
Chemical Medicines.

CLASS I.

CHEMICAL PREPARATIONS OF VEGETABLES *.

SECTION I.

DISTILL'D OILS.

Oleum Absinthii.

Oil of Wormwood.

TAKE any quantity of the plant Wormwood, moderately dry'd in the shade and cut to pieces; as much Spring-water as will commodiously keep it a-float; and a proper quantity of Sea-salt, to give the liquor a tolerable sharpness: let them steep together for

* The order observed in the pure chemical part is no less exact and beautiful than that in the *Galenical*, or rather the preceding mixt part of this Dispensatory; and no other than what is religiously, and with great propriety, pursued by the accurate *Boerhaave* in his *New Method of Chemistry*.

P

eight

eight days; then distil them, by the alembic, with a somewhat smarter fire, than what is used in the distillation of waters; and afterwards separate the Oil from the Water, according to the rules of art*.

In the same manner are distill'd,

<i>Oleum Herb.</i>	The Oils of the Plants
<i>Majorana,</i>	Marjoram.
<i>Menthae,</i>	Mint.
<i>Pulegii,</i>	Peny-royal.
<i>Rorismarini,</i>	Rosemary.
<i>Ruta, &c.</i>	Rue, &c.
<i>Flor.</i>	Of the Flowers of
<i>Chamæmeli,</i>	Camomile.
<i>Lavendula, &c.</i>	Lavender, &c.
<i>Sem.</i>	Of the Seeds of
<i>Anisi,</i>	Anise.
<i>Carui,</i>	Caraway.
<i>Cumini,</i>	Cummin.
<i>Fœniculi, &c.</i>	Fennel, &c.
<i>Cort.</i>	Of the Rind of
<i>Aurantiorum,</i>	Citrons.
<i>Citriorum,</i>	Lemmons.
<i>Limonum.</i>	Oranges.
<i>Caryophyllorum,</i>	Of Cloves.
<i>Cinnamomi,</i>	Cinnamon.
<i>Macis,</i>	Mace.
<i>Nucis Moschata, &c.</i>	Nutmegs, &c.
	But

* The addition of the Sea-salt, or any mineral acid, will considerably increase the quantity of the oil; (as the judicious *Homberg* first discover'd) by opening the little

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But observe that all *Seeds* and *Spices* ought to be bruised before they are set to steep.

All manner of unctuous *Vegetables* will afford their Oil by this kind of treatment; provided the time of digestion be suited to the strength and texture of the subject. The tenderest plants scarce require any digestion at all; those of a soft and yielding nature, require one of two or three days; the viscous one of as many weeks; and the woody and resinous one, of as many months. The longer the digestion is continued, the larger quantity of Sea-salt is to be added; instead whereof may be used *Nitre*, *crude Tartar*, or any *fix'd acid Spirit*. The Water separated from the Oil, may be employed to advantage in future distillations*.

Oleum Baccarum Juniperi.

Oil of Juniper-Berries.

Take any quantity of bruised Juniper-berries, half their weight of Spring-water, and

little cells of the plant wherein 'tis naturally lodg'd; at the same time preserving the subject sound and untaunted: so that whatever essential Oil is set loose by the digestion, is kept unchanged; and thus the smart fire, cannot fail to raise it in distillation. For the whole rationale whereof, and the manner of separating the essential Oils of Vegetables, the reader may consult *Boerhaave's New Method of Chemistry*. pag. 76—96, and 99, 100. PRACT.

* For the rationale and ample history of these matters, see *Boerhaave's New Method of Chemistry*, ubi supra.

a small proportion of Yest; let them stand together for some days, but not too long, to ferment; then add a sufficient quantity of Spring-water, and distill the whole by the alembic; separating the Oil, according to art, from the Water.

After the same manner are distill'd *Oleum Baccar. Lauri, &c. Herb. Sabinae, &c.* the Oils of Bay-berries, and other Berries of that kind; the Oils of *Savin*, and other plants of that nature; and indeed the Oils of all viscous subjects, or those of a close texture*.

Oleum Terebinthinæ.

Oil of Turpentine.

Take any quantity of Turpentine, melted over a gentle fire, and pour it into a glass retort, so as to fill one half thereof; then fitting on the receiver, distil in a Sand-heat; and with a soft fire, there will come over an acid Spirit; then, the fire being gradually increased, a limpid *Oil*, commonly called æthereal Spirit, and at length a yellow Oil; leaving the Colophony at bottom; which being urged with the last degree of fire, will also afford a red and dusky-red Oil, that falls

* For the method of procuring this Oil, without any previous fermentation, see *Boerhaave's Chemistry*, pag. 85, 86. PRACT. tho'tis certain that in some subjects, particularly in those disposed to afford but a small proportion of oil, an imperfect fermentation will increase the quantity.

thro'

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thro' the other liquors to the bottom of the receiver.

The Gums Ammoniac,
Caranna,
Elemi,
Galbanum,
Sagapenum,
Storax, solid and liquid,
Tacamahac, &c.

distill'd in the same manner, afford an acid Liquor and an Empyreumatical Oil.

Turpentine distill'd, by the alembic, with four times its own quantity of Water, yields a limpid Oil; leaving the Colophony behind, after the evaporation of all the Water, capable of affording upon distillation, by the retort, a yellow, a red, and a dusky-red Oil.

An Oil or pure Balsam is drawn from Gums and Rosins distill'd with Water*.

Oleum Guajaci.

Oil of Guaiacum.

Take any quantity of Guaiacum-Chips, put them into a retort of Earth, or Glass, and gradually distil them in a naked fire, or a Sand-furnace: an acid liquor will first ascend,

* For farther information upon this article, the distillation of Gums or Balsams, we cannot refer the reader better than to *Boerhaave's Chemistry*, pag. 101—106.

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then

then a light red Oil, and at length, with the utmost degree of heat, a thick black Oil, that sinks thro' the other liquors, to the bottom of the retort*.

In like manner are distill'd,

<i>Oleum</i>	The Oils of
<i>Lig. Buxi,</i>	Box-Wood.
<i>Coryli,</i>	Hazel-Wood.
<i>Juniperi,</i> &c.	Juniper-Wood, &c. as also
	of
<i>Camphoræ.</i>	Camphire.

Oleum Benzoini.

Oil of Benjamin.

After the Flowers of Benjamin are sublimed, put the remainder into a glass retort, and distil off the Oil in a Sand-heat. The Flowers of Benjamin are obtain'd in the following manner †.

Flores Benzoini.

Flowers of Benjamin.

Take any quantity of powder'd Benjamin, and put it into a glazed pot, and fit a cone of paper to the brim thereof; then administer a flow fire, that the Flowers may sublime; and repeat the operation till the paper becomes foul with the ascending Oil.

* See *Boerhaave's Chemistry*, pag. 89—91. PRACT.

† See *Boerhaave's Chemistry*. Process 32. pag. 101.

SECTION II.

EXTRACTS and ROSINS.

Extractum Plantaginis.

Extract of Plantain.

TAKE any quantity of Plantain-Juice, clarify it, either by rest, the filtre, or the white of eggs *; and afterwards evaporate it to the consistence of honey †.

In the same manner are prepared the Extracts of all acid, cold, succulent and styptic plants.

Extractum Absinthii.

Extract of Wormwood.

Take any quantity of dry'd Wormwood, and a suitable proportion of Spring-water;

* For the several methods of clarifying vegetable juices or decoctions, see *Boerhaave's Chemistry*, pag. 26, 27. PRACT.

† The Extract of Plantain is doubtless here design'd as a styptic and refrigerating medicine; which are intentions it answers well: but to expect these virtues, to any great degree, in the simple water of the plant, betrays a strange ignorance in chemistry.

P 4

boil

boil them together till the Water has extracted all the virtue of the plant; then filtre the Decoction, and evaporate it, over a slow fire, to the consistence of honey. But whilst the decoction is in hand, add to it a little salt of Tartar*.

<i>Extractum</i>	The Extracts of
<i>Rad. Gentianæ,</i>	Gentian-root.
<i>Helebori nigri,</i>	Black Hellebore-root.
<i>Hellenii,</i>	Ellicampane-root.
<i>Rhabarbari,</i>	Rhubarb.
<i>Cort. Peruviani,</i>	Peruvian Bark.
<i>Herb. Centaurii minoris,</i>	The Herb Centory,
	the less.
<i>Flor. Chamæmeli, &c.</i>	Camomile Flowers,
	&c.

are prepared in the same manner; so likewise are the Extracts of all *fix'd Aromatics*.

Extractum Jalappæ.

Extract of Jalap.

Take any quantity of Jalap-root, well bruised, and pour as much rectified Spirit of Wine thereon, as will float four inches above it; extract the Tincture in *Balneo Marie*; which being poured off, add to the remaining mass a proper quantity of Spring-water; and boil

* The addition of the Salt of Tartar considerably improves the preparation; as it opens the texture of the plant, fetches out its virtues, and tends to keep the Extract from growing too dry for use.

them

them together for an hour; then mix the filtered Decoction with the former Tincture, and evaporate them to the consistence of honey: adding also a little salt of Tartar*.

Extractum The Extracts of
Mechoacanna, Mechoacan and
Turpethi, Turbith,

are made in the same manner; so likewise are the Extracts of all resinous Bodies †.

Resina Jalappæ.
Rosin of Jalap.

Take any quantity of well-bruised Jalap-root, and pour thereon as much rectified Spirit of Wine, as will rise four inches above it; digest them together, in *Balneo Mariæ*, so as to extract the Tincture; which being filtered, pour to it a sufficient quantity of Spring-Water, and the Rosin will precipitate to the bottom,

* By changing the menstruum, in the second operation, the learned compilers prudently design to gain the saline as well as the resinous part of the Jalap in the extract; which makes it a much more safe, as well as a more effectual remedy in many cases. See *Boerhaave's Chemistry*, pag. 159. PRACT.

† This Article of Extracts is here conducted with good skill and judgment, arising from a thorough acquaintance with the properties of Simples, and the most suitable ways of obtaining their medicinal parts: for farther proof and illustration whereof, the reader may be pleased to consult *Boerhaave's Chemistry*, pag. 20, 29. PRACT.

which

which is afterwards to be dry'd with a very soft heat.

Thus likewise are prepared,

<p><i>Resina</i> <i>Guajaci,</i> <i>Scammonii, &c.</i></p>	<p>The Rosins of Guaiacum. Scammony, &c*.</p>
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* If the reader desires to be fully instructed in the best manner of obtaining the Rosins of different vegetables ; with the theory or mechanical rationale thereof, he cannot do better than consult the diligent *Boerhaave* in his *New Method of Chemistry*, pag. 157—167.



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SECTION III.

SALTS both *Essential and Fix'd* ;
with the Preparations of TARTAR.

Sal Essentiale Acetosæ.

Essential Salt of Sorrel.

TAKE any quantity of the Juice of Sorrel, clarified by standing, and evaporate two thirds of it away; strain the remainder through a flannel bag, and again exhale it to a pellicle; then put it into a glass vessel *, and pour a little Oil-Olive upon the top; set the vessel in a cellar, till numerous crystals appear therein; which are to be first gently wash'd with Spring-water, and then dry'd.

* Or rather an unglazed earthen one, that the salt may the sooner shoot and stick to the sides thereof. This is the direction of the learned *Boerhaave*; tho with all the assistances he cou'd invent, he assures us he never finished this process in less than half a year; the *English* and *French* physicians, therefore, seem much happier, if they can perform it in eight or ten days; as the *London Dispensatory*, and *Lemery's Chemistry* conspire to persuade one. See *Boerhaave's Chemistry*, pag. 34. *PRACT. Pharmacop. Londinens.* under *Salis Essentialis parandi Ratio*, and *Lemery's Chemistry* Chap. XII. of *Vegetables*.

Sal

<i>Sal</i>	The Essential Salts of the
<i>Centaurii minoris,</i>	Lesser Centory,
<i>Cichorei,</i>	Succory,
<i>Euphrasie,</i>	Eye-bright,
<i>Fumariae,</i>	Fumatory,
<i>Plantaginis,</i>	Plantain,
<i>Quercus, &c.</i>	Oak, &c.

are obtain'd in the same manner; as are also the Salts of all acid, austere, astringent and very bitter plants, that contain but little Oil.

The Waters of these plants, which are obtainable to no good purpose by distillation, may be made by dissolving a proper proportion of their essential Salt in Spring-water*.

Sal Fixum Absinthii.

Fix'd Salt of Wormwood.

Take any quantity of the Herb Wormwood, either fresh gather'd or gently dry'd, put it into an iron pan, and with a soft fire reduce it to white ashes; of which make a lixivium, with a proper proportion of hot Spring-water; filtre the lixivium, and with a gentle fire, evaporate it to a brown Salt; which by a few repeated solutions, filtrations and coagulations will become pure and white †.

* It is with great pleasure that the reader, thro this whole work, will observe so good an acquaintance with chemistry in the learned compilers; as indeed it were very rash to write a public Dispensatory without it.

† To save trouble and charge, this Salt is prepared by our whole-sale dealers in a much shorter manner from *Cineres Clavellati*.

After

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After the same method are obtained,

<i>Sal</i>	The fix'd Salts of
<i>Artemisæ,</i>	Mugwort.
<i>Cardui Benedicti,</i>	Carduus-Benedictus.
<i>Centaurii minoris,</i>	Centory, the less.
<i>Fabiarum stipit.</i>	Bean-Stalks.
<i>Genistæ,</i>	Broom.
<i>Scordii,</i>	Scordium.
<i>Tamarisci, &c.</i>	Tamarisk, &c.

Crytalli Tartari.

Crystals of Tartar *.

Take any quantity of white Tartar, reduced to powder, dissolve it in twenty times its own weight of Water, and filtre the solution, whilst it is yet hot, thro Cap-paper, into a wooden vessel; then expose it to the cold air for a night longer, that the crystals may shoot to the sides of the vessel; after which, pouring off the water, let the crystals be taken out and dry'd. There is no difference between this and

Cremor Tartari †.

Cream of Tartar.

Take any quantity of the foregoing filtred solution of Tartar, and boil it over the fire,

* The preparations of Tartar very justly make a part of this Section, as being no other than the essential Salt of a fermented vegetable Juice, or Wine.

† Except in the manner of preparation; which seems to have given it the name of Cream of Tartar.

till

till a thick skin appears on the surface, which is to be taken off with a perforated wooden ladle; then boil it till a new skin arises, and take this off as the former, and continue to do thus till all the water is wasted in this manner; and at length dry what was so skim'd off, in the Sun.

Sal Tartari.

Salt of Tartar.

Take any quantity of white Tartar, wrap it up in moisten'd Cap-paper, and calcine it in a reverberating Furnace till it becomes very white; then dissolve it in hot water, filtre the solution, and exhale it, in a glass vessel, or one of glazed earth, till it becomes as white as snow, and perfectly dry; keeping it continually stirring with an iron ladle towards the end of the operation; to prevent its sticking to the bottom of the vessel.

This Salt is also prepared from Tartar, and half its weight of Nitre, reduced to powder; the mixture being deflagrated in a crucible, and calcined in a strong fire, for an hour; and afterwards depurated by solution, filtration and evaporation*.

* As the most approved chemical authors declare they find no difference between the fix'd Salts of vegetable substances; there can be no great harm, if the trading chemists make use of the cheapest subject they can procure for the making of what is called Salt of Tartar.

If

If the Salt of Tartar be required stronger, let the white Salt be fused with a very violent fire, in a crucible, and reverberated, for some hours; till it turns of a greenish or blue colour.

Liquamen Tartar, vulgò Oleum Tartari
per deliquium dictum.

*Liquor of Tartar, commonly called Oil of
Tartar per deliquium.*

Take any quantity of Salt of Tartar, put it into a flat glass vessel, and expose it to the air of a moist place for some days, so as that it may dissolve into a liquor, which is either to be filtered, or freed from its fæces, by inclining the vessel.

The higher this Salt is calcined, the easier it resolves*.

Tartarum Vitriolatum.

Tartar of Vitriol.

Take any quantity of Oil of Tartar *per deliquium*, put it into a capacious glass vessel, and add thereto, drop by drop, a sufficient quantity of rectified Oil of Vitriol; that is, so much as will put a stop to all farther ef-

* As more strongly attracting the moisture of the air; which appears to be a much better menstruum for this purpose than bare common water, as containing many more active parts than that.

ferescence;

fervescence; then evaporate the mixture, with a gentle heat, till it grows dry*.

If the *white Præcipitate* made in this operation be dissolved in hot water, then filtered and evaporated to a pellicle, it will shoot into crystals.

Tartarus Solubilis.

Soluble Tartar.

Take any quantity of the Crystals of Tartar, and dissolve them in ten times their own weight of hot Spring-water; add to the solution, drop by drop, a sufficient quantity of Oil of Tartar *per deliquium*; that is, so much as stops all farther effervesence: whilst the liquor remains hot, let it be filtered; and evaporated, in an earthen vessel, till it grows dry, or only till a skin appears on the surface, so as that the Salt may be reduced to crystals †.

Sapo Tartareus.

Soap of Tartar.

Take any quantity of Salt of Tartar, thoroughly calcined; and, whilst it yet remains

* The *Caput Mortuum* of the *Spiritus Nitri fortis*, made with Oil of vitriol, and sometimes called by the name of *Sal Enixum Paracelsi*, is no bad substitute for this preparation; and accordingly is often sold for the thing it self.

† For more particular directions and informations relating to this process, see *Boerhaave's New Method of Chemistry*, pag. 181—183. PRACT.

hot,

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hot, reduce it to powder, put it into a wide glass vessel, and immediately pour thereon twice its weight of Oil of Turpentine; and let them stand together in a cellar for some weeks, till the Oil shall have entred the Salt; then by degrees add more Oil, till at length the Salt shall have imbibed thrice its own quantity thereof; and they both together incorporate into a Soap, which they will do in the space of a month or two, provided the matter be daily kept stirring.

The operation will be finish'd the sooner, if the containing vessel be fasten'd to the sails of a wind-mill, or any other machine that has a swift circular motion*.

Lapis Septicus, seu Cauterium Potentiale:

Potential Cautey.

Take of Pot-ashes and Quick-lime, each a like quantity, and a sufficient quantity of Spring-water; let them stand together, for some days, in a vessel of glass or glazed earth, then filtre the liquor, and evaporate it till it acquires the hardness of a stone †.

* There are several particular circumstances to be carefully observ'd in the conduct of this process; and upon which its success depends. See *Boerhaave's Chemistry*, pag. 178—180. PRACT.

† See *Boerhaave's Chemistry*, pag. 50. PRACT.

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