

TINCTURÆ.

TINCTURES.¹

THESE are spirituous solutions of such of the proximate principles of vegetables and animals, as are soluble in pure alcohol or in proof spirit. From vegetable matter submitted to its action, alcohol takes up sugar, resin, extractive, tannin, cinchonin, camphor, volatile oils, several acids, and the narcotic principle; proof spirit also takes up the whole of these partially, and is besides the proper menstruum for gum-resins; so that alcohol, either in a concentrated or diluted form, is capable of separating the greater part of the active principles of vegetables from the ligneous inert fibres. The tinctures obtained from animal substances are very few in number, and the principles taken up by the spirit are analogous to those enumerated above, belonging to the vegetable kingdom.

Pure alcohol is required in a very few instances only for the formation of tinctures, proof spirit being adequate for almost every purpose. The dilution of the spirit, however, must be varied according to the known principles of the substance to be submitted to its action: when resin predominates, it must necessarily be more concentrated; when gum-resin or extractive are the most abundant constituents, proof spirit then must be employed. In consequence of the great affinity of water for alcohol, the addition of it to alcoholic tinctures separates the resin, camphor, and volatile oils they contain; but water is generally miscible with tinctures made with proof spirit, without producing any decomposition. Tinctures are not liable to suffer spontaneous decomposition, as is the case with infusions and decoctions; and, independent of the loss which takes place from the evaporation of the spirit and the volatile oils, if the bottles containing tinctures be closely corked, they may be kept for an indefinite length of time, and their virtues remain unimpaired.

Tinctures are prepared by macerating the ingredients in the spirit in a temperature not exceeding 80°, at which degree, by allowing the menstruum to remain on the ingredients for a sufficient length of time, all the principles that can prove useful

¹ Arnold de Villa Nova, who was professor of medicine at Montpellier, invented tinctures about the end of the 13th century.

in the tincture are extracted, and the solvent saturated. The ingredients must be dried and reduced to a coarse powder, and the maceration made in close vessels, and assisted by frequent agitation. When completely made, tinctures should not be allowed to remain upon the ingredients, but be filtered through bibulous paper, and kept in this state in well corked bottles. Parmentier¹ has proposed that one-half only of the spirituous menstruum be added to the ingredients at first, and after digesting for six days this part to be poured off, and the remainder added. In six more the whole is to be strongly expressed, and the two portions of tincture mixed together. By this method he imagines more of the active principles of the ingredients are extracted, and the tinctures obtained of a more uniform strength.

Tinctures are not of very extensive use as remedies, except in cases where stimulants are indicated; the solvent, even in doses of a few fluid drachms, often acting more powerfully on the living system than the principles it holds in solution. In ordinary cases this action, when continued for some time, produces the same deleterious effects as the habitual use of ardent spirits; and often lays the foundation of the pernicious custom of dram-drinking. When the action of a substance is the reverse of stimulant, it cannot with propriety be exhibited in this form, unless the dose be so small that the operation of the spirit cannot be taken into account, as in tincture of fox-glove. The chief use of this class of preparations, therefore, is to enable infusions and decoctions, to which they are added, to sit lighter on the stomach, or to add to them some active principle which water is incapable of extracting.

The general rule given in the London Pharmacopœia for the preparation of tinctures is, "to prepare them in closed vessels, and to shake them frequently during the maceration."

TINCTURA ALOES. Lond. *Tincture of Aloës.*²

"Take of extract of spiked aloës powdered, *half an ounce*; extract of liquorice, *an ounce and a half*; water, *a pint*; rectified spirit, *four fluid ounces*. Macerate in a sand-bath until the extracts are dissolved; then strain."

Dublin.

"Take of socotorine aloës in powder, *half an ounce*; extract of liquorice dissolved in eight ounces of boiling water, *an ounce and a half*; proof spirit, *eight fluid ounces*. Digest for seven days; then strain."

TINCTURA ALÖES SOCOTORINÆ. Edin. *Tincture of Socotorine Aloës.*

¹ *Annales de Chimie*, lxii. 40.

² *Teinture d'Aloës (F.)* Tintura d'Aloe (I.)

"Take of socotorine aloës in powder, *half an ounce*; extract of liquorice, *one ounce and a half*; alcohol, *four ounces*; water, *a pound*. Digest for seven days, with a gentle heat, in a close vessel, which is to be frequently shaken (a circumstance to be attended to in preparing all the tinctures); then pour off the clear tincture."

This may be regarded rather an aqueous solution than a tincture, the quantity of spirit being too small to serve any other purpose than that of preventing decomposition. It may be used in the same cases as the extract of aloës; but, notwithstanding the presence of the liquorice, the bitterness of the aloës is so intense and disagreeable, as to prevent it from being often prescribed. Its dose is from $f\overline{3}ls.$ to $f\overline{3}jls.$

TINCTURA ALOËS ÆTHEREA. Edin. *Ethereal Tincture of Aloës.*

"Take of socotorine aloës, myrrh, of each, in powder, *an ounce and a half*; English saffron cut, *an ounce*; sulphuric ether with alcohol, *a pound*. Digest the myrrh with the ether for four days, in a closed bottle; then add the saffron and the aloës. Digest again for four days, and when the dregs have subsided, pour off the tincture."

The spirit of sulphuric ether is supposed to afford a more grateful tincture than spirit of wine; and in cases attended with spasm, as in hysteria attendant on obstructed menstruation, this solvent may prove serviceable, independent of the matter it holds in solution. It is a warm stomachic purgative, and is advantageously given in dyspeptic affections, jaundice, gout, chlorosis, and other cases in which aloëtics are indicated. In doses of $f\overline{3}j.$ or $f\overline{3}ij.$ it acts chiefly as a stomachic; but purges briskly in larger doses.

TINCTURA ALOËS COMPOSITA. Lond. Dub. *Compound Tincture of Aloës.*¹

"Take of extract of spiked aloës powdered, saffron, of each, *three ounces*; tincture of myrrh, *two pints*. Macerate for fourteen days (seven days, *Dub.*), and strain."

TINCTURA ALOËS ET MYRRHÆ. Edin. *Tincture of Aloës and Myrrh.*

"Take of myrrh in powder, *two ounces*; alcohol, *a pound and a half*; water, *half a pound*. Mix the alcohol with the water; then add the myrrh; digest for four days; and lastly, add, of socotorine aloës in powder, *one ounce and a half*; English saffron cut in pieces, *one ounce*. Digest again for three days, and pour off the clear tincture."

This tincture, which differs in little, except the solvent, from

¹ Alcohol avec l'Aloë et la Myrrhe (F.) Alcoolé Aloë Mirrato (I.)

the former, may be used in the same cases; and the same dose of it may be given. It is occasionally used as a local stimulant to foul ulcers.

TINCTURA ASSAFŒTIDÆ. Lond. *Tincture of Assafœtida.*¹

"Take of assafœtida, *four ounces*; rectified spirit, *two pints*. Macerate for fourteen days, and strain."

Dublin.

"Take of assafœtida, *four ounces*; rectified spirit of wine, *two pints*; water, *eight fluid ounces*. Add the spirit to the assafœtida previously triturated with water; then digest for seven days, and strain."

TINCTURA FERULÆ ASSAFŒTIDÆ. Edin. *Tincture of Assafœtida.*

"Take of assafœtida, *four ounces*; alcohol, *two pounds and a half*. Digest for seven days, and filter through paper."

When this tincture is added to water or aqueous infusions, it renders them of a milky hue, owing to the separation of the resin. It is given in the same cases as crude assafœtida, in doses of fʒj. or more.

Officinal preparation. *Enema fœtidum. D.*

TINCTURA AURANTII. Lond. Dub. *Tincture of Orange-peel.*²

"Take of fresh orange-peel, *three ounces*; proof spirit, *two pints*. Macerate for fourteen days, (three days, *Dub.*) and filter."

This tincture is not decomposed by water, and may therefore be added to infusions and decoctions, to which it is an useful adjunct in dyspepsia, besides communicating its agreeable flavour.

TINCTURA BENZOINI COMPOSITA. Lond. TINCTURA BENZÖES COMPOSITA. Dub. *Compound Tincture of Benzoin.*³

"Take of benzoin, *three ounces*; storax balsam strained, *two ounces*; balsam of Tolu, *an ounce*; extract of spiked aloës, *half an ounce*; rectified spirit, *two pints*. Macerate for fourteen days, (seven days, *Dub.*) and filter."

TINCTURA BENZOINI COMPOSITA. Edin. *Compound Tincture of Benzoin.*⁴

"Take of benzoin in powder, *three ounces*; balsam of Peru, *two ounces*; hepatic aloës in powder, *half an ounce*;

¹ Teinture d'Assafœtide (F.) Ascande tinktur (G.) Alcoole asfetidato (I.)

² Pomeranzan schalen tinktur (G.)

³ Teinture de Benzoin composé (F.) Zusammengesetzte Benzoe tinktur (G.)

⁴ Tintura del Commendatore; Alcoole Benzoato composito (I.)

alcohol, *two pounds*. Digest for seven days, and filter through paper."

This tincture is a stimulating expectorant, and as such is sometimes prescribed in chronic catarrh and old asthmatic cases; but it is chiefly employed as an external application to wounds and languid ulcers, which it gently stimulates, and shields from the action of the air.¹ It is decomposed by water, and therefore, when given internally, must be triturated with yolk of egg or mucilage, to suspend it in aqueous fluids. Its dose is from fʒss. to fʒij. or more.

TINCTURA BONPLANDIÆ TRIFOLIATA. Edin. *Tincture of Bonplandia, or Angustura.*

"Take of the bark of trifoliate bonplandia bruised, *two ounces*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper."

TINCTURA ANGUSTURÆ. Dub. *Tincture of Angustura.*²

"Take of angustura bark in coarse powder, *two ounces*; proof spirit, *two pints*. Digest for seven days; then filter."

This tincture, which contains the active principles of the angustura, is given in doses of fʒj. or fʒij. in the same cases as the bark. (See *Cusparia*, Part ii.)

TINCTURA CALUMBÆ. Lond. *Tincture of Calumba.*

"Take of calumba root sliced, *two ounces and a half*; proof spirit, *two pints*. Macerate for fourteen days, and filter."

TINCTURA COLOMBÆ. Edin. TINCTURA COLOMBO. Dub. *Tincture of Calumba.*

"Take of colomba root in powder, *two ounces*; proof spirit, *two pounds*. Digest for seven days, and filter through paper."

An useful addition to stomachic infusions and decoctions.

TINCTURA CAMPHORÆ COMPOSITA.³ Lond. *Compound Tincture of Camphor.*

"Take of camphor, *two scruples*; hard opium, powdered, acid of benzoin, of each, *one drachm*; proof spirit, *two pints*. Macerate for fourteen days, and filter."

TINCTURA OPII CAMPHORATA, sive ELIXIR PAREGORICUM ANGLORUM. Edin. Dub. *Camphorated Tincture of Opium, or Paregoric Elixir.*

"Take of camphor, *two scruples*; hard purified opium in powder, benzoic acid, of each, *a drachm*; proof spirit, *two pints*. Digest for seven (ten Dub.) days, then filter."

¹ It is an improved form of Wade's Balsam, or Friar's Balsam.

² Teinture d'Angusture (F.)

³ The change of name here imposed, appears to us to be more likely to produce errors than the old name; and it is directly opposed to the principles of nomenclature adopted by the College. Teinture Camphrée d'Opium (F.) Opiumtinktur mit Benzoe (G.)

Half a fluid ounce of this tincture contains nearly a grain of opium. It has been long known under the titles *Paregoric Elixir* and *Asthmatic Elixir*; and is an useful anodyne in chronic asthma, hooping-cough, and catarrh after the inflammatory symptoms have abated; in which it contributes to allay the tickling which induces the frequent cough. The dose is from $\text{f}\text{ʒj.}$ to $\text{f}\text{ʒiij.}$ occasionally in the above cases, using after it the inhaler; and $\text{f}\text{ʒiij.}$ in cases where quiet, rather than sleep, is required.

TINCTURA CAPSICI. Lond. *Tincture of Capsicum.*

“Take of capsicum berries, *an ounce*; proof spirit, *two pints*. Macerate for fourteen days, and filter.”

This is a convenient form for exhibiting capsicum in tympanitis, cynanche maligna, the low stage of typhus, and in similar cases. The dose is from $\text{f}\text{ʒss.}$ to $\text{f}\text{ʒj.}$; and a mixture of $\text{f}\text{ʒvj.}$ with half a pint of water will answer all the purposes of the capsicum gargle.

TINCTURA CARDAMOMI. Lond. Dub. *Tincture of Cardamoms.*

“Take of cardamom seeds husked and bruised, *three ounces*; proof spirit, *two pints*. Macerate for fourteen days, (seven days, *Dub.*) and filter.”

TINCTURA AMOMI REPENTIS. Edin. *Tincture of Cardamoms.*

“Take of lesser cardamom seeds bruised, *four ounces*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper.”

TINCTURA CARDAMOMI COMPOSITA. Lond. Dub. *Compound Tincture of Cardamoms.*

“Take of cardamom seeds, (husked, *Dub.*) carraway seeds, cochineal, of each, in powder, *two drachms*; cinnamon bark bruised, *half an ounce*; raisins stoned, *four ounces*; proof spirit, *two pints*. Macerate for fourteen days, and filter.”

The raisins are properly omitted in the Dublin formula. Both the simple and the compound tinctures of cardamoms are agreeable cordials, and form elegant adjuncts to stomachic infusions.

TINCTURA CASCARILLÆ.¹ Lond. Dub. *Tincture of Cascarilla.*

“Take of cascarilla bark powdered, *four ounces*; proof spirit, *two pints*. Macerate for fourteen days, (seven days, *Dub.*) and filter.”

TINCTURA CROTONIS ELEUTHERIÆ. Edin. *Tincture of Croton Eleutheria, or Cascarilla.*

“Take of croton eleutheria bruised, *four ounces*; proof spirit,

¹ Cascarillentinctur (G.)

two pounds and a half. Digest for seven days, and filter through paper."

This tincture may be regarded as superfluous, as it is scarcely ever ordered.

TINCTURA CASTOREI.¹ Lond. TINCTURA CASTOREI (ROSSICI, CANADENSIS.) Dub. *Tincture of Castor.*

"Take of castor powdered, *two ounces*; rectified spirit, (proof spirit, *Dub.*) *two pints*. Macerate for seven days, and filter."

Edinburgh.

"Take of castor powdered, *an ounce and a half*; alcohol, *a pound*. Macerate for seven days, and filter through paper."

Rectified spirit is the preferable solvent for the active parts of castor, which are resin and a volatile oil; and it also affords a more grateful tincture than that made with proof spirit. The tincture is supposed to possess the medical properties of the castor, and is used in similar cases. The dose is from $\mathfrak{m}$ xx. to $\mathfrak{f}\mathfrak{z}\mathfrak{j}$.

The Dublin College orders a "*tincture of Russian castor*," and a "*tincture of Canadian castor*," which is an unnecessary refinement. The Russian castor is the best, and should always be preferred when it can be obtained.

TINCTURA CASTOREI COMPOSITA. Edin. *Compound Tincture of Castor.*

"Take of Russian castor powdered, *an ounce*; assafoetida, *half an ounce*; ammoniated alcohol, *one pound*. Digest for seven days, and filter through paper."

This is a more active preparation than the former, and is advantageously given in hysteria, cramp of the stomach, and flatulent colic, to the extent of $\mathfrak{f}\mathfrak{z}\mathfrak{j}$. for a dose.

TINCTURA CATECHU.² Lond. Dub. *Tincture of Catechu.*

"Take of extract of catechu, *three ounces*; cinnamon bark bruised, *two ounces*; proof spirit, *two pints*. Macerate for fourteen days, (seven days, *Dub.*) and filter."

TINCTURA CATECHU ACACIÆ. Edin. *Tincture of Catechu.*

"Take of extract of catechu in powder, *three ounces*; cinnamon bark bruised, *two ounces*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper."

Proof spirit dissolves all the soluble parts of catechu except the mucilage, which in $\mathfrak{z}\mathfrak{i}\mathfrak{j}$ of Bengal catechu amounts to 94 grains; besides which 72 grains of impurities remain undissolved. The tincture is a solution of tannin, extractive matter,

¹ Teinture de Castor (F.) Castoreumstinktur (G.) Tintura di Castoreo (I.)

² Tinctura Japonica, P. L. 1745. Teinture de Cachou (F.) Katechutinktur (G.)

and the volatile oil of cinnamon. It is a grateful warm astringent, useful in all cases in which astringents are indicated. The dose is from f3j. to f3iij. taken in water or wine, or the cretaceous mixture of the pharmacopœias.

TINCTURA CINCHONÆ.¹ Lond. *Tincture of Cinchona.*

“Take of lance-leaved cinchona bark in powder, seven ounces; proof spirit, two pints. Macerate for fourteen days, and filter.”

TINCTURA CINCHONÆ. Edin. **TINCTURA LANCIFOLIE CINCHONÆ.** Dub. *Tincture of Lance-leaved Cinchona.*

“Take of cinchona bark in powder, four ounces; proof spirit, two pounds and a half, (two pints, Dub.) Digest for seven days, and filter through paper.”

Although this tincture contains the active principles of cinchona bark in considerable quantity, yet, from the nature of the vehicle, it cannot be given in sufficiently large doses to produce the beneficial effects of the bark in substance; it is therefore used chiefly as an adjunct to the infusion or decoction. The dose is from f3j. to f3iv.

TINCTURA CINCHONÆ AMMONIATA. Lond. *Ammoniated Tincture of Bark.*

“Take of lance-leaved cinchona bark powdered, four ounces; aromatic spirit of ammonia, two pints. Macerate for ten days, and filter.”

This is the formula of 1787, which was rejected without any proper reason in 1809. It is extremely useful in dyspeptic complaints attended with much acidity.

TINCTURA CINCHONÆ COMPOSITA.² Lond. Edin. Dub. *Compound Tincture of Cinchona.*

“Take of lance-leaved cinchona bark powdered, two ounces; dried orange-peel, one ounce and a half; (half an ounce, Dub.) Virginian snake-root bruised, three drachms; saffron, a drachm; cochineal in powder, two scruples; proof spirit, twenty fluid ounces. Macerate for fourteen (seven Edin.) days, and filter.”

This tincture is more grateful than the former; and although it contains less cinchona, yet the addition of the other ingredients renders it more useful both as a stomachic and a febrifuge. It is the same as the celebrated tincture of Huxham³, who generally gave it in intermittents and low nervous fevers, in diluted wine or any proper vehicle, with ten or fifteen drops of elixir of vitriol, (aromatic sulphuric acid, Edin.) The dose is from f3j. to f3iij. or more in intermittents.

¹ Tinctura corticis Peruvianæ simplex, P. L. 1745. Teinture de Quinquina (F.) Chinatinktur (G.) Tintura di China (I.)

² Zusammengesetzte Chinatinktur (G.)

³ Essay on Fever, 122.

TINCTURA CINNAMOMI.¹ Lond. Dub. TINCTURA LAURI CINNAMOMI. Edin. *Tincture of Cinnamon.*

“Take of cinnamon bark bruised, *three ounces*; (*three ounces and a half*, Dub.) proof spirit, *two pints*. Macerate for fourteen days, (*seven days*, Dub.) and filter.”

This tincture contains the active principles of the bark, and is an elegant and useful adjunct to the chalk mixture and astringent infusions. The dose is from fʒj. to fʒiij.

TINCTURA CINNAMOMI COMPOSITA.² Lond. Dub. *Compound Tincture of Cinnamon.*

“Take of cinnamon bark bruised, *six drachms*; cardamom seeds bruised, *three drachms*; long pepper powdered, ginger-root sliced, of each, *two drachms*; proof spirit, *two pints*. Macerate for fourteen days, (*seven days*, Dub.) and filter.”

TINCTURA CINNAMOMI COMPOSITA. Edin. *Compound Tincture of Cinnamon.*

“Take of cinnamon bark bruised, lesser cardamom seeds bruised, of each *one ounce*; long pepper in powder, *two drachms*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper.”

This is a much warmer aromatic than the simple tincture; and is frequently advantageously used in flatulencies, atonic gout, languors, and debility, in doses of fʒj. or fʒij. properly diluted.

Official preparation. *Æther sulphuricus cum Alcohole aromaticus*. E.

TINCTURA CONII MACULATI. Edin. *Tincture of Hemlock.*

“Take of dried leaves of hemlock, *two ounces*; cardamom seeds, bruised, *half an ounce*; proof spirit, *sixteen ounces*. Digest for seven days, and filter through paper.”

This is an elegant form of administering conium; and admits of its being added to mixtures. It possesses all the active properties of the plant.

TINCTURA CROCI SATIVI. Edin. TINCTURA CROCI. Dub. *Tincture of Saffron.*³

“Take of English saffron cut in shreds, *one ounce*; proof spirit, *fifteen ounces*, (*a pint*, Dub.) Digest for seven days, and filter through paper.”

This tincture contains almost pure extractive, and is supposed to be stimulant and diaphoretic, but its chief value perhaps arises from its colour.

¹ Aqua Cinnamomi fortis, P. L. 1720. Teinture de Cannelle (F.) Zimmttinktur (G.) Tintura di Cinnamomo (I.)

² Tinctura aromatica, P. L. 1745.

³ Teinture de Saffron (F.)

TINCTURA DIGITALIS.¹ Lond. *Tincture of Foxglove.*

"Take of foxglove leaves dried, *four ounces*; proof spirit, *two pints*. Macerate for fourteen days, and filter."

Dublin.

"Take of foxglove leaves (the larger ones being rejected) dried and reduced to coarse powder, *two ounces*; proof spirit, *a pint*. Digest for seven days, and filter."

TINCTURA DIGITALIS PURPUREÆ. Edin. *Tincture of Foxglove.*

"Take of foxglove leaves dried, *one ounce*; proof spirit, *eight ounces*. Digest for seven days, and filter through paper."

This is a convenient form for exhibiting foxglove. It contains all the virtues of the plant, and has the advantage of preserving them unimpaired for any length of time. The dose should be m x . at first, and gradually increased, the same cautions being necessary as in the exhibition of the plant in substance.

TINCTURA GALBANI. Dub. *Tincture of Galbanum.*

"Take of galbanum cut into small pieces, *two ounces*; proof spirit, *two pints*. Digest for seven days, then filter."

It is used in the same cases as tincture of assafoetida; but, if less nauseous, it is also less powerful.

TINCTURA GALLARUM. Edin. Dub. *Tincture of Galls.*

"Take of galls in powder, *two ounces* (*four ounces*, Dub.); proof spirit, *sixteen ounces*, (*two pints*, Dub.) Macerate for seven days, then filter through paper."

Proof spirit dissolves tannin; consequently this tincture contains all the astringency of the galls, and may be employed in the same cases. The dose is from f_{3j} . to f_{3ij} .

TINCTURA GENTIANÆ COMPOSITA.² Lond. Dub. *Compound Tincture of Gentian.*

"Take of gentian root cut, *two ounces*; orange-peel dried, *an ounce*; cardamom seeds bruised, *half an ounce*; proof spirit, *two pints*. Macerate for fourteen days, (*seven days*, Dub.) and filter."

TINCTURA GENTIANÆ COMPOSITA. Edin. *Compound Tincture of Gentian*, commonly called *Stomachic Tincture*.

"Take of yellow gentian root sliced and bruised, *two ounces*; orange-peel dried and bruised, *one ounce*; canella alba bruised, *half an ounce*; cochineal in powder, *half a drachm*; proof spirit,

¹ Teinture de Digitale (F.) Fingerhautinktur (G.) Tintura di Digitale porporina (I.)

² Tintura amara, P. L. 1745. Teinture de Gentiane composé (F.) Enziantinktur (G.) Tintura di Genziana (I.)

two pints and a half. Digest for seven days, and filter through paper.

This is an elegant stomachic bitter and cordial; but in dyspepsia, in which it is more particularly indicated, the infusion is preferable.

TINCTURA GUAIACI. Lond. Dub. *Tincture of Guaiac.*¹

"Take of guaiac powdered, *half a pound (four ounces, Dub.);* proof spirit, *two pints.* Macerate for fourteen days, (seven days, *Dub.*) and filter."

TINCTURA GUAIACI OFFICINALIS. Edin. *Tincture of Guaiac.*

"Take of guaiac, in powder, *six ounces;* alcohol, *two pounds and a half.* Digest for seven days, and filter through paper."

The difference in the proportion of the guaiac in these formulæ is much to be regretted. It is separated from the alcohol by the addition of water; and therefore when this tincture is to be given in the form of draught, it must be triturated with yolk of egg, or with mucilage, to enable it to combine with water. The dose is from f3j. to f3ij. in any convenient vehicle.

TINCTURA GUAIACI AMMONIATA.² Lond. Dub. Edin. *Ammoniated Tincture of Guaiacum.*

"Take of guaiac, in powder, *four ounces;* aromatic spirit of ammonia, *one pint and a half.* Macerate for fourteen days, (seven days, *Edin. Dub.*) and filter."

As the ammonia coincides with the operation of guaiac more than spirit, this tincture is more efficacious as a stimulating sudorific than the former preparation. Water decomposes it, separating the guaiac in dark curdy flakes. The dose is from f3j. to f3ij. triturated with any mucous or viscid matter.

TINCTURA HELEBORI NIGRI.³ Lond. *Tincture of black Hellebore.*

"Take of the root of black hellebore sliced, *four ounces;* proof spirit, *two pints.* Macerate for fourteen days, and filter."

Edinburgh. Dublin.

"Take of black hellebore-root bruised, (powdered, *Dub.*) *two ounces;* cochineal in powder, *fifteen grains;* (two scruples, *Dub.*); proof spirit, *fifteen ounces, (two pints, Dub.)* Digest for seven days, then filter through paper."

¹ Teinture de Guaiac (F.) Guajak tinktur (G.) Tintura di Guaiac (I.)

² Tinct. Guaiacina volatil. P. L. 1745. Teinture Ammoniacale de Guaiac (F.) Ammonium guajak tinktur (G.) Alcoleo Ammoniato con Guaiaco; Tintura Guajachina volatile (I.)

³ Tinctura Melampodii, P. L. 1745. Teinture d'Ellebore noir (F.) Tintura d'Elleboro (L.)

The smallness of the fibres of the root of black hellebore, which are the parts medicinally employed, renders it almost impossible to follow the direction of the London formula; and it is better to powder it coarsely, as ordered by the Dublin College. This tincture was regarded by Dr. Mead as a powerful emmenagogue, and is still ordered in uterine obstructions, and in some cutaneous affections. The dose is from $\mathfrak{m}$ xxx. to $\mathfrak{f}$ 3j. in any appropriate vehicle.

TINCTURA HUMILI. Lond. Edin. *Tincture of Hops.*

"Take of hops, *five ounces*; proof spirit, *two pints*, (*two pounds and a half*; Edin.) Macerate for fourteen days, and strain; (seven days express the tincture, and filter through paper. Edin.)"

The lightness and bulk of the hops render it difficult to make the quantity of spirit here ordered act equally on the ingredients, therefore their surface should be several times changed by stirring, during the maceration, and the tincture expressed as ordered by the Edinburgh College. The tincture is supposed to possess the tonic and narcotic properties of the plant, and has been recommended as a substitute for tincture of opium in gout and rheumatism¹, but from the experiments of Dr. Bigsby, its efficacy is very² problematical. The dose is from $\mathfrak{f}$ 3s. to $\mathfrak{f}$ 3ij. or more.

TINCTURA HYOSCYAMI. Lond. *Tincture of Henbane.*

"Take of the dried leaves of henbane, *four ounces*; proof spirit, *two pints*. Macerate for fourteen days, and filter."

Dublin.

"Take of the dried leaves of black henbane in coarse powder, *two ounces and a quarter*; proof spirit, *a pint*. Digest for seven days; then strain."

TINCTURA HYOSCYAMI NIGRI. Edin. *Tincture of Black Henbane.*

"Take of the dried leaves of black henbane, *an ounce*; proof spirit, *eight ounces*. Digest for seven days, and filter through paper."

I have found this a more useful substitute than tincture of hops, for tincture of opium. In a dose of $\mathfrak{f}$ 3j. it seldom fails of procuring sleep and quiet; and does not affect the head, or produce costiveness. In cases of diarrhoea, when this tincture is given, it will be necessary to add a few drops of tincture of opium to counteract the tendency it has to run off by the bowels.

¹ *Freak's Observations on the Humulus Lupulus*, 9. et passim.

² *London Medical Repository*.

TINCTURA JALAPÆ. Lond.¹ *Tincture of Jalap.*

"Take of jalap-root, powdered, *eight ounces*; proof spirit, *two pints*. Digest for fourteen days, then filter."

Dublin.

"Take of jalap-root in coarse powder, *five ounces*; proof spirit, *two pints*. Digest for seven days, then filter."

TINCTURA CONVULVULI JALAPÆ. Edin. *Tincture of Jalap.*

"Take of jalap-root in powder, *three ounces*; proof spirit, *fifteen ounces*. Digest for seven days, and filter through paper."

Both water and alcohol separately extract part of the active principles of jalap, and proof spirit the whole of them; the combination of the gum, extractive, and resin of the root being requisite for the production of its full cathartic effect. The great difference in point of strength of these tinctures is much to be regretted.

TINCTURA KINO. Lond. *Tincture of Kino.*²

"Take of kino in powder, *three ounces*; proof spirit, *two pints*. Macerate for fourteen days, and strain."

Edinburgh. Dublin.

"Take of kino, *two ounces*; (*three ounces, Dub.*) proof spirit, *a pint and a half*. Digest for seven days, and filter through paper."

The matter in solution in this tincture is chiefly tannin. It is administered in chronic diarrhœa, the latter stage of dysentery, fluor albus, and in all cases in which astringents are indicated; but it is less certain in its operation than the tincture of catechu. The dose is from fssj . to fij .

TINCTURA LYTTE. Lond. *Tincture of blistering Fly.*³

"Take of blistering flies bruised, *three drachms*; proof spirit, *two pints*. Macerate for fourteen days, and filter."

TINCTURA CANTHARIDES VESCICATORIÆ. Edin. *Tincture of Blistering Fly.*

"Take of blistering flies bruised, *a drachm*; proof spirit, *a pound*. Digest for seven days, and filter through paper."

TINCTURA CANTHARIDIS. Dub. *Tincture of Blistering Fly.*

"Take of blistering flies in powder, *two drachms*; cochineal in powder, *half a drachm*; proof spirit, *a pound and a half*. Digest for seven days, then strain."

Proof spirit extracts the active matter of the flies, and is a more convenient form for exhibiting it internally than in substance.

This tincture is useful in gleet, fluor albus, incontinence of

¹ Tinctura Jalapæ, P. L. 1745, 1787.

² Teinture de Kino (F.)

³ Tinct. Cantharidis, P. L. 1787. Teinture de Cantharides (F.) Cantharidentinktur (G.) Tintura di Cantaridi (I.)

urine, and in some cutaneous eruptions. The dose is from ℥ x. to fʒj. given in some demulcent infusion. As an external application it is efficaciously employed, in conjunction with soap or camphor liniment, as an embrocation against rheumatic pains; and I have found that a rag moistened with it is an useful application in that peculiar species of mortification of the extremities, which sometimes happens without any apparent cause; and to frost-bitten parts.

TINCTURA MOSCHI. Dub. *Tincture of Musk.*¹

“Take of musk in powder, two drachms; rectified spirit, a pint. Digest for seven days, then strain.”

The only effectual form in which musk can be exhibited is in powder; much larger doses of it being requisite to do any good than can be given in a spirituous vehicle.

TINCTURA MYRRHÆ. Lond.² *Tincture of Myrrh.*

“Take of myrrh, bruised, four ounces; rectified spirit, two pints; water, a pint. Macerate for fourteen days, and filter.”
Edinburgh.

“Take of myrrh in powder, three ounces; alcohol, twenty ounces; water, ten ounces. Digest for seven days, and filter through paper.”

Dublin.

“Take of myrrh bruised, three ounces; proof spirit, a pint and a half; rectified spirit, half a pint. Digest for seven days, then strain.”

A transparent tincture of a golden yellow colour may be prepared by treating myrrh with alcohol alone; but, by following the directions of the colleges, a rather turbid tincture is obtained; a circumstance which, *à priori*, might have been suspected. This tincture is tonic and deobstruent; but it is more generally used in gargles, combined with infusion of roses and acids; or as an application to foul ulcers, and exfoliating bones; or diluted with water, as a wash for the mouth when the gums are spongy. The dose is from fʒss. to fʒj.

TINCTURA OPII. Lond. *Tincture of Opium.*³

“Take of hard opium, powdered, two ounces and a half; proof spirit, two pints. Macerate for fourteen days, and strain.”

TINCTURA OPII, sive THEBAICA; vulgo, LAUDANUM LIQUIDUM. Edin. *Tincture of Opium, or Thebaic Tincture; commonly, Liquid Laudanum.*

¹ Teinture de Muse (F.) Tintura di Muschio (I.)

² Tinct. Myrrhæ simplex, P. L. 1720. Teinture de Myrrhe (F.) Myrrhentinktur (G.) Tintura di Mirra (I.)

³ Teinture d'opium (F.) Opiums-tinktur (G.) Laudano liquido; Alcoole opiato (I.)

"Take of opium, *two ounces*; proof spirit, *two pounds*. Macerate for seven days, and filter through paper."

TINCTURA OPII, sive TINCTURA THEBAICA. Dub. *Tincture of Opium, or Thebaic Tincture.*

"Take of purified hard opium in coarse powder, *ten drachms*; proof spirit, *a pint*. Digest for seven days, then strain."

Owing to crude opium being now ordered by the London College instead of hard purified opium, the strength of the tincture formerly prepared is to that of the present tincture, as 3 to 2; or $\mathfrak{m}$ xiv. of the old tincture contained one grain of opium, and were equal to $\mathfrak{m}$ xix. of the present tincture. The Edinburgh tincture is of the same strength as the present London tincture; but the Dublin is stronger, $\mathfrak{m}$ xiv. of it containing one grain of opium. This tincture is used in all cases in which opium is indicated, and is a very convenient and elegant form of giving the remedy.¹ The usual dose is from $\mathfrak{m}$ x. to $\mathfrak{m}$ lx.; but in some morbid states of the habit very large doses can be borne, and are even necessary. In colica pictonum $\mathfrak{f}$ 3j. given before using purges, facilitates their action, and renders the relief more speedy; and in tetanus $\mathfrak{f}$ 3vss. have been given in divided doses, with advantage in twenty-six hours. As an external application, the tincture rubbed upon the skin produces its anodyne effects in a smaller degree, allays local pains, and assists in relaxing the spasm in lock-jaw and similar affections. Its powers as an external remedy are very much increased by combining it with vinegar; an acetate of morphia being thus produced.

TINCTURA OPII AMMONIATA; olim, ELIXIR PAREGORICUM. Edin. *Ammoniated Tincture of Opium*; formerly *Paregoric Elixir*.

"Take of opium, *two drachms*; benzoic acid, saffron, cut in shreds, of each, *three drachms*; volatile oil of aniseed, *half a drachm*; ammoniated alcohol, *sixteen ounces*. Digest for seven days, and filter through paper."

This tincture is useful in whooping-cough and spasmodic asthma. Each $\mathfrak{f}$ 3j. contains gr. j. of opium.

TINCTURA QUASSIÆ EXCELSÆ. Edin. *Tincture of Quassia*.²

"Take of quassia wood rasped, *one ounce*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper."

TINCTURA QUASSIÆ. Dub. *Tincture of Quassia*.

¹ It ought to be kept in opaque bottles; as light, according to the experiments of Vogel, has the power of decomposing it. Vide Journ. Pharm. Maii. 1815. p. 199.

² Currie's Report on Cold Water, i. 138.

³ Teinture de Quassia (F.)

"Take of chips of quassia wood, *an ounce*; proof spirit, *two pints*. Digest for seven days, then strain."

This tincture contains the bitter of the wood in perfection, and may be used in the same cases as the infusion.

TINCTURA RHEI.¹ Lond. *Tincture of Rhubarb.*

"Take of rhubarb root sliced, *two ounces*; cardamom seeds bruised, *an ounce and a half*; saffron, *two drachms*; proof spirit, *two pints*. Macerate for fourteen days in a gentle heat, and filter."

Dublin.

"Take of rhubarb root sliced, *two ounces*; lesser cardamom seeds husked and bruised, liquorice bruised, of each, *half an ounce*; saffron, *two drachms*; proof spirit, *two pints*. Digest for seven days, then filter."

TINCTURA RHEI. Edin. *Tincture of Rhubarb.*

"Take of rhubarb root sliced, *three ounces*; lesser cardamom seeds bruised, *half an ounce*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper."

TINCTURA RHEI COMPOSITA.² Lond. *Compound Tincture of Rhubarb.*

"Take of rhubarb root sliced, *two ounces*; liquorice root bruised, *half an ounce*; ginger root sliced, saffron, of each, *two drachms*; proof spirit, *a pint*; water, *twelve fluid ounces*. Macerate for fourteen days in a gentle heat, and filter."

TINCTURA RHEI ET ALOES. Edin. *Tincture of Rhubarb and Aloes*; formerly, *Sacred Elixir*.³

"Take of rhubarb root, sliced, *ten drachms*; Socotorine aloes powdered, *six drachms*; lesser cardamom seeds bruised, *half an ounce*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper."

TINCTURA RHEI ET GENTIANÆ. Edin. *Tincture of Rhubarb and Gentian.*

"Take of rhubarb root sliced, *two ounces*; gentian root, sliced, *half an ounce*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper."

All these tinctures of rhubarb are purgative and stomachic; but the strength of the menstruum is too great to permit of their general use for the first intention, and they are more usually employed as adjuncts to saline purgatives, to give them warmth, or to stomachic infusions in dyspepsia, flatulent colic, diarrhœa, the costiveness of old people, and of those of cold

¹ Tinctura Rhabarbari, P. L. 1720. 1787. Teinture de Rhubarbe (F.) Rhabarbertinktur (G.) Tinctura de Rhabarbaro (I.)

² Rhabarbari composita, P. L. 1787.

³ Alcohol avec Aloë et Rhubarbe (F.) Alcoole Aloë-Rabarbarato (I.)

phlegmatic habits. The dose to operate as a purgative is fʒvj. and from fʒj. to fʒiij. to produce stomachic effects.

TINCTURA SCILLÆ. Lond. Edin. Dub. *Tincture of Squills.*

"Take of recent squill root (bulb) dried, *four ounces*, (two ounces, Edin.); proof spirit, *two pints*, (sixteen ounces, Edin.) Macerate for fourteen days, and filter." (Digest for seven days, then set it aside until the dregs are subsided, and pour off the clear liquor. *Dub.*)

Proof spirit takes up the active principles of the squill, and affords a convenient form of exhibiting it in all the cases in which it is indicated. The dose is from ℥x. to ℥xxx. given in almond mixture, ammoniac mixture, or mucilage.

TINCTURA SENNÆ. Lond. *Tincture of Senna.*¹

"Take of senna leaves, *three ounces*; carraway seeds bruised, *three drachms*; cardamom seeds bruised, *a drachm*; raisins stoned, *four ounces*; proof spirit, *two pints*. Macerate for fourteen days in a gentle heat, and filter."

Dublin.

"Take of senna leaves, *a pound*; carraway seeds bruised, *one ounce and a half*; lesser cardamom seeds husked and bruised, *half an ounce*; proof spirit, *a gallon*. Digest for fourteen days, then filter."

TINCTURA SENNÆ COMPOSITA. Edin. *Compound Tincture of Senna.*

"Take of the leaves of senna, *two ounces*; jalap root bruised, *one ounce*; coriander seeds bruised, *half an ounce*; proof spirit, *three pounds and a half*. Digest for seven days, and to the filtered tincture add of refined sugar *four ounces*."

These tinctures are stomachic and purgative. They are very efficacious in flatulent colic, atonic gout, and as an opening medicine for those whose bowels have been weakened by intemperance. The dose is from fʒij. to fʒj. in any appropriate vehicle.

TINCTURA SERPENTARIÆ. Lond. Dub. *Tincture of Snake Root.*

"Take of snake root, (cut and bruised, *Dub.*) *three ounces*; proof spirit, *two pints*. Macerate for fourteen days, (seven days, *Dub.*) and filter."

TINCTURA ARISTOLOCHIÆ SERPENTARIÆ. Edin. *Tincture of Snake Root.*

"Take of snake root, bruised, *two ounces*; cochineal in powder, *a drachm*; proof spirit, *two pounds and a half*. Digest for seven days, and filter through paper."

¹ Elixir Salutis, P. L. 1720.

This tincture is a useful addition to infusion of cinchona bark, in typhoid and putrid fevers, gout, and periodic head-ach. The dose is from $f\frac{3}{4}$ ss. to $f\frac{3}{4}$ ij.; or, when taken in water, as much as can be taken without the operation of the spirit proving hurtful.

TINCTURA TOLUIFERÆ BALSAMI. Edin. *Tincture of Balsam of Tolu.*

"Take of balsam of Tolu, *an ounce and a half*; alcohol, *a pound*. Digest until the balsam is dissolved, and filter through paper."

Tincture of balsam of Tolu is scarcely ever used except on account of its agreeable flavour. As it is decomposed by water, it is necessary to triturate it with mucilage, in order to mix it with any aqueous fluid. It is chiefly used for making the syrup.

Official preparation. *Syrupus Toluiferæ Balsami. E.*

TINCTURA VALERIANÆ. Lond. Dub. *Tincture of Valerian.*

"Take of valerian root in powder, *four ounces*; proof spirit, *two pints*. Macerate for fourteen days, (seven days, *Dub.*) and filter."

Proof spirit extracts the active matter of the valerian, but the tincture cannot be given in doses sufficiently large to prove very efficacious.

TINCTURA VALERIANÆ AMMONIATA. Lond. *Ammoniated Tincture of Valerian.*

"Take of valerian root, *four ounces*; aromatic spirit of ammonia, *two pints*. Macerate for fourteen days, and filter."

Dublin.

"Take of valerian root in powder, *two ounces*; spirit of ammonia, *a pint*. Digest for seven days, then filter."

As the ammonia corresponds in virtue with the valerian, this tincture is more powerful than the foregoing. It is advantageously employed in hysteria and other nervous affections, in doses of $f\frac{3}{4}$ j. or $f\frac{3}{4}$ ij. given in milk, or some other bland fluid.

TINCTURA VERATRI ALBI. Edin. *Tincture of white Hellebore.*

"Take of white hellebore root, bruised, *eight ounces*; proof spirit, *one pound and a half*. Digest for seven days, and filter through paper."

This tincture is sometimes employed to excite vomiting in

* Teinture de Valeriane (F.) Baldrian-tinktur (G.) Tintura di Valeriana (I.)

* Tinctura Valerianæ volatilis, P. L. 1745. Baldriantinktur mit Ammonium li-
quor (G.)

maniacal and apoplectic cases; and as an alterative in cutaneous eruptions. It is given in doses of $\mathfrak{m}$ v. to $\mathfrak{m}$ x. but it is a very unmanageable remedy, producing sometimes the most violent effects.

TINCTURA ZINGIBERIS. Lond. Dub. TINCTURA AMOMI ZINGIBERIS. Edin. *Tincture of Ginger.*

"Take of ginger root sliced, *two ounces*; proof spirit, *two pints*. Macerate for fourteen days, (seven days, *Dub. Edin.*) and filter."

This tincture possesses all the pungency of the ginger, and is useful as a stimulant and carminative, in atonic gout, when it attacks the stomach, in flatulent colic, and as a corrigent to griping purgatives.

ÆTHEREA.

PREPARATIONS OF ETHER.

THE action of the strong acids on alcohol produces an order of compounds, which possess both important chemical properties, and medicinal virtues. These are named ETHERS, and agree in certain general properties, but vary in some of their qualities according as they are produced from different acids. They are all extremely volatile, and require to be preserved in closely stoppt phials.¹ The following are medicinally used.

ÆTHER SULPHURICUS. Lond. *Sulphuric Ether.*²

"Take of rectified spirit, sulphuric acid, of each, *one pound and a half*. Pour the spirit into a glass retort, and add the acid gradually to it, shaking it frequently, and taking care that the temperature of the mixture do not exceed 120° , until it be completed. Then cautiously place the retort in a sand-bath, previously heated to 200° , that the liquor may boil as quickly as possible, and the ether pass into a tubulated receiver to which another receiver is adapted, which is to be cooled by ice or water. Distil until a heavier fluid begins to pass over, which is seen in the bottom of the receiver below the ether. Pour on the liquor which remains in the retort twelve fluid ounces more of rectified spirit, and distil another portion of ether in a similar manner."

¹ The phial proposed by Dr. Dewar is the best for this purpose. It consists of a stoppt phial, having a circular rim round its shoulder, not rising quite so high as the mouth of the bottle, and a glass cup with a heavy bottom, which when inverted over the mouth of the phial into mercury, poured into the rim, hermetically closes it. *Annals of Phil.* vol. x. p. 20.

² Ether (F.) Schwefelätther (G.) Etere (I.)