirely white, but more commonly rose-coloured on the outside, and within they are finely fringed, so as to have a hairy or fibrous appearance, hence named Trifolium Fibrinum: the root is perennial, creeping, and jointed, sending forth many long flender filaments. The trifoliata is easily distinguished from the other species of Menyanthes by its ternate leaves, which have been thought to resemble those of the common garden bean, and have given it the English name, Buckbean.

The whole plant is so extremely bitter, that in some countries it is used as a substitute for hops in the preparation of malt liquor; yet Linnaeus observes, that the poorer people in Lapland make a bread of the powdered roots mixed with meal, but at the same time he acknowledges it is a very unpalatable food.

* Flor. Lappon. p. 50.  
  No. 1.  
  **bid.**  
  ---  
  B  
  fails
The blackness manifested by adding a solution of green vitriol to the juice, or to a strong infusion of the leaves of Buckbean, is a sufficient test of its astrigency; while a dram of the powdered leaves seldom fails to open the body, or produce vomiting; so that in common with the tonic properties of a bitter, it seems farther to possess a considerable share of medicinal activity: we can therefore more easily credit the reports of its success in a great number of chronic diseases mentioned by various authors, as ictery, dropsey, jaundice, asthma, periodical headaches, intermittents, hypochondriasis, cachexia, obturatia menstruum, rheumatism, serophula, worms, gout. Dr. Boerhaave was relieved in the last mentioned complaint by drinking the juice mixed with whey; and Dr. Alston tells us, that "this plant had remarkable effects in the gout, in keeping off the paroxysms;" but adds, "though not to the patient's advantage."

In confirmation of the good effects of Water Trifolium in dropsey, we are told that sheep, when forced to eat it, are cured of the rot; (oves tabidae) yet as we have but few and imperfect proofs of its diuretic powers, this fact will be considered of little weight.

Bergius confines the uses of this plant to scorbutes, leukophlegmatia, arthritis, rheumaticus, cacoethes, and this specification is still farther contracted by later writers on the Materia Medica. In Lewis's Med. (by Mr. Aikin) it is said, that the leaves of buckbean have of late years come into common use as an alterative and aperient, in impurities of the humours, and some "hydropic and rheumatic cases;" and as an active and coprotic bitter, we should suppose them not ill adapted to supply the want of bile in the prime vice, and thus infer their use in protracted

6 Trifolii Fibriae Historia, fecit obs. observationibus et perspicuis exemplis, illustrata a Jo. Franco, anno 1707.


8 Ephr. Nat. Cur. Dec. i. ann. III. Obf. 123 (this answers Dr. Alston's query, who asks, "Where is this related?"

9 Dr. T. Robinson.

I. c.

1 Mt. Med. vol. i. p. 91.

jaundice,
Leontodon

Published as the Act directs

by D. Woodville. Jan 7, 1790.
jaundice, and other biliary obstructions. Dr. Cullen has “had fe-
veral instances of their good effects in some cutaneous diseasés of
the herpatic and seemingly cancerous kind.”
The leaves may be given in powder from $\frac{3}{16}$ to $\frac{3}{4}$ for a dose
two or three times a day, but a strong infusion of them is perhaps
preferable, and with delicate stomachs it may be necessary to con-
join a grateful aromatic: they impart their properties both to wa-
tery and spirituous menstrua, and an extract is ordered to be prepared
from them in the Ph. Dan. p. 171. Efficax et frequentis commodi-
que usus. Murray.

**LEONTODON TARAXACUM. COMMON DANDELION.**

**SYNONYMA.** Taraxacum, Pharm. Lond. & Edin. Denš
Leonis, Autórum.

* Semisphérololi Tourn. corollis ligulatis omnibus.

Eff. Gen. Char. Recept. nudum. Cal. imbricatus, squamis laxi-
uclus. Pappus plumosus.

Spec. Char. L. T. calyce squamis inferne reflexis, foliis run-
cinatis denticulatis laxibus.

**DANDELION** is so very common, that a plot of ground can
scarcely be seen where it does not present its yellow flowers*.
It is easily distinguished from the hawkweeds and other ligulated

* Mat Med. vol. 2. p. 75.

* It has been observed that these flowers possess a certain degree of sensibility, for
when under the powerful influence of the sun in a summer’s morning, an evident-
motion of the flowerets may be discovered. MS Lect. of the late Dr. Hope.
plants, by the outer calyxes being bent downwards, and by the flower stalk, which is simple, coloured, shining, and uniflora: the leaves are all radical and cut in a peculiar way, forming a good example of what botanists call runcinata. The seeds, in approaching to maturity, become crowned with a fine downy feather, disposed in a spherical shape. The root is perennial and spindle-shaped, which with the whole plant abounds with a milky juice.

The young leaves of this plant in a blanched state have the taste of endive, and make an excellent addition to those plants eaten early in the spring as salads. At Gottingen the roots are roasted and substituted for coffee by the poorer inhabitants; who find that an infusion prepared in this way can hardly be distinguished from that of the coffee berry.

Dandelion is generally considered by medical writers as the most active and efficacious of the lacteal plants; the expelled juice is bitter and somewhat acrid, the root however is still bitterer, and possess more medicinal power than any other part of the plant. Taraxacum has been long in reputation as a mild detergent and aperient, and its diuretic effects may be inferred from the vulgar name it bears in most of the European languages, quafi lectiones et urinaria herba dicitur. Murray says, Viciitos minium tenacefuge humores frirps solvit, et obstructa vasa referat, erupisnum vantam sanat: and Bergius recommends its use in obstructions of the liver, hypochondria, and jaundice. Its successful use in the first of these diseases is confirmed by his own experience. De Haen also gives us another instance of the same complaint cured by the same means;

--- Haller's Strip. Hel. p. 58.
---plus lotis derivat in vesica quam puellul retinae sunt, precontinent inter dormientum, eaque tunc imprudentes et invitae fragula permingunt. Ray's Hist. Pl. p. 244.
--- Murray, l. c.

and
and we have various proofs of the good effects of the Taraxacum related by different authors, in jaundice, dropsy, pulmonic tubercles, and some cutaneous disorders.

The leaves, roots, flower stalks, and juice of Dandelion, have all been separately employed for medical purposes, and seem to differ rather in degree of strength than in any essential property: therefore the expressed juice, or a strong decoction of the roots have most commonly been prescribed, from one ounce to four, two or three times a day. The plant should be always used fresh; even extracts prepared from it appear to lose much of their power by keeping.

* Van Swieten's Com. tom. 3. p. 102. and Boerhaave apud Boretium.


* Zimmermann, vide Murray, l. c. Haller, l. c. Park. 780.


Ingreditur cum radice graminis regiam illam ptisanam, ejus formulam Ludovicus XIV. magno pretio redemit. Haller's Stirp. Hel. No. 56.

* Lewis's M. M. 273.

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**No. 1.**

**C**

**ARNICA**
ARNICA MONTANA. MOUNTAIN ARNICA.


This plant is very common upon the northern mountains of Germany and Switzerland, and was first cultivated in this country by Mr. P. Miller in 1759. The stalk grows above one foot high, erect, roundish, striated, rough, hairy. The radical leaves are oval, narrow at their bases, and more obtusely lanceolated than the cauline leaves. On the stalk they are sessil, entire, oval, obtusely lance-shaped, and stand in pairs: the flowers are large, yellow, radiated, solitary, terminal, appearing in July: the calyx is imbricated, and consists of a single row of narrow, pointed, rough leaflets: the root is perennial, thick, fleshy, and spreading.

The odour of the fresh plant is rather unpleasing, and the taste acid, herbaceous, and astrigent; a watery infusion of it strikes a

ARNICA.

DORONICUM

Armonica Ro.

Bellis alterum,

GERMANICUM

in temperes

Armonica Al.

stes, integra

et.

Chrysanthemum

mountains of

the country by

the first high

leaves are oval,

the cauline

wax, a shaped, solitary,

and consists of

spermathecal

and the tube

it strikes a

black

Armonica montana

Published by the Act directed by Dr. Woodville Jan. 21. 1790.
black colour by the addition of sal martisan, and the powdered leaves act as a strong stimulant.

That the Arnica is a medicine of considerable activity there cannot be a doubt; but how far it deserves the extravagant praises it has received at Vienna, is not for us to determine; either the facts stated by Dr. Collin are not admitted by the physicians of this country, or we are disregardful of a remedy of the first importance in the Materia Medica.

But as our business is to adduce whatever is recorded of each plant by authors of respectability, (whether of Arnica or Heinlock) still the medical reader must form his own judgment of the evidence.

The virtues of this plant, according to Bergius, are emetica, erthina, diuretica, diaphoretica, emmanagoga, and from its supposed power of attenuating the blood, it has been esteemed so peculiarly efficacious in obviating the bad consequences occasioned by falls and bruises, that it obtained the appellation of panacea laporum; and to this revolvent power its success in fundry diseases has been accounted for, particularly pulmonic complaints, suprresso menstrum, and visceral obstructions. Of the advantages derived from its use in paralytic and other affections depending upon an interruption or diminution of nervous energy, we have several proofs; and it is observed in these cases, that the recovery is generally preceded by great uneasiness, or acute pain in the parts affected. But it is the

* Bergius, m. m. 683
* The author has not been able to procure this plant from any of the London drug-gists.
* There is a variety of this species with narrower leaves, which is more powerfully medicinal. Gmelin Flor. Sibir. t. 2. p. 153.
extraordinary febrifuge and antiseptic virtue of the Arnica, which have been so highly extolled by Dr. Collin.*

It had long been a desideratum of his to find an European plant of equal medicinal powers with the Peruvian bark in fevers of the intermitting and putrid kind; and after several fruitless trials of different simples, at last he had the satisfaction to find them in the Arnica; for by the flowers of this plant, made into an electuary with honey, he cured more than one thousand patients labouring under the different species of intermittent fevers in the Pazman hospital, from December 1771, to July 1774; and during the following winter the Doctor made trial of a watery extract of the flowers, by which he cured thirty quotidiens, forty-six tertians, and fifty-eight quartans.*

In putrid fevers the Doctor experienced equal success with the flowers employed in the way of infusion†, with which many hundreds of patients were snatched from the very jaws of death. However, there are some cases where the Doctor recommends the root* in preference to the flowers, believing the former to possess more cordial, tonic, and antiseptic qualities; and it is accordingly directed in those cases where putridity and debility are more prevalent than fever; also in a malignant dysentery Dr. Collin could relate many hundred instances of the superior efficacy of Arnica root, and his practice in this diseased was imitated and confirmed by Dr. Dietl.

Dr. Collin farther ascertains the medicinal powers which he attributes to this root in thirteen cases of gangrenes, where its antiseptic virtue have been so highly extolled by Dr. Collin.*

* Dr. Collin is, we believe, the only author who has experienced the good effects of Arnica in intermitting fevers, if we except the two cases stated by Aaskow (l. c.) where it acted as a powerful evacuant. Bergius employed it in quartan intermittents, which were aggravated, rather than bettered, by the use of this medicine, m. m.
† R. Flor. arnicae unc j. infunde in s. q. apace servide per ½ horam, deinde vafe claufo per medium ½ horse ebullient; colat. lib. ij. add. fyr. capill. vener. q. f. ad gratiam; et omni bihorio diei sumat unc ij.
‡ R. Pulv. Rad. Arnicae unc. ij. digere in phiala alta balneo arena adaptata, exacte clausa, per 12 horas cum aq. q. f. colatur. unc. xxx. adde fyr. zelth. unc. ij. m. fumac seger omni bihorio unc. ij. vel iij. And to make this medicine more palatable to the patient, he occasionally added lemon juice, fyr. vitriol, or wine.
1 Physician to the military hospital of invalids, at Vienna.
septic effects admitted of more evident proof. As the Arnica, when first administered, often excites vomiting, or uneasiness at the stomach, it will be necessary to begin with small doses; but by repeating the medicine two or three times this uneasiness goes off.

CONVOLVULUS SCAMMONIA. SCAMMONY BIND-WEED.


Spec. Ch. C. fol. sagittatis postice truncatis, pedunc. teretibus subtrifloris.

THIS plant grows plentifully about Marash, Antioch, Edlib, and towards Tripoly in Syria: it was first cultivated in England by Mr. Gerard, in 1597. The root is from three to four feet long, and from nine to twelve inches in circumference, covered with bark of a light grey colour, it is perennial, tapering, branched towards the bottom, No. 1.
and contains a milky juice; the stalks are numerous, slender, twining, and spread themselves upon the ground, or neighbouring trees, to the extent of fifteen or twenty feet; the leaves are arrow-shaped, smooth, of a bright green colour, and stand upon long footstalks: the flowers are funnel-shaped, yellowish, plicated, and, according to Dr. Ruffel, placed in pairs upon the pedicles: the calyx is double, consisting of four emarginated leaflets in each row: the capsule is three and sometimes four locular, containing seeds of a pyramidical shape. No part of the dried plant possesses any medicinal quality but the root, which Dr. Ruffel administered in decoction, and found it to be a pleasant and mild cathartic.

It is from the milky juice of the root that we obtain the official Scammony, which is procured in the following manner by the peasants, who collect it in the beginning of June: "Having cleared away the earth from about the root, they cut off the top, in an oblique direction, about two inches below where the stalks spring from it. Under the most depending part of the slope they fix a shell, or some other convenient receptacle, into which the milky juice gradually flows. It is left there about twelve hours, which time is sufficient for draining off the whole juice: this, however, is in small quantity, each root affording but a very few drams. This juice from the several roots is put together, often into the leg of an old boot, for want of some more proper vessel, where in a little time it grows hard, and is the genuine Scammony." This concrete is a gummy-resin, generally of a light, shining, grey colour, and friable texture. It is brought from Aleppo and Smyrna; that which comes from the latter place is less valued than the former, and is supposed to be more ponderous and of a deeper colour; but the colour affords no test of the goodness.

* The Capit 2-boculavis of Linnaeus, ought to be corrected.

a Dr. Ruffel's Description of this plant in the Medical Observations and Inquiries, v. 1. p. 18.

b The Jews make it their business to go to the places where the Scammony is collected, and there buying it while yet soft, have an opportunity of mixing it with such things as best answers their purpose; as wheat-flower, ashes, fine sand, with all of which Dr. Ruffel found it adulterated. The purest Scammony is therefore the most active and most soluble.
of this drug, which seems to depend entirely upon the purity of the concrete. The smell of Scammony is rather unpleasant, and the taste bitterish and slightly acrid. The different proportions of gum and resin of which it consists, have been variously stated, but as proof spirit is the best menstruum for it, these substances are supposed to be nearly in equal parts.

Scammony appears to have been well known to the Greek and Arabian physicians, and was not only employed internally as a purgative, but also as an external remedy for tumours, scabies, tinea, fixed pains, &c. — Although this drug was seldom given alone, yet we find it was very generally used, and an ingredient in many compounds which were formerly held in very great repute. — Hoffman, however, entertained an opinion, that Scammony was a dangerous medicine; "Ego nunquam in praxi mea in usu habui, nec in poterum habebo; me semper ab illiusmodi venenis " colliquativis abstineo. Hoff. in Schrod. p. 543." But since Boerhaave's time it has been considered as a safe though stimulating cathartic, and frequently prescribed uncombined with any other substance, yet neither producing torments nor hypercatharisis. Like other resinous purgatives it is uncertain in its operation, which may be occasioned by the intestines being more or less defended from the action of these stimulants, by the quantity of natural mucus with which they are covered.

* Hippocrates, Dioscorides, Aetius, Mecue, &c.
* Among these were the Pulvis de Tribus, or Pulvis trium Diabolorum, Pulvis Basillus, Pulvis Comitis de Warwick, which was afterwards called Pulvis Cornachini, because Marcus Cornachini, professor of medicine at Pisa, recommended it as a panacea, in a book, the title of which is, "Methodus qua omnes humani corporis affectiones ab humilibus copiids aut qualitate pecaribus genitae, tute, cito, et jucunde curandar."
The dose of Scammony is generally from three to twelve grains. It is commonly triturated with sugar, almonds, &c. or with a decoction of liquorice, as recommended by the college of Winzenberg. In the London Pharmacopoeia it is ordered in the following compounds:—Pulvis e scammonio compoistus. Pulvis e scammonio compoistus cum aloes. Pulvis e scammonio cum calomelane. Pulvis e senna compoistus. Extractum colocynthidis compoistum. And in the Pilulae ex colocynthide cum aloes of the Edinburgh Pharm.

ACONITUM NAPELLUS. COMMON WOLF'S-BANE, or MONK'S HOOD.


Sp. Ch. A. foliolum laciniis linearibus superne latoribus linea exaratis.

The root is perennial, turnip-shaped, or more commonly fusiform; the stalk is simple, erect, strong, beset with many leaves, and grows from two to five feet high: the leaves are lobed, deeply laciniated,
laciniated, and stand alternately upon long footstalks, but the upper leaves are almost sessile, and the laciniae much broader than those towards the bottom of the stem; the superior pagina of the leaf is of a dark green colour, but the under pagina is whitish; the peduncles are generally unifloral, erect, and villous; the flowers terminate the stalk, are without calyces, and grow in a long racemus or spike; each flower consists of five petals, which include two nectaries, the uppermost petal is arched over the lateral ones, so as to appear helmet-shaped, or hooded; they are all of a purplish or deep violet colour; the pistilla, (according to Jacquin) are three, four, and sometimes five. The Aconitum is a native of the mountainous and woody parts of Germany, France, and Switzerland; but since the time of Gerard, it has been cultivated for ornament in most of the flower-gardens in this country.

The figure of this plant given by Stoerck, is supposed, by Haller and Bergius to be the Aconitum Cammarum of Linnaeus: Murray, however, is of a different opinion; and upon comparing Stoerck’s Aconitum with the Cammarum and Napellus, as delineated by Jacquin, *Flor. Aufl.*) we have no hesitation in referring it to the latter. *

Every part of the fresh plant is strongly poisonous, but the root is unquestionably the most powerful, and when first chewed imparts a slight sense of acrimony, but afterwards, an insensibility, or stupor at the apex of the tongue, and a pungent heat of the lips, gums, palate, and fauces, are perceived, followed with a general tremor and sensation of chillinefs. Though the plant loses much of its power by drying, yet Stoerck observes that, when powdered and put upon the tongue, it excites a durable sense of heat, and sharp wandering pains, but without redness or inflammation. The juice applied to a wound, seemed to affect the whole

* In the Cammarum the top of the flower rises much higher, and forms a more acute angle; the flowers are of a fainter blue colour, and the racemus is always shorter than that of the Napellus.

* Reinhold, however, describes the leaves of this plant, when dry, as almost insipid. Diff. de Aconit. Napellae.

No. 2.
nervous system; even by keeping it long in the hand, or on the bosom, we are told unpleasant symptoms have been produced. That the ancients considered the Aconitum to be the most destructive of vegetable productions, appears from their fanciful derivation of its origin: "ut ab Hecate inventum aut ex Cerberi fuma satum "pronicaret;" and Ray says, "Napellus venenorum praebentur, "neornum facilè princeps." The deleterious effects of this plant, like those of most vegetable poisons, are produced by its immediate action upon the nervous system; for of the different animals which have been destroyed by it, we find but one instance, wherein upon deflection, marks of organic disease were discovered, and this, as well as those mentioned in our former number respecting the Belladonna, we attribute to the action of secondary causes.

The fatal symptoms brought on by this poison, are thus stated by Haller: "Intus adsumus Napellus vomitus movet, convulsiones, "rigorem, vertiginem, maniam, hypercatharsis, sultum & duorum "erumpentes, tum ventris tumores, & alia gravissima symptomata, "fudorem frigidum, aphyrxiem." Stoerck appears to be the first

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who gave the Wolf's-bane internally, as a medicine; and since his experiments were published, in 1762, it has been generally and often successfully employed in Germany, and the northern parts of Europe, particularly as a remedy for obstinate rheumatism; and many cases are related where this disease was of several years duration, and had withheld the efficacy of other powerful medicines, as mercury, opium, antimony, cicuta, &c. yet, in a short time, were entirely cured by the Aconitum. In instances are also given us of its good effects in gout, scrophulous swellings, venereal nodes, amaurosis, intermittent fevers, &c. Bergius describes its Virtus to be pellens, fudorifera, diuretica, subvertiginofa; recens venenatm: Uhus, rheumatismus, arthritis, malum ifchiadicum.

This plant has been generally prepared as an extract or infusiated juice, after the manner directed in the Edinburgh and many of the foreign pharmacopoeias, and like all virulent medicines, it should be first administered in small doses. Stoerck recommends two grains of the extract to be rubbed into a powder, with two drams of sugar, and to begin with ten grains of this powder two or three times a day. We find however, that the extract is often given from one grain experiment to four condemned criminals, two at Rome, in the year 1524, and two at Prague, in 1561, of whom two soon perished, the other two, with great difficulty, recovered. Matthiol. in Dioscorid. p. 768. It has frequently been eaten by mistake for other plants, and proved fatal. Willis de Anima brutur. p. 286. Deden. Stirp. Pemnt. L. 4. p. 442. Bacon, Philof. Trans. vol. 38. p. 284. And the following remarkable fact is said to have happened at Sweden:—A person having eaten some of the fresh leaves of the Napellus, became maniacal, and the surgeon who was called to his assistance declared, that the plant was not the cause of the disorder; and, to convince the company that it was perfectly innocent, he ate freely of its leaves; but he suffered by his temerity, for soon after he died in great agony. Moracu, l. c. 1739. p. 41.


1 See the authors referred to above.

k Its efficacy is much diminished on being long kept.
to ten for a dose, and Stoll, Schenckbecher, and others, increased this quantity very considerably. Instead of the extract, a tincture has been made of the dried leaves, macerated in six times their weight of spirits of wine, and forty drops given for a dose.

VERONICA BECCABUNGA. BROOKLIME SPEEDWELL.


** Corymboso-racemosis.**

Sp. Ch. V. racemis lateraliibus, fol. ovatis planis, caule repente.

THE root is perennial, creeping, jointed, and from each joint sends forth many long slender fibres; the leaves are thick, oval, smooth, obtusely serrated, of a pale-green colour, and stand upon the stem in pairs, either sessile, or upon very short footstalks; the stem is round, jointed, creeping, smooth, succulent, often of a reddish brown colour, and from eight to twelve inches high; the racemis or flower spikes, are lateral, opposite, bracteated, and terminated by the
the flowers, which are of a faint blue colour, and divided into four small roundish leaves; the calyx is quadripartite. This plant is very common in ditches and shallow streams.

The leaves and stem of Brooklime have a bitterish subastringent taste, but manifest little or no acrimony, nor any peculiar odour; by chemical experiments they appear to be subacid, and possess some degree of astringency; these qualities, however, are common to almost all fresh vegetables, and afford no proof of their medical powers.

This plant was formerly considered of much use in several diseases, and was applied externally to wounds and ulcers; but if it have any peculiar efficacy, it is to be derived from its antiscorbutic virtue. As a mild refrigerant juice it is preferred where an acrimonious state of the fluids prevails, indicated by prurient eruptions upon the skin, or in what has been called the hot scurvy; it is ordered in the London Pharmacopoeia as an ingredient in the succus cochliariae compositus, probably with a view to correct the pungency of the cres. Rutty says, "Succus ejus faponaceus est, aperiens, & majori copia sumptus, alvum movet commodissime." We must, however, acknowledge, that we should expect equal benefit from the same quantity of any other bland fresh vegetable matter taken into the system. To derive much advantage from it, the juice ought to be used in large quantities, or the fresh plant eaten as food.
FERULA ASSAFETIDA. ASAFOETIDA GIGANTIC FENNEL.


Spec. Ch. F. Foliis alternatim sintatibus obtusis.

LINNAEUS has given the specific character according to Kaempfer’s representation of the Asafoetida plant, which differs in many respects from the figure here annexed, which is taken from that communicated to the Royal Society by the late Dr. Hope, and published in the 75th volume of the Philosophical Transactions: and this difference being so considerable as to indicate more than a mere botanical variety, Sir Joseph Banks thinks it probable that Asafoetida may be produced from different species of the ferula. Dr. Hope was undoubtedly the first who cultivated the Asafoetida plant in Britain, or perhaps in Europe, and his accurate description of it, as it grew

† Brancae urinae is the Heracleum Sphondylium of Linneus.
in the botanical garden near Edinburgh, in the year 1784, is inserted below.* Though Afaeæida was formerly in great estimation both as a medicine and a sauce, yet we had no particular account of the plant till Kaempfer returned from his travels in Asia, and published his Amoenitates Exotica in the beginning of the present century. As he saw the plant growing, and describes it from his own observation, we have collected the following general description from the history he has given:

It is a native of Persia, the root is perennial, tapering, ponderous,

* PLANTA umbellifera, tripedalis, erecta, ramosa, glauca, flore luteo.

Radix perennis.

Folia radix flex, procumbentia, trilobo-ovata, multoties pinnatifidum divisa; foliulis incisis, subacutis, subdecurrentibus; petiolo communi superne plano, lineae elevata longitudinaliter per medium decurrente.

Caulis bipedalis, erectus, teretiusculus, annuus, leviter striatus, glaber, nudus prater unam circa medium foliorum imperfectorum conjugationem; petiolo membranaceo concavo.

Rami nudi, patuli; quorum tres inferi, alterni, suflinentur singuli folii imperfecti petiolo membranaceo concavo. Quatuor intermedii verticillati sunt. Supremo ex apice caulis octo, quorum interni erecti.

Omnes hi rami summine suflinent umbellam composam sessilem terminalem, et praterea 3—6 ramulos externe positos, umbellas compostas ferentes. Hoc modo, rami inferiores suflinent 5, raro 6 ramulos; intermedii 3 vel 4; superiores 1 et 2.

CAL. Umbella universalis radis 20—30 constat.

— partialis flocculis subcylindris 10—20.

Umbella composita sessilis convexo-planis.

Involucrum universalis nullum.

— partiale nullum.

Perianthium proprium vix notabile.

COR. universalis uniformis.

Flocculi umbellae sessilis fertiles.

— pedunculata plurumque abortivum.

propria petalis quinque equalibus, planis, ovatis: primo patulis, dein reflexis, apice acutissimo.

STAM. Filamenta 5, fubulata, corolla longiora, incurvata. Antheræ subrotundæ.

PIST. Germum turbinatum, infernum.

Stylæ duo, reflexi.

Stigmata apice incrassata.

PER. nullum: fructus oblongus, plano-compressus, utrinque 3 lineis elevatis notatus eff. SEM. duo, oblonga, magna, utrinque plana, 3 lineis elevatis notata.

Planta odorum alliaceum diffundit. Folia, rami, pedunculi, radix, truncus, febris succum fundunt fœcundum, sapore et odore Afaeæidae.
and increases to the size of a man’s arm or leg, covered with a blackish
coloured bark, and near the top beset with many strong rigid fibres;
the internal substance is white, fleshy, and abounds with a thick
milky juice, yielding an exceedingly strong fetid alliaceous smell; the
stalk is simple, erect, straight, round, smooth, striated, herbaceous,
about six or seven inches in circumference at the base, and rises
luxuriantly to the height of two or three yards, or higher;" radical
leaves six or seven, near two feet long, bipinnate, pinnate alternate,
smooth, variously sinuate, lobed, and sometimes lance-shaped, of a
deep green colour, and fetid smell; the umbels are compound, plano-
convex, terminal, and consist of many radii: the seeds are oval, flat,
foliaceous, of a reddish brown colour, rough, marked with three
longitudinal lines, have a porrectaceous smell, and a sharp bitter taste;
the petals Kaempfer did not see, but supposes them in number five,
minute, and white.

This plant is said to vary much according to the situation and soil
in which it grows, not only in the shape of the leaves, but in the pec-
cular nauseous quality of the juice which impregnates them; this
becomes so far altered that they are sometimes eaten by the goats.

Asafoetida is the concrete juice of the root of this plant, which is
procured in the following manner on the mountains in the provinces
of Chorafaan and Laar in Persia. At that season of the year when
the leaves begin to decay, the oldest plants are selected for
this purpose. First the firm earth which encompasses the root, is
rendered light by digging, and part of it cleared away, so as to leave
a portion of the upper part of the root above the ground; the leaves
and stalk are then twisted off and used with other vegetables for a
covering to screen it from the sun, and upon this covering a stone is
placed to prevent the winds from blowing it down; in this state the
root is left for forty days, after which the covering is removed, and
the top of the root cut off transversely; it is then screened again from
the sun for forty-eight hours, which is thought a sufficient time for
the juice to exude upon the wounded surface of the root, when the
juice is scraped off by a proper instrument, and exposed to the sun

\[a\] Cauclis, in argyris, acquisiorygis, vel majorem longituninem luxuriosae exsurgens,
creasite in imo quinta manud complexum superet.

\[b\] Radix quadrienniód minor parum lacteoscit & nunquam sectatur.
to harden: this being done, a second transverse section of the root is made, but no thicker than is necessary to remove the remaining superficial concretions which would otherwise obstruct the farther effusion of fresh juice; the screening is then again employed for forty-eight hours, and the juice obtained a second time, as before mentioned. In this way the Aafoetida is eight times repeatedly collected from each root; observing, however, that after every third section, the root is always suffered to remain unmolested for eight or ten days, in order that it may recover a sufficient stock of juice. Thus, to exhaust one root of its juice, computing from the first time of collecting it to the last, a period of nearly six weeks is required; when the root is abandoned, and soon perishes.

The whole of this business is conducted by the peasants who live in the neighbourhood of the mountains where the drug is procured; and as they collect the juice from a number of roots at the same time, and expose it in one common place to harden, the fun soon gives it that confidence and appearance in which it is imported into Europe.

Aafoetida has a bitter, acrid, pungent taste, and is well known by its peculiar nauseous fetid smell, the strength of which is the surest test of its goodness; this odour is extremely volatile, and of course the drug loses much of its efficacy by keeping. According to Kaempfer’s account, the juice is infinitely more odorate when recent than when in the state brought to us: Affirmare autem, unam drachnam recens effusam, majorem spargere factorem, quam centum libras vetustioris quem vendunt aromatarii nostrates. "We have this drug in large irregular masses of a heterogeneous appearance, composed of various shining little lumps or grains, which are partly whitish, partly of a brownish or reddish, and partly of a violet hue. Those masses are accounted the best which are clear, of a pale reddish colour, and variegated with a great number of fine white tears. Aafoetida is composed of a gummy and a resinous substance, the first in largest quantity. Its smell and taste reside in the resin, which is readily dissolved and extracted by pure spirit, and, in a great part, along with the gummy matter, by water."
Afaëtidâ is a medicine in very general use, and is certainly a more efficacious remedy than any of the other fetid gums: it is most commonly employed in hysteria, hypochondriasis, some symptoms of dyspepsia, flatulent colics, and in most of those diseases termed nervous: but its chief use is derived from its antispasmodic effects; and it is thought to be the most powerful remedy we possess for those peculiar convulsive and spasmotonic affections which often recur in the first of these diseases, both taken into the stomach and in the way of enema. It is also recommended as an emmenagogue, anthelmintic, expectorant, antiasthmatic, and anodyne. Where we wish it to act immediately as an antispasmodic, it should be used in a fluid form, as that of tincture.

In the London Pharmacopœia, a spirituous tincture of it is directed, and it is also an ingredient in the Pilulae Gummi. In the Edinburgh Pharmacopœia, Afaëtidâ is ordered in the Tinctura fuliginis, in the pilulae gummose, and in the form of tincture with the Sp. Sal. ammon. viros.

Dr. Cullen prefers it to the Gum Ammon as an expectorant. Afaëtidâ should therefore have a double advantage in spasmotic asthma.
Tormentilla erecta

Published by D. Woodville 1790.
TORMENTILLA ERECTA. COMMON TORMENTIL, OR UPRIGHT SEPTFOIL.


The root is perennial, thick, roundish, irregularly conical, knobbled, and covered with bark of a dark brown colour; the internal substance is dense, and has a reddish tinge; it sends forth many stems, which grow about a span high; they are round, slender, firm, somewhat hairy, more or less erect, and branched towards the top. The leaves upon the stalk are generally divided into seven, but those upon the branches are commonly five; of these, three are larger than the others; they are all of an elliptical shape, deeply serrated, villous, and the upper surface is of a deeper green colour than the under. The flowers stand singly upon long peduncles, which spring from the axil of the leaves, each flower consisting of four small, roundish, emarginated, yellow petals; the calyx is cut into eight unequal segments; the pistilla are commonly eight, and contain as many seeds. This plant is common in dry pastures, and usually flowers in June. It is distinguished from the Tormentilla reptans, by its sepble leaves, its smaller petals, and its more erect stem.
The root is the only part of the plant which is used medicinally; it has a strong astringent taste, but imparts no peculiar pungent flavor. As a proof of its powerful astringency, it has been substituted for oak bark in the tanning of skins for leather. * This root has been long held in great estimation by physicians, as a very useful astringent; and as the resin it contains is very inconsiderable, it seems more particularly adapted to those cases where the heating and stimulating medicines of this class are less proper; as phthisical diarrhoeas, diarrhoea cruenta, &c. Dr. Cullen * thinks "it has been justly commended for every virtue that is competent to astringents," and says, "I myself have had several instances of its virtues in this respect; and particularly I have found it, both by itself and as joined with gentian, cure intermittent fevers; but it must be given in subfusible, and in large quantities." Rutty recommends it in these words: "Ulcera vetera & putrida sanat vino vel aqua decocta collutione & infusio. In vino decocta optime deterget & roberat, in ulceribus scorbuticis oris, gutturis, & fauces ac in gingivis dissolutis, sanguinem filiantibus. Decocta ad appetite deperditum maxime valet, tonum ventriculi restituent, & fordes ejus abtergent. Non est vegetabile quod in fluxionibus alvi efficacissimus. In dysenteria epidemica quidam in ore tenent ad praecavendum contagium. In fluxu fanguis, fluore albo, & mictu involuntario valet." 

This root may be given in powder from half a dram to one dram or more for a dose, but it is more generally given in decoction, and the following form is recommended by Lewis: An ounce and an half of the powdered root is directed to be boiled in three pints of water to a quart, adding, towards the end of the boiling, a dram of cinnamon; of the strained liquor, sweetened with an ounce of any agreeable syrup, two ounces or more may be taken four or five times a day.

Tormentil is ordered in the pulvis e creta compositus of the London Pharmacopoeia.

* Bartholinii Acc. Med. Hafn. v. p. 88. and it has been observed, that the leather has been perfected in less time than when oak bark was used. Mus. Ruft. vol. 2. n. 12. p. 51. * It gives out its astringency both to water and rectified spirit, most perfectly to the latter. The extracts obtained by infusions, are intensely astringent, the spirituous most so. Lewis's Mat. Med. 654.

HYPERICUM PERFORATUM. PERFORATED ST. JOHN'S WORT.


Spec. Ch. H. Floribus trigynis, caule angusti, fol. obtusis pellucido-punctatis.

THIS species of the Hypericum generally grows to the height of a foot and a half; the root is perennial, ligneous, divided and subdivided into many small branches, and covered with a straw-coloured bark; the stalks are round, smooth, of a light colour, and towards the top lend off many opposite floriferous branches; the leaves are without footstalks, and placed in pairs; they are entire, oval, and beset with a great number of minute transparent vesicles, which have the appearance of small perforations through the disc, and hence the specific name, perforatum.

The flowers are numerous, pentapetalous, terminal, of a deep yellow colour, and grow in a corymbus, or in clusters, upon short

[Footnote: Folia enim innumeris semen foraminibus, ilisque adsque minutis, ut vulgaris effugient, nifi ipsi folia sole objecta inspiciuntur. Matthiol. in Dioscor. p. 668. And these vesicles, or glands, have been found to contain an essential oil of a terebinthinate quality. Geoffroy Med. Med. Gaedt thinks that it approaches nearer to the gum-resin, Lac. Vei. Acad. Handl. 1762. p. 119.]

No. 2. H peduncles;
peduncles; each petal is of an irregular oval shape, and on the under fide near the apex, is marked with many blackish dots; the calyx consists of five persistent acute leaves; the stamens are numerous, and commonly unite at their bases into three portions, or bundles; the anthers are yellow, and marked with a small black gland; the styli are three, and the capsule has three cells, which contain many small oblong brownish seeds. It grows commonly in woods and uncultivated grounds, and flowers in July.

Bergius describes the Hypericum quadrangulum instead of the perforatum, and thinks it the better officinal plant. "In pharmacopoliis nostris indifferente colligunt Hypericum perforatum & quadrangulum; quod perinde quoque effe poterit, cum illum species puncta nigrecantia gerat; quadrangulum vero plurima." Hypericum has a bitterish subacridant taste, and a sweeter smell. It was in great repute with the ancients, who prescribed it in hysteria, hypochondria, and mania: they also imagined that it had the peculiar power of curing demoniacs, and thence obtained the name of Panga demonum; it was also recommended internally for wounds, bruises, ulcers, hemoptysis, mictus cruentus, gravel, dysentery, agues, worms, and outwardly as an anodyne, and as a diuretic and detergent. However it is now very rarely used, and its name is omitted in the Materia Medica of the last edition of the Edinburgh Pharmacopoeia. In the London Pharmacopoeia the flowers only are directed to be used, as containing the greatest proportion of the resinous oily matter in which the medical efficacy of the plant is supposed to reside. The dark puncta of the petals and the capsules, afford this essential oil, which is contained in minute vesicles, or glands, and gives a red colour to rectified spirit, and to express oils: the latter has been long known in the shops by the name of Oleum Hyperici.

* Mr. Curtis observes, that a little black gland on the anthers, distinguishes this species at one view. Flor. Lond.
* Bergius Mat. Med. 641.
* Scripierc quidam Hypericum adeo odifce demones, ut ejus suffitu flatim avolent. Matthiol. 1. c.
* This colouring matter gives a good die to wool. Gadd. 1. c. allique.
AMOMUM ZINGIBER.  NARROW-LEAVED GINGER.

SYNONYMA.  ZINGIBER, Pharm. Lond. & Edin.  AMOMUM
  ZINGIBER, Jacquin Hort. Vindob. vol. 1. t. 75.  ZINGIBER,
  Mal. Z. angustior folio, &c. Pluk. Alm.  ZINGIBER MAJUS,


Sp. Ch.  A. scapo nudo, spica ovata.

The root is perennial, firm, knotted, of a compressed roundish
form, beset with transverse rugae, covered with ash coloured
bark, partly of a purplish tinge, and sends forth many long fibres and
off-sets; the internal substance of the younger roots is sotith, fleshy,
and greenish; of the older, it is compact, fibrous, whitish, and when
powdered has a yellowish appearance: the stalks are about three feet
high, round, inclosed in an imbricated membraneous sheathing; the
leaves are sword-shaped, smooth, pointed, entire, and stand alternately
upon the sheathes of the stalk; the scapus, or flower-stem, rises about
a foot high, it is erect, round, alternately sheathed like the stalks,
without leaves, and terminates in an oval, obtuse, bracteal, imbricat-
sed spike; the corolla, or flowers, appear between the bracteal
scales of the spike, two or three at a time; they are of a dingy
yellow colour, monopetalous, tubular, and cut into three unequal,
acute, segments, which have their points curled backwards; the
nectary occupies the fau§ or mouth of the tube of the corolla.

No. 3.
and has a bilabiated appearance; the lip is obtusely trifid, of a reddish purple colour, and marked with many yellowish dots: but what seems like the upper lip is the flamen, or filament, which is convex outwardly, concave within, and gradually tapers from its base to its apex, where it is coloured like the nectary. The antherae are two, oblong, whitish, and lodged together in the cavity of the flamen: the style is long and filiform; the stigma obtuse and villous: the capsule is three-celled, and contains many seeds.

The Ginger plant is a native of the East-Indies, and is said to grow in the greatest perfection on the coast of Malabar and Bengal; but it is now plentifully cultivated in the warmer parts of America, and in the West-India islands, from whence chiefly it is imported into Europe. In 1731, it was first introduced into this country by Mr. P. Miller, and is still carefully cultivated in the dry flower of the curious. The flowers have a sweet fragrant smell, and the leaves and stalks, especially when bruised, also emit a faint spicy odour, but the hot acrid aromatic taste is entirely confined to the root.

"In Jamaica, Ginger attains its full height, and flowers about August or September, and fades about the close of the year. When the stalks are entirely withered, the roots are in a proper state for digging: this is generally performed in the months of January and February. After being dug, they are picked, cleansed, and gradually scalded, or scalded in boiling water; they are then spread out, and exposed every day to the sun, till sufficiently dried; and after being divided into parcels of about 100 lb. weight each, they are packed

\* The following observation, made by Rumphius, seems however to deserve some notice: Quandam omne Zingiber pectinater ex illa Africa parte, quae mari rubro adjacent tam intra quam extra illud, tum Arabia Trogodiatica dicitur, cujus incolumitas hostie ab Arabibus vocantur Zingi seu Zangi h. c. nigri seu adusti Ethiopae, unde & nomen Zingiber seu Zingiber ortum duxit, ac si disseretur, radice ex Ethiope, atque hinc jam innovit antiquis etiam scissoribus, util. Dioscorid. lib. 2. cap. 154. Galen. lib. 1. med. simp. ubi dicit Zingiber deferri ex Barbaria, per quam vocem intelligenda est orientalis Africae plagae, vide Herb. Amböin, vol. 5 p. 157. \* Rumph. l. c. India Orientali per Hispanos ac prefertim per Franciscum de Mendoza, filium imperatoris Antonii de Mendoza cum aliis aromaticis herbis in novam Hispaniam deductum eft, Jefte Monardos simp. Medec. cap. 18. Rumphius, l. c.—Upon the death of Mendoza, these plants were neglected, and all lost but the Ginger. Ginger is said by some to grow wild in America, but Jacquin says, "Sylvestres in America non vidi."

Aiton's Hort. Keyen.
in bags for the market: this is called the Black Ginger.* White Ginger is the root of the same plant, but instead of the roots being scalded, by which they acquire the dark appearance of the former, each root is picked, scraped, separately washed, and afterwards dried with great care; of course more than a double expense of labour is incurred, and the market price is proportionably greater.* Black Ginger loses part of its essential oil by being thus immersed in boiling water; on this account it is less useful for medical and other purposes than the white, which is always good when perfectly found and free from worm-holes: but that imported from the East-Indies is stronger than any we have from Jamaica. Ginger gives out its virtues perfectly to rectified spirit, and in a great measure to water. According to Lewis, its active principles are of a remarkably fixed nature; for a watery infusion of this root being boiled down to a thick consistence, dissolved afresh in a large quantity of water, and strongly boiled down again, the heat and pungency of the root still remained, though with little or nothing of its smell. Ginger is generally considered as an aromatic, less pungent and heating to the system, than might be expected from its effects upon the organs of taste. Dr. Cullen thinks, however, that there is no real foundation for this remark. It is used as an anti-spasmodic and carminative. The cases in which it is immediately serviceable, are flatulent colics, debility and laxity of the stomach and intestines, and in torpid and phlegmatic constitutions to excite brisker vascular action. It is seldom given but in combination with other medicines. In the Pharmacopocia it is directed in the form of a syrup and a condiment, and in many compositions it is ordered as a subliliary ingredient.

* Long's History of Jamaica, p. 700.
* Rumphius remarks also, "Rubra specie radices caffiores sunt, magnifico nodosae, externe plerumque cinerea primum, atque sub hac purpurea rubente obsidie pellicula, uti & ipfarum caro ad oris rubet. &c. l. c.
* We mention this on the authority of Jacquin, vide Hort. Vindob. vol. 1, No. 75.
* For this purpose the root should not be older than four or five months. Of the very young roots the aromatic taste is particularly grateful. "Junior recens crudaque radix in Martinica in mensis apurator, parvaque ejusdem portio follet cum bibula elixam coemedi. Mf etiam tune insigniter acris, sed aroma longe gratius polluët, quam exsiccata." Jacquin. l. c.
BUBON GALBANUM.  LOVAGE-LEAVED BUBON.


*Sp. Ch*.  B. foliolis rhombeis dentatis striatis glabris, umbell. paucis.  L.


The stalk is shrubby, several feet high, slender, purplish, covered with a glaucous-coloured exudation, round, bending, knotted or jointed, towards the bottom woody and naked, but towards the top fending off leaves and branches; the compound leaves rise from the striated sheaths of the stem, they are subtripinnate, the uppermost subbipinnate, and have strong round ribs; the simple leaves are rhomboidal, acuté, thickish, of a sea-green colour, veined, subtrilobed, cut, or irregularly ferrated, but near the base entire, and some leaves upon the upper branches are somewhat wedge-shaped; the

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*a Jacquin says five feet or more; but this plant is now growing in the King’s garden at Kew, fo... yards high.

*b This observation applies to the younger plants, or to the upper and softer part of the stalk.*
principal umbel terminates the stem, and is large, plano-convex, and composed of numerous radii; the lateral umbels are few, and grow upon slender pendent branches; the leaflets of the general involucre are about twelve, narrow, lanceolated, membranous, whitish, and bent downwards; of the partial involucre they are six, of the same shape and patent. The flowers are all hermaphrodite, fertile, first open at the circumference of the umbel, and followed successively by those towards the centre; the petals are equal, patent, have their points turned inwards, and are of a greenish yellow colour; the stamens are greenish, longer than the petals, and the antheræ are yellow; the germen is round and narrow at the base, the styles are two, short and tapering; the seeds are two, brownish, oval, with smooth uneven surfaces, and marked with three elevated lines. The whole plant is smooth, has an aromatic smell, and an acrid biting taste. It is a native of Africa, about the Cape of Good Hope, and flowers in June and July. It was first introduced into Britain by Mr. John Gerard in 1596, and all the four species described by Linnaeus have been since cultivated by Mr. Miller. Through the industry of Mr. Maflon, a new species of the Bubon (the lavigatum) has been discovered at the Cape of Good Hope, and is now in the Royal garden at Kew. Notwithstanding we have represented the Bubon Galbanum as the plant yielding the officinal drug; yet it is still a matter of doubt which species of these umbelliferous plants really produces it; and although we have referred to Herman's Ferula Africana, yet we wish to observe, that he thought this matter still uncertain. It seems highly probable that Galbanum is obtained from different species of the Bubon, though, upon the authority of Linnaeus, the London, Edinburgh, and other medical colleges, confine their reference to the species we have figured.

The juice is obtained partly by its spontaneous exudation


Hermann is certainly a good authority; he was an intelligent physician, and practised many years in the East-Indies, about the latter end of the last century, and also at the Cape of Good Hope: his judgment therefore, as well as his fidelity, is at least equal to that of Plukenet's, which Linnaeus prefers.

Plures extare possunt frirpes, quæ succum Galbano similem afferunt, ut de variis lachrymis quæ inter se conveniant & à diversis tiritibus leguntur, nobis compertum est. Herm. l. c.

No. 3.

K from
from the joints of the stem, but more generally and in greater abundance by making an incision in the stalk a few inches above the root, from which it immediately issues, and soon becomes sufficiently concrete to be gathered.

Galbanum is commonly imported into England from Turkey, and from the East-Indies, in large softish ductile pale-coloured masses, which by age acquire a brownish yellow appearance; these are intermixed with distinct white grumes or tears, which are accounted the best part of the masses; but the separate hard tears are externally of a ferruginous colour, and always preferred to the masses itself. Geoffroy distinguishes the former into Galbanon en larmes, and the latter into Galbanon en pains. Spielman mentions a liquid fort of Galbanum, which is brought from Persia, “Prostat etiam interdum Galbanum liquidum ex Persia, consistens terebinthinae in structum, cui multæ fæces nigrae commixtæ sunt, temporæ ad fundum sedentes, odoræ refinae, non quam Galbani, habet.”

Galbanum has a strong unpleasant smell, and a warm bitterish acrid taste; “like the other gummy refins it unites with water by trituration into a milky liquor, but does not perfectly dissolve, as some have reported, in water, vinegar, or wine. Rectified spirit takes up much more than either of these menstrua, but not the whole: the tincture is of a bright golden colour. A mixture of two parts of rectified spirit, and one of water, dissolves all but the impurities, which are commonly in considerable quantity.”—In distillation with water, the oil separates and rises to the surface, in colour yellowish, in quantity about one-twentieth of the weight of the Galbanum. Newman observes, that the empyreumatic oil is of a blue colour, which changes in the air to a purple.

Galbanum, medicinally considered, may be said to hold a middle rank between Asafoetida and Ammoniacum; but its fetidness is very inconsiderable, especially when compared with the former, it is there

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The Galbanum colour was a prevailing fashion with the Romans.

Reticulumque comis auratum ingentibus implet,
Coeruleus indutus scutulata, aut galbana rasa;  Juvenal, Sat. 2, l. 96.

And Martial, speaking of an effeminate person, says, Galbanos habitus mores. Lib. 1. Epig. 97. — Commentators differ about the colour of Galbana Rasa; we have described the Galbanum flower to be of a greenish yellow.

fore,
fore accounted less antispasmodic, nor is it supposed to affect the bronchial glands so much as to have expectorant powers equal to those of the latter; it has the credit however of being more useful in hysterical disorders, and of promoting and correcting various secretions and uterine evacuations. Externally Galbanum has been applied to expedite the suppuration of inflammatory and indolent tumours, and medically as a warm stimulating plaster. It is an ingredient in the pilulae gumi, the emplastrum lithargyri cum gummi, of the London Pharm. and in the empl. ad clavos pedum of the Edin.

TUSSILAGO FARFARA. COLTSFOOT.


THE root is long, round, tapering, creeping, and sends off many small short fibres; the stalks are furrowed, downy, simple, six or eight

* Supposed to be derived from βάρης, tufts, hence Tussilago.
inches high, beset with several scaly leaves, of a brownish pink colour, and closely embracing the stem; the leaves are obtusely heart-shaped, angular, irregularly indented, above of a bright green colour, beneath white, downy, and stand upon long roundish radical footstalks; the flowers are compound, large, and yellow; the florets in the disc are hemisphæroidite, tubular, the limb is cut into five acute segments, which curl outwardly; the antheræ, by uniting, form a tube, but their apices are separate and pointed; the germen is short, the style filiform, longer than the antheræ, and the stigma is round; the florets at the circumference are female, tubular at the base, and the limb is long and linear; the germen is oblong; the stigma bifid; the seed is oblong, and of a pale-brown colour, crowned with simple down; the calyx is cylindrical, and the leaflets or squamae are oblong, pointed, and alternately narrower. It is common in moist clayey places, and the flowers appear sometime before the leaves, in March or April.

The sensible qualities of Tussilago are very inconsiderable; it has a rough mucilaginous taste, but no remarkable smell. The leaves have always been of great fame, as possessing demulcent and pectoral virtues; of course, it is esteemed useful in pulmonary consumptions, coughs, asthma, and in various catarrhal symptoms. * Fuller, in his Medicina Gymnastica, recommends Coltsfoot as a valuable medicine in scrophula; and Dr. Cullen, who does not allow it any powers as a demulcent and expectorant, found it serviceable in some strumous affections. It may be used as tea, or given in the way of infusion, to which liquorice-root or honey, may be a useful addition.

* We might, without exception, cite every writer upon the Materia Medica. Percival found it also useful in hectic diarrhœas. Essays Med. & Exper. vol. 2. p. 234. Caratheuer advises it to be given with the roots of Dandelion. Mat. Med. 410. The juice, liberally drunk, has been beneficial in calculous complaints. Comm. Lit. Nor. 1730, p. 104. b p. 84.

* Every part of the plant has been medicinally employed for the same purpose, but more usually the leaves, and these are the principal ingredient in the British herb tobacco. It is remarkable, that the smoking of this plant has the recommendation of Dioscorides, Galen, Pliny, Boyle, &c. Et adue hodie plebs in fiecia infael tabaci contra tussim fugit. Lin. Flor. Succ. p. 289, and under the direction of Pliny it is certainly an efficacious remedy—in singulos lautes, pulsium guftandum est. lib. 26. c. 6. p. 691.

PLANTAGO MAJOR.
Plantago major

Published by W. Woodville, March 1, 1746.
PLANTAGO MAJOR. COMMON GREAT PLANTANE, 
Or, WAY-BREAD.


c Plantago latifolia rosea, floribus quafi in spica dispolitis. Baub.

Pin. 189. vide Hort. Kew.


Sp. Ch. P. foliis ovatis glabris, scapo teteri, spica flosculis imbricatis.

THE root is perennial, short, thick, and puts forth several long whitsis fibres, which strike down in a perpendicular direction: the leaves are oval, procumbent, irregularly subdentated, of a pale green colour, ribbed; ribs, commonly seven, often five, and sometimes nine; the footstalks are long, concave above, and proceed from the root; the flower-items are generally three or four, about a span high, downy,

* (Plantago Media) It has also been named from the number of ribs, or nerves of the leaf, as πελανθωρός, ἑπταπλασίας, &c.

No. 3. L round,
round, smooth below the spike, and somewhat incurvated; the calyx is of four leaves, somewhat erect, oval, obtuse, smooth, and persistent; the flowers are small, produced on a long cylindrical imbricated spike, which occupies more than half the stem; each flower consists of a roundish tube, narrow at the mouth, and the four segments are heart-shaped, pale, withered, and bent downwards; the bracteae is oval, fleshy, and larger than the calyx; the flamina are whitish, longer than the corolla, and the antherae are purple: the germen is oval, the style short and filiform, and the stigma simple; the capsule divides horizontally in the middle; and, according to Mr. Curtis, contains about twenty unequal brown seeds. It grows commonly in pastures and waysides, and flowers in June.

The name Plantago, is omitted in the London Pharmacopoeia, but it is still retained in the Materia Medica of the Edinburgh college, in which the leaves are mentioned as the pharmaceutical part of the plant: these have a weak herbaceous smell, and an astringent bitterish subtiline taste; and their qualities are said to be refrigerant, attenuating, sublyptic, and diuretic.

Plantago was formerly reckoned amongst the most efficacious of vulnerary herbs; and by the peafans the leaves are now commonly applied to fresh wounds, and cutaneous sores. Inwardly, they have been used in phthitical complaints, spitting of blood, and in various fluxes, both alvine and hemorrhagic. The seeds, however, seem to us better adapted to relieve pulmonary diseases than the leaves, as they are extremely mucilaginous. The roots have also been recommended for the cure of tertian intermitten:ts; and from the experience of Bergius, not undeservedly: "Plurimae sunt narrationes de utilitate radicis plantagonis in Tertianis. Periculum ipse fecit, doli largiori, scil. de drachmis 3 ad 6, quovis die, sub appyrexia; sed contra febris autumnales nihil valuit Plantago; in vernalibus autem febris subinde operem tulit." An ounce or two of the expressed juice, or
the like quantity of a strong infusion of Plantane, may be given for a dose; in agues the dose should be double this quantity, and taken at the commencement of the fit.

**ARCTIUM LAPPA. BURDOCK.**


* Lappa major capitulo glabro maximo. Rall-Syn. 196.

**SMOOTH-HEADED COMMON BURDOCK.**


**WOOLY-HEADED BURDOCK.**


**Eff. Gen. Ch.** Cal. globosus; squamis apice hamis inflexis.

**Sp. Ch.** A. foliis cordatis inermibus petiolatis.

THE root is biennial, subcylindrical, long, simple, externally of a dark brown colour, internally white, and sends off many slender fibres: the stalk is erect, roundish, grooved, villous; purplish, above an inch in diameter, three feet high, and alternately branched: the leaves are alternate, patent, heart-shaped, veiny; above of a dark green colour, underneath whitish; the lower leaves are very large, and stand upon long footstalks, which are grooved like the stem: the calyx...
calyx is common to all the florets, imbricated, globular, the exterior scales are entangled in fine woolly threads, firm, elastic, and their extremities are polished and hooked; the flowers are numerous, disposed in heads, and stand alternately upon footstalks on the branches; the corolla is compound, the florets purple, tubular, each having the limb divided into five pointed segments; the flamina are five, white, and filiform; the anthers unite into a tube, are of a bluish colour, and project beyond the corolla; the germ is somewhat triangular, the styles white, and longer than the flamina, and the stigma bifid: the seeds are oblong, brown, and have irregular, rough surfaces.

This plant is common in waste grounds and road sides; it flowers in July and August, and is well known by the burs, or scaly heads, which stick to the clothes, a circumstance from whence the word Lappa is supposed to be derived.† The Pharmacopoeias direct the root for medical use: it has no smell, but tastes sweetish, and mixed as it were with a slight bitterishness and roughness. Its virtue, according to Bergius, is mundificans, diuretica, diaphoretica; and many instances are upon record in which it has been successfully employed in a great variety of chronic diseases, as scurvy, rheumatism, gout, lues venerea, and pulmonary complaints. We have never had an opportunity of observing the effects of this root, except as a diuretic, and in this way we have known it succeed in two droptical cases, where other powerful medicines had been ineffectually used: and as it neither excites nausea nor increases irritation, it may occasionally deserve a trial where more active remedies are improper. The seeds also possess a diuretic quality, and have been given with advantage in the dose of a dram in calculous and nephritic complaints, and in the form of emulsion as a pectoral. The root is generally used in decoction, which may be made by boiling two ounces of the fresh root in three pints of water to two, which, when intended as a diuretic, should be taken in the course of two days, or if possible in twenty-four hours.

† Lappa dicit potest vel eto τι λαπάς ρηθενὸς ρεθενὸς vel laventis lambere. Ray, l. c.

The young stems of this plant, stripped of their rind, are boiled and eat like asparagus. When raw, they are good with oil and vinegar. Withering, 864. l. c.
Guianacum officinale.

Illustrated by J. Westall, April 1, 1790.


Sp. Ch. G. foliolis bijugis obtusis.

THE Guaiacum tree grows to the height of forty feet, and to the circumference of four or five, sending forth several large dividing and subdividing knotted branches: the bark of the trunk is of a dark grey colour, variegated with greenish or purplish specks, but of the branches it is uniformly ash-coloured, striated, and marked with fissures; "the roots are very thick in proportion to the size of the tree, and run a great way into the ground, in a perpendicular direction: "the leaves are pinnated, consisting of two, three, and sometimes four pair of pinnae, with very short footstalks, smooth, shining, veined,
of an inversely oval shape, and dark green colour: the flowers grow in clusters, or umbels, upon long peduncles, which spring from the divisions of the smaller branches: the calyx is of five leaves; these are concave, oblong, obutate, patent, unequal, and deciduous; the petals are five, elliptical, concave, spreading, and of a rich blue colour; the stamens are erect, villous, taper from the base, and are crowned with yellowish hooked anthers; the germen is oval, angular, and in its capsular state assumes the figure we have separately described; the style is short and tapering; the stigma is simple, and pointed; the seeds are solitary, hard, and of an oblong shape.

Linnaeus makes three species of the Guaiacum, viz. the officinale, sandum, and afrum; the specific difference between the two former he fixes wholly on the number of the pinnas of the leaves, defining the first folioli bijugis, and the second folioli multijugis; but the leaves, according to the plant we have figured, commonly consist of three, and sometimes four pair of pinnas, so that this specific description is by no means distinctly characteristic. In a medical sense, the sandum has been generally considered synonymously with the officinale, and from the investigation we have given this subject, we believe it founded in botanical truth.\(^a\)

This tree is a native of the West India islands, and the warmer parts of America, and appears from the MS. of Sir Hans Sloane, in the British Museum, to have been first cultivated in this country by the Duchess of Beaufort in 1699.\(^b\) The wood, gum, bark, fruit, and even the flowers of this tree, have been found to possess medicinal qualities.\(^c\) The wood is brought here principally from Jamaica in large pieces of four or five cwt. each, and, from its hardness and beauty, is in great demand for various articles of turnery ware.—

\(^a\) There can be no doubt of our plant being the true officinale, we had it with several others from Mr. Aiton, whose extensive botanical knowledge is above our praise, and only to be equalled by that liberality of mind with which he communicates it. The testimony of Sir Hans Sloane is in opposition to Linnaeus, for he observes that the leaves have sometimes four pair of pinnas.

\(^b\) Monardus divides the wood into three sorts, and C. Bauhin adopts two of these by the distinctions of Guaiacum magna matrice, and the Guaiacum propemodum fine matrice; these circumstances, however, depend upon the age, size, &c. of the tree. The icons of these species, given by Blackwell and Regnault, cannot, we presume, be considered as decisive.

It is extremely compact, and so heavy as to sink in water: the outer part is of a pale yellowish colour, the heart of a dark blackish brown, with a greater or less admixture of green. It scarcely discovers any smell, unless heated, or while rasping, in which circumstances it yields a light aromatic one: chewed, it impresses a slight acrimony, biting the palate and fauces. Its pungency resides in a refrinous matter, which is totally extracted by digestion in rectified spirit, and partially by boiling water. The quantity of solid extract, obtained by rectified spirit, amounts to about one-fourth of the weight of the wood; with water, scarcely one-sixth is obtained. The gum, or rather gummy resin, is obtained by wounding the bark in different parts of the body of the tree, or by what has been called jagging. It exudes copiously from the wounds, though gradually; and when a quantity is found accumulated upon the several wounded trees, hardened by exposure to the sun, it is gathered and packed in small kegs for exportation. This resin is of a friable texture, of a deep greenish colour, and sometimes of a reddish hue; it has a pungent acrid taste, but little or no smell, unless heated. It contains more resin than the watery extract made from the wood; and more gummy matter than the spirituous extract. The Guaiacum tree also yields a spontaneous exudation from the bark, which is called the native gum, and is brought to us in small irregular pieces, of a bright semipellucid appearance, and differs from the former in being much purer. The bark contains less refrinous matter than the wood, and is consequently a less powerful medicine, though in a recent state it is strongly cathartic. The Fruit, (says a late author) is purgative; and, for medicinal use, far excels the bark. A decoction of it has been known to cure the venereal disease, and even the yaws in its advanced stage.

* Lewis's M. M. 330.  Des Marchais, Voyage en Guinée & Cayenne, tom. 3. p. 246. "The Gum, or rather the resin of this plant, transudes frequently of its own accord, and may be seen concreted on many parts of it at all seasons of the year; but it is generally found in greater abundance where the bark has been cut or wounded." Browne's Jam. 226.

† It is sometimes sophificated by the negroes with the gum of the Manchinesal tree, (a species of the Hippomane) but this is easily detected by dissolving a little in spirit of wine or rum. The tree gum imparts a whitish or milky tinge; but the Manchinesal gives a greenish cast. Long, l. c. 724. Mösch advises a few drops of Spirit. nitri dulci, to be added to the spirituous solution, and then to be diluted with water, by which the gum is precipitated in a blue powder; but the adulteration will appear floating in white fires, &c. Vide Cretel's Chem. Journ. P. 2. p. 78. * Long, l. c.

without
without the use of mercury.” The Flowers, or blossoms, are laxative, and in Jamaica are commonly given to children in the form of syrup, which in appearance much resembles that of violets. It is only the wood and rind of Guaiacum which are now in general medical use in Europe; and as the efficacy of the former is supposed to be derived merely from the quantity of resinous matter which it contains, they may be considered indiscriminately as the same medicine. Guaiacum was first introduced in the Materia Medica soon after the discovery of America, and previous to the proper use of mercury in the lues veneria, it was the principal remedy employed for the cure of that disease, and its great success brought it into such repute, that it is said to have been sold for seven gold crowns a pound; but notwithstanding the very numerous testimonies in its favour, it often failed in curing the patient, and was at length entirely superseded by mercury; and though it be still occasionally employed in syphilis, yet it is rather with a view to correct other vitia in the habit, than for its effects as an antivenereal.

The general virtues of Guaiacum are stated by Bergius to be mundificans, sudorifera, diuretica, subcalefaciens, homachlica, and its use to be in syphilis, arthritis, morbi cutis, odontalgia; and to these we may add chronic rheumatism, scrophula, and some scirrhous diseases. — To Dr. Cullen Guaiacum seems analogous to the nature of the balsams and turpents, he therefore supposes it like

1 Initium celebratiss. dedit felix curatio. quam in insula St. Dominici Hispanus quidam superiores ordinis, qui morbum ab Inda muliere contraxerat, jam doloribus diris detentus, fundente fumulo suo Indo, ex hoo ligne in fumet experimatur. Eius exemplo praeunante, plures aliis Hispani codem modo contaminati ad idem auxilium fuito succelui confugerunt. Quod quum post reditum Hispalls ab hifice evulgaretur, hinc per totam Hispaniam, &inde per totum reliquum orbem, quae lues occupaverat, fama remedii inscriberit. Mournes Simpl. Med. p. 341. Vide Murray’s Ap. Med. vol. 3. 409. And according to Delgado, Guaiacum was used in Spain in early as 1508. (del modo de aloperar el Legno fano. Venet. 1520).


* Perhaps the opinions and facts aduced by Roehave, Almuc, Plenk, De Haen, Hutton, and lately by Mr. Hunter, may be considered in some measure as exceptions. ——

The laft of these authors remarks, that the Guaiacum was first used in Europe as a remedy for the Syphilis in 1517; but from the authority we have cited above, it appears to have been employed nine years sooner.

† Though upon the authority of Mead, Pringle, and others, Guaiacum has been much employed in rheumatisms, yet it was of little estimation in the gout till Mr. Emerigon of Martinico published his letters about thirteen years ago, (Spécifique contre le gourou, &c.)

* Mat. Med. 346. these
these to be very diffusible in the system, and thereby to have a considerable power in stimulating the extreme vessels everywhere; and in this way he accounts for its power in chronic rheumatism, and from its passing off by the pores of the skin, he considers it a probable remedy in some cutaneous disorders.¹

This opinion corresponds with Murray's, who says,—Er hisce partibus resinosis quidem Guaiacum per minimos corporis nostrí canales efficaciter penetrat, impacta revolut & difcutit, balsamicum virtutem exercet et sudorem potenter pellet, item evacuationes per alvum vel lotium, vel aliquando salivæ proflluvium, ciet.m According to Lewis, where the excretory glands are obstructed, the vessels lax and flaccid, and the habit replete with serous humours, it has good effects: but in thin emaciated habits, and an acrimonious state of the fluids, it often does harm.—We have frequently conjoined it with mercury and soap, and in some cases with bark or steel, and found it eminently useful as an alterative. In the pharmacopoeias it is directed in the form of tincture and elixir; the latter is ordered by the Edinburgh college to be prepared in two ways, viz. with rectified spirit, and the vinous spirit of salt ammoniac. Of these compounds the dose may be from two scruples to two drams: the powder is generally given from 6 grains to 20, or even more, for a dose, either by itself, or in a fluid form, by means of mucilage or the yolk of egg. The Decoctum lignorum, (Pharm. Ed.) of which Guaiacum is the chief ingredient, is commonly taken in the quantity of a pint a day.

¹ Mat. Med. vol. 2. 197.  m Murray's Ap. Med. vol. 3. 408.  l. c. 331.

* Dr. Cullen observes, that several physicians have apprehended mischief from the use of the Guaiacum in a spirituous tincture, and I am certain that it sometimes happens. It is therefore in imitation of the very respectable Berger of Copenhagen I avoid the spirituous tincture of Guaiacum, and employ almost only the diffusion of it in water. In preparing this, having first with an equal part of hard sugar reduced the Guaiacum to a fine powder, I apply some portion of the yolk of egg, or of a mucilage of gum arabic, and rubbing these together very carefully, I form an emulsion with water, or watery liquors, as may be thought proper. This preparation I give over night in such a quantity as may open the belly the next day, which will happen to different persons from doses containing 15 to 30 grains of the Guaiacum." "M. M. 199. Berger's formula is the following: Rç G. guaiaci ¼ G. arabici ½ij. Bene trita solv. in aqua hyliopi vel alius diffil ½ix. Add. faccharti ½ix m. d. f. solutio, cujus duo cochlearia majora mane & veperti capiantur, superbibito ibi decociti hordei vel avene. Vet. Acad. Handl. vol. 1. p. 74. Theden recommends the Guaiacum made into pills with soap of almonds, which is still more convenient (Paulus. u Erfahr, a d. Wundarzweck. und Arz. P. 2. 204.)

No. 4. N HEMATOXYLUM
HÆMATOXYLUM CAMPECHIANUM. LOGWOOD.

SYNONYMA. Lignum Campechense. Pharm. Lond. & Edin.
Hæmatoxylum spinosum, foliis pinnatis, racemis terminalibus. Browne's Fam. 221. Lignum Campechianum, species quaedam Brasil. Vide Sloane's Fam. vol. 2. p. 183. Cistea pavonis Coro-
nillæ foeto fecunda, fovea tinctoria Indica, floræ luteo racemofo
minore, siliqua latiffima glabra, ligamen rubrum, Sappan dictum
ferens. Breyer. Predr. 2. 37. Erythroxylum, fovea lignum rubrum


laris, 2-valvis: valvis navicularibus.

THE Campechianum is the only species of the Hæmatoxylum
hitherto discovered; it is a much smaller tree than the Guaiacum,
and both the trunk and the branches are extremely crooked, and
covered with dark-coloured rough bark; the smaller ramifications are
numerous, close, prickly, or befit with strong sharp spines; the
leaves are pinnated, generally composed of four or five pair of
pinnae, of an irregular oval shape, obliquely nerved, and obtusely
finuated at the top; the flowers grow in racemi, or in close regular
terminal spikes, and appear in March; the calyx divides into five
oblong obtuse segments, of a brownish purple colour; the petals are
five, patent, obtusely lance-shaped, and of a reddish yellow colour; the
stamina are somewhat hairy, tapering, of unequal length, shorter than
the corolla, and the anthers are small and oval; the style is nearly
the length of the stamina, and the germen becomes a long double
valved
valved pod, which contains many oblong compressed, or somewhat kidney-shaped, seeds.

This tree is a native of South America, and grows to the highest perfection at Campeachy, in the Bay of Honduras, whence the seeds were brought to Jamaica in 1715, with a view of propagating it as an article of commercial export. And though it does not appear to have answered this purpose so fully as could have been wished, yet we are told that in some parts of the island, especially where the ground is swampy, this tree, in the course of three years, will rise to the height of ten feet, and by this quick and luxuriant growth, soon overrun and destroy the neighbouring plants. The Logwood tree was first cultivated in Britain by Mr. P. Miller in 1739, who says, "there are some of these plants now in England which are upwards of six feet high, and as thriving as those in their native soil;" but this observation will not apply to the present time, for we have searched in vain for this plant through most of the principal garden stoves in the neighbourhood of London.

The wood of this tree is of a solid texture, and of a dark red colour; it is imported into Europe principally as a dying drug, cut into junks or logs of about three feet in length; of these pieces, the largest and thickest are preferred, as being of the deepest colour. This wood has a sweetish subacridgent taste, and no remarkable smell; it gives a purplish red tincture both to watery and spirituous infusions, and tinges the stools, and sometimes the urine, of the same colour; but from the experiments of Du Hamel and others, it does not appear to colour the bones of animals, as observed of madder and some other plants of that class. It is used medicinally as an astringent and corroborant. In diarrhoeas it has been found peculiarly efficacious, and has the recommendation of some of the first medical authorities; also in the latter stages of dysentery, when the obstructing causes are removed,

a In some parts of Jamaica "are such quantities of it growing wild, as to incumber the land-holders extremely." Long's l. c. 754. He also observes, that "it makes an excellent and beautiful fence, which, if kept properly trimmed, grows so strong and thick, that nothing can break through."

to obviate that extreme laxity of the intestines usually superinduced by
the repeated dejections. Extractum ligni campechenis is ordered in
the pharmacopoeias, and may be given in the dose of one scruple or
two, repeated according to the urgency of the symptoms.

HELLEBORUS NIGER. BLACK HELLEBORE, OR,
CHRISTMAS ROSE.

SYNONYMA. HELLEBORUS NIGER, SEU MELAMPODIUM.¹
274. Helleborus Niger flore roseo. Baub. Pin. 186. Helle-
borus Niger flore albo; interdum etiam valde rubente. J. Banbh.
3. 635. Helleborus Niger verus. Gerard's Herb. 975. TRUE
An nostra planta fit Helleborus mulier at sanatibus Graecor. et Helleborus,
Elleboreus, Veratrum, Latinorum, nihil certi pronunciati possit.


Eff. Gen. Ch. Cal. o. Petala 5 f. plura. Nectaria bilabiata, tubu-
lata. Caps. polysperma, erectiuncula.


THE root is perennial, rough, knotted, and externally of a
black colour, internally whitish, sending off many strong round
long fibres; the flower stalks are erect; round, tapering, and towards
the bottom reddish; the bracteal leaves supply the place of the
calyx, and are oval, concave, and generally indented at the top;
the petals are five, large, roundish, spreading, at first of a white

* A Melampi qui primus purgatioem instituit: unde xelaphe, id est purgator nomi-
natus fuit, & hocco medicamento Præti filias in furuom actas perfanavit. Geoff.
colour,
Helleborus nigricans

Engraved by D. Woodville April 3, 1790.
colour, succeeded by reddish tints, but finally putting on a
greenish appearance; the nectaria are about eight in number, tubu-
lated, somewhat compressed, bilabiated, and of a greenish yellow
colour; the filaments are white, the antheræ yellow; the germina
vary, commonly from four to eight, and the capfules, or pods, contain
many oval shining blackish seeds; the leaves are compound, divided
in a peculiar manner, or pedated, and stand upon long radical foot-
talks; the simple leaf is elliptical, smooth, thick, and serrated towards
the top. This plant is a native of Austria and Italy, and was
unknown to the gardens in this country till cultivated by Mr. John
Gerard in 1596. If the weather be sufficiently mild, it flowers in
January, and hence the name of Christmas Flower.

If any arguments were required to evince the necessity of botani-
cal accuracy in discriminating medicinal plants, the Helleborus Niger
would furnish us with many facts on which such arguments might
be deduced. For a great number of instances is recorded of the
effects of this plant, by which it since appears that other plants were
mistaken for it, and actually employed; of these we may enumerate
the Helleborus viridis, Adonis vernalis, Trollius europæus, Actæa
spicata, Aconitum Napellus; and as the roots of these plants possess very different powers, we cannot be surprised
that the medical history of this root is not only confused and contra-
dictory, but calculated to produce very mischievous and even fatal
consequences.

The taste of the fresh root is bitterish, and somewhat acrid, and
according to Grew, "being chewed, and for some time retained
upon the tongue, after a few minutes it seemeth to be numbed,
and affected with a kind of paralytic stupor, or as when it has been
burnt with eating or supping anything too hot." It also emits a
nauseous acrid smell, but being long kept, both its sensible qualities
and medicinal activity suffer very considerable diminution. Bergius
has very properly attended to this circumstance, for in defining its
virtues he considers it under three different degrees of dryness: "
VIRTUS: rec. venenata, rubefaciens, vesicans; recenter ficcatæ: eme-
tica, purgans, emmenagoga, antiphthirica; diæconservatæ: 

"Probably art, as well as ignorance, had some share in these substitutions; for the
particulars of which see Murray's Ap. Med. vol. 3. from p. 44, to p. 50.

vix purgans, alterans, diuretica." Although many writers consider this root to be a perfectly innocent and safe medicine, yet we find several proofs of its poisonous effects, from which Murray collects the following symptoms: — "Fatigor, diarrais hinc inde extare observationes contrarias, quereas moveri de vomitionibus effrenatis inde contraquis, hypercathartica, torinibus, anxietate, siti, singultu, animi deliquis, sudoribus frigidis, faucium frangulatione, convulsionibus, ternutatione, torpore quodam artuum et infaeta rigiditate, inflammatione ventriculi et intestinorum, quin morte pedislequa praevis variis dictis malis."

It seems to have been principally from its purgative quality that the ancients esteemed this root such a powerful remedy in maniacal disorders, with a view to evacuate the atra bilis, from which these mental diseases were supposed to be produced; but though evacuations are often found necessary in various cases of alienations of mind, yet as they can be procured with more certainty and safety by other medicines, this catholicon of antiquity is now almost entirely abandoned. At present it is looked upon chiefly as an alterative, and in this light is frequently employed in small doses for attenuating viscid humours, promoting the uterine and urinary discharges, and opening inveterate obstructions of the remoter glands; it often proves a very powerful emmenagogue in phlethoric habits, where steel is ineffectual, or improper. It is also recom-

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  Scopoli Fl. carn. ed. 1. p. 557.
  Morgagni de sed. & caus. morb. Epist. 59, art. 15. et Aet. Helv. l.c.
  Schulz Mat. Med. p. 152.

* Whether our Hellebor be the same species as that said to grow in the island of Anticyra, and about Mount Olympus, so frequently alluded to by the Latin poets, is no easy matter to determine. From the accounts of Tournefort and Bellonius, who botanized those places, a species of this plant was found in great plenty, which the former supposed to be the Hellebore of Hippocrates; it differs from the species here figured, by having a large branched stem, and also by its effects, for he found that a scruple of the extract brought on violent spasms and convulsions. Many plants however are known to vary as much by a removal from their native soil and climate.


* Mead, (mon. et prac. med. p. 138) speaks of it as the most potent of all emmenagogues, but Home (clin. exper. & hist. p. 386) and Pahta (Differt air. medice eopra i meihrui delle Donne, p. 192) found it often unreliable.
mended in dropsies, and some cutaneous diseases. The watery extract of this root, made after the manner directed in the pharmacopoeias, is one of the best and safest preparations of it, when designed for a cathartic, as it contains both the purgative and diuretic parts of the Hellebore; it may be given in a dose from ten grains to a scruple, or more. A tincture of this drug is also ordered in the pharmacopoeias, which is preferred for the purposes of an alterative and deobstruent; of which a tea-spoonful twice a day may be considered a common dose.


The irritating power of its active matter being considerably abated by the boiling.

**HELELBORUS FOETIDUS. FETID HELLEBORE, OR, BEAR'S-FOOT.**


**Clafs Polyandria. Order Polygynia. L. Gen. Plant. 702.**


**Sp. Ch. H. caule multifloro foliofo, foliis pedatis.**

THE root is small, but befet with a prodigious number of slender dark
dark coloured fibres; the stem rises to the height of a foot and a half, or more, towards the bottom it is round, strong, firm, naked, and marked with alternate cicatrices, the vestiges of the former leaves; at the top it divides and subdivides into branches, producing many flowers, and is garnished with scaly leaves, or bracts; the leaves are numerous, and stand upon long footstalks, surrounding the middle of the stem; they are divided like the Helleborus niger into simple leaves, which are commonly eight or nine, long, narrow, lanceolated, ferrated, and of a dark green colour; the scaly leaves, placed at the ramifications of the flower stem, are smooth, trifid, alternate, and often purplish, but those near the flowers are oval and pointed; the flowers are numerous, terminal, pendent, of a roundish shape, and stand upon peduncles, forming a sort of umbel; the petals are five, oval, concave, perisent, of a pale green colour, and their margins are usually tinged with purple; the stamens are the length of the petals; the anthers are white; the germen three, hairy, and shaped similarly to those of the Helleborus niger. This plant grows wild in many parts of England, and flowers about February.

The Helleborus niger, though constantly used in medicine since the time of Hippocrates, was the only species of Hellebore known in the Materia Medica of our pharmacopoeias, till the late introduction of this plant by the London College, probably upon the authority of Dr. Biflet, who recommends the leaves as possessing extraordinary anthelmintic powers. The smell of the recent plant is extremely fetid, and the taste is bitter, and remarkably acrid, insomuch, that when chewed, it excoriates the mouth and fauces; it commonly operates as a cathartic, sometimes as an emetic, and in large doses proves highly deleterious. The leaves, the only part noticed by the College, have been long domestically employed in this country for their vermifuge effects, and are thus spoken of by Gerard:—"The leaves of bastard Hellebor, dried in an oven, after the bread is drawne out, and the pouder thereof taken in a figge or raisin, or stewed...

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Gerard’s description we find very just. "The root consisteth of many small black stringes, involved or wrapped one within another very intricately." Johnson’s Gerard, 977. It must be observed, that the Helleborus Albus of the shops, is a Veratrurum.

Vide Threlkeld’s Irish Herbal; and in the Oxford Magazine for March 1769, p. 99. fatal cases are related by John Cook of Oxford.
upon a piece of bread spread with honey, and eaten, killeth worms in
children exceedingly."—Biflet says, "The great bastard black Helle-
bore, or Bear's-Foot, is by far the most powerful vermifuge for long
round worms of any I have yet experienced. The anthelmintic virtue
of this plant is well known to the vulgar in the Dutchy of Cleveland,
Yorkshire, who generally give it to their children when they suspec
t them to have worms. The decoction of about a dram of the green
leaves, or about fifteen grains of the dried leaves in powder, is the
usual dose administered to children betwixt four and seven years of
age; a full or sufficient dose generally proves more or less emetic,
and often loosens the belly a little. It is usually repeated on two, and
sometimes three successive mornings. The second dose has commonly
a greater effect than the first, and never fails to expel round worms
by stool, if there be any lodged in the alimentary tube.''

"The juice of the green leaves of the Bear's-Foot, made into a
syrup with coarse sugar, is almost the only vermifuge I have used
against round worms for three years past. Before pressing out the
juice, I moisten the bruised leaves, which are a little succulent, with
some vinegar, which is a corrector of this medicine, and prevents it
from inducing great sickness, or much vomiting. Of this syrup I
give one tea-spoonful at bed-time, and one or two in the morning,
on two or three successive days, to children betwixt two and six years
of age; increasing or diminishing the dose a little, according to the
strength of the patient." * When this does not open the body, an
equal quantity of tincture of rhubarb is directed to be added.

and p. 339. Dr. B. speaks of this plant as useful also in some asthmatic and hypocho-
drisical disorders.

We have tried the anthelmintic effects of this plant upon a girl of twenty years of
age, (a patient in the Middlesex Dispensary) with considerable advantage.

No. 4. P

OXALIS
OXALIS ACETOSELLA. WOOD-SORREL.


L. Syb. ed. 13.

THIS delicate little plant is excellently described by Mr. Curtis, (Flor. Lon.) we shall therefore adopt his description, as far as it coincides with our plan. The root is perennial, horizontal, scaly, and of a bright red colour; the leaves grow three together, invariably heart-shaped, of a yellowish green colour, frequently purple underneath, and beset with a few hairs; the leaf stalks are about three inches long, nearly upright, tender, proceeding from little bulbs, which form a kind of sheath, at the bottom these stalks are red and round, but towards the top grooved on one side: the flowers are white or flesh-coloured, and elegantly flecked with red veins. The flower-stalk is somewhat longer than the leaf-stalk, and
and furnished near the top with two oval pointed bracteae, which partly surround it; the calyx is divided into five segments; these are short, permanent, bluish, membraneous at the edges, and often spotted with purple; the petals are five, affixed to the receptacle by the claws, which bend a little inward just above where the claws adhere together, they are blunt, slightly crenated, and tinged at the bottom with yellow; the stamens are ten, upright, white, the five exterior the shortest; the anthers are yellow and bilocular; the germen is quadrangular and green; the styles are five, very slender, a little longer than the stamens, and the stigma is blunt; the capsule is ovalish, pentagonal, spotted, divided into five cavities, each containing three seeds, which are heart-shaped, longitudinally grooved, convex on both sides, of a bright reddish brown colour, and inclosed within a shining white elastic arillus, by the bursting of which the seeds are thrown out. This plant is a native of England, it flowers about April and May, and is commonly found in woods, or in shaded situations.

The Acetofella is totally inodorous, but has a grateful acid taste, which is more agreeable than the common forrel, (Rumex Acetosa) and approaches nearly to that of the juice of lemons, or the acid of tartar, with which it also corresponds in a great measure in its medical effects, being esteemed refrigerant, antiscorbutic, and diuretic. It is recommended by Bergius in inflammatory, bilious, and putrid fevers, and from the causes adduced by Francus, he concludes, "Acetofellam appetitum restaurare, vomitum confopire, alvum stringere, fitim sedare, oris amaritiam tollere, cordis vires reparare, anginamque abigere." The principal use however of the Acetofella is to allay inordinate heat, and to quench thirst; for this purpose, a pleasant whey may be formed by boiling the plant in milk, which under certain circumstances may be preferable to the conserve directed by the London.

† As a distinguishing part of the generic character, Ray says, "Quod per maturitatem levi tactu diffilicis cum impetu femina ejaculantur, (hist. 1098).

a Mr. Curtis observes, that this plant continues to produce seeds during the greatest part of the summer, without any appearance of expanded blossoms.

b This makes it useful in salads, in some measure supplying the place of vinegar.


College,
College, though an extremely grateful and useful medicine. Many have employed the root of Lujula, probably on account of its beautiful red colour rather than for its superior efficacy. An essential salt is prepared from this plant, known by the name of Essential Salt of Lemons, and commonly used for taking ink-stains out of linen.

* This salt is made from the expressed juice. Vide Boerh. Chem. vol. 2. proc 7. & Savary, Diff. de Sale Essent. Acetofelle. p. 9. Thunberg found that the Oxalis cernua of the Cape of Good Hope, yields the salt in greater quantity than the Acetofella. — This salt, when genuine, which is seldom to be procured, is composed of the vegetable alkali and a peculiar acid, which seems more allied to the acid of sugar than that of tartar. Vide Bergman Act. Up. Nov. vol. 2. p. 215. where the manner of separating this acid is also given, and related by Murray. Ap. Med. vol. 3. p. 497.

‖ Vide Scheele in Görwells μνα τιθνηγερ, 1775. n. 30. p. 237. & Savary, l. c. What is sold under the name of Essential Salt of Lemons in this country, appears sometimes to consist of C. Tart. with the addition of a small quantity of vitriolic acid. MS. Lectures on Chemistry by Dr. Hamilton.
CONVOLVULUS JALAPA. JALAP BIND-WEED.


THE root is perennial, large, ponderous, abounding with a milky juice, of an irregular oval form, and blackish colour; the stalks are numerous, shrubby, slender, twisted, striated, rising above ten feet high, and twining for support round the neighbouring plants; the leaves are various, generally more or less heart-shaped, but often angular, or oblong and pointed; they are smooth, of a bright green colour, and stand alternately upon long footstalks; the flowers are produced from short branches, sending off two peduncles, each of which supports a single flower; this is large, bell-shaped, entire, plicated, externally of a reddish colour, but of a dark purple within;* the calyx consists of five oval leaves, these are concave, somewhat

* The colour will no doubt vary. This plant, at Kew, produced yellowish flowers; but the plants obtained by Houston from the Spanish West Indies answer to the description we have given.

No. 5. Q  indented
indented at their points, and of a pale green colour; the filaments are five, slender, short, and the antheræ large, and yellow; the style is shorter than the stamina; the stigma is round, and the germs oval. It is a native of South America, and flowers in August and September. The plant we have figured was introduced into the Royal garden at Kew in 1778, by Mons. Thouin, and under the direction of Mr. Aiton it acquired great vigour and luxuriance, extending its stalks fifteen feet in length; and, by means of slips obtained from it, two healthy young plants have since been produced: this circumstance is the more fortunate, as the parent plant lately died. Botanists have differed much respecting the officinal Jalap plant; Linnaeus following Clusius, PluMIer, Tournefort, and others, first referred it to the Mirabilis, but in the second edition of his Materia Medica he adopts the opinions of Ray and Miller, in considering it a Convolvulus; and indeed after the account of this plant given by Dr. Houstoun, we are surprized that any doubt should still remain upon this subject.

It is said that the root of Jalap was first brought to Europe about the year 1610, and took its name from Xalapa, a province or town in New Spain. In the shops we find this root both cut into slices, and whole, of an oval shape, solid, ponderous, blackish on the outside, but grey within, and marked with several dark veins, by the number of which, and by its hardness, heaviness, and dark colour, the goodness of the root is to be estimated. It has scarcely any smell, and very little taste, but to the tongue and to the throat manifests a slight degree of pungency. The medicinal activity of Jalap resides principally, if not wholly, in the resin, which though given in small doses, occasions violent tormina. The gummy part

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* Hort. Kew.  
* See Linnaeus's Observ. in Mat. Med. 1772. p. 7.

* The London College have not referred to the Linnean name of this plant. Bergius found that neither the dried root of the Mirabilis Jalapa, nor of the M. longiflora, given in the dose of half a grain, produced any cathartic effects, but he says that of the M. dichotoma fatis bene purgat; and as its root also bears some resemblance to the true exotic jalap, he hence infers that it is the same. However, with great deference to the learned professor, we think these reasons insufficient to warrant his conclusion, more especially as they are repugnant to established facts. We may also observe, that all the three species of the Mirabilis are in some degree purgative; but even when fostered in the warm climate of Jamaica, so congenial to their native soil, their roots, both in appearance and medicinal power, essentially differ from those of jalap.
bears an inconsiderable proportion to the resinous, and is found to
have little or no cathartic power, but as a diuretic it is extremely
active.—That Jalap is an efficacious and safe purgative daily expe-
rience must evince, but according as the root contains more or less
resin, its effects must of course vary. Hoffman thought it particu-
larly improper and unsafe to administer this medicine to children;
but Dr. Cullen observes, that if Jalap be well triturated before
exhibition with a hard powder, and the crystals of tartar are the
fittest for the purpose, it will operate in less doses than when taken
by itself, and at the same time very moderately and without griping.
Except when given in very large doses, I have not found it to be
heating to the system; and if it be triturated with a hard sugar, it
becomes, in moderate doses, a safe medicine for children, which in
this form they will readily receive, as the jalap itself has very little
taste.”†—Jalap, in large doses, or when joined with calomel, is
recommended as an anthelmintic and a hydragogue, and from its
general efficacy in dropies was called Panacea Hydropicorum. 4 For
the different constitutions and conditions of body in which it is more
epecially indicated, or its use forbidden, we may cite the opinion of
Geoffroy: “Obseruanum tamen Jalapam non conuenire in febribus
acutis, neque calidis & ficcis constitutionibus. In his enim, sicut
caetera purgantia acris & irritantia, calorem intesinum & fepe inflam-
matorium in viscera instar accidit, partioeremque ino fepe nullam
evacuationem promovet. Sed ipsis constituens quae frigidæ sunt temperici
& fero fcatentes, speciatim in hydrope, anaemia, & cachexia.” M. M.
In the Pharmacopoeias, we have Jalap in the form of tincture and of
extract; and the Edinburgh College directs it also in powder, with
twice its weight of the crystals of tartar. The dose of the simple
powder is commonly from one scruple to two; of the compound
powder it may be double this quantity, which is nearly equal to 10 or
15 grains of the extract, or about two drams of the tincture.

† Cullen’s Mat. Med. vol. 2. p. 540, 4 Marcgrave M. M.

CONIUM MACULATUM.
CONIUM MACULATUM. COMMON HEMLOCK.


THE root is biennial, tapering, sometimes forked, eight or ten inches long, and about the thickness of a finger: the stalk is five or six feet high, round, shining, beset with brown and purplish specks; towards the top branched and striated; near the bottom about three inches in circumference, and covered with a bluish exudation, appearing like a fine powder: the lower leaves are very large, tripinnate, of a shining green colour, standing upon long, striated, concave footstalks, which proceed from the joints of the stem; the upper and smaller leaves are bipinnate, and placed at the divisions of the branches: the flowers are produced in umbels, which are both universal and partial, and composed of several striated radii. The universal involucrum † consists of five or seven leaves, these are lanceolate, whitish at the margin, and bent downwards; the partial

† The calyx of umbelliferous plants is termed involucrum, and may be universal, partial, or proper, according as it is placed at the universal umbel, partial umbel, or flower.

involucrum
involucrum is composed of three or four leaves, which are placed on
the outer side of the radial flalk; the petals are five, oval, white, and
curl inwards at their points; the stamens are five, white, about the
length of the corolla, and crowned with whitish antheræ; the styles
are two, filiform, inclining outwards, and terminated by round stig-
mata; the fruit is oval, striated, consisting of two irregularly hemi-
pheral ringed brownish seeds. This plant flowers in July, and is
commonly found near dunghills and wattle grounds. It has a pecu-
liar faint fetid smell, and a slight aromatic herbaceous, and somewhat
nauseous taste.

The common resemblance of most of the umbelliferous plants leads
us to suspect, that they were very imperfectly distinguished by the
ancients; for though the botanical description of the Carum, given
by Dioscorides, applies in great measure to this plant, yet it must
be considered, that his description is without discrimination, and is,
with a few exceptions, equally applicable to all the genera of plants
composing the natural order of Umbelliferae: so that the accounts
given of Cicutra by ancient writers, should be admitted with great
caution. Whether this species of hemlock was the poison usually
administered at the Athenian executions, and which deprived Athens
of those great characters, Socrates and Phocion, we are at a loss to
determine; but that it is a deleterious poison there cannot be a
doubt, though some circumstances render it probable that it is
less

--  The Hemlock is obviously distinguished from our other umbelliferous plants by
its large and spotted flalk, by the dark and shining green color of its bottom leaves, and
particularly by their disagreeable smell when bruised, and which, according to Störer,
resembles that of mice." Curt. Flor. Lond. The Charophyllum bulbosum has a
spotted stem, but its swollen joints, and rough seeds, distinguish it from the hemlock.

Bærgius. M. M. 194. Störer says, that the milky juice of the root is so extremely
acid and deleterious that a small drop or two of it being applied to his tongue produced
great pain and swelling of that organ, and for some time deprived him of the power of
speech. In answer to this see note (4).

Haller refers it to the Cicutra virga. The word Cicutra, with the ancients,
seem not indicative of any particular species of plant, but of poisonous vegetables in

For further information on this subject, consult Steeger Diff. de Cicutra Atheniensium.

Of the most decisive instances of its fatal effects, which have occurred in this country,
is that related by the late Dr. Watson in the Phil. Transact., in which it is fully ascer-

No. 5. R

tained
les powerfully so than is generally imagined. The symptoms produced by Hemlock, when taken in immoderate doses, are related by various authors, the principal of which have been collected by Haller and others, and stated in the following words: “Intus tumpta facit anxietas, cardialgia, vomitus, appetitum prostratum distem-}

p* 370) which happened to some boys at Dressen. Sarr. rur. Geschichte von Ober. Sachs. III. p. 221. Scaliger, Subtil. Exerc. 152. Amatus Act. Cur. 98. Cent. V. See also the cases mentioned by Wolf in Comment. lit. Nor. anno 1740 and 1749.—Wepfer. Cicer. p. 71. 312. Brafilvola Examen. om. f. We may also notice the following from Theophrastus, (L. IX. c. 17.) Thrasyas Mantineensis remedium a fe inventum fuisse gloribus, quod abique dolore vitam abrumpet, ex Cicuta & Papaveris succo miltum, &c. vide Hal. Stirp. Hdb. p. 338.—to which work we are obliged for many of the facts just recited. Although sheep and some other animals eat this plant with impunity, yet to many it is strongly poisonous. Three spoonsful of the juice killed a cat in less than a quarter of an hour. Rozier, Tableau, tom. i. 1773. Upon opening those animals to which it proved fatal, inflammation of the stomach and intestines was discovered. Harder apiar. Obs. 24 & 25. Wepfer cicer. p. 334. And we may here add, what we noticed formerly under Belladonna, that vinegar has been found the most useful in obviating the effects of this poison; and that by macerating or boiling this plant in vinegar, it becomes totally inert. Lindebolpe de venenis.

* Respifling the root of Hemlock, we have the following instances, shewing unequivocally that it does not possefs any noxious power whatever. Ray relates, (Phil. Tran. XIX. vol. p. 634.) that the skilful herbalist, Mr. Petiver, ate half an ounce of the root of Hemlock, and that Mr. Henry, in the presence of Mr. Petiver, swallowed three or four ounces, without experiencing any remarkable effect; and these facts seem confirmed by the later experiments of Mr. Alchorne and Mr. Timothy Lane, neither of whom perceived any sensible effect on eating this root. Mr. Curtis says, Mr. Alchorne affirms me, that he has tried this in every season of the year, and in most parts of our island, without finding any material difference: and Mr. T. Lane informs me, that he also, with great caution, made some experiments of the like kind, and in a short time found he could eat a considerable part of a root, without any uncomfortable consequence; after this he had some large roots boiled, and found them as agreeable eating at dinner with meat as carrots, which they in taste somewhat resembled; and as far as his experience, joined with that of others, informed him, the roots might be cultivated in gardens, and either eaten raw like celery, or boiled as parsnips or carrots.” (Flor. Lond.) And Murray observes, Non tamen tantopere effe Conium reformidandum, ut quidam exiliinent, patet indo, quod etiam infantibus tenellis impune exhibetur, nec festum affecerit sub matris gravitatem datum, nec gravidam materem, nec detrimentum attingerit largior et per protractus tempus, ad drachmas sex extrae usque supraque intra nycthemerum, usus. Et teneam, vide Murray, Ap. Med. vol. 1. p. 216.—Quin & exsax exempla vetustiora, ingentam herbam vel succum majori adeo quantitate subinde tam homines quam brutes impune (lutile. Sic Pliniii caulem viridem comedii, Sextus Empiricus feminam producit, que drachmam unam fakit abique noxa cepit. Murray, l. c.
Cicuta seems to have been, both by the Greek and Arabian physicians, very generally employed as an external remedy for tumours, ulcers, and cutaneous eruptions; it was also thought to have the peculiar power "frangere stirulum venereum;" and this circumstance is the more remarkable, as Stoeck, Bergius, and others, recommend its internal use for complaints of a contrary nature, and adduce proofs of its aphrodisiacal powers.

Baron Stoeck was undoubtedly the first physician, who brought Hemlock into repute as a medicine of extraordinary efficacy, by his publication in 1760; and his claim to this distinction is the stronger, as his facts only have since been able to support its reputation to any very considerable extent; nay it never succeeded so well as when under his own direction, or confined to the neighbourhood in which he resided, and to the practice of those physicians with whom he lived in habits of intimacy and friendship. To enumerate all the diseases in which he sets forth the powerful efficacy of Cicuta, in four successive books on the subject, would be to give a catalogue of most of the chronic diseases with which human nature is afflicted. And Bergius, though he experienced no advantage by employing it in true cancerous affections, still recommends its use in "Ulcera foridia & siphilitica, Scabies, Morbi cutis, Gonorrhoea, Leucorrhoea, Phthisis, Impotentia virilis, Rheumatismus chronicus, Scrophula;" and he considers its Virtus to be "narcotica, resolvens, suppurationem promovens, diuretica." To estimate with precision the medicinal utility of Hemlock is no very easy task. Had Stoeck's publication

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1 Impotentiam virilem sub usu Conii curatum observavi, in vire quodam plurquam quadrigenario, qui omnem erectionem penis perdiderat, postinde tamen plures liberos procreavit. Bergius Mat. Med. p. 195. — Dr. Cullen, however, never discovered its effects in this way.

2 The general inefficacy of Hemlock experienced in this country, induced physicians at first to suppose that this plant, in the environs of Vienna and Berlin, differed widely from ours, and this being stated to Dr. Stoeck, he sent a quantity of the extract, prepared by himself, to London, but this was found to be equally unsuccessful, and to differ in no respect from the English extract. * Collin, Locher, Quentin, Leber, &c.
cations upon this subject contained but few and less extraordinary proofs of its good effects in certain obstinate and painful diseases, the virtues of cicuta might have been held in greater estimation than they actually are: while those authors, who have as generally condemned this medicine as uniformly useless or dangerous, seem to have done it equal injustice. Although we have not in this country any direct facts, like those mentioned by Stoerk, proving that inveterate scirrhuses, cancers, ulcers, and many other diseases hitherto deemed irremediable, were completely cured by the Cicuta; we have, however, the testimonies of several eminent physicians, shewing that some complaints, which had refuted other powerful medicines, yielded to Hemlock; and that even some disorders, which, if not really cancerous, were at least suspected to be of that tendency, were greatly benefited by this remedy. In chronic rheumatism, some glandular swellings, and in various fixed and periodic pains, the cicuta is now very generally employed; and from daily experience, it appears in such cases to be a very efficacious remedy. It has also been found of singular use in the chinchough. We cannot therefore but consider this plant an important acquisition to the Materia Medica. Externally the leaves of hemlock have been variously applied with advantage to ulcers, indurated tumours, and gangrenes.

Much has been said respecting the variable nature of this plant, the time of collecting it, the part which ought to be preferred, and the best manner of preparing it for medical use; but as these circumstances

1 That it should be of some estimation in many of the diseases, in which it is recommended by Stoerk, appears from the numerous authorities cited by Murray, who concludes with these words: "Et sic quidem in multis pertinaciissimis morbis liquandi epista, obfructa referendi et lassitudinem depurandi, efficacia auxilio suit." 1 c.

2 Vide Andreae's Observationes on Stoerk's Pamphlet, anno 1761. Lange Diff. dubia Cicuta vexata, anno 1764. De Haen Epist. de cicuta, anno 1765. Bierken (Tul om Kräufkader) who, with Bergius, says, that in all cancers it does mischief.

3 Among those we may mention the late Drs. Forthgill and Rutty. Vide Med. Obser. & Inquir. vol. 3.—also in the 5th vol. the former gives an account of painful affections of the face, which he attributes to cancerous cerimony, removed by the use of cicuta.—Dr. Cullen says, "I have found it in several cases (of cancer) to relieve the pains and mend the quality of the matter proceeding from the fore, and even to make a considerable approach towards healing it," Mat. Med. vol. 2. 256. Several others instance its good effects in glandular diseases, and Mr. Hunter commends its use in syphilis.

4 Dr. Butter on the Chincough.
seem only to produce a mere variation in the strength of the medicine, we conceive such pharmaceutical inquiries to be of very little importance, requiring only a proportionate adjustment of the dose, which, under the direction of a skilful practitioner, will always be regulated by its effects only, beginning with a few grains of the extract or powder, and increasing it daily till a slight vertigo or other symptoms manifest the sufficiency of the dose: and unless this method has been pursued, the medicine cannot be said to have had an efficient trial. 

An extract from the seeds is intended to produce giddiness sooner than that from the leaves. Hence, while both the London and Edinburgh Colleges have given a place to the succus spissatus cicuta, into the pharmacopœia of the latter an extractum feminum cicutæ is also introduced.

This should also be attended to on recommencing with a fresh parcel of the medicine, as it may differ very materially from the former preparation used; of this Dr. Cullen gives a remarkable instance, strongly evincing the necessity of such a precaution, i.e.

The powder of the dried leaves of Hemlock seems to act with more certainty, and is more to be depended upon than the extract; great caution however is required in drying and preserving these leaves. Dr. Withering recommends the following method, which appears to us extremely proper: "Let the leaves be gathered about the end of June, when the plant is in flower. Pick off the little leaves, and throw away the leaf stalks. Dry these selected little leaves in a hot sun, or in a tin dripping pan or pewter dish before the fire. Preserve them in bags made of strong brown paper, or powder them and keep the powder in glass vials, in a drawer or something that will exclude the light, for the light soon dissipates the beautiful green colour, and with its colour the medicine loses its efficacy. From 15 to 25 grains of this powder may be taken twice or thrice a day. I have found it particularly useful in chronic rheumatism, and also in many of those diseases which are usually supposed to arise from acidity. The nature of this book does not allow minute details of the virtues of plants, but I can assure the medical practitioner, that this is well worth his attention." Bot. Arrang. 2d Ed. p. 280.

No. 5. S DAPHNE MEZEREUM.

* Varietates sunt,
  a. Floribus rubris.
  b. Thymelæa Lauri folio deciduo, flore albo, fructu flavescente.
  Vide *Hort. Kew.*


Eff. Gen. Ch. Cor. 4-fida corollaceæ, marcescens, flamina includens.
  *Bacca* 1-sperma.

Sp. Ch. D. floribus sessilibus ternis caulinis, foliis lanceolatis deciduis.

The Mezereum is a hardy shrub, which usually grows to the height of five or six feet, and sends off several branches; the exterior bark is smooth, and of a grey colour; the root is of a fibrous texture, of a pale colour, and covered with smooth olive-coloured bark; the leaves are few, tender, lance-shaped, sessile, deciduous, and appear at the terminations of the branches after the flowers are expanded; the

* Dr. Ruffel found no difference in the effects of these varieties, by the trials he made with the rind, which is the only part of the root now in use.

flowers
Daphne Mezzacapo
flowers surround the branches in thick clusters, they are sessile, monopetalous, tubular, having the limb divided into four oval spreading segments, commonly of a purple colour; the stamens are eight, alternately shorter, and concealed within the tube of the corolla; the style is very short, the stigma flat, and the germen, which is oval, becomes a reddish berry, containing a round seed. This shrub is a native of England, though not very common. It is said to grow plentifully in some woods near Andover in Hampshire, and also about Laxfield in Suffolk; but it is generally cultivated in gardens, on account of the beauty and earliness of its flowers, which appear in February and March.

This plant is extremely acid, especially when fresh, and if retained in the mouth excites great and longcontinued heat and inflammation, particularly of the throat and saucers; the berries also have the same effects, and, when swallowed, prove a powerful corrosive poison, not only to man, but to dogs, wolves, foxes, &c. The bark and berries of Medecin, in different forms, have been long externally used to oblate ulcers and ill-conditioned sores. In France the former is strongly recommended as an application to the skin, which under certain management produces a continued serous discharge, without blistering; and is thus rendered useful in many chronic diseases of a local nature, answering the purpose of what has been called a perpetual blisters, while it occasions less pain and inconvenience.

* Muliercula ruri baccas Coccureunaduii proinantis in morbis rebellibus, sepe effectu deleterio. Bergius M. M. p. 307. A woman gave twelve grains of the berries to her daughter, who had a quartan ague; she vomited blood, and died immediately. Wither. l. c. As the acrimony of these berries is not immediately perceived upon being tasted, the ignorant and wary are the more easily betrayed to swallow them.

* Haller. l. c.


* As some may wish to try this practice, which is unknown to this country, and promises beneficial effects in several complaints, we shall briefly recite the usual mode in which it has been conducted: — A square piece of the recent bark, about an inch long, and three quarters of an inch broad, macerated a little in vinegar, is applied to the skin, over which is bound a leaf of ivy or plantain. This application is at first renewed night and morning till it cauterizes the part and brings on a serous discharge, when a renewal of the bark once in 24 hours is found sufficient to continue the issue for any length of time. By means of suitable plasters, we conceive that it might be applied behind the ears to relieve the eyes, and on a larger scale prove an useful practice in sundry diseases. — It must be observed however, that it sometimes produces cutaneous eruptions, which Bergius attributes to the absorption of the acid particles of the bark. l. c. vide Effaï sur l'ulage & les effets de l'écorce du Garou.
In this country the Mezerion is principally employed for the cure of some syphilitic complaints, and in this way Dr. Donald Monro was the first who gave testimony of its efficacy in the successful use of the Lisbon diet drink. A few months after this, several cases were published by Dr. Ruffel, then physician to St. Thomas's Hospital, fully establishing the utility of the cortex mezerei in venereal nodes. He says, "the disease for which I principally recommend the decoction of mezereon root as a cure, is the node, that proceeds from a thickening of the membrana of the bones, which appears to be the cause of the greatest part of the scirrhus tumours, at least when recent.—In a thickening of the periosteum from other causes I have seen very good effects from it." But in the nocturnal pains, accompanying syphilis, unless occasioned by the node itself, he found it necessary to join a solution of sublimate to the decoction. We may also remark, that Dr. R. never found the decoction to increase any of the natural evacuations. Dr. Cullen observes, that "Dr. Home has not only found this decoction to cure scirrhous tumours, which remain after the uses venerea, and after the use of mercury, but that it healed also these scirrhus tumours from other causes; and that he has employed it in several cutaneous affections, and sometimes with success." 

The considerable and long continued heat and irritation that is produced in the throat when Mezereon is chewed, induced Dr. Withering to think of giving it in a cafe of difficulty of swallowing, seemingly occasioned by a paralytic affection. The patient was directed to chew a thin slice of the root as often as she could bear it, and in about a month recovered her power of swallowing. This woman had suffered the complaint three years, and was greatly reduced, being totally unable to swallow solids, and liquids but very imperfectly.

Dr. R. first joined farfaparilla to the mezereon, but afterwards used the following only:

R. Cort. rad. Mezerei ‡ j
Ag. fontan. cong. 1/6
Coc. ad conq. j sub fin. addend. rad. glycyrrhiz. incis. ‡ j, dos. lbs quater in die.
And by this many of the patients were entirely cured without ever taking mercury.

h M. M. vol. 2. p. 215.  l. c.

DIGITALIS PURPUREA.
DIGITALIS PURPUREA. COMMON FOX-GLOVE.


Sp. Ch. D. calycinis foliolis ovatis acutis, corollis obtusis; labio superiore integro.

The root is biennial, branched, and fibrous; the stalk is erect, simple, tapering, covered with fine hairs or down, and rises commonly to the height of four or five feet; the leaves are large, oval, narrowed towards their points, obtusely serrated, veined, * downy, and stand upon short winged footstalks; the floral leaves or bracteae: spear-shaped, sessile, purplish towards the point; the calyx consists of five segments, which are elliptical, pointed, nerved, or ribbed, and the uppermost segment is narrower than the others; the flowers grow in a long terminal spike, chiefly on one side, they are large, monopetalous, pendulous, bell-shaped, * purple, and marked on the inside with little eyes, or dark coloured dots, placed in whitish rings; the tubular part appears inflated, and almost cylindrical, but swelling towards the base, and opening at the limb into four irregular, short, obtuse segments, of these the uppermost is the shortest, appearing truncated or cut off transversely; the peduncles are round, short, villous, and bend * On the under side these veins form a kind of net-work.

The flowers bear some resemblance to the finger of a glove; hence the name Digitalis.

No. 5.

T downwards
downwards by the weight of the flowers; the filaments are two long and two short, white, crooked, inserted in the bottom of the tube, and crowned with large oval yellow antheræ; the style is simple, and thickening towards the stigma, which is bilid; the germen is oval, and surrounded at the bottom by a small nectarious gland; the capsule is bilocular, and contains many blackish seeds. It grows commonly about road sides and hedges, especially in dry gravelly soils, and flowers in June and July.

The leaves of Fox-glove have a bitter nauseous taste, but no remarkable smell; they have been long used externally to foices and scrophulous tumours with considerable advantage. Respecting the internal use of this plant we are told of its good effects in epilepsy, scrophula, and phthisis; but the incautious manner in which it was employed rendered it a dangerous remedy: thus we find Ray (after reciting the case of epilepsy cured by it, as mentioned by Parkinson,) says, "Verum medicamentum hoc robustioribus tantum convenit, liquide mali enenter admodum purget & vomitiones immunes excitat;" and others, speaking of its successful exhibition in scrophula, remark, "Sed ob nimiam remedii vehementiam, continuationem ejus necesseriam detractavit." Yet while Digitalis was generally known to possess such medicinal activity, its diuretic effects, for which it is now deservedly received in the Materia Medica, were wholly overlooked; that to this discovery Dr. Withering has an undoubted claim, and the numerous cases of dropsy, related by him and other practitioners of established reputation, afford incontestible evidence of its diuretic powers, and of its practical importance in the cure of those diseases. From Dr. Withering's extensive experience of the use of the Digitalis in dropsies, he has been enabled to judge of its success by the following circumstances:—"It seldom succeeds in men of great natural strength, of tense fibre, of warm skin, of florid complexion, or in those with a tight and cordy pulle. If the belly in alicites be tense, hard, and circumcised, or the limbs in anaercoa solid and refisting, we have but little hope. On the contrary, if the pulle be feele, or intermitting, the countenance pale, the lips livid, the skin cold, the swollen belly soft and fluctuating, the anaercoa limbs readily pitting

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b Ray Hist. p. 767. Vide Murray's Ap. Med. vol. i. p. 102. c See his account of the Fox-glove, published 1785; a book, which, in the opinion of Dr. Cullen, "should be in the hands of every practitioner of phlyick," (M.M.)
under the pressure of the finger, we may expect the diuretic effects to follow in a kindly manner. Of the inferences which he deduces, the fourth is, "that if it (Digitalis) fails, there is but little chance of any other medicine succeeding." Thus we are to infer, that men of great natural strength, and under the other circumstances just mentioned, when affected with dropsy, have little to hope for from the use of this diuretic, and still less from any other medicine. As this observation is the result of experience, and of considerable practical consequence, we with particularly to press it on the attention of the medical reader. Although the Digitalis is now generally admitted to be a very powerful diuretic, and many cases may be adduced of its successful use in addition to those already published, yet it is but justice to acknowledge that this medicine has more frequently failed than could have been reasonably expected, from a comparison of the cases stated by Dr. W. — "The dose of the dried leaves, in powder, is from one grain to three twice a day. But if a liquid medicine be preferred, a dram

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1. c. p. 189, & seq. 2. In such cases Dr. W. attempts to induce a change in the constitution, and thereby to fit it for the action of the Digitalis. Would not repeated purging, according to Sydenham's plan, succeed best in these cases?

3. The author could bring many instances were it necessary, of the good effects of the Digitalis: a clinical patient at Guy's Hospital, treated by Dr. Relph last winter, afforded a striking proof of the efficacy of this medicine in hydrothorax.

4. Among the principal of the unsuccessful cases we may notice the eight fatal ones related in the Medical Memoirs by Dr. Lettton. In reply to these cases, Dr. Withering sent me the following Letter, which is published by the permission of Dr. Lettton, who authorizes me to say, that as his only object in this business is the investigation of truth, he willingly appeals to the justice and candour of the public, how far his practice is fairly represented in Dr. Withering's letter:

SIR, I have the honour to acknowledge the receipt of your letter of the 4th. I am desirous to inform you that Dr. W. has been of opinion that it would be more beneficial to the public if the experience of the dyer had been more generally known. The dyer, as you are aware, is a man of many years' practice, and the medical knowledge of the art. I am, etc. PR. C. C. M. Memoirs of the Med. Society of London, vol. II, p. 145. Account of the Fox-glove p. 181, 189, & seq. Without
dram of the dried leaves is to be infus'd for four hours in half a
pint of boiling water, adding to the strained liquor an ounce of any
spiritious water. One ounce of this infusion, given twice a day, is
a medium dose. It is to be continued in these doses till it either acts
upon the kidneys, the stomach, the pulse, (which it has a remarkable
power of lowering) or the bowels."

without being astonished that he could suppose he had been giving this medicine "in the
manner prescribed by me". I am fully satisfied, that, had I prescribed it in such
cases, such forms, such doses, and such repetitions as he has done, the effects would,
in my hands, have been equally useless, and equally deleterious. I must therefore sup-
pose, that he had forgotten what I had written, without being conscious that his memory
had deceived him. Had it been otherwise, after perusing the cases I had published at pages
xx. and pages 151, &c. of my Account, &c. he would hardly have thought it necessary
to have published more instances of what I had stigmatized as bad practice; or to have
sought for further proofs, that an active and useful medicine might be employed so as to
prove a deleterious poison.


ARUM MACULATUM. COMMON ARUM, or WAKE-ROBIN.

SYNONYMA. Arum. Pharm. Lond. & Edin. Arum foliis
non maculatum. Baub. Pin. 195. Arum vulgare maculatum et

Varietates funt

α Arum vulgare non maculatum. Baub. Pin.
γ Arum italicum, foliis haftatis acutis, petiolis longifimis,


Eff. Gen. Ch. Spatha monophylla, cucullata. Spadix supra nudus,
inferne feminieus, medio flamineus.

Sp. Ch. A. acaule, foliis haftatis integerrimis, spadice clavato.
THE root is perennial, tuberous, about the size of the thumb, sending off many long simple fibres: the leaves are commonly three or four, growing from each root; these are arrow-shaped, of a deep green or purplish colour, beset with many veins and dark spots, and stand upon long grooved and somewhat triangularly shaped footstalks; the flower stalk is very short and channelled; the calyx is a sheath of one leaf, large, oval, nerved, and enclosing the spadix, which is round, club-shaped, fleshy, above of a purple colour, below whitish, standing in the centre of the sheath, and supporting the parts necessary to fruitification: on tracing it towards the base we first discover the nectaries, or several oval corpuscles, which are terminated by long tapering points; next to these are placed the anthers, which are quadrangular, united, and of a purple colour; under these we find again more nectaries, and lastly the germina, which are very numerous, round, without styles, and crowned with small bearded stigmata. This curious species of inflorescence displays itself early in spring, but the berries do not ripen till late in the summer, when they appear in naked clusters, of a bright scarlet colour, making a conspicuous appearance under the hedges, where they commonly grow.

The root is the medicinal part of this plant, which in a recent and lacteal state is extremely acrimonious, and upon being chewed excites an intolerable sensation of burning and pricking in the tongue, which continues for several hours: when cut in slices and applied to the skin, it has been known to produce blisters. This acrimony, however, is gradually lost by drying, and may be so far diffused by the application of heat, as to leave the root a bland farinaceous aliment; its medical efficacy therefore resides wholly in the active volatile matter, and consequently the powdered root must lose much of its power on being long kept, a circumstance which very properly cauEd the omission of the Pulvis ari compositus in the

[Arum, by a modern botanist, is arranged under the class Monococca.]

* In this state it has been made into a wholesome bread. It has also been prepared as flour. The root, dried and powdered, is used by the French to wash the skin with, and is sold at a high price, under the name of Cypres Powder: It is undoubtedly a good and innocent cosmetic. Withering, I. c.—These roots are also said to possess a saponaceous quality, and have been used in washing linen, to supply the place of soap. Rayi Hist. p. 1208.
last edition of our Pharmacopœia, Lewis says, "the fresh and moderately dried roots were digested in water, in wine, in proof spirit, and in rectified spirit, with and without heat: the liquors received no colour, and little or no taste. In distillation neither spirit nor water brought over any sensible impregnation from the Arum. The root, nevertheless, loses in these operations almost the whole of its pungency." The qualities of this root are thus enumerated by Bergius: "Virtus recentis, fuscæ: stimulans, aperiens, incidens, diuretica; recentis vehementissima; annosæ || nutriens."—Dr. Cullen seems to consider it as a general stimulant, not only exciting the activity of the digestive powers, where they happen to be languid, but stimulating the whole system; in proof of this he observes, that it has been useful in intermittent fevers. Arum, by ancient writers, is much commended, both as an external and as an internal remedy, and is said that "Rationale particularum tenuium & volatilium mucum viscidum & spissum ventriculi & intestinorum parietibus adherentem potenter incidit, attenuat, atque resolvit;" and was preferred in all that numerous clafs of diseases formerly supposed to proceed a succorium leantore. Bergius considers it useful in Colluvies pituita, Anorexia, Cephalæa syphatica, Aphiæa humorale, Cachexia, Febris intermittens. Arum is certainly a very powerful stimulant, and by promoting the secretions may be advantageously employed in cachetic and chlorotic cases, in rheumatic affections, and in various other complaints of phlegmatic and torpid constitutions; but more especially in a weakened or relaxed state of the stomach, occasioned by the prevalence of viscid mucus. If this root is given in powder, great care should be taken that it be young and newly dried, when it may be used in the dose of a scruple or more twice a day: but in rheumatifs and other distempers requiring the full effects of this medicine, the root should be given in a recent state, and to cover the insupportable pungency it discovers on the tongue, Dr. Lewis advises us to administer it in the form

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Bergius speaks highly of the efficacy of Arum in these headaches, which were of the most violent kind, and refrained all the means he employed, till he used the powder of this root, which never failed to relieve them.
of emulsion, with gum arabic and spermaceti, increasing the dose from ten grains to upwards of a scruple three or four times a day; in this way "it generally occasioned a sensation of slight warmth about the stomach, and afterwards in the remoter parts manifestly promoted perspiration, and frequently produced a plentiful sweat." Several obstinate rheumatic pains were removed by this medicine, which is therefore recommended to further trial."

MYRTUS PIMENTA. PIMENTO, JAMAICA PEPPER, ALL-SPICE.


Varietatis, a foliis oblongo-lanceolati acuminatis; acumine obtuso.

* "Some of these trees are frequently observed to be barren, which has introduced a notion among the people of Jamaica of their being male and female trees in general; and that some of the male or barren trees were necessary in every walk; which, as they are commonly many, is a vast detriment. It is however certain, that all those I have observed were hermaphrodites: and I am credibly informed, that those they call males, when topped and broke like the rest for one or two years, do bear very well: which I am the more apt to believe, as I have never observed a distinct male or female flower on any of them." Browne, I. c.

THIS
THIS handsome myrtle grows above thirty feet in height, and two in circumference; the branches near the top are much divided, and thickly beset with leaves, which by their continual verdure always give the tree a beautiful appearance; the bark is very smooth, externally, and of a grey colour; the leaves vary in shape, and in size, but are commonly about four inches long, veined, pointed, elliptical, and of a deep shining green colour; the flowers are produced in bunches, or panicles, and stand upon subdividing or dichotomous stalks, which usually terminate the branches; the calyx is cut into four roundish segments; the petals are also four, white, small, reflex, oval, and placed opposite to each other between the segments of the calyx; the filaments are numerous, longer than the petals, spreading, of a greenish white colour, and rise from the calyx and upper part of the germen; the anthers are roundish, and of a pale yellow colour; the style is smooth, simple, and erect; the stigma is obtuse; the germen becomes a round succulent berry, containing two kidney-shaped flattish seeds. This tree is a native of New Spain and the West-India islands. In Jamaica it grows very plentifully, and in June, July, and August puts forth its flowers, which, with every part of the tree, breathes an aromatic fragrance.

The Pimento tree was first introduced and cultivated in this country by Mr. Phil. Miller in 1739, and the figure we have annexed was drawn from a recent specimen, obtained from the garden of his Grace the Duke of Northumberland at Sion-House, where the plant is now in full bloom. Pimento, or the berries of this species of myrtle, are chiefly imported into England from Jamaica, and hence the name Jamaica Pepper. It is also named All-spice from its taste being supposed to resemble that of many different species mixed together. When the berries arrive at their full growth, but before they begin to ripen, they are picked from the branches, and exposed to the sun for

a. "The leaves and bark are full of aromatic particles, which make them (the planters) extremely cautious of fire in all Pimento walks; whereas, if it should once catch, it runs with great fury." Browne, l. c.

b. "Such of the berries as come to full maturity do, like many other seeds, lose that aromatic warmth for which they are esteemed, and acquire a taste perfectly like that of Juniper berries, which renders them a very agreeable food for the birds, the most industrious planters of these trees." Browne, l. c. "The berries when ripe are of a dark
for several days, till they are sufficiently dried; this operation is to be conducted with great care, observing that on the first and second day's exposure they require to be turned very often, and always to be preserved from rain and the evening dews. After this process is completed, which is known by the colour and rattling of the seeds in the berries, they are put up in bags or hogsheads for the market. This spice, which was at first brought over for dietetic uses, has been long employed in the shops as a succedaneum to the more costly oriental aromatics; "it is moderately warm, of an agreeable flavour, somewhat resembling that of a mixture of cloves, cinnamon, and nutmegs. Distilled with water it yields an elegant essentail oil, so ponderous as to sink in the water, in taste moderately pungent, in smell and flavour approaching to oil of cloves, or rather a mixture of cloves and nutmegs. To rectified spirit it imparts, by maceration or digestion, the whole of its virtue: in distillation it gives over very little to this menstruum, nearly all its active matter remaining concentrated in the inspissated extract.

Pimento can scarcely be considered as a medicine: it is, however, an agreeable aromatic, and on this account is not unfrequently employed with different drugs, requiring such a grateful adjunct. Both the Pharmacopoeias direct an aqueous and spirituous distillation to be made from these berries, and the Edinburgh College order also the Oleum essentiale piperis Jamaicensis.

dark purple colour, and full of a sweet pulp, which the birds devour greedily, and nutting the seeds, afterwards propagate these trees in all parts of the woods. It is thought that the seeds passing through them, in this manner, undergo some fermentation, which fits them better for vegetating than those gathered immediately from the tree; and I believe this is the fact." Long's Jamaica, vol. 3. p. 703.
Laurus Cinnamomum. Cinnamon-tree.


Sp. Ch. L. foliis trinervis ovato-oblongis; nervis versus apicem evanescentibus.

This valuable and elegant laurel rises above twenty feet in height; the trunk extends about six feet in length, and one foot and a half in diameter; it sends off numerous branches, which are covered with smooth bark, of a brownish auburn colour; the leaves stand in opposite pairs upon short footstalks; they are of an ovalish oblong shape, obtusely pointed, entire, firm, from three to five inches long, of a bright green colour, and marked with three whitish longitudinal nerves; the common peduncles grow from the younger branches, and after dividing, produce the flowers in a kind of paniculated umbel. The petals are six, oval, pointed, concave, spreading, of a greenish white or yellowish colour, and the three outermost are broader than the others; the filaments are nine, shorter than the corolla, flatish, erect,
CINNAMON-TREE.

37

*Plant. 509.*

*Neotarium glabrum.*

Filamenta intire

*nervis versus apicis nostris.*

The Cinnamon-tree is a southern and tropical tree, reaching twenty feet in height; its bark is one foot and a half thick, and its leaves are covered with white, downy, and whitish longitudinal ridges. The younger branchlets are of panicked umbel, ending in a tuft. The flowers are of a greenish white, and the corolla is flat, with the stamens.
erect, standing in ternaries, and, at the base of each of the three innermost, two small round glands are placed; the antheræ are double, and unite over the top of the filament; the germen is oblong, the style simple, of the length of the stamens, and the stigma is depressed and triangular: the fruit is a pulpy pericarpium, resembling a small olive of a deep blue colour inserted in the corolla, and containing an oblong nut.

The true Cinnamon-tree is a native of Ceylon, where, according to Ray, it grows as common in the woods and hedges as the hazel with us, and is used by the Ceylonese for fuel and other domestic purposes. Its cultivation was first attempted in this country about the year 1768 by Mr. Philip Miller, who observes "that the Cinnamon and Camphire-trees are very near akin," and that if the berries of these trees were procured from the places of their growth, and planted in tubs of earth, the plants might be more easily reared than by layers, which require two years or more before they take root. We wish, however, to caution those who make the trial, to plant this fruit immediately upon being obtained from the tree; for Jacquin remarks, "Cæterum ad stationem transportari semina nequeunt, quum paucos intra dies nuclei corrumpuntur, atque effæti evadunt." Ray seems to think that the Caffia cinnamomea of Herman, the Caffia lignea, and the Caffia fistula of the ancient Greek writers, were the same, or varieties of the same species of plant. But an inquiry of more importance is, whether the Cinnamon of Ceylon is of the same species as that growing in Malabar, Sumatra, &c. differing only through the influence of the soil and climate in which it grows, or

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a Jacquin's Americ. At Ceylon, "it is particularly owing to a certain kind of Wild Doves, which, from their feeding on the fruit of the Cinnamon-tree, they call Cinnamon-eaters, that these trees grow so plentifully in this island." A. Seba Ph. Trans. vol. 36. p. 105.

b It is necessary to observe, that the ancient signification of these names is very different from the modern. The younger branches of the tree, with their bark covering them, were called by the Greek writers ἄλατον Cinnamomum, and sometimes ζαλασάν, or Caffia lignea; but when they were divested of their bark, which by its being dried became tubular, this bark was denominated κατα ἐνθαγε, or Caffia fistula. But as in process of time the wood of this tree was found useless, they stripped the bark from it, and brought that only; which custom prevails at this day. See Account of the Cinnamon-tree by Dr. Watson, Phil. Trans. vol. 47.
from the culture or manner of curing the Cinnamon. Mr. White and Mr. Combes, who have investigated this subject with considerable attention, agree with Gracias, and determine this question in the affirmative.

The use of the Cinnamon-tree is not confined to the bark, for it is remarkable that the leaves, the fruit, and the root, all yield oils of very different qualities, and of considerable value: that produced from the leaves is called Oil of Cloves, and Oleum Malabathri: that obtained from the fruit is extremely fragrant, of a thick consistence, and at Ceylon is made into candles, for the sole use of the King; and the bark of the root not only affords an aromatic essential oil, or what

* According to many botanical writers the principal marks of distinção of these plants are to be found in the leaf, which in the Cinnamon of Ceylon is more oval and less pointed than the others, and the nerves do not reach to the margin; while in the Cinnamon of Sumatra they are said to be continued to the extremity of the leaf. — Respecting the bark it is well known to be less warm and grateful to the taste, manifesting that viscidity on being chewed which is never observable in the Ceylon Cinnamon. But Mr. White, with the assistance of Dr. Matty, carefully compared the specimens of the Cinnamon-tree, (commonly called Caffia) which he had from Sumatra, with those from Ceylon, preferred in the British Museum, which were the collections of Boerhaave, Courtyard, Plukenet, and Petiver, and found the difference so inconsiderable, as fully to justify his opinion. In Murray's edition of the Systema Veg. we find superadded to the description of Caffia, "*Effe modo Varietas ineuntis, (Cinnam.) folis angustioribus et obtusioribus, Thunberg in Act. Stockh. 1780. p. 56. The difference of the bark itself is thus stated by Ray, "Officina nostra Caffiam ligneam a Cinnamome feu Canella distinguiam factum, Caffiam Cinnamo amo craeioerem plerumque effe colore rubicundiorum, subflavâ diuiores, solidiores, potiori, et compaçiori, gauæ magis glutinoso, odoræ quidem & sapore Cinnamonum aptius referre, tamen Cinnamomo imbécilliorum & minus vegetam effe ex accurata observatione. Tho. Johnson." But Mr. White says, "From the specimens I shall now produce, it will most plainly appear, that these differences are merely accidents, arising from the age of the Canella, the part of the tree from whence it is gathered, and from the manner of cultivating and curing it." And he observes, "If any conjecture can arise from hence, it may be, that the Cinnamon of Ceylon was formerly, as well as that of Sumatra and Malabar, called Caffia; but that the Dutch writers, being acquainted with the excellent qualities which the ancients ascribed to their Cinnamon, chose to add the name Cinnamon to that of Caffia; and in process of time they have found the name of Cinnamon more profitable than that of Caffia, by which we chuse to call our Canella, to our national love of many thousand a year." (Phil. Trans. vol. 30. p. 887.) How far the reasoning of Mr. White is really well founded, we leave to the judgment of others; it may however be remarked, that his opinion is not a little supported, from the consideration that the Cinnamon plant varies exceedingly, even in the island of Ceylon, where Burman collected nine different sorts, and Seba actually describes ten.
has been called Oil of Camphor, and of great estimation for its medical use, but also a species of camphor, which is much purer and whiter than that kept in the shops.

The spice, so well known to us by the name of Cinnamon, is the inner bark of the tree; and those plants produce it in the most perfect state, which are about six or seven years old, but this must vary according to circumstances. Seba says, "Those which grow in the valleys, where the ground is a fine whitish sand, (and there are many such valleys in the island of Ceylon) will in five years time be fit to have the bark taken off. Others, on the contrary, which stand in a wet slaty soil, must have seven or eight years time to grow before they are ripe enough." And the bark of those trees, which stand in a very dry soil, and much exposed to the sun, has often a bitternish taste, which Seba attributes to "the camphor being by the sun's rays rendered so thin and volatile, that it rises up and mixes with the juice of the tree." The bark, while on the trees, is first freed of its external greenish coat; it is then cut longitudinally, stripped from the trees, and dried in sand, till it becomes fit for the market, when it is of a reddish yellow, or pale rusty iron colour, very light, thin, and curling up into quills or canes, which are somewhat tough, and of a fibrous texture. It is frequently mixed with cassia, which is distinguished from the Cinnamon by its taste being remarkably slummy. This bark is one of the most grateful of the aromatics; of a very fragrant smell, and a moderately pungent, glowing, but not fiery taste, accompanied with considerable sweetness, and some degree of astringency. Its aromatic qualities are extracted by water in infusion, but more powerfully by it in distillation, and in both ways also by a proof spirit applied. Cinnamon is a very elegant and useful aromatic, more grateful both to the palate and stomach than most other substances of this class: by its astringent quality, it likewise corroborates the viscera, and proves of great service in several kinds of alvine fluxes, and immoderate discharges from the uterus. The aromatic principle is an essential oil, which is obtained by distilling

"If you taste the inner membrane of the bark when fresh taken off, you will find it of most exquisite sweetness, whereas the outward part of the bark differs but very little in taste from the common trees; but in drying, the oily and agreeable sweetness communicates and diffuses itself throughout the whole outward part." Seba l. c.

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at once large quantities of this spice, or rather cassia, which is usually employed in these operations; and the oil thus separated is so extremely pungent, that on being applied to the skin it produces an eschar; in doses of a drop or two diluted, by means of sugar, mucilages; &c.: it is one of the most immediate cordials and restoratives in languors, gouty, and all debilities. This oil is imported from the East-Indies, and a tincture, a simple, and a spirituous water, are directed by the Pharmacopoeias to be prepared from this spice.

Glecoma hederacea. Ground-Ivy, or, Gill


\textit{Calyx} 5-fidus.


THIS plant has a small, perennial, creeping, fibrous root, which puts forth forks from six inches to a foot and a half in height; these are square, procumbent, and at the knots or joints woolly; the leaves are of a roundish kidney-shape, scoloped, hairy, and frond in opposite pairs upon channelled footstalks; the flowers grow in verticilla, or whorls of three, four, or five together, on short peduncles, placed about the footstalks of the leaves; the calyx is tubular, permanent, frigated,
Gleoma hederacea
flated, rough, and divides into five unequal pointed segments; the flower is blue, monopetalous, bilabiated, with a slender compressed tube; the upper lip is cleft, erect, blunt, the lower lip is expanded, large, divided into three lobes, of which the middle one is the largest, and is notched at the end; the bracteas are small, tapering, and grow from the peduncles; the filaments are four, two long and two short, covered by the upper lip, and the antherae of each pair approach so as to form a cross; the style is filiform, the stigma is bifid, and pointed; the seeds are four, oval, naked, and lodged in the calyx.

It is a well known plant, growing commonly under hedges, and flowering in April.

Ground-ivy has a peculiar strong smell, * and its taste is bitterish, and somewhat aromatic. It is one of those plants which was formerly in considerable estimation, and supposed to possess great medicinal powers, but which later experience has been unable to discover; in proof of this, its name is omitted in the catalogue of the materia medica by the London College. The qualities of this plant have been described by different authors, as pectoral, detergent, aperient, diuretic, vulnerary, corroborant, erthine, &c.—and it has been variously recommended for the cure of those diseases to which these powers seemed most adapted, but chiefly in pulmonary, and nephritic complaints. In obstinate coughs it is a favourite remedy with the poor, who probably experience its good effects by still persevering in its use. Ray, Mead, and some others, speak of its being usefully joined with fermenting ale; * but Dr. Cullen observes, "it appears to me frivolous. In short, in many cases where I have seen it employed, I have had no evidence either of its diuretic or of its pectoral effects. In

* Dr. Withering has observed, that the leaves are "beefed underneath with hollow dots, in which are glands secreting an essential oil, and above with little eminences, but which do not secrete any odoriferous oil; for this surface being rubbed gives out no peculiar scent, whereas the under surface affords a pleasant reviving scent." *c.


* From the general use of Ground-ivy, mixed with ale, &c. it acquired the name of Ale-hoof and Tum-hoof.

common
common with many other of the verticillatae, it may be employed as an errhine, and in that way cure a head-ach, but no otherways by any specific quality.” It is usually taken in the way of infusion, or drunk as tea.

Ray gives a remarkable instance of its efficacy in this way, in the case of Mr. Oldacre, and says, “Succus hujus plantae naribus attractus cephalalgiam etiam vene mentis effusit & inveteratam non lenit tantum sed & penitus auferit—Medicamentum hoc non fatis potest laudari, si res ex usu ostimarentur, auro sequiparandum.” l. c.

COCHLEARIO OFFICINALIS. COMMON CURVY-GRASS.


Eff. Gen. Ch. Silicula emarginata, turgida, scabra; volvulis gibbis, obtusis.


THE root is perennial, fibrous, and usually produces several upright branched angular stems, about a span high; the radical leaves are heart or kidney-shaped, fleshy, succulent, and stand upon long footstalks; the stem-leaves alternate, rhomboidal, blunt, and dentated on each side; towards the top the leaves are fleshy, or embracing the stem, but towards the bottom they are frequently upon short broad footstalks; the flowers are cruciform, and stand upon short peduncles, terminating
terminating the branches in thick clusters; the calyx consists of four
leaflets, which are oval, blunt, concave, gaping, deciduous, and whitish
at the margin; the petals are four, white, oval, spreading, and twice
the length of the calyx; the filaments are fix, four long and two
short, greenish, tapering, and crowned with yellow antherae; it has
no style, and the germin becomes a small roundish compressed pod,
containing rough seeds. It is found on the mountains of Scotland,
Cumberland, and Wales, but more commonly about the Sea shores:
it flowers in April and May.

We have figured this plant from a specimen obtained from Mr.
Curtis's botanic garden at Brompton, where it differs in no respect
from the same plants growing in their native soil, a circumstance
which induces many to cultivate Scurvy-grafs in gardens for medical
use. It has an unpleasing smell, and a warm acrid bitter taste. "Its
active matter is extracted by maceration both in watery and in spiri-
tuous menstrua, and accompanies the juice obtained by expression.
The most considerable part of it is of a very volatile kind; the
peculiar penetrating pungency totally exalting in the excitation of
the herb, and in the evaporation of the liquors. Its principal virtue
resides in an essential oil, separable in a very small quantity, by distil-
lution with water."—Scurvy-grafs "is antifeptic, attenuant, aperient,
and diuretic, and is said to open obstructions of the viscera and
remoter glands, without heating or irritating the system; it has been
long considered as the most effectual of all the antiscorbutic plants,*

* Lewis M. M. 242. "The oil is so ponderous as to sink in the aqueous fluid, but
of great volatility, subtility, and penetration. One drop dissolved in spirit, or received
on sugar, communicates to a quart of wine, or other liquors, the smell and taste of
Scurvy-grafs." Lewis 1. c.

* This species is now preferred to all the other species of Cochlearia for its medical use.

* See the experiments of Sir John Pringle.

* We have testimony of its great use in scurvy, not only from physicians, but
 navigators, as Anfon, Linfchoten, Maartens, Egede, and others. And it has been juiltly
 noticed, that this plant grows most plentifully in those high latitudes, where the scurvy
is most obnoxious: Forther found it in great abundance in the islands of the South Sea.
In Islandia parant incole hanc herbam cum lade acidulato vel ejus fero; condunt eam
etiam sale culinari in magnis dolitis, & per hieniem fervant. Cum oves in locis, ubi
Cochlearia crefit, pafcantur; avide quidem illam edunt & valide pinguificant, fed caro
M. M. 557.

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and
and its sensible qualities are sufficiently powerful to confirm this opinion. In the rheumatismus vagus, called by Sydenham Rheumatismus februbaticus, consisting of wandering pains of long continuance, accompanied with fever, this plant, combined with Arum and wood-sorrel, is highly commended both by Sydenham and Lewis."—A remarkably volatile and pungent spirit, prepared from this herb, and known by the name of Spiritus antiscorbuticus s. mixtura simplex antiscorbutica Dracaenii.† (Pharm. Wert.) was found by Werlhof* to be a useful remedy in paralysis and other diseasess requiring an active and powerful stimulant, given in the dose of thirty drops several times a day. But as an antiscorbutic, neither this, nor the conserve promises so much benefit as the fresh plant, eaten as fallad, or the expressed juice, as directed in the Pharmacopoeias.

* Opera 278. M. M. 247.

* Obs. de febr. p. 145. Dr. Cullen observes, that "several foreign dispensatories have ordered it to be treated by distillation with spirit of wine, and have thereby obtained a volatile poignant spirit, that may prove a useful stimulus in several cases. It may probably be improved by a combination with the volatile acid of tarter, as in the Spiritus antiscorbuticus Dracaenii, and in this state may be a useful stimulant in paralytic cases; it may also be employed as a diuretic, and in this way also be useful in scurvy." M. M. vol. 2. 165.

CARDAMINE PRATENSIS.
CARDAMINE PRATENSIS. COMMON LADIES-SMOCK, OR, CUCKOOW-FLOWER.


Sp. Ch. C. foliis pinnatis: foliolis radicalibus subrotundis; caulinis lanceolatis.

THE root is perennial, branched, and sends off many long round fibres; the stalk is erect, round, smooth, sometimes branched towards the top, and rises about nine inches high: the leaves are pinnated, radical leaves frequently wanting, otherwise spreading in an orbicular shape, with roundish pinnæ, which are dentated, or cut into several irregular unequal angles; the leaves upon the stalk are erect, and consist of four or five pair of pinnæ, which are narrow, spear-shaped, concave, pointed, and the odd or terminal leaflets are the largest; the flowers terminate the stem in a cluster or racemus, and stand upon smooth naked peduncles; the calyx is composed of four scaly leaves, which are oblong, obtuse, concave, deciduous, and alternately protuberant at the base; the corolla is cruciform, and of a purplish white colour; the petals are obversely veined, somewhat notched at the
the apex, and yellowish at the base; the filaments are six, four-long and two short, invected at the bottom with four nectarous glands; the antherae are small, oblong, and placed upright upon the summits of the filaments; there is no style; the germen is round, slender, about the length of the stamina, and becomes a long compressed pod of two valves, which, on opening, roll back in a spiral manner, and in the cells are contained many round seeds. It is common in meadows and moist pastures, producing its flowers in April and May.

This plant has the same sensible qualities as water-cress, though in an inferior degree to it, and indeed to most of that class of plants, called by Dr. Cullen siliquosa, which comprehends both the orders of siliquosa and siliucofa of Linnaeus, and the cruciform of Tournefort. It is the flower of the Cardamine which has a place in the materia medica of the British Pharmacopoeias, upon the authority of Sir George Baker, who, in the year 1767, read a paper at the London College, recommending these flowers as an antispasmodic remedy, which has since been published in the Medical Transactions. In this account Sir George relates five cases wherein the flores cardamines were successfully used; and in a P. S. to the second edition, he says, "Since the first edition of this volume, I have seen several instances of the good effects of flores cardamines in convulsive disorders." In Epilepsy, however, this remedy has been generally found unsuccessful. Greeding, who tried it in a great number of cases, and in large doses, experienced but one instance of its good effects. The dose of the powdered flowers is from half a dram to two drams.

* We find no account of the use of these flowers but by Dale, who says of the plant, "Calix & acris eff, & nauturiol potte viribus. Flos in convulsionibus laudatur ex MSS. D. Tancred Robinson, M. D." Pharmacol. 204.

* Medical Transactions, vol. 1. 442.

* Viz. two of chorea simul Viti, one of spasmotic asthma, an hemiplegia accompanied with convulsions on the palsied side, and a case of remarkable spasmotic affections of the lower limbs; the two first were cured in less than a month; the two second were also happily removed; but in the last case the patient had experienced some relief from the flor. card., when she was seized with a fever which proved fatal. See l. c.


THE Saffrafas tree rises sometimes to the height of twenty or thirty feet, and is about twelve or fifteen inches in diameter, but it is commonly of much less growth, and is divided towards the top into several crooked branches: the bark of the young shoots is smooth and green, of the old trunks it is rough, furrowed, and of a light ash-colour: the leaves vary both in form and size, some being oval and entire, others cut into two or three lobes; they are all of a pale-green colour, veined, downy on the under side, and placed alternately upon long footstalks: the flowers are produced in pendent spikes or panicles, which spring from the extremities of the shoots of the preceding year; they appear in May and June, and are generally male and female upon different trees: the corolla is divided into six leaves, which are narrow, convex, and of a dingy yellow

* Vide Marshall's Arborum Americanum, p. 75.
colour; the male flowers have nine filaments, crowned with round antherae; the bracteæ are linear, and placed at the base of the pedicles; there is no calyx, and the berries produced by the female flowers are similar in shape and colour to those of the cinnamon. [See plate 27.]

The Saffafras tree is a native of North America, and appears to have been cultivated in England sometime before the year 1633, for in Johnson’s edition of Gerard, he says, “I have given the figure of a branch taken from a little (Saffafras) tree, which grew in the garden of Mr. Wilmot at Bow.” It is said that the Saffafras-tree was first discovered by the Spaniards in 1538, when they possessed themselves of Florida; and the wood was first imported into Spain about the year 1560, where it acquired great reputation for curing various diseases. It is now usually imported here in long straight pieces, very light, of a spongy texture, and covered with a rough fungus bark. It has a fragrant smell, and a sweetish aromatic subacrid taste: the root, wood, and bark, agree in their medical qualities, and are all mentioned in the pharmacopoeias; but the bark is the most fragrant, and thought to be more efficacious than the woody part, and the small branches are preferred to the large pieces. “The virtues of Saffafras are extracted totally by spirit, but not perfectly by water. Distilled with the latter it yields a fragrant essential oil of

Miller says eight, but in the specimen figured, which was procured from a male tree in the King’s garden at Kew, nine stamens were observed in all the flowers.

Marshall, l. c.


“It is called cinnamon-wood on account of its smell, which made the Spaniards, when they conquered Florida, in 1538, under Ferdinand de Soto, hope to find that valuable spicerie there, which grows only in Ceylon.” Savary Hist. l. 1487.

a penetrating pungent taste, and so ponderous as to sink in water. Rectified spirit extracts the whole taste and smell of Sassafras, and elevates nothing in evaporation; hence the spirituous extract proves the most elegant and efficacious preparation, as containing the whole virtue of the root." Sassafras, according to Bergius, is "fudorifera, diuretica, purificans," and useful in "rheumatism, cutaneous diseases, and ulcers." Lewis says that it is used as a mild corroboration, diaphoretic, and sweetener in scorbutic, venereal, cachectic, and catarrhal disorders. Its medical character was formerly held in great estimation, and its sensible qualities, which are stronger than any of the other woods, may have probably contributed to establish the opinion so generally entertained of its utility in many inveterate diseases; for soon after its introduction into Europe, it was sold at a very high price, and its virtues were extolled in publications professedly written on the subject. It is now, however, thought to be of very little importance, and seldom employed, but in conjunction with other medicines of a more powerful nature. Dr. Cullen "found that a watery infusion of it taken warm, and pretty largely, was very effectual in promoting sweat; but (he adds) to what particular purpose this sweating was applicable, I have not been able to determine." In some constitutions Sassafras, by its extreme fragrance, is said to produce headache; to deprive it of this effect the decoction ought to be employed.

Sassafras is an ingredient in the decoctum farraparilla compositum, or decoctum lignorum; but the only officinal preparation of it is the essential oil, which may be given in the dose of two drops to ten. Watery infusions made both from the cortical and woody part, rasped or shaved, are commonly drunk as tea; but the spirituous tincture, or extract, which contains both the volatile and fixed parts of the medicine, appears to be preferable.

Lewis M. M.  
Viz. 50 livres per pound.


LAURUS NOBILIS.
LAURUS NOBILIS. COMMON SWEET-BAY.

Laurus folius ovato-lanceolatis, ramis florigeris, folio brevioribus.


3 bifetis, germin cingentibus. Filamenta interiora glandulifera.
Drupa 1-sperma.

Sp. Ch. L. foliis venosis lanceolatis perennantibus, floribus quadrifidis.

THE Bay-tree never rises to any considerable height, but usually
sends off many radical shoots, which grow close and bushy:* the
bark is smooth, and of a dark olive colour: the leaves are elliptical,
pointed, smooth, veined, entire, often waved at the margin, of a
thining green colour, and stand erect upon short channeled footstalks:
the flowers come forth in April and May, and, like those of the
Sassafras, are male and female upon different plants;* they appear in
clusters of three or four together, standing upon short peduncles at
the axille of the leaves; the corolla divides into four oval leaves,
which stand erect, and are of a yellowish white colour; the stamina
vary in number, from seven to thirteen; there is no calyx, and the
glands, &c. correspond with the generic description: the style of the

* Tum spilla ramis laures fervidos
Excludet iætus.—Hor. lib. ii. Ode xv.
* We have figured the male plant.

female
female flowers is very short, and the germen becomes an oval berry, covered with a dark green rind, and separable into two lobes or cotyledons.

This tree is a native of Italy, and other southern parts of Europe, and the first account we have of its cultivation in England is given by Turner in 1562; it is a handsome evergreen, and now very common in the shrubberies and gardens of this country. The leaves and berries possess the fame medicinal qualities, both having a sweet fragrant smell, and an aromatic astringent taste.—The berries are imported from the Streights, and are much stronger than the leaves. “In distillation with water the leaves yield a small quantity of very fragrant effiential oil: with rectified spirit they afford a moderately warm pungent extract. The berries yield a larger quantity of effiential oil: they discover likewise a degree of unctuosity in the mouth, give out to the press an almost insipid fluid oil, and on being boiled in water a thicker butyrous one, of a yellowish green colour, impregnated with the flavour of the berry.”

The Laurus of honorary memory, the distinguished favourite


“*Their spicy warmth has recommended them for culinary purposes, and in this way they were much used by the Romans.* “*Apud veteres Romanos inter cibum condimenta in culinis frequenter adhibebantur, ut testatur Apicius Cælius.*” And the leaves both of this plant, and the common laurel, are frequently used in culinary, &c. But the practice has been much discontinued, since a recent and fatal proof of the poisonous qualities of the latter was made public. To such we may observe, that the common laurel, or Prunus Lauro cerasus of Linæus, differs very materially from the plant here represented, both in its effects and in its botanical characters. The common sweet bay may be thus used not only with safety but with the advantage of assisting digestion; and it has even been thought to obviate the poisonous effects of the laurel: “*Aqua fillalitium Lauri, secundum Clar. Cantwell, antidotus eft aqua fillalitiiæ Lauro cera risk.*” (Hall. L. c.) It may be remarked, however, that the deleterious part of the laurel is the essiential oil which requires to be separated by distillation, in order to become an active poison.

* * Laurus planta eff, Apollinii lucidissimo facra: quin etiam a Jove colitur. It was not only generally worn as a triumphal crown, but, by the Emperor Tiberius, as a protection against thunder. “Laurum fulmine non percussi veteribus peruflam furt.” “Eadem super fretone mititur observatio illa de crepitu quem folia & virgæ Lauri inter urendum comedunt. Nam fi crepsissent abunde ac sonatibus, haud dubie portendi felicem eventum rebantur: quòd fi tacita deflagrarent, tridentem & inaupericatum.” The Laurus, as well as the Olive, was considered as an emblem of peace, and called Laurus pacifera, “si ejus rami prætendebantur inter armatos habes, firmum quæmis erat indicium.” (Matthiae) Mulæ in Laurinis montis Parvæ sylvis tecte fuccurrunt. Eadem corona-bantur Petæ. Necnon adhuc quibusdam in locis novi Medicinae Doctores Lauræ coronantur: inde forfæque Laurcandi & Laurenti dicuntur. (Geoff.)

No. 7. Bb
of Apollo, may be naturally supposed to have had no inconsiderable fame as a medicine; but its pharmaceutical uses are so limited in the present practice, that this dignified plant is now rarely employed, except in the way of enema, or as an external application; thus, in the London pharmacopoeia the leaves are directed in the decoction pro fomento, and the berries in the emplastrum cumini. The berries however appear to possess some share of medicinal efficacy, and if we do not allow them to be so extensively useful as represented by J. Bauhin, Tournefort, Geoffroy, and some others, yet we have no doubt of their virtus, Romachica, resolvens, pellens menses, urinam, sudorem, as stated by Bergius, who recommends them only in hysteria. They have been long thought to act with peculiar power upon the uterine system, and on this account we are cautioned against their use in pregnancy. An infusion of the leaves is sometimes drunk as tea; and the essential oil of the berries may be given from one to five or six drops, on sugar, or dissolved by means of mucilages, or in spirit of wine.

Cui Deus, At coriux quoniam mea non potes effe,
Arbor eris certe, dixit, mea. Semper habebunt
Te coma, te citharæ, te nefiræ, Laure, phareæ.
Tu ducibus Latius aderis, cum triumphum
Vox canet; & longe viat Capitolia pompa.
Pellibus Augustis cadem fidemis cultus
Ante fores eris; mediamque tubere quercum.
Utque neum intonfis caput cæ juventiae capillis;
Te quoque perpetuos semper gere frondis honores.

Ovid. Met. I. v. 557.

a Calix & aromatica planta, femine potestum, cujus vires a medicis nundum pro dignitate per experimenta explorata sunt.” I. c.

b Haller says, “Laurus spud veteres medicos magnum habuit in medicina usum, & veluti panacea ultima fuit.” Geoff.

SOLANUM DULCAMARA.
SOLANUM DULCAMARA. WOODY NIGHTSHADE.

SYNONYMA. Dulcamara. Pharm. Edin. Solanum scandens

feu Dulcamara. Boub. Pin. 176. Glycypiceros, five Amaran-
Solanum lignosum five Dulcamara. Park. Theat. 350. Rohl
Synopsis, 265. Rohl Hist. 672. Solanum caule flexuoso frutec-

Varietates,

a Solanum scandens feu Dulcamara. l. c.

b Solanum dulcamarum africanum foliis crassis hirsutis. Hort.


Eff. Gen. Ch. Cor. rotata. Anthere subcoaltae, spine poro gemino
dehiscentes. Bacca 2-locularis.

Sp. Ch. S. caule inermi frutescente flexuoso, foliis superioribus
haustatis, racemis cymosis.

THE stalk is slender, climbing, alternately branched, somewhat
angular, brittle, hollow, and frequently rises above six feet in height:
it is covered with bark of an ash-colour, and that of the young
branches is of a purple hue: the leaves are long, oval, pointed,
veined, and many of those near the top are halbert-shaped, but the
lower leaves are entire, and of a deep green colour: the flowers hang
in loose clusters or cymes; the corolla is monopetalous, wheel-shaped,
divided
divided into five pointed segments, which are bent backwards, of a purple colour, and the base of each marked with two round green spots: the tube is short, and the faus or mouth is of a shining black colour: the calyx is small, and divides into five blunt persistent segments, of a purple colour: the five filaments are short, black, and inserted in the tube of the corolla; the anthers are yellow, erect, and unite at their points; the style is somewhat longer than the stamens, and terminated by a simple obtuse stigma; the germin is oval, and becomes a roundish bilaocular berry, which finally acquires a red colour, and contains many flat yellowish seeds. It grows plentifully in hedges well supplied with water, and the flowers appear about the latter end of June.

The roots and stalks of this Nightshade, upon being chewed, first cause a sensation of bitterness, which is soon followed by a considerable degree of sweetness; and hence the plant obtained the name of Bittersweet. The berries have not yet been applied to medical use; they seem to act powerfully upon the prime vice, exciting violent vomiting and purging: thirty of them were given to a dog, which soon became mad, and died in the space of three hours, and upon opening his stomach, the berries were discovered to have undergone no change by the powers of digestion; there can therefore be little doubt of the deleterious effects of these berries; and as they are very common in the hedges, and may be easily mistaken by children for red currants, which they somewhat resemble, this circumstance is the more worthy of notice. The stigmas, or younger branches, are directed for use, in the Edinburgh Pharm., and they may be employed either fresh or dried, making a proportionate allowance in the dose of the latter for some diminution of its powers by drying. In autumn, when the leaves are fallen, the feasible qualities of the plant are said to be the strongest, and on this account it should be gathered in autumn rather than in spring.

Dulcamara does not manifest those narcotic qualities, which are common to many of the nightshades; it is however very generally admitted to be a medicine of considerable efficacy. Murray says that

a Floyer Pharm. p. 86.
it promotes all the secretions; Haller observes that it partakes of the milder powers of the Nightshade, joined to a resolvent and saponaceous quality; and the opinion of Bergius seems to coincide with that of Murray: "Virtus: pellens urinam, sudorem, menis, lochia, sputa; mundificans." The diseases in which we find it recommended by different authors are extremely various; but Bergius confines its use to "rheumatismus, retentio menisium & lochiorum." Dulcamara appears also, by the experiments of Razouz and others, to have been used with advantage in some obstinate cutaneous afflictions. Dr. Cullen says, "We have employed only the stipites or slender twigs of this shrub; but as we have collected them they come out very unequal, some parcels of them being very mild and inert, and others of them considerably acrid. In the latter state we have employed a decoction of them in the cure of rheumatism, sometimes with advantage, but at other times without any effect. Though the Dulcamara is here inserted in the catalogue of diuretics, it has never appeared to us as powerful in this way; for in all the trials made here, it has hardly ever been observed to be in any measure diuretic." This plant is generally given in decoction or infusion, and to prevent its exciting nausea, it is ordered to be diluted with milk, and to begin with small doses, as large doses have been found to produce very dangerous symptoms. Razou directs the following: & Stipitum Dulcam. rec. drac. fs. in aqua font. unc. 16 coquatur ad unc. 8. This was taken in the dose of

- Per omnia colatoria corporis efficaciam exercent. l. c.

- Vis partim solanacea, mitis, partim resolvens, quasi saponacea. l. c.

- Mat. Med. 131.

* See the instances adduced by Haller and Murray. l. c. Of the chief of these we may mention Phthisis, Lues venerea, Peripneumonia nothia, Scorbutus, Iderus, Afflma, &c. on the authority of Boerhaave, Sauvages, Sager, and others.

* Journ. de Medecine. t. 22. p. 236.

* Mat. Med. ii. 354.


2 Larger Dulcamare usus initio et ante quam ventriculus illi affecerit, nauseam et vomitionem excitat, quin convulsiones et deliriis, et notante cl. Govan, prostratus paralytis linguae." Vide Murray l. c.

No. 7. C c three
three or four drams, diluted with an equal quantity of milk every four hours.\footnote{Linnaeus directs two drams or half an ounce of the dried stipites, to be infused half an hour in boiling water, and then to be boiled ten minutes; and of this decoction he gives two tea-cups full morning and evening. 1. c.}

\section*{Polygonum bistorta. Greater bistort, or, snakeweed.}


\textit{Sp. Ch.} P. caule simplicissimo monostachyo, foliis ovatis in petiolum decurrentibus.

\textbf{The root} is about the thickness of a finger, perennial, crooked, rugose, of a firm texture, and of a reddish or flesh colour, covered with a brown rind, and furnished with numerous small fibres and creepers: the stalk is simple, bending, solid, round, smooth, swelled at the joints, enclosed by the sheaths of the stipula, and is a foot and a half or two feet in height; the radical leaves are ovalish, or rather heart-shaped, pointed, and stand upon long winged footstalks; the upper leaves embrace the stem, and are narrower and undulated. The flowers stand upon short footstalks, and terminate the stalk in an
an oblong close spike; the corolla is small, of tubular appearance, and divided into five oval obtuse segments, of a reddish white colour, and at the base supplied with several nectarious glands; the bracteal, or floral leaves, are membranous, withered, and each encloses two flowers; the filaments are tapering, white, longer than the corolla, and the antherae are purple; the styles are three, about the length of the stamina; the stigmata are small and round; the germen is triangular, of a red colour, and the seeds are brown and remarkably glossy.

Biflora a is a native of Britain; b it grows in moist meadows, b and flowers in May and September. Every part of the plant manifests a degree of flipticity to the taste, and the root is esteemed to be one of the most powerful of the vegetable astringents. Lewis says, that this "astringent matter is totally dissolved both by water and rectified spirit; the root, after the action of a sufficient quantity of either menstruum, remaining insipid: on inspissating the tinctures, the water and spirit arise unflavoured, leaving extracts of intense flipticity." c

The root of Biflora was formerly considered to be alexipharmic and purgative; but its uses seem only to be derived from its fliptic powers; it is therefore chiefly indicated in haemorrhages and other immoderate fluxes. Dr. Cullen observes, that the Biflora, "both by its sensible qualities, and by the colour it gives with green vitriol, and by the extracts it affords, seems to be one of the strongest of our vegetable astringents, and is justly commended for every virtue that has been ascribed to any other. As such we have frequently employed it, and particularly in intermittent fevers, and in larger doses than those commonly mentioned in Materia Medica writers. Both by itself, and along with gentian, we have given it to the quantity of three drams a day." d The dose of the root in substance is from a scruple to a dram.

a Biflora, guifh bis torta, twice twi'fled, or wreathen, is a modern name. Allon M. M. i. 399. "Radix eftخرجينس modo intueta." Whence it was called Serpentaria, Colubrina, and Dracunculus. And it has been variously considered to be the Oxylaphatum, Britannica, and Limonium of the ancients. Vide Bauh. Pin. 192. Math. 946.
b In the North of England this plant is known by the name of Easter-Giant, and the young leaves are eaten in herb pudding.
d Mat. Med. ii. 40.

IMPERATORIA
IMPERATORIA OSTRUTHIUM. COMMON MASTERWORT.


THIS is the only Imperatoria described by Linnaeus. The root is perennial, large, fibrous; succulent, round, tapering, rough, articulated, externally brown, internally whitish, creeping, and sends off many lateral fibres: the stalk is thick, striated, round, jointed, and rises about two feet in height; the leaves are compound, and proceed alternately from long footstalks, which supply the stalk with a sheathy covering at each articulation; the simple leaves are ovato-elliptical, pointed, irregularly serrated, and placed in treble ternaries, and the terminal leaf is commonly cut into three lobes: the general umbels are large, flat, and terminal; the partial umbel convex and unequal; there is no general involucrum; the partial involucrum consists of one or two slender leaves, nearly of the length of the radii; each flower is composed of five oval petals, which are of equal size, white, notched, and having their points bent inwards; the five filaments are tapering, white, erect, and longer than the corolla; the anthers are double; the germen is roundish, striated, truncated, above white, beneath
beneath greenish: the two styles are tapering, spreading, and a little shorter than the stamens; the stigmata are simple and obtuse. The flowers appear in May and July.

Motherwort may be considered as a native of Scotland, Mr. Lightfoot having found it growing in several places on the banks of the Clyde. It is frequently cultivated in our gardens; but the root, which is the part directed for medical use, is greatly inferior to that produced in the South of Europe, especially in mountainous situations: hence the shops are commonly supplied with it from the Alps and Pyrenees.

This root has a fragrant smell, and a bitterish pungent taste, leaving a glowing warmth in the mouth for some time after it has been chewed. Its virtues are extracted both by watery and spirituous menstrua, but more completely by the latter.

This plant, as its name imports, was formerly thought to be of singular efficacy, and was preferred to most of the other aromatics, for its alexipharmic and sudorific powers. In some diseases it was employed with so much success as to be distinguished by the name of "divinum remedium." At present, however, physicians consider this root merely as an aromatic, and it is of course superceded by many of that class of a superior character. Half a dram of the root in substance, and one dram of it in infusion, is the dose directed.

**Imperatoria ob raras & præestautes facultates nominata fuit.** Vide Bauh. Pin. f. c.

a The diseases, in which it has been chiefly recommended, are Hysteria, Hydrops, Colica, Paralysis, Vermes, Febres intermittentes. It has been also used as a stimulogogue.


c

| No. 8 | D d | FRAXINUS |
**FRAXINUS ORNUS. FLOWERING ASH.**


_Fem. Pif. 1, lanceolatum._

_Sp. Ch. F. foliis ovato-oblongis ferratis petiolatis, floribus corollatis._

_Hort. Kew._

THIS tree greatly resembles our common ash: it is lofty, much branched, and covered with a greyish bark. The young shoots produce the leaves, which are pinnated, opposite, and consist of several pair of pinnæ, or small leaves, terminated by an odd one, pointed, ferrated, veined, standing upon footstalks, of an oval or oblong shape, and bright green colour. The flowers grow in close thick branched spikes, and open in May and June. In the specimen we have figured, the flowers were all hermaphrodite; the corolla divided into four narrow whiteish segments, somewhat longer than the stamens; the two filaments tapering, and crowned with large furrowed erect antheræ; the germen oval, and a little compressed; the style short and cylindrical; the capsule is long, flat, membranous, and contains a single flat pointed seed.

This tree is a native of the southern parts of Europe, particularly of Sicily and Calabria. It was first introduced into England about

* The Ornus is observed by Dr. Cirillo to be very common on the famous mountain Garganus, so that the words of Horace may still apply;

* Querceta Gargani laborant,

* Et foliis viduantur ornī._

_L. ii. Od. 9._

sixty
sixty years ago, by Dr. Uvedale; and at present adorns many of the gardens of this country.

The Ornus is not the only species of ash which produces Manna; the *rotundifolia* and *excehior*, especially in Sicily, also afford this drug, though less abundantly. Many other trees and shrubs have likewise been observed, in certain seasons and situations, to emit a sweet juice, which concretes on exposure to the air, and may be considered as of the manna kind. In Sicily the three species of the *Fraxinus*, mentioned above, are regularly cultivated for the purpose of procuring Manna, and with this view are planted on the declivity of a hill, with an eastern aspect. After ten years growth, the trees first begin to yield the Manna, but they require to be much older before they afford it in any considerable quantity. Although the Manna exudes spontaneously upon the trees, yet in order to obtain it more copiously, incisions are made through the bark, by means of a sharp crooked instrument; and the season thought to be most favourable for instituting this process, is a little before the dog-days commence, when the weather is dry and serene. The incisions are first made in the lower part of the trunk, and repeated at the distance of an inch from the former wound, still extending the incisions upwards as far as the branches, and confining them to one side of the tree, the other side being referred till the year following, when it undergoes the same treatment. On making these incisions, which

- Vide *Hort. Kew.*

...Dr. Cullen is certainly right in supposing “Manna a part of the sugar so universally present in vegetables, and which exudes on the surface of a great number of them;” the qualities of these exudations he thinks are “very little if at all different.” The principal trees known to produce these mannas in different climates and seasons, are the larch, (vide Murray Ap. Med. i. p. 17.) the fir, (Lac. V. Engelfrom in Phytogr. Salisbarensis Hist. Vol. i. P. 3. p. 144.) the orange, (De La Hure Hist. de l'Acad. d. Sc. de Paris. 1708.) the walnut, (Holl. Stirp. Hist. N. 1624.) the willow, (Mouffet in Du Hamel. Physique des arbres. P. i. p. 152.) the mulberry, (Michel in Tragioni Toffetti Viaggi. Tom. 6. p. 424.) oaks, situated between Merdin and Diarbekir (Niebuhr Beschreib V. Arab. p. 145. Otter, Voyage en Turquie et en Perse. Vol. 2. p. 264.) also oaks in Peru near Khounfar (Otter. 1. c.) the al hagi Maurorum, or the hedyfarum alhagi of Linnaeus; of this manna Dr. Fothergill presented a specimen to the Royal Society, which he considered as the *Terenbabin* of the Arabians, (Phil. Trans. Vol. 43. p. 87.) the ciftus ladaniferus in some parts of Spain produces a manna, which, in its recent state, has no purgative quality, and is eaten by the shepherds: so that some fermentation seems necessary to give it a cathartic power, (Vide Dillon's Travels through Spain, p. 127.)
are of a longitudinal direction, about a span in length, and nearly
two inches wide, a thick whitish juice immediately begins to flow,
which gradually hardens on the bark, and in the course of eight
days acquires the consistence and appearance in which the Manna is
imported into Britain, when it is collected in baskets, and afterwards
packed in large chests. Sometimes the Manna flows in such
abundance from the incisions, that it runs upon the ground,
by which it becomes mixed with various impurities, unless prevented,
which is commonly attempted, by interposing large concave leaves,
stones, chips of wood, &c. The business of collecting Manna usually
terminates at the end of September, when the rainy Teafon sets in.«

From this account it is evident, that Manna is the succus proprius
of the tree; any arguments therefore brought to combat the ancient
opinion of its being a melEuro, or honey-dew, are wholly
unnecessary: that, with which the Israelites were so peculiarly
favoured, could only have been produced through miraculous means,
and is consequently out of the province of the natural historian.—
Manna is generally distinguished into different kinds, viz. the Manna
in

« La manne est le principal revenu de ce pays & de quelques autres qui en font
volont. Il monte dans une bonne année a vingt-cinq mille Louis d’or. Houel Voyage
Pittoresque, tom. 1. p. 53.

« This account is taken from Houel Voyage Pittorese, and Sellini Lettere della
Sicilia, and related by Murray: to which we shall subjoin Dr. Cirillo’s account, commu-

« The manner, in which the manna is obtained from the Ornus, though very simple,
has been yet very much misunderstood by all those who travelled in the kingdom of
Naples; and among other things they seem to agree, that the best and purest manna
is obtained from the leaves of the tree; but this, I believe, is an opinion taken from the
doctrine of the ancients, and received as an incontestable observation, without consulting
nature. I never saw such a kind, and all those who are employed in the gathering of
the manna, know of none that comes from the leaves. The manna is generally of two
kinds: not on account of the intrinsic quality of them being different, but only because
they are got in a different manner. In order to have the manna, those who have the
management of the woods of the Orn in the month of July and August, when the
weather is very dry and warm, make an oblong incision, and take off from the bark of
the tree about three inches in length, and two in breadth; they leave the wound open,
and by degrees the manna runs out, and is almost suddenly thickened to its proper
consistency, and is found adhering to the bark of the tree. This manna, which is collected
in baskets, and goes under the name of manna grafa, is put in a dry place, because
moist and wet places will soon dissolve it again. This first kind is often in large irregular
pieces of a brownish colour, and frequently is full of dust and other impurities. But

when
in tear, the canulated and flaky Manna, and the common brown or fat Manna. All these varieties seem rather to depend upon their respective purity, and the circumstances in which they are obtained from the plant, than upon any essential difference of the drug: when the juice tranfudes from the tree very slowly, the Manna is always more dry, transparent, and pure, and consequently of more estimation; but when it flows very copiously it concretes into a coarse brown unctuous mass; hence we have a reason, why, by applying straws and other such substances to receive the flowing juice, the Manna becomes much improved: Houel, who tasted the manna when flowing from the tree, found it much bitterer than in its concrete state; this bitterness he attributes to the aqueous part, which is then very abundant, of course the manna is melliorated by all the circumstances which promote evaporation. According to Lewis, "the best Manna is in oblong pieces, or flakes, moderately dry, friable, very light, of a whitish or pale yellow colour, and in some degree transparent: the inferior kinds are moist, unctuous, and brown. Manna liquefies in moist air, dissolves readily in water, and, by the assistance of heat, in rectified spirit. On infusing the watery solution, the Manna is recovered of a much darker colour than at first. From the saturated spirituous solution, great part of it separates as the liquor cools, concreting into a flaky mass, of a snowy whiteness, and a very grateful sweetness."

Manna is well known as a gentle purgative, so mild in its when the people want to have a very fine manna, they apply to the incision of the bark, thin straw, or small bits of shrub, so that the manna, in coming out, runs upon those bodies, and is collected in a sort of regular tubes, which give it the name of manna in canalis, that is, manna in tubes: this second kind is more esteemed, and always preferred to the other, because it is free and clear. There is indeed a third kind of manna, which is not commonly to be met with, and which I have seen after I left Calabria: it is very white, like sugar; but as it is rather for curiosity than for use, I shall say no more of it. The two sorts of manna already mentioned undergo no kind of preparation whatever, before they are exported; sometimes they are finer, particularly the manna graffis, and sometimes very dirty and full of impurities; but the Neapolitans have no interest in adulterating the manna, because they always have a great deal more than what they generally export; and if manna is kept in the magazines, it receives often very great hurt by the Southern winds, so common in our part of the world. The changes of the weather produce a sudden alteration in the time that the manna is to be gathered; and, for this reason, when the summer is rainy, the manna is always very scarce and very bad."

No. 8.  E e operation,
operation, that it may be given with safety to children and pregnant women; in some constitutions however it produces troublesome flatulencies, and therefore requires the addition of a suitable aromatic, especially when given to an adult, where a large dose is necessary; it is therefore usually acuted by some other cathartic of a more powerful kind. The efficacy of Manna is said, by Vallisnieri, to be much promoted by cassia fistularis, a mixture of the two purging more than both of them separately; it is therefore very properly an ingredient in the electuary e caffia.

RUTA GRAVEOLENS. COMMON RUE.


Sp. Ch. R. foliis decompositis, floribus lateralisibus quadrifidis.

THE root sends forth several shrubby stalks, which towards the bottom are strong, woody, and covered with rough, grey, striated bark; the upper or young branches are smooth, and of a pale green colour: the leaves are compound, consisting of double sets of irregular pinnae, which are minutely notched or crenulated, of an
obverse oval shape, and of a glaucous or bluish green colour: the flowers are numerous, and produced in a branched corymbus on subdividing peduncles: the calyx commonly divides into four and sometimes into five pointed leaves; the corolla consists of four and frequently of five petals, these are hollow or boat-shaped, dentated or fringed at the edges, and of a yellow colour; the ten filaments are yellow, tapering, spreading, and generally lodged in the cavity of the petals; the antherae are yellow and quadrangular; the style is short; the stigma is simple; and the germen is large, oval, green, rough, and marked by four longitudinal furrows; the seeds are angular, rough, and of a blackish colour. This shrub is a native of the South of Europe, and flowers in June and September.

The first account we have of the cultivation of Rue in Britain, is given by Turner, who published his Herbal in 1562. It is now extremely common in our gardens, where it retains its verdure the whole year. Rue has a strong ungrateful smell, and a bitter, hot, penetrating taste; the leaves are so acrid, that by much handling they are said to irritate and inflame the skin; and the plant, in its natural or uncultivated state, is reported to possess these sensible qualities still more powerfully. Both water and rectified spirit extract its virtues, but the latter more perfectly than the former.

Rue was much used by the ancients, who ascribed to it many virtues. Hippocrates commends it as a resolvent and diuretic, and attributes to it the power of resisting the action of contagion, and other kinds of poisons, and with this intention it was used by Mithridates: this imaginary quality of the Ruta, is now however

* Vide Hort. Kew.

* From the experiments of Beaumé it appears, that the recent plant contains but a very small portion of essential oil: thus from 21 lb. of the leaves he scarcely obtained a dram, while 10 lb. of the seeds yielded two ounces. Berg. M. M. p. 350.


† "One virtue particularly ascribed to Rue, that of resisting contagion, or of expelling it when taken in, I hold to be absolutely without foundation."—Cullen M. M. v. 2 p. 365.

very
very little credited, though so highly extolled by Boerhaave. According to Bergius it is "alexiteria, pellens, emmenagoga, tudorifera, rubifaciens." It is doubtless a powerful stimulant, and may be considered, like other medicines of the fetid kind, to have attenuating, deobstruent, and antispasmodic powers, and to be more peculiarly adapted to phlegmatic habits, or weak and hysterical constitutions, suffering from retarded or obstructed secretions. In the London Pharm. Ruta is directed in the form of an extract, and it is also an ingredient in the Pulvis et myrrha compositus. By some it is employed in the way of tea.

"The opinion formerly entertained of this plant, may be collected from the Schola Salernitana, in which its virtues are thus celebrated. c. 37. p. 427.

Nobilis est ruta, quia lumina reddit acuta;
Auxilio ruta, vir lippe videbis acute;
Cruda cometha recens, oculos caligine purgat.
Ruta viris minuit Venerem; mulieribus addit.
Ruta facit caustum, dat lumen, & ingerit affum.
Cocta & facit ruta de publicibus loca tuta.

"I have no doubt in asserting its antispasmodic powers." Cullen M. M. v. 2. p. 365.

SALVIA OFFICINALIS. GARDEN SAGE.


Varieties,

a Salvia major. C. Baub. Aliorumque, s. c.

COMMON, or GREATER GARDEN SAGE.


SMALL SAGE, or SAGE OF VIRTUE. *

* Both these varieties are used medicinally; and the narrow leaved sage is by many preferred to the broad.

Claus Diandria.
SALVIA OFFICINALIS

Published by J. Wedgwood Augst 1790.
THE root is perennial, long, and fibrous; the stalk is shrubby, square, firm, divided into many branches, and rises above two feet in height: the leaves are oblong, rough, crenulated, or finely notched at the edges, generally of a reddish or purplish tinge, and stand in pairs upon long footstalks: the flowers appear in June, and terminate the branches in long spikes, they are of a blue colour, monopetalous, tubular, and separate at the extremity into two lips; the upper lip is entire and concave, the lower divides into three roundish lobes, of which the middle one is the largest: the calyx is tubular, large, red, striated, bilabiated, and cut into acute segments; the two filaments are short, and crossed transversely by two others affixed to them; the anthers are large and yellow; the style is long, filiform, of a blue colour, and the stigma is bifid; the seeds are four, roundish, naked, and placed at the bottom of the calyx.

Sage is indigenous to the southern parts of Europe, and was cultivated in this country by Gerard, who first published a figure of this plant in the year 1597, and it is now a constant inhabitant of the kitchen garden: it has a fragrant strong smell, and a warm bitterish aromatic taste, like other plants containing an essential oil; it gives out its properties more perfectly to spirituous than to aqueous menstrua. In ancient times Sage was celebrated as a remedy of great efficacy; but, at present, few practitioners consider it as an article of much importance in the materia medica; and although frequently employed as a sudorific, it seems to have no advantage.

"Cur moriatur homo cui salvia crecit in horto?
Contra viam mortis non est medicamen in hortis."

"Salvia salatrix natura conciliatrix."

"Salvia cum ruta faciant tibi pocula tuta."

over other plants, whose aromatic flavour renders the fluid in which they are infused more acceptable to the stomach; and by some it has been successfully used even for the purpose of restraining inordinate sweating.\(^b\) As possessing a small share of aromatic and astringent power, it may prove a serviceable tonic in some cases of debility of the stomach and nervous system: the Chinese, who are said to have experienced the good effects of sage in this way, value it highly, and prefer it to their own tea. The power of this plant, in retarding the putrefaction of animal substances, has also been adduced in proof of its medicinal efficacy.\(^b\)

\(^b\) Infused in wine or spirit, Van Swieten found it remarkably efficacious in stopping night sweats. Vide Comment. tom. 2, p. 370.—Quarin remarks, that a strong infusion of sage in water was experienced to be equally successful. Method. med. febr. p. 37.—Baron Van Swieten also found it useful in restraining the improper continuing of a flow of milk from the breasts of women, after they had weaned their children. Cont. tom. 4, p. 645.

\(^b\) From the experiments of Etlinger, it is discovered to have a considerable share of antifeptic power. Vide Comment. de Salvia, p. 16.

IRIS FLORENTINA. FLORENTINE ORRIS, or IRIS.


**Cor. 6-partita:** Petalis alternis reflexis. Stigmata petaliformia. Lin.

**Sp. Ch.** I. corollis barbatis, caule foliis altiore subbifloro, floribus effusilibus.
"Iris florentina."

"Printed at the Whitehall Press. August 1, 1790."
THE root is perennial, tuberous, ponderous, somewhat compressed, branched, fibrous, externally brown, internally of a yellowish white colour: the leaves are sword-shaped, radical, inserted in each other, pointed, shorter than the stem, and of a dull green colour: the stem is round, smooth, jointed, and about a foot in height: the flowers are large, upright, of a white colour, and often have a bluish tinge: the calyx is aspatha of two valves: the corolla divides into six segments or petals, of these, three stand erect, the other three, which are of an irregular oval shape, turn back, and at the base are painted with brown lines, and bearded with yellow hairs; the filaments are three, and crowned with long yellow anthers; the style is short and simple; the stigma separates into three expanded segments, resembling petals, which arch over the staminal; the germin is long, of an obtusely triangular shape, and placed below the corolla; the capsule has three cavities, which contain numerous flat brown seeds.

This Iris is a native of Italy, and flowers in June: it was cultivated in England by Gerard in 1596, and is now constantly propagated by the florists; but the roots of the Orris produced in this country have neither the odour, nor the other qualities, of those of warmer climates, so that for medicinal use they are commonly imported from Leghorn.

This root, in its recent state, is extremely acrid, and when chewed excites a pungent heat in the mouth, which continues several hours: on being dried, this acrimony is almost wholly dissipated, the taste slightly bitter, and the smell agreeable, and approaching to that of violets. No essential oil has been hitherto obtained from this root, but spirituous tinctures of it contain more of its virtues than watery infusions. The fresh root is a powerful cathartic, and for this purpose its juice has been employed in the dose of a dram and upwards in drophes. It is now chiefly used in its dried state, and ranked as a pectoral, or expectorant, and hence has a place in the Trochisci amyli of the London Pharm. We have however no evidence of its expectorant powers, and therefore must consider it as valuable only for the pleasantness of the perfume, and the flavour which it communicates.

* "What this might do in its recent and acrid state, I cannot determine; but in the dried state, in which we commonly have it in our shops, we are persuaded of its being a very insignificant expectorant." Cullen M. M. v. 2. p. 459.

IRIS PSEUDACORUS.
IRIS PSEUDACORUS. YELLOW WATER FLAG.


Sp. Cb. l. imberbis, foliis ensiformibus, petalis alternis, stigmate minöribus. Thumb. l. c.

THE root is perennial, thicker than the thumb, of an irregular shape, horizontal, on the outside blackish, covered with rigid fibres, and puts forth many long whitish perpendicular slender roots; within it is spongy, and of a yellowish red colour; the leaves which grow from the root are upright, broad, sword-shaped, and at the bottom riding, or closely embracing, each other; those on the stalk are short, alternate, and sheathe the joints of the stem: the stalk is upright, round, smooth, alternately inclined from joint to joint: the flowers are large, showy, of a yellow colour, and stand upon short branches, which proceed from the joints of the stem: the corolla divides into six segments or petals, of these, the three inner ones are small and erect, the three outermost are large, of a roundish oval shape, turning back, and painted near the base with reddish lines: the calyx is a sheath, or spathe, of two, three, or four valves, according to the number of the flowers: the filaments are flat and tapering; the antheræ oblong,
oblong, yellowish at the edges, purplish, and bent down by the 

gemina: the germen is triangular, and placed below the corolla; the 

style is short and slender; the stigma divides into three petalous 
expanions of a yellow colour, these are oblong, bent outwards, and 

irregularly serrated at the extremity: the capsule is triangular, and 
divided into three cells, which contain numerous flat seeds of a 
yellow colour.

This plant is common in marshes, and on the banks of rivers, and 
is rendered very conspicuous by its large yellow flowers, which appear 
in the beginning of July. It formerly had a place in the London 
Pharm. under the name of Gladeolus luteus. The root is without 
smell, but has an acrid tific taste, and its juice on being snuffed up 
the nostrils, produces a burning heat in the nose and mouth, 
accompanied with a copious discharge from those organs: hence it is 
recommended both as an emmen and Ballage:" This root is 
such a powerful astringent, that it has been used instead of galls in 
the making of ink," and also for the purpose of dying black; and 
from this quality it has been successfully employed as a medicine for 
the cure of diarrheas:" When given with this intention, the root is 
to be well dried; for the fresh root and its juice are strongly cathartic, 
inso much that 80 drops of the latter produced repeated evacuations, 
after jalap, gamboge, &c. had failed, and by continuing its use in an increased dose, it cured an inveterate dyspepsy." Hence Bergius 
says, "Virtus. recent. hydragoga, purgans. siccans. adstringens." 
The expressed juice is likewise said to be an useful application to 
ferpigious eruptions and scrophulous tumours."
SYNONYMA. Cascarilla. Pharm. Lond. & Edinb. olim
Elutheria dicta. Ricino affinis odorifera fruticosa major, rosmari
folio, fructu tricocco albido. Sloane Fam. p. 133. tab. 86. Croton
(Rosmarinifolium) foliis lineari-lanceolatis, glabris, subustus argenteis,
caule fruticoso, floribus spicatis terminalibus. Mill. Dict. Croton
lineare foliis linearibus integerrimis obtusis subustus tomentosis, caule


Cor. 5-petala. Stam. 10-15.

Caps. 3-locularis. Sem. 1.

Sp. Ch. C. fol. lanceolatis acutis integerrimis petiolatis subustus
tomentosis, caule arboreo.

THIS shrub never rises to any considerable height; it sends off
several round branches, and is covered with a brown bark, the external
coat of which is white and rough: the leaves are long, narrow, entire,
somewhat pointed, placed on short footstalks, above of a bright green
colour, beneath downy, and of a silvery whiteness; the stipulae, or
scaly leaves, are narrow and lance-shaped; the flowers are produced
about July, in a long terminal spike, and are both male and female:
the male flowers are placed uppermost, and are furnished with a
cylindrical calyx, cut at its extremity into five segments; the petals
are five, small, oval, and of a white or yellowish colour; the stamens
are
ARILLA, Or, LEAVED CROTON =


v. Plant. 1083.

tatus.
10-15.
o. Styli 3, bifidi.
1. 1.

mis petiolatis subtus:

: height; it sends off own bark, the external long, narrow, entire, above of a bright green; the stipule, or flowers are produced both male and female; are furnished with segments; the petals colour; the flamina are
are numerous, commonly from ten to fifteen. The female flowers have no corolla; the calyx consists of five or six oval leaves; the styles are three, forked; the capsule divides into three cells, each of which contains a single seed.

Writers on the Materia Medica have differed much respecting the plant which produces the officinal cortex cafarilla; and even now this point does not appear to be sufficiently ascertained: the London College has therefore cautiously avoided making any botanical reference to the plant which affords it. Linnaeus, whose authority is certainly the best, in his first edition of the Mat. Med. considered the Cafarilla as a species of the Clutia; but in the second edition it is described as a Croton, and in his Amanitae Academicae we are again presented with the Clutia Cacfarilla. What adds to this uncertainty is, that under both these genera it is referred to the same synonymy of Sloane and Browne; yet it is remarkable, that neither of these authors notices the medicinal uses of its bark, although so long known as a medicine in great estimation in every part of Europe.

The plant, from which the annexed figure of the Cafarilla is taken, was found to agree very accurately with the generic character of the Croton, as the plate itself must evince: we are therefore under no difficulty in assigning it to that genus. Whether the Cafarilla then is really a Croton or a Clutia, depends upon the fidelity and precision with which the synonymy have been respectively applied.

* This may be understood from the following names:


* Vide vol. 5. p. 412.

* It is mentioned only as being used in medicated baths, and for fomentations. Vide Sloane l. c. The Ricinolides Elcarini folio of Cateby, is flated by him to be a good aromatic bitter, and, on being burnt, to yield a fine perfume. Carolin. vol. 2. p. 46. Walter, in his Flor. Carolin, does not mention the Cafrarilla, though he discovered a new species of the Croton.

* This specimen was procured from the garden at Sion-House, the seat of his Grace the Duke of Northumberland.

* Murray, Borgius, Spielberg, the Edinburgh and most of the foreign Pharmacists make it a Croton.
According to Lewis, the cortex caecarillae is imported into Europe 
from the Bahama islands, particularly from that which is called 
Elatheria, in curled pieces, or rolled up into short quills about an 
inch in width; covered on the outside with a rough whitish matter, 
and brownish on the inner side, exhibiting, when broken, a smooth 
close blackish brown surface. This bark, freed from the outer 
whitish coat, which is insipid and inodorous, has a light agreeable 
smell, and a moderately bitter taste, accompanied with a considerable 
aromatic warmth; it is very inflammable, and yields, whilst burning, 
a remarkably fragrant smell, somewhat resembling that of musk. 
Its virtues are partially extracted by water, and totally by rectified 
spirit. Distilled with water it yields a greenish essential oil, of a very 
pungent taste, and of a fragrant penetrating smell, more grateful 
than that of the Cafcarilla itself, and obtained in the proportion of 
one dram from sixteen ounces of the bark." The agreeable odour 
which this bark produces during its burning, induced many to smoke 
it mixed with tobacco, before it became known as a medicine in 
Europe, which was not till towards the latter end of the last century; 
when it was recommended by Professor Stoller, who found it to 
be a powerful diuretic and carminative, and who used it with success 
in calculous, affmatic, phthisical, scorbutic, and arthritic complaints. 
After this it was sold at Brunswick as a species of the Peruvian bark, 
and many physicians in Germany experienced its good effects in 
fevers of the intermittent, remittent, and putrid kind. But while the 
facts establishing this febrifuge power of the Cafcarilla are supported 
by authors of great respectability, they are yet so little regarded, that this medicine is now very rarely prescribed in fevers, 
either in this country, or on the neighbouring continent. In intermittents however there can be no doubt but this bark, or indeed

* The analysis, given by Bömer, differs from this; for which see Diff. de cort. 
cafar., p. 29.

* When used in a considerable quantity in this way, it is said to produce intoxication.

* Anno 1690. · Fide Am. laborat. chym. specim. cap. 9.

* Ludovicus Apinus first employed it in fevers, and experienced great success by its 
use in an epidemic, which raged in the neighbourhood of Nuremberg, (by Lewis erroneously called Norway) during the years 1694 and 1695. · Fid. epidem. histrica notis.

* Junker, Fagon, Wethef, Santhefon, and others.
any other medicine possessing tonic and aromatic qualities, may frequently effect a cure. The German physicians have also given much credit to the Caftarilla as an astringent, and recommended it in hemorrhages, and various alvine fluxes, in which several instances of its utility are recorded.  

Dr. Cullén was in doubt whether to class this drug with the aromatics or with the tonics, but he determined upon the latter as the most proper; besides its being stomachic and corroborant, it is also reported to be diuretic: but proofs of its efficacy in particular diseases have not (as far as we know) been ascertained, nor even attempted by any adequate trials made in this country. We shall not therefore follow a late ingenious author, in depreciating this medicine, from a mere speculation on its sensible qualities, but rather recommend it to the medical practitioner, as deserving a farther trial. It promises most advantage given in substance, the dose of which is from 15 grains to a dram.

CENTAUREA BENEDICTA. BLESSED, OR HOLY THISTLE.


Sp. Ch. C. calycibus duplicato-spinosis lanatis involucritis, foliis semidecurrentibus denticulato-spinosis.

No. 9. H h
THE root is annual, cylindrical, whitish, branched, and furnished with several slender fibres: the stalk is erect, roundish, channelled, rough, from one to two feet high, and often branched towards the top: the leaves are long, elliptical, rough, runcinate, or variously ferrated, and barbed with sharp points; above of a bright green colour, underneath whitish, and reticulated: the upper leaves are sessile, and on one side extend along the stalk, but the lower leaves stand upon footstalks: the flowers are enclosed by an involucrem of ten leaves, of these the five external ones are the largest: the calyx is oval, imbricated, smooth, woolly, and consists of several squamous coverages, terminated by rigid, pinnated, spinous points: the flowers are compound, or composed of several yellow florets; those at the circumference want the parts necessary to fructification, but those at the centre are hermaphrodite, tubular, unequally divided at the limb, and dentated at their upper extremities: the filaments are five, tapering, white, downy, and inserted in the base of the corolla: the anthera are cylindrical, tubulous, brownish, friated, and somewhat longer than the corolla: the style is filiform, and of the same length as the stamina: the stigma is yellow and cloven: the seeds are oblong, brown, friated, bent, and crowned with a hairy wing or feather, similar to that of the receptacle. It is a native of Spain and the Levant, and flowers in June and September.

The first account of the cultivation of this plant in England is given by Gerard, in 1597, and it is now usually cultivated with other exotic medicinal simples. It has an intensely bitter taste, accompanied with an unpleasant smell, which it loses upon being well dried. "Cold water, poured on the dry leaves, extracts in an hour or two a light grateful bitterness: by standing long upon the plant the liquor becomes disagreeable. Rectified spirit in a short time extracts the lighter bitter of the Cardus, but does not take up the nauseous so easily as water."a The watery extract, by keeping, produces a salt upon its surface, which resembles nitre.6

This plant obtained the appellation of Benedictus, from its being supposed to possess extraordinary medicinal virtues; for exclusive of those qualities which are usually attributed to bitters, it was thought

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b Sal commune continere abs. Hist. de l’Acad. des Sc. de Berlin, 1747, p. 79.
to be a very powerful alexipharmic, and capable of curing the plague, and other fevers of the most malignant kind; but its good effects in this way have now as little credit as those of its external use, by which cancers and carious bones are said to have been healed. Bergius reports, that it is antacida, corroborans, stomachica, sudorifera, diuretica, eccoptotica; and that it is useful in Anorexia, Cachexia, Cephalalgia symptomatica, Arthritis, Febres intermittentes. We might however, with equal propriety, attribute these virtues to many other simple bitters, from which the Carduus does not seem to be peculiarly different. In lofs of appetite, where the stomach was injured by irregularities, the good effects of the Carduus have been frequently experienced. Formerly it was a common practice to assist the operation of emetics, by drinking an infusion of the Carduus; but the flowers of chamomile have since been substituted for this purpose, and probably may be advantageously done for several others in which the Carduus is recommended. The seeds have also been employed in emulsion with the same intention as the leaves.

* Matthiol. in Dioscor. p. 597.
* J. Bauh. hist. tom. 3. p. 79. Arnold de Villa Nova praef. c. 44.
* Duncan Edinb. New Difpens.

MEMORANDA ELATERIUM. WILD, Or SQUIRTING CUCUMBER.


Fem. Cal. 5-fidus. Cor. 5-partita. Stylus 3-fidus.

Pomum clafice diffilens.

Sp. Cb. M. pomis hispidii, cirrhis nullis. THE
THE root is annual, long, thick, and of a fleshy substance; it sends forth several stems, which are round, branched, thick, rough, and trailing like the common cucumber, but without tendrils: the leaves are irregularly heart-shaped, slightly sinuated, veined, above of a deep green colour, underneath paler, rough, reticulated, and stand upon strong footstalks: the flowers proceed from the base of the footstalks of the leaves, and are both male and female on the same plant: the corolla is divided into five acute segments, reticulated with green veins, and placed above the germin: the calyx consists of five narrow acute segments: the stamens, in the male flowers, are three, short, tapering, two of which have cloven anthers, the other has a simple one; in the female flowers the filaments are very short, and without anthers: the style is short, trifid, and terminated by oblong stigmata, of a green colour: the fruit is large, oblong, hairy, divided into three cells, which contain many flat seeds: when ripe this fruit, on being touched, bursts open with great force, and throws its contents to a considerable distance; hence the name Squirtine Cucumber. It is a native of the South of Europe, and flowers in June and July.

Since the time of Gerard, the wild cucumber has been regularly cultivated in this country for medical use: all the parts of the plant are bitter, and strongly purgative, but the dried juice, or fæculæ of the fruit, known in the shops by the name of Elaterium, is the only part now medicinally employed, and has been distinguished into white and black Elaterium: the first is prepared from the juice, which issues spontaneously, and the latter from that which is obtained by expression. The method described in the London Pharm. for preparing this medicine, is as follows:—"Slit ripe wild cucumbers, and pass the juice (very lightly pressed) through a very fine sieve into a glass vessel; then let it by for some hours, until the thicker part has subsided. Pour off the thinner part swimming at the top, and separate the rest by filtering; cover the thicker part which remains after filtration, with a linen cloth, and dry it with a gentle heat."

* Radicum vis cathartica major est quam foliorum, minor vero quam fructuum. Geoff.

* This drug was formerly prepared in several different ways, a circumstance necessary to be attended to in the history of its medicinal effects.
The sensible qualities of this inspissated juice are not remarkable either to the smell or to the taste; it is inflammable, and dissolves readily in watery or spirituous menstrua. Elaterium is a very powerful cathartic, and was frequently employed as such both by the Greek and Arabian physicians, and its use has since been much commended in hydroptic cases, particularly by Pauli, Sydenham, and Lister. It is undoubtedly the most violent purgative in the Materia Medica, and ought therefore to be administered with great caution, and only where the milder cathartics have proved ineffectual. The dose is from half a grain to three grains: the most prudent and effectual way in which dropfies are now treated by this remedy, is by repeating it at short intervals in small doses.

Although S. Pauli employed this medicine with great success, yet from the extreme violence of its operation, he thinks it should not be used until the milder purgatives have failed.


We may also notice, that Lister observes that the patients, by taking this medicine, became very hot, and found unusual strong pulsations at the extremities of their fingers. De Hydropo, in App. Op. Morton's, p. 25.

CONVALLARIA POLYGONATUM. COMMON SOLOMON's SEAL.


 Polygonatum Hellebori albi folio, caule purpureascente. Raiti Syn. 263.

THE root is perennial, horizontal, white, fibrous, beset with knobs, and said* to be marked with circular depressions, resembling the impressions of a seal; hence the name Solomon’s Seal. The stalk is inclined, angular, smooth, and rises about a foot in height: the leaves are oval, pointed, ribbed, smooth, above of a deep green colour, underneath glaucous, and at the base embrace the stem: the flowers are long, bell-shaped, white, or tinged with green; divided at the extremity into six short segments, and hang from the same side of the stalk upon slender peduncles: the filaments are six, tapering, short, and inserted in the corolla: the anthers are oblong and erect: the style is filiform, longer than the stamens, and crowned with a blunt triangular stigma: the germen is round, and when ripe becomes a black berry, divided into three cells, each containing a single round seed. It grows in the rocky and woody parts of England, and flowers in May and June.

The root, which is the medicinal part of Solomon’s Seal, is very generally, by writers on the Materia Medica, referred to the Convallaria multiflora of Linnaeus, or the Polygonatum latifolium vulgare of C. Bauhin. It is of a mucilaginous quality, and has long been commonly employed as a discutient poultice to various kinds of tumours, but more particularly to bruises, accompanied with extravasation of blood in the cellular membrane: it is also recommended as a cosmetic; and in Galen’s time was used by women to remove pimples and freckles of the skin. Of its astringent effects, when taken internally, there can be no well grounded expectation. The berries, flowers, and leaves, are extremely acrid, and are said to be of a poisonous quality.4

* These depressions are more peculiarly characteristic of the Convallaria multiflora.

As a proof that these roots contain a considerable proportion of farinaceous matter, Bergius says, "Panem ex radice recente, addita farina frumenti, annonæ carhitu coxerunt suffici notatres, qui subitus fuit, & subglutinoso sipore." M. M. 271.

"Cataplasm ex radice familiare remedium eff in suppurationibus, & in omnibus contusionibus, sanguineum grumosum efficaciter diffusit." Rutty M. M. 403.


CARUM CARUI.
THE root is his. The stalk, the height of two feet, is divided into numerous branches on a deep green stem, and terminal umbels, generally both a general and a panicle. We have attempted the corolla in two spots and curled it with a stem about the length of the anthers: the two flowers. Suggests: the body are of oblong shape.

* * * * *
† The leaves are laid as shown.
CARUM CARUM. COMMON CARAWAY.


The root is biennial, long, thick, white, and has a sharp sweetish taste: * the stalk is round, strong, channelled, branched, and rises to the height of two or three feet: the leaves are long, and subdivide into numerous pinnulae or segments, which are narrow, pointed, of a deep green colour, and have a sweet taste: † the flowers grow in terminal umbels, generally consisting of ten radii, and furnished with both a general and a partial involucrum, each of which, in the specimen we have figured, consisted of four or five narrow segments: the corolla is composed of five roundish blunt petals, which are white, and curled inwards at the extremities: the five filaments are slender, about the length of the petals, and crowned with small round anthera: the two styles are short, capillary, and furnished with simple flig mata: the seeds are two, naked, brown, bent, striated, and of an oblong shape.

* Parkinson says that these roots are better eating than parsieps.
† The leaves are said to afford an oil similar to that of the seeds.—Vide Lewis and others.
This plant produces its flowers in May and June. It is a native of Britain, and grows in meadows and low grounds; but the seeds of the cultivated plant are said to be larger, more oily, and of a more agreeable flavour than those of the wild plant, which are hot and acrid.

Caraway seeds are well known to have a pleasant spicy smell, and a warm aromatic taste, and on this account are used for various economical purposes. They give out the whole of their virtues, by moderate digestion, to rectified spirit. Watery infusions of these seeds are stronger in smell than the spirituous tincture, but weaker in taste: after repeated infusion, in fresh portions of water, they still give a considerable taste to spirit. In distillation, or evaporation, water elevates all the aromatic part of the Caraways: the remaining extract is almost insipid, and thus discovers, that in Caraways there is less, than in most of the other warm seeds of European growth, of a bitterish or ungrateful matter joined to the aromatic. Along with the aqueous fluid there arises in distillation a very considerable quantity, about one ounce from thirty, of essential oil; in taste hotter and more pungent than those obtained from most of our other warm seeds.

The Caraway seeds are esteemed to be carminative, cordial, and stomachic, and recommended in dyspepsia, flatulencies, and other symptoms attending hysterical and hypochondrical disorders: they are also reported to be diuretic, and to promote the secretion of milk. They formerly entered many of the compositions in the Pharmacopoeias; but are now less frequently employed. An essential oil, and a distilled spirit, are directed to be prepared from them by the London College.

a Semina Carui fatis communiter adhindentur ad consciendum paum. Rudiocerae omatres cintant juculum e pane feminibus Carui & cerevisia coctum. Distillatory feminibus Carui utuntur in rectificatione spiritus frumenti, ut ille acratur oleo stellatitio carui, utpote caelepscente, unde spiritus fortior apparat, &c.

b Beaume obtained from six pounds of unbruised caraway seeds four ounces of essential oil as colourless as water.

RHEUM PALMATUM.
REUM PALMATUM.

SYNYMA. Rhabarbarum. 

DEUM. Dep. 1. inf.  


Rarior. Hort. Upsal. fals 

Palmato; et Milleri in 

Baneaudria. Ord. Trig. 

Cul. Ch. Cal. o. Cor. 

R. foliis palmatis acutis, 

petiolas supra obsolete fulcatas.

The root is perennial, thin and branching branches; externally drooping colour: the stalk is slightly scored, branched towards the top, eight feet long; the radical beauty of seven figures, and deeply lobed segments, and stand upon which proceed from the flower with membraneous appendages: towards the upper part of the plant they surround in a blossom, and appear in April and May in small globular clusters, which are of red colour: the calyx is wanting, the length of the corolla, and the style is very short, and the stigma becomes a tiny, reddish colour; it is a

No. 10.
RHEUM PALMATUM.  OFFICINAL RHUBARB.


The root is perennial, thick, of an oval shape, and sends off long tapering branches; externally it is brown, and internally of a deep yellow colour: the stalk is erect, round, hollow, jointed, sheathed, slightly scored, branched towards the top, and rises to the height of six or eight feet: the radical leaves are numerous, large, rough, of a roundish figure, and deeply cut into lobes, and irregularly pointed segments, and stand upon long smooth round footstalks: the leaves which proceed from the stalk are placed at the joints, which they supply with membranous sheathes, and are successively smaller towards the upper part of the stem: the flowers terminate the branches, which they surround in numerous clusters, forming a kind of spike, and appear in April and May: the corolla divides into six obtuse segments, which are of a greenish white colour, and alternatingly smaller: the calyx is wanting: the filaments are nine, slender, about the length of the corolla, and furnished with oblong double antheræ: the style is very short, and terminated by three reflected stigmata: the germen becomes a triangular seed, with membranous margins of a reddish colour. It is a native of Tartary in Asia.

No. 10.  K k
It was not until the year 1732 that naturalists became acquainted with any plant which seemed to afford the Rhabarbarum Officinale; when some plants, received from Russia by Jussieu at Paris, and Rand at Chelsea, were laid to supply this important desideratum, and as such were adopted by Linnaeus, in his first edition of the Species Plantarum, under the name of Rheum Rhabarbarum. This however was not very generally received as the genuine Rhubarb plant; and with a view to ascertain this matter more completely, Kauw Boerhaave procured from a Tartarian rhubarb merchant the seeds of those plants, whose roots he annually sold, and which were admitted at Peterborough to be the true rhubarb; these seeds were soon propagated, and were discovered by De Gorter to produce two distinct species, viz. the R. Rhabarbarum of Linnaeus, or as it has since been called R. undulatum, and another species, a specimen of which was presented to Linnaeus, who declared it to be a new one, and was first mentioned in the second edition of the Sp. Plantarum in 1762, by the name of R. palmatum, (the plant we have figured). Previous to this time, De Gorter had repeatedly sent its seeds to Linnaeus, but the young plants which they produced constantly perished; at length he obtained the fresh root, which succeeded very well at Upsal, and afterwards enabled the younger Linnaeus to describe this plant "ann. 1767. But two years antecedent to this, Dr. Hope's account of the Rhabarum palmatum, as it grew in the botanic garden near Edinburgh, had been read before the Royal Society at London; and of the great estimation in which this plant was held by him, we have the following proof: "From the perfect similarity of this root with the best foreign rhubarb in taste, smell, colour, and purgative qualities, we

* The Rheum Rhabarbarum of Linnaeus, or Raphonticum raphonticum glabro of C. Bauhin, is generally supposed to be the Rhabarbarum of the ancients; Alpinus alpinus Palm ex Thracia, alpinus Palm ex Thracia, as a species of the genus Alpinus, which is also described in Thesaurus Botanicus of the Linnaean Society." (See Disfor. Nat. Med. lib. 3. cap. 2.) Ipec Alpinus Palm ex Thracia, and Ipec Alpinus Palm ex Thracia, as a species of the genus Alpinus, which is also described in Thesaurus Botanicus of the Linnaean Society."

b Seeds of this species were also sent to Miller from Busbehave at Leyden, by the title of "Rhabarbarum verum Chines." See his Gard. Diti.


* Fide Plant. varior. hort. Upsal, faga. x.
cannot
cannot doubt of our being at last possessed of the plant which produces the true rhubarb, and may reasonably entertain the agreeable expectations of its proving a very important acquisition to Britain." But from the relation we have given, it appears that the seeds of both R. undulatum and R. palmatum, were transmitted to Peterborough, as those of the true Rhubarb: we are therefore to conclude, that the former species has an equal claim to this importance with the latter;† and from further enquiries made in Russia, there is the best authority for believing that the R. compa&um also affords this very useful drug. The seeds of the Rheum Palumat were first introduced into Britain in 1762, by Dr. Mounfey, (who sent them from Russia) and were supposed to be a part of those already mentioned; and since their prosperous cultivation by the late Professor of Botany at Edinburgh, the propagation of this plant has been gradually extended to most of our English gardens, and with a degree of success which promises in time to supersede the importation of the foreign root.\footnote{In the Hort. Kew. this plant is said to have been first cultivated in England by Miller in 1768.}

† Bergius says, "Rheum palmatum producit Rhubarbium in officinis Sibericis appellatum, cetera et femininis a Buchariis et montibus Tibeti in Russiam apportatis, & pollicet satis hocce Rheum palmatum eumrum effl." (Vide Pallas Refl, &c. vol. 3. p. 157) "Rhubarbium vero Chin ife ex alia specie Rhei defumatum elle videtur." (Vide Georgi Refl, &c. vol. 1. p. 211.)

The roots of the Rheum Palmatum were considered to be the best rhubarb, "donec viri celeberrimi, Pallas et Georgi, qui suprerrime in rem naturalem Russae (tincibus suis inquit) Crupulos novos excitarent. Nam percontanti ill. Pallas Buchari, folia Rhei palmati fibi ignota declaratun, descriventes contra ex folia veri Rhabarbari rotunda et in margine paucis modo incisionibus notata; unde concludit ife Rheum compa&um potius fulle intellecfum. Huc pertinent supra ex cl. Georgi itinerario dicta (V. p. 360) de Cofacco quoddam, qui Rheum undulatum pro vera specie significavit. Uterque etiam arbratur, Rheum undulatum in montibus australioribus aperit.ribus et sectioribus, qualis Tibetici sunt, praetantiores posse radicem ferre quam montes frigidi et humidi Siberic." Murray l. c. Pallas Refl, vol. 3. p. 156. Georgi Refl, vol. 1. p. 210. The seeds of the compa&um were sent to Miller \footnote{The Society for Encouragement of Arts, Manufactures, and Commerce, has laudably contributed to this national object, of which their Transactions published bear sufficient evidence.} from Peterborough, for the true Tartarian rhubarb, and were gathered from the plants growing on the spot, where the rhubarb was taken up; and upon trial of the roots, they are found to be as good as the foreign rhubarb." See his Dict. 6th edition.
Two sorts of rhubarb roots are usually imported into this country for medical use, viz. The Chinese, and the Turkey rhubarb; the first is in oblong pieces, flat and thick on one side, and convex on the other; compact, hard, heavy, internally of a dull red colour, variegated with yellow and white, and when recently powdered appears yellow, but on being kept becomes gradually redder. The second is the most valuable, and is brought to us in roundish pieces, with a large hole through the middle of each; it is more soft and friable than the former sort, and exhibits, when broken, many streaks of a bright red colour. "The marks of the goodness of rhubarb are, the liveliness of its colour when cut; its being firm and solid, but not flinty or hard; its being easily pulverizable, and appearing when powdered of a fine bright yellow colour; its imparting to the spittle, on being chewed, a deep saffron tinge, and not proving slimy or mucilaginous in the mouth; its taste is subacid, bitterish, and somewhat styptic; the smell lightly aromatic."

The purgative qualities of rhubarb are extracted more perfectly by water than by rectified spirit: the root remaining after the action of water is almost if not wholly inactive; whereas after repeated digestion in spirit, it proves still very considerably purgative. The virtue of the watery infusion, on being inebriated by a gentle heat, is so much diminished, that a dram of the extract is said to have scarcely any greater effect than a scruple of the root in substance;

† Colitur hoc a Chinenibus, praecipue in provincia Xensi sub nomine Taihoang. Bergius, M. M. p. 332.

h "Olim, quum commercium in orientalibus regionibus per Natoliam ferret, Rhubarbarum ex portibus Turcici ad Europam transirebatur, unde nomen Rubbarbi Turcici." Murray, l. c. Mr. Bell (in his Travels from St. Petersburg to divers parts of Asia) says, that the best rhubarb grows plentifully on a long chain of mountains in Tartary, which extends from Selin to the lake Koko-nor near Tibet. At a proper age the roots are taken up, which, according to Pallas, is in April or May; but in Bell's account, this is said to be done in the autumn: they are then to be cleaned, the smaller branches cut off, and the larger roots divided into pieces of a proper size; after this they are perforated, and suspended to dry either upon the neighbouring trees, or in tents, or as some have reported, to the horns of sheep. The proper excision of this root is certainly attended with considerable difficulty, and the cultivators of rhubarb in this country have not yet agreed in what mode this is to be best accomplished. "The recent root in this process, according to the experiment of Sir William Fordyce, loses nearly nine-tenths of its weight." See Trans. of the Society for Encouragement of Arts, &c.
the spirituous tincture loses less; half a dram of this extract proving moderately purgative. " The qualities of this root are that of a "gentle purgative, and so gentle that it is often inconvenient by "reason of the bulk of the dose required, which in adults must be "from half a dram to a dram. When given in a large dose, it will "occasion some griping, as other purgatives do; but it is hardly "ever heating to the system, or shews the other effects of the more "drastic purgatives. The purgative quality is accompanied with a "bitterness, which is often useful in restoring the tone of the sto-
mach when it has been lost; and for the most part its bitterness "makes it fit better on the stomach than many other purgatives do. "Its operation joins well with that of neutral laxatives; and both to-
gether operate in a lesser dose than either of them would do singly. "Some degree of flitplicity is always evident in this medicine, and "as this quality acts when that of the purgative has ceased, so in "cases of diarrhoea, when any evacuation is proper, rhubarb has "been considered as the most proper means to be employed. I must "however remark here, that in many cases of diarrhoea, no further "evacuation than what is occasioned by the disease is necessary or "proper.—The use of rhubarb in substance for keeping the belly "regular, for which it is frequently employed, is by no means pro-
per, as the astringent quality is ready to undo what the purgative "had done; but I have found that the purpose mentioned may be "obtained by it, if the rhubarb is chewed in the mouth, and no "more is swallowed than what the saliva has dissolved. And I must "remark in this way employed it is very useful to dyspeptic persons. "Analogous to this, is the use of rhubarb in a solution, in which it "appears to me, that the astringent quality is not so largely extracted "as to operate so powerfully as when the rhubarb was employed in "substance." k

The official preparations of this drug are, a watery and a vinous "infusion, a simple and a compound tincture. It is also an ingredient "in different compositions, as the Elixir ex aloe et rheo, pilulae floma-
chicae, and some others.

k We have transcribed this account from Dr. Cullen, who has paid more than usual attention to this article. See Med. Med. vol. 2. p. 529.
GRATIOLA OFFICINALIS. HEDGE-HYSSOP.

Don. t. 363.


2-locularis. Cal. 7-phyllus: 2 exterioribus patulis.


The root is perennial, cylindrical, white, jointed, and furnished 
with many slender fibres: the stalk is simple, erect, round, thick, and 
rises nearly a foot in height: the leaves are lance-shaped, long, 
pointed, serrated towards the extremities, and gland in pairs, without 
footstalks: the flowers proceed from the base of the leaves, and 
appear in June and August: they are tubular, and divided at the 
limb into four obtuse irregular segments, of a pale purple colour: 
the tube is yellow, and intermixed with reddish streaks: the pedunc- 
les are slender, of a red colour, and support a single flower: the 
calyx consists of five or six elliptical pointed segments: the filaments 
are four, two of which only are furnished with antherae: the style is 
tapering, straight, with a divided stigma: the germen becomes an 
ovoid pointed capsule, separated into two cells, which contain many 
small seeds. It is a native of the South of Europe, and grows usually 
in wet meadows.

Kostrzewski, who wrote professedly upon the virtues of this 
plant, supposes Matthiolus to be the first botanist by whom it is 

* Diff. de Gratiola, Vienne, 1775. Vide page 8. mentioned;
mentioned; and the first account of its cultivation in Britain is that
given by Turner in 1568: and it now has a place in most of our
botanical gardens. It has a strong bitter nauseus tincture, but little or
no odour; and its virtues are extracted more perfectly by aqueous
than by spirituous menstruum.

It has been observed, that Gratiola resembles Digitalis both in the
shape of its flowers, and in its medicinal effects; and hence it has been
called Digitalis minor. It is certainly a powerful and active cathartic,
and operates with such violence upon the stomach, as generally
to induce vomiting; and on this account it is thought by Chomel to
be a medicine adapted only to the more vigorous and robust constitutions.
Many others, however, recommend the Gratiola as a perfectly safe and useful purgative, declaring their repeated experience of its
efficacy, without ever observing any bad consequence to follow
its use. But as it is very uncertain in its effects, the employment of
this medicine requires the precaution of a gradual increase of its
dosage. This plant has commonly been used in hydropoic diseases;
and in moderate doses it is said not only to act as a hydroagogue, but
also to manifest a diuretic character; and instances of its good effects
in ascites and anasarca, are related by many respectable practical
writers. Gefner and Bergius found a scruple of the powder a sufficient
dose, as in this quantity it frequently excited nausea or
vomiting; others have given it to half a dram, two scruples, a
dram, and even more.


plant both in its recent and dried state.

Upuli. t. 1. p. 48.

Success minorum expressus et inspissius ad dosin 24 vel 30
gramorum blande purgat absque vomitus, sed latam efficaciter pollit. Extractum vero ex
rebus post expulsionem aqua crudum et amarius cibit, et cadem dosi violenter purgat
p. 280.


Chomel gave half a dram, Hermann two scruples. Many employed the fresh plant
in decoction with the addition of cinnamon, mace, ginger, aniseeds, liquorice, &c.
See Geoffroy (M. M.) and others.
An extract of the root of this plant is said to be more efficacious than the plant itself, and exhibited in the dose of half a dram or a dram in dysenteries, produces the best effects. We are likewise told by Kolaczewski,¹ that in the Hospitals at Vienna, three maniacal patients were perfectly recovered by its use; and in the most confirmed cases of lues venerea it effected a complete cure: it usually acted by increasing the urinary, cutaneous, or salivary discharges.

¹ Bouldei. c. Kramer. Tent. Bot. p. 18. where it is said to have similar effects to those of ipecacuanha.

SISYMBRIUM NASTURTIIUM. WATER-CRESSES.


§ Ch. S. siliquis declinatis, foliis pinnatis: foliis subrotundatis.

The root is biennial, long, creeping, and beset with several close tufts of long slender fibres: the stalks are thick, branched, and frequently rise above a foot high: the leaves are pinnated, and consist of two or three pair of irregular oblong pinnae, and terminated by an
an odd one, which is the largest: the flowers are disposed in short terminal spikes, and appear in June and July: the corolla consists of four petals, which at their extremities are roundish, spreading, and of a white colour: the calyx is of four oval leaves, which commonly fall off by the expansion of the flower: the stamens are six, four long and two short, and furnished with simple antheræ: the style is short, with an obtuse stigma: the germin is long, slender, and becomes a crooked pod, which contains small round seeds. It is a native of Britain, and grows commonly in brooks and stagnant waters.

"The leaves of the Water-crefes have a moderately pungent taste, emit a quick penetrating smell, like that of mustard-seed, but much weaker. Their pungent matter is taken up both by watery and spirituous menstrua, and accompanies the aqueous juice, which issues copiously upon expression: it is very volatile so as to arise," in great part, in distillation, with rectified spirit, as well as with water, and almost totally to exhale in drying the leaves, or inspissating by the gentlest heat to the confidence of an extract, either the expressed juice, or the watery or spirituous tinctures. Both the inspissated juice, and the watery extract, discover to the taste a saline impregnation, and in keeping throw up crystalline efflorescences to the surface. On distilling considerable quantities of the herb with water, a small proportion of a subtile volatile very pungent oil is obtained."

Water-crefes obtain a place in the Materia Medica for their antiscorbutic qualities, which have been long very generally acknowledged by physicians. They are also supposed to purify the blood and humours, and to open viceral obstructions; they are nearly allied to scurvy-grafs, but are more mild and pleasant, and for this reason are frequently eaten as salad. In the pharmacopœias the juice of this plant is directed with that of scurvy-grafs and Seville oranges; and Dr. Cullen has remarked, that the addition of acids renders the juices of the plantæ siliquose more certainly effectual, by determining them more powerfully to an acceifcent fermentation.

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*a* This volatile matter has been erroneously attributed to an alkaline or alkalinecent quality of the plant.

*b* Lewis Mat. Med.

*c* Hoffman and Haller thought highly of its powers in this way.

*d* Mat. Med.

No. 10. M m POLYPODIUM
POLYPODIUM FILIX MAS. MALE POLYPODY, OR, COMMON MALE FERN.

Creditur esse mirum Dioscorid. et Theophr.


Eff. Gen. Ch. Fruticos. in punctis subrotundis sparsis per discum frondis.

Sp. Ch. P. frondibus bipinnatis; pinnis obtusis crenulatis, stipite paleaceo.

THE root is large, long, firm, and covered with thick brown scales, placed in an imbricated order, and furnished with many long black tough fibres: the general leaves are from one to four feet in length, the ribs of which when young are thickly beset with brown tough transparent scales: the figure of the whole leaf is lance-shaped, broadest in the middle, and gradually decreases to each extremity, terminating above in an acute point; the partial, or second leaves, are from fifteen to forty pairs, remote on the lower part, growing gradually nearer upwards, and running together at the top: the lobes are from seven to fifteen pairs, which are largest at the bottom, and regularly decrease towards the top, where they unite into a point; each lobe is of an oval shape, and a little indented at its upper extremity: the feed-vessels are placed in two rows on the back of the lobes, in number from three to six, of a kidney-shape, and covered with a pellicle; they are at first white, and afterwards change to a bluish
bluish or ash-colour; when the seeds are ripe, the pellicle bursts, and after the discharge of the seeds the vessels become brown, and appear as if covered with dust. It is a native of Britain, and grows about the borders of woods near rivulets, and in stony rocky places.

The root of the male fern has lately been greatly celebrated for its effects upon the tape-worm, or Tænia lata, of Linnaeus; and this vermifuge power of fern-root seems to have been known to the ancients; and is since commended by different practical writers. Yet notwithstanding the virtues of this root are thus recorded, its use was very generally neglected till some years ago. Madame Noufer, a surgeon’s widow, in Switzerland, acquired great celebrity, by employing a secret remedy as a specific in the cure of the tape-worm. This secret was thought of such importance by some of the principal physicians in Paris, who were deputed to make a complete trial of its efficacy, that it was purchased by the French king, and afterwards published by his order. The method of cure has been stated as follows: After the patient has been prepared by an emollient clyster, and a supper of panada, with butter and salt, he is directed to take in the morning, while in bed, a dose of two or three drams of the powdered root of male fern. (The dose for infants is one dram.) The powder must be washed down with a draught of water, and two hours after a strong cathartic, composed of calomel and scammony, is to be given, proportioned to the strength of the patient. If this does not operate in due time, it is to be followed by a dose of purging salts, and if the worm be not expelled in a few hours, this process is to be repeated at proper intervals. Of the success of this, or a similar mode of treatment, in cases of Tænia, there can be no doubt, as many proofs of it in this country afford sufficient testimony; but whether the fern root or the strong cathartic is the principal agent in the

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*b F. Hoffman, and others.*

*c Laffone, Macquer, De La Motte, Jussieu, Carbuli, and Cadet.*

*d Précis du Traitement contre le Tænias ou Vers solitaires, pratiqué à Morat en Suisse, examiné et approuvé à Paris. Publié par ordre du Roi; à Paris, 1775.*

*e See Dr. Simmons’s “Account of the Tænia,” &c.*
destruction of the worm, may admit of a question, and the latter opinion we believe is the more generally adopted by physicians. It appears, however, from some experiments made in Germany, that the tænia has in several instances been expelled by the repeated exhibition of the root, without the assistance of any purgative.

Dr. Cullen has published this opinion. See Mat. Med. art. Filix. See also Dr. Simmons's 1. c. pref. p. 7. Vide C. C. Gmelin. Confid. gen. filicum. p. 34. Wendt. Nachricht vom. clin. Inf zu Erlangen, Pest. 5. et 6. p. 44. 46.

ANGELICA ARCHANGELICA. GARDEN ANGELICA.


THE root is biennial, long, thick, and furnished with numerous fibres: the stalk is thick, strong, jointed, channelled, round, of a purplish colour, riles to the height of six or eight feet, and sends off several branches, which terminate in large umbels: the leaves are pinnated, large, numerous, consisting of several pairs of oval, serrated, pointed, veined, irregular shaped lobes or pinnae, terminated by an odd one: the flowers grow in large terminal umbels, which are
are round, and composed of many radii: the corolla is small, white,
and divided into five petals, which have their points turned inwards:
the general involucrum consists of three or five narrow pointed leaves,
the partial involucrum of five, and the calyx is cut into five minute
segments; the five stamens are longer than the petals, spreading, and
furnished with roundish anthera: the germen is placed below the
corolla, and supports two reflected styles, crowned with obtuse stig-
mata: the seeds are two, oval, flat on one side, convex on the other,
and marked with three furrows.—It is a native of Lapland, and
flowers in June and August.

Angelica, as a native of a northern climate, seems to have
been unknown to the ancients. It has been cultivated in Britain
more than two centuries, and its medical character has rendered it
of sufficient importance to be very generally propagated by the Eng-
lish gardener.—The roots of Angelica have a fragrant agreeable
smell, and a bitterish pungent taste: on being chewed they are first
sweetish, afterwards acrid, and leave a glowing heat in the mouth and
fauces, which continues for some time. The flalk, leaves, and seeds,
which are also directed in the Pharmacopoeias, appear to possesse the
same qualities, though in an inferior degree. It is said that "on wound-
ing the fresh root early in the spring, it yields from the inner part of
the bark an unctuous yellowish odorous juice, which gently exsiccated
retains its fragrance, and proves an elegant aromatic gummy resin.
On cutting the dry root longitudinally, the resinous matter, in which
the virtue and flavour of Angelica resides, appears concreted in little
veins."= Rectified spirit extracts the whole of the virtues of the
root; water but very little; and in distillation with the latter, a small
portion of very pungent essential oil may be obtained.

We are told by Linnaeus, that the Laplanders entertain a high
opinion of the utility of Angelica, and employ it both as food and
as a medicine; and since Aromatic plants are rarely inhabitants of the
Polar regions, their partiality for Angelica is extremely natural: and

  c We may also add its use in confectionary.
  d Lewis Mat. Med. p. 59.
  e Flor. Lap. a. c.
from the enumeration of the virtues of this plant by Bergius, 'we
should also suspect him of being influenced by the same physical
cause. Angelica mult however be allowed to possessing aromatic, and
what are called carminative, powers, and is used accordingly in the
tinctura aromatica of the Edinb. Pharm. but as many other simples
surplus it in these qualities, it is seldom employed in the present practice.

1 Virtus: alexiteria, fleamachica, sudorifera, carminativa. It may be remarked that he
says nothing of its usit. Mat. Med. p. 205. It was formerly recommended in female
diseases. Mentibus locitiique obstrutus, partu diffici, suffocationes uteri; contra
venena, & febres malignas.

DORSTENIA CONTRAJERVA. CONTRAYERVA.

SYNONYMA. Contrayerva. Pharm. Lond. & Edinb. Dorstenia
Jaccquin coll. vol. iii. Autórum sequentia synonýma ad nostram
Park. Theat. p. 421. Pro matre radicis contrayerve in medicina
vulgo usitata, ex vivis specimínibus cl. Houftoun duas dorsteniae species
descripsit, 1° Dorstenia Dentariae radix, spïondylí folio, placenta
ovali, 2° Dorstenia Dentariae radicé, folio minus lanciato, placenta
quadraungulari et undulata. (Phil. Trans. vol. 37. p. 196 & 197)


Eff. Gen. Ch. Receptac. commune 1-phyllum, carnosum, in quo
femina nïdulantur.

Sp. Ch. D. scapis radicatis, fol. piñatífildo-palmasí ferratis, recepta-
taculis quadrangulí.
THE root is perennial, tapering, unequal, compact, rugose, externally brown, internally whitish, and furnished with numerous fibres: the leaves are various, of an irregular shape, lobed, serrated, or rather dentated, pointed, veined, and placed upon long radical footstalks, which are winged towards the leaves: the scapi, or flower-stems, are round, rough, simple, rise several inches in height, and each supports an irregular quadrangular receptacle, which contains the necessary parts of fruitification: the flowers on examination were discovered to be distinctly male and female, immersed in the common receptacle, and occupying the whole of its disc; the former consisted but of two slender short filaments, with yellow anthers; † the latter of a roundish germin, supporting a simple style, terminated by an obtuse stigma: the capsule, when ripe, possesses an elastic power, by which the seed is thrown out with considerable force. ‡—It is a native of South America and some of the West India islands. †

This plant is extremely scarce in Europe: the annexed figure of it was taken from a plant now in the Royal garden at Kew, where it was lately introduced, and is, we believe, the first of this kind that ever grew in England. § It does not sufficiently appear from what authority Linnaeus gives the Dorstenia Contrayerva. The London College has however adopted it in the list of the Mat. Med. and in compliance with this we have figured the plant; at the same time we must acknowledge, that, upon the faith of Dr. Houfton, who examined the Contrayerva plants in their native soil, † we should otherwise have had no doubt in referring the officinal radix contrayerva to the species he has described, as has been done by Bergius † and Murray. † But as Houfton has observed, that the roots of different species of Dorstenia are promiscuously gathered and exported for those of the Contrayerva; and as all the species bear a great resemblance to each.

† This plant cannot therefore be properly said to belong to the class tetrandria.

§ Jacquin found it growing on the island of Martinico. Vide l. c.

† We do not find any species of the Dorstenia mentioned in the Hort. Kew. lately published.

† The first species on the high ground near Old Vera Cruz; and the second on the high rocky ground about Campechy in the year 1739. Phil. Trans. vol. 37. p. 197.

other, we conceive the further discussion of this subject to be of no material consequence. Nich. Monardus, almost two centuries ago, first makes mention of the plant called Contrayerva; and as this name is of Spanish origin, signifying an antidote to poison, it might apply to any other plant supposed to possess this power. We are told by Clusius, that he received from Sir Francis Drake some roots which were brought from Peru, where they were highly valued, and reported to counteract the effects of every kind of poison, of which the leaves of the same plant were said to be one. This root, in compliment to the circumnavigator, he named Drakena radix, and is generally thought by botanists to be that of Contrayerva. The generic name, Dorstenia, was first used by Plumier, and afterwards by Linnaeus, who makes four species of this genus.

The root of Contrayerva has a peculiar kind of aromatic smell, and a light astringent warm bitterish taste, and on being long chewed it discovers somewhat of a sweetish sharpness. According to Lewis, “Contrayerva root gives out its virtue, by the assittance of heat, both to water and rectified spirit, and tinges the former of a dark brownish red, the latter of a brighter reddish colour: the watery decoction is very mucilaginous, so as not to pass through a filter.”

The antipoisonous virtues formerly attributed to this root, have been long very justly exploded as entirely chimerical, so that it is now merely employed as a diaphoretic of a moderately stimulant kind, being possessed of less pungency than any other of those medicines usually denominated alexipharmic. Putrid and nervous fevers are the diseases in which Contrayerva is chiefly used, conformably to the practice of Huxham and Fringle, whose works are well known to all our medical readers.


**HYOSCYAMUS NIGER.**
HERBS &c. PERENNIALS.

HYOSCYAMUS

SYNONYM: 

Vulg. Hyoscyamus

Gerard Flora, p. 205

Roi Hyg. p. 744

H. cyamus

Hal. Syst. 16. W Recon. 1683

Clusi Pentandria


Sp. Cha. II. 551. 1651

THE root

The root contains a fibre: the falk is about two feet in height. The pointed segments of the falk have a sharp edge; the chaff at the top of the same is not very soft, being of a thin and very hard substance, like those of a fire obstinate to be lit. The pointed with falks are painted down, which give the falk, in the first instance, a great deal of brilliancy. The falk is much smaller than the falks of the same species, which contain more than the falks of the same species. England, and the falks, &c. and falks, &c. No. 11.
HYOSCYAMUS NIGER.  BLACK HENBANE.


THE root is biennial, long, compact, white, and beset with many fibres: the stalk is erect, round, woody, branched, and rises about two feet in height: the leaves are large, cut into irregular lobes or pointed segments, of a sea-green colour, undulated, woolly, and at their bases embrace the stem: the flowers are produced in irregular clusters at the tops of the branches; they are funnel-shaped, consisting of a short tube, with an expanded limb, which is divided into five obtuse segments, of an obscure yellow colour, and beautifully painted with many purple veins: the calyx is divided into five short pointed downy segments: the five filaments are tapering, downy at the base, inerited in the tube of the corolla, and furnished with large oblong antheræ: the german is roundish: the style slender, longer than the stamna, and terminated by a blunt stigma: the capsule is oval, marked with a line on each side, and divided into two cells, which contain many small irregular brown seeds. It is a native of England, and grows commonly amongst rubbish, about villages, road sides, &c. and flowers in June.

No. 11.  O o  "The
"The smell of Hyoscymus is strong and peculiar, and the leaves, when bruised, emit somewhat of the odour of tobacco. This smell is still stronger when the leaves are burnt; and on burning they sparkle with a delagration, somewhat resembling that of nitre, but to the taste they are mild, and mucilaginous." Henbane is a powerful narcotic poison, and many instances of its deleterious effects are recorded by different authors, from which it appears that any part of the plant, when taken in sufficient quantity, is capable of producing


But out of the many instances of this kind, we must only advert to some of them, in order to shew that the roots, seeds, and leaves of this plant, have separately produced poisonous effects. Dr. Patu a flat Physicin at Tourcy in France, relates (in the Phil. Trans. vol. 40. p. 446) that nine persons, in consequence of having eaten the roots of Hyoscyamus, were seized with most alarming symptoms; some were speechless, and showed no other signs of life than by convulsions, contortions of their limbs, and the rictus farinaceous; all having their eyes staring out of their heads, and their mouths drawn backwards on both sides; others had all the symptoms alike; however five of them did now and then open their mouths, but it was to utter howlings. The madness of all these patients was so complete, and their agitations so violent, that in order to give one of them the antidote, I was obliged to employ six strong men to hold him while I was getting his teeth afender to pour down the remedy." And what is remarkable, Dr. P. says, that on their recovery, all objects appeared to them as red as scarlet, for two or three days. Further accounts of the effects of these roots are given by Weper de Cier, &c. p. 230. Simon Pauli Quad. p. 384. Blom, in Vet. Ac. Handl. 1774, p. 52. —

Respecting the seeds of Henbane, we have an account given by Sir Hins Sloane, (in the Phil. Trans. vol. 38. p. 99.) of four children who ate them by mistaking the capsules, in which they were contained, for filberts. "The symptoms that appeared in all the four were great, thirst, swimmings of the head, dizziness of sight, raving, profound sleep, which last in one of the children continued two days and nights." See also Essays and Observations, phy: et lit. vol. 2. p. 243. Heimk. Ort. Med. p. 305. Ephemer. Germ. annys 1778 & 8. &c. — The leaves of Hyoscyamus, we are told, were boiled in broth, and eaten by seven persons, (five men and two women) who soon became affected with symptoms of intoxication. Dr. Stedman says, "I saw them about three hours after having eat it, and then three of the men were become quite insensible, did not know their comrades, talked incoherently, and were in as high a delirium as people in the rage of a fever. All of them had low irregular pulses, flavored, and frequently changed colour: their eyes looked fiery, and they caught at whatever lay next them, calling out that it was going to fall." Phil. Trans. vol. 47. an. 1750.

For additional facts, see Haller l. c. Spießmanni Diff. de veget. ven. Ajet.

Henbane is poisonous to birds and dogs; but horses, cows, goats, and swine, it does not affect.

very dangerous to be used.管理, to be an act of the ancients. Dis册sions and external use, are given by Dumas. It appears to be the Henbane, in the Stereck publica, treated, prepared to be an efficacious internal medicine, without being troublesome effects: it was completely eficacious than quinolin, which were to effects of which the dose of the

1 Ves. c., quam supra, nonus p. damnum est, certus
2 Hyoscymus, non hic, inflato, ut
3 f. q. p. 142.
very dangerous and terrible symptoms.‡ But there cannot be a doubt that this plant, like others of the same natural order, under proper management, may be safely employed, and be found in many cases to be an active and useful remedy. Hyoscymus was well known to the ancients, and its effects as an anodyne were experienced by Dioscorides; and with this intention it has been used both internally and externally by several subsequent writers, particularly by Celcus; and in hemorrhagic diseases, the same Hyoscymi were successfully given by Paret, Forrest, and Boyle.

It appears however that for a long time past the employment of Henbane, in the practice of medicine, was wholly laid aside till Baron Stoeck published several cases of different diseases, in which an extract, prepared from the juice of this plant, had been discovered to be an efficacious remedy. These diseases are stated by the Baron to be internal fits, spasms and convulsions, palpitations of the heart, madness, melancholy, epilepsy, inveterate head-aches, hæmoptysis; and a troublesome cough, which accompanied the last-mentioned complaint, was completely appeased by the repeated use of the extract, which in several disorders was often found to produce sleep more powerfully than opium. The success of Hyoscymus in these cases, (many of which were said to be of long duration, and to have resisted the effects of other remedies) is also confirmed by Collin, who extended the dose of the extract. Hyoscymi, to twenty-four or thirty grains per diem. But from the experiments made of this medicine by Oxford, who tried it in forty cases of melancholia, mania, and epilepsy, the result was very different: yet while his practice shews that no benefit is to be expected in these three disorders, it tends to prove that this medicine is a useful anodyne; and as it usually opens the

‡ Vires emollientes, & narcoticas, classis habe potentiissima populi, ut etiam magis, quam reliquis, mentem componere videtur, & delli ros turgere, noscundique cireo, unde alim nomen gefifi alteri. Ea deliria aliquando fugaciam sunt, & temulentiae similia; alius alii tumidus durant, & denique in mortem transeunt. Alia Hysteroscopium hominem in stuporem conjicit. Sed & sopores facit, & vertigines, convulsiones, risique & arthros, & inflations, frangulations, ardorem fauces, frigus extremorum. Si alium duxit, a resolutione aliqua tont, id videtur adum fuisci. Haei l. c.

body, it may be advantageously substituted for opium, where the astrin-
genency of the latter becomes an objection to its use. Dr. Cullen says, "that in epilepsy, and various convulsive affections, for which Baron "Storck particularly recommends the extract of Henbane, we have "very frequently employed it, but have never found it of any great "virtue, nor of more than what we have found in opium. We "have indeed found the Hyosciamus to be often an agreeable ano-
dyne and soporiferous medicine; and we have frequently found it "such in persons, who from particular circumstances did not agree "with opium, and particularly because it was less binding to the belly "than opium. We judge however that it is more ready in full "doses to give delirium than opium is, and therefore we found it in "many cases to give turbulent and unrefreshing sleep; and not-
withstanding its laxative qualities, for which we had employed it, "we have been obliged to lay it aside." Storck and some others "recommend this extract in the dose of one grain or two; but Dr. "Cullen observes, that he seldom discovered its anodyne effects till he "had proceeded to doses of eight or ten grains, and sometimes to fifteen, and even to twenty.

The leaves of Henbane are said to have been applied externally with advantage in the way of poultice, to resolve scirrhous tumours, and to remove some pains of the rheumatic and arthritic kind.

\[\text{ALTHAEA OFFICINALIS. MARSH-MALLOW.}\]


\[\text{Clafis Monadelphia.}\]
Clas: Monadelphia.  
Ord. Polyandria.  

Arilli plurimi, monospermii.  
Sp. Ch. A. solis simplicibus tomentosis.

The root is perennial, long, tough, white, and fibrous: the stalk is upright, firm, woolly, somewhat branched towards the top, and rises to the height of three or four feet: the leaves are ovalish, or heart-shaped, commonly with a lobe on each side, pointed, irregularly serrated, covered with a soft down, and stand upon long round foot-talks: the stipulae are two, narrow, and placed at the base of each leaf-stalk: the flowers are large, and consist of five petals, inversely heart-shaped, indented at the apex, and of a pale purple colour: the calyx is double, the exterior consisting of nine and the interior of five narrow pointed segments: the stamens are numerous, united at the base, and terminated by kidney-shaped anthers: the germen is orbicular: the styli cylindrical, and furnished with many long bristly stigmata: the seeds are kidney-shaped, numerous, placed in a circle, and covered with an arillus. It is a native of England, and grows commonly near the sea shore, or about salt marshes, and flowers in August.

The Althœa seems to have been known to the ancients,* and has continued in very general official use by practitioners in every country where the science of medicine is regularly cultivated. ** The dry roots of this plant, boiled in water, give out half their weight of a gummy matter,† which, on evaporating the aqueous fluid, forms a flavourless yellowish mucilage. The leaves afford scarcely one-fourth of their weight, and the flowers and seeds still less.*

* It is called Althœa, fays Dioscorides δικον κατα μαλβαν διαδρομέα σεμερολης a multiplici excellentiqves  
quam in methodo praefatur utile. l. 3. c. 103. p. 236. Hence allo vismalva & bismalva, malvaviscus, malva-bicus, (Alston Lect. on the Mat. Med.) and therefore may be supposed to be the hibiscus of Virgil:—

Herod. Ec. ii. 30. et Ec. x. l. 71.

† This is thought to be nearly allied to Gum arabic, Tragacanth, Starch, &c. and it has been found to dissolve myrrh, and some other resinous substances, more readily than the last.  

his glutinous or mucilaginous matter with which the Althaea abounds, is the medicinal part of the plant, and is commonly employed for its emollient and demulcent qualities. Its use is recommended where the natural mucus of membranes becomes acrid or abraded; "for obtunding and inculcating acrimonious thin fluids, in tickling coughs from defluxions on the fauces and lungen, in hoarseness, erosions of the stomach and intestines, strangury, and for lubricating and relaxing the passages in nephritic and calculous complaints." Radix Althaea formerly had a place in many of the compound pharmacopoeias, but now it is only directed in the form of syrup.

† We may here remark however, that in the opinion of Dr. †, as these "demulcents can have no effect as such in the mass of blood, or in suppuring by the various excretions." Mat. Med. vol. ii. p. 411.

Lewis l. c.

MALVA SYLVESTRIS. COMMON MALLOW.


THE root is perennial, thick, long, whitish, and furnished with many strong fibres: the stem is erect, round, strong, hairy, branched, and rises from one to three feet in height: the leaves are numerous, roundish,
roundish, divided into five or seven lobes, unequally serrated or notched at the edges, and stand upon long round hairy footstalks: the two stipules are placed at the base of each footstalk: the flowers are large, consisting of five petals, which are inversely heart-shaped, situate at the apex, and of a purple colour, painted with veins of a deeper hue, and stand upon slender peduncles, which proceed from the bottom of the leaf-stalks: the calyx is double, the outer is composed of three, and the inner of five oval pointed hairy segments: the stamens are numerous, united at the base in a cylindrical shape, above separate, bending downwards, and furnished with kidney-shaped antherae: the germen is roundish: the style cylindrical, short, and furnished with many filiform stigmata: the seeds are numerous, of a kidney-shape, and covered with a coat, or arillus, which opens inwardly. It is common under hedges and in waste grounds, and flowers from June till September.

This plant has a strong affinity to the Althaea both in a botanical and in a medicinal respect; but the roots of the malva are useless, while those of althaea are of more efficacy than any other part of the plant. Accordingly we find that only the leaves and the flowers of the former are directed by the college for pharmaceutical purposes. Formerly when horticulture was little understood, and of course the choice of edifiable vegetables extremely limited, the malva was admitted amongst the more common articles of diet; and we are told that the Chinese still eat the leaves of mallow either raw as salad, or boiled as spinage.

Respecting the medicinal qualities of this plant, little remains to be said after the account we have given of Althaea, as the leaves

\[a \quad \text{Malva quasi molva quod alvum molliat, ut inquit Feusus, secundum trium illum Scholae Salern. vericulum, dixerunt malvam vetere quia molliat alvum. Gr. \text{μαλακής}, \text{και \text{μαλακώς}, ob eandem rationem. Utrumque etymon improbat C. Hoffman nec talia meliora subjicit.} \] {\text{Tournef.}}

\[b \quad \text{Me pascunt olivae} \hspace{1cm} \text{Hor. l. i. Od. 31.}
\text{Me cichoreas levifque malvas. Exoneraturas ventrem mitti villina malvas.}
\text{Attulit, & varias, quas ...cet hortus, opes. Martian.}
\text{The laxative quality of this plant is also mentioned by Cicero.}
\text{Epistol. lib. 7. epì. 26.}
\text{\textit{Melanges intersens et curieux.} Tom. 4. p. 28. afford}
afford a similar glutinous juice, which is fitted to answer the same purposes as those of marshmallow, and are therefore principally used in fomentations, cataplasmis, and emollient enemas; but the internal use of these leaves seems to be wholly superceded by the radix althææ.


**LAVANDULA SPICA. COMMON LAVENDER.**


*Varietates sunt.*

  Narrow-leaved blue flowered common Lavender.

- Lavendula angustifolia flore albo. *Baub. l. c.*
  Narrow-leaved white flowered common Lavender.

- Lavendula latifolia. *Baub. l. c.*


*Sp. Ch.* L. foliis sefilibus lanceolato-linearibus margine revolutis, spica interrupta nuda.

THE root is perennial, thick, fibrous, and woody: the stalk is shrubby, much branched, and often rises to the height of five or six feet: the bark of the younger shoots is of a pale-green colour, but of
of the old woody part of the stem rough and brown: the leaves are numerous, long, narrow, entire, without footstalks, of a whitish green colour: the flowers are produced in terminal spikes upon the young shoots, and are of a bright blue colour: the corolla consists of a long cylindrical tube, divided at the mouth into two lips, the uppermost of which is largest, and cut into two segments; the lower expands downwards, and separates into three; the filaments are four, two long, and two short, inclosed within the tubular part of the corolla, and support small simple antheræ: in the place of a germe we find four naked seeds, from the center of which proceeds the style, which is slender, and furnished with a bilobated stigma. It is a native of the south of Europe, and flowers from July till September. This plant was formerly considered as a species of Nardus, and appears to be the Pseudo-nardus of Matthiolius and Pliny.

Lavender grows spontaneously in many of the southern parts of Europe; it appears from Turner to have been cultivated in England previous to the year 1568,* and on account of the fragrance of its flowers, it is now so commonly cultivated, that we can scarcely enter a garden in which this plant is not to be found. The fragrant smell of the flowers is well known, and to most people agreeable; to the taste they are bitterish, warm, and somewhat pungent; the leaves are weaker and less grateful. "Water extracts by infusion nearly all the virtue both of the leaves and flowers. In distillation with water the leaves yield a very small portion of essential oil; the flowers a much larger, amounting in their perfectly mature state to about one ounce from sixty. The oil is of a bright yellow colour, of a very pungent taste, and possesses, if carefully distilled, the fragrance of the Lavender in perfection." Rectified spirit extracts the virtue of Lavender more

* Vide Aiton's Hort. Kew.

In order to obtain the largest quantity of essential oil from these and most other flowers of this kind, they should be allowed to grow to their full maturity, and be dried for some time.

Hence it is frequently employed as a perfume. This oil has been used for stimulating paralytic limbs, and for other external purposes. We are also told that it effectually destroys cutaneous insects, and that if soft spongy paper be dipped in this oil, and applied to the parts, it immediately kills the pedicul ungulae.—This oil, distilled from the broad-leaved lavender, and mixed with three-fourths of rectified spirit, or oil of turpentine, was the Oleum spicis, formerly highly celebrated as an application to indolent tumours, old sprains, diseased joints, &c.

No. 12. Qq completely
completely than water. The spirit elevates also in distillation a considerable part of the odoriferous matter of the leaves, and greatest part of that of the flowers; leaving in the infusitated extracts a moderate pungency and bitterness, with very little smell.  

Lavender has been an official plant for a considerable time, though we have no certain accounts of it given by the ancients: its medicinal virtue resides in the essential oil, which is supposed to be a gentle corroborant and stimulant of the animal spirits, and is recommended in nervous debilities and various affections proceeding from a want of energy in the animal functions. According to Dr. Cullen, it is, "whether externally applied or given internally, a powerful stimulant to the nervous system; and among the others of this order, named-Cephalics, the Lavender has a very good and perhaps the best title to it." And he further says, "it appears to be probable, that it will seldom go further than exciting the energy of the brain to a fuller impulse of the nervous power into the nerves of the animal functions, and seldom into those of the vital. It may however be with great propriety, that Professor Murray has diffused its use where there is any danger from a stimulus applied to the sanguiferous system. It is however still probable, that Lavender commonly stimulates the nervous system only, and therefore may be more safe in palsy than the warmer aromatics, especially if the Lavender be not given in a spirituous menstruum, or along with heating aromatics, which however is commonly done in the case of the spiritus lavanduli compositus." The official preparations of Lavender, are the essential oil, a simple spirit, and a compounded tincture.

  M. M. p. 513.

TEUCRIUM MARUM.
TEUCRIUM MARUM.  
MARUM GERMANDER,  
Or, SYRIAN HERB MASTIC.


Eff. Gen. Cl. Corolla labium superius (nullum) ultra basin 2-partitum, divaricatum ubi stamina.

Sp. Cl.  T. foliis integerimis ovatis acutis petiolatis, subtus tomentosis, flor. racemosis secundis.

THE root is perennial, long, ligneous, and divides into many fibrous branches: the stalks are numerous, slender, shrubby, woolly, somewhat branched, and rise above a foot in height: the leaves are oblong, pointed, entire, and near the bottom obscurely lobed: the upper pagina is of a pale green colour; the under, white and downy; they are placed in pairs upon slender footstalks, which become gradually elongated towards the lower part of the stems: the flowers are produced in spikes, and all stand on the same side in pairs, upon short peduncles: the corolla consists of a short curved cylindrical tube, which divides at the limb into two lips; the upper lip is short, erect, and divided to the base, by which it seems lost in the under lip, which is long, of a pale purple colour, and separated into six lobes, of these the outermost are the largest: the calyx is tubular, whitish,
whitish, woolly, and cut into five short pointed segments: the filaments are two long and two short, slender, white, and furnished with simple anthers: the germen is quadrifid, and supports a slender style, with a bifid stigma: the seeds are four, of a brown colour, and lodged in the calyx, which serves the purpose of a capsule.

This little shrub flowers from July till September. It is a native of Spain, and is said to grow plentifully also in Greece, Aegypt, Crete, and Syria.

Whether this plant was known to the ancients or not, does not appear from the descriptions of Theophrastus and Dioscorides. — Cortusius discovered that cats are remarkably fond of Marum;* and from this circumstance we are enabled with certainty to trace back its history to his time, for ever since it has been known by the name of Cat-thyme: there occurs however considerable difficulty in ascertaining its synonyma; and probably some of those to which we have referred, are not sufficiently identified. It was first cultivated in England by Parkinson in 1640, and is now to be found in many of our gardens.

The leaves and younger branches of Marum, when recent, on being rubbed betwixt the fingers, emit a volatile aromatic* smell, which readily excites sneezing, but to the taste they are bitterish, accompanied with a sensation of heat and acrimony. Lewis observes, that "the Marum loses but little of its pungency on being dried, and in this respect it differs remarkably from many other acrid herbs, as those called anticorbutic. It gives out its active matter partially to water, and completely to rectified spirit." — Distilled with the former, it yields a highly pungent, subtile, volatile effiential oil, similar to that of scurvy grass, but stronger, and of less perishable pungency. Rectified spirit carries off likewise, in the infusation of the spirituous tincture, a considerable share of the smell and pungency of the Marum, but leaves much of the greatest part concentrated in the

* See Jac. Antonii Cortusi Catalogus Horti Patavini, anno 1591, & J. Bauh. l. c.
* Cats are also known to have a similar fondness for the Nepeta Cataria, and the roots of Valeriana officinalis.
* Vide Aiton’s Hort. Kew.


extraæ
extract; which, on being tasted, fills the mouth with a durable, penetrating, glowing warmth."

Judging from the sensible qualities of this plant, it may be supposed to possess very active powers, and on this consideration it is strongly recommended by Wedelius as an important remedy in many diseases requiring medicines of a stimulant, aromatic, and deobstruent quality; and his opinion seems in some measure to have been since verified by actual experience of its efficacy, as appears from the instances of its successful employment by Linnaeus, Rolfelein, and Bergius. The last mentioned writer says of it, "Virtus: nervina, tonica, resolvens, emmenagoga, diuretica, erthina. Usus: Cachexia, Hysteria, Debilitas nervorum.—At present however Marum is here chiefly used as an erthine, and is an ingredient in the pulvis affari compositus of the London Pharmacopoeia. The dose of the powdered leaves is from a scruple to half a dram, which Murray advises to be given in wine.


* Diff. de Mara r.f. Hermann 1703. — Its cephalic efficacy is highly commended by Hermann (Gyn. Mat. Med. tum. 2. p. 349.) and Boerhaave (Hist. Plant. hort. L. B. p. 262.)

* Of these we may mention Menstrua, suppreff, Apoplexy, Asthma, and various other pulmonary affections. Vide 1. c.

* Murray says, "Litteris vero ad me datis, vir. illustris perscriptis, te cadem medela b. Rolfeleinium, diridimia et pertinacissima tibi cum difficillima reparatione in ultimo morbo confiditans, levament attulit exoptatusimium." 1. c.

* He mentions the case of a lady who received a blow upon the head by falling from a carriage, which brought on a species of apoplexy, and was cured by this plant, after several other means had been tried ineffectually. M. M. p. 504.
TEUCRIUM SCORDIUM. WATER GERMANDER.


The root is perennial, fibrous, creeping: the stems are branched, trailing, square, hairy, and more than a foot in length: the leaves are serrated, hairy, oblong, veined, of a dull-yellow colour, without footstalks, and placed in pairs: the flowers stand in verticilli or whorls of two, three, or four together, upon short peduncles, placed at the base of the leaves: the corolla is monopetalous, consisting of a short tube, which divides at the mouth into two lips, but the upper is extremely short, and cleft in the middle, and therefore appears to be wanting: the under lip is long, of a purple colour, dentated at the fides, and terminated by a large rounded expanded segment: the calyx is tubular, hairy, and cut at the extremity into five short teeth: the filaments are four, two long and two short, slender, bent, and crowned with simple anthers: the germen divides into four parts, from the centre of which rises a slender style, furnished with a bilabiate stigma: the seeds are four, naked, of an irregular shape, and lodged in the bottom of the calyx. It is a native of England, in marshy situations, and flowers in July and August.

The
The leaves of Scordium have a smell somewhat of the garlic kind, and to the taste they are bitterish, and slightly pungent. "When moderately and newly dried they give out their smell and taste both to water and to rectified spirit. In distillation their peculiar flavour arises with water, but the impregnation of the distilled fluid is not strong, nor could any essential oil be obtained on submitting to the operation several pounds of the herb."

The ancients, to whom Scordium was well known, attributed to it a peculiar antiseptic and alexipharmic power, and for many ages it had the character of being remarkably efficacious in all pestilential and putrid diseases; with a view to this, it was afterwards directed in the composition of several officinal medicines, supposed to be antitoxins to various kinds of poisons and infections; and we are told, even at a date not very remote from the present, of its successful use in the plague, which raged in Turkey. But notwithstanding the Scordium was formerly considered such a celebrated remedy, and still has place in both the Pharmacopoeias, yet it appears to be a very insignificant article of the Materia Medica, and is therefore very justly fallen into disuse; and in this opinion we have the authority of Dr. Cullen, who says, "this plant has a bitter, joined with some volatile parts; but neither of these qualities is considerable enough to retain it in the present practice." Bergius however states virtus to be antiputridina, tonica, diaphoretica, diuretica, resolvens; and some others recommend it to be employed externally in antiseptic cataplasmis and fomentations.

* From this smell it is supposed to take the name Scordium, or Σκόρδον, which signifies Garlic; and the milk of animals, which feed upon this plant, is said to acquire a similar flavour.
* We are far from being certain that the plant we have figured is really the Scordium of the ancients, and on this account we have not referred it to the Greek writers.
* Of the fabulous accounts of its antiseptic powers, we may mention the following from Galen: Scripsum autem et a quibusdam viris gravissimis, cum in bello interemptorum cadavera multos dies interplicia jacuissent, quaeque supra Scordium forte fortuna ceediderant, multo minus alius compotritus, ex quae primo ex parte quae herbam conciderat.

Lib. de Antidot. 6. cap. 12.

* The Mithridate and Theriac have but lately been expunged from our dispensatories; and though often experienced to be useful remedies, yet with Haller we may say, "Sed ex farriges sunt medicamentorum, in quibus non dignitatis, cui tribus eventa." L. c.
* Vide Lettres sur De Poy. t. i. p. 198, and Chenot de pestis, p. 132.
* Mat. Med. vol. 2. p. 82.

**PUNICA GRANATUM.**
PUNICA GRANATUM.  POMEGRANATE TREE.


Sp. Ch. P. folii lanceolatis, caule arboreo.

THIS small tree rises several feet in height: it is covered with a brownish bark, and divided into many small branches, which are armed with spines: the leaves are oblong, or lance-shaped, pointed, veined, of a deep green colour, and placed upon short stalks: the flowers are large, of a rich scarlet colour, and stand at the end of the young branches: the corolla is composed of five large roundish slender petals, with narrow claws, by which they are inserted into the calyx: the calyx is large, thick, fleshy, tubular, of a brownish red colour, and divided at the extremity into five pointed segments: the filaments are numerous, short, bent inwards, furnished with yellow antheræ, and attached to the calyx: the gemmae is roundish, and supports a simple style, of the length of the filaments, and terminated by a globular stigma: the fruit is about the size of an orange, and crowned with the five teeth of the calyx: the rind is thick and tough,
externally reddish, internally yellowish, filled with a red succulent pulp, contained in transparent cellular membranes, and included in nine cells, within which numerous oblong angular seeds are also lodged. This shrubby tree is a native of Spain, Italy, and Barbary, and flowers from June till September.

The Greek writers were well acquainted with the Pomegranate, as appears from what we have already mentioned under the Synonyma; and Pliny tells us that its fruit was usually sold in the neighbourhood of Carthage. The cultivation of this tree in England is first to be dated from the time of Gerard, in 1596; and though its fruit seldom arrives to a state of perfection in this country, yet the large and beautiful scarlet flowers which it produces, still render it a desirable object of ornamental gardening. The rind of the fruit, and the flowers, the calyces of which may be included, are the parts directed in the Pharmacopoeia for medicinal use. The fruit has been called cortex granati, malcorium, sidum, &c. In its smell there is nothing remarkable, but to the taste it is very astringent. "With water it yields near half its own weight of a very astringent extract, but gives out very little to rectified spirit; its astringent matter, like that of the fruit of the acacia tree, seeming to be indissoluble in spirituous menstrua: in this respect the astringency of the fruit differs from the latter," which are named Balaustium or Balaustine flowers; these are commonly taken from the double-flowered variety, and like the rind have little or no smell, but a mild bitterish atyptic taste. They are both powerful astringents, and with this effect have long been successfully employed in diseases both internally and externally. Dr. Cullen observes that "the strong atyptic taste of this bark, and the black colour it strikes with green vitriol, shew sufficiently its astringent power; and it is commonly supposed to be among the strongest of

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This is gratefully added, somewhat like that of oranges.

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3. Miller tells us that he obtained fruit from some of these trees which were planted in a warm situation, but they had not the proper flavour.
4. The double-flowered fruit, more especially, makes a very beautiful appearance.

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this kind. As at the same time, it gives out such a large portion of
its substance to water in infusion or decoction, it seems to be par-
ticularly fit for affording a liquid astringent, and I have frequently
found it particularly useful in gargles, in diarrhoea, and in external
applications. That 'tis so powerful an astringent internally used,
as to be more dang'rous than others, I cannot perceive; and that
it has ever had the pow'er of suppressing the catamenia, seems to
me very doubtful." The dose, in substance, is from half a dram
to a dram; in infusion or decoction, to half an ounce.

M. M. vol. ii. p. 44.

1 Ulmus cart. externus, Laxitas uvulae, Proceidentia intestini. Berg. l. c.

POTENTILLA REPTANS. COMMON CINQUEFOIL.

SYNONYMA. Pentaphyllum. Pharm. Lond. Quinquefolium
Fragara folis quinatis, ferratis, petiolis unifloris, caule reptante.
Curtis Flor. Lond.


receptaculo parvo ex suco affixa.

Sp. Ch. P. foliis quinatis, caule repente, pedunculis unifloris.

THE root is perennial, long, tapering, or fusiform, furnished
with but few fibres, internally reddish, and externally of a yellowish
brown colour: the flanks are numerous, slender, purplish, smooth, and
creeping: the leaves are quinate, or five, placed together, and some-
times
times seven, of unequal size, elliptical, obtuse, serrated, veined, somewhat hairy, and sitting close to the common footstalk, which is of considerable length, and rises from the folioliferous joints of the stem: the stipulae stand in pairs, and are composed of three ovalish leaves: the flowers are yellow, and placed finely upon long slender peduncles: the corolla consists of five petals, which are inwardly heart-shaped, of a bright yellow colour, and inserted into the calyx by short claws: the calyx is a perianthium of one leaf, divided into ten pointed segments, which are alternately smaller, and frequently turned back: the filaments are about twenty, short, tapering, and inserted at the glandular base of the calyx, and crowned by oblong, flatish, double-celled yellow antherae: the gemina are numerous, and form a conical head, supporting short filyles, terminated by blunt filigmas: the seeds are numerous, small, and of a brown colour. It flowers from July till September, and is common on meadow banks, and on the sides of roads.

The roots of this plant have a bitterish styptic taste, and give out their astringent matter both to water and spirit. They were used by Hippocrates and Dioscorides, and by the former particularly recommended for the cure of intermittents. And Ray tells us, that the peasantry still employ them with this intention. The medicinal quality of Cinquefoil is confined to the external or cortical part of the root, and depends merely upon its astringent effects; it has therefore been chiefly prescribed internally in diarrhoeas and other fluxes, and externally in gargles and astringent lotions: but as its efficacy is much inferior to many other plants of this class, the Cinquefoil is now rarely used. In large doses, however, it may be found no bad substitute for some of the other astringents.

* De Morb. l. 2. p. 473. Fœtis.

NICOTIANA TABACUM.
NICOTIANA TABACUM. VIRGINIAN TOBACCO.


* Nicotiana major latifolia.
  Broad-leaved Virginian Tobacco.


Narrow-leaved Virginian Tobacco.*


  Caps. 2-valvis, 2-locularis.

Sp. Ch. N. foliis lanceolato-ovatis sessilibus decurrentibus, floribus acutis.

THE root is annual, large, long, and fibrous: the stalk is erect, strong, round, hairy, branched towards the top, and rises five or six feet in height: the leaves are numerous, large, oblong, pointed, entire, veined, viscid, of a pale green colour, without footstalks, and follow the stem downwards: the bracteæ are long, linear, and pointed: the flowers terminate the stem and branches in loose clusters or panicles: the corolla is monopetalous, funnel-shaped, with a long hairy tube, which gradually swells towards the limb, where it divides into five folding acute segments of a reddish colour: the calyx is hairy, about the length of the corolla, and is cut into five narrow segments:

* The figure here presented seems to accord very well with this variety.

the
the five filaments are bent inwards, tapering, and crowned with oblong anthers: the germen is oval, and supports a long slender style, terminated by a round cleft stigma: the capsule is oval, and divided into two cells, which contain many small roundish seeds.—It is a native of America, and flowers in July and August.

Tobacco was first imported into Europe about the middle of the sixteenth century by Hernández de Toledo, who sent it to Spain and Portugal; at that time the Ambassador of Francis II. resided at the court of Lisbon, and in the year 1560, he carried the Tobacco into France, when it was presented to Catharine de Medicis as a plant from the new world, possessing extraordinary virtues. The Ambassador’s name was Nicot, and hence the appellation Nicotiana. It appears from Lobel, that this plant was cultivated in Britain previous to the year 1570;* and the introduction of the custom of smoking it in England is ascribed to Sir Walter Raleigh. The cultivation of Tobacco * is now common in various parts of the globe, and though

* Vide l. c.

Long, in his History of Jamaica, describes the method of its cultivation to be as follows: — "When a regular plantation of Tobacco is intended, several beds are prepared, well turned up with the hoe. The seed, on account of its smallness, is mixed with ashes, and sown upon them a little before the rainy season. The beds are then raked, or trampled with the feet, to make the seed take the sooner. The plants appear in two or three weeks. So soon as they have acquired four leaves, the strongest are drawn out carefully and planted in the Tobacco field by a line, at the distance of about three feet from each plant: this is done either with a stick or the finger. If no rain falls, it should be watered two or three times, to make it strike root. Every morning and evening the plants must be surveyed, in order to destroy a worm which sometimes invades the bud. When they are grown about four or five inches high they are to be cleaned from weeds, and moulded up; and as soon as they have eight or nine leaves, and are ready to put forth a stalk, the top is nipped off, in order to make the leaves longer and thicker. After this, the buds which sprout at the joints of the leaves are all plucked, and not a day suffered to pass without examining the leaves, to destroy a large caterpillar which is sometimes very destructive to them. When they are fit for cutting, which is known by the brittleness of the leaves, they are cut with a knife close to the ground, and after being left to lie there some little time, are carried to the drying-hed or house, where the plants are hung up, by pairs, upon lines or ropes stretched across, leaving a space between, that they may not touch one another. In that state they remain to sweat and dry. When they become perfectly dry, the leaves are stripped from the stalks, and made into small bundles, tied with another leaf. These bundles are laid in heaps, and covered with blankets. Care is taken not to overheat them; for which reason the heaps are laid open to the air from time to time, and spread abroad. This operation is repeated till no more heat is perceived in the heaps, and the Tobacco is then packed in casks for exportation."—Vol. 3. p. 719.

No. 12. T t prohibited
prohibited by the laws of this country, still the manufacture of it forms no inconsiderable branch of commerce.

The different sorts of Tobacco and Snuff, prepared from it which are now in use, are to be attributed to the difference of the climate and soil in which it grows, and the peculiar mode of managing and manufacturing the plant, rather than to any essential difference in its qualities; we shall therefore proceed to the consideration of the effects of Tobacco upon the body, which from its general employment deserves particular attention; and no apology will be thought necessary for transcribing the whole of what has been lately advanced upon this subject by Dr. Cullen.—

Tobacco is a well-known drug, of a narcotic quality, which it discovers in all persons, even in small quantities, when first applied to them. I have known a small quantity of it, snuffed up the nose, produce giddiness, stupor, and vomiting; and when applied in different ways, in larger quantities, there are many instances of its more violent effects, even of its proving a mortal poison. In all these instances it operates in the manner of other narcotics: But along with its narcotic qualities it possesses also a strongly stimulant power, perhaps with respect to the whole system, but especially with respect to the stomach and intestines; so as readily, even in no great doses, to prove emetic and purgative.

By this combination of qualities, all the effects of tobacco may be explained; but I shall begin with considering its effects as they appear in the use of it as an article of living.

As such it has been employed by snuffling, smoking, and chewing; practices which, as having been for two hundred years past common to all Europe, need not be described here. Like other narcotics, the use of it may be introduced by degrees; so that its peculiar effects, even from large quantities employed, may not, or may hardly at all appear: but this does not at all contradict the account I have given of its quality with respect to persons unaccustomed to it, and even of its tendency to show its power in those much accustomed to it: for even in these, the power of habit has its limits; so that in persons going but a little beyond the dose to which they have been accustomed, very violent effects are sometimes produced.

On this subject it is to be remarked, that the power of habit is often unequal; so that in persons accustomed to the use of tobacco, a little
a lesser quantity than what they had been accustomed to, will often
have stronger effects than had before commonly appeared. I knew
a lady who had been for more than twenty years accustomed to
take snuff, and that at every time of day; but she came at length
to observe, that snuffing a good deal before dinner took away her
appetite: and she came at length to find, that a single pinch, taken
any time before dinner, took away almost entirely her appetite for
that meal. When, however, she abstained entirely from snuff before
dinner, her appetite continued as usual; and after dinner, for the rest
of the day, she took snuff pretty freely without any inconvenience.

This is an instance of the inequality of the power of habit in
exerting its effects: but in what cases this may take place, we
cannot determine, and must now go on in marking its usual and
ordinary powers. When snuff, that is, tobacco in powder, is first
applied to the nose, it proves a stimulus, and excites sneezing; but
by repetition that effect entirely ceases.

When snuff is first employed, if it be not both in small quantity
and be not thrown out immediately by sneezing, it occasions some
giddiness and confusion of head; but by repetition these effects
cease to be produced, and no other effect of it appears in the
accustomed, when not taken beyond the accustomed quantity. But
even in the accustomed, when it is taken beyond the usual quantity,
it produces somewhat of the same giddiness and confusion of head
that it did when first employed; and in several cases, these effects
in the accustomed, depending on a larger dose, are not only more
considerable, as they act on the sentiment, but as they appear also
in other parts of the system, particularly in the stomach, occa-
sioning a loss of appetite, and other symptoms of a weakened tone
in that organ.

With respect to this, it is to be observed, that persons who take
a great deal of snuff, though they seem, from the power of habit,
to escape its narcotic effects; yet as they are often liable to go to
excess in the quantity taken, so they are still in danger from these
effects operating in an insensible manner; and I have observed
several instances of their being affected in the same manner as
persons are from the long continued use of other narcotics, such as
wine and opium; that is, by a loss of memory, by a satiety, and
other
"other symptoms of the weakened or senile state of the nervous system, induced before the usual period.

"Among other effects of excess in snuffing, I have found all the symptoms of dyspepsia produced by it, and particularly pains of the stomach, occurring every day. The dependance of these upon the use of snuff became very evident from hence, that upon an accidental interruption of snuffing for some days, these pains did not occur; but upon a return to snuffing, the pains also recurred; and this alternation of pains of the stomach and of snuffing having occurred again, the snuff was entirely laid aside, and the pains did not occur for many months after, nor, so far as I know, for the rest of life.

"A special effect of snuffing is its exciting a considerable discharge of mucus from the nose; and there have been several instances of headaches, toothaches, and ophthalmias relieved by this means: and this is to be particularly remarked, that when this discharge of mucus is considerable, the ceasing or suppression of it by abstaining from snuff, is ready to occasion the very disorders of headache, toothache, and ophthalmia, which it had formerly relieved.

"Another effect of snuffing to be taken notice of is, that as a part of the snuff is often carried back into the fauces, so a part of this is often carried down into the stomach, and then more certainly produces the dyspeptic symptoms mentioned. These are the considerations that relate to snuffing; and some of them will readily apply to the other modes of using this drug.

"Smoking, when first practised, shows very strongly the narcotic, vomiting, and even purging powers of tobacco, and it is very often useful as an anodyne; but by repetition these effects disappear, or only show themselves when the quantity smoked is beyond what habit had before admitted of; and even in persons much accustomed to it, it may be carried so far as to prove a mortal poison. From much smoking all the same effects may arise which we said might arise from excess in snuffing.

"With respect to the evacuation of mucus which is produced by snuffing, there are analogous effects produced by smoking, which commonly stimulates the mucous follicles of the mouth and fauces, and particularly the excretories of the salivary glands. By the evacuation
evacuation from both sources, with the concurrence of the narcotic power, the toothach is often greatly relieved by it; but we have not found the smoking relieve headaches and ophthalmias so much as finding often does. Sometimes smoking dries the mouth and fauces, and occasions a demand for drink; but, as commonly the stimulus it applies to the mucus follicles and salivary glands draws forth their liquids, it occasions on the other hand a frequent spitting.

So far as this is of the proper saliva, it occasions a waste of that liquid so necessary in the business of digestion; and both by this waste and by the narcotic power at the same time applied, the tone of the stomach is often weakened, and every kind of dyspeptic symptoms are produced. Though in smoking a great part of the smoke is again blown out of the mouth, still a part of it must necessarily pass into the lungs, and its narcotic power applied there often relieves spasmatic asthma; and by its stimulant power there also sometimes promotes expectoration, and proves useful in the catarrhal or pituitous difficulty of breathing.

Smoking has been frequently mentioned as a means of guarding men against contagion. In the case of the plague, the testimony of Diemerbroek is very strong; but Rivinus and others give us many facts which contradict this: and Chenot gives a remarkable instance of its inutility. We cannot indeed suppose that tobacco contains an antidote of any contagion, or that in general it has any antiseptic power; and therefore we cannot allow that it has any special use in this case: but it is very probable that this and other narcotics, by diminishing sensibility, may render men less liable to contagion; and by rendering the mind less active and anxious, it may also render men less liable to fear, which has so often the power of exciting the activity of the contagion. The analoismic powers of tobacco are therefore on the same footing with those of wine, brandy, and opium.

The third mode of using tobacco is that of chewing it, when it shows its narcotic qualities as strongly as in any other way of applying it; though the nauseous taste of it commonly prevents its being carried far in the first practice. When the practice, however, is continued, as it is very difficult to avoid some part of it dissolved in the saliva from going down into the stomach, so this, with the

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"nausea excited by the taste, makes vomiting more readily occasioned by this than the other modes of applying it. They are the strong, and even disagreeable impressions repeated, that give the most durable and tenacious habits; and therefore the chewing of tobacco is apt to become one of these: and it is therefore in this way that it is ready to be carried to the greatest excess, and to show all the effects of the frequent and large use of narcotics. As it commonly produces a considerable evacuation from the mouth and fauces, so it is the most powerful in relieving the rheumatic affection of toothache. This practice is also the occasion of the greatest waste of saliva; and the effects of this in weakening digestion, and perhaps from thence especially, its noted effect of producing emaciation may appear.

"These are the effects of the different modes of employing tobacco, when it comes to be of habitual use and an article of living. These effects depend especially upon its narcotic power, and certain circumstances accidentally attending its application to the nose and mouth: but as we have observed before, that beside its narcotic it possesses also a stimulant power, particularly with respect to the alimentary canal: by this it is frequently employed as a medicine for exciting either vomiting or purging, which it does as it happens to be more immediately applied to the stomach or to the intestines.

"An infusion of from half a dram to a dram of the dried leaves, or of these as they are commonly prepared for chewing, for an hour or two, in four ounces of boiling water, affords an emetic which has been employed by some practitioners, but more commonly by the vulgar only. As it has no peculiar qualities as an emetic, and its operation is commonly attended with severe sickness, it has not been, nor is it likely ever to come into common practice with physicians.

"It is more commonly employed as a purgative in glysters; and, as generally very effectual, it is employed in all cases of more obstinate constipations; and its powers have been celebrated by many authors. I have known it to be in frequent use with some practitioners; and it is indeed a very effectual medicine, but attended with this inconvenience, that when the dose happens to be in any excess, it occasions severe sickness at stomach; and I have known it frequently occasion vomiting.

"It
"It is well known, that in cases of obstinate colic, and incarcerated hernia, the smoke of burning tobacco has been thrown into the anus with great advantage. The smoke operates here by the same qualities that are in the infusions of it above mentioned; but as the smoke reaches much further into the intestines than infusions can commonly do, it is thereby applied to a larger surface, and may therefore be a more powerful medicine than the infusions. In several instances, however, I have been disappointed of its effects, and have been obliged to have recourse to other means.

The infusion of tobacco, when it is carried into the blood-vessels, has sometimes shown its stimulant powers exerted in the kidneys; and very lately we have had it recommended to us as a powerful diuretic of great service in dropsy. Upon the faith of these recommendations we have now employed this remedy in various cases of dropsy, but with very little success. From the small doses that are proper to begin with, we have hardly observed any diuretic effects; and though from larger doses they have in some measure appeared, we have seldom found them considerable; and when, to obtain these in a greater degree, we have gone on increasing the doses, we have been constantly restrained by the severe sickness at stomach, and even vomiting, which they occasioned; so that we have not yet learned the administration of this remedy so as to render it a certain or convenient remedy in any cases of dropsy.

The same circumstances have occurred to several other practitioners of this city and neighbourhood; and of late the trials of it have been very generally omitted, owing perhaps to our practitioners being directed at the same time to the use of the digitalis, with which they have had some more success.

From some experiments we are certain that tobacco contains a quantity of volatile parts that may be dissipated by long boiling in water; and that by such a practice its emetic, purgative, and narcotic qualities may be greatly diminished; and we are of opinion that the preparation in extract, as prescribed in the Wirtenberg dispensatory, is upon a good foundation, and may be employed in pectoral cases with more advantage and safety than the simple infusion or decoction made by a short boiling only.

"When
When we were restrained in employing the infusion of tobacco as a diuretic, as mentioned, we expected to succeed better with the decoction; and I have found, that by long boiling this might be given in much larger doses than the infusion: but we still found it retaining so much of the emetic quality, that we could not employ it as a diuretic without being interrupted in its use by the same emetic quality that had interrupted the use of the infusion.

Besides the internal uses of tobacco mentioned, I must now remark, that it has likewise been commended for its virtues as externally employed. I have known the infusion employed with advantage as a lotion for some obstinate ulcers: but the many instances of its being absorbed, and proving thereby a violent poison, diffused from such a practice; especially as there are other medicines, of as much efficacy, that may be employed with much more safety. Bergius recommends it to be employed as a fomentation in the paraphymosis; but we have had no opportunity of employing it.

* The preceding quotation has completely anticipated what we have to offer upon the subject of Tobacco. Respecting its poisonous, or narcotic, effects, we shall subjoin the following references:—Epith. Nat. Cur. Dec. 2. Ann. 10. Obs. p. 222. we are told, that by the immoderate use of snuff, somnolency, and at length fatal apoplexy, was induced. Helv. Helvig. Ob. Phis. Med. p. 45. gives two instances of the same kind, occasioned by smoking 17 or 18 pipes of Tobacco. For the effects of Tobacco, by absorption from its external use, see Eph. cit. Ann. 4. p. 46. & Ann. 2. Obs. 108, p. 262. Albinus's M. M. vol. ii. p. 192. The oil of Tobacco, applied to a wound, is said by Redi to be as fatal as the poison of a viper. See Experim. Nat. p. 8. 50. 315. Albinus however did not find that this was the case with the different animals on which he tried the experiment. Diff. de Tobae. p. 11. This oil, given to pigeons, produced fatal effects, and was constantly attended with vomiting. Albé Fontana. Jule Phil. Trans. vol. xxx. Tobacco, taken by dogs, also produces vomiting. Ges. sec. Epist. lib. ii. p. 79. The smoke of Tobacco has been successfully used in the way of injection, by means of a proper instrument, for obstructions and inveterate constrictions of the belly, ever since the time of Sydenham; and Haen, in his Rat. Med. gives several instances of its good effects: it is also recommended in cases of asphyxia, or, what has been termed, suspended animation.

Erratum. In the description of the calyx of the Tobacco-plant, read half the length of the corolla.

RICINUS COMMUNIS.
Ricinus communis.

Published by D. Woodville. Jan. 24, 1781.
RICINUS COMMUNIS. COMMON PALMA CHRISTI.


Sp. Ch. R. foliis peltatis subpalmatis ferratis.

THE root is biennial, long, thick, whitish, and beset with many small fibres: the stem is round, thick, jointed, channelled, glaucous, of a purplish red colour towards the top, and rises luxuriantly fix or eight feet in height: † the leaves are large, and deeply divided into seven lobes.

† Long says that in Jamaica it grows with surprising rapidity to the height of fifteen or sixteen feet. l. c.

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lobes or pointed ferrated segments, of a bluish green colour; the
footstalks are long, tapering, purplish, and inserted in the dic of the
leaf (peltated): the flowers are male and female on the same plant,
and produced in a clustered terminal spike: the male flowers are
without a corolla, and consist of a calyx, divided into five oval
pointed purplish segments, enclosing numerous long stamens, which
unite at the base: the female flowers occupy the upper part of the
spike, and have the calyx cut into three narrow segments, of a reddish
colour: the styles are three, slender, and forked at the apex: the
capsule is a large three-celled nut, covered with tough spines, and
contains three flatish oblong seeds, which are forced out on the
bursting of the capsule. It is a native of both the Indies, and
flowers in July and August.

This plant appears to be the ἀκαθαποτής of Dioscorides, who
observes that the seeds are powerfully cathartic; it is also men-
tioned by Αἰτίος, Παύλος Αἰγίνητα, and Pliny. The Ricinus was first
cultivated in England in the time of Turner, (1562) and is now
annually reared in many gardens in the neighbourhood of London;
and in that of Dr. Saunders, at Highbury, the plant from which the

† Hujus cuilibet loculo inest nux ovata, utrinque compræsa, interiori praecipue super-
sicie, quæ et linea longitudinæ diffinguitur, magnitudine seminis Phæolidi minoris flore
phœnicico, hiso prominentie sursum notum, cui callus ante adhaerat. Cortex ex bruno
luteoque variegatus, fragilis, cingit nucleum album, vestitum cuticula tenella conceolore—
Figuæ seminis cum inflo Ricino (Acro Ricino L.) bobus & casibus infesto, simili-

* Mat. Med. lib. 4. cap. 164.

† Their violent and irritating effects in this way are noticed by almost all the Materia
Medica writers, and seem to be confirmed by Thunberg, (Diff. de Medicina Africanaum,
p. 4, and Brown, (i. c.). This acrimony however appears from later experiments to
be owing to the membranes which invest the kernel, (vulgo Heyer in Geinitz u. chem.
Bergius says, "Semem unicum Ricini vulgaris, tempore veerordino, a viro fino & vege-
to masticum & deglutitionem, sapore fuit amygdalearum, fed intimationem mordentem in fau-
cibus reliquit. Per totum noctem tranquille dormivit hic vir; sed frequente die manre
expergefactus, emesis violenta corruptus fuit aequo per totam diem suffusum nifus alter-
nantes vomiturationis & purgationis alvi, tumet et parum dejiciabant. Endam vice nobilis
matrons tenere constitutionis, fenum unicum pariter comedisse, sed prius teftam membranam-
que obvelatam pedulo separavit abjectaque; & nullam noxam inde fenit." M. M. p. 774.

* Vide Horst. Kenv.
present figure was taken, it grew to a state of great perfection. An
oil extracted from the seeds of this plant, and known by the name
of oleum ricini, Palma Christi, or castor oil, is the drug to which
the pharmacopoeias refer, and which has lately come into frequent
use as a quick, but gentle, purgative. The London College direct
this oil to be expressed from the seeds in the same way as that of
almonds, and without the assistance of heat, by which the oil would
seem to be obtained in the purest state; however, we have some reason
to believe that this method is seldom practised, and that the oil usually
employed here is imported from the West-Indies, where it is com-
monly prepared in the following manner: “The seeds being freed
from the husks, or pods, which are gathered upon their turning brown,
and when beginning to burst open, are first bruised in a mortar, after-
wards tied up in a linen bag, and then thrown into a large pot, with
a sufficient quantity of water, (about eight gallons to one gallon of
the seeds) and boiled till the oil is risen to the surface, when it is
carefully skimmed off, strained, and kept for use. Thus prepared,
the oil is entirely free from acrimony, and will play upon the stomach
when it rejects all other medicines.” And Mr. Long remarks, that
“the oil intended for medicinal use is more frequently cold-drawn,
or extracted from the bruised seeds by means of a hand-press. But
this is thought more acrimonious than what is prepared by coction.”
Dr. Browne is also of this opinion, and prefers the oil procured by

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4 Where the oil is rejected, the seeds may be carefully separated from their shells and
the inner white membrane, and formed into an emulsion, and given as an agreeable
substitute for the oil.

5 Some objections have been made to this manner of obtaining the oil, as stated in our
pharmacopoeias, which we shall here mention in the words of Murray: Expressione
eliceatur oleum, quidam student decorticati feminis praviam conquasitationem in mortarulo,
(Curante Diff. in the Oline Palma Christi. &c. p. 20,) sed inde ob mucilaginis evolu-
tionem, quae simul contingit cressam & turbidum evadit oleum (quod bene adjicit Bonelli
Preceptumigitur nucleos integros premere. Facilius quoque evocatur oleum ex feminibus,
que moram aliquam traxerunt, quam ex recentibus; mucilago enim feminit fecit evadere
videtur, tumque communibus faum cum oleo relaxare.” (Heyer in Creutz Entd. P. 3.
p. 74.) L. C.

6 Long’s Jamaica, p. 713. It is well known however, that the oil obtained by boiling
becomes much sooner rancid than that by expression. The best oil is limpid, and deftincte
of taste or smell. In the West Indies it is usually consumed in lamps, and for other
domestic purposes.
coction to that by expression; he attributes its greater mildness to the
action of the fire, obliterating that the expressed oil, as well as the mixed
juices of the seeds, are far more active and violent in their operations. Dr. Cullen observes, that "this oil, when the stomach can be recondi-
ted to it, is one of the most agreeable purgatives we can employ.
"It has this particular advantage, that it operates sooner after its "exhibition than any other purgative I know of, as it commonly "operates in two or three hours. It seldom gives any griping, and "its operation is generally moderate, to one, two, or three stools only.
"It is particularly suited to cases of colic, and even to cases of "spasmodic colic. In the West Indies it is found to be one of the "most certain remedies in the dry-belly ache, or colica pictonum."
"I have never found it heating or irritating to the rectum, and there-
fore have found it sufficiently well suited to hemorroidal persons.
"The only inconvenience attending the use of this medicine is, that "as an oil it is nauseous to some persons; and that, when the dose is "large, it occasions sickness at the stomach for some time after it is "taken. To obviate these inconveniences, several means have been "tried; but I shall not detail these here, as I can assert, that the most "effectual means is the addition of a little ardent spirit. For this in "the West Indies they employ rum; but that I might not withdraw "any part of the purgative, I employ the tinctura fennae composita.
"This, added in the proportion of one to three parts of the oil, and "very intimately mixed by their being shaken together in a phial, "both makes the oil less nauseous to the taste, and makes it fit more "easily on the stomach. The common dose of this oil is a table-
spoonful, or half an ounce; but many persons require a double "quantity."

L. c. But this is better explained under note f.

We may add, that it has been experienced to be an useful medicine in various febrile complaints, and in bilious colics, nephritic colics, worms, especially cafe-worms.

M. M. vol. 2. p. 563, Dr. Cullen remarks, "It is particularly to be observed of this medicine, that if it be frequently repeated, the dose of it may be gradually more and more diminished. And I know instances of persons who, formerly of a colic habit, at first required half an ounce or more for a dose; but after being frequently repeated, they now find that two drams are enough, at least to keep the belly regular."

Clematis Recta.
THE root is pedunculated, round, smooth, and about an inch in height: the leaves are opposite, placed in pairs, and ovate or lanceolate, acute, on a short petiole. The stem and leaves are alternate, and the petals are four of the same kind. The stamens are numerous, alternately united by the anthers, and the pistil is simple. This plant is a native of North America, and is to be found from June till August.
CLEMATIS RECTA. UPRIGHT VIRGIN'S BOWER.


THE root is perennial, white, and fibrous; the stalk is erect, scored, round, smooth, branched towards the top, and rises about two feet in height: the leaves are opposite, and pinnated, the pinnæ are placed in pairs, and terminated by an odd one; they are all ovaly lance-shaped, acute, entire, smooth, and veined. The flowers terminate the stem and branches in irregular umbels: there is no calyx: the petals are four or five, of an oval shape, and whitish colour: the filaments are numerous, erect, tapering, shorter than the petals, and terminated by the antheræ, which are scored on each side: the germìna are many, roundish, hairy, and support bearded styles, of the length of the flamina, and crowned with obtuse stigmata: the seeds are roundish, compressed, and attached to the styles, which appear like long feathered tails; and hence the name, sem. caudata.

This plant is a native of Hungary, Austria, and France, and flowers from June till August; it was first cultivated in England by Gerard, previous to the year 1597, and is now sufficiently known to the British
British gardeners. This, like some other species of the clematis, is extremely acrid, and hence the name Flammula. The recent leaves, upon being chewed, excite a burning heat of the tongue and fauces, and if retained long in the mouth, produce blisters and ulceration; but, by drying, this acrimony is considerably diminished: the flowers likewise possess a share of acrimony, though in a less degree. The Flammula Jovis, although mentioned by Dale and some others as an external remedy, was first recommended to the attention of practitioners by Baron Stoerck in 1769, as an useful medicine in many obstinate complaints. † He published several cases of its successful exhibition, particularly in invertebrate syphilitic diseases producing headaches, pains in the bones, nodes, ulcers, cutaneous affections, &c. *

Whether this plant really deserves the character which the Baron has thus attempted to establish, by stating its uniform success in twenty-two cases out of twenty-four, in which it was tried, rests solely upon his own authority; and it is with concern we observe, that the medical facts at Vienna are not very confidently received by the physicians in this country. It was usual for Dr. Stoerck to employ the leaves and flowers, as well as an extract prepared from the former, yet the preparation which he chiefly recommends is an infusion of two or three drams of the leaves in a pint of boiling water; of which he gave four ounces three times a day, while the powdered leaves were applied as an echarotic to the ulcers.

† Although these were principally venereal, yet in ulcers, cancers, and severe headaches, not proceeding from this cause, the Flammula Jovis is said to have been likewise successful; and in his Lib. de Pulsat. p. 57. we are told of its remarkable efficacy in a cafe of melancholia trifilina. It generally acted as a diuretic or diaphoretic.

* Vide Libell. de Flammula Jovis.

LOBELIA SYPHILITICA.
LOBELIA SIPHILITICA. BLUE LOBELIA; Or, CARDINAL-FLOWER.


Esp. Ch. Caule erecto, foliis ovato-lanceolatis sufferratis, calycum sinubus reflexus.

THE root is perennial, and furnished with many white fibres: the stem is upright, strong, simple, smooth, and rises upwards of two feet in height: the leaves placed towards the top of the stem, are oval and pointed; those at the bottom are elliptical, and obtusely lance-shaped: they are both minutely ferrated, veined, smooth, and without footstalks: the flowers are numerous, large, blue, and grow in a long spike, upon short peduncles: the corolla consists of a long tube, which is nearly cylindrical, and divided at the limb into five pointed oval segments, of a rich blue colour: the calyx is composed of five halberd-shaped leaves, which are fringed at the margin, and reflected at each side: the filaments are five, tapering, equal in length to the tube of the corolla, and closely connected at the top by the antheræ: the germen is short and conical: the style is of the length of
the flamina, and terminated by a blunt hairy stigma: the capsule is oval, and divided into two cells, which contain many small seeds. It is a native of Virginia, and flowers from August till October.

Rea is the first English botanist to whom Mr. Aiton ascribes the cultivation of this species of the Lobelia, and, as a handsome plant, it is now in the possession of many of our gardeners. Every part of the plant abounds with a milky juice, and has a rank smell. The root, which is the part directed for medicinal use, in taste resembles tobacco, and is apt to excite vomiting. It derived the name siphilitica from its efficacy in the cure of syphilis, as experienced by the North American Indians, who considered it a specific in that disease, and with whom it was long an important secret. This secret was purchased by Sir William Johnson, and since published by different authors.¹

The method of employing this medicine is stated as follows: A decoction is made of a handful of the roots in three measures of water. Of this, half a measure is taken in the morning fasting, and repeated in the evening; and the dose is gradually increased till its purgative effects become too violent, when the decoction is to be interrupted for a day or two, and then renewed till a perfect cure is effected. During the use of this medicine, a proper regimen is to be enjoined, and the ulcers are also to be frequently walked with the decoction, or if deep and foul, to be sprinkled with the powder of the inner bark of the New Jersey Tea-tree (Ceanothus Americanus.) Although the plant thus used is said to cure the disease in a very short time, yet we do not find that the antisyphilitic powers of the Lobelia have been confirmed by any instances of European practice.

¹ Kalm. l. c. Bartram. l. c.

ACHILLEA MILLEFOLIUM.
ACHILLEA MILLEFOLIUM. COMMON YARROW; Or, MILFOIL.


Sp. Ch. A. folis bipinnatis nudis; laciniis linearibus dentatis; caulisibus fuperne sulcatis.

The root is perennial, creeping, round, and furnished with many whitish fibres. The stalk is upright, round, towards the bottom smooth and downy, but near the top it is slightly grooved, woolly, branched, and rises above a foot in height: the leaves stand alternately upon the stem, which they partly embrace, and are bipinnate or subdivided into a double series of pinnae: the pinnae are numerous, narrow, and somewhat pointed: the flowers are white, or tinged with purple, and terminate the stem in a close corymbus: the bractæ are small, pinnatifid, and placed at the peduncles: the calyx is ovate, downy, imbricated with concave oval scales, which are membranous, and fringed at the margins: the corolla is compound, and radiated; at the disc the florets are about twelve, hermaphrodite, funnel-shaped, of the length of the calyx, confining of a long yellowish tube, divided

Dr. Grew observes, that the fresh young roots have a glowing warm taste, approaching to that of Contrayerva; and thinks they might in some measure supply its place.—On Tofier, chapi' 5. $ 2.
at the limb into five short segments: at the radius the florets are female, usually five, flat, spreading, roundish, cut at the apex into three teeth, and furnished with a cylindrical, greenish, striated tube, which is about the length of the calyx: the filaments are five, short, and flender: the anthers are yellow, and unite into a cylindrical tube: the germen is oblong, compressed, and supports a filiform style, divided into two reflexed stigmata. It is common in dry pastures, and flowers from July till October.

The leaves and flowers of this plant have an agreeable weak aromatic smell, and a bitterish, rough, and somewhat pungent taste. "The virtue of both is extracted by watery and spirituous menstrua; the astringency most perfectly by the former; their aromatic warmth and pungency by the latter; and both of them equally by a mixture of the two. The flowers, distilled with water, yield a penetrating essential oil, possessing the flavour of the Milfoil in perfection, though rather less agreeable than the flowers themselves."*

This plant appears to be the ἕρμινθος ἄνθος of the Greek writers, by whom it was esteemed an excellent vulnerary † and styptic, and was generally employed intern. as an useful astringent in all hemorrhagic complaints. Instances of its good effects in this way are likewise mentioned by several of the German physicians, particularly, by Stahl and Hoffman, who also recommend it as an efficacious remedy in various other diseases: the latter found it not only an astringent, but also a powerful tonic, antispasmodic, and sedative. In proof of the last mentioned quality, we may remark, that in some parts of Sweden it is used in making beer, in order to render it more intoxicating; and Sparrman has observed, that it is employed for this purpose in some parts of Africa. The leaves and flowers of Milfoil are both directed for medicinal use in the Edinburgh Pharm. in the present practice however this plant, we believe, is wholly neglected.

* Vide Lewis's M. M. p. 424. † Vide Stratiotes, Matthiol. in Dioscorid.
† Vulneraria infitter habitur sub externo usu, jam ab Ac.t, ut fortim, sanatione vulnerum subiectorum sibi militum, auctorato. Murray App. Med. vol. i. p. 167.
‡ Hæmoptysis, Epistaxis, Menorrhagia, et Hæmorrhoids.
* Stahl Diff. de Thorp. pass. hypoc. Hoffmann, De praet. rem. §. 18.
* Vide Linn. Fl. Suec. p. 299.

HYSSOPUS OFFICINALIS.
HYSSOPUS OFFICINALIS. COMMON HYSSOP.


Sp. Ch. H. spicis secundis, foliis lanceolatis.

THE root is perennial, knobbled, woody, and furnished with many long fibres: the stalk is shrubby, somewhat square, upright, much branched, and rises about two feet in height: the leaves are long, narrow, elliptical, entire, obtusely pointed, of a deep green colour, and stand in pairs without footstalks: the flowers are produced chiefly on one side, in short verticillated spikes, terminating the branches, and are of a blue colour: the calyx is tubular, striated, and divided at the extremity into five pointed segments: the corolla is monopetalous, and consists of a narrow tube, which divides at the limb into two expanded lips; the uppermost is short, roundish, and notched at the apex; the lowermost is separated into three segments, of which the undermost is very large, and inerfely heart-shaped: the filaments are four, two long and two short, and crowned with simple anthers: the style is slender, and divided at the top into a double stigma: the germen is separated into four parts or seeds, which are lodged at the bottom.
bottom of the calyx. It is a native of Siberia, and the mountainous parts of Austria, and flowers from June till September.

The Hyllop, mentioned in the Old Testament, is not supposed to be the plant here described, which is neither the Eʃei of the Hebrews, nor the δισσερας of the Greeks. It was first cultivated in England by Gerard, in 1596, and is now extremely common in our gardens. The leaves of Hyllop have an aromatic smell, and a bitterish moderately warm taste. They give out their active matter both to water and to rectified spirit; to the last most perfectly. On infusing the spirituous tincture, very little of the flavour of the herb exhales or distills with the menstruum: the remaining extract is bitterish, and very warm, and discovers a penetrating pungency, somewhat like that of camphor. Water, distilled from the fresh herb, is found pretty strongly impregnated with its flavour: an essental oil separates and rises to the surface, which is very pungent, and in smell exactly resembles the Hyllop.

Dr. Cullen classifies this and all the verticillated plants as stimulants, and this quality is to be ascribed to the quantity of essental oil which they contain; the Hyllop therefore may be esteemed aromatic and stimulant; and with a view to these effects, Bergius recommends it as an emmenagogue and antisyphilitic; but it is chiefly employed as a pectoral, and has been long thought an useful medicine in hysterical asthma, coughs, &c. cathartical affections; for this purpose, an infusion of the leaves, sweetened with honey or sugar, and drank as tea, is recommended by Lewis. The external application of Hyllop is said to be particularly efficacious in the way of fomentation and poultice, in contusions, and for removing the blackness occasioned by the extravasated fluids.

* Vide Le Clerc’s Hist. p. 626. cited by Ailston, who says, I shall only take notice that χαλκος in St. Matthew’s Gospel, chap. xxvii. ver. 48, is χαλκος in St. John’s, chap. xix. ver. 29. Probably it is the ξης or ες, i.e. Hyllop of the Arabians. Lecī. on the M. M. vii. p. 142.


* All the old writers praise it highly in this respect: Nec excluduntur fugillationes oculorum quibus herba intra faccellum aqua vel vino ©ocaeta clausis palpebris subvenit. Rielan. and Sim. Pauli.

It is also recommended as a vermifuge by Rosenfels. Borna junk. p. 358.

END OF THE FIRST VOLUME.
MIMOSA CATECHU. CATECHU MIMOSA.

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


Eff. Gen. Ch. HERMAPH. Cal. 5-dentatus. Cor. 5-fida. Stam. 5f. plura. Pijf. 1 Legumen.

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


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 bipinnate, or doubly winged, and are placed alternately upon the younger branches: the partial pinnae are nearly two inches long, and are commonly from fifteen to thirty pair, having small glands inserted between the pinnae: each wing is usually furnished with about forty pair of pinnulae or linear lobes, beset with short hairs: the spines are short, recurved, and placed in pairs at the base 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, white, and of the same form as the calyx, but twice its length: the filaments are numerous, capillary,

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lary,
lary, double the length of the corolla, adhering at the base of the
germen, and crowned with roundish anthers: 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 Indo-ostan, 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 official 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 Celsus, 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, Linnaeus, in both the
editions of his Mat. Med. refers this drug to the "Areca Catechu
frondibus pinnatis, foliis replicatis oppositis fructibus." 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 ex-
ceeds that of the Catechu. But he thinks it probable that where
these nuts are 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 "Paung." Cleyerus and Herbert de Jager, more especially
the latter, have asserted, that the Catechu is not extracted from one
tree only, but from many of the species of Accacia, 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-
ably,

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

* Hence the following lines:

Quis foliis erudiat commixta calce tenellis,
Cynanch beont Indos vici, unde ore crevesso
Purplem excidunt succus, tam dentibus stis
Horrendum arringens, & dentibus ore minantur;

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

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 Linneus 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."

This

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

‡ According to the Linnaean nomenclature we have no genus under the name Acacia. But the Mimosa are very numerous, and that most known in Europe is the M. pudica, or humble feathery plant, and the remarkable contractions which it manifests upon being touched, or even approached, induced my ingenious friend Dr. Marshals, to deflect 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 " feathery joints of the Mimosa pudica; branch is articulated with stem, petiulus with " branch, and petiolas of the leaf with the common petiolas. Within the feathery lab- " flance of the joint are found numerous white threads, which go from the one articu- " lated body to the other, infiltrated into both. These it would appear, are the irritable " fibres, by which the motions are performed."

* In making the extract, the pale brown wood is preferred, as it produces the fine whith
This extract is called Caut by the natives, by the English Catch, 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 discloses 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." "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 prolifera, in laxity and debility of the visceras 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 exuberations of the gums, for aphtous ulcers in the mouth, and similar affections."

"This extract is the basis of several fixed formulae in our pharmacopoeias, 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."

which 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 notashing the decoction, by which, and the dirty ashes they use, there must be a considerable quantity of earth in the extract, besides what prudence may prompt them to put into it." Kerr l.c.


The antiseptic quality of Catechu appears from the experiments made by Sir John Pringle. (Vide Dis. of the Army, App. Eng. 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.
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MIMOSA NILOTICA.  
EGYPTIAN MIMOSA,  
ACACIA, EGYPTIAN THORN.

Gummi Arabicum, Pharm. Lond. & Edinb. Sponte ex bac plana fruit.


Masc. Cal. 5-dentatus. Cor. 5-fida. Stam. 5, 10, pluta.

Sp. Ch. M. spinis filiparibus patentibus, folis bipinnatis; partialibus extimis glandula interstìncis, 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 pinnae are opposite, furnished with a small gland between the outermost pair, and beset with numerous pairs of narrow elliptical pinnules, or leaflets: the spines are long, white, spreading, and proceed from each side of the base of the leaves: the flowers are hermaphrodite and male, they assume a globular shape, and stand four or five together upon slender peduncles, which arise from the axillæ of the leaves: the calyx is small, bell-shaped, and divided at the mouth into five minute teeth: the corolla consists of five narrow yellowish segments: the filaments are numer-
rous, capillary, and furnished with roundish yellow antheræ: the germen is conical, and supports a slender stile, 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.

Dioecorides was certainly well acquainted with this tree, as he not only mentions the gum which it produces, but also the renowned Acacia vera succus, 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.

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. 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, 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.

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

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

b The pod, and manner of preparing the juice, are thus mentioned by Murray: "Ex fructu elicitor, quod incipit leguminum et complanatum viridi brunnum, quartius vel quintum pollices longum et octies vel decies angustius, compositum ex fixo vel decem partibus vel articulis discoideis et intra utramque cuticulam parenchyma gummiuti rubicundum continens. In quovis articulo latet semen ellipticum fulco utrique pariter elliptico notatum. Succesus exprimitur ex fructu immaturo in mortario coutufo, et calore in septuadie medic et desulatur." &c. Vide App. Alm. vol. ii. p. 412.


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 hog's heads. 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 transfusion and concretion.

Gum Arabic of a pale yellowish colour is much 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 Mimafa (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, rosinous, and pinguous substances, miscible with water.

The glutinous quality of gum arabic is preferred to most other gums and mucilaginous substances as a demulcent, in coughs, hoarseness, and other catarrhal affections, in order to obviate irritating acrimonious humours, and to supply the loss of abraded mucus. It has been very generally employed in cases of aridurinæ, and franguary; 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 scrofula, 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 affirm, 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 aridurinæ; 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

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*See Mr. French's Experiments in Lond. Med. Observ. vol. i. p. 413, &c.
of more service than four ounces of gum arabic taken in without such addition." This gum is an ingredient in the Harthorn decoction, the chalk julep, the common emulsion, and some of the troches as directed in our Pharmacopoeias.

\[^{h}\] 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 Hottentots are said to live upon this for many days together."—Voyage to the Cape, vol. ii. p. 23.

**RUBIA TINCTORUM. DIER'S MADDER.**


**Eff. Gen. Ch. Cor. 1-petalā, campanulata. Bacca 2, monosperma.**

**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 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 anthera: the germen is double, and placed below the corolla: the style is slender, and at the top divides into two globular stigma: the fruit consists of two round berries, each containing an oval seed, with a cavity at its smaller extremity. It is a native of the South of Europe, and flowers in June.

Madder is frequently mentioned by the Greek writers, who employed its roots with the same medicinal intentions for which they now are recommended by most of the modern writers on the Materia Medica. Our knowledge of the first cultivation of this plant in England is from Gerard, 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. 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., but even the bones of those animals which have fed upon it; a circumstance which was first noticed by Antonius Magedus, 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; since that time

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* Vide Hort. Kew.  
* Miller Diss. 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 (Stellata) 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. Döbler Diff. de rad. rub. mixt. &c. p. 42.  
* Döbler also found the serum of the blood reddened by the Madder: Diff. rad. rub. mixt. &c. p. 13. And Leveque observes, that it sometimes tinged the excretion by the skin. Sur les Acoucheuses, p. 278.

* Memorab. ut. ac ascenda Cont. 7. Apb. 91. Lutet. 1566.  
* Phil. Trans. vol. 39. p. 287. & p. 299. See also vol. 41. Afterwards experiments were prosecuted by Baranius, Geoffroy, Du Hamel, Fungereux, Bergius, and others.

No. 14.

3 C  

various
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 astringent taste, and a slight smell not of a 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."  

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, and inrickety affections. 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 was 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 decocatum icteros of the Edin. Pharm. but as it seemed more adapted to the faces albida than to the diseased 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 despaired its use."

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RUMEX ACETOSOA.
RUMEX ACETOSA. COMMON SORREL.


Sp. Ch. R. Flor. dioecis, 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 reflexed stiles, 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 Lappathum quartum of Dioscorides,
Dioscorides, and to the Lapathum sylvestre, quod alii oxalidem appellant, of Pliny. But as the word alia 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 Acetofella, 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; and we are told by Linnaeus, that the Laplanders experience a serum acetofatum to be in this respect an useful and pleasant diet.  

Flor. Lapp. p. 54.  

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

SYNONYMA. Uva ursi. Pharm. Lord. & Edinb. Uva ursi  


Bacca 5-locularis.  
Sp. Ch. A. caulibus procumbentibus, foliis integerrimus.  

The
Arbutus Uva-crispa

Published by Dr. W Ed. 1793
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 flabby, 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, and divided at the margin into five minute reflexed segments: the filaments are ten, short, downy, tapering, and crowned with erect reddish anthers: 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 **logania* *sphæron*, which is much commended by Galen in cases of hæmoptysis, or the *lunaria géfδ* used as a general astringent by Dioscorides. 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 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 bittcrish 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.

The Ûva Ûrlī, 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

* 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.


No. 15. 3 D nephritic
nephritic affections; and in the years 1763 and 1764, by the concurrent testimonies of different authors, 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, cystitis, diabetes, &c. and its utility was then thought to be so fully established, that a Spanish writer \(^2\) made it his boast that the man, to whom these important discoveries of the effects of this plant owed: 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. \(^1\) 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.\(^1\)

From the experiments of Dr. Alexander,\(^1\) the leaves of Uva Ursi seem to possess very little diuretic power, and those made by Murray\(^1\) 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 astringent; and in confirmation of this opinion we may cite the observation of Dr. Cullen, who, in

\(^1\) De Haen, Gerhard, Quer, Girardi, Murray, Buches, and others.


\(^1\) "The trials of the Uva Ursi made in this country, have by no means averted expectation: in all the cases that have come to my knowledge it produced great sickness and unfitness, without any apparent benefit, though continued for a month." \textit{Levis 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." \textit{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."

\(^*\) See his \textit{Exp. Effets} p. 154.

\(^1\) The calculi were macerated in a strong decoction of the Uva Ursi. \textit{Vide l.c.}
SYTRAX OFFICINALE

SYTRAX, P.

SYNONYMA.

SYTRAX arbore.

1326. R. ex I.P.

p. 1530. Iuc.

Cep. Decandria.

eff. Gen. Ch. C.B.

q. Ch. & I.B.

breviora.

THE Syrax. — Some find off many tiny leaves of a greyish tinge, pointed, as an adornment on the sides.
his chapter on Astringents," notices the dissertatio 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 calculus symptoms; and in proof of this he refers to the exhibition of the Úva Urfi. 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.

"*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.


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 anthers are erect and oblong: the germen is oval, and supports a flender stype, 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. 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 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 intermixed 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 sawdust merely caked together by the resinous matter; and though much less esteemed than the purer kinds of Storax, yet when freed from the woody part, we are told by the other kind.


* 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 Liquidambar orientalis; 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 No. 15.
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 infused to a solid consistence, as directed for the Styraxis purificatio in the London Pharmacopoeia 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 least, 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 Benzoin: I have sometimes also extracted from it a substance of the same nature by coction in water."

Storax, with some of the ancients, was a familiar remedy as a resolvent, and particularly used in catarrhal complaints, coughs, asthma, 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 pharmacopoeias formerly directed the pihla e Fyracre; but this odoriferous drug has now no place in any of the official compounds; and though a medicine which might seem to promise some efficacy in nervous debilities, yet by modern practitioners it is almost totally disregarded.


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


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 axillae of the leaves: the calyx is short, bell-shaped, downy, and divided at the extremity into five obscure imperfect teeth: the corolla is monopet-
obtuse parallel segments growing close together: the filaments are ten
determined, and crowned with linear erect anthers: 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. This was done at the
request of Sir Joseph Banks, who obtained a proper specimen for
the purpose from Mr. Marfden at Sumatra: and as we have copied
the figure given by Mr. Dryander, we shall also transcribe the follow-
ning observations with which it is introduced. "Though Garcias
Ab Horto, Grim, and Sylvius, were acquainted with the real
tree from which Benjamin, or Benzoin, is collected, their descripts
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, palmata. Petiolis teretibus, fribis, canaliculatis, tomentosis brevissimis.

Racemi axillares, composti, longitudinaliter fere foliorum. Pedunculi communes tomentosi;
particulis alternis, patentibus, tomentosis. Pedicellis brevissimis. Flores secundi.

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

Petalum quinque, (basi forte connata) linearium, obtuso, extus tomento tenuissimo cinoxeris,
cyclus quadruplo longior.

Filamenta decem, receptaculo inferto, petalis paulo breviora, inferne connata in cylindr-
sum longitudinaliter calycis, superne infra antheras ciliata. Anthera lineares,
filamentis longitudinaliter adnatae, iisque dimidia breviores.

simplex.

* L. c. Before this time however Sir Joseph Banks seemed to have no doubt that the

* Vide ib. 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 Benifera of Garcia, says, "Ad nos scripsit D. Taucredus Robinson Arborem resiniferam odoratam foliis citrini praeclarae haurud absimilem tranfinitum fuille e Virginia a D. Banister ad illuflirifiimum Praefulem D. Henr. Compton, in cufus inftituifsimo horto culta est. — Arbor illa "Virginiana Citrii, vel Limonii foliis Benzoinum fundens, in horto "reverendifsimi Epifopi culta." This error was detected by Linnaeus, but another was substituted by him in its place; for in his Mantilla Plantarum Altera he tells us, that Benjamin is furnished by a shrub described there under the name of Croton Benzoii, 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 Benjouin, supposed, with reason, that the similar sound of that word with Benjoin, the French name for Benjamin, may have occasioned this mistake. Since that period, Dr. Houttuyn has described the Benjamin tree of Sumatra; but for want of good specimens has been fortunate to mistake the genus to which it belongs.

This tree, which is a native of Sumatra, is deemed, in six years, of sufficient age for affording the Benzoin, 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, 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 chisel. The quantity of Benzoin which one tree affords never exceeds three pounds, nor are the trees found to sustain the effects of these annual incisions longer than ten or twelve years. The Benzoin which issues first from the wounded bark is the part, which, being melted with sovereign with a flame, and then congealed and used in medicine.

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Note: The text references several sources, including Houttuyn's accounts and the works of Ray and Jacquin. The specific details about the tree and its uses are described in the text.
bark is the purest, being soft, extremely fragrant, and very white; that, which is least esteemed, is of a brownish colour, very hard, and mixed with various impurities, which it acquires during its long continuance upon the trees. Eschekkrone distinguishes Benzoin into three kinds, viz. *Camayam poeci*, or white Benjamin, which, upon being melted in a bladder by the heat of the sun, appears marked with red streaks, or veins. *Camayam banatta* 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. *Camayam 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 confined for fumigating and perfuming the temples, and for destroying insects.

The Benzoin 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 *bensoe 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 discloses 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 Benzoin. Exposed to the fire in proper vessels, it yields a quantity of a white salinie concrete, called *floros benzois*, of an acidulous taste, and grateful odour, soluble in rectified spirit, and in water by the assistance of heat.

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

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1 *Grimm. l. c.*
3 *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 invertebrate coughs, asthma, 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 classifies Benzoine with the stimulants, says, "The flowers, which is the only preparation employed, are manifestly a saline substance of the acid kind, of considerable astringency 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." In the pharmacopoeias the flowers are directed in the tinctura opti camphorata, and it is ordered in substance in the tinctura benzoës composita.

"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 refrinous 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 PETROSE


Ch. Pentandria. Ora

S. Gen. Ch. Fructu Petala equales.

S. Ch. A. foliis caulibus

THE root is bienn. is upright, round, two feet in height. stern, pinnated into three leaves, and stalk proceed from the leaflets cut into narrow segments of a yellow colour, composed of general a number, and the latter involucrum, but the petals unequal, pointed, spires consisting of five oval filaments are five, spires and crowned with rosettes. The seeds are flat on one side, and flowers in June a
APiUm PETROSElINUM. COMMON PARsLEY.


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

The root is biennial, long, white, and beset with fibres: the stem is upright, round, scored, branched, jointed, and usually rises two feet in height: the radical leaves are with footstalks, compound, pinnated in ternaries: the leaflets are smooth, veined, divided into three lobes, and notched at the margin: the leaves of the flake proceed from the vaginal sheaths at the joints, and have the leaflets cut into narrow linear entire segments: the flowers are small, of a yellow colour, and terminate the stem and branches in umbels composed of general and partial radii: the former are about ten in number, and the latter twenty in each umbel; it seldom has a general involucrem, but the partial involucrem consists of six or eight leaflets, unequal, pointed, spreading, and shorter than the umbel: the corolla consists of five oval petals, which have their points inflected: the filaments are five, spreading, slender, twice the length of the corolla, and crowned with roundish anthers: the germen is oval, fritiated, and supports two short reflected styles, terminated with obtuse fligma: the seeds are of a dark green colour, oblong, angular, fritiated, flat on one side, and convex on the other. It is a native of Sardinia, and flowers in June and July.
All the varieties of Parsley have been long very generally cultivated in England,² 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 essentiat 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 essentiat oil, not above two or three drams from as many hundred pounds of the root.³ These roots are said to be aperient and diuretic, and have been employed in apozems, to relieve nephritic pains, and obstructions of urine.⁴ 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.⁵ 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.⁶ The bruised leaves have been successfully used as a decocent poultice to various kinds of tumours.⁷ 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.⁸ It has been supposed also to produce inflammation in the eyes.⁹

⁷ We are told by Lange, (Myr. verit. med. p. 16) that this application has succeeded in ferrous tumours where Cicuta and Mercury had failed.
RIBES RUBRUM. RED CURRANT.


\[\begin{align*}
1 & \text{Ribes rutilus. Red Currant.} \\
6 & \text{Ribes album. White Currant.}
\end{align*}\]


Sp. Ch. R. inerme, racemi 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 bractees are small, oval, pointed, and placed at the base of the leaf stalks and peduncles: the flowers grow in lateral pendulous racemis, 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 antherae are compressed, gaping at the edges, and attached at their sides to the

No. 15. 3 G filaments:
filaments: the germ 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* 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 Pharmacopæia.

The medicinal qualities of red Currants appear to be similar to those of the other subacid fruits, which are esteemed to be moderately refrigerant, antiëptic, attenuant, and aperient. They may be used with considerable advantage to allay thirst in most debatable complaints; to lessen an increased secretion of bile; 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 flatulence and indigestion.

* "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, &c. The juice of red currants, with sugar, is a common beverage at Paris, where it is generally preferred to organe, or lemonade.

* Hoffman and Boehme had great confidence in the efficacy of these fruits in obstrucive viscerai obstructions.

b See Madure on the Bile, where the effects of the vegetable acid are considered.
THE Black Currant—under wood is covered with the younger shoots is usually divided into three deep green colour, and glands, which secrete an acid; the leaf-stalks are subtended by bracteae, or floral leaves, produced in pendent racemes upon the common stem. The five oval spreading segments of the corolla is composed of more than that in the red currant respects, the parts of flower are given of the red species.
RIBES NIGRUM. BLACK CurrANT.


Bacca polypetra, 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 bracteae, 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: the proofs however of their diuretic powers seem to want confirmation, as Forellus, 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.

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.

The official preparations of the black currant berries, in the London Pharmacopoeia, are the syrupus ribis nigrī, and the succus ribis nigrī inspissatus.

* 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 detestus vinis verioribus vitis, quando annuum est.” I. c. Smith Nat. Hist. of Cork, p. 359.

* Opp. Lib. 25. Obs. 10.

* Med. 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.*


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 pinnas, 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 stigmatæ: 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. Linnaeus at first supposed it to be the Pipteria folia pinnati deciduæ, foliolis ovatis; but in the second edition of his Species plantarum and Mat. Med. it is recorded as the Bursera gummosa, and both these genera are referred to the Terebinthus major of Sloane, or the Birch turpentine-tree of Browne. However Jacquin, who examined the root of the Bursera, and compared it with that of Simaruba, found it to be very different. Linnaeus therefore in his observations in 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 Aubert, and at Jamaica by Dr. Wright, from whose specimens it evidently appears to be a Quaëfia, and under this name it has since been described by the younger Linnaeus in the Supp. Plantarum. Dr. Wright, to whose botanical researches we are much indebted, says, "in 1773, specimens of the fruitification 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 Linnaeus at Upal, as appears by Professor Murray's Apparatus Medicaminum." Dr. Fothergill caused elegant drawings to be made of this plant, and the drawings I now have the honour of presenting to the Royal Society of Edinburgh." By the assistance of Mr. Alexander Anderson a plant of this species has been lately introduced into the Royal garden at Kew." The cortex Simaruba of the stumps is the bark of the roots of this tree, which, according to Dr. Wright, "is rough, scaly, and warted. The infide, 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." a

This bark was first sent from Guiana to France in 1713 to the Count de l'Orchartrain, 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 refitted 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 Simaruba, which proved remarkably successful.

a Qualis vero eujusdem arbor sit, jamjam Aheletii indagine cognoscimus; ut tamem et mihi numero incunabulis, t. Linnæus, Equiem, litteris jam a. 1776, inante mihi datis, abstaquaque Aheletii elegantissimum opus illi innotescet, significali, Simarubae Quaissiae speciem a te haberi. Ille autem Simarubae cortex, quo cl. Wright (Conf. Biol. mea med. v. iii. p. 483) arborum in Jamaica vulgarem vestrum dic inquit, emitter in alii prodigius efficax, dispersa a vulgo ultima cortex, ut speciem mihi authore reportis, quod fallacia tenes Gentium, longe pollutius, extus extrae herbas exspecta fortis stipitis, nulla maranum." b

Vol. iii. p. 458.

b L. c. p. 74.

c See Aiton's Hort. Kew. d Lewis Med. Med. p. 606. e See Wright, l. c. and
and first established its medical character in Europe.† Dr. Wright says, "molt authors who have written on the Simaruba, agree, that in "fluxes it restores the loft tone of the intestines, allays their spasmic "motions, promotes the secretions by urine and perspiration, removes "that lowness of spirits attending dyenteries, and distothes 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 dyenteries, where there is no "fever, where too the stomach is no way hurt, and where the gripes "and tenesmus are only continued by a weaknes 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 dyenteries and diarrhoeas, 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 Haflar 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


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

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.

* 1. *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

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**QUASSIA AMARA. BITTER QUASSIA.**

**SYNONYMA.** Quassia. *Pharm. Lond. & Edinb.* Quassia
pentaphylla pediculis alatis, floribus racemosis terminalibus coccineis.
fructu pentaspermum. *Patris in Gazette salutaire, 1777, n. 41. 42.*


*Pericarpia* 5, distanta 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
conflit of two pair of opposite pinnae, with an odd one at the end:
No. 16.

3 I  all
all the leaflets are of an elliptical shape, entire, veined, smooth, pointed, sessile, on the upper pagina of a deep green colour, on the under paler: the common footstalk is articulated and winged, or edged, on each side with a leafy membrane, which gradually expands towards the base of the pinnae: the flowers are all hemispherical, of a bright red colour, and terminate the branches in long spikes: the bracteal 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 stylium, or five roundish, coloured, scales: the filaments are ten, slender, somewhat longer than the corolla, and crowned with simple anthers, 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 Quaia 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, Linnaeus, in his Materia Medica, referred it to the Nux americana, foliis latius bidentis of Commelin. It appears, however, that the figure given in the Amoenitates Academicae, is not a faithful representation of this species; hence the younger Linnaeus has observed, "Figura florae in Differentiae Parentis de Quaia vera est, sed ramulus cum foliis ad aliam pertinet;" and consequently those copied from it, and since published by Buchez, and others, are with respect to the leaves erroneous; this will be evident, upon consulting the plate and description of the Quaia 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 Linnean Society.


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

* The simple and valuable collection of specimens in Natural History made by Linnaeus, and to which most of his contemporary 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.

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Scorvia, 4th Engin, l
p. 432. & seq.
in quo medicina Qua
The root, bark, and wood 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 water 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 Quaffi, (by Fermin written Coiffi, and by Rolander Quafs) 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. 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, 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, affilling digestion, expelling flatulency, and removing habitual colic.

It may also be remarked, that the leaves, flowers, &c. likewise possess similar qualities. Toutes les parties du Caflie, 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.

Of these we may mention Linnaeus, Dahlberg, Blom, Fermin, Tiffot, Thorsjensen, Severius, Ebden, Patris, and many others, for which see Murray App. Med. vol. iii. p. 432. & seq.

tiveness, produced from debility of the intestines, and common to a fedentary 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, succumbing febrile diseases, the peruvian bark is most generally more tonic and salutary than any other vegetable hitherto known; but in hysterical atony, to which the female sex is so prone, the Quassia affords more vigour and relief to the system than the other, especially when united with the vitriolum album, and still more with the aid of some absorbent.”

In dyspepsia, arising from hard drinking, and also in diarrhoeas, the Doctor exhibited the Quassia with great success. But with respect to the tonic and febrifuge qualities of Quassia, he says, “I by no means subscribe to the Linnaean opinion, where the author declares, me quidem judicis chinchinam longe superat: it is very well known, that there are certain peculiarities of the air and idiosyncrasies of constitution, unfavourable to the exhibition of the peruvian bark, even in the most clear intermissions of fever, and writers have repeatedly noticed it; but this is comparatively very rare. About midsummer, 1785, I met with several instances of low remittent and nervous fevers, wherein the bark uniformly aggravated the symptoms, though given in intermissions the most favourable to its success; and wherein Quassia, or snake-root, was successfully substituted. In such cases, I mostly observed, that there was great congestion in the hepatic system, and the debility at the same time, discouraged copious evacuations.”—And in many fevers without evident remissions to warrant the use of the bark, whilst at the same time increasing debility began to threaten the life of the patient, the Doctor found that Quassia, or snake-root, singly or combined, upheld the vital powers, and promoted a critical intermission of fever, by which an opportunity was offered for the bark to effect a cure.

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.


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 shown to new medicines. *Med. Med. vi. ii. p. 74*.

SAMBUCUS
Sambucus nigra

The height of the plant is up to 6 feet, and the branches are divided into leafy shoots. The leaves are compound, divided into leaflets, equal in size, lobed, which in the male flowers are red, and in the other, black.
SAMBUCCUS NIGRA. COMMON BLACK ELDER.


Varietates sunt,

α Sambucus fructu in umbella viridi. C. Baub.

γ Sambucus laciniato folio. C. Baub.


Eff. Gen. Ch. Cal. 5-partitus. Cor. 5-fecha Bacca 3-fperma.

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, confining of two or three pair of pinnæ or leaflets, with an odd one at the end; they are oval, veined, smooth, deeply serrated, and of a deep green colour: the flowers are small, white, and produced in large flat umbels or clusters: the calyx is permanent, placed above the germen, and divided into five segments: the corolla is monopetalous, wheel-shaped, somewhat convex, and divided into five obtuse segments: the filaments are tapering, spreading, equal in length to the corolla, and crowned with roundish antheræ: the germen is oval, and furnished with a prominent gland, which supplies the place of the styles, and supports three blunt stigmaticata: 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.

No. 16.

This
This species is the *AZ~ 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. The parts of the Sambucus, which are prepared for medicinal use in the Pharmacopoeias, 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 sweetness, 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 and Boerhaave, 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 chronicl disorders.

"The flowers have an agreeable flavour, which they lose 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. Infusion 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 erysipelas and eruptive disorders." Externally they are used in fomentations, &c. and in the London Pharmacopoeia directed in the form of an ointment. "The berries, in taste, are somewhat sweetish, and not unpleasant; on expression, they yield a


* The Berries are said to be poisonous to poultry. (Barthol. Hist. rarior. Cent. iv. p. 248.) And the flowers to peacocks. *Linn. Flor. Sex. p. 79.* If turnips, 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. *Wiberine. i. c.* See *Phil. Trans. vol. xii. p. 348.*

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

fine purple juice, which proves an useful aperient and resolvent in recent colds and fudy chronicl diseases, gently looening the belly, and promoting urine and perspiration." The official preparation of these berries is the succus baccaz fambuci spissatus. (Pharm. Lond.)

PYRUS CYDONIA. COMMON QUINCE TREE.


Sp. Cl. F. fol. integerrimiis, flor. solitariis.

THIS tree feldom 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 axillae 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 antherae: the germen is orbicular: the stigmas 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, that the malus Cydonia, or Malus xyclona of the Greeks, was originally brought from Cidon 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 astringent taste: its expressed juice, repeatedly taken in small quantities, is said to be cooling, refringent, and stomachic, useful in nausea, vomitings, nidorous eruptions, and some kind of alvine fluxes. 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 Alton's Hort. Kew.  
* Lib. xv. cap. 11.  
* Heifter Diff. de Cydoniis, p. 59.  
* But upon being boiled and preserved in syrup, this fruit is well known to give a pleasant flavour to apple-pies.  

DIANTHUS CARYOPHYLLUS.
SYNONYMA. Caryophyllum rubrum. Pharm. Lond. & Edinb.

a Caryophyllum hortensis simplex flore majore. C. Baub.
CLOVE PINK.

b Caryophyllum maximus ruder & variegatus. C. Baub.

COMMON CARNATION.*


Eff. Gen. Ch. Cal. cylindricus, 1-phylthus; basi squamis 4. Petala 5,

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, cylindrica, divided at the
mouth into five segments, and surrounded at the base with four oval
pointed squamae: the corolla consists of five petals, which at the
limb are rounded, patent, inclosed, fringed, and attached to the
common receptacle by long narrow claws: the ten filaments

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* Vide Aiton's Hort. Kew.

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are longer than the calyx, tapering, spreading towards the top, and furnished with compressed oblong antheræ: the germen is oval: the styes two, flender, longer than the filaments, and their flignata curled outwards: the capule 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."

Formerly these flowers were supposed to have considerable effect upon the nervous system, and were therefore recommended in headache, faintings, palpitations of the heart, convulsions, tremors, &c. and S. Pauli says, that he found them of great use even in malignant fevers. At present, however, they are valued merely for their sensible qualities, and the syrupus caryophylli rubri, which is the only official 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.

VIOLA ODORATA.
VIOLA ODORATA. SWEET VIOLET.


Varietates sunt,

α Viola martia purpurea, flore simplex odoroso. 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 multiplex flore. C. Bauh. l. c. p. 199.

DOUBLE FLOWERED SWEET VIOLET.


Sp. Ch. V. acaulis, foliis cordatis filonibus reptantibus.

THE root is perennial, knobbed, whitish, and furnished with long fibres: the leaves are heart-shaped, veined, crenated, or slightly incised at the edges, on the upper side smooth, and of a shining green colour, underneath paler, somewhat hairy, and stand upon long smooth stalks: the stipules 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 bracteae, 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

* Vide Aiton's Hort. Kew.
five leaves, 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 anthers are bicoccular, slightly joined together, yellowish, and terminated by an oval membrane of an orange colour; from behind two of the anthers there arises a flat greenish appendage, which is inserted in the nectarium; the germ 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 bracteas being placed somewhat below the middle of the scapus or peduncle.

The Viola odorata is evidently the ἴλος πίκρος of Theophrastus, and the ὄνεος ὄνεος of Dioscorides; it was also well known to the Arabian physicians, as Meheue 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. 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. 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 official preparation of these flowers is a

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


Ryup,
The root is perennial, of a dull yellowish brown colour; the stalk covered with a whitish

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syrup, 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. The root powdered, in the dose of a dram, proves both emetic and cathartic.

† 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. I. c. 5 See the authorities cited by Murray, App. Med. v. i. p. 519.


CISSAMPELOS PAREIRA. PAREIRA BRAVA CISSAMPELOS.


Fem. Cal. monophyllus, ligulato-subrotundus. Cor. o.

Styli 3. Bacc a 1-sperma.

Sp. Ch. C. foliiis 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.

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for support: the leaves are roundish, indented at the top, about an inch and a half long, two inches broad, entire, covered with soft downy hairs, 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 anthers: 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-seeded 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; 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. This root has no remarkable finish; but to the

a In Jamaica "this plant grows in great plenty, commonly amongst the ebony trees, climbing about them." Long's Jann. vol. iii. p. 790.

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.

taste it manifests a notable sweetness of the liquorice kind, together
with a considerable bitterness, and a slight roughness covered by the
sweeter 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 dis solvent of its active parts. Both the spirituous
tincture and extract are in taste stronger than the watery.”

The facts adduced on the utility of radix parviæ bractæ in nephritic
and calculous cases, are principally those by Helvetius, Geoffroy, and
Loehner: the first seems to think that it acts as a lithontriptic, but
Geoffroy attributes its virtues to its power of dissolving the indurated
nucleus to which the fabulous matter adheres. It has also been repre-
 mendosed in sicchuria, ulcers of the bladder, flue 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 prac-
titioners; and as a proof of its being fallen into disrepute, the Edin-
burgh College has expunged it from the Materia Medica. The dose
of the powdered root is from one scruple to two. Geoffory 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.


* And Burpinus says, “Certe vidi ego calculosos, arthriticos et rheumaticos plures,
AMYGDALUS COMMUNIS. THE ALMOND TREE.

SYNONYMA. Amygdala (nuclei). *Pharm. Lond.* & *Edinb.*
Varietates sunt,


SWEET ALMOND TREE.


BITTER ALMOND TREE.


THIS tree divides into many branches, covered with a dark grey bark, and usually rises from twelve to sixteen feet in height: the leaves are elliptical, narrow, pointed at each end, minutely ferrated, veined, of a bright green colour, beset with small glands towards the base, and stand upon short footstalks: the flowers are large, of a pale red colour, without peduncles, commonly placed in numerous pairs upon the branches, and appear before the leaves: the calyx is tubular, and divided at the brim into five blunt segments of a reddish colour: the corolla consists of five oval convex petals, with narrow claws: the filaments are about thirty, spreading, tapering, of unequal length, and of a reddish colour, inserted into the calyx, and furnished with simple antherae: 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, 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. It was cultivated in England by Lobel previous to the year 1570, 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 shewing 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; 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, colic, 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

* Particularly in the hedges about Tripoli. See Bauh. l. c.
* The Nuces oleosae 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 Med. vol. 1. 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."* Bitter Almonds have been long known to be poisonous to various brute animals, and some authors have alleged that they are also deleterious to the human species, but the facts recorded upon this point appear to want further proof. 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, as is the case with the common laurel, to which it appears extremely analogous. 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. And Bergius tells us, that bitter Almonds, in the form of emulsion, cured obstinate intermittents, after the bark had failed.\

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

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 olei amarum ethereus. 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.

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

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


PRUNUS SPINOSA.
SYNONYMA.

fylvefris. Gera.
Baub. Pin. p. 44.
lanceolatis, floribus
Hudson. Flor. An

Claf. Icofandria.


prominulis.

Gen. Ch. P. ped
spinosus.

THE root is woody, rises to
purple black colour
branches: the leaves
mutely ferrate, of flanks: the
points: the flower:
eduncles: the calyx:
segments: the calyx
attached to the calyx, and fruit
roundish, the flower:
fruit is of the dr black colour, but
flowers appear in

† The ferratures can an excretory duct.
PRUNUS SPINOsa.  SLOE TREE.


Gen. Ch. P. pedunculis foliariis, foliis lanceolatis glabris, rami spinosis.

THE root is woody, divided, and spreading: the stem is shrubby, crooked, rises to the height of fix or eight feet, covered with a purplish black coloured bark, and sends off many irregular spiny branches: the leaves are oval, obtusely lance-shaped, smooth, minutely serrated, of a deep green colour, and stand upon short footstalks: † the stipulae 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, inferted in the calyx, and furnished with orange coloured antherae: 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 Linnaeus 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 astringe 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 insufflated 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.

The Pruna sylvestria have been employed for their ptyctic powers since the time of Dioscorides, and as their astringency is united to the refrigerant qualities of the fruit, they may sometimes supercede those medicines of this class which are of a resinous or heating quality. They have been recommended in diarrhæas, haemorrhagic affections, and as gargles, in tumefactions of the tonsils and uvula. Dr. Cullen considers the Sloe as the most powerful of the frutibus 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.

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. The powdered bark, in doses of a dram, is said to cure agues.

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The Synonyma of Prunus domestica, commonly known as the Common Prune or Plum Tree, are:

SYNONYMA. Prunum gallicum. Pharm. Lond. Prunus domestica.

Prunus domestica.

Polly Hawk. 1791.


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 stipules 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 becket on the inside with a number of glandular hairs: 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 styele, 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 we find considerable difficulty in referring with sufficient accuracy to that called by the London College Prunum gallicum; it is therefore probable that some

* See Withering, l. c.

\textit{Du Hamel} (\textit{Arbres Finit.} T. 2. p. 65. l. 1.) describes forty-eight varieties; and \textit{Mayer} (\textit{Planta Prunon.} T. 1. p. 116.) makes them still more numerous.

The original parent of these varieties is not yet satisfactorily ascertained.—J. Bauhin refers it to the \textit{Pruna cerasa minoria praecocia.}

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

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, diarrhoea, 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. They are found to be peculiarly useful in collique habits, and are frequently ordered in decoction with senna or other purgatives. It is the pulp of this fruit which is directed in the Elecampan and Senna, or Lenticule electuary.


4 See Dioscorides, (Lib. i. cap. 1. 174) by whom the tree is called "Kvvaqand
e, and the fruit "Kvvaqanda.

6 It is also thus mentioned by Ovid:

Prunaque, non folium nigro liventia succo,
Verum etiam generos, novaque imitantia ceras.

Met. Lib. xiii. v. 818.


ASARUM EUROPÆUM.
Asarum europaeum

Published by R.M. Schulte, June 2, 1791.
ASARUM EUROPÆUM. COMMON ASARABACCA.


Eff. Gen. CH. Cal. 3-f. 4-sidus, germinis insidens. Cor. o. Caps. coriacea, coronata.

Sp. CH. A. folii reniformibus obtusis binis.

THF root is perennial, strong, divided and fibrous: it has no flake, 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 foot-talks: the flowers are large, bell-shaped, of a dirty purple colour, and placed singly upon short pedicels at the base of the foot-talks: 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 anthers, 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; and flowers in May.

It appears from Pliny, 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 afarum and

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


Afarum, ab a priu. & comparo, 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 Aferum have a moderately strong and not very unpleasant smell, somewhat resembling that of valerian or nard; and a nauseous bitterish acid taste:" 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 Linnaeus as a substitute for ipecacuanha; 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 fitted to many of the purposes of the ipecacuanha." In small doses it is said to promote perspiration, urine, and the uterine flux. Spirituous tinctures and watery infusions of the plant poisons 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. At present Aferum is seldom given internally, as the evacuations expected from its use may be procured with more certainty and safety by various other medicines, that it is now chiefly employed as an emetic or febrifuge, 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 headache, toothache, ophthalmia, and some paralytic andispotic complaints, have been effectually relieved. It is the busis of the pulv. stearnutatorius, or pulvis afari compositus.

† Nardus Celtica L.  
‡ Lewis T. M. p. 122.

* Am. Acad. T. 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.  


ROSMARINUS OFFICINALIS,
ROSMARINUS OFFICINALIS. COMMON ROSEMARY.


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 lusile, 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 axilae 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 antherae: 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* 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.


No. 18. 3 P The
The ancients were well acquainted with this plant, as it is mentioned by Dioscorides, Galen, and Pliny. 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.

Rofemary 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.

"Rofemary 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 Rofemary 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 infuviated, an unpleasant bitterish extract. Rectified spirit likewise, distilled from Rofemary 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."

Rofemary 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 defensive excitement of the brain and nerves; as in certain headaches, deafness, giddiness, palpitations, &c. and in some hysterical and dyspeptic symptoms. Dr. Cullen supposes the stimulant power of Rofemary insufficient to reach the sanguiferous system;

It is called Ἀϑοράτης by the Greeks, (Dioscor. Lib. 3. cap. 89.) Pliny, Lib. 24. cap. 11. de raro mari. Hence it may have been alluded to by Virgil in the following lines:

Nam jeuna quidem clivosi glareae ruris
Vix humiles apisbus caelias torremonque miniaturat.

Georg. ii. v. 212.

Lewis M. M. p. 544.

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.

Lewis, l. c.
it has how ver... difficult in which is... official preparation... and the... is known by...
it has however the character of being an emmenagogue, and the only
disease in which Bergius states it to be useful is the chlorosis. ¹ 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.

¹ "Virtus: resolvens, nervina corroborans, emmenagoga.  Ufus. Chlorosis."—
M. M. p. 21.

FUMARIA OFFICINALIS.  COMMON FUMITORY.

SYNONYMA.  Fumaria.  Pharm. Edinb.  Fumaria officinarum
Hist. p. 405.  Synop. p. 284.  Fumaria folis multilidis lobis sub-


Eff. Gen. Ch.  Cal. dyphyllus.  Cor. ringens.  Filamenta 2, mem-
branacea, singula Antheris 3.

Sp. Ch.  V. pericarpii monospermis racemosis, caule diffuso.

THE root is annual, slender, and fibrous: the stalk is spreading,
smooth, somewhat angular, bending, much branched, and usuall
rises above a foot in height: the leaves are compound, doubly pin-
nated, pinnate trilobed, of a pale green colour, and standing upon
flender footstalks: the flowers are of a reddish purple colour, and
grow in spikes, which arise from the axille of the leaves: the brac-
tex are linear, purplish, and placed at the base of the peduncles: the
calyx
calyx is composed of two deciduous equal leaves, 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 antherae; the germen is oval; the style is filiform, about the length of the filaments, and crowned with a flatish 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, 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 conserve slightly 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 leis in quantity and bitter in taste than either the watery extract or inspissated juice.”

Fumitory has been supposed by several Physicians of great authority, both ancient and modern, to be very efficacious in opening obstructions and infarctions of the visera, 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

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b Levius M. M. p. 315.

c Actius, Boerhaave, F. Hoffman, and many others.

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

An infusion of the leaves is used as a coagulatic 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 preferred;
but its remarkable virtues are those of clearing the skin of many
diseases. 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."

* M. M. vol. ii. p. 77.

**SPARTIUM SCOPARIUM.** COMMON BROOM.

hirfutis superioribus simplicibus. *Hall. Stirp. Helv.* n. 354. Spar-


*Fff.* *Gen. Ch.* *Stigma* longitudinale, supra villosum. *Filamenta* germi-

*Sp.* *Ch.* S. folis ternatis solitariis, ramis inermibus angulatis.

No. 18. 3 Q  THE
THE root is woody, tough, and extends to a considerable length: the stalk is shrubby, branched, and covered with light brown bark: it usually rises from four to six feet in height, and sends forth a great number of slender angular green shoots: the leaves are small, downy, divided into three oval leaflets, and standing upon footstalks of different lengths: the flowers are large, numerous, of the papilionaceous shape, and of a bright yellow colour: the calyx is tubular, divided transversely at the margin into two lips, of these the uppermost is entire, the undermost slightly notched: the corolla is composed of five petals: the superior, or standard petal is inversely heart-shaped, and bent backwards: the two lateral petals, or wings, are oblong, convex, less than the standard, and united to the filaments: the keel is composed of the two undermost petals, which are connected together by soft hairs at the margin, so as to appear keel-shaped: the filaments are ten, nine of which are united at the base, of unequal length, curled inwards, and furnished with oblong antherae: 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.

Linnaeus, Bergius, and several other writers seem to have confounded the medicinal qualities of this plant with those of Genista tinctoria: the official Genista is however by the British Pharmacopoeias 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 cafes, of which particular instances are related by Mead 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 cathartics) in among our purgatives: for, as one of my patients, on account of his continual Broom this is, contrary to received practice, every hour of the day and night in con- dition of the exhibition cured." Th and principle is, that of their good will, Menone, is the efficacy of this herb on the over and not in the body. The seeds are good but the evidence is not relied upon, for coffee.


* Mon. & Proc. 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 dropst. See also Mähring Ad. N. G. vol. v. p. 32.
cathartics) from my own experience of it. I found it first in use among our common people; but I have since prescribed it to some of my patients in the manner following: I order half an ounce of fresh Broom tops to be boiled in a pound of water till one half of this is consumed, and of this decoction I give two table-spoonfuls every hour till it operates by stool, or till the whole is taken. It seldom fails to operate both by stool and urine, and by repeating this exhibition every day, or every second day, some dropies have been cured. The ashes of Broom have also been much used in dropies, and principally on the authority of Sydenham, whose account of their good effects has been since confirmed by the testimony of Dr. Monro, and other writers. 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.

* Opera, p. 497.
* He gave a dram divided into three doses every day. On Dropys, p. 64.
* See Odhelius in Vet. Acad. Handl. 1762. p. 82.

Purtat genifem fumen non minus potenter fer quam Spartium aut Hellborus, &c. Idem confirmat Lobelius, femine Genifae soparum vomitum non fecus ac Spartio Dioscoridis decocito propinato citra magnum contentionem fe movisse scribens. Verum flores rocamus decerptos sapoisque quam plurimos & per se aceroris inditos varat, inquit plebecca Arvernae et Aquitaniae maximam copiam innocuos non modo sed etiam admodum gutti suaves; nec quisquam vomitiones naufusce, aut commotiones movere silent. Quin apud Brabantos, & Anglos non minis, gemmantes dum adhuc virides sunt condintur gale & aceto flores, menisque inferuntur, Capparum Oleorumque pari commendatione. Ray i.e. Ray also informs us, that from the MS. of Dr. Hulé, he learned that the fior. genif. given in the form of elecuary, with honey of roses, were found of great efficacy in scrofulous affections.

**ORCHIS MASCUŁA.**


Sp. Ch. O. bulbis indivisis, nektarii labio quadrilobo crenulato; cornu obtuso, petalis dorso 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 bracteae 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 germin, and furnished with oval antherae, which are incaed in the limb of the nectary: the germin 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 plant has a place in the Materia Medica of the Edinburgh Pharmacopoeia only on account of its roots, which abound with a glutinous limy 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 althea 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, which we shall transcribe from the words of Dr. Percival, 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.

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J. Joseph Miller (Botan. offic. 1722. p. 385) to which we may add the names of S. leu and Hrisir. This was first confirmed by Buskboom (Plant. min. cogn. Cent. 3. p. 5.) See Murray, Ap. Med. vol. 5. p. 285.

a See Phil. Trans. vol. 59. p. 2.

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

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. Dr.
Percival not only recommends the use of Salep as other authors have
done in diarrhoea, dysentery, dysuria, and calculous complaints; but he
thinks "in the symptomatic fever, which arises from the absorption of
pus, from ulcers in the lungs, from wounds, or from amputations,
Salep used plentifully is an admirable demulcent, and well adapted to
restitut that dissolution of the crisis 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.

* The properest time for gathering the roots is when the seeds is formed, and the stalk
is ready to fall, because the new bulk, 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.

* 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 est pallium est, quam Per-
seum, et tam tenacem mucilaginem exhibuit eto ejus grana in aere fervide unica una h. e.
radicem in 60-po aere solvendo, ut per panum linum non perfecte tranfigi potest, sed
affundit inter sed destinat aere fervide unicae diminished, que auctio mucilaginis denitestate
aquirit aperam ex Salep Persico unica una aqua elicitam remaneit vero residu et iotto
Suecico Salep granum x i et Persico gr. i. Murray l. c. See Pet. Acad. Handl. 1764.
p. 245. fs.

* Orchis, i. e. 3½x, Tetticulus, habet radices inferius tetticulorum.

CISTUS CRETICUS.
CISTUS CRETICUS

Planta in

SYNONYMA.

Caroll. Inst. rur. 1809. Idaunifera verna
Banb. Pin. p. 1286. Cistus marginibus
Clefs Polyandriae
Sp. Cb. C. arbo
enerviis

THIS plant is covered with
branches: the
veined, and fragrant,
the leaf, so as
are produced in
and July; they
spots at the base.
the calyx is divid
which the two
five petals, when
on being touched
and supplied with
is oval, and full
the capsule is m

Published by D. B. Woodville, July 1, 1791.
CISTUS CRETICUS. CRETAN CISTUS.

Planta à qua colligitur LADANUM. Pharm. Lond.


Sp. Ch. C. arborefzens exftipulatus, foliis spatulato-ovatis petiolatis enervii, 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, viscid, 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 antherae 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, 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 Ergostiri, 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 bruised 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.

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.

* See Aiton’s Hort. Kew.
+ See Belon. Observationes de plis tuitis singularibus in Greca, Asia, &c. Lib. i. c. 7. and Tournefort. Voyage du Levant. t. i. p. 29, where the Ergostiri is described and figured.

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

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ANCHIUS

SYNOI

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Hilf. vol
Gerard
p. 57

Cliffs Pem

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Sp. Ch.

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N
Rectified spirit of wine dissolves nearly the whole of pure Labdanum into a golden-coloured liquor: on infusing 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. This resin was formerly much employed internally as a pectoral and astringent in catarrhal affections, dyenteries, 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.

4 Lewis, M. M. p. 368.

ANCHUSA TINCTORIA. DIERS BUGLOSS, or ALKANET.


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;
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 faex or centre by five small prominent scaly leaflets: the five filaments are short, included in the tube of the corolla, and furnished with simple antheræ: the germens are four: the style is filiform, about the length of the stamina, and supplied with an obtuse notched stigma: the seeds are four, of an irregular shape, and lodged within the calyx. It flowers from June till October.

This species of Anchusa * is a native of Montpellier, and was cultivated in Britain by Mr. James Sutherland, in the year 1682. 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." Formerly the Alkanet root was recommended in several diseasfs, particularly as an astringent, and it manifests this quality in some degree to the tafe; but it is now used in no other way than for colouring oils, ointments, and plasters, which receive a fine deep red from one fortieth their weight of the root.


* Alston could not discover this quality in the Anchusa. *M. M. vel. i. *p. 365.

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

**POLYGALA SENEGA.**
POLYGALAE

SYNONYMOUS

Polypogon

Polypogon

Eff. Gen. & L.

Sp. Lib. P.

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Polygala Senega

Published by M. Wendt, July 1. 1791.
POLYGALA SENEGA. RATTLESNAKE-ROOT MILK-WORT.


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, flender, 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 perisent 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 deflected 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 anthers: the germe
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, 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 subtle pungent penetrating taste." 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 Linnaeus 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 fit 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."

Rattle-nake-root was first introduced to the attention of physicians about sixty years ago, by Dr. John Tennent, 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. Cases afterwards occurred, by which he was fully convinced of the efficacy of this medicine from his own experience. And as the Doctor observed, the plant is a native of Virginia, and other parts of North America. It was first cultivated in England in 1759, by Mr. P. Miller, 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 subtle pungent penetrating taste." 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 Linnaeus 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 fit 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."

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that pleuritic 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 pleurities not only by Tennent himself, but by several of the French academicians and others, 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 Seneca 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. It has also been prescribed with much success in dropsy, and this we can the more easily credit from its effects in increasing the different secretions, for 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 sappiness of the blood more fluid; De Haen however brings a strong fact to contradict this opinion. The usual dose is from one scruple to two of the powder, or two or three spoonsfuls 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, hemoptysis, a strong quick pulse, &c.

‡ See his Essay on the Pleurisy. Philad. 1736. Also his Etudes to Dr. Mead.

Lemery, De Jelleau, Du Hamel, Bouvart, for which see Mem. de l'Acad. de Paris, 1739, & 1744.

Cam. Neric. 1741. p. 362. Sarcone Geschichete d. Krankh. in Neapel, Tom. i. p. 168, 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.


k Ratio Med. vol. iv. p. 252.

No. 19. 3 T JUNIPERUS SABINA.
JUNIPERUS SABINA. COMMON SAVIN.

SYNONYMA. Sabina. Pharm. Lond. & Edinb.

Variates funt,†


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, tapering.

† These two varieties are precisely the same as those noticed by Dioscorides. See L. 1. C. 104.
ing, united at the bottom into one body, and furnished with simple
anthers, but in the lateral flowers the filaments are scarcely perce-
tible, and the anthers are fixed to the scale of the calyx; the calyx of
the female flowers is composed of three small permanent caly
segments, growing to the germen: the petals are three, stiff, sharp, permanent:
the germen support three styles, supplied with simple stig mata: 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, 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. "The leaves and tops of Savin have a moderately
strong smell of the disagreeable kind, and a hot, bitterish, acid 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. Decoctions of the leaves, freed from the
volatile principle by insufflation to the confidence 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 insufflating 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
relishous, 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 determina-
tion to the uterus, and thereby proving enmenagogue; it heats
and stimulates the whole system very considerably, and is laid to
promote the fluid secretions.

b For the male inflorescence of this genus, see the next plate, viz. n. 95.
c From thirty-two ounces Hoitman 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 enmenagogus, abortious, diureticus, sanguineum movens.
Mai. Med. p. 314. ** 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. 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." Dr. Home appears to have had very great success with this medicine, for in five cases of amenorrhea which occurred at the Royal Infirmary at Edinburgh, four were cured by the Sabina, 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 efcharotic to foul ulcers, syphilitic, warts, &c.

* Hinc in utero fluxu ciendo adeo potens, qua vi abueta subinde feruntur communi fore effatio, a Galeno inde tempore deducto, fecellle matres ad abortum excitandum, sed haud absque proprio sito periero vel ante partum vel max post illum. (Storck Epistola. lib. 220.) Suspect a huius naturae subriet judicium facultatis medicis Lipsiensis. (Amman. med. vit. p. 42. See Murray App. med. vol. i. p. 42. And Haller l. c.


JUNIPERUS COMMUNIS.