

EXTRACTA.

EXTRACTS.

THESE are preparations obtained by evaporating aqueous and alcoholic solutions of vegetable substances, until a mass of a somewhat firm tenacious consistence remains. When water has been employed for making the solution, the extract may consist of gum or mucilage, extractive, tannin, cinchonin, saccharine matter, and the salts which the vegetable contained, and is termed a *Watery Extract*; but if alcohol has been the menstruum, resin, extractive, and all the above matters, except the gum, may be the ingredients, and the extract is denominated a *Spirituos Extract*. The latter appellation also is used if proof spirit be employed. The proper menstruum, therefore, for the preparation of any extract must be that fluid which most readily dissolves the peculiar principles on which the medicinal efficacy of the vegetable is supposed to depend.

When water is to be employed, the substance to be subjected to its action should be in the dried state, and coarsely powdered; and the solution, whether made by decoction or infusion, should be evaporated immediately after it is strained, and whilst it is yet hot; for, as we observed in treating of Decoctions, water at the temperature of 212° takes up much more of the active matter of vegetables than it can hold in solution at a lower temperature: therefore, by allowing them to cool, with the view of defecation, and evaporating the clear fluid only, a considerable portion of the active matter does not enter into the extract, and is necessarily lost. In performing the evaporation, a higher temperature than that of boiling water must not be employed; but it must, nevertheless, be conducted as quickly as possible; and therefore the evaporating vessel should be broad and shallow, and set in boiling water, or the water-bath recommended by Dr. Powell^{*} should be employed. (See *Instruments*, Part i.)

Alcohol is used only in cases where the active ingredient of the vegetable is chiefly resin, or too volatile to bear the heat which is necessary for evaporating the water without being dissipated, or without suffering some decomposition, which would materially alter its properties. A tincture of the substance is first obtained, which is then evaporated by a very gentle heat

^{*} Translation of the London Pharmacopœia, p. 201.

in a water-bath; but the alcohol need not be allowed to evaporate in the air, as by employing a distilling apparatus, the greater part of it may be again obtained either altogether free from any vegetable principle, or containing a small portion only of the more volatile; which renders it fitter for being again employed for the preparation of the same kind of extract.

Whether water, proof spirit, or pure alcohol be employed, the medicinal properties of the extract are always in some degree injured, the volatile parts are dissipated, and some of the fixed decomposed by the degree of heat required for the evaporation, particularly if water be the menstruum; or the proper extractive is oxidized, and consequently rendered inert. These are strong objections to this form of preparation; and, as Dr. Murray has properly observed, "with the exception of some of the pure bitters, as gentian; or some of the saccharine vegetables, as liquorice; there is no medicine perhaps but what may be given with more advantage under some other form."¹

Extracts require to be kept in a hard and a soft state. A hard extract should be in such a state as to admit of its being easily pulverized, and the soft extract should be such as to retain the round form of a pill, without the addition of any powder. Both kinds should be preserved in a dry place; and the soft should be wrapped in oiled bladder, and kept in covered pots.

The London College does not arrange the extracts under the titles *Watery* and *Spirituos*, which is the arrangement of the Edinburgh College, or *Simple* and *Resinous*, which is that of the Dublin: and the London Pharmacopœia being our text book, we have followed its arrangement. The following general directions are given by the LONDON COLLEGE for the preparation of extracts.

"In preparing all kinds of extracts, evaporate the fluid as quickly as possible in a broad shallow dish placed in a water-bath, until the extract acquires a consistence proper for forming pills, and towards the end of the operation stir assiduously with a spatula.

"Sprinkle a small quantity of rectified spirit upon all the softer extracts."

The EDINBURGH COLLEGE gives its general directions for the preparation of the *Extracts by Water*, under the Extract of Gentian; and for the *Extracts by Water and Alcohol*, under the Extract of Bark.²

¹ *System of Materia Medica*, &c. ii. 119.

² The following method of preparing narcotic extracts, invented by Mr. Battley, Chemist, Fore-Street, London, had been found to answer every purpose in preserving the green colour and the medicinal properties of the plants.

"Plants which from circumstances cannot be operated upon immediately after

EXTRACTA SIMPLICIORA. Dub. *Simple Extracts.*

"All simple extracts, unless otherwise ordered, are to be prepared according to the following rule.

"The vegetable matter is to be boiled in eight times its weight of water, which is to be reduced by boiling to one half; the liquor is then to be expressed, and after the fæces have subsided, to be filtered, and evaporated by the heat of boiling water, until it begins to thicken; and is to be, finally, inspissated by a medium heat, frequently stirring, until it acquires a consistence proper for forming pills.

"All extracts, when they begin to get thick, ought to be frequently stirred with a clean iron spatula. They may be reduced to a proper degree of thickness by means of a stove heated for the purpose.

"They ought to be preserved as much as possible from the contact of the air; and the softer ones are to be sprinkled with rectified spirit."

EXTRACTUM CACUMINUM ABSYNTHII. Dub. *Extract of Wormwood.*¹

This is ordered to be prepared according to the above directions. It is nearly a simple bitter, the volatile oil being dissipated during the evaporation. It may be used in those cases for which bitters are commonly prescribed; but it is scarcely ever used. The dose is from gr. x. to ℥j. taken three times a day.

EXTRACTUM ACONITI. Lond. *Extract of Aconite or Wolfsbane.*²

they are collected, must be revived by immersing their stalks in water for twelve or eighteen hours. Such as perfectly recover by this means, which will be known by the leaves becoming as fresh as when growing, are to be bruised and pressed; and the juice from them passed through a fine hair sieve, and immediately placed on the fire. Some time before it is raised to the boiling temperature, a quantity of green-coloured matter begins to float on the surface of the fluid: in the juice of some plants this matter is very considerable: it is to be carefully removed by means of a thin perforated tin dish. By the time the liquor boils, or soon afterwards, the green matter ceases to appear. The boiling is to be continued until rather more than half the fluid has been evaporated, when the decoction is to be put into a conical pan, and suffered to stand in it until cold. A large precipitation of dark green-coloured feculent matter will then be found to have taken place; from which the supernatant fluid is to be poured off, and again exposed to evaporation, until half of it is consumed; when it is to stand for precipitation.

"The precipitated matter from the second coction is by no means so green as the first. The remaining fluid is now to be suffered to boil till it acquires the consistence of syrup; when the matter which had been collected at the commencement by filtration and precipitation is to be mixed with it, and placed in a metallic pan in a water-bath, and further evaporated till of the consistence of an extract. In this latter part of the process, the operator must give his constant attention until it be quite completed. It is not necessary that the matter should be kept constantly stirred; but the operator ought never to suffer it to stick, or become hard on the sides of the pan; for, if it be allowed to harden, the extract loses its green colour; and in proportion to such loss is the deterioration of its medicinal virtues." *London Medical Repository*, vol. iv. p. 198.

¹ Extrait d'Absynthe (F.) Wermuth-extrakt (G.) Estratto d'Assenzo (I.)

² Extrait d'Aconit (F.) Eisenhütlein-extrakt (G.) Estratto d'Aconito Napello (I.)

"Take of fresh leaves of aconite, *a pound*. Bruise them in a stone mortar, sprinkling over them a little water; then express the juice, and, without any depuration, evaporate it to a proper consistence."

SUCCUS SPISSATUS ACONITI NAPELLI. Edin. *Inspissated Juice of Aconite.*

"Let fresh leaves of aconite be bruised; inclose them in a hempen bag and press them strongly, until they yield their juice; which is to be evaporated in flat vessels, heated with boiling water saturated with muriate of soda (*common salt*), and immediately reduced to the consistence of thick honey.

"After the mass is cold, let it be put into glazed earthen vessels, and moistened with alcohol."

This extract, or inspissated juice, is the form under which Stoerk introduced wolfsbane into practice. It has an obscure brownish red colour, a disagreeable odour, and an acrid slightly styptic taste. Its medicinal properties are the same as those of the plant, but it is very seldom used. (See *Part ii.*) The dose at first should be gr. $\frac{1}{2}$ only, and gradually increased to grs. vj. taken night and morning.

EXTRACTUM ALOES PURIFICATUM. Lond. *Extract of Aloes.*¹

"Take of extract of spiked aloes in powder, *half a pound*; boiling water, *four pints*. Macerate for three days in a gentle heat, then strain the solution, and set it aside that the dregs may subside. Pour off the clear liquor, and evaporate it to a proper consistence."

This extract consists chiefly of the mucous and extractive matter of the aloes; but as during the inspissation the extractive is partially oxidized, and rendered less soluble, the extract is not completely soluble in water. It is employed in the same cases as the aloes, and is said to be less stimulant and griping. The dose is from grs. x. to grs. xv. given in the form of pills.

Official preparations. *Pulvis Aloes compositus. L. Pilulæ Aloes compositæ. L. Pilulæ Aloes cum Myrrha. L.*

EXTRACTUM ANTHEMIDIS.² Lond. EXTRACTUM ANTHEMIDIS NOBILIS. Edin. EXTRACTUM FLORUM CHAMÆMELI. Dub. *Extract of Chamomile Flowers.*

"Take of chamomile flowers dried, *a pound*; water, *a gallon*. Boil down to four pints, and strain the liquor while it is hot; then evaporate it to a proper consistence."

The Edinburgh extract is to be prepared in the same manner

¹ Extrait d'Aloes (F.) Aloeextrakt (G.) Estratto d'Aloe (I.)

² Extractum Chamæmeli, P. L. 1787. Extrait de Camomille romaine (F.) Kamillenextrakt (G.) Estratto di fiori di Camomillo (I.)

as the extract of gentian of that college; the Dublin, after the manner directed for the preparation of the simple extracts.

In these processes the volatile oil is dissipated, and a simple bitter extract remains, possessing scarcely any of the properties of the plant. It is of a deep brown colour, and has a grateful bitter taste, but scarcely any odour. It has scarcely any efficacy when used alone; but is a useful adjunct to rhubarb, and sulphate of zinc as a stomachic pill. The dose may be from grs. x. to ʒj. given twice or thrice a day.

EXTRACTUM BELLADONNÆ. Lond. *SUCCUS SPIS-SATUS ATROPÆ BELLADONNÆ.* Edin. *Extract of Belladonna.*¹

“Take of fresh leaves of belladonna, *a pound*. Bruise them in a stone mortar, sprinkling a little water over them; then express the juice, and, without any separation of the sediment, evaporate it to a proper consistence.”

The inspissated juice of the Edinburgh Pharmacopœia is to be prepared in the same manner as the inspissated juice of aconite.

This extract is inodorous, and has a bitterish taste. Its medicinal properties are the same as those of the plant, but weaker. The dose is from gr. j. gradually increased to grs. v. given in the form of pills.

EXTRACTUM CASCARILLÆ RESINOSUM. Dub. *Resinous Extract of Cascarilla.*²

“Take of cascarilla bark in coarse powder, *a pound*; rectified spirit of wine, *four pints*. Digest for four days, then pour off the coloured spirit, and filter. Boil what remains of the cascarilla in ten pints of water down to two pints; then evaporate the strained decoction, and at the same time distil the tincture from a retort, until both begin to thicken; then mix them together, and evaporate the mixture to a consistence proper for making pills. Lastly, mix the extracts intimately together.”

This preparation is expensive, and does not appear to possess any peculiar advantages to recommend it. The dose is from grs. x. to ʒj. given twice or thrice a day, in the form of pills.

EXTRACTUM CINCHONÆ. Lond.³ *Extract of Bark.*

“Take of lance-leaved cinchona bark bruised, *a pound*; water, *a gallon*. Boil down to six pints, and strain the liquor while it is warm. In the same manner boil it down again four successive times, in an equal quantity of water, and strain.

¹ Extrait de Belladonne (F.) Belladonnaextrakt (G.) Estratto de l'erba di Belladonna (I.)

² Extrait de Cascarille (F.) Cascarillenextrakt (G.)

³ Extractum Corticis Peruviani, P. L. 1754. Extrait de Quinquina (F.) Wässriges Chinaextrakt (G.) Estratto di China aquosa (I.)

Finally, mix the solutions together, and evaporate the mixture to a proper consistence.

"This extract ought to be kept in a *soft* state fit for making pills, and in a *hard* state that it may be reduced to powder."

Dublin.

"Take of cinchona bark in coarse powder, *a pound*; water, *six pounds*. Boil for a quarter of an hour in a vessel nearly covered; then filter the decoction while it is yet hot, and set it aside. Boil the residue again in the same quantity of water, and filter it in the same manner: repeat this a third time; and finally, mix all the liquors, and evaporate the mixture to a proper consistence.

"This extract should be kept in two states: one *soft*, fit for making pills; and the other *hard*, or in a state proper to be reduced to powder."

The operation of the same causes as those which we stated to be unfavourable to decoction as a form of preparation for the exhibition of cinchona, are still more hurtful to its efficacy in the form of extract; and, according to Sir John Pringle, the extract is less efficacious, even in equal quantities, than the simple powder. The extract, however, is not devoid of utility, and often sits very lightly on the stomach when the powder is rejected. It is usually ordered in doses of from grs. x. to ʒss. dissolved in any distilled water; but it is necessary to observe, that, owing to the oxidizement of the extractive matter, the solubility of the extract is diminished during its formation: scarcely more than one half is soluble in water. It has a very bitter taste, but is less austere than the bark.

EXTRACTUM CINCHONÆ RESINOSUM. Lond.
*Resinous Extract of Bark.*¹

"Take of lance-leaved cinchona bark, bruised, *a pound*; rectified spirit, *four pints*. Macerate for four days, and strain. Distil the tincture in a water-bath, until the extract has acquired the due consistence."

EXTRACTUM CINCHONÆ LANCIFOLIÆ. Edin. *Extract of officinal Cinchona Bark.*

"Take of lance-leaved cinchona bark in powder, *one pound*; alcohol, *four pounds*. Digest for four days, and pour off the tincture. Boil the residue in five pounds of distilled water for fifteen minutes, and strain the decoction while it is hot through a linen cloth. Repeat this coction and straining with an equal quantity of distilled water, and evaporate the liquor to the consistence of thin honey. Distil the alcohol from the tincture, until it be reduced to a similar consistence. Then mix the

¹ Extrait résineux de Quinquina (F.) Estratto di China colla resina (I.)

inspissated liquors, and evaporate them to a proper consistence in a bath of boiling water, saturated with muriate of soda."

EXTRACTUM CINCHONÆ RUBRÆ RESINOSUM. Dub. *Resinous Extract of Red Cinchona Bark.*

This is ordered to be prepared in the same manner as the resinous extract of cascarilla.

The extract prepared by these processes has the bitter taste and the austereness of the bark, which it nearly equals in efficacy, and is more grateful to the stomach. It is altogether a preferable preparation to the watery extract; for, by the separate action of the spirit and the water, all the soluble and active principles of the drug are taken up: less heat is required to evaporate the menstruum; and, owing to the presence of the alcohol, the extractive matter absorbs less oxygen: indeed, the expence of the spirit, of which there is always some waste, is the only objection to its general use. The dose is from grs. x. to grs. xxx. formed into pills.

EXTRACTUM COLOCYNTHIDIS. Lond. *Extract of Colocynth.*¹

"Take of the pulp of colocynth, *a pound*; water, *a gallon*. Boil down to four pints, and strain the liquor while it is hot; then evaporate it to a proper consistence."

This extract is a milder but less powerful cathartic than the pulp from which it is prepared, and with the addition of calomel forms an excellent purgative pill, which operates without griping. From grs. v. to ʒi. is the usual dose.

EXTRACTUM COLOCYNTHIDIS COMPOSITUM.² Lond. *Compound Extract of Colocynth.*

"Take of colocynth pulp, sliced, *six drachms*; extract of the spiked aloe, powdered, *one ounce and a half*; scammony, powdered, *half an ounce*; cardamom seeds, powdered, *a drachm*; boiling water, *two pints*. Macerate the colocynth pulp in the water with a gentle heat, for four days. Strain the liquor, and add to it the aloes and scammony; then evaporate it to a proper consistence, and towards the end of the inspissation mix in the cardamom seeds."

Dublin.

"Take of the pulp of colocynth, cut small, *six drachms*; hepatic aloes, *an ounce and a half*; scammony, *half an ounce*; lesser cardamom seeds, husked, *a drachm*; Castile soap softened with water, so as to have a gelatinous appearance, *three drachms*; hot water, *a pint*. Digest the colocynth in the water in a covered vessel, with a medium heat, for four days; express and strain the liquor, and add to it the aloes and scammony,

¹ Koloquinthen-extrakt (G.)

² Extractum catharticum, P.L. 1745.

first separately reduced to powder; then evaporate the mixture with a medium heat to a proper consistence for making pills, and towards the end of the inspissation add the gelatinized soap and the powdered seeds, and with frequent stirring mix the whole intimately together."

By this combination of powerful cathartic substances a purgative mass is obtained, more manageable and less irritating than any of its components separately taken. It forms a very useful pill for relieving the habitual costiveness of leucophlegmatic habits; and in obstinate visceral obstructions when combined with calomel, which is not decomposed, as might *à priori* be supposed. The dose is from gr. vj. to ʒss. repeated every eight hours until it operates.

EXTRACTUM CONII. Lond. SUCCUS SPISSATUS CONII MACULATI. Edin. *Extract of Hemlock.*¹

"Take of fresh hemlock, a pound. Bruise it in a stone mortar, sprinkling over it a little water; then express the juice, and without separating the sediment, evaporate it to a proper consistence."

The Edinburgh preparation is to be made according to the directions ordered for the preparation of inspissated juices.

SUCCUS SPISSATUS CICUTÆ. Dub. *Inspissated Juice of Hemlock.*

"Express hemlock leaves, gathered when the flowers are about to appear, and allow the juice to remain six hours to deposit the fæces; then evaporate the pure juice to a proper consistence with a moderate heat."

This extract, or inspissated juice, has a foetid odour, a bitterish saline taste, and a dark olive colour. Although it be the form in which Stoerk introduced hemlock into practice, yet the narcotic power of the remedy is always impaired by this mode of preparation, and it is still more weakened by keeping, being nearly lost when a saline efflorescence begins to appear on the surface of the extract. It is used in the same cases as the powder, with which it is frequently mixed when it is to be made into pills; and is an useful adjunct to mercurials in cutaneous affections. Bergius recommends it in impotency.² The dose is gr. iij. gradually increased to ʒj. given twice or thrice a day.

EXTRACTUM ELATERII. Lond. *Extract of Elaterium.*³

¹ Extrait de Ciqué (F.) Schierlings-extrakt (G.) Estratto del' erba della Cicuta (L.)

² Impotentiam vicilem sub usu Conii curatam observavi, in viro quodam plusquam quadragenario, qui omnem erectionem penis perdiderat, postinde tamen plures liberos procreavit." Bergius, *Mat. Med.* i. 193.

³ Elaterium (F.) Estratto del frutto della Momordica (L.)

"Slice ripe wild cucumbers, express the juice very gently, and pass it through a very fine hair sieve into a glass vessel; then set it aside for some hours, until the thicker part has subsided. Reject the thinner supernatant part, and dry the thicker part with a gentle heat."

ELATERIUM. Dub. *Elaterium.*

"Slice ripe wild cucumbers, and strain the juice very lightly expressed through a fine hair sieve into a glass vessel; then set it aside for some hours until the thicker part subsides; reject the supernatant liquor, and dry the fecula, laid upon a linen cloth and covered with another, by a medium heat."

The substance obtained by these processes is neither an extract nor an inspissated juice, but a peculiar modification of fecula combined with some very active principle which is deposited with it; and therefore the name adopted by the Dublin College is more appropriate than that imposed by the London College. It is very remarkable that the Edinburgh College has rejected so important a remedy from the last edition of its Pharmacopœia.

Medical properties and uses. — Elaterium is a very powerful hydragogue, and excites sickness, severe vomiting, and hypercatharsis, if it be not cautiously administered. On this account it is seldom used as a cathartic; but in ascites it often produces the entire evacuation of the fluid, when gamboge and crystals of tartar, foxglove, and every other remedy have failed. The best mode of administering it is to give it in divided doses of gr. fs. each, every hour, until it begins to operate. It may, however, be given to the extent of gr. iij. for a dose.

EXTRACTUM CACUMINUM GENISTÆ. Dub.
Extract of Broom Tops.

This extract is to be prepared in the same manner as the extract of wormwood. It is said to be diuretic, but its efficacy is doubtful, and it is scarcely ever employed. The dose is from 3fs. to 3j. or more.

EXTRACTUM GENTIANÆ. Lond. EXTRACTUM RADICIS GENTIANÆ. Dub. *Extract of Gentian.*

"Take of gentian root, sliced, a pound; boiling water, a gallon. Macerate for twenty-four hours; then boil down to four pints, strain the liquor while it is hot, and evaporate it to a proper consistence."

EXTRACTUM GENTIANÆ LUTÆ. Edin. *Extract of Gentian.*

"Take of gentian root, any quantity. Having sliced and bruised it, pour upon it eight times its weight of boiling water. Boil down to one half, express the liquor strongly, and strain

¹ Extrait de Gentiane (F.) Enzian-extrakt (G.) Estratto di Gentiana (I.)

it. Evaporate the decoction immediately to the consistence of thick honey, in a bath of boiling water saturated with muriate of soda."

The bitter principle of gentian root is not injured by this form of preparation. The extract is inodorous, very bitter, black, shining, and tenacious. It is chiefly used as a vehicle for the exhibition of the metallic oxides. The dose is from grs. x. to 3fs. given twice or thrice a day.

EXTRACTUM GLYCYRRHIZÆ. Lond. Dub. *Extract of Liquorice.*

"Take of liquorice root sliced, a pound; boiling water, a gallon. Macerate for twenty-four hours; then boil down to four pints; strain the hot solution, and evaporate it to a proper consistence."

There is scarcely any of this extract prepared by the apothecary; the pure extract of liquorice sold in the shops under the name of *refined liquorice* being prepared from the impure extract of commerce, by dissolving it in water, straining, and inspissating it in the usual manner. It is an useful demulcent for allaying tickling cough, as from its tenacity it hangs about and sheathes the fauces.

Official preparations. *Pilulæ opiatæ.* E. *Pilulæ scilliticæ.* E. *Trochisci Glycyrrhizæ glabræ.* E. *Trochisci Glycyrrhizæ cum Opio.* E.

EXTRACTUM HÆMATOXYLI. Lond. **EXTRACTUM HÆMATOXYLI CAMPECHIANI.** Edin. **EXTRACTUM SCOBIS HÆMATOXYLI.** Dub. *Extract of Logwood.*

"Take of logwood rasped, a pound; boiling water, a gallon. Macerate for twenty-four hours; then boil down to four pints; strain the hot liquor, and evaporate to a proper consistence."

This extract is almost inodorous, has a sweet austere taste, and a deep ruby colour. It becomes extremely brittle when kept. It is an useful astringent in the protracted stage of diarrhoea and dysentery. The dose is from grs. x. to 3fs. dissolved in cinnamon water or peppermint water.

EXTRACTUM RADICIS HELLEBORI NIGRI. Edin. Dub. *Extract of Black Hellebore Root.*²

This is to be prepared from the bruised root, after the manner directed for the extract of gentian by the Edinburgh College, and the extract of wormwood by the Dublin College.

EXTRACTUM HUMULI. Lond. *Extract of Hops.*

"Take of the strobiles of the hop, four ounces; water, a gallon. Boil down to four pints; strain the hot liquor; and evaporate it to a proper consistence."

¹ Extractum Ligni Campachensis, P.L. 1745. Campechholz-extrakt (G.)

² Extrait d'Ellebore (F.) Schwarz Niesenwurz-extrakt (G.)

This extract is inodorous; and has the bitter taste peculiar to the hop. We have found it an useful anodyne in gout, acute rheumatism, and cases which do not admit of the use of opium. The dose is from grs. v. to ʒj. given in the form of pills, or dissolved in any aqueous vehicle.

EXTRACTUM HYOSCYAMI. Lond. SUCCUS SPIS-SATUS HYOSCYAMI NIGRI. Edin. SUCCUS SPIS-SATUS HYOS-CYAMI. Dub. *Extract of Henbane.*¹

“Take of fresh leaves of henbane, *a pound*. Bruise them in a stone mortar, sprinkling on them a little water; then press out the juice, and without separating the sediment, evaporate it to a proper consistence.”

This extract has a disagreeable slightly foetid odour, and a nauseous, bitterish, subsaline taste. It is possessed of considerable narcotic powers, and is used as a substitute for opium in nervous affections, mania, gout, rheumatism, and all painful complaints, in which it is wished to avoid the costiveness which opium is apt to induce. A solution of it in water, in the proportion of one drachm to the ounce, dropped into the eye, dilates very much the pupil; and has been used, on the recommendation of Professor Himly, for facilitating the operation for cataract; and also in contracted pupils not accompanied by adhesion of the iris to the capsule.² The dose is from grs. iij. to ʒj. given in the form of pills.

EXTRACTUM JALAPÆ.³ Lond. *Extract of Jalap.*

“Take of jalap root powdered, *a pound*; rectified spirit, *four pints*; water, *ten pints*. Macerate the jalap root in the spirit for four days, and decant the tincture. Boil the residue in the water down to two pints. Then strain separately the tincture and the decoction; distil the former, and evaporate the latter, until both begin to thicken. Lastly, mix the extract with the resin, and evaporate the mixture to a proper consistence.”

“This extract should be kept in a *soft* state fit for forming pills, and in a *hard* state, so that it may be reduced to powder.”

EXTRACTUM CONVULVULÆ JALAPÆ. Edin. *Extract of Jalap.*

This is ordered to be prepared from the root, in the same manner as the extract of cinchona bark. (Edin.)

EXTRACTUM JALAPÆ. Dub. *Extract of Jalap.*

“Let it be prepared in the same manner as the resinous extract of cascarrilla.”

¹ Extrait de Jusquiame (F.) Hyoszyamus-extrakt (G.) Estratta di Giusquiana nera (I.)

² Edin. Medical and Surg. Journal, vol. ix. p. 6. 11.

³ Extractum Jalapii, P. L. 1745. Extrait de Jalap (F.)

These extracts contain all the active principles of the jalap root. They are, however, apt to gripe during their operation: hence, particularly when given to children, they should be triturated with sugar and almonds, or mucilage, so as to form an emulsion, in which state they operate freely and without griping. The dose to an adult is from grs. x. to ʒj.

EXTRACTUM RADICIS JALAPÆ. Dub. *Extract of Jalap Root.*

This is to be prepared with water alone, after the manner directed for the preparation of the simple extracts. (Dub.) It contains chiefly the gummy part of the jalap, very little of the resin being taken up by the water. It is milder in its operation than the root, and may be given to infants in doses of from grs. vi. to grs. xij. triturated with sugar or testaceous powders.

SUCCUS SPISSATUS LACTUCÆ SATIVÆ. Edin. *Inspissated Juice of Garden Lettuce.*¹

This is to be prepared from the fresh leaves, according to the general directions for preparing inspissated juices.

SUCCUS SPISSATUS LACTUCÆ VIROSÆ. Edin. *Inspissated Juice of the Wild Lettuce.*²

To be prepared from the fresh herb, in the same manner as the other inspissated juices.

The extracts of both the above species of lactuca are exhibited as substitutes for opium, in cases in which the intention is rather to allay irritation than to produce the full effect of a narcotic. The dose is grs. vj. gradually increased.

EXTRACTUM OPII. Lond. *Extract of Opium.*³

“Take of opium sliced, *half a pound*; water, *three pints*. Pour a small portion of the water upon the opium, and macerate for twelve hours, that it may become soft; then adding gradually the remaining water, rub them together until they be well mixed, and set the mixture apart that the feculencies may subside. Lastly, strain the liquor, and evaporate it to a proper consistence.”

EXTRACTUM OPII AQUOSUM. Dub. *Watery Extract of Opium.*

“Take of opium, *two ounces*; boiling water, *a pint*. Rub the opium in the water for ten minutes, and after a little pour off the solution; rub the residuary opium in an equal quantity of boiling water for the same space of time, pouring off also this solution; and repeat the operation a third time. Mix together the decanted solutions, and expose the mixture in a

¹ Extrait de Laitue (F.)

² Extrait de Laitue vireuse (F.) Estratto dell' erba della Lactuca (I.)

³ Extrait d'Opium (F.) Opiums ekstrakt (G.) Estratto d'Oppio (I.)

broad open vessel to the air for two days. Lastly, strain it through linen, and by slow evaporation form it into an extract."

Water takes up a certain proportion of all the constituents of crude opium, but less of the resinous than of the gummy part; and from the chemical analysis of opium, it appears that the watery solution contains more of the narcotic principle, or morphia, on which depends the remedial quality of opium. In the Dublin preparation the quantity of active matter must necessarily be greater, owing to the employment of boiling water for the second and third triturations. This extract, therefore, differs very little from opium; but as the inspissation cannot always be conducted exactly in the same manner, its strength must consequently vary. From lbs. of crude opium 3ijss only of extract are obtained, by following the directions of the London College.

Qualities.—This extract is inodorous, has a bitter taste, and is of a very deep brown colour. It is not altogether soluble in water, but is not precipitated from its solution by alcohol. It, however, affords precipitates with the following substances, which ought not, therefore, to enter into prescriptions with its solution; viz. solutions of astringent vegetables, the alkaline carbonates, corrosive muriate of mercury, sulphate of copper, sulphate of zinc, acetate of lead, and nitrate of silver.

Medical properties and uses.—This extract is supposed to possess the narcotic and anodyne powers of opium, but to produce its effects with less subsequent derangement of the nervous system. It is therefore supposed to be well adapted for the diseases of children and very irritable habits. The dose is from gr. j. to grs. vj. for an adult.

Official preparation. *Syrupus Opii*. D.

EXTRACTUM PAPAVERIS. Lond. EXTRACTUM PAPAVERIS SOMNIFERI. Edin. *Extract of Poppies.*¹

"Take of the capsules of the poppy, freed from the seeds, and bruised, a pound; boiling water, a gallon. Macerate for twenty-four hours; then boil down to four pints; strain the hot liquor, and evaporate it to a proper consistence."

This extract possesses nearly the same medicinal properties as opium, but in a much weaker degree; and is less apt to occasion the nausea, head-ach, and delirium, which opium not unfrequently produces. It is therefore to be preferred for procuring sleep in diseases in which the head is much affected. The dose is from grs. ij. to ʒj. given in the form of pills.

¹ Extrait de Pavot (F.)

EXTRACTUM CORTICIS QUERCUS. Dub. *Extract of Oak Bark.*¹

This extract is ordered to be prepared in the same manner as the simple extracts. It consists principally of tannin, which is, therefore, not liable to be injured by this form of preparation; but it possesses no peculiar advantages to recommend it to particular notice.

EXTRACTUM RHEI. Lond. *Extract of Rhubarb.*²

“Take of rhubarb root bruised, *a pound*; proof spirit, *a pint*; water, *seven pints*. Macerate for four days in a gentle heat; then strain the solution, and set it apart that the feculencies may subside. Pour off the clear liquor, and evaporate it to a proper consistence.”

Although the purgative properties of the rhubarb be obtained to a certain degree in this extract, yet its virtues are certainly impaired during the inspissation; and the simple infusion is in every respect a preferable form of preparation. The dose is from grs. x. to ʒss. given in the form of pills, or dissolved in peppermint water.

EXTRACTUM RUTÆ GRAVEOLENTIS. Edin. EXTRACTUM FOLIORUM RUTÆ. Dub. *Extract of Rue.*

The Edinburgh extract is to be prepared in the same manner as the extract of gentian; the Dublin after the manner of the simple extracts. Prepared by either process, this extract is inodorous, and has a bitter acrid taste. Its medicinal properties are different from those of the plant, the stimulant and narcotic powers of which depend on the volatile oil it contains, which is dissipated during the inspissation of the extract. The dose is from grs. x. to ʒj. in pills.

EXTRACTUM FOLIORUM SABINÆ. Dub. *Extract of Savine.*

To be prepared in the same manner as the simple extracts. It is a simple bitter of little efficacy, for the acrid volatile oil on which the efficacy of savine depends is dissipated by the heat employed during the inspissation. The dose is from grs. x. to ʒss. in pills.

SUCCUS SPISSATUS SAMBUCI NIGRÆ. Edin. *The inspissated Juice of the Black Elder.*³

“Take of the ripe berries of the black elder, *five parts*; purified sugar, *one part*. Boil with a gentle heat to the consistence of thick honey.

EXTRACTUM SARSAPARILLÆ. Lond. *Extract of Sarsaparilla.*

¹ Estratto della Quercia (I.) ² Extrait de Rhubarbe (F.) Rhabarber-extrakt (G.)

³ Eingedickter Fliedersaft (G.)

“Take of sarsaparilla root, sliced, *a pound*; boiling water, *a gallon*. Macerate for twenty-four hours, then boil down to four pints; strain the solution while it is hot, and evaporate it to a proper consistence.”

This extract has nothing to recommend it to practice. The decoction of the root is preferable in every respect, but neither of them is possessed of much efficacy. The dose is from grs. ix. to ʒj. dissolved in the decoction, or given in the form of pills.

EXTRACTUM TARAXACI. Lond. EXTRACTUM HERBÆ ET RADICIS TARAXACI. Dub. *Extract of Dandelion.*¹

“Take of fresh dandelion root, bruised, *a pound*; boiling water, *a gallon*. Macerate for twenty-four hours; then boil down to four pints, strain the hot liquor, and evaporate it to a proper consistence.”

The medicinal powers of dandelion have been already noticed. (See *Part ii.*) This extract is supposed to contain all the active principles of the plant, and to prove equally efficacious in hepatic obstructions. Dr. Pemberton affirms, that he has seen great advantage result from its administration in doses of ʒiss. in chronic inflammation and incipient scirrhus of the liver, and in chronic derangement of the stomach.² The usual dose is from grs. x. to ʒj. united with sulphate of potash.

EXTRACTUM VALERIANÆ. Dub. *Extract of Valerian.*³

“Take of valerian root in coarse powder, *six ounces*; boiling water, *six pints*. Mix and digest for twenty-four hours with a moderate heat in a covered vessel; then express the liquor, and reduce it by evaporation to a proper consistence.”

The odour of the plant is almost entirely dissipated in preparing this extract; and if the efficacy of the remedy be connected with that quality, which is extremely probable, it must be much inferior to the infusion, or tincture. The usual dose is from grs. x. to ʒj. given in the form of pills, or dissolved in some distilled water.

MISTURÆ.

MIXTURES.

THE term Mixture in pharmaceutical language denotes a mingled compound, in which different ingredients are held suspended in a fluid medium by means of mucilaginous or saccharine matter. The London College has placed under this

¹ Löwenzahn-extrakt (G.) Estratto di Tarassaco (I.)

² On Diseases of the Abdominal Viscera, p. 43.

³ Baldrian-extrakt (G.)