Additions made in 1890 to the British Pharmacopoeia of 1885 : published under the direction of the General Council of Medical Education and Registration of the United Kingdom : pursuant to the Acts XXI. & XXII. Victoria, Cap. XC (1858) and XXV. & XXVI. Victoria, Cap. XCI. (1862).

THE BRITISH PHARMACOPŒIA 1885

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TO

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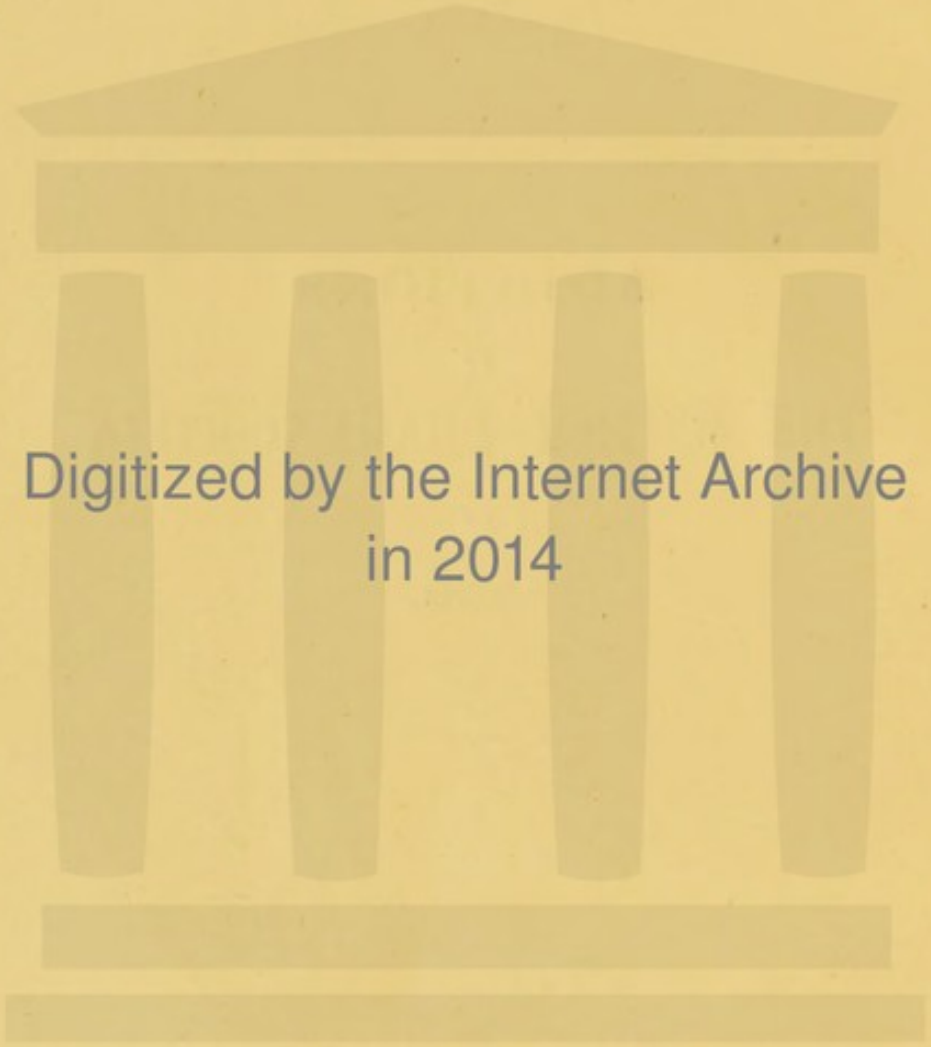
OF

1885.



ADDITIONS

MADE IN 1890

TO THE

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OF 1885,

PUBLISHED UNDER THE DIRECTION OF

THE GENERAL COUNCIL OF
MEDICAL EDUCATION AND REGISTRATION
OF THE UNITED KINGDOM,

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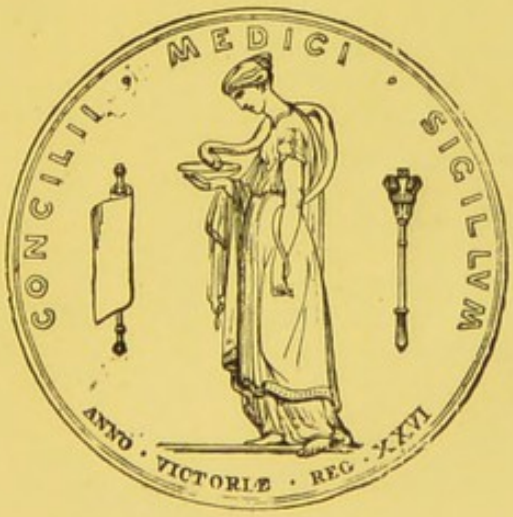

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THE GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION OF THE UNITED KINGDOM.

NOVEMBER, 1890.

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NOTICE.

Five years having elapsed since the British Pharmacopœia, 1885, was published, the General Medical Council now issues an Addendum. It has been prepared under the general supervision of a Committee of the Council, consisting of:—

Dr. Quain, *Chairman.*

The President.	Sir Dyce Duckworth.
Dr. Atthill.	Sir Walter Foster.
Mr. Brudenell Carter.	Professor Macnamara.
Mr. Collins.	Dr. Batty Tuke.

In the selection of the Additions important aid has been rendered by the following Medical Authorities:—

Roy. Coll. Phys. Lond.	Fac. Phys. Surg. Glas.
Roy. Coll. Surg. Eng.	Univ. Edin.
Apoth. Soc. Lond.	Univ. Aber.
Univ. Dur.	Univ. St. And.
Roy. Coll. Phys. Edin.	Royal Coll. Phys. Irr.
Roy. Coll. Surg. Edin.	Apoth. Hall Ire.

The Council has also had valuable assistance in the preparation of the work from a Committee of the Pharmaceutical Society of Great Britain, consisting of:—

Mr. M. Carteighe, Pres., *Chairman.*

The Vice-President.	Mr. H. G. Greenish.
Inglis Clark, D.Sc.	Mr. N. H. Martin.
Mr. Ekin.	Mr. Martindale.
Mr. Gale.	Mr. C. Umney.

Each of the Committees has had the advantage of the services of the Annual Reporter on the British Pharmacopœia to the Medical Council, who also has edited these forty-four Additions to that volume.

Editor of the Addendum,
Professor Attfield.

299, *Oxford Street, London:*
November 29, 1890.

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OF THE

ADDITIONS MADE IN 1890 TO THE BRITISH PHARMACOPŒIA OF 1885.

ADDITIONS

TO

THE BRITISH PHARMACOPŒIA

OF

1885.

ACETANILIDUM.

Acetanilide.[1]

C_8H_9NO.

Synonym.—Phenyl-acetamide, $C_6H_5{\cdot}NH{\cdot}C_2H_3O$.

A crystalline substance obtainable by the action of glacial acetic acid on aniline, and subsequent purification.

Characters and Tests.—Colourless, glistening, scaly crystals, having a slightly pungent taste and neutral reaction. Melting point, about 235° F. (112°·8 C.) It is soluble in about two hundred parts of cold water; freely soluble in rectified spirit, ether, benzol, and chloroform.

Heated with free access of air, it burns, leaving no residue. With sulphuric acid it forms a colourless solution. It is soluble in eighteen parts of boiling distilled water, forming a clear, neutral, inodorous solution which, when cool, is not affected by solution of perchloride of iron. Heated with solution of potash and a few drops of chloroform, the unpleasant odour of phenyl-isonitrile is developed.

Dose.—3 to 10 grains.

[1] Acetanilide is commonly known as 'Antifebrin.'

ACETUM IPECACUANHÆ.

Vinegar of Ipecacuanha.

Take of

Ipecacuanha, in No. 20 powder	1 ounce	. . or . .	1 part
Diluted Acetic Acid sufficient for	20 fl. ounces	,, . .	20 fl. parts

Moisten the powder with a suitable quantity of the menstruum, and macerate for twenty-four hours; pack in a percolator, and gradually add the acid until the required volume of the vinegar of ipecacuanha is obtained.

Dose.—5 to 40 minims as an expectorant.

ADEPS LANÆ.

Wool Fat.

The purified cholesterin-fat of sheep's wool.

Characters and Tests.—A yellowish tenacious unctuous substance; almost inodorous; with a melting-point varying from 100° F. (37°·8 C.) to 112° F. (44°·4 C.); readily soluble in ether and in chloroform, sparingly soluble in rectified spirit. Ten grains should dissolve almost completely in fourteen fluid drachms of boiling ethylic alcohol, the greater part separating in flocks on cooling. Ignited with free access of air, it burns, leaving but a trace of ash. Fifty grains dissolved in four fluid drachms of ether, and two drops of tincture of phenolphthaleïn added, should not require more than two grain-measures of volumetric solution of soda to produce a permanent red coloration. The solution in chloroform poured gently over the surface of sulphuric acid acquires a purple-red colour. Heated with solution of soda, no ammoniacal odour should be evolved.

Preparation in which Wool Fat is used.

Adeps Lanæ Hydrosus.

ADEPS LANÆ HYDROSUS.

Hydrous Wool Fat.[1]

Take of

Wool Fat	7 ounces	or	70 parts
Distilled Water	3 ounces	,,	30 parts

Melt the wool fat in a warm mortar, stirring in the water gradually and thoroughly.

Characters and Tests.—Yellowish white; free from rancid odour. When heated it separates into an upper oily and lower aqueous layer. One hundred grains exposed over a water-bath until the weight is constant yields not less than seventy grains, which should answer to the tests for wool fat.

Preparation in which Hydrous Wool Fat is used.

Unguentum Conii.

EMPLASTRUM MENTHOL.

Menthol Plaster.

Take of

Menthol	2 ounces	or	2 parts
Yellow Wax	1 ounce	,,	1 part
Resin	7 ounces	,,	7 parts

Melt the wax and resin together, and, as the mixture cools, stir in the menthol until dissolved.

EUCALYPTI GUMMI.

Eucalyptus Gum.

A ruby-coloured exudation, or so-called red gum, from the bark of Eucalyptus rostrata, *Schlechtendal*, and some other species. Imported from Australia.

[1] Hydrous Wool Fat is commonly known as 'Lanoline,' which is a registered trade-mark in the United Kingdom.

Characters and Tests.—From eighty to ninety per cent. of it is soluble in cold water, forming a neutral solution. It is almost entirely soluble in rectified spirit.

Dose.—2 to 10 grains.

EUONYMI CORTEX.
Euonymus Bark.

The dried root bark of Euonymus atropurpureus, *Jacquin.*

Characters.—In quilled or curved pieces, varying in thickness from one-twelfth to one-sixth of an inch. The outer surface is light ash grey in colour, with darker patches, dirty-white where the epidermis has been rubbed off, soft and friable, with occasional rootlets attached. The inner surface, when free from the white wood, is pale tawny white and smooth. The bark breaks transversely with a finely fibrous fracture, the middle layer having a laminated appearance; longitudinally the fracture is smooth. Odour faint but characteristic; taste somewhat mucilaginous and afterwards bitter and slightly acrid.

Preparation.—Extractum Euonymi Siccum.

EXTRACTUM EUONYMI SICCUM.
Dry Extract of Euonymus.[1]

Take of

Euonymus Bark, in No. 20 powder		1 pound
Rectified Spirit, Distilled Water, Sugar of Milk	of each	a sufficiency

Moisten the euonymus with eight fluid ounces of a mixture of equal parts of rectified spirit and distilled water, and pack in a percolator, then pour on gradually more of the diluted spirit until the euonymus is exhausted. Collect the liquor and evaporate or distil off the spirit. Incorporate so much sugar

[1] Dry Extract of Euonymus is commonly known as 'Euonymin.'

of milk with the still fluid extract—the actual amount having been ascertained experimentally—that the final product shall contain eighty per cent. of the dry extractive. Then evaporate over a water-bath until the mixture when cold becomes brittle. The mass may be powdered and kept in a well-corked bottle.

Dose.—1 to 4 grains.

EXTRACTUM HAMAMELIDIS LIQUIDUM.

Liquid Extract of Hamamelis.

Take of

Hamamelis Leaves, in No. 40 powder	20 ounces
Rectified Spirit, Distilled Water, of each	a sufficiency

Moisten the powder with about eight fluid ounces of a mixture of one volume of rectified spirit and two volumes of distilled water. Pack the damp powder in a percolator, and pour on sufficient menstruum to saturate it thoroughly. When the liquid begins to drop, close the lower orifice of the percolator and macerate for forty-eight hours; then allow percolation to proceed, gradually adding menstruum until the hamamelis is exhausted. Reserve the first seventeen fluid ounces of the percolate; evaporate or distil off the spirit from the remainder, and evaporate the residue to a soft extract; dissolve this in the reserved portion, and add enough menstruum to make the liquid extract measure one pint.

Dose.—2 to 5 minims.

Preparation.

Unguentum Hamamelidis, 1 fluid part in 10 parts.

EXTRACTUM HYDRASTIS LIQUIDUM.

Liquid Extract of Hydrastis.

Take of

Hydrastis Rhizome, in No. 60 powder	20 ounces
Rectified Spirit, Distilled Water, equal fluid parts	a sufficiency

Moisten the powder with about eight fluid ounces of the diluted spirit. Pack the damp powder in a percolator, and pour on sufficient menstruum to saturate it thoroughly. When the liquid begins to drop, close the lower orifice of the percolator and macerate for forty-eight hours; then allow percolation to proceed, gradually adding menstruum until the hydrastis is exhausted. Reserve the first seventeen fluid ounces of the percolate; evaporate or distil off the spirit from the remainder, and evaporate the residue to a soft extract; dissolve this in the reserved portion, and add enough menstruum to make the liquid extract measure one pint.

Dose.—5 to 30 minims.

GELATINUM.

Gelatine.

The air-dried product of the action of boiling water on gelatigenous animal tissues, such as skin, tendons, ligaments, and bones.

Characters.—In translucent sheets or shreds. The solution in hot water is colourless and inodorous, and solidifies to a jelly on cooling. Gelatine is insoluble in alcohol and ether. It dissolves in acetic acid. Its aqueous solution is not precipitated by diluted acids, alum, acetate of lead, or perchloride of iron; it is precipitated by tannin.

Preparation in which Gelatine is used.

Suppositoria Glycerini.

GLUSIDUM.

Gluside.[1]

Synonyms.—Glucusimide; Benzoyl-sulphonic imide, $C_6H_4CO{\cdot}SO_2{\cdot}NH$.

A sweet imide derivable from the toluene of coal tar.

[1] Gluside is commonly known as 'Saccharin.'

Characters and Tests.—A light, white, minutely crystalline powder, having an intensely sweet taste in dilute solutions. Heated it fuses and then sublimes with partial decomposition. It is but slightly soluble in cold water or chloroform, more so in boiling water, rectified spirit, or glycerine. It is very soluble in diluted solution of ammonia; also in solution of bicarbonate of sodium with evolution of carbonic acid gas. The latter solution, when warmed and made neutral and evaporated to dryness, yields 'soluble gluside' or 'soluble saccharin,' which is very soluble in water, one hundred parts of gluside yielding nearly one hundred and thirteen of neutral 'soluble gluside.' Neither gluside nor soluble gluside is blackened by strong sulphuric acid, even when the mixture is gently warmed for a short time. On evaporating either with excess of strong solution of soda, maintaining the residue in a state of semifusion for a few minutes, cooling, dissolving in water, faintly acidulating with hydrochloric acid, and adding a few drops of solution of perchloride of iron, a reddish-brown or purplish colour is produced.

HAMAMELIDIS CORTEX.

Hamamelis Bark.

Synonym.—Witch Hazel Bark.

The dried bark of Hamamelis virginica, *Linn.*

Characters.—In quills or slightly curved pieces from two to six or eight inches long and about one-tenth of an inch in thickness, covered with a silvery-grey or whitish easily detached scaly outer bark marked with lenticels. Internally, cinnamon-brown or brownish-red and finely striated longitudinally; transverse fracture coarsely fibrous; tough; taste slightly astringent; no strongly marked odour.

Preparation.

Tinctura Hamamelidis, 1 part in 10 fluid parts.

HAMAMELIDIS FOLIA.

Hamamelis Leaves.

Synonym.—Witch Hazel Leaves.

The dried leaves of Hamamelis virginica, *Linn.*

Characters.—Shortly petiolate, from four to six inches long, oval, obtuse, wavy-crenate, narrowed below, oblique, and slightly heart-shaped at base, pinnately veined, veins prominent on the under surface, nearly smooth. The leaves have a slight tea-like odour and an astringent and bitter taste.

Preparation.

Extractum Hamamelidis Liquidum, 1 part in 1 fluid part.

HOMATROPINÆ HYDROBROMAS.

Hydrobromate of Homatropine.

$C_{16}H_{21}NO_3$,HBr.

The hydrobromate of an alkaloid, prepared from tropine.

Characters and Tests.—A white crystalline powder or aggregation of minute prismatic crystals, soluble in six parts of cold water, and in one hundred and thirty-three of ethylic alcohol. The dilute aqueous solution powerfully dilates the pupil of the eye. Heated on platinum foil it fuses and burns without leaving an appreciable residue. If two minims of chloroform be shaken with ten minims of a ten per cent. aqueous solution and chlorine water be cautiously added, the chloroform will assume a brownish colour. A two per cent. aqueous solution is not precipitated by the cautious addition of solution of ammonia previously diluted with twice its volume of water. About a tenth of a grain moistened with two minims of nitric acid and evaporated to dryness on the water-bath yields a residue which is coloured yellow by an alcoholic solution of potash. If about a tenth of a grain be dissolved in a little water and the solution be made alkaline

with ammonia and shaken with chloroform, the separated chloroform will leave on evaporation a residue which will turn yellow, and finally brick-red when warmed with about fifteen minims of a solution of two grains of perchloride of mercury in a hundred minims of proof spirit.

Dose.—$\frac{1}{80}$ to $\frac{1}{20}$ grain.

HYDRASTIS RHIZOMA.

Hydrastis Rhizome.

Synonym.—Golden Seal.

The dried rhizome and rootlets of Hydrastis canadensis, *Linn. Bentl. and Trim. Med. Pl.* vol. i. plate 1.

Characters.—The rhizome is simple or branched, from half an inch to an inch and a half long and from one-eighth of an inch to half an inch in thickness. It is twisted and knotted and has an irregular appearance. The upper surface has irregular projections which are terminated by scars produced by the decay of aërial stems. From the lower surface and sides numerous rootlets are given off. The rhizome is yellowish-brown, becoming darker by age. It has a clean resinous fracture of a brownish-yellow colour with a bright yellow centre.

Preparations.

Extractum Hydrastis Liquidum, 1 part in 1 fluid part.
Tinctura Hydrastis, 1 part in 10 fluid parts.

LIQUOR COCAINÆ HYDROCHLORATIS.

Solution of Hydrochlorate of Cocaine.

Take of

Hydrochlorate of Cocaine	33 grains	. . or . .	100 parts
Salicylic Acid . .	½ grain	. . ,, . .	1½ parts
Distilled Water, sufficient to produce	6 fl. drachms	. . ,, . .	1000 fluid parts

Boil the water, add the salicylic acid, and then the hydrochlorate of cocaine; cool, and add water, if necessary, to produce the required volume.

Dose.—2 to 10 minims.

LIQUOR MORPHINÆ SULPHATIS.

Solution of Sulphate of Morphine.

Take of

Sulphate of Morphine	35 grains	or	1 part
Rectified Spirit	2 fluid ounces	,,	25 fl. pts.
Distilled Water, sufficient to produce	8 fluid ounces	,,	100 fl. pts.

Dissolve the sulphate of morphine in part of the water, add the rectified spirit and finally the remainder of the water.

Dose.—10 to 60 minims.

LIQUOR TRINITRINÆ.

Solution of Trinitrin.

Synonyms.—Liquor Nitroglycerini; Solution of Nitroglycerine; Liquor Glonoini; Solution of Glonoine.

Take of

Pure Nitroglycerine	1 part by weight
Rectified Spirit, sufficient to produce	100 fluid parts

Dissolve. Specific gravity, 0·844.

Dose.—$\frac{1}{2}$ to 2 minims.

MAGNESII SULPHAS EFFERVESCENS.

Effervescent Sulphate of Magnesium.

Synonyms.—Magnesiæ Sulphas Effervescens; Effervescent Sulphate of Magnesia; Effervescent Epsom Salt.

Take of

Sulphate of Magnesium, in crystals	25 ounces	or 100 parts
Bicarbonate of Sodium, in powder	18 ounces	,, 72 parts
Tartaric Acid, in powder .	9½ ounces	,, 38 parts
Citric Acid, in powder . .	6¼ ounces	,, 25 parts
Refined Sugar, in powder .	5¼ ounces	,, 21 parts
The final product should weigh about	50 ounces	,, 200 parts

Dry the sulphate of magnesium at about 130° F. (54°·4 C.) until it has lost nearly one-fourth (twenty-three per cent.) of its weight; powder the product, mix it with the sugar and then with the other ingredients. Place the mixture in a dish or pan of suitable form heated to between 200° and 220° F. (93°·3 and 104°·4 C.), and when the particles of the powder begin to aggregate, stir them assiduously until they assume a granular form; then, by means of suitable sieves, separate the granules of uniform and most convenient size, and preserve the preparation in well-closed bottles.

Dose.—¼ to 1 ounce.

MISTURA OLEI RICINI.

Castor Oil Mixture.

Take of

Castor Oil . . .	6 fl. drachms . .	or . 180 fl. parts
Oil of Lemon . .	10 minims . . .	,, . 5 fluid parts
Oil of Cloves . .	2 minims . . .	,, . 1 fluid part
Syrup	1½ fl. drachm .	,, . 45 fl. parts
Solution of Potash .	1 fluid drachm .	,, . 30 fl. parts
Orange Flower Water sufficient to produce	2 fluid ounces .	,, . 480 fl. parts

Mix the oils in a mortar, then incorporate one-third of the solution of potash, and afterwards the syrup, then an additional third of the solution of potash, then, gradually, half of the orange flower water, the remainder of the solution of potash, and, lastly, sufficient orange flower water to produce the required volume.

Dose.—½ to 2 fluid ounces.

OLEUM CADINUM.

Oil of Cade.

Synonyms.—'Huile de Cade'; Juniper Tar Oil.

An empyreumatic oily liquid obtained by the destructive distillation of the woody portions of Juniperus Oxycedrus, *Linn.*, and some other species.

Characters.—A dark reddish-brown or nearly black more or less viscid oily liquid with a not unpleasant empyreumatic odour and an aromatic bitter and acrid taste. Specific gravity about 0·990. It is soluble in ether and chloroform; partially soluble in cold, almost wholly in hot rectified spirit. In water it is very slightly soluble. The filtered aqueous solution is almost colourless and possesses an acid reaction.

PARALDEHYDUM.

Paraldehyde.

$C_6H_{12}O_3$.

A product of the polymerisation of aldehyde by various acids or salts.

Characters and Tests.—A clear colourless liquid having a characteristic ethereal odour and a burning and afterwards a cooling taste. Sp. gr. 0·998. Boiling point 255°·2 F. (124° C.)

It begins to congeal to a clear crystalline mass at 50° F. (10° C.) One part dissolves in ten parts of water at 60° F. (15°·5 C.), it is less soluble in hot water. It is miscible, in all proportions, with rectified spirit or with ether. An aqueous solution should have a neutral reaction. It affords no coloration on standing for two hours mixed with a solution of potash or soda, nor any precipitate with a solution of either chloride of barium or nitrate of silver.

Dose.—$\frac{1}{2}$ to $1\frac{1}{2}$ fluid drachms.

PHENACETINUM.

Phenacetin.

$C_{10}H_{13}NO_2$.

A crystalline substance produced by the action of glacial acetic acid on para-phenetidin, a body obtained from phenol.

Characters and Tests.—Colourless, tasteless, inodorous, glistening scaly crystals. Melting-point, 275° F. (135° C.). Sparingly soluble in cold water, more freely in boiling water, and in about sixteen fluid parts of rectified spirit.

Heated with free access of air it burns, leaving no residue. Sulphuric acid dissolves it without colour. One grain boiled with twenty minims of hydrochloric acid for about half a minute yields a liquid which, diluted with ten times its volume of water, cooled and filtered, assumes a deep-red coloration on the addition of solution of chromic acid. A cold saturated aqueous solution should not become turbid on the addition of bromine water. A mixture of five grains of phenacetin with two fluid drachms of solution of potash, boiled, should yield no unpleasant odour when again boiled after the addition of five drops of chloroform.

Dose.—5 to 10 grains.

PHENAZONUM.

Phenazone.[1]

Synonym.—Phenyl-dimethyl-pyrazolone, $C_6H_5(CH_3)_2C_3HN_2O$.

A crystalline substance obtainable from phenyl-hydrazine.

Characters and Tests.—Colourless and inodorous scaly crystals with a bitter taste, melting at about 230° F. (110° C.); freely soluble in water, rectified spirit, and chloroform; less soluble in ether. Ignited with free access of air, it burns, leaving no residue. The aqueous solution is neutral to test-paper, and is not affected by sulphuretted hydrogen. One grain of nitrite of sodium and two fluid drachms of a one per cent. aqueous solution of phenazone yield a nearly colourless liquid which turns deep green on the addition of ten minims of diluted sulphuric acid. An aqueous solution of the same strength mixed with an equal volume of nitric acid assumes a yellow colour passing to crimson on warming. Solution of perchloride of iron produces in a very dilute aqueous solution a deep red colour, which is nearly discharged by excess of diluted sulphuric acid.

Dose.—3 to 20 grains.

PICROTOXINUM.

Picrotoxin.

Obtainable from the seeds of Anamirta paniculata, *Colebrooke*, by exhaustion with alcohol, evaporation, and purification.

Characters and Tests.—Colourless and inodorous prismatic crystals, possessing a bitter taste. It melts at 378° F. (192°·2 C.)

[1] Phenazone is commonly known as 'antipyrine,' which is a registered trade-mark in the United Kingdom.

It is soluble in three hundred and thirty parts of cold water, leaving only a trace of residue, in thirty-five parts of boiling water, also in three of boiling and thirteen of cold rectified spirit. It is soluble in ten parts of solution of potash, and the resulting liquid, on boiling, immediately reduces Fehling's solution. Heated on platinum foil, the crystals melt, forming a yellowish liquid, which, by further heating, chars and is at length completely dissipated. Its aqueous solution is not precipitated by solutions of perchloride of mercury, perchloride of platinum, or tannic acid. It dissolves in sulphuric acid with a saffron-yellow colour.

Dose.—$\frac{1}{100}$ to $\frac{1}{30}$ grain.

PILULA FERRI.

Iron Pill.[1]

Take of

Sulphate of Iron . .	60 grains	. . or . .	120 parts
Carbonate of Potassium .	36 ,,	. . ,, . .	72 parts
Refined Sugar, in powder	12 ,,	. . ,, . .	24 parts
Tragacanth, in powder .	4 ,,	. . ,, . .	8 parts
Glycerine . . .	$2\frac{1}{2}$ minims	. ,, . .	$4\frac{1}{2}$ fl. parts
Distilled Water . .	a sufficiency		

Reduce the sulphate of iron to fine powder in a mortar, add the sugar and tragacanth, and mix intimately. Finely powder the carbonate of potassium in another mortar, and thoroughly incorporate with it the glycerine. Transfer this to the mortar containing the sulphate of iron, beat thoroughly until the mass becomes green, and add water, if necessary, sufficient to impart a pilular consistence.

Divide into five-grain pills. Each pill contains about one grain of carbonate of iron.

Dose.—1 to 4 pills.

[1] This Iron Pill is commonly known as 'Blaud's Pill.'

PULVIS SODÆ TARTARATÆ EFFERVESCENS.

Effervescent Tartarated Soda Powder.[1]

Take of

Tartarated Soda, in dry powder . .	120 grains
Bicarbonate of Sodium, in dry powder .	40 grains

Mix, and wrap in blue paper.

Tartaric Acid, in dry powder . .	38 grains

Wrap in white paper.

Dose.—The former powder, dissolved in nearly half a pint of cold or warm water, and the latter powder then added.

SODII BENZOAS.

Benzoate of Sodium.

$NaC_7H_5O_2$.

Synonyms.—Sodæ Benzoas; Benzoate of Soda.

This salt may be obtained by neutralising benzoic acid with solution of carbonate of sodium and evaporating to dryness.

Characters and Tests.—A white obscurely crystalline or amorphous powder, inodorous or having a faint benzoic odour, of a sweetish alkaline taste, and a faint alkaline reaction. Very soluble in water; soluble in twenty-four fluid parts of rectified spirit, and in twelve of boiling rectified spirit. When a quantity of the salt weighing ten grains is heated, it melts, emitting a benzoic odour, then chars, and finally leaves a residue weighing about 3·68 grains, which, when dissolved in water, requires for neutralisation from 69 to 70 grain-measures of the volumetric solution of oxalic acid. An aqueous solution gives a yellowish or flesh-coloured precipitate when mixed with solution of persulphate of iron.

Dose.—10 to 30 grains.

[1] Effervescent Tartarated Soda Powder is commonly known as 'Seidlitz Powder.'

SODII NITRIS.

Nitrite of Sodium.

$NaNO_2$.

Synonyms.—Sodæ Nitris; Nitrite of Soda.

Characters and Tests.—A white or yellowish white deliquescent crystalline salt, very soluble in water. The solution is neutral or slightly alkaline, and when mixed with diluted sulphuric acid yields a gas which forms ruddy fumes in contact with the air. The aqueous solution, when mixed with solution of sulphate of iron and acetic acid, becomes of a deep brown colour. One grain of the salt dissolved in water and introduced into a nitrometer and tested with iodide of potassium and diluted sulphuric acid, should liberate not less than 325 grain-measures of nitric oxide, the gas being almost completely absorbed by strong solution of sulphate of iron; corresponding to not less than 95 per cent. of nitrite of sodium. The aqueous solution of the salt must not give more than traces of precipitate with solution of chloride of calcium.

Dose.—2 to 5 grains.

SODII PHOSPHAS EFFERVESCENS.

Effervescent Phosphate of Sodium.

Synonyms.—Sodæ Phosphas Effervescens; Effervescent Phosphate of Soda.

Take of		
Phosphate of Sodium, in crystals	25 ounces	or . 100 parts
Bicarbonate of Sodium, in powder	25 ounces	„ . 100 parts
Tartaric Acid, in powder	13½ ounces	„ . 54 parts
Citric Acid, in powder	9 ounces	„ . 36 parts
The final product should weigh about	50 ounces	„ . 200 parts

Dry the phosphate of sodium until it has lost rather more than half (sixty per cent.) of its weight; powder the product and mix it with the other ingredients. Place the mixture in a dish or pan of suitable form heated to between 200° and

220° F. (93°·3 and 104°·4 C.), and when the particles of the powder begin to aggregate, stir them assiduously until they assume a granular form; then, by means of suitable sieves, separate the granules of uniform and most convenient size, and preserve the preparation in well-closed bottles.

Dose.—¼ to ½ ounce.

SODII SULPHAS EFFERVESCENS.
Effervescent Sulphate of Sodium.

Synonyms. — Sodæ Sulphas Effervescens; Effervescent Sulphate of Soda.

Take of

Sulphate of Sodium, in crystals .	25 ounces	or	100 parts
Bicarbonate of Sodium, in powder	25 ounces	„	100 parts
Tartaric Acid, in powder . .	13½ ounces	„	54 parts
Citric Acid, in powder . . .	9 ounces	„	36 parts
The final product should weigh about	50 ounces	„	200 parts

Dry the sulphate of sodium until it has lost rather more than half (fifty-six per cent.) of its weight; powder the product and mix it with the other ingredients. Place the mixture in a dish or pan of suitable form heated to between 200° and 220° F. (93°·3 and 104°·4 C.), and when the particles of the powder begin to aggregate, stir them assiduously until they assume a granular form; then, by means of suitable sieves, separate the granules of uniform and most convenient size, and preserve the preparation in well-closed bottles.

Dose.—¼ to ½ ounce.

STRAMONII FOLIA.
Stramonium Leaves.

The dried leaves of Datura Stramonium, *Linn.*; *Bentl. and Trim. Med. Pl.* vol. iii. plate 192.

Characters. — Ovate, petiolate, about six inches long, smooth, pointed, unequal at the base, one side decurrent

down the petiole, coarsely and sinuately angular-toothed, minutely wrinkled, dark green. The upper surface usually brownish-green and of a darker shade than the under surface; odour faintly narcotic; taste unpleasant, saline and bitter.

STROPHANTHUS.

Strophanthus.

The mature ripe seeds of Strophanthus hispidus, *DC., var.* Kombé, *Oliver,* freed from the awns.

Characters.—Oval acuminate, about three-fifths of an inch long and one-sixth of an inch broad, the base narrowed but blunt, the apex when present tapering to a fine extremity, flattened at the sides, the dorsal surface being more or less convex; greenish-fawn in colour, covered with appressed silky hairs; one side with a longitudinal ridge running from the centre to the pointed apex. Kernel white and oily, consisting of a straight embryo with two thin cotyledons surrounded by a thin albumen; odour characteristic; taste very bitter. After soaking in water the seed-coat is easily removed.

Preparation.

Tinctura Strophanthi, 1 part in 20 fluid parts.

SULPHONAL.

Sulphonal.

$C_7H_{16}S_2O_4$.

Synonym.—Diethylsulphon-dimethyl-methane, $(CH_3)_2C(SO_2C_2H_5)_2$.

Characters and Tests.—Colourless, inodorous, nearly tasteless crystals; neutral to test paper; melting at 258° F. (125°·5 C.) Soluble in fifteen parts of boiling water and in about four hundred and fifty parts of cold water. Soluble in about fifty fluid parts of cold rectified spirit, and very soluble

in boiling alcohol; soluble in ether. Ignited with free access of air, it burns without residue. If a mixture of a few grains with an equal weight of cyanide of potassium be heated, the odour of mercaptan is evolved, and when to the solution of the product in water excess of hydrochloric acid and a few drops of solution of perchloride of iron are added, a reddish colour is developed.

Dose.—15 to 40 grains.

SUPPOSITORIA GLYCERINI.

Glycerine Suppositories.

Take of

Gelatine, cut small	½ ounce
Glycerine, by weight	2½ ounces
Distilled Water	a sufficiency

Place the gelatine in a weighed evaporating dish with sufficient water to cover it; after allowing it to stand for a minute or two pour away the excess of water; set aside until the gelatine is quite soft, then add the glycerine. Dissolve over a water-bath, and evaporate until the mixture weighs 1560 grains. Pour the product into suppository moulds holding thirty, sixty, or one hundred and twenty grain-measures, or having other capacities, as required. Each suppository contains seventy per cent. by weight of glycerine.

SYRUPUS FERRI SUBCHLORIDI.

Syrup of Subchloride of Iron.

Synonym.—Syrup of Ferrous Chloride.

Take of

Iron Wire	300 grains
Hydrochloric Acid	2 fluid ounces
Citric Acid	10 grains
Distilled Water	10 fluid drachms
Syrup	a sufficiency

Mix the hydrochloric acid with one ounce of the water in a flask, add the iron wire, and apply heat gently until action ceases. Remove the flask from the source of heat, add the citric acid, and filter the solution through paper into ten fluid ounces of the syrup, then pass the remainder of the water through the small filter into the syrup. To the product add sufficient syrup to form one pint of the thoroughly mixed fluid. Its specific gravity should be about 1·340.

Dose.—½ to 1 fluid drachm.

TINCTURA HAMAMELIDIS.

Tincture of Hamamelis.

Take of

Hamamelis Bark, in No. 20 powder .	2 ounces
Proof Spirit	a sufficiency

Moisten the powder with a suitable quantity of the menstruum, and macerate for twenty-four hours; pack in a percolator, and gradually add proof spirit until one pint of tincture is obtained.

Dose.—5 to 60 minims.

TINCTURA HYDRASTIS.

Tincture of Hydrastis.

Take of

Hydrastis Rhizome, in No. 60 powder .	2 ounces
Proof Spirit	a sufficiency

Moisten the powder with a suitable quantity of the menstruum, and macerate for twenty-four hours; pack in a percolator, and gradually add proof spirit until one pint of tincture is obtained.

Dose.—20 minims to 1 fluid drachm.

TINCTURA STROPHANTHI.

Tincture of Strophanthus.

Take of

Strophanthus, reduced to No. 30 powder, and dried at 110° F. (43·3° C.)	1 ounce
Pure Ether [1] and Rectified Spirit, of each	a sufficiency

Pack the powder in a percolator, and moisten it with the ether.[1] Macerate for twenty-four hours, then allow percolation to proceed, continuing the addition of the ether [1] until the fluid passes through colourless. Remove the marc from the percolator, and dry it, gradually heating it to 120° F. (48°·9 C.) Again reduce it to powder, repack in the percolator, and moisten with rectified spirit. Macerate for forty-eight hours, then pour on successive quantities of the spirit, percolating slowly, until half a pint of tincture is obtained. Dilute with rectified spirit to one pint.

Dose.—2 to 10 minims.

TROCHISCI SULPHURIS.

Sulphur Lozenges.

Take of

Precipitated Sulphur	3600 grains
Acid Tartrate of Potassium	720 grains
Refined Sugar, in powder	5760 grains
Gum Acacia, in powder	720 grains
Tincture of Orange Peel	720 minims
Mucilage of Acacia	720 minims

Mix the tincture of orange with the powders, and add the mucilage to form a suitable mass. Divide into 720 lozenges, and dry these in a hot-air chamber at a moderate temperature.

Each lozenge contains five grains of sulphur.

Dose.—1 to 6 lozenges.

[1] The strophanthus may be washed with 'commercial ether' free from alcohol and water.

UNGUENTUM CONII.

Ointment of Hemlock.

Take of

Juice of Hemlock	2 fluid ounces
Hydrous Wool Fat	$\frac{3}{4}$ ounce
Boric Acid, in fine powder . .	10 grains

Evaporate the juice to two fluid drachms at a temperature not exceeding 140° F. (60° C.); add the boric acid and the hydrous wool fat, and mix thoroughly.

UNGUENTUM HAMAMELIDIS.

Ointment of Hamamelis.

Take of

Liquid Extract of Hamamelis .	50 minims or 1 fluid part
Simple Ointment . . .	410 grains ,, 9 parts

Mix thoroughly.

ADDITION TO APPENDIX II.

SOLUTION OF POTASSIO-CUPRIC TARTRATE.[1]

No. 1.

Take of

Sulphate of Copper	346·4 grains
Distilled Water	a sufficiency

Dissolve the sulphate of copper in a portion of the water, and dilute the solution with more of the water to the volume of 5000 grain-measures.

No. 2.

Take of

Caustic Soda.	$1\frac{3}{4}$ ounce
Tartarated Soda	4 ounces
Distilled Water	a sufficiency

Dissolve the caustic soda and tartarated soda in a portion of the water, and dilute the solution with more of the water to 5000 grain-measures.

When required for use, mix equal volumes of the solutions No. 1 and No. 2.

[1] Solution of Potassio-Cupric Tartrate is commonly known as 'Fehling's Solution.'

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