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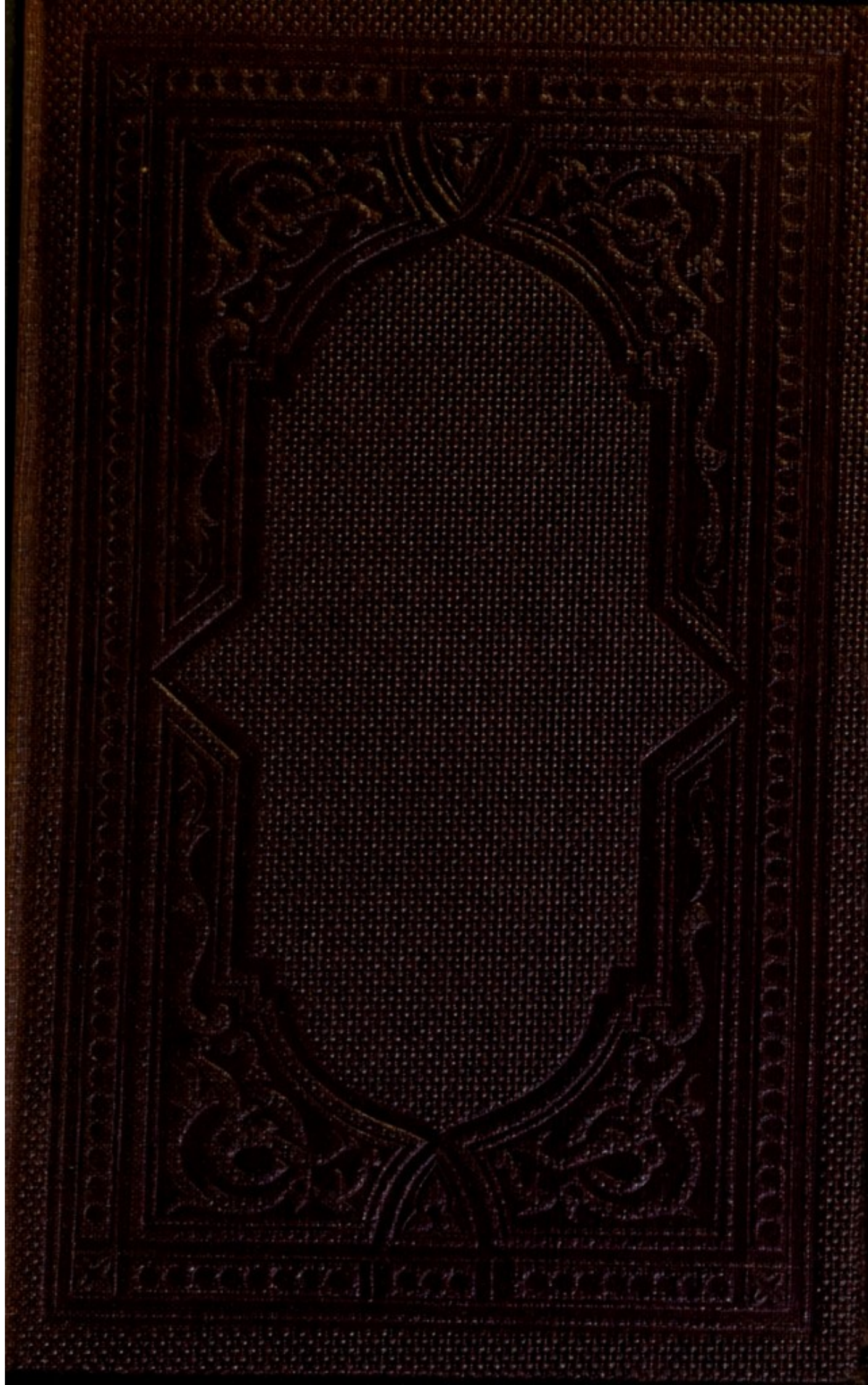
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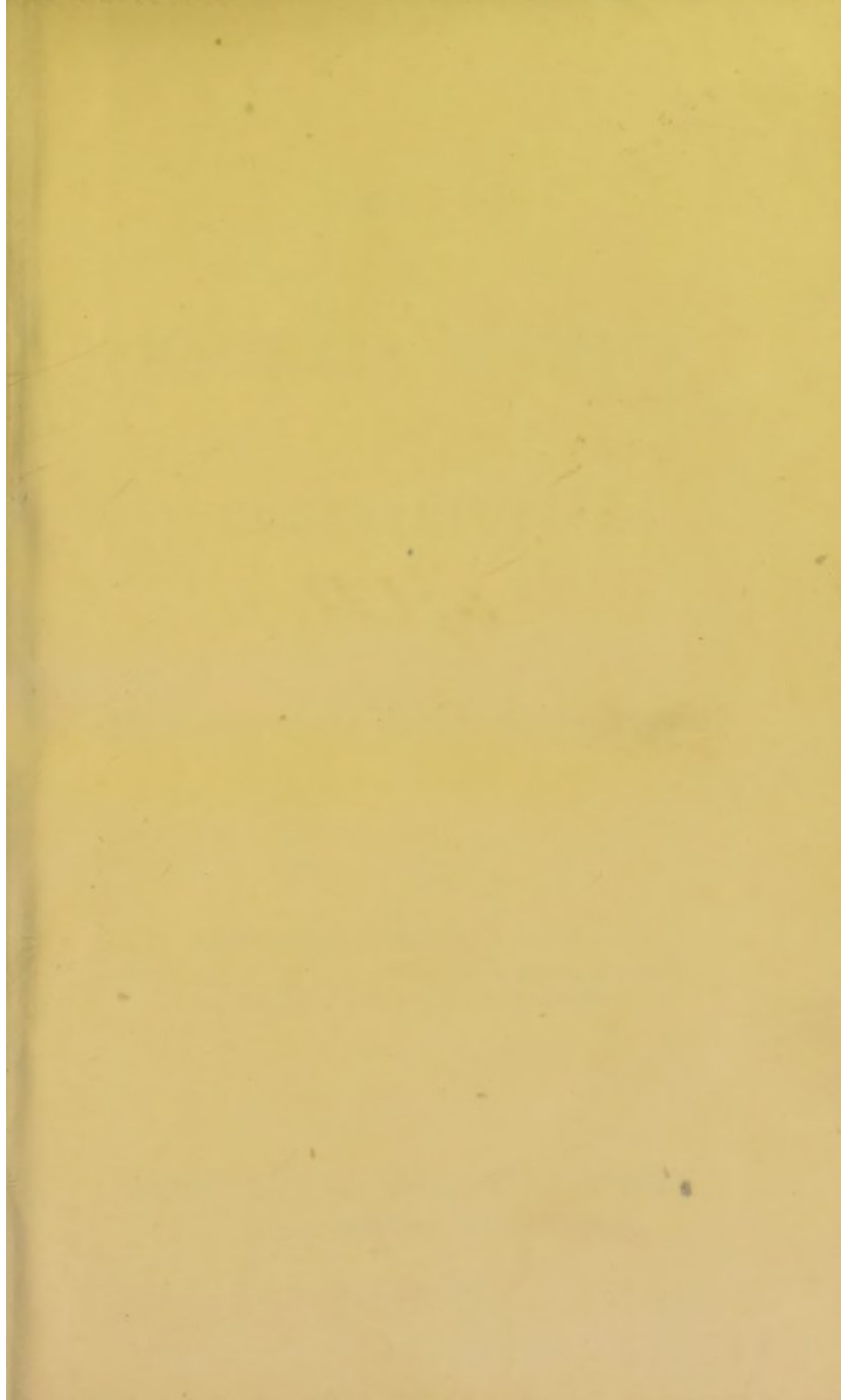


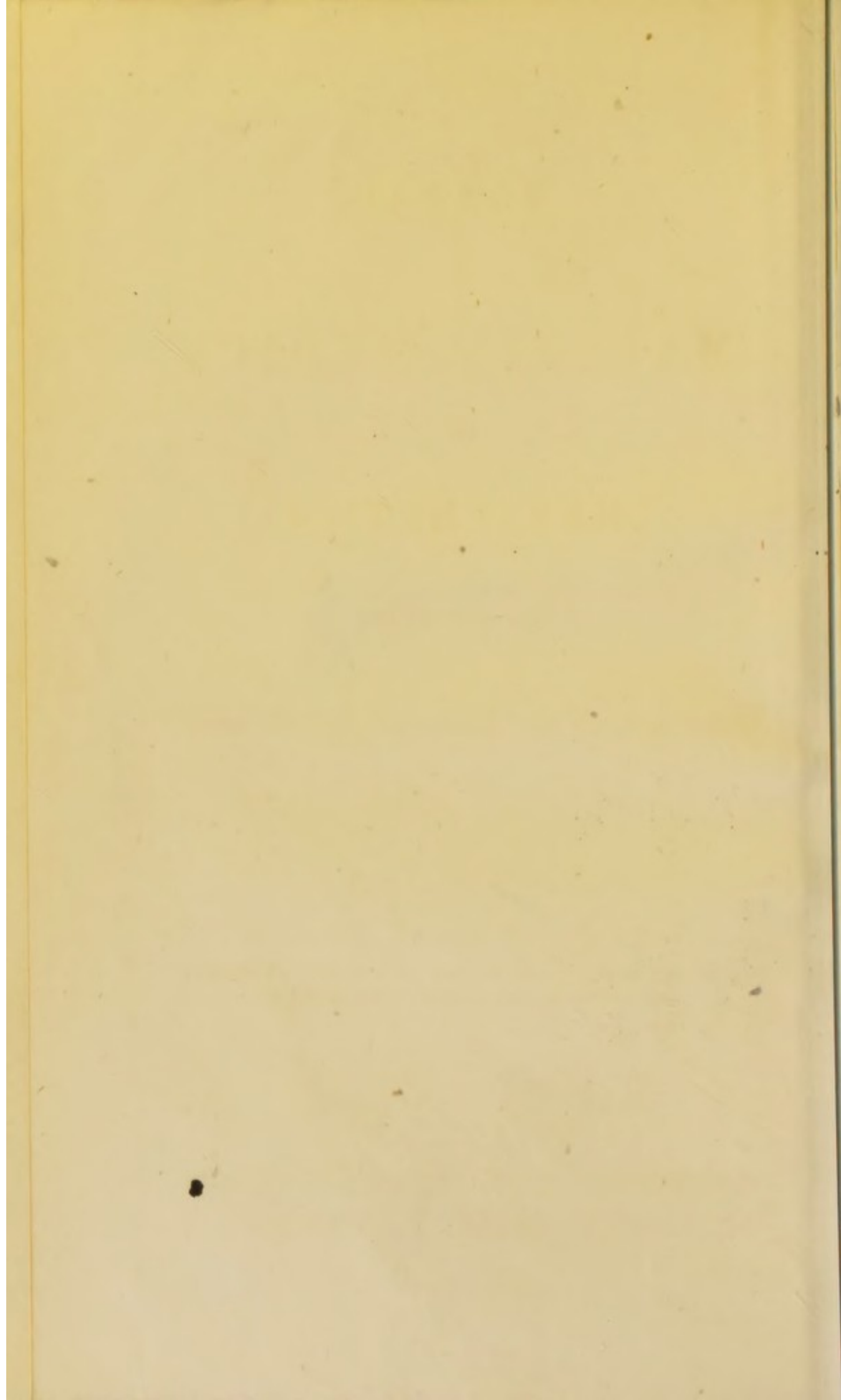
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MANUAL
OF
MATERIA MEDICA
AND
THERAPEUTICS :

EMBRACING ALL THE

Medicines of the British Pharmacopœia.

BY

ALEXANDER MILNE, PHYSICIAN,

LICENTIATE OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH,
TEACHER OF PHARMACY, NEW TOWN DISPENSARY.

EDINBURGH: MACLACHLAN & STEWART;
LONDON: ROBERT HARDWICKE.

M.DCCC.LXIV.

MALARIA

MALARIA MEDICA

THERAPEUTICS

BY

D. R. COLLIE AND SON, PRINTERS, EDENBURGH

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EDINBURGH: D. R. COLLIE AND SON, PRINTERS, 1874

TO
THE PUPILS
ATTENDING
HIS PRACTICAL PHARMACY CLASS
AT THE
NEW TOWN DISPENSARY,
THIS VOLUME IS MOST RESPECTFULLY DEDICATED
BY
THE AUTHOR.



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P R E F A C E.

THIS volume appears at the request of some of my Pupils at the Dispensary, who, on the publication of the British Pharmacopœia, felt greatly disappointed with that, in many respects, excellent work; perhaps owing to their anticipating too much from it, and what is only to be found in a commentary. It was begun not without misgivings, and carried on somewhat hurriedly amid not a few interruptions, and may therefore be chargeable with many imperfections; but if it serve to revive forgotten facts, or refresh the memory of the Student when time is wanting for the study of more elaborate works, (such as the learned treatise of Professor Christison, and others,) I shall feel abundantly satisfied.

With regard to the arrangement of the book, I have followed in part that of the B. Pharmacopœia; but I have preferred placing the officinal formulæ immediately below the drug from which they derive their title, as best adapted for easy reference, and in order that the various preparations of the medicines might be seen at a glance. I have frequently adopted the excellent descriptions of the characters of drugs given in the B. P.; in other cases, I have modified them, or given my own. In conclusion, I have to express my regret that its appearance has been delayed several weeks behind the appointed time.

A. M.

9 TEVIOT ROW, EDINBURGH,
May 1864.

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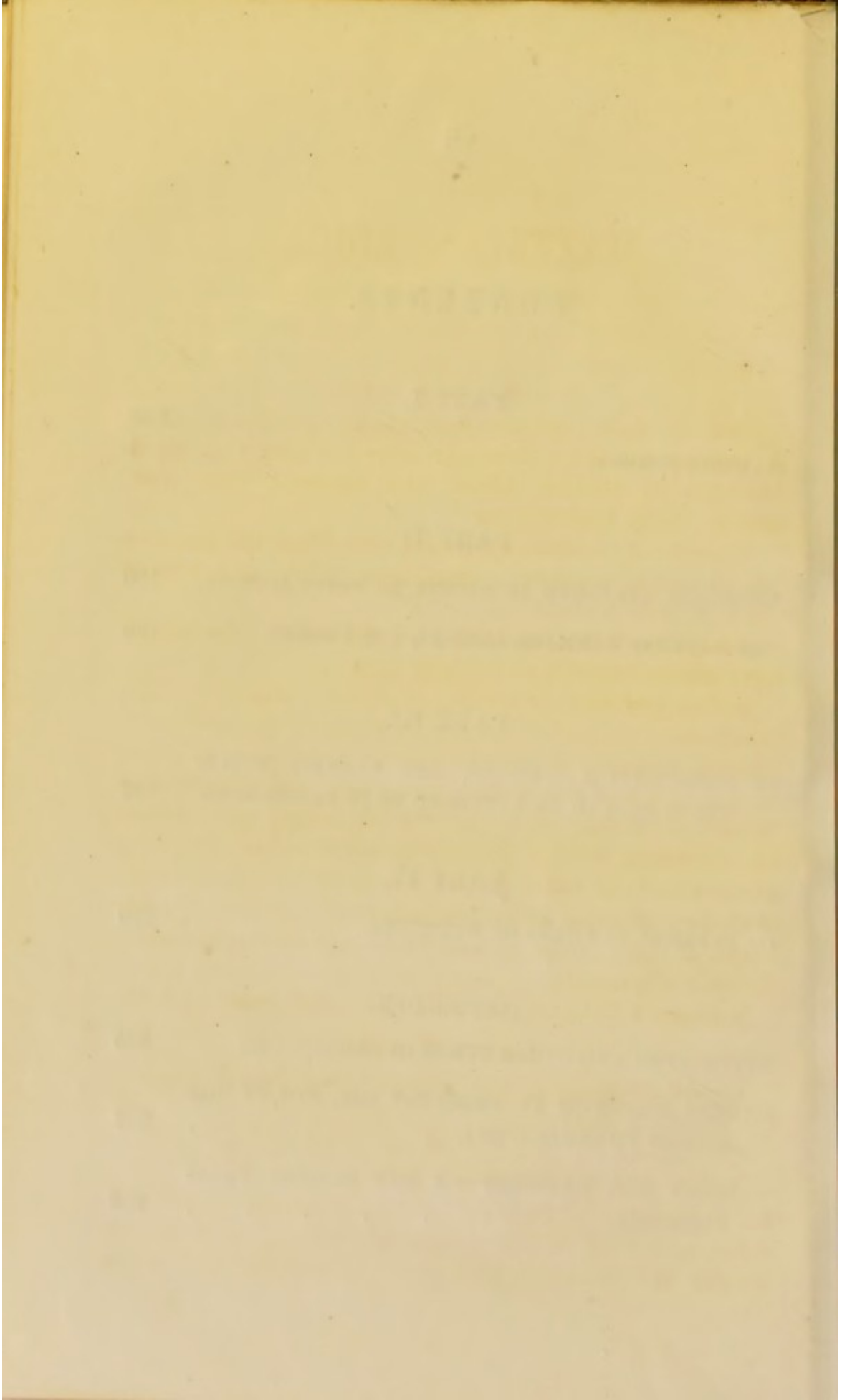
The first part of the report is devoted to a
 description of the country, and the position of
 the various districts. The second part contains
 a list of the principal towns and villages,
 and a description of the principal buildings,
 and the principal occupations of the people.
 The third part contains a list of the principal
 rivers and streams, and a description of the
 principal lakes and ponds. The fourth part
 contains a list of the principal mountains and
 hills, and a description of the principal
 valleys and plains. The fifth part contains a
 list of the principal forests, and a description
 of the principal woods and trees. The sixth
 part contains a list of the principal animals,
 and a description of the principal birds and
 beasts. The seventh part contains a list of
 the principal plants, and a description of the
 principal flowers and fruits. The eighth part
 contains a list of the principal minerals,
 and a description of the principal metals and
 stones. The ninth part contains a list of the
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 the principal trades and occupations. The
 tenth part contains a list of the principal
 institutions, and a description of the
 principal schools and colleges. The eleventh
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 asylums. The fifteenth part contains a
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 public works, and a description of the
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 twentieth part contains a list of the
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A. A.

London, 1840.

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MATERIA MEDICA.

Acacia. Gum Arabic.

One or more undetermined species of *Acacia* Linn. A gummy exudation from the stem; collected chiefly in Cordofan in Eastern Africa, and imported from Alexandria. N. F. Leguminosæ.

Charact.—In whitish spheroidal tears, from the size of a pea, to that of a nutmeg: transparent, brittle, with a bland taste; soluble in water.

Analysis.—Arabin, a soluble gum, and water. The inferior sorts contain bassorin, an insoluble gum.

Actions and uses.—Nutritive, emollient, demulcent. As a demulcent it is much employed in the form of mucilage, to allay the acrimony of inflamed mucous membranes, as in sore throat, catarrh of the bladder, gonorrhœa, and that produced by irritant poisons. It is used for suspending rather insoluble substances, such as bismuth, in mixtures, and for giving tenacity and plasticity to pill-masses, but is inferior to the confection of roses where the pills are to be kept for any length of time. Dose, gr. xxx. to gr. lx., allowed to dissolve slowly in the mouth.

Mucilago. Take of gum arabic \bar{z} iv.; dist. water f \bar{z} vi. M.

Acetum Vinegar.

Impure dilute acetic acid, prepared from French wines by the acetous fermentation.

Charact.—A liquid of a straw colour and acetous odour.

Actions and uses.—Refrigerant, used externally in fevers, but in no way superior to cold water. Internally, diluted with water, as a drink in the colliquative sweating of hectic, but inferior to dilute sulphuric acid. Employed also as an

astringent in gargles, and as a fumigator in sick rooms. In poisoning with the alkalies, or alkaline carbonates, it is one of the best antidotes. Dose, fʒij. to fʒss.

Acidum Aceticum. Acetic Acid.

An acid liquid prepared from wood by destructive distillation, and containing 28 per cent of anhydrous acetic acid.

Charact.—A colourless liquid with a strong acid reaction, and odour of vinegar.

Acidum Dilutum.—Take of acetic acid Oj. ; dist. water Ovij. Mix. Oxymel. Take of clarified honey ʒxl. ; acetic acid fʒx. ; dist. water fʒv. Liquefy the honey by heat, and mix with it the acetic acid and water. Used in gargles, and a popular though not very efficient, remedy in coughs.

Acidum Aceticum Glaciale. Glacial Acetic Acid.

Monohydrated acetic acid, HO, C⁴, H⁸, O³.

Charact.—A colourless fluid with a pungent acetous odour, converted when cooled to nearly 32^o, into colourless prismatic crystals. Specific gravity 1.065, which is increased by adding to the acid 10 per cent of water.

Uses.—Acetic acid is a speedy and powerful vesicant, but seldom used as a counterirritant. It is one of the best caustics for destroying corns and warts, especially of a syphilitic origin.

Acidum Arseniosum. Arsenious Acid.

Synonym.—Arsenicum Album, Ed. As, O³.

Charact.—A heavy white powder, which when slowly sublimed in a glass tube, forms minute brilliant and transparent octa-hedral crystals. It is sparingly soluble in water, and its solution gives with ammonio-nitrate of silver a canary yellow precipitate, insoluble in water, but readily dissolved by ammonia and nitric acid.

Actions and uses.—Caustic, irritant, tonic, alterative, anti-periodic. As a caustic it was formerly employed in cancerous and malignant ulcerations, such as lupus, noli-me-tangere, cancer, fungus hæmatodes, but it has now given place to other

remedies free from the risk of poisoning by absorption. As an irritant it is a very potent poison, three or four grains having occasioned death. Its most conspicuous effects are, inflammation of the alimentary mucous membrane: at other times the most marked symptom is intense depression of the circulation, death taking place from mortal faintness; or, as Orfila observes, "the vital properties of the heart being destroyed." Secondary affections, such as epileptic convulsions, partial palsy, dyspepsia and emaciation are also witnessed. In poisoning, the stomach-pump should be used, or failing it, an emetic of sulphate of zinc, vomiting being aided by demulcent drinks. The hydrated sesquioxide of iron, and magnesia in the gelatinous condition, or calcined, are important antidotes.

Medicinal actions.—In small doses it is a tonic, and perhaps in virtue of this, alterative, getting rid of various morbid conditions of the system, on which the atony depends. It is widely given as an antiperiodic, but in ague it is inferior to quinia, in neuralgia to iron, in epilepsy to zinc, silver, or digitalis. Arsenic is often of great service in chronic cutaneous diseases, such as lepra and psoriasis, its action being favoured by combination with iodide of potassium. Chronic rheumatism has sometimes been benefited by it. We need hardly say that so powerful a remedy must be carefully watched. The physiological effects are, increased pulse, tenderness of the eyes, puffiness of the eyelids, whiteness of the tongue, heat and dull pain along the alimentary canal. When these occur it is time to intermit its use. Dose, from 1-20th to 1-8th of a grain, in the form of pill with bread-crumbs; but the liquor is by far the preferable way of prescribing it.

Liquor Arsenicalis.—Take of arsenious acid gr. lxxx; carbonate of potash gr. lxxx; comp. tinct. lavender fʒv; distilled water a sufficiency. Place the As, O³ and the KO, CO² in a flask with fʒx. of the water, and apply heat until a clear solution is obtained. Allow this to cool, then add the lavender and as much dist. water as will make the bulk of one pint. The specific gravity of this preparation is 1.009. Dose, min. v. gradually increased to min. viij. two or three times a-day. In

min. v. there is 1-24th grain of arsenious acid. *Formula.* ℞ Liquoris arsenicalis fʒj.; potassii iodidi gr. xxiv.; infusi calumbæ ad fʒvi. misce. Sumat fʒss. ter in die. Tonic and alterative, in cutaneous diseases.

Acidum Benzoicum. Benzoic Acid.

An acid, HO, C¹⁴, H⁵ O³, obtained, from benzoin by sublimation. See Brit. Pharm.

Charact.—In light feathery crystalline plates, nearly white, with a strong odour of benzoin; sparingly soluble in water, but freely in rectified spt.

Action and uses.—Expectorant, but of little efficacy. Formerly given as an antilithic. Dose, gr. v. to gr. xxx. dissolved in large quantity of water.

Tinctura camphoræ cum opio. Take of opium gr. xl.; benzoic acid gr. xl.; camphor gr. xxx.; oil of anise fʒss.; proof spt. Oj.; macerate seven days, and filter. Paregoric elixir. Given as an anodyne in chest affections. Dose, ʒj. to fʒss.

Acidum Citricum. Citric Acid.

An acid, 3 HO, C¹², H⁵, O¹¹, + HO, obtained from lemon juice, or from the juice of the fruit of citrus limetta, Risso, the Lime.

Charact.—In colourless right rhombic prisms, with a strong acid taste; soluble in water.

Actions and uses.—Refrigerant, but not much employed. Does not possess the antiscorbutic virtues of the lemon juice. May be used for effervescing drinks, but tartaric acid, which is cheaper, is generally employed. Dose, gr. xx, to ʒj. For artificial lemon juice, dissolve ten drachms in a pint of water.

Acidum Gallicum. Gallic Acid.

An acid, 3 HO, C¹⁴, H³, O⁷, + 2 HO, prepared from galls.

Charact.—In whitish, or pale-fawn, acicular prisms, very sparingly soluble in cold, but freely so in boiling water, rectified spt. and ether. Gives a bluish-black precipitate with a persalt of iron.

Preparation.—Galls are exposed under the influence of air and moisture for six weeks, at a temp. of 60° to 70°; when the tannin in them is decomposed, and converted into gallic acid.

Actions and uses.—An astringent of great power. It is of considerable value in hemorrhage from the lungs, stomach, kidney, bladder, and uterus. In albuminuria, and fatty kidney, it often arrests, temporarily at least, the secretion of fat and albumen. In hæmoptysis beneficial results are seldom obtained, until the dose is increased to gr. xl. or gr. lx. per diem. The night sweating of phthisis is often mitigated by it. Dose, gr. v. to gr. xx.

Formula.—℞. acidi gallici gr. lx. ; pulveris opii gr. iij. ; pulveris aromatici gr. xii. Misce. Divide in pulveres sex, quorum capiat unum sextis horis. Useful in most kinds of hemorrhage; and, augmented discharges, diarrhoea, &c. Incompatibles,—the sesquisalts of iron.

Acidum Hydrochloricum. Hydrochloric acid.

Synonym.—Acidum muriaticum purum, Ed. Dub. Hydrochloric acid gas, HCl, dissolved in water.

Charact.—A colourless and strongly acid liquid, emitting at ordinary temperatures white vapours having a pungent odour. Gives with nitrate of silver a curdy white precipitate, soluble in excess of ammonia, but not in nitric acid.

Actions and uses.—A very powerful corrosive and irritant poison, dissolving the living animal textures with which it comes into contact. Antidotes,—chalk, magnesia, and demulcent drinks. Used as a caustic in phagedenic ulcers, to arrest the extension of mortification in cancrum oris, and as an external application in hospital gangrene. It has been used also to destroy the plastic exudation of diphtheria, and, in the form of gargle, in the sore-throat of scarlatina.

Acidum Dilutum.—Take of hydrochloric acid fʒiij; dist. water fʒviiij; Mix.

Actions and uses.—Tonic. Given in diphtheria, malignant, scarlatina, continued fevers. Also in debility of digestive

organs, attended with a deposit of phosphates from the urine. A useful addition to gargles. Dose, min. xx. to lx.

Acidum Nitro-hydrochloricum Dilutum.—Take of nitric acid f̄ij. ; hydrochloric acid f̄iv. ; dist. wat. f̄xxvi. Add to the water first the nitric, and then the hydrochloric acid. Mix.

Actions and uses.—Tonic and alterative. Given combined generally with a bitter infusion in secondary syphilis, and in sluggish action, and chronic induration, or abscess of the liver. Dose, min. xxx. to lx. A foot-bath of the strength of f̄iv. ss. of the strong acid to three gallons of water—in a wooden vessel—is said to have a very palliative influence during the passage of biliary calculi through the duct.

Acidum Hydrocyanicum Dilutum.

Dilute Hydrocyanic Acid.

Hydrocyanic acid, HC^2, N , dissolved in water, and constituting 2 per cent. of the solution.

Charact.—A colourless liquid with a peculiar odour, only slightly and transiently reddening litmus. Treated with a minute quantity of a mixed solution of sulphate and persulphate of iron, and afterwards with potash, and finally acidulated with hydrochloric acid, it forms prussian blue. Specific gravity 0.997.

This acid contains rather more than half as much anhydrous acid as acidum hydrocyanicum, Ed.

Preparation.—Take of ferrocyanide of Potassium $\bar{z}ij\frac{1}{4}$; sulphuric acid f̄vij ; dist. water f̄xxx. or a sufficiency. Dissolve the ferrocyanide in f̄x. of the water, then add the acid. sulph. previously diluted with f̄iv. of the water and cooled. Put them into a retort, and adapt this to a receiver containing f̄vij. of the water, which must be kept carefully cold. Distil with a gentle heat by the aid of a sand-bath, until the fluid in the receiver measures f̄xvij. Add to this f̄ij. of the water, or as much as may be sufficient to bring the acid to the required strength of 2 per cent.

Actions and uses.—One of the strongest poisons we possess, death having been caused by a mixture containing less than a

grain of the anhydrous acid. In general, it has killed rapidly, death being preceded by spasmodic breathing, convulsions, and insensibility. If seen in time, the victim should be subjected to cold affusion, water being showered on the head and chest in steady streams, and ammonia inhaled at the same time. A mixture of a proto and a persalt of iron with an alkaline carbonate, is also an antidote. In medicinal doses it is sedative, calmative, anodyne, and antispasmodic. It abates the force of the circulation, diminishes the sensibility of the nervous system, alleviates pain, and lessens spasm. Employed as a palliative in the cough of catarrh, pneumonia, pertussis, spasmodic asthma, phthisis, cynanche laryngea, and in the spasmodic cough of nervous and hysterical females. Benefit has accrued from it in the excited action of the heart in pericarditis; and it seldom fails to relieve the painful spasm of the stomach in gastrodynia, enterodynia, and some cases of pyrosis. Externally it has been employed in the form of lotion for allaying the itching and irritation of some skin diseases, such as prurigo and lichen. Though not a cumulative poison, it should be well watched until the proper dose for the particular patient is ascertained. Those taking it complain at times of irritation about the fauces, and a feeling of enlargement of the tongue, with nausea.

Dose.—Min. ij. to vj. in syrup, and in the form of draughts.

Formula for external use.—℞ Acidi hydrocyanici diluti f̄ij.; glycerini f̄ij.; aquæ ad f̄xviij. Mix.

Incompatibles.—Strychnia, all sulphurets, nitrate of silver, sulphate of copper, and sulphate of iron, if along with an alkali.

Acidum Nitricum.

Nitric Acid, $3\text{HO}, 2\text{NO}^5$.

Charact.—A strongly acid and corrosive liquid. Specific gravity 1.5. One fluid drachm of the acid requires for neutralization 121.5 measures of the volumetric solution of soda.

Preparation.—Take of nitrate of potash lbij; sulphuric acid f̄xviij. Distil in a plain retort, with a Liebig's condenser.

Actions and uses.—A powerful corrosive and irritant, killing quickly from pain and exhaustion, resulting from organic injury of the alimentary canal. Antidotes same as for hydrochloric acid. As a caustic used as an application to poisoned wounds, parts bitten by rabid animals, venereal and phagedenic ulcers, and certain forms of hemorrhoids. The contiguous parts must be covered by plaster, or ung. resinæ.

Acidum Dilutum.—Take of nitric acid f ʒij; dist. water f ʒxij. Mix.

Tonic, but of no great power. Given in chronic hepatitis, phosphatic gravel, and by some, as an antisyphilitic. It seems to have done good in secondary syphilis allied to a strumous habit. As an application to the callous edges of indolent ulcers it is inferior to pressure or a blister. Dose, f ʒss. to f ʒj

Acidum Phosphoricum Dilutum.

Dilute Phosphoric Acid. Phosphoric acid, $3HO, PO^5$, dissolved in water.

Charact.—A colourless liquid with a sour taste, and strong acid reaction. With ammonia-nitrate of silver it gives a canary-yellow precipitate, soluble in ammonia and nitric acid. Specific gravity, 1.08.

Preparation.—Take of phosphorus gr. ccccxij; nitric acid f ʒiv; dist. water Oj, or a sufficiency. The nitric acid is diluted with water, is placed in a tubulated retort connected with a Liebig's condenser, then the phosphorus is added, and a gentle heat applied.—See Brit. Pharm.

Actions and uses.—A somewhat feeble tonic, given chiefly where there is a deposit of phosphates from the urine. Said to be a stimulant of the generative system, but experience does not give it a high standing as an aphrodisiac. As a drink, diluted, in diabetes it does little good, and the same, we fear, may be said in regard to its use in exostosis and other osseous tumours.

Dose.—Min. x. to xx. well diluted.

Acidum Sulphuricum. Sulphuric Acid.

Monohydrated sulphuric acid, HO, SO³.

Charact.—A colourless fluid of oily appearance, intensely acid and corrosive, evolving much heat on the addition of water. Specific gravity 1·846.

Preparation.—See Brit. Pharm.

Actions and uses.—A powerful corrosive, rapidly destroying animal tissue. Antidote, chalk and magnesia. It is not much used in practice as a counterirritant. It has been used as a caustic to the conjunctiva for curing ectropium or eversion of the lid, and to the skin of the eye-lid, for entropium or inversion.—In France, a caustic paste for malignant and cancerous ulcerations, is made by mixing 2 parts of acid with one of saffron. In this country, sawdust—a much cheaper article, has been substituted for the saffron.

Acidum Aromaticum.—Take of sulphuric acid f ℥iij; rectified spt. Oij; cinnamon in coarse powder ℥ij; ginger in coarse powder ℥1¼. Mix the acid gradually with f ℥ xxxv. of the spt., then add the cinnamon and the ginger, and digest for 7 days, agitating frequently; filter and add enough spt. to make up to Oij.

Acidum Dilutum.—Take of sulphuric acid f ℥iij; dist. water f ℥xxxv. Mix gradually.

Actions and uses.—Tonic, refrigerant, astringent, and diuretic. Useful as a tonic and refrigerant in continued fevers; as an astringent in hæmoptysis, epistaxis, and bleedings from the uterus, stomach, and intestines, and in diarrhœa. Excellent in the nocturnal sweating of phthisis, or the perspirations of hectic. It is by no means a trustworthy diuretic; yet, singularly, it will succeed in some few cases where more powerful diuretics fail.

Dose.—Min. xx. to xl. in an ounce or so of simple syrup, or infusion of calumba or gentian.

Incompatibles.—Most metals and their oxides; alkalies and their carbonates; acetate of lead, nitrates, organic substances, essential oils; tinctures and astringent infusions.

Acidum Sulphurosum. Sulphurous Acid.

Sulphurous acid, SO^2 , dissolved in water.

Charact.—A colourless liquid with a strong suffocating sulphurous odour. Specific gravity 1.04.

Uses.—Recommended in the form of lotion, ℥j. to ℥viij. of water in cases of tinea.

Acidum Tannicum. Tannic Acid.

An acid, C^{54} , H^{22} , O^{34} , obtained from galls.

Charact.—A pale-yellow amorphous powder, with a strong astringent taste, and acid reaction, readily soluble in water and rectified spt., but sparingly in ether. Dissolved in water it precipitates a solution of gelatine yellowish-white, and the persalts of iron of a bluish-black colour. Test. Leaves no residue when burned with free access of air.

Prep.—Galls in coarse powder ℥viij.; ether Oijj.; dist. water f℥vj. On percolating the tannin is separated by means of the ether; two distinct fluid strata are seen; the heavier containing the tannin is evaporated on a water bath, and the residue dried in a hot-air chamber, temp. not exceeding 212° .

Actions and uses.—An astringent of great power, well adapted for the various hemorrhages for which gallic acid is given; and for chronic mucous discharges, and the diarrhoea and perspirations of hectic. From its chemical action on gelatine, it has been proposed as an anthelmintic, but it has not proved very successful; at least, we have not seen it so. It is more apt to induce derangement of the stomach than gallic acid, and it certainly aggravates dyspepsia. Extensively used in the form of gargle, gr. v. to x. to the ounce of water; and as an injection in mucous and muco-purulent discharges from the vagina and urethra. In the form of ointment, it has done good in eczema and herpes; and combined with a little opium, I have frequently known it beneficial in piles. Dose, gr. i. to v.

Formula for hemorrhoids, ℞ Acidi tannici gr. xx.; sulphuris sublimati gr. x.; pulveris opii gr. vj.; unguenti cetacei ℥j. Misc.—For chapped nipples and ulcerated sore-throat the following will be found useful: ℞ Acidi tannici gr. xx.; glycerini f℥j. M.

Suppositoria.—Tannic acid gr. xxiv. ; glycerine min. xx. ; prepared lard and white wax a sufficiency.

Trochisci.—Tannin, tolu, sugar, gum, water. Each lozenge contains gr. $\frac{1}{2}$ tannic acid.

Incompatibles.—Alkalies and their carbonates; the mineral acids, acetate of lead, nitrate of silver, lime water, tartar emetic, the persalts of iron.

Acidum Tartaricum. Tartaric Acid.

An acid, $2\text{HO}, \text{C}^8, \text{H}^4, \text{O}^{10}$, obtained from the acid tartrate of potash.

Charact.—In colourless oblique rhombic prisms, strong acid taste, readily soluble in water.

Actions and uses.—Refrigerant; used chiefly for making effervescing powders. Dose, gr. x. to xxx. in a good deal of water. For effervescing draughts the bicarbonate of soda is given a little in excess of the acid; and for seidlitz powders, from gr. xxx. to gr. cxx. of sodæ et potassæ tartras, with a little sugar and essence of lemon, are added.

Aconiti Radix. Aconite Root.

Aconitum napellus Linn. The root, dried; imported from Germany, or cultivated in Britain, and collected in the winter or early spring, before the leaves have appeared. N. F. Ranunculaceæ.

Charact.—From one to three inches long, not thicker than the finger at the crown, tapering, wrinkled, blackish-brown, internally whitish. A minute portion cautiously chewed, causes prolonged tingling and numbness.

Analysis.—An alkaloid named aconitia, combined with aconitic acid, an acrid volatile principle, albumen, different salts, &c.

Actions and uses.—Sedative, and a powerful poison. A minute portion causes a tingling sensation and numbness, while larger quantities induce depression of the vital powers, the effects being confusion, loss of sight, and of common sensation, paralysis of the voluntary muscles, death taking place

from paralysis of the respiratory muscles. This drug was once lauded as an anodyne in acute rheumatism, but experience does not warrant us in joining in the panegyric. As a deobstruent in diseased mesenteric glands, scrofulous tumours (external), scirrhus, &c. it has proved quite a failure. Internally, then, we do not look with confidence to this drug. As an external application its efficacy is undoubted in neuralgic pains, as tic doloureux and lumbago. Dose. Powder of the root, gr. ij. to x. gradually increased.

Linimentum.—Aconite root, powder, ℥xx.; camphor ℥j.; rectified spt. f ℥xxx. Macerate, 7 days, and percolate, the product should be Oj.

Tinctura.—Aconite root, powder, ℥ij½; rectified spt. Oj. Macerate 48 ho., then percolate, and add spt. to make a pint. Dose, min. v. to x. gradually increased, and carefully watched.

Aconitia. Aconitia.

An alkaloid, C⁶⁰, H⁴⁷, NO¹⁴, obtained from aconite root.

Charact.—A white, usually amorphous solid, soluble in 150 parts of cold, and 50 of hot water; much more soluble in alcohol and ether. Rubbed on the skin it causes tingling and protracted numbness.

Actions and uses.—A very active poison, possessing in a concentrated degree the properties of the other forms. Used for the ointment, not internally. Unguentum. Aconitia gr. viij.; rect. spt. f ℥ss.; prepared lard ℥j. A small portion (gr. xx. or so) may be applied over the seat of a neuralgic pain.

Aconitum. Aconite.

Aconitum napellus Linn. Monkshood. The fresh leaves and flowering tops, gathered when about one-third of the flowers are expanded, from plants in Britain.

Charact.—Leaves smooth, palmate, divided into five deeply cut wedge-shaped segments; exciting, when chewed, a sensation of tingling; flowers numerous, irregular, deep blue, in spikes. Used for the extract.

Extractum.—For prep. see Brit. Pharm. Dose, gr. j. to ij.

Adeps Præparatus. Prepared Lard.

Synonym.—Axungia, Ed. Hog's fat, deprived of its membranes, and purified by heat.

Charact.—A soft white fatty substance, melting at about 100°.

Uses.—A simple dressing for excoriations, and a basis for ointments.

Unguentum simplex. White wax ℥ij. ; lard ℥iij. ; ung. sim. almond oil f℥iij. A simple dressing after blisters.

Æther. Ether.

Synonym.—Æther sulphuricus, Ed. Dub. Oxide of ethyl, C⁴, H⁵, O, with about 8 per cent. by volume of alcohol.

Charact.—A colourless very volatile and inflammable liquid, emitting a pungent odour, and boiling below 105°. Poured on the hand it evaporates rapidly, producing a sensation of cold. Sp. gravity 0.735.

Actions and uses.—Narcotic, antispasmodic, stimulant, anæsthetic, and an external refrigerant. In large doses, or inhaled for a long time, it is a poison, causing intense excitement, various affections of the mental state, delirium, insensibility, suspension of voluntary motion. Its property of inducing stupefaction led to its being used as an anæsthetic in America in 1846; but the happy discovery of the virtues of chloroform by Dr Simpson, soon after, led to its immediate abandonment. It is given as a stimulant in asphyxia, fainting, and the adynamic stages of various fevers, but the short-lived nature of its action renders it inferior to alcoholic fluids. It is of most service as an antispasmodic, combined with opium, in stomach-cramp, hiccup, and flatulent colic; and in asthma and hysterical aphonia. It acts as a carminative by its vapour attracting the gases evolved in the stomach; and it is a powerful external refrigerant owing to its rapid evaporation, often relieving headache of various kinds. Dose, f℥ss to f℥i. in a little cinnamon water or tinct. cardam. co.

Spiritus.—Ether f℥x. ; rect. spt. Oj. M. Dose, f℥j. to f℥iij. It is more miscible in mixtures.

Atheris Nitrosi Spiritus. Spirit of Nitrous Ether.

Nitrous ether, C⁴, H⁵, O¹, NO³, dissolved in rectified spirit.

Charact.—A nearly colourless fluid, slightly tinged with yellow, mobile, inflammable, of an apple-like odour, and sweetish, cool sharp taste. Specific gravity 0·843.

Actions and uses.—A stimulating diuretic, diaphoretic, and antispasmodic. It is useful along with squill and potash in cardiac dropsy and—but less so—in that springing from renal disease. It is given to increase the urine, and thus help the solution of the deposits in gravel, and to diminish the acrimony of the urine in gonorrhœa. Along with Mindererus' spirit, it is an excellent diaphoretic in catarrh, and the early stages of fevers. In large doses, it is a narcotic poison; in smaller doses it sometimes produces griping and pain in the stomach. This is corrected by mixing it with juniper and potash. Dose, f̄ss. to f̄ii., two or three times a-day.

Aloe Barbadosis. Barbadoes Aloes.

Aloe Vulgaris Lam. *Encycl.* The juice of the leaf, inspissated; imported from Barbadoes. N. F. Liliaceæ.

Charact.—In dark-brown opaque masses, breaking with a dull conchoidal fracture; has a nauseous bitter taste, and a disagreeable odour, usually imported in gourds.

Analysis.—Aloine, (a bitter extractive matter,) two peculiar acids, resin, &c.

Preparations.—Enema. Aloes gr. xl.; carb. potash gr. xv.; mucilage of starch f̄x. M.

Extractum. See *Brit. Pharm.*

Pilula. B. aloes f̄ij.; hard soap f̄j.; oil carraway f̄j.; conf. roses f̄j. M. Divide into 5 grain pills.

Pilula Cambogiæ composita.—See *Cambogia*.

Pilula Colocynthis composita.—See *Colocynthis*.

Pilula Colocynthis et hyoscyami.—See *Colocynthis*.

Aloe Socotrina. Socotrine Aloes.

One or more undetermined species of *Aloe* Linn. The juice of the leaf, inspissated; usually procured from Socotra.

Charact.—In reddish-brown masses, opaque, or translucent

at the edges ; breaks with an irregular, or smooth and resinous fracture ; has a bitter taste, and a strong but fragrant odour ; dissolves entirely in proof spirit, and during solution exhibits under the microscope numerous minute crystals.

Preparation.—Enema.—See preceding enema.

Extractum —See Brit. Pharm.

Extractum Colocynthis compositum.—See Brit. Pharm.

Pilula aloes et assafœtidæ. Aloes, assafœtida, hard soap, confect. roses, of each one ounce. M. Divide into 5 gr. pills.

Pilula aloes et myrrhæ. Aloes \bar{z} ij. ; myrrh \bar{z} j. ; saffron, dried \bar{z} ss. ; confect. roses \bar{z} ijss. M. Divide into 5 gr. pills.

Pilula Rhei Composita. Rhubarb \bar{z} ij ; soc. aloes \bar{z} ij $\frac{1}{4}$; myrrh \bar{z} jss ; hard soap \bar{z} jss ; English oil peppermint f \bar{z} jss ; treacle \bar{z} iv. M. Make into 5 gr. pills.

Actions and uses.—Cathartic, and, in very small doses, perhaps slightly tonic. It acts by exciting the peristaltic action of the bowel, and appears to have a preference for the large intestine, and more so for the rectum. It seems, however, to affect the duodenum, or the mouths of the biliary ducts, an increased flow of bile resulting ; and thus it is beneficial in some cases of jaundice. It is one of the most extensively employed cathartics in constipation, with deficient bile ; and from its actions on the rectum, and by sympathy on the neighbouring uterus, it has done good as an emmenagogue. Where hemorrhoids exist, and during pregnancy it has been deemed inadmissible alone ; but combined with hyöscyamus, or sulphate of iron, its acrimony is lessened or modified, and may be then safely given. The iron seems also to increase the activity of the aloes.

Dose.—Aloe. barb. gr. ij. to vj ; aloes soc. gr. v. to xv. ; extractum gr. v. to xv. ; pilula gr. v. to xx. ; pilulæ aloes et assaf. gr. v. to xv., thrice a day. Pilulæ aloes et myrrhæ gr. x. to xx. ; pil. rhei co. gr. v. to xv.

Alumen. Alum,

Sulphate of alumina and potash, $Al^2, O^3, 3 SO^3 + KO, SO^3 + 24 HO.$

Charact.—In colourless transparent crystalline masses, exhibiting the faces of the regular octahedron, with an acid, sweetish astringent taste.

Actions and uses.—An energetic astringent. Useful in chronic diarrhœa, dysentery, menorrhagia, hæmoptysis, and hæmatemesis. At times it does good in pyrosis; and in colica pictonum it is found occasionally to allay the tormina and sickness of that ailment, when combined with a little opium. Topically it is applied to arrest bleeding from small vessels.

Dose.—gr. x. to xxx. For pyrosis gr. x. to xx.; thrice daily in infus. calumbæ. Formula for lead colic. ℞ Aluminis ℥ij.; liquoris morphiæ hydrochloratis f℥ij.; syrupi zingiberis f℥vj.; infusi calumbæ f℥v. Misc. Capiat ℥ss. omnibus sextis horis.

Alumen Exsiccatum.—Alum heated in a porcelain capsule until aqueous vapour ceases to be disengaged; dried and reduced to fine powder. A little of this applied to the fauces, by blowing it through a glass tube, has done good in the early stages of inflammatory sore throat. Dissolved in water, it makes an excellent gargle, in relaxed uvula and tonsils, in ulceration of the mouth and tongue, in spongy gums, and excessive salivation.

Incompatibles.—Alkalies and their carbonates, lime, magnesia, acet. plumb., salts of mercury, and substances containing tannin.

Ammoniacum. Ammoniac.

Dorema Ammoniacum Don Trans. Linn, Soc. A gum-resinous exudation from the stem; collected in Persia and the Punjab, N. F, Umbelliferæ.

Charact.—In pale cinnamon-brown tears or masses; the tears from two to eight lines diameter, breaking with a smooth shining opaque white surface: hard when cold; softening with heat; a bitter acrid nauseous taste. *

Analysis.—Resin, gum, and a trace of volatile oil.

Actions and uses.—A stimulating expectorant, and useful along with squill, or tolu, in chronic bronchitis. Externally in the form of plaster it is applied to chronic enlarged glands,

proving useful at times by its stimulating property; but it is inferior to iodine and others. Dose, gr. x. to xx, made into emulsion with milk or water.

Emplastrum Ammoniaci cum Hydrargyro.—See Hydrargyrum.

Emp. Galbani.—See Galbanium.

Mistura.—Ammoniac $\frac{1}{4}$ ounce; dist. water f̄ij. Mix well by trituration, and strain through muslin. Dose, ℥ss. to ℥j.

Pilula Scillæ Co.—See Scilla.

Ammoniæ Acetates Liquor. Solution of Acetate of Ammonia.

Acetate of Ammonia, $\text{NH}^4 \text{O}$, C^4 , H^3 , O^3 , dissolved in water.

Charact.—A transparent colourless liquid, with a saline taste.

Prep.—Strong solution of ammonia f̄ijss., or a sufficiency; acetic acid f̄x., or a sufficiency. Mix gradually, and if the product is not neutral to test papers, make it so by the addition of the proper quantity of either liquid.

Actions and uses.—A very trustworthy diaphoretic, as a general rule not exciting the circulation much. Useful in catarrh, and slight febrile attacks. It seems peculiarly adapted for accelerating the elimination of alcohol from the system, and may thus be given in cases of stupefaction from “strong drink.” Dose, M. xl. to ℥ij. It is now six times stronger than the old Mindererus’ Spirit.

Ammoniæ Benzoas. Benzoate of Ammonia.

$\text{NH}^4 \text{O}$, C^{14} , H^5 , O^3 + HO.

Charact.—In colourless laminar crystals, soluble in water and alcohol.

Uses.—Given in bronchitis with occasional benefit, in genito-urinary mucous discharges, and phosphatic deposits in the urine. Dose, gr. xv. to gr. xl.

Ammoniæ Carbonas. Carbonate of Ammonia.

Sesquicarbonate of Ammonia, $2 \text{NH}^4 \text{O}$, 3CO^2 .

Charact.—In translucent crystalline masses, with a strong

ammoniacal odour, and alkaline reaction; soluble in cold water, and sparingly in spirit.

Actions and uses.—Antacid and stimulant. Given to rouse the vital powers in the adynamic stage of continued fevers, and in chronic bronchitis attended with debility. Useful as “smelling salts” in fainting. Dose, gr. v. to xx.

Spiritus Ammoniaë Aromaticus.—Carb. ammon. ℥viiij.; strong solut. of ammon f℥iv.; volatile oil of nutmeg f℥iv.; oil of lemon f℥vi.; rectified spt. Ovj.; water Oij. Mix, and distil Ovij. Antacid stimulant and antispasmodic. Used in similar cases with the carbonate. Useful for correcting acidity in the stomach where it exists in the gaseous form; and it does good by rousing (and otherwise) individuals from the stupor of alcoholic drinks. Dose, min. xv. to lx.

Ammoniaë Hydrochloras. Hydrochlorate of Ammonia.

NH_4, Cl .

Charact.—In colourless translucent fibrous masses, tough and difficult to powder; soluble in water and rect. spt.

Actions and uses.—Stimulant, deobstruant, diaphoretic, diuretic, and emmenagogue. Not much employed internally in this country, and no great matter. It seems to have done good occasionally in amenorrhœa, and rarely in hooping-cough. Forms an excellent discutient application along with spt. and vinegar, in ecchymosis, contusions, and sprains. Along with nitre it forms a refrigeratory mixture, useful for lessening the heat and pain of inflamed parts. Dose, gr. v. to xv.

Formula for Ecchymosis, &c.—℞ Ammoniaë hydrochloratis ℥j.; spiritus rectificati f℥ij.; acidi acetici diluti ℥xviiij. Misc.

Ammoniaë Liquor Fortior. Strong Solution of Ammonia.

Ammoniacal gas, NH_3 , dissolved in water, and constituting 32·5 per cent. of the solution.

Charact.—A colourless liquid, with a very pungent odour, and strong alkaline reaction. Sp. gravity 0·891.

Prep.—Hydrochlor. ammon lb.iiij.; slaked lime lb.iv.; dist. water f℥xxxij. For process see Brit. Pharm.

Actions and uses.—A strong corrosive and narcotic poison,

inflaming and corroding the parts with which it comes into contact, and occasioning tetanus and coma. Its antidotes are vinegar, lemon juice, tartaric acid. It is not given internally. Externally it produces irritation, redness, and vesication, hence it is used as a counterirritant in many affections. It forms a speedy blister, and may be employed for sudden attacks of internal inflammation, as in retrocedent gout. In the form of liniment mixed with oil, it forms an excellent rubefacient in sore-throat, and over joints in chronic rheumatism.

Linimentum Ammoniacæ.—Solut. ammon. f̄ʒj.; olive oil f̄ʒiij. Mix with agitation.

Linimentum Camphoræ Compositum.—See Camphor.

Liquor Ammoniacæ.—Strong solution of Ammon Oj.; dist. water Oij. Mix.

Ammoniacæ Phosphas. Phosphate of Ammonia.

$3 \text{NH}^4 \text{O}, \text{PO}^5 + 5 \text{HO}.$

Charact.—In colourless transparent prisms; exposed to air, lose water and ammonia, becoming opaque; soluble in water, insoluble in rectified spt.

Uses.—Recommended in gout and rheumatism. Dose, gr. xv. to xxx.

Amygdala. Jordan Almonds. Amygdalus Communis. Var. dulcis D. C.

The sweet almond tree. The seed; from about Malaga. N. F. Rosaceæ.

Charact.—Above an inch in length, lanceolate, acute, with a clear cinnamon-brown seed-coat, and a bland, sweetish, nutty-flavoured kernel. Bruised with water does not evolve the odour of bitter almonds.

Uses.—As a nutritive and emollient.

Mistura. Comp. powder of almonds ʒijss.; dist. water Oj. M. Strain through muslin. A vehicle for other medicines.

Pulvis. Amygdalæ Compositus. Jordan almonds ʒviiij.; refined sugar ʒiv.; gum arabic ʒj. Steep, and blanch the almonds, dry them with a soft cloth, rub lightly in a mortar

to a smooth consistence. Mix the gum and sugar, and add to the pulp gradually.

Amygdalæ Oleum. See *Oleum Amygdalæ*.

Amylum. Wheat Starch.

Triticum vulgare. Common wheat. Starch procured from the seed. N. F. Graminaceæ.

Charact.—In white columnar masses; rendered blue with iodine.

Uses.—Demulcent. Used in the form of enema in diarrhœa and dysentery. The powder is dusted on excoriations, incipient bed sores, and erythematous patches.

Mucilago. Starch gr. cxx.; dist. water f̄xx. Triturate, then boil a few minutes.

Anethi Oleum. See *Oleum Anethi*.

Anethum. Dill.

Anethum graveolens Linn. The fruit; cultivated in England. N. F. Umbelliferæ.

Charact.—Oval, flat, about a line and a half in length, with a pale membranous margin. Odour aromatic, taste warm, and slightly bitter.

Aqua Anethi.—Dill ʒxx.; water cong. ij. Distil one gallon.

Uses.—Carminative and slightly stimulant. Given in the flatulence of infants. Dose, ʒss. to ʒij.

Formula, found useful in the griping flatulence of children.—
℞ Magnesiæ levis ʒss.; sacchari albi ʒj.; olei anisi min. ij.; aquæ calcis ʒij.; aquæ anethi ʒij. Misc. Capiat cochleare parvum, pro re nata.

Anisi Oleum. See *Oleum Anisi*.

Anthemidis Oleum. See *Oleum Anthemidis*.

Anthemis. Chamomile Flowers.

Anthemis nobilis Linn. Common chamomile. The flower heads, single and double, dried; wild, and cultivated in Britain. N. F. Compositæ.

Actions and uses.—Tonic, stimulant, carminative. Useful

in simple dyspepsia, and irritability of the stomach, with flatulence. The fresh infusion is best. A strong infusion at times proves emetic; yet in the vomiting of pregnancy it has done good when sedatives have failed. The oil dropped on a bit of sugar is a good carminative.

Extractum. See Brit. Pharm. Dose, gr. x. to xx.

Infusum. Cham. flowers \bar{z} ss.; dist. water $f\bar{z}$ x. Infuse fifteen minutes, and strain. Dose, \bar{z} j. to \bar{z} ij.

Antimonii Oxidum. Oxide of Antimony.

Teroxide of Antimony, $Sb O^3$.

Charact.—A white powder, fusible at a low red heat, insoluble in water, but readily dissolved by hydrochloric acid.

Preparation.—See Brit. Pharm.

Actions and uses.—Diaphoretic and sedative, but not much to be trusted. Occasionally it has seemed to do good in catarrh and pneumonia. Used for preparing pulv. antimonialis. Dose, gr. iij to x.

Pulvis Antimonialis.—Oxide of antimony \bar{z} j.; precipitated phosphate of lime \bar{z} ij. M.

Actions and uses.—Sedative and diaphoretic. This compound was formerly very indefinite and irregular in its composition, and therefore annoyingly uncertain in its action. Now that we have got something definite, we may be able to place more reliance upon it, although possessing the antim. tart., we can always have the same actions in an enhanced degree. It may be given in the early stages of fevers, and inflammatory diseases, in catarrh, and, combined with opium, in acute rheumatism. Dose, gr. v. to xv.

Antimonii Terchloridi Liquor. Solution of Terchloride of Antimony.

Terchloride of antimony, Sb, Cl^3 , dissolved in hydrochloric acid.

Charact.—A heavy liquid of a yellowish-red colour.

Uses.—Caustic; rarely employed in practice in this country. Has been used by German oculists in staphyloma, the tumour being touched with a camel's hair pencil.

Antimonium Sulphuratum. Sulphurated Antimony.

Tersulphurate of Antimony, Sb, S^3 , with a small and variable amount of teroxide of antimony, Sb O^3 .

Charact.—An orange-red powder, readily dissolved by caustic soda, also by hydrochloric acid with the evolution of sulphuretted hydrogen, and the separation of a little sulphur.

Uses.—Diaphoretic, of no great value. An ingredient of the comp. calomel pill.

Pilula calomelanos composita.—See Calomel.

Antimonium Tartaratum. Tartarated Antimony.

Tartarate of Antimony and Potash $\text{Sb O}^3, \text{KO, C}^8, \text{H}^4, \text{O}^{10} + 2 \text{HO}$.

Charact.—In colourless transparent crystals, with triangular facets, soluble in water, and less so in proof spirit.

Preparation.—Oxide of antim. $\frac{3}{5}$ v.; acid. tart. potash $\frac{3}{5}$ vi; dist. water Oij. Mix the ox. antim, and tart. potash with sufficient dist. water to form a paste, and set aside for 24 ho.; then add the rest of the water, and boil $\frac{1}{4}$ ho., stirring frequently. Filter, and set aside the clear filtrate to crystallize. Pour off the mother liquor, and evaporate to one third, and set aside, that more crystals may form. Dry the crystals on filtering paper at the temperature of the air.

Actions and uses.—An important drug from its different actions and varied applications. It is an irritant poison in large doses; in small, a diaphoretic, sedative, expectorant, and emetic. In poisoning, we have inflammation of the alimentary tract, &c. Antidotes.—Tannin, or astringent decoctions. As a sedative, it has been given to lower the frequency and force of the heart's action, and thus arrest local inflammation. Its sedative action has been sought in two ways. First, (and what may be termed the heroic way,) it has been given in one, two, or three grain doses every two hours or so; and, second, in the milder and safer, nauseating dose of $\frac{1}{8}$ or $\frac{1}{4}$ grain. Experience, however, has shown, that in the presence of active inflammation, doses sufficient to develop the symptoms of poisoning in the healthy state are wonderfully borne; and

yet who cannot plead guilty to a suspicion that, although during the bold contra-stimulant-method, the more common physiological effects—such as faintness, vomiting, purging, sweating—are either not called into operation, or first called, and then, by a continuance of the plan, subdued, yet the system has received actual and unwarrantable injury : in other words, the tolerance is more apparent than real. As a nauseating sedative, in doses of $\frac{1}{2}$ gr. or so, every hour or two, then, it has rendered great service in erysipelas, arachnitis, acute bronchitis, pneumonia, and pleuritis, and especially in the latter two diseases. The best results in these cases are obtained when nausea and diaphoresis are both kept up ; and the latter is best and most vigorously sustained when the former exists, and perhaps is dependent on it. As an expectorant, it may be given in small doses of 1-12th gr. oft repeated, or in emetic doses. The former plan answers well in acute inflammation of the substance of the lungs, the latter in hooping-cough. As an emetic in doses of gr. ii. or so, it operates effectually in from twenty minutes to half-an-hour, causing nausea and depression. It is thus employed for the evacuation of the stomach, not in cases of poisoning, for it is too tardy and depressant for that, but in ordinary cases, and above all, with the view of cutting short, or aborting at an early stage, acute inflammations, such as croup, pertussis, ophthalmia, hernia, humoralis, and bubo. In continued fever, especially the type of the present time, it is not at all successful. Being a specific emetic, it acts when injected into the veins, and it has been thus employed to promote by vomiting the expulsion of solid bodies located in the œsophagus. As a relaxant in dislocations, strangulated hernia, and rigidity of the os uteri, it has been superseded by chloroform ; but I occasionally meet with cases of unyielding os, where the anæsthetic completely failing, I obtain softness und pliability from this nauseating drug.

Catharsis is seldom sought from antim. tart., but along with sulph. magnes., it has done good as a cooling cathartic in acute inflammations and sthenic fevers. Externally, in the

form of ointment, or on the face of a plaster, it raises a profuse crop of pustules; and thus proves an excellent counter-irritant in internal diseases of the head, thorax, abdomen, and medulla spinalis; in muscular and neuralgic pains, and diseases of joints. Dose, emetic gr. j. to iij.; expect. diaph. and sedative, gr. 1-12th to 1-4th.

Unguentum.—Tart. antim. $\frac{1}{4}$ ounce. Simple oint. one ounce. Mix.

Vinum antimoniale.—Tart. antim gr. xl. Sherry Oj. Dissolve. Dose, emetic \bar{z} ss. to \bar{z} j.; expect. diaph. and sed. min. xx. to lx.

Incompatibles.—Alkalies and their carb. acids; plumb. acet; hyd. corrosiv. sub.; aq. calc. chlor. calc. earths; some of the metallic oxides; hydrosulphurets; strong astringent infusions and decoctions.

Aqua. Water.

Natural water, HO, the purest that can be obtained, cleared if necessary by filtration.

Aquæ Destillata.—This answers best for most pharmaceutical purposes, and should be used in mixtures containing any of the following articles. Argent. nit. plumb. acet.; ferri sulph.; zinci. sulph. antim.; tart. acid.; sulphuric. Hydrarg. corrosiv.; sub. liq.; plumb. subacet.

Mineral Waters are an important class; yet they possess no great healing virtues beyond many mineral and vegetable drugs which we can boast of. The benefits alleged to accrue from their use, are in many cases, no doubt, due to their surroundings and accessories; pure air, exercise, rural scenery, social pleasures, and exemption from the toils of business. The more common substances existing in them are sulphur, iron, acids, and various salts. They are cold and warm—the latter being termed *thermal*. They may be divided into 1. Chalybeate; 2. Saline; 3. Sulphureous; 4. Acidulous.

Chalybeate. These contain iron in the form of carbonate, sulphate, &c. Their action is tonic, strengthening the pulse, augmenting muscular tone, and improving the colour of the blood, and are useful in debility, scrofula amenorrhœa, &c. A

few may be named : Hartfell, near Moffat, cold ; Tunbridge, in Kent, cold ; Bath, in Gloucestershire, thermal.

Saline. In these we have salts such as sulph.-soda, sulph.-magnesia, &c. They are mostly purgative. They are given in constipation, to restore the healthy action of the bowels, and help digestion. Examp. : Seidlitz, in Bohemia, cold ; Epsom, in Surrey, cold ; Leamington, in Gloucestershire, cold.

Sulphureous. These owe their character to hydrosulphuric acid, free, and combined with soda, lime, &c. They have rather a disagreeable odour. Their action is stimulant and diaphoretic. They are given in chronic skin diseases, chronic rheumatism, chlorosis, amenorrhœa, secondary syphilis, and dyspepsia hinging on disordered action of the liver. Examp. : Moffat and Strathpeffer, cold ; Aix-la-Chapelle, thermal ; Harrogate, cold.

Acidulous. These are characterised by the presence of carbonic acid gas, with various salts of soda, lime, &c. They have an acid taste, and sparkle on being poured. They are stimulant and diuretic, and are given in dyspepsia, in dropsy with debility, in chlorosis, and deposit of phosphate in the urine. They stimulate considerably, but transiently, the nervous and vascular system. Examp. : Seltzer, cold ; Spa, cold ; Scarborough, cold ; Carlsbad, thermal.

There are a number of thermal springs which owe their virtues apparently to their temperature ; for they contain but an insignificant amount of solid matter. Such are Matlock, Buxton, Wildbad, Aix-en-Provence.

Argenti Nitras. Nitrate of Silver. Ag O, NO^5 .

Charact.—In colourless tabular right-rhombic prisms, or in white cylindrical rods ; soluble in dist. water, and in rectified spt.

Actions and uses.—Caustic and tonic. It is a corrosive poison, but its action is prevented considerably by the chloride of sodium, and mucus of the stomach, which decompose it. The antidote is chloride of sodium. It is an excellent caustic, its corrosive action being mild, yet effectual, and not attended

with protracted pain. Used for corroding warts, corns, and other small growths, and for keeping down on sores their redundant granulations. It has a stimulant and alterative action; hence it is found to improve or render more healthy various constitutional ulcers, such as chancre, venereal ulceration of the throat, and strumous or syphilitic ulcers of the cornea. Applied either in solution or the solid form to these, they more quickly assume a healing bias. Indolent ulcers also put on a more healthy aspect after an acquaintanceship with it. A strong solution, or the solid rod, painted over the involved part, and a little beyond, has at times arrested external spreading inflammation, such as erysipelas and erythema, and at other times failed. In relaxed sore-throat with enlarged tonsils and uvula, in purulent and gonorrhœal ophthalmia, a rather strong solution, gr. v. to x. to the ounce, is of signal service; and a weaker solution, gr. ij. to v. to the ounce, is equally beneficial in acute conjunctivitis. Skin diseases, as ringworm, eczema, impetigo, are sometimes benefited by it, and good results flow from its use, in the form of injection, in purulent discharges from the urethra and vagina. Its utility is doubtful in stricture of the œsophagus, and that of the urethra. Good has been done in croup (early stages), and inflammation of the mucous membrane of the larynx, by a solution, applied with a piece of sponge on a curved flexible rod; but the practice of injecting it into the bronchial tubes, as has been done in chronic bronchitis, is open to various objections. As a tonic, nitrate of silver cannot be placed high. In gastrodynia it sometimes does a little good, in phthisis less, and in hysteria not more. In the convulsive disorders, epilepsy and chorea, it seems to act specifically, and with frequent benefit; but there is now a decided reluctance to its use, owing to the fact that ere success can be achieved, an unfading bluish-grey tint is imparted to the patient's skin, rendering him, as he walks abroad, an ugly spectacle, and the cynosure of many eager eyes. The period required to produce this colouration is sometime variable; but a few months have sufficed. There is no known method of prevention or cure as yet, the iodide of

potassium, even in the appalling doses of the Brussels doctor, having failed. Dose, gr. $\frac{1}{4}$ to ij.

Formula for tonic purposes. R Argenti nitratis gr. ij. ; pulveris aromatici gr. xij. ; extracti taraxaci gr. xxx. M. Divide in pilulas duodecim, quarum capiat unam bis die.

Incompatibles.—Ordinary water ; lime water ; alkalies and their carb. ; most acids, including hydrocyanic ; iodid ; potassium ; astringent infusions.

Argenti Oxidum. Oxide of Silver. Ag O.

Charact.—An olive-brown powder, which at a low red heat gives off O, and is reduced to the metallic state. Slightly soluble in water.

Actions and uses.—Tonic, and may be given in the same diseases as the nitrate, but it is more inert. Dose, gr. ss. to ij.

Armoracia. Horseradish Root.

Cochlearia Armoracia Linn. The fresh root ; cultivated in Britain. N. F. Cruciferae.

Charact.—Long, cylindrical, white, sweetish, hot, acrid ; when scraped gives off a pungent odour.

Actions and uses.—A warm stimulant, given chiefly along with other drugs to modify their nauseating effect ; and in some cases of dyspepsia. At one time employed as an antiscorbutic. As a sialogogue in paralysis of the tongue it is next to worthless.

Spiritus.—Horse-radish \bar{z} xx. ; bitter orange peel \bar{z} xx. ; nutmeg \bar{z} ss. ; proof spt. cong. j. ; water Oij. Mix and distil a gallon. Dose, \bar{z} j. to \bar{z} iv.

Arnica. Arnica Root.

Arnica montana Linn. The root dried ; collected in middle and southern Europe. N. F. compositae.

Charact.—A contorted, cylindrical root-stock, 1 to 3 in. long, and 2 to 3 lines thick, rough from the scars of the coriaceous leaves, and furnished with many long slender fibres ; has a peppery taste.

Actions and uses.—Leopard's bane has been loudly, and

perhaps rather undeservedly panegyricized, especially by homœopathists, who have alleged it to possess the most varied and wonderful properties. It has been given as a stimulant in low fevers, in chronic rheumatism, paralysis, amaurosis, amenorrhœa, and nervous headache; and it sometimes does good in the latter. Dose, powder of the root gr. x. thrice daily.

Tinctura.—Arnica root, powder ℥j.; rect. spt. Oj.; macerate 48 ho., then percolate, and add spt. to make Oj. Dose, ℥ss. to ℥ij.

Assafœtida. Assafœtida.

Narthex Assafœtida. A Gum resin, obtained by incision from the living root, in Affghanistan and the Punjaub. N. F. Umbelliferæ.

Charact.—In irregular masses and tears. Colour when fresh cut opaque white, but gradually becoming purplish-pink, and then pinkish-brown. Taste bitter, acrid; odour fetid, alliaceous, and persistent. Dissolves almost entirely in rectified spt.

Analysis.—Resin and volatile oil (on which its properties depend,) gum, bassorin, saline matter, &c.

Actions and uses.—A powerful stimulant and antispasmodic. It is a diffusible stimulant, exciting the nervous and vascular system, and pervading quickly the entire secretions. It is given chiefly in hysteria, where it is of great service, and in chorea, amenorrhœa, and dysmenorrhœa, but with more variable success. It should be given in pretty full doses in hysterical cases, both during the paroxysm and interval. As a carminative whether by the mouth or rectum, it gets rid of flatulence very effectually. As a diuretic it is not much to be depended on; as an anthelmintic it is entitled to more confidence. A great bar to its wider employment is its abominable odour and taste; but this has been taken advantage of in the treatment of malingerers, and those more afflicted with whim than disease; mixtures well impregnated with it serving to stave them off for a time. Dose, gr. x. to gr. xx.

Enema.—Tinct. assaf. f̄vi.; mucilage of starch f̄vi. M.

Pilula aloes et assafœtidæ.—Soc. aloes ʒj.; assaf. ʒj.; hard soap ʒj.; confect. roses ʒj. M. Divide into 5 gr. pills. Dose, gr. x. to xx.

Pilula. Assaf. co. Assaf. ʒij.; galbanum ʒij.; myrrh ʒij.; treacle ʒj. M. Divide in 5 gr. pills. Dose, gr. x. to xx.

Tinctura.—Assaf. ʒijss.; rectified spt. Oj.; macerate 7 days, filter, strain, and add spt. to make Oj. Dose, f̄ʒss. to f̄ʒij.

Atropia. Atropia.

An alkaloid, C³⁴, H²³, NO⁶, obtained from Belladonna Root.

Charact.—In colourless acicular crystals, sparingly soluble in water, more readily in alcohol and ether. Its solution in water gives a citron-yellow precipitate with terchloride of gold, has a bitter taste, and powerfully dilates the pupil.

Prep.—See British Pharm.

Actions and uses.—An active poison, and, in consequence, not well adapted for internal use. It has been pretty extensively employed in diseases of the eye; a drop on the lower lid of a solution of the strength named below dilating the pupil extensively, in from ten to twenty minutes, and the enlargement abiding for two or three days. It possesses several advantages over the extract; such as, greater efficacy, cleanliness, freedom from irritation and pain, and the absence of redness or eruption on the eyebrow. It should be cautiously used; for if the proper quantity be much exceeded, symptoms of poisoning might be set up.

Solution of Atropia for the eye. Atropia gr. j.; acid nitric. dil. min. j.; sp. vini rect. min. iij.; aqua dest. f̄ʒj. M. One drop with a camel's-hair pencil on the lid, or in the eye. Another formula is: ℞ Atropiæ sulph. gr. j.; aq. dest. f̄ʒiv. M. A full drop in the eye, as before.

Liquor.—Atropia gr. iv.; spt. rect. f̄ʒj.; dist. water f̄ʒvij. Mix the spt. and water, and dissolve the atropia in the mixture. This may be also used for dilating the pupil.

Unquentum. Atropia gr. viij.; rect. spt. f̄ʒss.; prep. lard ʒj. M.

Aurantii Aqua. Orange-flower Water.

Citrus bigaradia, the bitter orange-tree, and *citrus aurantium*, the sweet orange-tree. N. F. *Aurantiaceæ*.

The distilled water of the flowers; prepared mostly in France.

Charact.—Nearly colourless, fragrant. Not coloured by sulphuretted hydrogen.

Actions and uses.—Used as an agreeable vehicle for other remedies. In France it is looked on as anodyne, and it seems occasionally to induce sleep in hysteria. Dose, ℥j. to ℥ij.

Syrupus Aurantii Floris.—Orange-flower water, f℥viiij.; refined sugar lb.iiij.; dist. water f℥xvi. Dissolve the sugar, with heat, in the water; add when nearly cold the orange-flower water, and make up to lb.ivss. with dist. water. Dose, f℥j. to f℥iv.

Aurantio Cortex. Bitter Orange-Pill.

Critus Bigaradia Risso. The outer part of the rind, dried; from the ripe fruit imported from the south of Europe.

Uses.—Feeble tonic; used chiefly for its agreeable flavour.

Infusum.—Orange peel ℥ss.; boiling dist. water f℥xx.; infuse 15 minutes. Dose, f℥j. to f℥ij.

Syrupus.—Tinct. orange peel f℥j.; syrup f℥vij. M. Dose, f℥ss. to f℥j.

Tinctura.—Bitter orange peel ℥ij.; proof spt. Oj. macerate 18 ho., percolate and strain. Dose, f℥j. to f℥iij.

Balsamum Canadense.

See *Terebinthina Canadensis*.

Balsamum Peruvianum. Balsam of Peru.

Myrospermum Pereiræ Royle. Mat. Med. N. F. *Leguminosæ*. A balsam, obtained from the stem by incision, from Salvador in Guatemala.

Charact.—A reddish-brown treacle-like fluid, with a balsamic odour, and an acrid, slightly bitter taste; soluble in 5 parts of rect. spt.

Actions and uses.—A stimulating expectorant of no great

power, occasionally given in chronic bronchitis. Dose, min. xx. to xl.

Balsamum Tolutanum. Balsum of Tolu.

Myrospermum toluiferum DC. N. F. Leguminosæ. A balsam obtained from the stem by incision; from the mountains of Tolu, in New Granada.

Charact.—A soft and tenacious solid, with a balsamic odour; soluble in rect. spt.

Actions and uses.—A stimulating expectorant like the preceding, but rather more efficacious. Owing also to its somewhat agreeable flavour, it is a useful adjunct to pectoral mixtures. Dose, gr. x. to xxx.

Syrupus.—Bals. tolu. $\bar{z}j\frac{1}{4}$; refined sugar ℥iij .; dist. water Oj. Boil the balsam in the water for half an-hour. Filter the solution when cold, add the sugar, and dissolve with the aid of a steam or water-bath. The product should weigh ℥iij . Dose, $f\bar{z}ss.$ to $f\bar{z}j.$

Tinctura.—Bals. tolu $\bar{z}ijss.$; rect. spt. Oj. Macerate until the balsam is dissolved, and filter; add spt. to make Oj. Dose, $f\bar{z}ss.$ to $f\bar{z}ij.$

Tinctura.—Benzoini composita. Benzoin $\bar{z}ij.$; prepared storax $\bar{z}jss.$; bals. tolu $\bar{z}ss.$; soc. aloes gr. clx.; rect. spt, Oj. Macerate 7 days, Dose, $f\bar{z}ss.$ to $f\bar{z}ij.$

Beberix Sulphas. See Nectandra.

Bela. Bael.

Ægle Marmelos D. C. N. F. Aurantiaceæ.

The half-ripe fruit, dried; from Malabar and Coromandel.

Charact.—Fruit roundish about the size of a large orange, with a hard woody rind; usually imported in dried slices. Rind about $1\frac{1}{2}$ lines thick, covered with a smooth greyish epidermis, and internally, as well as the dried pulp, of a brownish-orange or cherry-red colour.

Actions and uses.—Demulcent and astringent, and useful in diarrhœa and dysentery.

Extractum Belæ Liquidum. See Brit. Ph. Dose, $f\bar{z}ss.$ to $f\bar{z}j.$

Belladonnæ. Belladonna.

Astropa Belladonna Linn. Deadly nightshade. N. F.

Solanaceæ. The leaves fresh and dried, and the fresh branches ; gathered when the fruit has begun to form, from wild or cultivated plants in Britain.

Charact.—Leaves alternate, 3 to 6 inches long, ovate, acute, entire, smooth, the uppermost in pairs and unequal. The expressed juice, dropped into the eye, dilates the pupil.

Analysis.—Atropia, malic acid, pseudotoxin and phytocolla, starch, wax, gum, salts, &c.

Action and uses.—Narcotic, anodyne, calmative, antispasmodic. In large doses it is an active poison, the effects being dryness and constriction of the throat, difficult deglutition, attempts at vomiting ; and then delirium, gay or absurd, with dilatation of the pupil, and blunting or suspension of common sensibility, coma, and death. The treatment is emetics, cold to the head, active cathartics, ammonia internally and externally, stimulants. In small doses, it has been employed as an anodyne in convulsive, spasmodic, and neuralgic diseases. It has done good in tic-doloureux, in nervous irritability, muscular rheumatism, dysmenorrhœa, painful glandular swellings, spasm of the sphincter ani, and spasmodic stricture of the urethra ; but in epilepsy and hooping-cough it has not been very successful. The grand idea, in our opinion, is, to carry on the internal and external use of the drug, (as in neuralgia, rheumatism, spasm of the sphincter ani, stricture of the urethra,) simultaneously. Not very long ago, it was deemed a prophylactic of scarlatina ; this opinion is now completely exploded. Applied in the neighbourhood of the eye, belladonna produces dilatation of the pupil ; hence it is useful in the operation for cataract, in iritis to avert or break down adhesions between the iris and lens, and to facilitate the examination of the posterior chamber of the eye. Externally, in the form of ointment or plaster, it is an admirable application in external neuralgia, though not uniformly successful ; and for chordee, orchitis, and hemorrhoids. Dose, of the powdered leaves gr. j. increased gradually.

Emplastrum.—Extract. bellad. ℥iij. ; soap plaster ℥jss. ; resin plaster ℥jss. M.

Extractum.—See Brit. Pharm. This is more used than the powder. Dose, gr. $\frac{1}{4}$. increased gradually to gr. ij.

Tinctura.—Bellad. leaves \bar{z} j.; proof spt. Oj. Macerate 48 ho. Percolate, and add spt. to make Oj. Dose, min. x. to xxx.

Unguentum.—Extract. bellad. gr. lxxx.; prep. lard \bar{z} j. M.

Belladonnæ Radix. Belladonna Root.

Atropa Belladonna Linn. The root, dried; imported from Germany.

Charact.—One to two feet long, and from one half inch to two inches thick; brownish-white, branched and wrinkled. An infusion dropt into the eye dilates the pupil.

Actions and uses.—The root possesses the powerful narcotic properties of the leaves. It is used only for preparing atropia, and the liniment.

Atropia.—See *Atropia*.

Linimentum.—Bellad. root, powder \bar{z} xx.; camphor \bar{z} j.; rect. spt. \bar{z} xxx. Macerate with a portion of the spt. seven days, then percolate. The product should be a pint. Useful in neuralgic and rheumatic pains. A formula for this purpose is: R Linimenti belladonnæ f \bar{z} ij.; chloroformi f \bar{z} j.; lini-menti opii ad f \bar{z} ij. Misc.

Benzoinum. Benzoin.

Styrax Benzoin, D. C. N. F. Ebenaceæ. A resinous exudation from the stem; imported from Siam and Sumatra.

Charact.—In lumps consisting of agglutinated tears, or of a brownish mottled mass, with or without white tears imbedded in it; gives off, when heated, fumes of benzoic acid; has little taste, but a pleasant odour, and is soluble in rectified spt.

Actions and uses.—Stimulant and expectorant. Has an old and extensive popular, but not professional, reputation, in chronic coughs. The compound tincture, named "Friar's Balsam," is what is usually employed; and it has a sort of name as an application to wounds and bruises.

Tinctura Benzoini Composita.—Benzoin \bar{z} ij.; prep. storax \bar{z} jss.; balsam tolu \bar{z} ss.; soc. aloes gr. clx.; rect. spt. Oj. Macerate seven days. Dose, f \bar{z} ss. to f \bar{z} ij.

Acidum Benzoicum. See *Acidum Benzoicum*.

Bismuthum Album. White Bismuth. $\text{Bi O}^3, \text{NO}^5$.

Charact.—A heavy white powder in minute crystalline scales, blackened by sulphuretted hydrogen, insoluble in water.

Actions.—Tonic; and perhaps possessing a slightly sedative effect on the nerves of the stomach. It is given, and often with considerable benefit, in dyspepsia, with irritability of the stomach, pain after meals, vomiting, and pyrosis, in the absence of organic disease. It should be given in pretty large doses, and its utility is increased by washing it down with an ounce or so of infusion of calumba, or chamomile. It does less good in atonic dyspepsia, with deficient gastric secretion, seemingly not having so much of a tonic as of a soothing virtue. It occasionally does service in the diarrhoea of nervous females. Two drachms have produced the symptoms of inflammation of the alimentary canal; but as some specimens have contained arsenic, this potent poison must have been the cause. Dose, gr. x. to xxx. twice or thrice daily.

Trochisci.—Each lozenge contains gr. ij. white bismuth.

Borax. Borax.

Biborate of Soda. $\text{Na O}, 2 \text{BO}^3 + 10 \text{HO}$.

Charact.—In transparent colourless crystals, sometimes slightly effloresced, with a weak alkaline reaction; insoluble in rectified spt., soluble in water.

Actions and uses.—Astringent, antilithic, emmenagogue. As an astringent it is used externally in the shape of lotion, gargle, or electuary, for aphthous ulceration of the mouth and throat, chapped nipples, mercurial salivation, and some skin diseases; such as ringworm, and pityriasis. For these latter a solution in vinegar, gr. xxx. to the ounce, is employed. The mel boracis is well adapted for the sore mouth of children. As an antilithic it does not stand very high, but it does at times correct the uric acid deposit. As an emmenagogue it often fails; but when it does stimulate the uterus, it is with considerable vigour. Like ergot, to which, however, it is inferior, it exerts most power over the active uterus; hence

any good we obtain from it is got during labour, or about a menstrual period; and given at this latter time we occasionally obtain fair results in scanty menstruation. Dose, gr. xx. to xl.

Mel Boracis.—Borax, powder, gr. lxiv.; clarified honey ℥ij. M. In aphthæ and ulcers of the mouth, and in ptyalism.

Bucco. Buchu.

1. *Barosma betulina*; 2. *Barosma crenulata*; 3. *Barosma serratifolia*. N. F. Rutaceæ. The dried leaves; imported from the Cape of Good Hope.

Charact.—Smooth, marked with pellucid dots at the indentions and apex; having a powerful odour, and a camphoraceous taste, and leave a sense of coldness in the mouth.

Analysis.—A yellowish-brown volatile oil (the active part,) gum, resin, &c.

Actions and uses.—A stimulating and very diffusive diuretic. While exciting the kidneys to increased action, it has also a tonic effect on the genito-urinary mucous membrane. It is of service in chronic mucous discharges from the bladder, in incontinence resulting from prostatic disease, and in irritability of the bladder. The natives of the Cape use it in the form of a spirit for chronic rheumatism, and the powdered leaves as a vulnerary in wounds and other injuries. In catarrh of the bladder, I think most good will be obtained by a combination of buchu and uva ursi.

Infusum.—Buchu ℥ss.; boiling dist. water f℥x. Infuse an hour, and strain. Dose, f℥j. to f℥ij.

Tinctura.—Buchu ℥ijss.; proof spt. Oj. Macerate 48 ho.; percolate; add proof spt. to make Oj. Dose, f℥j. to f℥iij.

Cajuputi Oleum. See *Oleum Cajuputi*.

Calcis Carbonas Præcipitata. Precipitated Carbonate of Lime. Ca O, Co^2 .

Charact.—A white crystalline powder, insoluble in water, dissolving in HCl with effervescence.

Actions and uses.—Antacid, and in virtue of this, astringent. Useful in acidity of the stomach, with diarrhœa, and well adapted for children. It is used externally in bed-sores,

erysipelas, and some simple cutaneous diseases. A solution in water by means of an excess of CO_2 ("Carrara water") is very useful as a drink in dyspepsia with acidity and flatulence. Preparations of lime should not be given where there is a tendency to deposit of phosphates in the urine. Dose, gr. x. to \bar{z} ij.

Mistura Cretæ.—Prep. chalk $\bar{z}\frac{1}{4}$; gum arabic powder $\bar{z}\frac{1}{4}$; syrup f \bar{z} ss.; cinnamon water f \bar{z} vijss. M. Dose, f \bar{z} j. to f \bar{z} ij. In simple diarrhœa.

Calcis Phosphas Præcipitata. Precipitated Phosphate of Lime. 3 Ca O, PO^5 .

Charact.—A light white amorphous powder, insoluble in water, but soluble without effervescence in dilute nitric acid.

Pulvis Antimonialis.—See Antimonii Oxidum.

Calomelas, Calomel.

Subchloride of Mercury, $\text{Hg}^2 \text{ Cl}$.

Charact.—A dull-white heavy and nearly tasteless powder, rendered yellowish by trituration in a mortar; insoluble in water, spirit, or ether. Digested with solution of potash it becomes black; and the clear solution, acidulated with nitric acid, gives a copious white precipitate with nitrate of silver.

Actions and uses.—Irritant, alterative, antiphlogistic or sedative, diuretic, cathartic, diaphoretic, cholagogue, sialogogue; and not more varied in its properties and applications than useful in its results. When introduced into the system, it is reduced into the metallic state; and in large doses it does not always destroy as an irritant, but by the induction of intense salivation and extreme nervous prostration. As a sedative or antiphlogistic it is given in doses of from gr. x. to xx. with benefit in the dysentery and cholera of warm climates; and in smaller doses, with a little opium, it is of signal service in acute internal inflammations, such as peritonitis, pleuritis, pericarditis, hepatitis, metritis, &c. As a diuretic it acts best along with others, such as digitalis or squills, and seems to increase their activity. It is an excellent cathartic alone in small doses—increasing the biliary secretion; and combined

with other cathartics such as jalap or scammony, its action is all the more effectual and certain. It is thus an excellent vermifuge for children, killing and expelling the parasites from the intestines. As a diaphoretic, it is most energetic along with a little opium, and is thus given in febrile affections. As an alterative, it is given in small doses, frequently repeated, (and with a little opium to prevent it draining away by the bowels,) in the syphilitic taint; and on the development of its constitutional action an improvement of the system often times results. Children are not so susceptible to the action of this drug as adults. Dose, gr. j. oft repeated as an alterative; gr. iij. to vj. cathartic; gr. iij. frequently, antiphlogistic; gr. xx. sedative.

Pilula Calomelanos Composita.—Calomel ℥j; sulphurated antimony ℥j.; guaiac resin powder ℥ij.; castor oil ℥j. M. Make into 5 gr. pills. "Plummer's Pill." Given in secondary syphilis. There is a gr. of calomel in each pill.

Unguentum.—Calomel gr. lxxx.; prep. lard ℥j. M.

Incompatibles.—Alkalies and carbonates; chlor. sod.; lime water; nitric and hydrochloric acid; iodide of potassium, sulph. hydrogen, soaps, &c.

Calumba. Calumbo.

Cocculus palmatus D. C. N. F. Menispermaceæ.

The root, sliced transversely, and dried; from Mozambique.

Charact.—Slices flat, somewhat circular, about 2 inches in diameter, and from 2 to 4 lines thick, softer and thinner towards the centre, greyish-yellow, bitter. A decoction when cold is blackened by a solution of iodine.

Analysis.—A crystalline bitter neutral principle, calumbin starch, volatile oil, gum, wax, &c.

Adulterations.—The root of *bryonia epigœa*, and that of *Frasera Walteri* (false calumba,) have been sold for the true. The former has an acrid bitter taste, the latter is known by its infusion becoming dark-green, on the addition of a sesqui-salt of iron, an infusion of the true root remaining unchanged.

Actions and uses.—An admirable bitter tonic, and free of astringency. Of service in dyspepsia, with defective tone,

irritability, and diminished secretion. In vomiting, apart from inflammatory or organic disease, it is often very useful. This anti-emetic action is probably due to the calumbin, which possesses slightly sedative properties. In the advanced stages of diarrhoea and dysentery, with want of tone and debility, good results, at times, follow its use. Dose, gr. x. to xxx.

Extractum.—See Brit. Pharm. An excellent tonic. Dose, gr. v. to xv.

Infusum.—Calumbo ʒss.; cold dist. water fʒx. Macerate one hour, and strain. Dose, fʒj. to fʒij.

Tinctura.—Calumbo ʒijss.; proof spt. Oj. Macerate 48 ho., percolate, add spt. to make up Oj. Dose, fʒj. to fʒij.

Incompatibles—Iodine, nitrate of silver, and acetate of lead.

Calx. Lime. Ca O.

Charact.—In light lumps, externally dirty-white colour, white within. Used for making officinal preparations.

Calcis Hydras. Slaked Lime.—Lime recently burned lbij.; dist. water Oj. Pour the water on it, and set aside to cool. Pass through an iron-wire sieve; keep in a well-stopped bottle. Used for the liquor calcis.

Linimentum.—Solution of lime fʒij.; olive oil fʒij. M. Commonly called carron oil. Very useful in recent scalds and burns.

Liquor Calcis.—Slaked lime ʒij.; dist. water cong. j. Antacid, and serviceable in dyspepsia with heartburn and irritability of the stomach. In diarrhoea it will sometimes answer well when more powerful remedies fail. In the vomiting, and irritability of the stomach of infants, a little often repeated during the day enables them to retain their milk better, promoting also its digestion. As an antilithic it does good by correcting acidity and forming the soluble lithate of lime. It may be given in poisoning with oxalic, hydrochloric, and nitric acids. Dose, fʒj. to ʒiv. The use of it should be occasionally suspended.

Liquor saccharatus.—Slaked lime ʒj.; refined sugar ʒij.; dist. water Oj. This is a stronger solution, but in some

constitutions it does not answer well, concretions of carbonate of lime forming in, and constipating the bowel. Dose, \bar{z} ss. to \bar{z} ij.

Incompatibles.—Vegetable and mineral acids; metallic and alkaline salts; ant. tart.; and most vegetable infusions and decoctions.

Calx Chlorata. Chlorinated Lime.

Hyochlorite of lime, Ca O, Cl O, with chloride of calcium, and a variable amount of hydrate of lime. ("Bleaching Powder.")

Charact.—A dull-white powder, with a feeble odour of chlorine; partially soluble in water.

Actions and uses.—Irritant, astringent, stimulant, antiseptic. As an astringent it is used externally, in the form of solution, gr. x. to xx. to the ounce, in skin diseases, such as ringworm, lepra, psoriasis, and scabies, and with decided benefit in the latter. It is employed also as an astringent and stimulant in dysentery and continued fever; but while good has been often obtained in the former (where it may also be given in the form of enema,) the results in typhus have been extremely variable. As an antiseptic it possesses in a high degree the power of annihilating fetid effluvia, and arresting animal decay, a property depending on its power of decomposing the noxious gases generated and evolved during the process of decomposition. It is thus of great service in gangrenous and foul ulcers, in the fetid breath of mercurial salivation, venereal ulceration of the throat and mouth; as an injection in the fetor of malignant disease of the uterus, and that from the bowel in dysentery. In the ulcerations referred to, it seems not only to correct their repulsive odour, but by its astringent action disposes them to heal. In the sick-room it is much employed as a disinfectant. Dose, gr. ij. to gr. v. in $f\bar{z}$ ss. syrup. aurant., or simple syrup. For external use in solutions, varying from gr. x. to xxx. in $f\bar{z}$ j. of water. These should be strained. A useful formula for a gargle is: \bar{R} Calcis chloratæ \bar{z} ij.; aquæ \bar{z} ix.; solve et cola, dein adde, syrupi florum

aurantii f̄vj ; syrup zingiberis f̄ij. Misc. Fiat liquor, quo gingivas sæpè gargarizet.

Liquor Calcis Chloratæ.—Chlorinated lime lbj. ; dist. water cong. j. Mix well, and shake occasionally during three hours. Strain through a calico filter.

Incompatibles.—Sulphuric acid and its salts ; oxalates ; the alkalies, and all soluble carbonates.

In poisoning with it, give emetics and albuminous liquids.

Cambogia. Gamboge.

An undetermined species of garcinia. N. F. Guttiferæ. The gum-resin ; imported from Siam.

Charact.—In tawny-coloured cylinders, breaking easily with a smooth conchoidal fracture ; yellow when rubbed with moisture ; taste acrid. Forms an emulsion with water.

Analysis.—From 68 to 75 per ct. of resin (gambogic acid,) soluble gum, and a trace of woody fibre.

Actions and uses.—Irritant, and drastic cathartic, and errhine. In doses of gr. lx. it has killed, the effects being inflammation and ulceration of the alimentary tract. In small doses it is a drastic and hydragogue cathartic, producing copious watery stools. Given alone, and especially if not in very fine powder, it occasions very severe tormina ; it is therefore better to combine with it other cathartics, such as scammony or jalap, when it will operate as a safe and effectual hydragogue, and may be given in anasarca and other dropsies. Along with an alkali it is said to be diuretic ; but we possess better remedies than it for acting on the kidneys. Dose, gr. ij. to v.

Pilula Cambogiæ Composita.—Gamboge ʒj. ; barb. aloes ʒj. ; aromatic powder ʒj. ; hard soap ʒij. ; syrup, a sufficiency. M. Make into five gr. pills. Cathartic. Dose, gr. x. to gr. xx.

In poisoning with gamboge, give demulcent drinks, and enemata ; small doses of opium and warm bath.

Camphora. Camphor.

Camphora officinarum. N. F. Lauracæ. A concrete volatile oil, obtained from the wood by sublimation, and re-sublimed in bell-shaped masses ; imported from China.

Charact.—White, translucent, tough, and crystalline; has a powerful penetrating odour, and a pungent taste followed by a sensation of cold; floats on water; volatilizes slowly at ordinary temperatures; is slightly soluble in water, but readily soluble in rectified spirit and in ether.

Actions and uses.—Narcotic and irritant, sedative, expectorant, antispasmodic, diaphoretic, stimulant. There is considerable contrariety of opinion in regard to the actions of this drug, but its most notable effect is, that of a diffusible stimulant. Large quantities have a kind of intoxicating effect, occasioning giddiness, dimness of vision, confusion of ideas, and delirium, with increased frequency of the pulse, stupor, and convulsions. The amount necessary for the production of these effects varies very much in different individuals; and it is this variable and fluctuating action, due perhaps to a widely-prevailing idiosyncrasy, which has given rise to the dubiety that exists in regard to its operation. As a stimulant, it is given with benefit in the advanced stages of continued fever, when nervous symptoms, such as subsultus tendinum, watchfulness, and delirium exist; where it seems also to exercise a sedative influence. It is given, but with poor results, as an expectorant in catarrh; as an anodyne or sedative with fair results in gout and rheumatism; in painful diseases of the urinary organs, and dysmenorrhœa. Decided benefit is obtained in the nervousness and irritability following some cases of labour, especially combined with an opiate. Externally in the form of the liniment, camphor is useful as a stimulant and anodyne application in rheumatic pains, enlarged glands, and bruises; and the spirit is one of the best remedies for allaying the heat and itching of chilblains. Two other virtues are popularly assigned to camphor when attached in a bag to the person, namely, that of warding off contagious diseases, and checking the secretion of milk! There is reason to fear that such a belief is destitute of foundation. Dose, gr. v. to x. in the form of pill; or it may be given suspended in water with mucilage or syrup.

Aqua.—Camphor \bar{z} ss; dist. water cong. j. Enclose the

camphor in a muslin bag in the water, invert the jar, and stand for 2 days.

Linimentum.—Camphor ʒj.; olive oil f ʒiv. M.

Lin. Camph. Co.—Camphor ʒijss.; English oil, lavend. f ʒj; strong. sol. ammon f ʒv; rect. spt. f ʒxv. M.

Lin. Saponis.—See Sapo Durus.

Spiritus.—Camphor ʒj; rect. spt. f ʒix. M.

Tinct. Camph. cum Opio.—Opium in coarse powder gr. xl.; benzoic acid gr. xl.; camphor gr. xxx.; oil anise f ʒss; proof spt. Oj. Macerate 7 days; filter, and add proof spt. to make Oj.

Cannabis Indica. Indian Hemp.

Cannabis Sativa Linn. N. F. Urticaceæ. The flowering tops of the female plant from which the resin has not been removed, dried; cultivated in India.

Charact.—Tops consisting of one or more alternate branches, bearing the remains of the flowers and smaller leaves, and a few ripe fruits, pressed together in masses which are about two inches long, harsh, of a dusky-green colour, and a characteristic odour. Different parts of the plant are known in India under the names Gunjah, Bhang, and Hachish.

Analysis.—Cannabin, a resin on which its properties depend, and developed only in warm countries: a small quantity of volatile oil, extractive, &c.

Actions and uses.—Narcotic, antispasmodic. Long used in India as an intoxicant, but introduced into practice in this country only twenty-five years ago, after a notice of its alleged virtues, by a Calcutta physician. During this period it has become better, but we can hardly affirm more favourably, known. Like alcohol, it produces a variety of effects on different individuals. In one a dull heavy state of pleasant reverie, with a rapid succession of unconnected ideas: in another a cheerful activity, with giddiness, and a tendency to talk, sing, laugh, or dance. It alleviates pain and subdues spasm, and for this purpose it has been given, but with extremely variable results (it may be owing to inert specimens of it,) in neuralgia, chronic rheumatism, painful

menstruation, infantile convulsions, hydrophobia, and tetanus. In the latter disease a few have apparently been effected; but in a multitude more it has been utterly impotent. In some cases of uterine hemorrhage it has been of service as a change from opium. It may be given to procure sleep.

Extractum.—Indian hemp lb.j. ; rect. spt. Oiv. Macerate seven days, press out the tincture; distil off the spirit, and evaporate by a water-bath to a proper consistence. Dose, gr. $\frac{2}{3}$ increased gradually to gr. iij.

Tinctura.—Ext. Indian hemp \bar{z} j. ; rect. spt. Oj. Dissolve. Each \bar{z} j. contains rather more than gr. ij. of ext. Dose, min. xx. to min. xl. gradually increased; and in mucilage or syrup, not in water.

Cantharis. Cantharides.

Cantharis vesicatoria. Class, insecta; order, coleoptera. The beetle, dried; collected in Russia, Sicily, and Hungary.

Charact.—From eight to ten lines long, furnished with two wing-covers of a shining metallic-green colour, under which are two membranous transparent wings; odour strong and disagreeable; powder greyish-brown, containing shining green particles. Test.—Should be free from mites.

Analysis.—Cantharidine (a white crystalline substance, on which the activity of the article depends); a yellow-fat oil, a green concrete oil; uric, acetic, and phosphoric acids; salts, &c.

Actions and uses.—A stimulating diuretic, and in some cases aphrodisiac. In large doses it is a dangerous poison, producing inflammation of the alimentary canal, and of the urinary organs, (with strangury, bloody urine, priapism); delirium, convulsions, and coma. About gr. xx. have proved fatal. These bad effects are to be met by emetics, mucilaginous drinks, blood-letting, opiates, by the mouth, and in the form of enema. Benefit is derived from it, in cautious doses, in leucorrhœa; in gleet it is not so successful; and more barren still are the results in amenorrhœa, paralysis of the bladder, and incontinence of urine. In dropsy depending on cardiac disease we will frequently obtain benefit from it: in chronic

skin diseases it is next to a failure. For external use it is a consequential drug, owing to its excellent vesicating power. Applied to the skin it occasions, in the course of from four to ten hours, an effusion of serum between the cuticle and the true skin, or in briefer terms, a blister. This effect is produced with considerable uniformity, and without inducing much pain. Where the skin, as in a few cases, resists their action, a sinapism before, or a poultice after, will promote it. Blisters are used as derivatives, or counter-irritants, in a number of diseases; such as inflammation of the brain and medulla spinalis, acute and chronic; in diseases of the chest and abdomen; in tic-doloureux, and sciatica. As a vascular stimulant, too, much benefit is derived from a blister over indolent and specific tumours, such as buboes, dropsical effusions, effusions into joints, strumous abscesses, and over the surface of old and indolent ulcers, and chronic pustular eruptions. They are in frequent use also as excitants in the coma of typhoid fever, cholera, and apoplexy. Lastly, they are in daily use for maintaining a continuous discharge from issues, and for removing the cuticle for endermic applications. They should be used with caution in young persons, or in the old, and those attenuated and exhausted by disease, as dangerous sloughing is apt to be induced. Dose, gr. ss. to ij. in the form of pill; but the powder is rarely prescribed.

Emplastrum Cantharidis.—Cantharides in fine powder \bar{z} xij.; yellow wax \bar{z} vijss.; prepared suet \bar{z} vijss.; resin \bar{z} ij.; prepared lard \bar{z} vj. Liquefy the wax, suet, and lard together, by a water bath, and add the resin previously melted; then remove them from the bath, and a little before they solidify, sprinkle in the cantharides, and mix thoroughly. This is used for producing a blister; it is spread with a cold spatula, or the thumb, on leather, or adhesive plaster. It will act with more vigour and certainty if a small portion of the flies is dusted on the surface, and then rubbed or pressed in with a spatula or the thumb, as before. Ten hours generally suffices to produce vesication; and on removal of the blister the elevated cuticle may be cut: the inflamed part should then be dressed with

a little ung. simp. and a layer of raw cotton; a speedy healing being thus ensured. If wished, the surface may be kept raw by a dressing of ung. sabinæ, or ung. cantharid.

Emplastrum Calefaciens.—Cantharid. \bar{z} iv.; boiling water Oj.; expressed oil of nutmeg \bar{z} iv.; yellow wax \bar{z} iv.; resin \bar{z} iv.; soap plaster lb. iij $\frac{1}{4}$.; resin plaster lb. ij. Infuse the canth. in the boiling water six hours; squeeze through calico, and evaporate the expressed liquid by a water bath till reduced to one-third; then add the other ingredients, and melt in a water bath, stirring well until all is thoroughly mixed. A rubefacient plaster; useful in chronic bronchitis.

Linimentum.—Cantharid. powd. \bar{z} viiij.; acetic acid f \bar{z} iv.; ether Oj. Macerate the canth. in the acid 24 ho.; place in a percolator, and allow the ether to pass slowly through till f \bar{z} xx. are obtained. A blistering liniment.

Tinctura.—Cantharides in coarse powder \bar{z} $\frac{1}{4}$.; proof spt. Oj. Macerate 48 ho.; percolate, filter, and add spt. to make Oj. This is the preparation chiefly employed internally. Dose, min. x. to xl.

Unguentum.—Canth. \bar{z} j.; yellow wax \bar{z} j.; olive oil f \bar{z} vj. M. Rubefacient, and for keeping issues open.

Strangury occasionally results from the external use of flies; when it does so, small doses of pu. ipecac. cum op. in barley water, is of service. The blistering-paper, tela vesicatoria, to be had in the chemists' shops, is less liable to cause strangury.

Capsicum. Capsicum.

Capsicum fastigiatum. N. F. Solanaceæ. The ripe fruit, dried; imported from the coast of Guinea, and from the East and West Indies.

Charact.—Pod membranous, 5 to 8 lines long, 2 lines broad, conical, orange-red, corrugated, intensely hot in taste.

Actions and uses.—This aromatic and hot condiment is stimulant, tonic, and an epispastic. Given occasionally in dyspepsia with want of appetite, and defective secretion. Seldom used as a counterirritant, but at times in coma. Most commonly employed in gargles, for relaxed sore-throat, and cynanche maligna. Dose, gr. j. to v. in pill.

Tinctura.—Capsicum, bruised, $\bar{z}\frac{3}{4}$; rect. spt. Oj. Macerate 48 ho.; percolate, filter; add spt. to make Oj. Dose, min. xx. to f \bar{z} j.

Carbo Animalis Purificatus. Purified Animal Charcoal.

Bone black, deprived of its earthly salts.

Charact.—A black pulverulent substance.

Uses.—A useful decolorizing agent, and of service in many chemical processes; but little used in medical practice.

Carbo Ligni. Wood Charcoal.

Wood charred by exposure to a red heat without access of air.

Charact.—In black, brittle, porous masses, tasteless, odourless, very light, and retaining the form and texture of the wood whence it was obtained, insoluble in water.

Uses.—Antiseptic. Employed chiefly in the form of poultice to destroy the fetor of gangrenous sores and phagedenic ulcers; and as a dentifrice it corrects the odour from carious teeth, and fetid breath. Internally it has been given in dysentery to improve offensive evacuations; and to correct the fetid eructations, and flatulence of some cases of dyspepsia. Here, along with a tonic and aperient, it is often beneficial, and is perhaps entitled to increased consideration. Dose, gr. x. to xxx.

Cataplasma.—Wood charcoal, powder \bar{z} ss.; bread \bar{z} ij.; linseed meal \bar{z} jss.; boiling water f \bar{z} x. For foul sores.

Formula for dyspepsia, with flatulence and fetid eructations.
 R̄ Pulveris cinchonæ. F. gr. lx.; pulveris calumbæ gr. lx.;
 pulveris rhei gr. xxxvi; pulveris carbonis ligni gr. cxx.
 Misce. Divide in pulveres duodecim, quarum sumatur una
 ter in die.

Cardamomum. Cardamoms.

Elettaria Cardamomum. The Malabar Cardamom. N. F. Zingiberaceæ. The seeds, contained in their capsules, which are to be removed when the seeds are employed; cultivated in Malabar.

Charact.—Seeds obtusely angular, corrugated, reddish-

brown, internally white, with a warm aromatic taste and odour.

Uses.—An agreeable aromatic stimulant, and carminative. Chiefly employed as an adjunct to, and corrective of other medicines.

Pulvis Aromaticus.—See Cinnamon.

Tinctura Cardamomi Composita.—Cardamoms, bruised, $\bar{z}\frac{1}{4}$; caraway bruised $\bar{z}\frac{1}{4}$; raisins freed from their seeds \bar{z} ij.; cinnamon, bruised \bar{z} ss.; cochineal in powder gr. lx.; proof spt. Oj. Proceed in the usual way. Dose, f \bar{z} j. to \bar{z} ss.

Carui. Caraway.

Carum Carui Linn. N. F. Umbelliferæ. The fruit, dried; cultivated in England.

Uses.—An aromatic carminative. A corrective of other medicines.

Aqua.—Caraway, bruised, \bar{z} xx.; water cong. ij.; distil one gallon. Dose, f \bar{z} j. to \bar{z} ij. Given in the flatulent colic of children.

Carui Oleum.—See Oleum Carui.

Caryophylli Oleum.—See Oleum Caryophylli.

Caryophyllum. Cloves.

Caryophyllus aromaticus Linn. N. F. Myrtaceæ.

The unexpanded flower-bud, dried; cultivated in Penang, Bencoolen, and Amboyna.

Uses.—Stimulant, and in large doses irritant, especially the oil. Used in medicine chiefly as a corrective of other drugs, as in the griping of some of the gum-resins; A drop of the oil in the cavity of a carious tooth sometimes relieves toothache.

Infusum.—Cloves, bruised $\bar{z}\frac{1}{4}$; boiling dist. water f \bar{z} x. Infuse $\frac{1}{2}$ ho. and strain. Dose, f \bar{z} j. to f \bar{z} ij.

Pulvis Aromaticus.—See Cinnamon.

Cascarilla. Cascarilla.

Croton Eluteria. N. F. Euphorbiaceæ. The bark; from the Bahama Islands.

Charact.—In quills 2 to 3 in. long, 2 to 5 lines in diameter, dull-brown, but coated with white crustaceous lichens; warm and bitter to the taste; emitting a fragrant odour when burned.

Analysis.—A bitter neutral crystalline principle cascarillin; tannin, albumen, fatty matter, gum, volatile oil, resin, pectic acid, salts, &c.

Adulterations.—Copalchi bark, from the croton pseudo-china, a native of Mexico, has been substituted for it. The quills are much longer than those of the true, are more covered with white lichens, and have no transverse cracks.

Actions and uses.—An aromatic tonic, but of no great power. It is used chiefly along with other tonics, in chronic diarrhoea and dyspepsia. As a febrifuge it is not successful, and cannot be relied on in intermittent fever. Dose, gr. xx. to xl.

Infusum.—Cascarilla \bar{z} j.; boiling dist. water f \bar{z} x. Infuse an hour. Dose, f \bar{z} j. to f \bar{z} ij.

Tinctura.—Cascarilla \bar{z} ijss.; proof spt. Oj. Proceed as usual. Dose, f \bar{z} j to f \bar{z} ss.

Cassia. Cassia Pulp.

Cassia Fistula Linn. Purging Cassia. N. F. Leguminosæ. The pulp of the pods; imported from the East Indies.

Uses.—A mild laxative, and an ingredient of the conf. sennæ.

Confectio Sennæ.—See Senna.

Castoreum. Castor.

Castor Fiber Linn. The Beaver. Class Mammalia order Rodentia. The preputial follicles and their secretion, dried, separated from the somewhat shorter and smaller oil-sacs which are frequently attached to them; from the Hudson's Bay Territory.

Charact.—Follicles in pairs about 3 in. long, fig-shaped, brownish, containing a dry resinous reddish-brown odorous secretion, in great part soluble in rectified spt. and ether.

Actions and uses.—Antispasmodic, but of no great power.

Some few believe it useful in the milder forms of hysteria.
Dose, ℥j.

Tinctura.—Castor ℥j.; rect. spt. Oj. Macerate seven days; filter. Dose, f ℥j. to ℥iij.

Catechu Nigrum. Black Catechu.

Acacia Catechu. N. F. Leguminosæ. An extract of the heartwood; imported from Pegu.

Charact.—In masses consisting of layers, enveloped in rough leaves, blackish-brown, shining and heavy, bitter, and extremely astringent.

Catechu Pallidum. Pale Catechu.

Uncaria Gambir. An extract of the leaves and young shoots; prepared at Singapore, and in the Eastern Archipelago.

Charact.—In cubes, or masses formed of coherent cubes; the former about an inch in diameter, externally brown, internally pale brick-red; breaking easily with a dull earthy fracture. Taste bitter, very astringent.

Analysis.—Tannin and catechuic acid.

Actions and uses.—An excellent astringent. Employed with benefit to check increased mucous discharges; such as chronic diarrhœa, dysentery, chronic catarrh, cystirrhœa, leucorrhœa, and gleet. It is perhaps fully more beneficial in the former, than in the latter, three affections; and in the two first named it is often usefully combined with a little opium. Relaxed mucous membranes get firmer under its use, and passive hemorrhage from the intestines is checked. For most, if not all, of the foregoing complaints, however, we will obtain better results from either tannin or gallic acid. As a topical application it is useful in chapped nipples, aphthous ulcerations of the mouth, chronic cynanche tonsillaris, elongated uvula, congestion, and sponginess of the gums. For these purposes it may be applied in the form of lotion, gargle, or powder. Dose, gr. x. to ℥j. in powder.

Infusum.—Catechu gr. clx.; cinnamon gr. xxx.; boiling dist. water f ℥x. Infuse half-an-hour. Dose, f ℥j. to f ℥iij.

Pulvis Catechu Compositus.—Catechu ℥iv.; kino ℥iij.; rhat-

any ℥ij.; cinnamon ℥j.; nutmeg ℥j. Mix well, and pass through a fine sieve. Dose, ℥ss. to ℥j.

Tinctura.—Catechu ℥ijss.; cinnamon ℥j.; proof spt. Oj. Proceed as usual. Dose, f℥j. to f℥ij.

Trochisci.—Catechu, sugar, gum, tinct. capsic., and water. A useful astringent for clearing the voice of public speakers and singers.

Cera Alba. White Wax.

Yellow wax, bleached by exposure to moisture, air, and light. British, and imported.

Cera Flava. Yellow Wax.

Apis Mellifica Linn. The hive bee. The prepared honeycomb. British, and imported.

Uses.—Emollient. Used chiefly for making ointments, plasters, and suppositories.

Unguentum Simplex.—White wax ℥ij.; prep. lard ℥iij.; almond oil f℥iij. M. A simple, cooling dressing.

Cerevisiæ Fermentum. Beer Yeast.

The ferment obtained in brewing beer.

Uses.—Has been recommended as a stimulant in typhoid fever, but appears to do little good. There are better carminatives for tympanitis; and it is not equal to the charcoal poultice as an application to foul sores. As an application to recent bruises, spread on lint, it does seem to promote restoration. Dose, f℥ss. every three or four hours, in a little camphor water.

Cataplasma Fermenti.—Beer yeast f℥vi.; flour ℥xiv.; water, heated to 100°, f℥vi. Mix the yeast with the water, and stir in the flour. Place the mass near the fire till it rises. For foul sores, rather a painful poultice.

Cetaceum. Spermaceti.

Physeter Macrocephalus Linn. The sperm whale, inhabiting the Pacific and Indian oceans. Nearly pure cetine, separated by cooling and purification from the oil contained in the head.

Charact.—Crystalline, pearly-white, glistening, little taste or odour, reducible to powder by addition of a little rect. spt.

Uses.—Demulcent, but seldom used internally; chiefly for ointments.

Unguentum Cetacei.—Spermaceti ℥v.; white wax ℥i.; almond oil Oj. Melt with a gentle heat, and stir till it solidifies. A cool and emollient dressing for raw surfaces.

Cetraria. Iceland Moss.

Cetraria Islandica. N. F. Lichenaceæ. The entire lichen; native of the north of Europe.

Charact.—Foliaceous, lobed, crisp, cartilaginous, brownish-white, paler beneath, bitter, and mucilaginous. A strong decoction gelatinizes on cooling.

Analysis.—Two starchy matters, lichenin and inulin, a bitter principle, cetrarin; two acids, lichestearic and lichenic acids, sugar, gum, salts, &c.

Actions and uses.—A feeble tonic, possessing also nutritive properties. Formerly had rather a high reputation as a tonic and restorative in exhausting diseases, such as phthisis, but experience has led many to doubt or deny this. Its tonic property depends on the cetrarin, which is said to have done good in ague. As an antiscorbutic, it is not very much confided in.

Decoctum Cetrariæ.—Iceland moss ℥j.; dist. water Ojss.; wash the moss to remove impurities; boil it with the dist. water for ten minutes in a covered vessel, and strain while hot. The product should measure about a pint. Dose, f℥j. to f℥iv.

Chirata. Chiretta.

Ophelia Chirata D. C. N. F. Gentianaceæ. The entire plant; collected in Northern India, when the fruit begins to form.

Charact.—Stems about three feet long, of the thickness of a goose-quill, round, smooth, pale-brown, branched; branches opposite; flowers small, numerous paniced; the whole plant intensely bitter.

Actions and uses.—An extremely bitter tonic. Useful in dyspepsia with constipation, owing to its possessing also slightly laxative properties, and an influence on the biliary secretion. As a febrifuge it may be employed where quinia cannot be had.

Infusum Chiratae.—Chiretta $\bar{z}\frac{1}{4}$.; dist water at 120° , $f\bar{z}x$.
Infuse half-an-hour. Dose, $f\bar{z}j$. to $f\bar{z}ij$.

Tinctura.—Chiretta $\bar{z}ijss$.; proof spt. Oj. Make in the usual way. Dose, $f\bar{z}j$. to $f\bar{z}ij$.

Chlori Liquor. Solution of Chlorine.

Chlorine gas dissolved in half its volume of water, and constituting 0.006 of the weight of the solution.

Charact.—A yellowish-green liquid, smelling strongly of chlorine, and immediately discharging the colour of a dilute solution of sulphate of indigo. Sp. gr. 1.003.

Actions and uses.—Irritant, stimulant, astringent, and a disinfectant. In large quantities it is an irritant poison, exciting inflammation of the alimentary canal. As a stimulant—some say tonic—it has been given in typhus and typhoid fever; failing in some types, and achieving fair results in others. As an astringent, it has been extensively employed in the form of inhalation in phthisis and chronic bronchitis; in many cases diminishing, and in a few others, entirely drying up the sputa, especially in the latter disease. Water weakly impregnated with chlorine, and kept at a temp. of about 100° , is used for this purpose. The results obtained, we think, quite warrant a revival of the practice, which has fallen into disuetude in this quarter. Externally, in a dilute form, chlorine water has been applied to foul ulcers, chronic skin diseases, and as a gargle in cynanche maligna. It is alleged to have the power of counteracting the poison of rabies, but this is open to doubt. As a disinfectant, we have spoken of it under Chlor. Lime. Dose, $f\bar{z}ss$. to $f\bar{z}ij$.

Incompatibles.—Nitrate of silver; acetate of lead.

In poisoning, give albumen, and milk.

Chloroformum. Chloroform, $C^2 HCl^3$.

Charact.—A limpid colourless liquid, of an agreeable

ethereal odour, and sweet taste. Mixes with alcohol and ether in all proportions; and dissolves slightly in water, communicating to it a sweetish taste. Burns, though not readily, with a green and smoky flame.

Prep.—Chlorinated lime lbx.; rect. spt. f \bar{z} xxx.; slaked lime a sufficiency; water cong. iij.; sulphuric acid a sufficiency; chloride of calcium, in small fragments \bar{z} ij; dist. water f \bar{z} jx. Place the water and spt. in a capacious still, and raise the mixture to the temp. of 100°. Add the chlor. lime, and lbv. of the slaked lime, mixing thoroughly. Connect the still with a condensing worm encompassed by cold water, and terminating in a narrow-necked receiver; and apply heat so as to cause distillation, taking care to withdraw the fire the moment that the process is well established. When the distilled product measures \bar{z} l., the receiver is to be withdrawn. Pour its contents into a gallon bottle, half filled with water, mix well by shaking, and set at rest for a few minutes, when the mixture will separate into two strata of different densities. Let the lower stratum, which constitutes crude chloroform, be washed by agitating it in a bottle with \bar{z} ij of the dist. water. Allow the chloroform to subside, withdraw the water, and repeat the washing with the rest of the dist. water in successive quantities of \bar{z} ij. at a time. Agitate the washed chloroform for five minutes in a bottle, with an equal volume of sulphuric acid; allow the mixture to settle, and transfer the upper stratum of liquor to a flask containing the chlor. calc., mixed with \bar{z} ss. of slaked lime, which should be perfectly dry. Mix well by agitation. After the lapse of an hour, connect the flask with a Liebig's condenser, and distil over the pure chloroform by means of a water bath. Preserve the product in a cool place, in a bottle with an accurately ground stopper.

Actions and uses.—Narcotic, stimulant, sedative, antispasmodic, anæsthetic. In large doses it is a narcotic poison, producing profound coma, and death from syncope, or from asphyxia. In medicinal doses it is sedative and antispasmodic, and has been given in tetanus, hydrophobia, hysteria, cancerous diseases, painful digestion, chronic vomiting, neuralgia,

asthma, and spasmodic cough. In all of these diseases, with the exception of the first two, excellent results will often be obtained. In irritable cough especially, and some cases of hysteria, decided benefit almost invariably accrues. As an external application, well diluted, chloroform is useful in neuralgia and muscular rheumatism; but far inferior to opium, belladonna, or aconite; and it subdues the itching, if it does not promote the cure, of some skin diseases, such as lichen, prurigo, and urticaria. Such are some of the uses and applications of chloroform, and if we were to stop here, it would occupy but a comparatively humble position in the category of sedative drugs; but it has another property of a higher kind, which has won for it a name and unrivalled fame throughout the civilized world, namely, that of inducing insensibility to pain. For its introduction for this purpose, we are indebted to the distinguished Professor of Midwifery in the University of this city, whose early labours and experiments in connection with it, entitle him to the gratitude of mankind. As an anæsthetic, then, it stands *per se*, and unequalled; no previous or subsequent one being so safe, speedy, or effectual. When inhaled in doses of from $f\zeta ss.$ to $f\bar{\zeta}ss.$ coma is produced, generally in a few minutes, with stertorous respiration, upturning and fixing of the eyes, muscular relaxation, unconsciousness, and insensibility to pain. The pulse is sometimes stronger, at other times weaker and quicker. This comatose condition is preceded by a variety of feelings, sensations, and manifestations on the part of the patient, such as ringing in the ears, fulness in the head, dizziness, agreeable ideas and sights, change in the colour of objects. In some there is a tendency to laughter and calm repose, in others, to sonorous talk and turbulence. The state of insensibility lasts, in general, about ten minutes, but may be prolonged much further; after this, there is a revival of consciousness and sensibility with mayhap no recollection of what passed, and often neither sickness, headache, or exhaustion. Some few do not tolerate it well, excessive depression of the heart's action resulting; but it is not easy to say what are the conditions

which contra-indicate it. I have administered it frequently without any apparent bad effects in phthisical patients, and some where there were suspicions, if not more, of cardiac disease, and I know that that is the experience of not a few. It is better, however, to be very chary and cautious in these cases, and the pulse and respiration—which in the soundest patient demand the strictest vigilance—should be observed with increased care. If the former become weak and the latter irregular, it is better to suspend its use. In some few, the tongue becoming powerless, falls backward, threatening asphyxia; in these cases it is grasped, and pulled forwards, and the process of stupefaction may be carried on as before. When death is threatened, either from an overdose or constitutional peculiarity, a current of cold air should be directed across the face, cold water applied to the head and chest, ammonia held to the nostrils; and artificial respiration resorted to if required. On the partial revival of the patient, internal stimulants may be given. The therapeutical applications of chloroform, in the form of inhalation, may almost be inferred from the foregoing remarks: wherever a painful operation has to be borne, there will it be found a boon. For the prevention of pain, then, during surgical operations, it is in daily use; and there are some cases, such as dislocations, strangulated hernia, and catheterism in spasmodic stricture, where it serves a twofold purpose, namely, that of a relaxant, as well as a prophylactic of pain. The exceptions to its use during surgical operations are few; those about the mouth and nose are unfavourable to it, owing to the risk of blood flowing into the air passages while the patient is insensible. Further, in midwifery practice, chloroform has been of incalculable service, not more in the way of banishing the pain of natural labour, than of facilitating interference in that which is not natural. I need only name the forceps, version, craniotomy, and the cæsarian section (which, however, is a rare thing in this part of the world); to shew its utility and value. Dose, internally in the fluid form, min. v. to xxx. in a glass of mucilage or syrup. For anæsthetic purposes, from fʒj. to ʒij. is

poured on a handkerchief hollowed somewhat like a cup, and inhaled by the mouth and nostrils—the handkerchief being brought gradually into contact with the face, the patient lying on his back, with head slightly elevated.

Linimentum.—Chloroform f ʒij: liniment of camphor f ʒij. Mix.

Spiritus Chloroformi.—Chloroform f ʒj.; rectified spt. f ʒxix. Dissolve. Dose, min. xx. to xl.

Cinchona Flava. Yellow Cinchona Bark.

Cinchona Calisaya. N. F. *Cinchonaceæ*. The bark; collected in Bolivia and Southern Peru.

Charact.—In flat pieces, deprived of the periderm, rarely in coated quills, from 6 to 18 in. long; 1 to 3 in. wide; 2 to 4 lines thick, compact and heavy; outer surface brown, marked by broad shallow irregular longitudinal depressions; inner surface tawny-yellow, fibrous. Powder cinnamon-brown, somewhat aromatic, and persistently bitter.

100 grains yield about two gr. quinia, or more than the other two.

Cinchona Pallida. Pale Cinchona Bark.

Cinchona Condaminea. The bark; collected about Loxa, in Ecuador.

Charact.—From half a line to a line thick, in single or double quills, from 6 to 15 inches long, 2 to 8 lines diam.; outer surface brown and wrinkled, or grey and speckled with adherent lichens, with or without numerous transverse cracks; inner surface bright orange, or cinnamon-brown; powder pale-brown, slightly bitter, very astringent.

200 grs. yield 2 gr. of alkaloids.

Cinchona Rubra. Red Cinchona Bark.

Cinchona Succirubra. The bark; collected on the western slopes of Chimborazo.

Charact.—In flat, or incurved pieces, less frequently in quills, coated with the periderm, from a few inches to 2 feet long, 1 to 3 in. wide, 2 to 6 lines thick; outer surface reddish-

brown, rarely whitened by lichens, wrinkled longitudinally, often warty, and crossed by deep transverse cracks; inner surface redder; powder red-brown, taste bitter and astringent.

100 grs. yield about 2 grs. of alkaloids.

Analysis.—Four alkaloids, viz. quinia, cinchonia, quinidinia, and aricina, in union with three acids, kinic or cinchonic, kinovic, and tannic; with two colouring matters, cinchonic yellow and red; fatty matter, kinate of lime, a trace of volatile oil, starch, gum, &c. The medicinal virtues of the bark are owing to the first three alkaloids, and especially the quinia.

Adulterations.—Bark is mixed with inferior, yet true kinds, and with various false barks. Three are named,—Piton bark, Caribbean, and Pitaya; the last only being encountered in British commerce. They have all a mawkish bitter taste, non-aromatic. The Pitaya bark is in thin quills, grayish-yellow externally, blackish-brown internally. Red saunderswood is sometimes mixed with the powdered barks; it may be discovered by agitating the doubtful sample with ether; if adulterated, the ether will acquire a saffron colour, but not if the bark be pure. Various tests are employed to discover the most efficacious and valuable barks. According to Berzelius, the most efficient happen to contain most tannin; therefore, those which in infusion give the largest precipitate with solution of gelatine, and with antim. tart., ought to be preferred.

Actions and uses.—Astringent, antiseptic, and a powerful tonic and antiperiodic. As an astringent and antiseptic, it is employed topically to correct the discharge and fetid odour of foul ulcers and gangrenous sores, but is inferior to charcoal or the preparations of chlorine. As a tonic it is very widely used for imparting tone, and aiding digestion in functional disorders of the stomach, and to restore nervous tone and muscular strength where these have been undermined by protracted disease, or exhausting discharges. There are some cases of dyspepsia attended with pain, feeling of weight at the stomach, and irritability, yet not based on organic disease, which, so far from improving under it, seem rather to be aggravated. They are soon found out; for almost the first

dose, as well as successive ones, intensifies these symptoms. Cinchona cannot be called a febrifuge, having no power in the way of arresting continued, or eruptive fevers; it possesses, however, an unfailing influence in periodic fevers, and therefore antiperiodic is the more correct title. It will destroy the condition, or chain of conditions, on which ague and remittent fever depend, almost as certainly as opium will induce sleep, or croton oil catharsis. It is given in full doses during the stage of intermission or remission. In periodic neuralgia, headache, and rheumatism, it is also of great service; but here, the sulphate of beberia, or iron, will answer equally well. As a constitutional remedy in gangrene or erysipelas, it is not now much trusted in. The therapeutic virtues of the bark exist unimpaired in the alkaloid quinia; but where a tonic effect merely is desiderated, it is better to abide by the former. Dose of the powder, which, however, is not often prescribed; tonic, gr. x. to xl.; antiperiodic, gr. lx. to cxx. every two or three hours.

Quiniæ Sulphas.—See *Sulphate of Quinia*.

Decoctum Cinchonæ Flavæ.—Yellow cinchona bark ℥j.; dist. water Oj. Boil ten minutes in a covered vessel. Strain, when cold, through calico; add dist. water to make up to f℥xvi. Dose, f℥ss. to ℥jss.

Extractum Cinchonæ Flavæ Liquidum.—See Brit. Pharm. Dose, min. xx.

Infusum Cinchonæ Flavæ.—Yellow bark ℥ss.; boiling dist. water f℥x. Infuse two hours, and filter through paper. Dose, f℥j. to ℥ij.

Tinctura.—Cinch. flav. yellow bark ℥iv.; proof spt. Oj. Macerate 48 ho.; percolate, and add spt. to make Oj. Dose, f℥j. to f℥iij.

Tinct. Cinch. Co.—Pale bark ℥ij.; bitter orange peel ℥j.; serpentary ℥ss.; saffron gr. lx.; cochineal gr. xxx.; proof spt. Oj. Proceed as before. Formerly called Huxham's tincture. Dose, f℥j. to f℥ss.

Cinnamomi Oleum. See *Oleum Cinnamomi*.

Cinnamomum. Cinnamon.

Cinnamomum Zeylanicum. N. N. Lauraceæ. The inner bark of shoots from the truncated stock; imported from Ceylon.

Charact.—In closely rolled yellowish-brown quills, 1-5th line thick, 4 lines diameter.

Uses.—An aromatic stimulant; used chiefly as an agreeable addition to more active drugs. Dose, powder, gr. x. to xxx.

Aqua.—Cinnamon, bruised ℥xx.; water cong. ij.; distil cong. j.

Pulvis Aromaticus.—Cinnamon ℥iv.; nutmeg ℥ij.; saffron ℥ij.; cloves ℥jss.; cardamoms, freed from capsules ℥j.; refined sugar ℥xxv. Powder, and mix well, and pass through a fine sieve. A corrective of, and agreeable addition to other medicines, such as cathartic and tonic powders. Dose, gr. v. to xx.

Tinctura.—Cinnamon ℥ijss.; proof spt. Oj.; make in the usual manner. Dose, f ℥j. to f ℥ij.

Tinctura Lavandulæ Composita.—See *Oleum Lavandulæ.*

Cocculus. *Cocculus Indicus.*

Anamirta Cocculus. N. F. Menispermaceæ. The fruit dried; produced in Malabar and the Eastern Archipelago.

Charact.—In blackish-brown, slightly ovate peas, wrinkled, containing a yellowish, oily, bitter reniform seed, enclosed in a two-valved shell; the seed should fill at least two-thirds of the shell.

Analysis.—A white crystalline acid named picrotoxin, a fatty acid, resin, gum, &c.

Actions and uses.—Stimulant, but an energetic poison, occasioning giddiness, delirium, convulsions, and coma. From trials made, I rather think, this drug will not prove of much utility internally in the treatment of disease. It has hitherto been employed, and with success, in the form of ointment for eczema and ringworm.

Unguentum Cocculi.—Seeds of *cocculus indicus* gr. lxxx.; prepared lard ℥j. Beat the seeds well in a mortar, and rub them with the prepared lard.

Coccus. Cochineal.

Coccus Cacti Linn. Class Insecta, order Hemiptera,

The female insect, dried; reared in Mexico and Teneriffe.

Charact.—Ovate, plano-convex, about 2 lines long, wrinkled, black or greyish-white; yields, when crushed, a puce-coloured powder. The greyish-white insect quickly becomes black when warmed before the fire.

Uses.—Said to be an antispasmodic and anodyne, and popularly employed as such in whooping-cough; but it seems somewhat ineffectual. In neuralgia, for which it has been recommended by some, I have not seen it of the slightest service.

Tinctura Cocci.—Cochineal ℥ijss.; proof spt. Oj; Macerate 7 days. Dose, f ℥ss. to f ℥ij. Useful for colouring mixtures, &c.

Colchici Cormus. Colchicum Corm.

Colchicum Autumnale Linn. N. F. Melanthaceæ. Meadow Saffron. The fresh corm; collected about the end of June, and the same stripped of its coats, sliced transversely, and dried at a temp. not exceeding 150°. Indigenous.

Charact.—About the size of a chesnut, flattened on one side, where it has an undeveloped bud; furnished with an outer brown, and an inner yellow coat; internally white; solid and fleshy; yielding when cut a milky acrid and bitter juice. Dried slices about a line thick, moderately indented on one side, rarely on both, firm, flat, whitish, amylaceous.

Colchici Semen. Colchicum Seed.

Colchicum Autumnale Linn. The seed, fully ripe.

Charact.—About the size of black mustard seed, very hard reddish-brown.

Analysis.—The cormus contains an uncrystallizable alkaloid called veratria, combined with gallic acid, starch, gum, &c. The seeds contain a compound, brown resinous-looking mass, named colchicia, from which a neutral crystalline principle, colchicerine, has more lately been obtained.

Actions and uses.—Irritant, cathartic, diuretic. In large doses, gives rise to vomiting, purging, burning pain of the

throat, pain, sensation of fulness, and heat about the abdomen ; thirst, and intense depression of the circulation, death taking place from exhaustion, the result of inflammation of the intestines, and preceded occasionally by delirium, stupor, and insensibility. When these effects are present, they are to be met by demulcent drinks and tannic acid ; and for the coma, if present, brandy, ammonia, and other stimulants. In medicinal doses, one of the most tangible effects is catharsis, yet colchicum is never given as a cathartic, owing to the other disagreeable concomitants. It has also a sedative effect on the circulation, yet we seldom seek its aid in this way, and for a similar reason. It is a diuretic, too, but uncertain, and not to be trusted. Despite of these drawbacks, it is an indispensable drug, and that owing to its influence over gout and gouty rheumatism. Here again, then, we have a drug on which we can depend : we know that almost as certainly as chloroform will produce anæsthesia, colchicum will alleviate the paroxysm, and abbreviate the fit of gout. Its use, however, is not unattended with evil. In some, not by any means in all cases, nay, we rather think in only a few, the employment of it induces irregular or atonic gout,—a serious matter indeed ! The kind of rheumatism in which it is beneficial, is that supposed to be blended with gout, and jumping about from one small joint to another. It may be given during the paroxysm or after the fit ; during its operation the quantity of urea in the urine is increased. Small doses should be begun with, owing to its variable effect on different individuals ; it ought then to be gradually pushed on until its physiological action is developed ; this, in the majority of instances, but assuredly not in all, being necessary for successful therapeutic action. Dose, powder of the corm gr. i. to v. ter quaterve die.

Extractum Colchici.—See Brit. Pharm. Dose, gr. ss. to gr. j. frequently.

Extractum Colchici Aceticum.—See Brit. Pharm. Dose, gr. ss. to gr. j.

Vinum Colchici.—Colchicum corm \bar{z} iv. ; sherry Oj. Macerate 7 days, strain through calico ; pour on the marc sufficient

sherry to make Oj.; press, strain, and mix the fluids. Dose min. xx. gradually increased to f ʒij.

Tinctura.—Colchicum seed ʒijss.; proof spt. Oj. Make in the usual way. Dose, min. xx. carefully increased to f ʒij.

Collodium. Collodion.

Pyroxylin $C^{36}, 8 \text{NO}^4 \left. \begin{matrix} H^{22} \\ \end{matrix} \right\} O^{30}$, dissolved in ether, mixed with 1-3rd of its volume of rect. spt.

Charact.—A colourless highly inflammable liquid with ethereal odour, which dries rapidly on exposure to air, and leaves a thin transparent film; insoluble in water or rect. spt.

Uses.—Has been applied over recent wounds to facilitate union by the exclusion of dirt and air. It is of little use as an application to burns, skin diseases, and small-pox pustules.

Colocynthis. Colocynth.

Citrullus Colocynthis. N. F. Cucurbitaceæ. The dried decorticated fruit, freed from the seeds; imported chiefly from Smyrna, France, and Spain.

Charact.—Light spongy, yellowish-white, intensely bitter.

Analysis.—A bitter principle colocynthin, to which it owes its purgative property; resin, gum, salts, &c.

Actions and uses.—Irritant and cathartic. The effect of a poisonous dose of "bitter apple," is inflammation of the mucous membrane of the intestines. It is a powerful hydragogue cathartic, but owing to its severity, it is invariably combined with other medicines, as in the compound pill, the form most commonly prescribed. The extract of hyoscyamus is an excellent corrective of its griping tendency, preventing it also from irritating the rectum. It may be usefully given in habitual constipation, passive dropsies, and as a revulsant in cerebral congestion. The powder sprinkled on a raw surface will induce catharsis. Dose, powder gr. ij. to viij., but rarely given.

Extractum Colocynthis Compositum.—See Brit. Ph. Dose gr. v. to x.

Pilula Colocynthis et Hyoscyami.—Colocynth powder ʒj.;

barb. aloes \bar{z} ij.; scammony \bar{z} ij.; sulphate of potash $\bar{z}\frac{1}{4}$.; oil of cloves $f\bar{z}$ ij.; ext. of hyoscyamus \bar{z} ij.; dist. water, a sufficiency. M. Divide into 5 gr. pills. Dose, g. v. to xx.

Pilula Colocynthis Composita.—Colocynth \bar{z} j.; barb. aloes \bar{z} ij.; scammony \bar{z} ij.; sulph. potash $\bar{z}\frac{1}{4}$.; oil of cloves $f\bar{z}$ ij.; dist. water, a sufficiency. M. Divide into 5 gr. pills. Dose, gr. v. to xv.

Conii Fructus. Hemlock Fruit.

Conium Maculatum Linn. Spotted Hemlock. N. F. Umbelliferæ. The ripe fruit; dried.

Charact.—Broadly ovate, compressed laterally; half-fruit, with five waved or crenated ridges.

Conium. Hemlock.

Conium Maculatum. N. F. Umbelliferæ. The fresh leaves and branches of wild British plants, gathered when the fruit begins to form; and the leaves dried in the sun, or at a temp. not exceeding 120°.

Charact.—Fresh leaves tripinnate, smooth, arising from a smooth stem with dark purple spots; dried leaves of a full green colour and characteristic odour. The leaf rubbed with caustic gives out strongly the odour of conia.

Analysis.—The leaves and fruit contain an alkaloid conia, which is the active principle. It is a colourless oily liquid, sp. gr. 0.89, and possessing a penetrating, disagreeable odour, and very acrid taste. It is a very energetic poison. It may be obtained by distilling the leaves with caustic potash. There is also present, albumen, resin, a volatile odorous principle, salts, &c.

Actions and uses.—Sedative and hypnotic. It is a poison in large doses, exhausting the nervous force of the spinal chord and voluntary muscles, and giving rise to general paralysis of the muscles, and arrestment of respiration. Slight twitches and tremors of the muscles have been observed, but no convulsions, nor coma. The treatment in cases of poisoning is the administration of emetics, stimulants internally and externally, and tannin. Hemlock is not very much used in practice. As a sedative and anodyne in neuralgia, gangrene,

scirrhus uterus, asthma, chronic catarrh, and hooping-cough, it seems hardly equal to opium, belladonna, &c.; and as a deobstruant and alterative, for which it was recommended in enlarged glands, enlarged liver and spleen, malignant ulcers, secondary syphilis, and chronic skin diseases, it has proved very much a failure. Externally, in the form of poultice, however, it alleviates the pain of cancerous and other ulcerations. Dose of the powdered leaves (not a good form,) gr. v. to x.

Tinctura.—Hemlock fruit \bar{z} ijss.; proof spt. Oj. Macerate 48 hours, then percolate, and add spt. to make Oj. Dose, min. xxx.

Cataplasma Conii.—Hemlock leaf, powder \bar{z} j.; linseed meal \bar{z} ijj.; boiling water f \bar{z} x. Mix the hemlock and meal, add them to the water gradually, constantly stirring.

Extractum Conii.—See Brit. Ph. Dose, gr. ij. to v.

Succus Conii.—Bruise hemlock leaves in a stone mortar; press out the juice, and to every three measures of juice add one of rect. spt. Set aside for seven days; filter, and keep in a cool place. One of the best preparations of hemlock. Dose, min. xx. to xl., increased carefully.

Conia is not in the Brit. Ph. It is a very powerful sedative, 1-50th to 1-30th of a gr. being the dose. If one gr. be dissolved in f \bar{z} ij. of water, the dose would be min. iij.

Formula in spasmodic cough. R Succi conii f \bar{z} ijj.; liquoris morphiae hydrochloratis f \bar{z} ijj.; spiritus chloroformi f \bar{z} ss.; syrapi f \bar{z} vi. Misce. Fiat mistura, cujus capiat cochleare parvum ter in die.

Copaiba. Copaiva.

Copaifera multijuga; and other species of copaifera. N. F. Leguminosæ. The oleo-resin, obtained from the trunk by incision; chiefly from the province of Para, in Brazil.

Charact.—About the consistence of olive oil, clear, light-yellow, with a peculiar odour, and an acrid aromatic taste.

Analysis.—41 per cent. of volatile oil, 51 per cent. of hard yellow resin (copaivic acid,) 2 of brown soft resin, and about 5 of water.

Adulterations.—Oil of turpentine, distilled oil of the gurjun balsam, castor oil, rape oil, poppy-seed oil. The pure is perfectly soluble in rect. spt. Dissolves $\frac{1}{4}$ th of its weight of carb. magnesia by the aid of heat, and remains transparent. Heating on a spatula will detect the odour of turpentine. The presence of fixed oil is detected by "a greasy areola surrounding the spot of resin, left on gently evaporating, over the flame of a lamp, a drop or two of the doubtful balsam on unsized paper.

Actions and uses.—Diuretic, cathartic, and a special stimulant or tonic to the mucous membranes, and especially the genito-urinary membrane. It is never given as a cathartic or as a diuretic, because it possesses a disagreeable taste and odour, and we have better ones at hand. It stands pre-eminent, however, as a remedy in urethral inflammation, with muco-purulent discharge, gonorrhœa being almost infallibly cured by it. Some believe it to be contra-indicated in the acute stage, but this is not altogether correct: it is only when the inflammation is unusually intense that it ought to be withheld. Leucorrhœa is not much benefitted by copaiva, and chronic bronchitis less. In chronic catarrh of the bladder, however, it has done good, and also in chronic dysentery. In not a few cases it occasions considerable vomiting and purging, and a cutaneous eruption, resembling urticaria. During its use, the urine of the patient, when heated, presents a milky aspect, resembling albuminous urine; but the copaiva does not subside to the bottom as does the albumen. Dose, min. xx. to fʒj. Owing to its nauseous taste, it should be given floating on a glass of aq. camph. with a few drops of tinct. cardam. co.

Formula for Gonorrhœa.—Copaibæ fʒij. ; pulveris cubebæ ʒj. ; acidi gallici gr. lx. ; pulveris aromatici gr. cxx. Misce. Fiat electuarium. Capiat cochleare parvum ter quaterve die.

Copaibæ Oleum.—See *Oleum Copaibæ*.

Coriandri Oleum.—See *Oleum Coriandri*.

Coriandrum. Coriander.

Coriandrum Sativum Linn. N. F. Umbelliferæ. The ripe fruit, dried; cultivated in Britain.

Charact.—Globular, yellowish-brown, nearly as large as white pepper, beaked, finely ribbed; agreeable odour and flavour.

Uses.—A pleasant corrective of other drugs, such as senna. An ingredient of the tinct. sennæ.

Creasotum. Creasote.

A product of the distillation of wood tar.

Charact.—A colourless liquid, with a strong empyreumatic odour; sparingly dissolved by water, but freely by alcohol, ether, and acetic acid. Coagulates albumen. Sp. gravity 1.065.

Adulterations.—Fixed and volatile oils. Its purity may be known by its being colourless, by its entire solubility in acetic acid, and by leaving no translucent stain on white filtering-paper when dropped on it, and exposed for ten minutes to a temp. of 212°.

Actions and uses.—Irritant, styptic, sedative, and antiseptic. In large doses it occasions giddiness, dimness of vision, depression of the heart's action, convulsions, and coma. Half a fluid dr. will kill a rabbit in a few minutes. When introduced into a vein, it kills, by paralyzing the heart. As a styptic it arrests hemorrhage, but is not much used in this way. As a stimulant and astringent, externally, in the form of lotion or ointment, it has been of service in skin diseases, such as lepra, psoriasis, porrigo, &c.; and indolent ulcers, and those arising from burns, assume a more healthy appearance under it. Caries of the bones, cancer, and noli-me-tangere, seem also to be arrested somewhat by it. It is one of the most successful topical remedies for toothache, a drop or two into the cavity—previously cleaned—seldom failing to give relief. Internally, creasote is a valuable sedative, standing almost *per se* in the vomiting of pregnancy, of hysteria, of sea-sickness, and even often allaying for a time that depending on organic disease. In diabetes it has been given to allay excessive thirst, but often fails; and its alleged specific influence in phthisis and neuralgia is open to well-founded doubt. Dose, min. j. to ij.

gradually increased, and given in a full wine-glassful of some aromatic water. As its action is transient, it should be repeated frequently.

Mistura Creasoti.—Creasote min. xvi.; glacial acetic acid min. xvi.; spt. of juniper f̄ss. ; syrup f̄j. ; dist. water f̄xv. Mix the creasote with the acid, gradually add the water, and lastly, the syrup and spt. of juniper. Dose, f̄j. to f̄ij.

Unguentum Creasoti.—Creasote f̄j. ; simple oint. j̄. M. For porrigo, tinea, &c.

Creta Præparata. Prepared Chalk.

Carbonate of Lime, Ca O, CO², nearly pure.

Charact.—A white amorphous powder, effervescing with acids, and dissolving perfectly, or with a mere trace of residue, in dilute hydrochloric acid.

Actions and uses.—Antacid and astringent.—See Calcis Carb. Præcip. Dose, gr. x. to lx.

Hydrargyrum cum creta.—Mercury, by weight, j̄. ; prepared chalk j̄ij. Rub the mercury and chalk in a porcelain mortar until metallic globules cease to be visible to the naked eye, and the mixture acquires an uniform grey colour.

Uses.—This is an admirable cathartic for children, and acts by increasing the hepatic, pancreatic, and intestinal secretions. Along with a little rhubarb, it is of great service in the diarrhœa of children, depending on irregular action of the liver with deficient biliary secretion. As an alterative, it is also serviceable in infantile cutaneous diseases. It is well adapted for many adults ; and it is not altogether correct to say, that grown-up people require as much to produce catharsis as would induce salivation. Dose, gr. ij. to v. for children. For adults a little more.

Mistura Cretæ.—See Calcis. Carb. Præcip.

Pulvis Cretæ Aromaticus.—Prepared chalk, lb. j. ; aromatic powder, lb. iij. Mix well, and pass through a fine sieve. Antacid and aromatic. Dose, gr. v. to xxx.

Crocus. Saffron.

Crocus Sativus Linn. N. F. Iridaceæ. The stigma, and part of the style, dried ; imported from France and Spain.

Charact.—A thread-like style, terminated by 3 long orange-brown stigmas, which are broadest at their summit; has a powerful aromatic odour. When rubbed on the moistened finger, it tinges it intensely orange-yellow.

Analysis.—Albumen, mucilage, a colouring extractive matter, named polychroite, volatile oil, &c.

Adulterations.—The petals of the *carthamus tinctorius*, and of the *calendula arvensis*; and fibres of smoked beef, with pomegranate blossoms. The flowers are detected by the thickness of their structure when soaked in water, and the beef by the odour emitted on burning it.

Actions and uses.—Stimulant, but of little power. Said to exert an influence over the uterus, but as an emmenagogue it is not trustworthy. It has been lauded by some as a remedy for the lumbar pains attendant on menstruation: I have never seen it of any service in such cases. Dose, gr. x. to lx.

Pulvis Aromaticus.—See Cinnamon.

Tinctura Croci.—Saffron ʒj.; proof spt. Oj.; make in the usual way. For improving the colour of mixtures, &c. Dose, f ʒj. to f ʒij.

Crotonis Oleum.—See Oleum Crotonis.

Cubeba. Cubebs.

Cubeba Officinalis. N. F. Piperaceæ. The unripe fruit, dried; cultivated in Java.

Charact.—The size of black pepper, globular, wrinkled, blackish, supported on a stalk of rather more than its own length; has a warm camphoraceous taste.

Analysis.—About 2 per ct. of green volatile oil; 1 of yellow volatile oil; 4 of a principle named cubebin; balsamic resin, wax, &c.

Actions and uses.—A special stimulant like copaiva, act- in gon the urinary organs, and arresting urethral discharges. It is used solely for gonorrhœa, and is nearly equal to copaiva. In leucorrhœa and catarrh of the bladder, it some- times does good, but often fails. As a carminative it is seldom given. Dose, gr. lx. to cxx., three or four times a-day.

Cubebæ Oleum.—See Oleum Cubebæ.

Cupri Sulphas. Sulphate of Copper. $\text{Cu O, SO}^3 + 5 \text{HO.}$
Blue Vitriol.

Charact.—In oblique prismatic crystals, of a clear blue colour, soluble in water, and reddening litmus. Its solution gives with chloride of barium, a white precip. insoluble in hydrochloric acid, and a maroon-red precipitate with ferrocyanide of potassium.

Actions and uses.—Irritant, astringent, tonic, emetic. It is a strong poison, occasioning inflammation of the parts with which it comes into contact, but influencing also, remotely, the brain and nervous system, inducing death with coma and convulsions. In doses of gr. vi. to x. in several ounces of water, it is a reliable and speedy emetic, and thus adapted for narcotic poisoning; but because, if retained in the stomach, it is more of an irritant than the sulphate of zinc, it has now been abandoned for the latter. As an astringent, it is of great service in chronic diarrhœa and dysentery, succeeding occasionally when vegetable astringents fail. As a tonic, it by no means holds a high place; little benefit being obtained by it in chorea and epilepsy, the two diseases for which it has been recommended. Its specific influence in croup may be strongly disputed. Externally, solid, or in the form of solution, it is an excellent stimulating astringent in indolent and ill-conditioned ulcers, altering their action, improving their appearance, and disposing them to heal. It is also serviceable in ophthalmia, and as an injection in gonorrhœa. In the solid form, it reduces redundant granulations, destroys venereal warts, and improves the condition of chancres, at an early stage. Dose, gr. ss. to ij. tonic; gr. vi. to xij. emetic. Formula for chronic diarrhœa and dysentery.—℞ Cupri sulphatis, gr. vi.; pulveris calumbæ, gr. xxiv; pulveris ipecacuanhæ, gr. vi.; extracti taraxaci, quantum sufficiat. Misce. Divide in pilulas duodecim; sumat unam sectis horis.

Incompatibles.—The alkalies and their carb.; lime water; acetate of lead; nitrate of silver; iodide of potassium; corrosive sublimate; the salts of iron, except the sulphate; most

astrigent vegetables. In poisoning, give albumen, and in its absence, sugar and wheaten flour.

Cusparia. Cusparia Bark.

Galipea Cusparia. N. F. Rutaceæ. The bark, from tropical South America.

Charact.—In straight pieces, more or less incurved at the sides, from half a line thick, pared away at the edges; epidermis mottled, brown or yellowish-grey; inner surface yellowish brown, flaky; breaks with a short fracture; bitter, and slightly aromatic. The cut surface examined with a lens, usually exhibits numerous white points or minute lines.

Test.—The inner surface touched with nitric acid does not become blood-red.

Analysis.—About 3 per ct. of a bitter crystalline principle named cusparin; small portions of hard resin, soft resin, volatile oil, gum, &c.

Adulterations.—The bark of strychnos nux-vomica, which is highly poisonous, has sometimes been substituted for it. This false bark is in thicker, heavier, and more perfectly quilled pieces, with its epidermis thickly mottled with greyish spots; and its taste is intensely and persistently bitter. But it is best detected by the test given above, viz., nitric acid. This, when applied to the transverse fracture of the false bark, gives a bright-red colour, merely deepening the colour of the true.

Actions and uses.—Tonic, but not so much employed, owing to its adulteration with the poisonous bark, the confidence of practitioners being thus blasted. It is held in high repute in South America as a febrifuge in the malignant bilious fevers of marshy districts, in which cases, cinchona would seem to be almost powerless. It is serviceable in atonic dyspepsia, improving the appetite, and obviating constipation slightly; and in the advanced stages of diarrhoea and dysentery, especially in warm climates, its use is attended with great benefit. Dose, gr. x. to xxx.

Infusum Cuspariæ.—Cusparia, \bar{z} ss.; distilled water at 120°, f \bar{z} x. Infuse 2 ho. and strain. Dose, f \bar{z} j.

Cusso. Kousso.

Brayera Anthelmintica. N. F. Rosaceæ. The flowers; collected in Abyssinia.

Charact.—Flowers small, reddish-brown, on hairy stalks, outer limb of calyx five-parted, the segments ovate reticulated.

Analysis.—A bitter acrid resin, a tasteless resin, tannin, a fatty oil, chlorophylle, sugar, gum, &c.

Adulterations.—Powder of jalap, and powdered pomegranate bark. The dried flowers only should be obtained, and tested by the above characters.

Actions and uses.—Anthelmintic. Useful in tape-worm, which is occasionally expelled by it, probably by being poisoned. It has a high reputation among the Abyssinians, but it is hardly equal to the male shield fern. It occasions nausea and vomiting in some few cases, but its action on the bowels is slight; it is therefore better to give a purgative a short time before, and after, if necessary. From experiments made, it appears that tape-worms, immersed in an infusion mixed with milk, are killed in about half-an-hour. Though cusso leads to the expulsion of the worm, it seems not to improve the morbid condition which favours its production. A course of cinchona, and iron afterwards, is beneficial. Dose, from gr. cxxl. to \bar{z} j. for an adult; for children, gr. xxx. to cxx.

Infusum Cusso.—Kousso, in coarse powder $\bar{z}\frac{1}{4}$; boiling dist. water f \bar{z} iv. Infuse 15 minutes without straining. This is the usual form for administration, the infusion and powder along with it being swallowed. Two such draughts as the above may be given, and it is best in the morning before the early meal. A purgative may follow, in an hour or two, as well as precede it.

Digitalinum.

The active principle obtained from *Digitalis*.

Charact.—In porous mammillated masses, or small scales, white, inodorous, and intensely bitter; readily soluble in spirit, but almost insoluble in water and ether; dissolves in acids, but does not form with them neutral compounds. Its

solution in hydrochloric acid is of a faint yellow colour, but rapidly becomes green. It powerfully irritates the nostrils, and is an active poison.

Test.—Leaves no residue when burned with free access of air.

Prep.—See Brit. Pharm.

Actions and uses.—Sedative, but a very active poison, possessing in a highly concentrated degree the properties of digitalis. It has a powerful effect on the pulse, reducing it in a few hours to about 40 beats per minute. It is not much employed here as yet, owing to its potency, but in France it is said to have been serviceable in the treatment of intermittent fevers, and spermatorrhœa. It has been applied endermically in painful cardiac disease with excited action of the heart; but this requires the greatest caution, the 60th part of a grain having occasioned violent inflammation of the raw surface. The smallest over-dose has, moreover, given rise to protracted sickness and vomiting. Dose, 100th to 1-50th of a grain.

Digitalis. Digitalis.

Digitalis Purpurea Linn. Foxglove. N. F. Scrophulariaceæ. The dried leaf; from wild indigenous plants, gathered when about two-thirds of the flowers are expanded.

Charact.—Ovate-lanceolate, shortly petiolate, rugose, downy, paler on the under surface, crenate.

Analysis.—Digitaline, volatile oil, fatty matter, extractive, tannin, &c.

Adulterations.—The leaves of different species of verbas-cum. Attend to the characters given above.

Actions and uses.—Narcotico-irritant, diuretic, and sedative. In large doses it occasions vomiting, purging, cold sweats, stupor, a slow, weak, and irregular pulse, suppression of urine, and death, with coma and convulsions. In cases of poisoning, the stomach-pump should be used, and stimulating emetics, with powerful external and internal stimulants, administered. As a diuretic, digitalis deservedly stands high, great success attending its use in the various forms of dropsy. It succeeds

best in those cases of effusion into the areolar membrane of the extremities and face, depending on cardiac, renal, or hepatic disease, and it is more serviceable in cardiac dropsy than renal. Most good is achieved, too, in feeble constitutions: in robust individuals with inflammatory symptoms, antiphlogistic measures should precede it. In ascites it sometimes does good, but oftener fails; and in hydrothorax (simple,) and hydrops pericardii, it will generally be found of little service. Its diuretic action is promoted by combination with others, such as squill, juniper, &c. When digitalis is administered for sometime, in medicinal doses it also operates as a sedative, influencing the heart and arterial system, diminishing the strength and frequency of the pulse, but inducing also irregularity. Nausea, giddiness, obscure vision, salivation, headache, and delirium, are also common effects; and if the drug is continued, the symptoms of poisoning are developed. These symptoms may arise some days after it has been withdrawn, showing digitalis to be a cumulative medicine. Some affirm that the sedative and diuretic actions do not go on together, nay, that they are even incompatible: the truth appears to be that free diuresis lessens somewhat the sedative action. The narcotic and sedative actions are also occasioned when it is injected into a vein, or by clyster. As a sedative, then, digitalis is serviceable in diseases of the heart and large arteries, where we want to abate the force of the circulation; as in simple hypertrophy, in increased action, not depending on organic disease, in some forms of functional palpitation, in aneurism of the aorta, and in active hemorrhages, where the pulse is quick, full, and hard. It should not be used in hypertrophy (with or without dilatation,) arising from obstruction, or from regurgitation produced by valvular disease. As a deobstruant, digitalis has deservedly fallen into neglect; and as a tonic it is never employed. It has some advocates as a remedy in some forms of insanity; and in epilepsy, not dependant on organic disease, it has occasionally done good. In this latter disease it is perhaps entitled to further trial. The infusion (f̄ʒj. to f̄ʒij.) is given every night for four or five

nights, and suspended for a time, to be renewed again, in the same doses. The effects of digitalis should, of course, be observed with vigilance. Dose, powder, gr.j. to iij.

Infusum.—Digitalis, dried, gr. xxx.; boiling dist. water f̄x. Infuse for an hour, and strain. Dose, f̄ss. to f̄j. This is an excellent preparation. As a diuretic, it should be given three times a-day. Some have recommended its external application (on spongio-piline, or flannel, covered with gutta-percha, or oil-silk,) to the legs, in anasarca, and to the surface of the abdomen in ascites, but this method seldom does any good.

Tinctura.—Digitalis, bruised, ʒijss, proof spt. Oj. Macerate 48 hours, and percolate, as usual. Dose, min, xx. thrice daily.

Formula in dropsies named above.—℞ Tincturæ scillæ f̄ijj.; infusi digitalis, f̄ijj.; decocti scoparii ad, f̄vj. Misc. Fiat mistura cujus capiat cochleare amplum ter die.

Dulcamara. Dulcamara.

Solanum Dulcamara Linn. Bitter-sweet. Woody nightshade. N. F. Solanaceæ.

The young branches, dried, from indigenous plants which have shed their leaves.

Charact.—Light, hollow, cylindrical, about the thickness of a goose-quill, bitter and subsequently sweetish to the taste.

Analysis.—An alkaline principle solania, (found also in the young shoots of the potato), salts of lime and potash, &c.

Actions and uses.—A feeble narcotic, and a diaphoretic. Formerly had a name as a remedy in cutaneous and other diseases, such as lepra, psoriasis, secondary syphilis, strumous and rheumatic swellings, ill-conditioned ulcers, &c., but not now much trusted. Some employ it as a vehicle for the preparations of iodine and arsenic, but it does not seem to promote their action any way.

Infusum Dulcamaræ.—Dulcamara, bruised, ʒj.; boiling distilled water f̄x. Infuse an hour, and strain. Dose, f̄j.

Elaterium. Elaterium.

Ecbalium Officinarum. Squirting Cucumber. N. F. Cucurbitaceæ. A sediment from the expressed juice of the fruit.

Charact.—In light friable slightly incurved cakes, about one line thick, greenish-grey, acrid and bitter; fracture finely granular.

Tests.—Does not effervesce with acids; yields half its weight to boiling rectified spirit. This solution concentrated and added to warm solution of potash, yields on cooling not less than 20 per ct. of elaterine in colourless crystals.

Analysis.—A crystalline substance elaterin, the active principle of the drug; green resin, starch, &c.

Actions and uses.—An intensely irritant and acrid poison, and a drastic cathartic. A few grains of good elaterium will occasion inflammation of the alimentary canal, with severe griping pain, vomiting, and purging. As a cathartic, it produces profuse watery stools, attended with depression of the circulation and nervous system. It is employed in dropsies, such as ascites and hydrothorax, and the fluid is sometimes lessened in these cases after the free evacuations which this drug occasions. It should be given with care in cases of debility. Dose, 1-12th to 1-4th of a grain, in pill. Formula. R Elaterii granum; pulvis aromatici gr. xii.; extracti taraxaci gr. xxiv.; extracti gentianæ gr. xxiv. Misce bene. Divide in pilulas xii. Sumat unam bis die. Watch their effects carefully.

Owing to the varying purity of the drug, *elaterine* has been proposed instead. The dose is 1-6th to 1-12th gr.

In poisoning with elaterium, give demulcent drinks, and enemata; small doses of opium, and the water-bath.

Elemi. Elemi.

Botanical source undetermined, probably from canarium commune Linn. A concrete resinous exudation; chiefly imported from Manilla.

Charact.—A yellowish-white, soft unctuous adhesive mass, becoming harder by age, almost entirely soluble by rect. spt.

Uses.—Stimulant in the form of ointment to old and indolent ulcers and issues.

Unguentum.—Elemi $\bar{z}\frac{1}{4}$.; simple oint. $\bar{z}j$. Melt, strain through flannel.

Ergota. Ergot.

Secale Cereale Linn. Common Rye. Ergot of Rye. The grain diseased by the presence of an imperfect fungus.

Charact.—Subtriangular, curved, with a longitudinal furrow on the concave side, obtuse at the ends; from 1-3rd inch to an inch and half in length; of a violet-brown colour on the surface, yellowish within; solid, frangible, fracture short, odour faintly marked.

Analysis.—A reddish-brown extract, soluble in water, named ergotin, on which the emmenagogue properties of the drug depend; a colourless fixed oil, soluble in ether, and which is poisonous; fungin, gum, sugar, wax, &c.

Adulterations.—Plaster of Paris, and flour paste, carefully shaped and coloured. These are not very easily detected: the characters above given should be attended to.

Actions and uses.—Emmenagogue. In doses of gr. xx. or so, good ergot exerts a specific power over the uterus, causing contraction of the muscular fibres. It is the only drug on which we can rely for this purpose, borax being much less certain. It has little, if any, influence over the virgin uterus, unless when active, as at a menstrual period; but possesses great power over the pregnant uterus, especially when the expulsive contractions are begun. These it often recalls when in abeyance, and strengthens and quickens when weak or languid. It is extensively used in midwifery practice, to promote delivery when the contractions are feeble. It should not be given if the os is not dilated, or if the soft parts are very rigid; nor in cases of obstruction from disproportion, deformity, or mal-presentation. Many also are against its being given in primiparous cases. It commonly operates in from five to twenty minutes; and I have observed that a speedy and a vigorous action often concur. Ergot is given by some also to promote the expulsion of the placenta, to expel clots, polypi, and hydatids. In uterine hemorrhage it is often of great service, and it does good occasionally in amenorrhœa; but it is not to be relied on in leucorrhœa. There is little doubt but that ergot endangers the life of the fœtus; but only

when given in excessive doses. From some little experience, we should say that ℥j., though taken in doses of gr. lx. at a time, would almost certainly occasion the death of the child; the mother at one time being little the worse, at another experiencing nausea, headache, vertigo, pain and spasm of the stomach, and depression of the pulse. When ergot is used for a lengthened period along with the food, as among rye-eating peoples, a singular disease called "ergotism" is supposed to be occasioned. There are two species of the disorder: 1. Convulsive ergotism, characterized by dimness of sight, giddiness, thirst, imperceptible pulse, cramp, pains in the chest and limbs, insensibility, convulsions, and death in a day or two. 2. Gangrenous ergotism, attended with langour, a sensation of a multitude of insects crawling over the body; then, in a few days, cold, stiff, painful, benumbed limbs; fever, with a tendency to hemorrhage; finally, dry gangrene of the limbs sets in; the fingers or toes shrivel or drop off, and the patient either recovers by the setting in of healthy granulation, or sinks from exhaustion during the process of repair. Dose, powder, gr. xx. to lx.

Extractum Ergotæ Liquidum.—See Brit Pharm. Dose, min. xxx. to f℥j.

Infusum.—Ergot ℥¼.; boiling dist. water f℥x. Infuse half-an-hour. Dose, during parturition, f℥ij. to f℥iij. renewed in half-an-hour, if necessary. For other purposes, f℥ss. to f℥j.

Tinctura Ergotæ.—Ergot, bruised, ℥v.; proof spt. Oj. Make in the usual way. Dose, min. xx. to xl.

Fel Bovinum Purificatum. Purified Ox Bile.

Charact.—A yellowish-green substance of pilular consistence, taste partly sweet and partly bitter; soluble in water, and in spt.

Prep.—Fresh ox bile Oj.; rect. spt. Oij. Mix the bile and the spt. by agitation in a bottle, and set aside for 12 hours, until the sediment subsides. Decant the clear solution, and evaporate in a porcelain capsule, on a water bath, until the residue acquires the consistence of a vegetable extract.

Actions and uses.—Tonic, and mildly laxative. Given in dyspepsia with irritability of the stomach, and vomiting soon after meals, not resulting from organic disease. Dose, gr. v. to x. thrice a-day, in the form of pills, with powder of calumba.

Ferri Arsenias. Arseniate of Iron.

3 Fe O, As O⁵, partially oxidated.

Charact.—A tasteless amorphous powder, of a green colour, insoluble in water, but readily dissolved by hydrochloric acid. This solution gives a copious light-blue precip. with the ferrid-cyanide of potassium, and a still more abundant one, of a deeper colour, with the ferrocyanide of potassium.

Actions and uses.—Tonic, and said to be useful in cutaneous diseases with anemia. As an alterative, however, it is inferior to arsenious acid. Dose, 1-12th of a grain, gradually increased to 1-8th, in the form of pill.

Ferri Carbonas Saccharata. Saccharated Carbonate of Iron.

Carbonate of iron, Fe O, CO², mixed with peroxide of iron, and sugar, and forming at least 57 per cent. of the mixture.

Charact.—Small coherent lumps, of a grey-brown colour, with a sweet very feeble chalybeate taste.

Prep.—Sulphate of iron ℥ij. ; carbonate of soda ℥ijss. ; boiling dist. water, cong. ij. ; refined sugar ℥j. Dissolve the sulphate of iron and the carb. of soda each in half a gallon of the water, and mix the solutions with brisk stirring in a deep cylindrical vessel, which is then to be covered as accurately as possible. Set the mixture by for 24 hours, and from the precip. which has subsided, separate the supernatant solution by a siphon. Pour on the remainder of the water, stir well, and after subsidence, again remove the clear solution. Collect the resulting carbonate on a calico filter, and, having first subjected it to expression, rub it with the sugar in a porcelain mortar. Finally, dry the mixture at a temp. not exceeding 212°.

Actions and uses.—A chalybeate tonic, much superior to the ferri oxidum rubrum, (otherwise named the carbonate, or

sesquioxide), the sugar, as discovered by a German chemist, preventing the absorption of oxygen by the protoxide, and maintaining it in this latter form. It is of considerable service in anemia and neuralgia, and is very well suited as a tonic for delicate females and even children. Dose, gr. v. to xxx.

Formula.—℞ Ferri carbonatis saccharati gr. lx.; pulveris calumbæ gr. lx.; pulveris rhei, xxx.; pulveris aromatici gr. xxiv. Misce. Divide in pulveres xii., quarum sumatur una ter in die.

Mistura Ferri Composita.—Sulph. iron, gr. xxx.; carb. potash, gr. xxv.; myrrh, powder, gr. lx.; sugar, gr. lx.; spt. of nutmeg, f̄ʒj.; rose water, f̄ʒviiij. Triturate the myrrh and carb. potash with the sugar, the spt. nutmeg, and f̄ʒvii. of the rose water, the latter being gradually added until a uniform mixture is obtained. To this add the sulphate of iron, previously dissolved in the remaining ounce of rose water, and enclose the mixture at once in a tightly corked bottle. Commonly known as "Griffith's Mixture." A very useful stimulant and tonic in amenorrhœa with anemia. Dose, f̄ʒj. to f̄ʒij.

Pilula Ferri Carbonatis.—Saccharated carbonate of iron ʒj.; confect. roses, ʒ¼. M. Divide into 5 gr. pills. Dose, one to four pills.

Ferri et Ammoniaë Citras. Citrate of Iron and Ammonia.

($\text{Fe}^2, \text{O}^3 \text{NH}^4 \text{O HO}, \text{C}^{12} \text{H}^5 \text{O}^{11} + 2 \text{HO}.$) (?)

Charact.—In thin transparent scales of a hyacinth-red colour, with tinge of olive-green, slightly sweetish and astringent, in taste; feebly reddens litmus paper; is soluble in water.

Preparation.—See Brit. Ph.

Actions and uses.—Feebly tonic, but may be given to delicate people where from irritability of the stomach the stronger ferruginous preparations do not sit lightly. Dose, gr. v. to viij. in water or syrup; aurant.

Ferri et Quiniæ Citras. Citrate of Iron and Quinia.

Citric acid combined with peroxide of iron, protoxide of iron and quinia.

Charact.—Thin greenish golden-yellow scales, somewhat deliquescent, and entirely soluble in cold water. The solution is slightly acid, and is precipitated reddish-brown by solution of soda, white by solution of ammonia, blue by the ferrocyanide and ferridcyanide of potassium, and greyish-black by tannic acid.

Actions and uses.—An excellent tonic in debility after severe diseases, and in the less severe forms of neuralgia. Dose, gr. iij. to vi. in water or a bitter infusion.

Ferri Iodidum. Iodide of Iron. $\text{Fe J} + 4 \text{HO}$.

Charact.—Crystalline, green, with a tinge of brown, inodorous, deliquescent, soluble in water, forming a slightly green solution, which gradually deposits a rust-coloured sediment, and acquires a red colour.

Preparation.—Fine iron wire $\bar{\text{z}}\text{ss.}$; iodine $\bar{\text{z}}\text{ij.}$; dist. water $\text{f}\bar{\text{z}}\text{xv.}$ Introduce the iodine, iron, and $\text{f}\bar{\text{z}}\text{xij.}$ of the water into a flask, and having heated the mixture gently for about ten minutes, raise the heat, and boil until the solution loses its red colour. Pass the solution through a small paper filter into a dish of polished iron, washing the filter with the remainder of the water, and boil down until a drop of the solution, taken out on the end of an iron wire, solidifies on cooling. The liquid should now be poured out on a porcelain dish, and as soon as it has solidified, should be broken into fragments, and enclosed in a stoppered bottle.

Actions and uses.—Tonic and deobstruant. Although its tonic property may be the strongest, it is by no means a feeble deobstruant. In enlarged and indurated cervical and mesenteric glands—strumous—it is often of decided benefit, softening and diminution resulting at times in a few days after its employment. Chronic rheumatism occasionally improves under it; but its success is by no means great in chlorosis, amenorrhœa, secondary syphilis, and cutaneous diseases.

Along with cod liver oil, it does seem occasionally to arrest the progress of emaciation in some cases of phthisis. Dose, gr. ij. to v.; but it does not keep well, and the syrup is commonly employed.

Pilula Ferri Iodidi.—Fine iron wire, gr. xl.; iodine, gr. lxxx.; refined sugar, gr. lxx.; liquorice root, powder, gr. cxl.; dist. water, min. L. Agitate the iron with the iodine and water in a strong stoppered ounce phial, until the froth becomes white. Pour the fluid upon the sugar in a mortar, triturate briskly, and gradually add the liquorice. Divide into 5 gr. pills. Dose, one to three pills.

Syrupus Ferri Iodidi.—Fine iron wire, ℥j.; iodine, ℥ij.; refined sugar, ℥xxviii.; dist. water, f℥xiiij. Prepare a syrup by dissolving the sugar in f℥x. of the water, with the aid of heat. Digest the iodine and the iron wire in a flask, at a gentle heat, with the remaining f℥iij. of the water, till the froth becomes white; then filter the liquid while still hot into the syrup, and mix. The product should weigh two pounds eleven ounces, and should have the sp. gravity 1.385.

Charact.—A transparent almost colourless fluid, with a syrupy consistence, and a chalybeate taste.

Uses.—Given, same as the iodide, as a tonic and deobstruant in the varied manifestations of scrofula. Dose, children, min. x. to xx.; adults, min. xx. to f℥j, three or four times a-day.

Ferri Oxidum Magneticum. Magnetic Oxide of Iron.

Peroxide of Iron, $Fe^2 O^3$, with about 9 per cent. of protoxide of iron, $Fe O$, and 22 per cent. of water.

Charact.—Brownish-black, tasteless, strongly magnetic.

Prep.—See Brit. Pharm.

Uses.—Once highly esteemed as a chalybeate tonic, under the name *æthiops martis*, but lost ground, and fell into disuse, owing to its varying composition. There is no reason now for not reviving its use, and it may yet emulate the saccharated carbonate. Dose, gr. v. to xx. thrice a-day, made into an electuary.

Ferri Perchloridi Liquor. Solution of Perchloride
of Iron.

Perchloride of Iron, $\text{Fe}^2 \text{Cl}^3$, in solution in water.

Charact.—An orange-brown solution, without smell, but with a powerful styptic taste, miscible with water and alcohol in all proportions. Sp. gravity 1.388. Diluted with water, it is precipitated white by nitrate of silver, and blue by the ferrocyanide, but not by the ferridcyanide of potassium.

Prep.—Iron wire, \bar{z} ij.; hydrochloric acid, $f\bar{z}$ x.; nitric acid, $f\bar{z}$ vi.; distilled water, $f\bar{z}$ vij. Dilute the hydrochl. acid with \bar{z} v. of the water, and pour the mixture on the iron wire in successive portions, applying a gentle heat when the action becomes feeble, so that the whole of the metal may be dissolved. To the nitric acid add the remaining \bar{z} ij. of water, and having poured the mixture into the solution of iron, evaporate the whole until the bulk is reduced to $f\bar{z}$ x.

Uses.—A powerful irritant poison. Used as a styptic, externally, for arresting hemorrhage, and it is one of the most effectual we possess. It is employed for making the tincture.

Tinctura Ferri Perchloridi.—Solution of perchloride of iron, $f\bar{z}$ v.; rect. spt. $f\bar{z}$ xv. Mix, and preserve in a stoppered bottle.

Charact.—Of a dark reddish-brown colour, and a slightly acid, but strongly styptic, taste. Sp. gravity 0.992.

Actions and uses.—In large doses irritant; in smaller doses an excellent tonic and astringent. As a tonic it is useful in anemia, chlorosis, and simple amenorrhœa, in pale and weak emales. As a tonic and astringent, it is serviceable in chronic genito-urinary mucous discharges, in passive hemorrhages from the kidneys and bladder, and in spasmodic stricture of the urethra. Its diuretic power is inconsiderable; but along with others, it does good in dropsies with debility. Some cases of erysipelas, (not always those of leuco-phlegmatic persons,) are benefitted by it, but it is not by any means a sovereign remedy for this disease. It has become common for some years back to recommend it for a multitude of ailments of very varied character; but it is a safe rule not to look to

any one drug for the performance of widely opposite actions. Dose, fʒss. to fʒij, increasing it gradually; in a full glass of water, or infusum calumbæ, and after meals.

Incompatibles.—Alkalies and their carb.; lime water; carbonate of lime, magnesia, and carb.; and astringent vegetable preparations.

Ferri Pernitratis Liquor. Solution of Pernitrate of Iron.

Pernitrate of Iron, $\text{Fe}^2 \text{O}^3, 3 \text{NO}^5$, in solution in water.

Charact.—A clear reddish-brown solution, slightly acid and astringent to the taste; gives a blue precip. with the ferrocyanide of potassium. Sp. gravity 1.107.

Prep.—Fine iron wire, free from rust, ʒj.; nitric acid, fʒijj.; dist. water, a sufficiency. Dilute the nitric acid with ʒxvi. of the water, introduce the iron wire into the mixture, and leave them in contact until the metal is dissolved, taking care to moderate the action, should it become too violent, by the addition of a little more dist. water. Filter the solution, and add to it as much dist. water as will make its bulk one pint and a half.

Actions and uses.—Tonic, and an excellent astringent. It is found useful in chronic mucous diarrhœa, in the diarrhœa of feeble and nervous females, and in the colliquative diarrhœa of phthisis. In scrofulous children with enlarged glands, lienteric diarrhœa, and obstinate ophthalmia, it is also beneficial, especially along with cod liver oil. It sits more lightly on the stomach, in general, than the previous preparation. Dose, for children, min. x. to xx.; for adults, fʒss. to fʒj, in water, or syrup.

Ferri Peroxidum. Peroxide of Iron.

$\text{Fe}^2 \text{O}^3, \text{HO}$, sesquioxide; red oxide.

Charact.—A powder of a reddish-brown colour, tasteless, and odourless; dissolves completely, with the aid of heat, in hydrochloric acid, diluted with half its volume of water, forming a solution which gives a copious blue precip. with the ferrocyanide of potassium.

Uses.—A chalybeate tonic, but not of much strength. It

was formerly a good deal employed in neuralgic affections, especially tic-doloureux; for which, however, it often fails. As a palliative in cancerous diseases, it does little good. Dose, gr. xxx. to ccxl, in honey, or jam.

Emplastrum Ferri.—Peroxide of iron, ℥j.; Burgundy pitch, ℥ij.; litharge plaster, ℥viiij. Add the peroxide to the Burgundy pitch and litharge plaster, previously melted together, and stir the mixture constantly till it stiffens on cooling. Affords mechanical support to a weak or relaxed part; and does good sometimes over the heart in nervous palpitation.

Ferri Peroxidum Hydratum. Hydrated Peroxide
of Iron.

Hydrated Peroxide of Iron, $2 \text{Fe}^2 \text{O}^3, 3 \text{HO}$, with a variable amount of uncombined water.

Charact.—A soft moist pasty mass, of a reddish-brown colour; dissolves readily in dilute hydrochloric acid, without the aid of heat, forming a solution which gives a copious blue precip. with the ferrocyanide of potassium. A little of it dried at 212° , gives off moisture when further heated in a test tube.

Prep.—Solut. persulph. iron, f℥iv.; solution of soda, f℥xxxiiij. or a sufficiency; dist. water, Oj. Add the persulphate to the dist. water, and gradually pour the dilute solution into the solution of soda, stirring well for a few minutes; collect the precip. on a calico filter, and wash it with dist. water, until the filtrate ceases to give a precip. with chloride of barium. Lastly, enclose the precip. without drying it, in a porcelain pot, whose lid is made tight by a luting of lard.

This preparation should be recently made.

Actions and uses.—Chalybeate, and being more soluble, may be more efficient than the anhydrous peroxide. Its chief use, however, is as an antidote for arsenic, and it is the best. It should be given fresh and moist, and in the proportion of 12 to 1 of the arsenic swallowed. Dose as a tonic, gr. x. to xx.

Ferri Phosphas. Phosphate of Iron.

Phosphate of Iron, $3 \text{Fe O}, \text{PO}^5$, partially oxidated.

Charact.—A slate-blue amorphous powder, insoluble in water, soluble in hydrochloric acid.

Actions and uses.—Tonic, but not much employed. Has been recommended for rickets, but is not at all successful in this disease. It sometimes does good in simple amenorrhœa, with chlorosis. Dose, gr. v. to x., in pill, or powder.

Syrupus Ferri Phosphatis.—Tonic, and said by some to be wonderfully alterative, getting rid of cachectic conditions by enriching the blood, or in some other way. I have not obtained such good results from it as from other preparations of iron. Dose, fʒj. to fʒij.

Ferri Sulphas. Sulphate of Iron.

Charact.—In green-coloured oblique-rhombic prisms, with a styptic taste; soluble in water, insoluble in rectified spt. Gives a white precip. with chloride of barium, and a blue one with the ferridcyanide of potassium; and on exposure to the air, gradually becomes turbid, depositing a reddish-brown sediment.

Adulterations.—The sesquioxide, known by the yellowish-brown colour of the crystals; and copper, which may be discovered by immersing a polished bit of iron in a solution of the salt, when the copper will adhere to it.

Actions and uses.—Irritant, astringent, and tonic. It is not a very strong irritant, but over-doses cause pain in the stomach, sickness, and vomiting; and a few drachms have proved fatal to a child. It is an excellent chalybeate tonic in dyspepsia, and anemic amenorrhœa, and an astringent in chronic mucous discharges, such as leucorrhœa. The aloes and iron pill was well adapted for these, but it has not found a place in the Brit. Pharmacopœia. In solution some employ it topically in erysipelas, and for ill-conditioned ulcers, but it is not very successful in these cases. Dose, gr. j. to v. in pill.

Formula.—℞ Ferri sulphatis exsiccatae, gr. xij.; aloë Barbadosensis, gr. xii.; pulveris capsici, gr. vj.; extracti taraxaci, gr. xxiv. Misce. Divide in pilulas, xij.; capiat unam bis die.

Ferri Sulphas Exsiccata.—Dried sulphate of iron. Sul-

phate of iron, ζ iv. Expose it in a porcelain capsule to a moderate heat, which may be finally raised to 400° , until aqueous vapour ceases to be given off. Reduce the residue to a fine powder, and preserve in a stoppered bottle. Dose, gr. ss. to iij.

Incompatibles.—The alkalies, and their carb.; nitric acid.; lime water; nitrate and tartrate of potash; iodide of potassium; borax; acetate of lead; vegetable astringents.

Ferri Sulphas Granulata. Granulated Sulphate of Iron.
 $\text{Fe O, SO}^3, + 7 \text{ HO.}$

Charact.—In small granular crystals of a pale-green colour, and mildly styptic taste, soluble in water, insoluble in rectified spirit.

Prep.—See. Brit. Ph.

Uses.—Same as the foregoing, but purer.

Ferrum Redactum. Reduced Iron.

Metallic Iron, with a variable amount of Magnetic Oxide of Iron.

Charact.—A fine greyish-black powder, strongly attracted by the magnet, and exhibiting metallic streaks when rubbed with firm pressure in a mortar. It dissolves in hydrochloric acid with the evolution of hydrogen, and the solution gives a light-blue precipitate with the ferridcyanide of potassium.

Prepared by reducing the peroxide by means of a stream of dry hydrogen gas.—See Brit. Pharm.

Actions and uses.—Iron in the metallic state, exerts but little influence on the animal body, but it becomes oxidated in the stomach, and then acts as a tonic. When its use is continued for some time, (and it does require to be continued for a considerable time), the pulse becomes quicker and fuller, the digestion improved, the secretions augmented, and the blood, and consequently the complexion, more florid. In the pathological condition of anemia, the blood is deficient in quantity and in the relative proportion of the red corpuscles, and that is the malady in which we look to iron for certain benefit. Whether the blood derives a direct accession of iron, or not

it is not easy to say, but the red corpuscles are very much increased under its use. In enlargement of the liver and spleen, we also often derive benefit from it, and probably because these are connected with a morbid condition of the blood. In dyspepsia, with loss of tone or deficient secretion; in chlorosis, amenorrhœa, chronic dysentery, and neuralgia; in dropsical affections, valvular disease of the heart, and albuminuria, iron will often be found useful. But it should be borne in mind that it is in the anemic state, and in the disorders to which it gives birth, or with which it is associated, that we expect to obtain the best results. When iron or its preparations are pushed too far, or given to very plethoric people, headache, giddiness, and weight about the limbs, are apt to be occasioned; and they do not agree well where there is irritability of the digestive organs. They are tolerated, in general, best just after a meal. As their employment has to be continued for a good while, it is well to change the preparations; and it is very convenient to have so many to fall back upon. We might give the ferrum redactum for a week or two; then the carb. ferri. sacch; now the tinct. perchlor.; then the liq. ferri pernit. Or we may go from one to another just as they agree with the patient. Dose, gr. ii. to x.

Ferrum Tartaratum. Tartarated Iron.

Tartrate of Iron and Potash, $\text{Fe}^2 \text{O}^3$, KO, $\text{C}^8 \text{H}^4$, O^{10} + HO.

Charact.—Thin transparent scales of a deep garnet colour, slightly deliquescent, somewhat sweet, and rather astringent, soluble in water, and sparingly soluble in spirit.

Prep.—See Brit. Pharm.

Actions and uses.—A weak chalybeate tonic, said to be easily assimilated by the digestive organs. It is probably the least effectual of all the preparations of iron. Dose, gr. v. to xx.

Ficus. Fig.

Ficus Carica Linn. N. F. Urticaceæ.

The dried fruit; imported from Smyrna.

Uses.—Nutritive and demulcent. Used in practice chiefly as suppuratives, or poultices to promote suppuration, especially in gum-boil.

Filix. Fern Root.

Aspidium Filix mas Swartz. Indigenous. N. F. Filices.
The Rhizome, dried ; collected in summer.

Charact.—Tufted, scaly, greenish-brown ; powder, greenish yellow, with a disagreeable odour, and a nauseous, bitter, somewhat astringent taste.

Analysis.—An odorous volatile oil, in very small proportion, to which its anthelmintic power is due ; fixed oil, fecula, gum, sugar, woody fibre, &c.

Actions and uses.—Anthelmintic, and one of the most, if not the most efficient and successful we possess for tape-worm. That it occasionally fails we think is in great part owing to inert specimens or preparations, and this may be the reason why so old a vermifuge has been so long in again obtaining general confidence. The liquid extract pretty recently prepared from the root collected in summer, is the best form, and it should be given soon after the bowels have been well evacuated by an energetic cathartic. The best and most successful plan is to give min. xxx. of the extract in ℥ij. to ℥iv. of a strong infusion of quassia or chiretta, following it up if necessary with a purgative. Dose of the powdered root, ℥j. to ℥ij.

Formula.—℞ Extracti filicis liquidi, min. xxx ; olei anisi, minimum ; infusi chiratæ, f ℥ij. Misce. fiat haustus.

Extractum Filicis Liquidum.—Fern Root in coarse powder, lbij ; ether, Oiv., or a sufficiency. † Mix the fern root with Oij. of the ether ; pack closely in a percolator ; and add the remainder of the ether at intervals, until it passes through colourless. Let the ether evaporate on a water-bath, or recover it by distillation, and preserve the oily extract. It is a dark-green oleo-resin, of the consistence of thick syrup, with an ethereal and somewhat disagreeable odour. Dose, min. xx. to lx.

Fœniculum. Sweet Fennel Fruit.

Fœniculum dulce DC. N. F. Umbelliferæ. The fruit; imported from Malta.

Charact.—About 3 lines long and 1 broad, elliptical, beaked, having 8 pale-brown longitudinal ribs, the 2 lateral being double; taste and odour aromatic.

Uses.—An aromatic stimulant and carminative like anise, but little employed. Dose, gr. xxx. to lx.

Aqua.—Sweet fennel fruit, \bar{z} xx.; water, cong. ij. Distil one gallon. A vehicle for other medicines. Dose, \bar{z} j. to \bar{z} iv.

Galbanum. Galbanum.

A gum-resin, derived from an unascertained umbelliferous plant; imported from India and the Levant.

Charact.—In irregular tears, about the size of a pea, usually agglutinated into masses, of a greenish-yellow colour, translucent, with a strong disagreeable odour and an acrid bitter taste.

Analysis.—Resin, gum, a small portion of volatile oil, and malate of lime.

Actions and uses.—Antispasmodic, but inferior to assafoetida, an ingredient of the compound assafoetida pill. Dose, gr. x. to xx.

Emplastrum Galbani—Galbanum, \bar{z} j.; ammoniac \bar{z} j.; yellow wax, \bar{z} j.; litharge plaster, \bar{z} viiij. Melt the galb. and ammon. together, and strain. Add the litharge plaster and wax previously melted, together, and mix thoroughly. A stimulating plaster.

Galla. Galls.

Excrescences on *quercus infectoria* Linn, caused by the punctures and deposited ova of *diplolepis Gallæ tinctoriæ*. N. F. Cupuliferæ.

Charact.—Hard, heavy globular bodies, from $\frac{1}{2}$ in. to $\frac{3}{4}$ in. diam., tuberculated, the tubercles and intervening spaces smooth; bluish-green on surface, yellowish-white within, with a small central cavity; intensely astringent.

Analysis.—About 25 per cent. of tannin, a trace of gallic

acid, a compound of pectic acid and tannin, and tannates, and gallates of potash and lime, &c.

Actions and uses.—Powerfully astringent, but not very much employed, tannin and gallic acid being preferable. They may, however, be used in the hemorrhages and discharges for which these other are given. They are also an excellent antidote in cases of poisoning with tartarated antimony, ipecacuanha, and the vegetable alkaloids. Externally, galls have long been in repute as an astringent in hemorrhoids, in relaxed uvula and tonsils, and in mucous discharges. I prefer going at once to the gallic acid or the tannin. Dose, in powder, gr. v. to xx.

Acidum Tannicum.—See *Tannic Acid*.

Tinctura Gallæ.—Galls, ℥ijss.; proof spt. Oj. Make in the usual way. Dose, f℥ss. to f℥ij.

Unguentum Gallæ.—Galls, in fine powder, gr. lxxx.; simple ointment, ℥j. M. Useful in piles. See formula under Tannic Acid. Another useful one is: R Acidi tannici, gr. xx.; extracti belladonæ, gr. xx.; olei olivæ, ℥ij.; adipis præparati, ℥vi. Misce.

Gentiana. Gentian.

Gentiana Lutea Linn. N. F. Gentianaceæ. The root, dried; collected in the Alps, Apennines, and other mountains of Europe.

Charact.—From half-an-inch to one inch thick, several inches long, often twisted, much wrinkled, or marked with close transverse rings, brown externally, yellow within, tough and spongy; taste at first slightly sweetish, and afterwards very bitter.

Analysis.—An odorous volatile oil, a yellow, crystalline, bitter neutral principle, gentianin, said to be a compound of a colouring matter, a fatty matter, and a bitter principle; a green fixed oil, a free organic acid, sugar, gum, &c.

Adulterations.—Roots of other species of gentian; and, what is of more gravity, the roots of white hellebore, monkshood, and belladonna, occasionally. These are detected by their wanting the intense bitter taste, and the internal bright yellow colour.

Actions and uses.—An excellent bitter tonic. Useful in dyspepsia, with feeble digestion, and heartburn, but without irritability of the stomach. It possesses some little anthelmintic power, is somewhat of a febrifuge, but of little service in gout. Large doses are apt to prove emetic. Dose, powder, gr. x. to xxx., but seldom given.

Extractum Gentianæ.—Gentian, lb. j.; boiling dist. water, cong. j. Macerate the gentian in the water for two hours; boil for 15 minutes; pour off, press, and strain; then evaporate by a water bath to a proper consistence. Dose, gr. v. to xx.

Infusum Gentianæ Compositum.—Gentian, $\bar{3}\frac{1}{4}$.; bitter orange peel, gr. xxx.; coriander, gr. xxx.; proof spt. f $\bar{3}$ ij.; cold dist. water, f $\bar{3}$ vij. Pour the spt. upon the dry ingredients, in a covered vessel, in two hours add the water, and in two hours more strain through calico. Dose, $\bar{3}$ ss. to $\bar{3}$ ij. Most commonly employed, and a good vehicle, for the alkaline bi-carbonates.

Tinctura Gentianæ Co.—Gentian, $\bar{3}$ jss.; bitter orange peel, $\bar{3}\frac{3}{4}$.; cardamoms, bruised, $\bar{3}\frac{1}{4}$.; proof spt. Oj. Macerate 48 hours, and percolate, as before. Dose, $\bar{7}$ j. to $\bar{3}$ ij. Generally given along with the infusion.

Glycerinum. Glycerine.

A sweet principle, $C^6 H^8 O^6$, obtained from fats and fixed oils.

Charact.—A colourless, syrupy fluid, without odour, with a sweet taste; freely soluble in water, or in alcohol. Spt. gravity 1.26.

Uses.—Emollient. May be employed as a vehicle for various active medicines, such as tannin, iodine, &c. Externally, it is useful where we want to allay itching, or secure moistness of a part, as in some skin diseases. It has been used also to moisten cotton for insertion into the ear as a kind of artificial tympanum. We are aware that this expensive article is still very extensively employed as a substitute for cod liver oil in phthisis, but, unfortunately, it is of no more service than a little weak syrup. In the strumous diseases of

children, too, it does as little good ; for while they often improve under the cod liver oil, they gradually become attenuated under glycerine. Dose, from a few drachms to several ounces, being little more active than syrup.

Glycyrrhiza. Liquorice Root.

Glycyrrhiza glabra Linn. Leguminosæ. The root, or underground stem, fresh and dried ; cultivated in England.

Charact.—In long cylindrical branched pieces, an inch, or less, in diam.; greyish-brown externally, yellow internally, odourless, with a sweet mucilaginous, and slightly acrid taste.

Uses.—Demulcent. Used in the form of decoction, or extract in catarrhal affections. The powder is employed as a covering for pills. The root may be chewed at pleasure.

Extractum.—In the form of dark flattened sticks. A bit is usually put into the mouth, and allowed to dissolve gradually, in simple coughs.

Granati Radix. Pomegranate Root.

Punica Granatum Linn. N. F. Myrtaceæ. The bark of root, fresh or dried ; chiefly imported dried from Germany.

Charact.—In quills or fragments of a greyish-yellow colour externally, yellow internally, having a short fracture, little odour, and an astringent, slightly bitter taste.

Analysis.—An acrid oleo-resinous principle, punicine, on which its anthelmintic properties depend ; tannin, gallic acid, wax, and a sweetish substance resembling mannite.

Adulterations.—The root bark of the common barberry (*berberis vulgaris*), and of *buxus sempervivens*, the box-tree, are at times substituted. They are known by being devoid of astringency.

Actions and uses.—A good vermifuge in tapeworm, acting by killing the parasite. It is believed to act most effectively when joints of the worm are coming away naturally. It sometimes causes sickness and vomiting, probably owing to the movements of the worm excited by the drug. Dose, gr. ℥xx. to xl. The decoction is the best.

Decoctum Granati Radicis.—Pomegranate root, fresh or

dry, sliced, ℥ij. ; dist. water, Oij. Boil down to a pint, and strain. Dose, ℥vi. or so, every hour for 3 hours. It may be repeated daily for several days.

Guaiaci Lignum. Guaiac Wood.

Guaiacum officinale Linn. N. F. Zygophyllaceæ. The wood sliced or coarsely turned ; imported from St Domingo and Jamaica.

Charact.—Extremely hard ; the young or outer wood is pale-brown, the old or central wood is greenish-brown.

Test.—Nitric acid applied to the bark produces a bluish-green colour.

Guaiaci Resina. Guaiac Resin.

Guaiacum officinale Linn. The resin obtained from the stem, by natural exudation, by incisions, or by heat.

Charact.—In large masses of a greenish-brown colour ; fractured surface resinous, translucent at the edges.

Test.—A solution in rectified spt. strikes a clear blue colour when applied to the inner surface of a paring of raw potato.

Analysis.—The wood contains its own proper resin, which is a compound of guaiacic acid with a trace of gum, extractive matter, and woody fibre.

Adulterations.—The pine resins : they are soluble in hot oil of turpentine, while the true resin is not. The action of nitric acid as above, will distinguish the guaiac from other woods.

Actions and uses.—A stimulating diaphoretic, very useful in chronic rheumatism, chronic tonsillitis, and at times in atonic gout. Benefit is occasionally obtained by it in chronic skin diseases, probably by its stimulating and reviving capillary action. It has long had a name in syphilitic affections, and though often rated much too high, secondary syphilis is sometimes benefitted by it. If too long continued, it is apt to induce dyspepsia and torpidity of the bowels. The wood is not given alone, but is an ingredient of the compound decoction of sarsaparilla. Dose of the resin, gr. x. to xxx., in treacle or preserve.

Decoctum Sarsæ Co.—See *Sarsa*.

Mistura Guaiaci.—Guaiac resin, \bar{z} ss.; sugar, \bar{z} ss.; gum arabic, powder, $\bar{z}\frac{1}{4}$.; cinnamon water, Oj. Triturate the guaiac with the sugar and the gum, adding gradually the cinnamon water. Dose, \bar{z} ss. to \bar{z} ij. two or three times a-day.

Pilula Calomelanos Co.—See *Calomel*.

Tinctura Guaiaci Ammoniata.—Guaiac resin, in fine powder, \bar{z} iv.; aromatic spt. of ammonia, Oj. Macerate 7 days, and filter. Dose, \bar{z} j. to \bar{z} ij. It is about the best preparation of guaiacum. It should be suspended in mixtures by means of mucilage or sugar, plain water decomposing it.

Hæmatoxylum, Logwood.

Hæmatoxylum Campechianum Linn. N. F. Leguminosæ. The heart-wood sliced; imported from Campeachy, in Central America, from Honduras, and Jamaica.

Charact.—The logs are externally of a dark colour, internally reddish-brown; the chips have a feeble agreeable odour, and a sweetish taste; a small portion chewed imparts a dark pink colour to the saliva.

Analysis.—A red crystalline bitter principle, named hæmatin, or hæmatoxylin, resin, volatile oil, tannin, acetic acid, salts, &c.

Actions and uses.—An astringent. Given with benefit in chronic diarrhœa and dysentery, where it seems to arrest the discharges without occasioning constipation. It will be found useful also in the perspirations of hectic, and in diabetes.

Decoctum Hæmatoxyli.—Logwood chips, \bar{z} j.; cinnamon powder, gr. lx.; dist. water, Oj. Boil the logwood in the water ten minutes, adding the cinnamon towards the end, and strain. The product should measure \bar{z} xvi. A good form. Dose, \bar{z} j. to \bar{z} ij.

Extractum.—Logwood, lb.j.; boiling dist. water, cong. j. Macerate the logwood in the water 24 hours; boil down to one half, strain, and evaporate by a water bath to a proper consistence, stirring with a wooden spatula. Iron vessels should not be used. Dose, gr. x. to xx.

Hemidesmus. Hemidesmus.

Hemidesmus indicus D. C. N. F. Asclepiadaceæ. The root, dried; imported from India.

Charact.—Yellowish-brown, cylindrical, tortuous, furrowed, and with annular cracks, with a fragrant odour, and agreeable flavour.

Uses.—In repute in India as a tonic and diaphoretic, in the cachectic conditions for which sarsaparilla has been employed. It possesses no great efficacy, and is used in this country chiefly in the form of syrup, as an agreeable vehicle for other medicines.

Syrupus Hemidesmi.—Hemidesmus, bruised, ℥iv.; refined sugar, ℥xxvij.; boiling dist. water, Oj. Infuse the hemid. in the water, in a covered vessel, 4 hours, and strain. Set it by till the sediment subsides; then decant the clear liquor; add the sugar, and dissolve by a gentle heat. The product should weigh lb. ij. ℥x. and have the sp. gr. 1.335. Dose, ℥j. to ℥ij.

Hirudo. The Leech.

1. *Sanguisuga Officinalis* Savigny, the Speckled Leech; and
2. *S. Medicinalis* Sav., the Green Leech; imported chiefly from Hamburg. Class, vermes; order, annulata.

Charact.—Body elongated, two or three inches long, tapering to each end, plano-convex, wrinkled transversely; back olive-green, with six rusty-red longitudinal stripes. 1. Belly greenish-yellow, spotted with black; 2. Belly olive-green, not spotted. Spurious leeches are to be met with, a common one being the horse-leech. It is known by the absence of the rusty-red bands, or having only two. It is a popular, but unfounded belief, that this animal will bleed a person to death, the blood, as is said, discharging at the tail as fast as it is taken in by the mouth. The real truth is, that the leech is provided only with blunt teeth, and cannot properly perforate the human skin.

Uses.—They are useful for small local bleedings, and may be often applied where cupping-glasses cannot, and scarifications are inadmissible. Many persons, too, will admit of

bleeding in this way, instead of by the lancet, which inspires considerable terror. Previous to their application, the part should be cleaned, and the leech (dried by rolling gently in a cloth) confined to the part by a glass or other receptacle. If they do not fasten, immersing them in porter, or besmearing the part with cream or blood, will sometimes overcome rebellion. But care should be exercised in their selection: those are most active which roll up into an oval ball on being lightly squeezed in the hand. They should not be applied where there is almost constant motion, as over the neck or costal cartilages; nor where the cellular tissue is lax, as in the eyelids, as erythema or œdema are apt to be occasioned. Large superficial veins, especially in the neck, in children should be avoided, and the abdomen in general. The quantity of blood drawn by a leech is from \bar{z} ij. to \bar{z} ss., but about thrice this amount may afterwards come away. Should the bleeding continue too long, compression, a red-hot wire, nitrate of silver, perchloride of iron, or transfixion with a needle, will one or the other succeed. Leeches have occasionally been permitted to creep up the nostril, up the rectum, or even into the stomach. A strong solution of common salt sent after them will cause their death.

Hordeum. Pearl Barley.

Hordeum distichum Linn. Cultivated in Britain. N. F. Graminaceæ. The seeds deprived of their husks.

Charact.—White, rounded, retaining a trace of the longitudinal furrow.

Uses.—A nutritious food; and in medicine useful as a demulcent drink in catarrh, dysentery, and inflammation of the bladder.

Decoctum.—Pearl barley, \bar{z} ij.; dist. water, Ojss. Wash the barley in cold water, and reject the washings; boil with the dist. water for 20 minutes in a covered vessel, and strain. For soothing drinks and injections.

Hydrargyri Chloridum. See *Hydrargyrum Corrosivum Sublimatum*.

Hydrargyri Iodidum Rubrum. Red Iodide of Mercury.

Hg I.

Charact.—A crystalline powder, of a vermilion colour, becoming yellow when gently heated over a lamp on a sheet of paper; almost insoluble in water, dissolves sparingly in alcohol, but freely in ether, or in an aqueous solution of iodide of potassium. When digested with solution of soda, it assumes a reddish-brown colour, and the fluid cleared by filtration, and mixed with solution of starch, gives a blue precipitate on being acidulated with nitric acid.

Tests.—Entirely volatilized by a heat under redness, and entirely soluble in ether.

Actions and uses.—Alterative and deobstruant, but possessing more of the actions of mercurials than of iodine. In not very large doses, it is an irritant poison, and it causes inflammation of the skin when left in contact with it. It may be given in secondary syphilis, and in various scrofulous disorders; and some have found it useful in valvular disease of the heart, permitting regurgitation. In the form of ointment, it may be topically applied in enlarged thyroid, and in chronic periostitic and glandular swellings, syphilitic. Dose, gr. 1-16th to 1-8th, made into pill with a little ext. gentian. and hyoseyam.

Unguentum Hydrargyri Iodidi Rubri.—Red iodide of mercury, in fine powder, gr. xvj.; simple oint. ℥j. Mix. External stimulant and deobstruant.

Hydrargyri Iodidum Viride. Green Iodide of Mercury.Hg² I.

Charact.—A dull green powder, insoluble in water, which darkens in colour on exposure to light. When gradually heated in a test tube, it yields a yellow sublimate, which upon friction becomes red, while a globule of metallic mercury is left in the bottom of the tube.

Tests.—Entirely volatilized by a heat under redness. When it is shaken in a tube with ether, nothing is dissolved.

Actions and uses.—Alterative, and much milder than the red iodide. May be employed with similar views, and for

like purposes ; and, being weaker, is adapted for the cutaneous diseases of children, especially those on the scalp ; but here it should not be pushed far. Dose, gr. 1 to 3, in pill, with extract as before ; for children, gr. $\frac{1}{8}$ to $\frac{1}{2}$, with a little aromatic powder ; magnesia being alternated occasionally.

Hydrargyri Nitratis Liquor Acidus. Acid Solution of Nitrate of Mercury.

Nitrate of Mercury, Hg O, NO^5 , in solution in nitric acid.

Charact.—A colourless and strongly acid solution, giving a yellow precip. with solution of potash added in excess.

Test.—Sp. gr. 2.246. Does not give any precip. when a little of it is dropt into hydrochloric acid diluted with twice its volume of water.

Prep.—Mercury, $\bar{\zeta}\text{iv.}$; nitric acid, $f\bar{\zeta}\text{ij}\frac{1}{4}$.; dist water, $f\bar{\zeta}\text{ij}$.; Mix the acid with the water in a flask, and dissolve the mercury in the mixture without the application of heat. Boil gently for 15 minutes ; cool, and preserve in a stoppered bottle.

Uses.—An irritant and corrosive poison. Used occasionally as a caustic for cancer, lupus, sloughing ulcers, and small *nævi*. Should be applied with a glass rod.

Unguentum Hydrargyri Nitratis.—Mercury, $\bar{\zeta}\text{iv.}$; nitric acid, $f\bar{\zeta}\text{viiij.}$; prepared lard, $\bar{\zeta}\text{xv.}$; olive oil, $f\bar{\zeta}\text{xxxij.}$ Dissolve the mercury in the acid by a gentle heat ; melt the lard in the oil, by a water bath, in a porcelain vessel capable of holding six times the quantity ; and while the mixture is hot, add the solution of mercury, also hot, mixing them thoroughly. If the mixture do not froth up, increase the heat till this occurs. Citrine ointment, a stimulating application to indolent ulcers, to the eyelids in ophthalmia, and in a variety of skin diseases, such as herpes, ringworm, impetigo, lepra, psoriasis, rupia. In the milder skin diseases it may be diluted with lard.

Hydrargyri Oxidum Rubrum. Red Oxide of Mercury.
 Hg O.

Charact.—An orange-red powder, readily dissolved by hydrochloric acid, and yielding a solution which, with caustic potash in excess, gives a yellow precip., and with solution of ammonia, a white.

Tests.—Entirely volatilized by a heat under redness, being at the same time decomposed into mercury and oxygen. Done in a test tube, no orange vapours are perceived. Dissolves without residue in hydrochloric acid.

Actions and uses.—Formerly employed to salivate, but not now used internally. May be applied as a caustic to exuberant granulations, indolent ulcers, and venereal warts, but it is not equal to other caustics treated of.

Unguentum Hydrargyri Oxidi Rubri.—Red oxide of mercury, reduced to very fine powder, gr. lxiv.; simp. oint. ℥j. Mix. Useful in chronic inflammation of the edges of the eyelids.

Hydrargyri Subchloridum.—See *Calomelas*.

Hydrargyrum. Mercury.

Charact.—Brilliantly lustrous and easily divisible into spherical globules.

Test.—Volatilizes with heat without any residue.

Actions and uses.—In the metallic state, mercury, like other metals, is of little service, and but little employed in practice, being only, and that very rarely, had recourse to as a mechanical agent in obstruction of the bowels—a very questionable kind of treatment. When oxidated, however, and otherwise combined, it assumes an immense importance, few drugs possessing so great a variety of actions, or admitting of such a variety of applications. It then becomes physiologically an irritant, corrosive, cholagogue, cathartic, diuretic, stimulant, and an exciter of a singular condition or chain of symptoms, salivation being the most prominent. And as a result of these actions separately or combinedly, it is therapeutically an antiphlogistic, sedative, deobstruant, alterative, and antisyphilitic; or perhaps it is this latter specifically, or in virtue of some occult power. The irritant and corrosive actions of mercurials are seen in increased vascularity, inflammation, ulceration, and sloughing. Of all the physiological effects, however, the most wonderful is that termed mercurialism, or mercurial erethism. This singular state, which

may be occasioned by repeated small quantities, or one large dose, is divisible into a few species. 1. A peculiar febrile excitement with increased pulse, fetor of the breath, and a metallic taste; then redness, tenderness, swelling, and sponginess of the gums, increase of saliva, ulceration of the gums, buccal membrane and fauces. 2. High fever, nervous symptoms, intense salivation, deep ulceration, sloughing and gangrene of the gums, cheeks, throat, tongue. This is a condition attended with great risk to life. 3. A train of nervous symptoms, a continued tremor and convulsive twitching of the muscles of the extremities, jaw and tongue, with paralysis, leading to difficulty in walking or speaking: there is also delirium, loss of memory, sleeplessness, dry and brown-skin. This has been called shaking palsy, or *tremblement metallique*, and occurs generally among gilders, and workers in quick-silver mines, exposed to the mercurial vapour. 4. Great depression, irregular action of the heart, sighing, trembling, a weak pulse, a sense of coldness, pale and contracted countenance, and proneness to death on sudden exertion. This variety of condition is, probably, in part owing to certain unknown constitutional peculiarities, for we find some individuals who are slowly acted upon, others violently affected by a single small dose, and some, again, in whom mercurialism shews itself after the mercurial has been stopped. Again, children under ten years of age, in general, bear as much as an adult. By watching the action of mercury in each particular case, we are, in general, enabled to keep its action within due bounds; such as is shewn by fetor, slight tenderness of the gums, and moderate salivation, action enough for specific curative purposes. Sudden changes of temperature while using it are apt to occasion eczema, with fever, and other cutaneous diseases, scaly and internal inflammations, especially of the serous membranes. Scrofulous people offer an unfavourable soil for mercury; swelling and suppuration of glands, diseases of the skin and bones being occasioned by its use. The results are still more grave, when the syphilitic taint concurs. Various methods and

remedies are recommended for combating the symptoms of mercurial action. At an early stage, brisk saline purgatives are useful, with a warm, uniform atmosphere, and the throat and neck kept cool. If there be much swelling and pain, leeches may be applied behind the jaws, and the warm bath at times. Nauseating doses of tartarated antimony, and acetate of lead in 10 grain doses, 3 or 4 times a-day, have been of service. The mouth may also be relieved by gargles of alum, tannin, catechu, borax, and honey, or a mild solution of chloride of lime. Cordials and opiates are also approved by some, and of course the mercury is discontinued immediately. But we must now come to the therapeutical powers of mercury. As an antiphlogistic it is employed in fevers; it is most serviceable in severe remittents and yellow-fever. It is more useful still in acute internal inflammations, and especially in those which give rise to the effusion of coagulable lymph, such as croup, laryngitis, pericarditis, peritonitis, (particularly puerperal), meningitis, pneumonia, pleuritis, hepatitis, and emphatically so in iritis. In metritis and synovitis it is also of service, but it is of more doubtful advantage in nephritis. Very large doses in the form of calomel often abort a tropical dysentery, and arrest malignant cholera. In acute inflammations, advantage is often derived from previous local blood-letting. As an antisyphilitic, mercury possesses an ancient reputation. It was formerly imagined to be the only remedy, and that large doses were indispensable; we now know that the virus may be exterminated by other means, but perhaps most effectually by it; and well enough by more moderate doses. For this purpose as well as the preceding, calomel, or the green iodide, combined with a little opium to prevent draining away by the bowels, are best adapted. The corrosive sublimate is preferred by others. They are given in small doses two or three times a-day until moderate salivation is induced. As a deobstruant it is employed in congestion and enlargement of the liver, in some cases of jaundice, and obstruction of the bowels, in glandular swellings, in morbid deposits, in inflammatory,

adhesions, in effusions into shut sacs, fibrinous effusions into the aqueous humour, in paralysis resulting from cerebral disorder, and partial palsy, depending on disorder of particular nerves. Many, now-a-days, go to the iodide of potassium instead, and probably in some constitutions with equally good results, and somewhat less risk of detriment. For most of the above purposes, slight mercurial action is necessary. As an alterative, given in small doses at intervals, and stopping short of mercurial action, the tongue becomes cleaner, the secretions more natural, the appetite improved, the skin more vigorous in action, and gradually various chronic morbid states, such as skin eruptions, torpidity of the bowels, and enlargement and induration of the mesenteric and other glands disappear. Small doses of pil. hydrarg., or calomel, every other night answer well. As a sedative, its action is peculiar and limited, having this effect only in large doses (calomel) in enteric inflammation. As an anthelmintic, diaphoretic, and diuretic, it is most useful along with other drugs, whose action it seems to promote. It is not given in the metallic state; so the doses will be found under the different preparations.

Emplastrum Hydrargyri.—Applied as a stimulant over enlarged glands, and over the liver in chronic induration.

Emplastrum Ammoniaci cum Hydrargyro.—As a resolvent in indolent buboes, nodes, and enlarged glands.

Hydrargyrum cum Creta.—See *Creta*.

Linimentum.—Ointment of mercury, \bar{z} j.; solut. ammonia, f \bar{z} j.; liniment of camphor, f \bar{z} j. Melt the oint. and linim. with a gentle heat, then add the solut. gradually, and agitate. A stimulating application to indolent swellings. Salivation may result from it.

Pilula Hydrargyri.—Mercurial, or blue pill. Mercury, \bar{z} ij.; confection of roses, \bar{z} ij.; liquorice powder, \bar{z} j. Rub the mercury with the confection until metallic globules are no longer visible, then add the liquorice, and mix the whole well together. Divide into 5 gr. pills. Dose, cathartic, gr. v. to x. To produce the specific effect for which it is often employed, it is given in smaller doses, frequently repeated, and should be

combined with a little opium. As a cathartic, taken at night, and followed in the morning by a purgative draught, it is useful in slight biliary disorders.

Unguentum Hydrargyri.—Mercury, lb.j.; prepared lard, lb.j.; prepared suet, \bar{z} j. Rub them together until metallic globules disappear. This may be applied to produce salivation, from \bar{z} ss. to \bar{z} ij, being rubbed into the inside of the thighs, or axilla. A quicker plan is to blister the surface previously. Used also in enlarged glands, and over the inflamed part in phlegmonous erysipelas.

Hydrargyrum Ammoniatum. Ammoniated Mercury.

$\text{NH}^2, \text{Hg}^2, \text{Cl}$.

Charact.—An opaque white powder, on which cold water, alcohol, and ether have no action.

Uses.—Not used internally, but for making the ointment.

Unguentum Hydrargyri Ammoniatum.—Ammoniated mercury, gr. lxiv.; simple oint. \bar{z} j. Mix. Useful in herpes, impetigo, syccosis menti, acne of the face, &c.

Hydrargyrum Corrosivum Sublimatum. Corrosive Sublimate. Chloride of Mercury, Hg Cl .

Charact.—In heavy colourless masses of prismatic crystals, possessing a highly acrid metallic taste, more soluble in alcohol, and still more so in ether than water. Its aqueous solution gives a yellow precipitate with caustic potash, a white precipitate with ammonia, and a curdy white precip. with nitrate of silver.

Tests.—Entirely soluble in ether. When heated it sublimes without decomposing, or leaving any residue.

Actions and uses.—An intensely irritant poison, a few grains inflaming and corroding the alimentary tube, and occasioning death. In some cases there is a great depression of the nervous system, and coma. In poisoning, give a moderate quantity of albumen, such as the white of egg, (the yolk is also efficacious); in their absence, give flour, milk, or the proto-chloride of tin. Notwithstanding its poisonous properties, it is a great favourite with many for antivenereal purposes; and for chronic rheu-

matism, periostitis and arthritis, depending on the syphilitic taint. I should be disposed to place it as an alterative for these purposes above calomel, or the blue pill, and on equal terms with the green iodide of mercury; corrosive sublimate, however, being given in much smaller doses. Dose, 1-12th to 1-6th of a grain, in pill, or in solution, as follows: ℞ Hydrargyri corrosivi sublimati, gr. ij.; spiritus vini rectificati, f̄ss.; infusi columbæ, f̄xviiij.; liquoris morphinæ hydrochloratis, f̄ij. Misc. Sumat cochleare parvum bis terve die. Each teaspoonful contains 1-12th of a gr. If there is much intestinal irritation excited, it should be stopped.

Incompatibles.—Alkalies and their carb., lime, antim. tart., nitrate of silver, acetate of lead, iodide of potassium, albumen, decoction of bark, soaps.

Hyoscyamus. Hyoscyamus.

Hyoscyamus niger Linn. N. F. Solanaceæ. The leaves and branches of the indigenous biennial plant, dried; collected when about two-thirds of the flowers are expanded.

Charact.—Leaves sinuated, clammy, and hairy. The fresh herb has a strong unpleasant odour, and a slightly acrid taste, which nearly disappear on drying.

Analysis.—An alkaloid hyoscyamia, bitter extractive, fixed oil, gum, sugar, albumen, &c.

Actions and uses.—Narcotic, and slightly irritant. In large doses it occasions delirium, with dilatation of the pupil, loss of vision, and profound stupor, the prelude of death. These effects are to be met by stimulating emetics, the stomach-pump, external and internal stimulants, and blood-letting. In smaller doses it is a useful anodyne and hypnotic, and is more suitable for some in the way of procuring sleep, allaying spasm, or soothing pain, than opium. As a general rule, however, it is much inferior to opiates for these purposes, but it possesses the advantage of not constipating the bowels. Many, however, who get on well with opiates, experience anxiety, headache, excitement, troublesome dreams, spectral illusions, and delirium, from its use; and these effects are the more likely to arise in

the presence of cerebral affections. Hyoscyamus is given chiefly in irritable cough, in urinary diseases, in neuralgia, in spasmodic affections with nervous excitability; and, above all, it is in extensive use for correcting the tormina produced by different cathartics. Topically it is applied as an anodyne in painful glandular swellings, ulcerations, and piles. It has never made for itself a name as a deobstruant. Dose, of powdered leaves (seldom given,) gr. v. to x.

Extractum Hyoscyami.—Dose, gr. ij. to v. in the form of pill.

Tinctura Hyoscyami.—Hyoscyamus leaves, ʒijss.; proof spt. Oj. Make as usual. Dose, m. xxx. to fʒij.

Incompatibles.—Potash and soda, nitrate of silver, the vegetable acids, and acetate of lead.

Iodum. Iodine.

Charact.—Laminar crystals of a peculiar odour, dark colour, and metallic lustre, which, when heated, yield a beautiful violet coloured vapour; very sparingly soluble in water, but freely dissolved by alcohol, by ether, and by a solution of iodide of potassium. The aqueous solution strikes a deep blue with starch.

Adulterations.—Charcoal, plumbago, black oxide of manganese, and water. The three first are not sublimed by heat, and the water is detected by pressing between folds of filtering paper, or by shaking in a dry bottle.

Actions and uses.—Irritant, corrosive, tonic, deobstruant, and an exciter of iodism; a peculiar condition to be afterwards described. In doses of a few grains, it occasions pain in the stomach, sickness, vomiting, headache, and giddiness; and in larger quantities inflammation of the alimentary mucous membrane, &c. and death; orange-coloured erosions being found in the mucous coat of the stomach. From gr. lx. to gr. cxx. might occasion death. Iodism is produced by small doses continued for a lengthened period. The symptoms are headache, nausea, languor, giddiness, loss of appetite, debility; by and bye there is intense depression, muscular debility, entire want of appetite, tremors, emaciation, quick and feeble

pulse, palpitation, a sinking feeling, clammy sweats, dinginess of the skin, catharsis, diuresis, priapism, and more rarely a wasting of the mammæ and testicles. Death may result unless the iodine be discontinued, but these symptoms gradually subside when it is disused. Idiosyncrasy comes in here again to give us variety; some take it largely without being iodised; in others, the nasal and pulmonary mucous membranes are very much inflamed, and some again have their kidneys immensely stimulated. Now there is profuse diaphoresis, again pustular eruptions. The treatment is, suspension of the drug, emetics, and demulcent drinks. The applications of iodine in medicine are numerous; but most success will attend us, we think, if we confine it pretty much to the treatment of scrofula and its varied manifestations; and these, without going the length of Lugol, are sufficiently numerous and grave. In bronchocele, where it was first used by Coindet of Geneva, its success is undoubted, but it fails if there be much induration of the gland. For this purpose it may be used internally, and in the way of inunction. In abscesses, tumours, enlarged glands, ulcers, osseous disease, and ophthalmia, springing from the scrofulous taint, it will be found extremely serviceable. It is recommended, too, by many in leucorrhœa, amenorrhœa, phthisis, gout, chorea, epilepsy, paralysis, and ascites, but often fails. Yet in many of these diseases, where they are the offspring of scrofula, it will be found frequently of great benefit. The inhalation of the vapour of iodine in phthisis and bronchitis is worthy of continued trial,—success having followed in some cases. It is highly probable that the successful results of this drug are due to a combined alterative and deobstruant action. The tincture is employed as an injection after tapping for the radical cure of hydrocele; and in this form, as well as in that of ointment and liniment, it is topically applied as a stimulant, or resolvent, to enlarged glands, chronic swellings of joints, buboes, inflamed bursæ, and chronic abscesses. Iodine is not given in substance, but usually along with iodide of potassium in solution.

Formula.—℞ Iodi, gr. iij. ; potassii iodidi, gr. xxx. ; aquæ,

f \bar{z} v. ; syrupi aurantii, f \bar{z} j. Misc. Sumat cochleare magnum ter die.

Linimentum Iodi.—Iodine, \bar{z} j $\frac{1}{4}$. ; iodide of potassium, \bar{z} ss. ; rect. spt. f \bar{z} v. Dissolve.

Tinctura.—Iodine, \bar{z} ss. ; iodide of potass, \bar{z} $\frac{1}{4}$. ; rect. spt. Oj. Dissolve. Dose, min. x. to xxx.

Unguentum Iodi Compositum.—Iodine, gr. xxxii. ; iodide of potassium, gr. xxxii. ; proof spt. f \bar{z} j. ; prepared lard, \bar{z} ij. Rub the iodine and the iod. pot. well together with the spt. in a glass or porcelain mortar ; add the lard gradually, and mix thoroughly.

Incompatibles.—Ammonia, sulphur, phosphorus, sulphuric, nitric, prussic acid, metals and their salts, vegetable alkaloids.

Ipecacuanha. Ipecacuan.

Cephaelis Ipecacuanha D. C. N. F. Cinchonaceæ. The root dried ; imported from Brazil.

Charact.—In pieces 3 or 4 inches long, about the size of a small quill, contorted and irregularly annulated. Colour, various shades of brown. Consists of two parts, the cortical or active portion, which is brittle, and a slender, tough, white woody centre. Powder, pale brown, with a faint nauseous odour, and a somewhat acrid and bitter taste.

Analysis.—The cortical part contains an alkaloid named emetina, to which it owes its active properties ; a fat oily matter, a reddish-brown acid, named ipecacuanha acid, wax, gum, starch, &c.

Adulterations.—Spurious ipecacuan roots are occasionally, but not often, substituted ; but attention to the above characters will discover them.

Actions and uses.—Irritant, emetic, diaphoretic, expectorant, and if retained in the stomach (instead of in general being rejected), narcotico-acrid. We know this from the experiments of Magendie, who excited vomiting, coma, and death in a dog, by the introduction of emetina into the system through wounds, as well as by the stomach. As an emetic, it operates very much like tart. antim., some 20 minutes or so elapsing ere emesis results, and the act of vomiting being frequently re-

peated : but it does not depress quite so much, nor is it so apt to induce catharsis. It is well suited for old people, feeble women, and children, not, as before said, depressing so much as antimony. It is used in infantile fevers, where we wish to empty the stomach and abate the force of the circulation, (for it is sedative in virtue of its emetic power) ; in hooping-cough ; and in the fits of ague, asthma, and hysteria, which are sometimes checked by it. As a diaphoretic it is of service in pulmonary catarrh, coryza, and acute rheumatism, and more so, if combined with a little opium. As an expectorant, in small doses by diminishing discharge, and in large doses by expelling it during vomiting, it is beneficial in chronic bronchitis. Some believe it to be tonic in doses of $\frac{1}{4}$ grain or so, but this is doubtful. It is employed with success in nauseating doses in the dysentery, acute and chronic, of warm climates, where it is supposed by some to act as a specific sedative, by others as an astringent ; and by some again its good results are thought to be due to its action on the skin. Some people are extremely and peculiarly susceptible to its action, the invisible dust of the powder floating in the air of their apartment exciting an attack of spasmodic asthma. *Emetina* is but little used ; 1-16th gr. will excite vomiting. Dose of the powder, gr. xx. to xxx. as an emetic ; gr. j. to gr. vij. for other purposes.

Formula.—For chronic bronchitis. R Vini ipecacuanhæ f ℥ij.; syrupi scillæ, f ℥j. ; tinctura lobeliæ æthereæ, f ℥jss.; liquoris morphiæ hydrochloratis, f ℥jss ; Aquæ ad, ℥vj. Misce. Sumat cochleare magnum ter die.

Pulvis Ipecacuanhæ cum opio—Ipecacuan, powder, ℥ss.; opium, in powder, ℥ss.; sulphate of potash, ℥iv. Mix well, and pass through a fine sieve. This, commonly called Dover's powder, is an excellent diaphoretic ; it should not be given where there is much irritability of the stomach ; or in cerebral disorder. Dose, gr. v. to xv. The surface of the body should be kept warm ; and that it may be retained on the stomach, little drink should be taken, with, or after it. Children should not get it as a rule.

Trochisci Morphicæ et Ipecacuanhæ.—Each lozenge contains 1-36th gr. of hydrochlor. morph., and 1-12th gr. ipecacuan. Useful as an expectorant in chronic bronchitis, checking discharge, and allaying tickling cough. Dose, to the extent of 8 or 12 lozenges daily.

Vinum Ipecacuanhæ.—Ipecacuan, bruised, ℥j.; sherry, Oj. Macerate 7 days, with frequent agitation; filter. Dose, as an emetic, in children, min. xx. to xl. Expectorant, min. j. to v. for adults, expectorant, min. x. to xx.; as an emetic, the powder is generally preferred.

Incompatibles.—Salts of lead and mercury, vegetable acids, and astringent infusions.

Jalapa. Jalap.

Exogonium Purga Bentham. N. F. Convolvulaceæ. The tubers, dried; imported from Mexico.

Charact.—From the size of a nut to that of an orange, ovoid, the larger tubers often incised, covered with a thin brown wrinkled cuticle; when cut, of a yellowish-grey hue, with dark-brown concentric circles.

Analysis.—A hard and soft resin, the active principle, gum, sugar, starch, &c.

Actions and uses.—Cathartic. In large doses, irritant, occasioning violent hypercatharsis, which may even prove fatal. Its action in medicinal doses is energetic, griping occasionally, and producing frequent stools; and it affects chiefly the small bowel. It is given in constipation, and along with potass. bitart. in dropsies, where it occasions copious watery evacuations; and, combined with a little calomel, it forms a useful vermifuge. It purges when applied to a wound. Dose, powder, gr. x. to gr. xxx. for adults; gr. ij. to viij. for children.

Extractum Jalapæ.—Dose, gr. v. to xv.

Pulvis Jalapæ Compositus.—Jalap, ℥v.; acid. tart. potash, ℥jx.; ginger, powder, ℥j. Mix well, and pass through sieve. An excellent hydragogue cathartic. Dose, gr. xxx. to xc.

Pulvis Scammonii Co.—See *Scammonium*.

Tinctura.—Jalap, ℥ijss.; proof spt. Oj. M. By maceration and percolation, as usual. Dose, f℥j. to f℥ss.

Jalapæ Resin. Resin of Jalap.

A resin obtained from jalap by means of rect. spt.

Charact.—In dark-brown opaque brittle fragments, translucent at the edges, readily reduced to a pale-brown powder, acrid in the throat, soluble in rect. spt., partially so in ether.

Actions and uses.—An active cathartic. Dose, gr. iij. to x.

Juniperi Oleum.—See *Oleum Juniperi*.**Kamela.** Kamela.

Rottlera Tinctoria. The powder which adheres to the capsules; imported from India. N. F. Euphorbiaceæ.

Charact.—Granular, orange-red, inflammable; not easily mixed with water, but the greater part dissolved in boiling alcohol, forming a red solution.

Test.—Ether dissolves most of it, the residue consisting mostly of tufted hairs.

Uses.—This has been used in India as an anthelmintic in tapeworm. It is somewhat irritating to the bowels. Dose, gr. lx. to clxxx. A drachm is generally given every three or four hours.

Kino. Kino.

Pterocarpus Marsupium. The juice obtained from incisions in the trunk, inspissated; from Malabar. N. F. Leguminosæ.

Charact.—In small angular tears, reddish-black, ruby-red on the edges, very astringent.

Analysis.—Tannin in large quantity, catechuic acid, gum. Water takes up little, alcohol dissolves nearly two-thirds of it.

Actions and uses.—Astringent, and used in the same diseases as catechu. Dose, powder, gr. x. to xxx.

Pulvis Catechu Compositus.—Take of catechu \bar{z} iv.; kino, \bar{z} ij.; rhatany, \bar{z} ij.; cinnamon, \bar{z} j.; nutmeg, \bar{z} j. Mix well, and pass through a fine sieve. Dose, gr. xxx. to lx.

Pulvis Kino cum Opio.—Take of kino \bar{z} ij. and three quarters; opium, \bar{z} $\frac{1}{4}$.; cinnamon, \bar{z} j. Mix, and pass through sieve. Dose, gr. x. to xxx.

Tinctura.—Take of kino \bar{z} ij.; rectified spt. Oj. Macerate

seven days, filter, and add spt. to make a pint. Dose, fʒj. to fʒss.

Krameria. Rhatany.

Krameria triandria Ruiz and Pavon. The root, dried; from Peru. N. F. Polygalaceæ.

Charact.—About an inch diameter, branches numerous, long, brownish-red, and rough externally, reddish-yellow internally, strongly astringent.

Analysis.—Tannin, a trace of gallic acid, krameric acid, gum, &c. Yields its active principles to cold water and alcohol.

Actions and uses.—A powerful astringent. Useful in hæmatemesis, menorrhagia (passive), chronic diarrhœa, atonic mucous discharges, colliquative sweating, and incontinence of urine. A topical styptic, and an ingredient of many dentrifices. Dose, powder, gr. x. to gr. xxx.

Extractum.—Prepared by maceration of the root in water, and evaporation. Dose, gr. x. to xxx.

Infusum.—Rhatany, ʒss.; boiling dist. water, ʒx. Infuse an hour; strain. Dose, fʒj. to fʒij.

Pulvis Catechu Compositus.—See *Kino*.

Tinctura.—Rhatany, ʒijss.; proof spt. Oj. Macerate forty-eight hours, then percolate, and make up to a pint. Dose, fʒij. to fʒss.

Kousso.—See *Cusso*.

Lauro-cerasus. Cherry-Laurel Leaves.

Prunus Laurocerasus Linn. The common or cherry-laurel. The fresh leaves; a native of the shores of the Black Sea, but now cultivated in Britain. N. F. Rosaceæ.

Charact.—Ovate-lanceolate, distantly toothed, glands at base, smooth and shining, deep-green on strong short foot-stalks, emitting a ratifia odour when bruised.

Analysis.—A volatile oil, resembling the volatile oil of bitter almonds, and containing free prussic acid. The properties of the leaf depend on this.

Actions and uses.—Narcotic and sedative. Poisonous in

large doses, owing to the prussic acid they contain. Used in spasmodic cough, and in phthisis; but it is better to employ the prussic acid itself.

Aqua.—Prepared by distilling the fresh leaves in water. Dose for adults, f̄ss. to f̄j.; for children, min. ij. to min. x.

Lavandulæ Oleum.—See *Oleum Lavandulæ*.

Limonis Cortex. Lemon Peel.

Citrus Limonum D. C. The fresh outer part of the rind of the ripe fruit; imported from southern Europe.

Syrupus.—Dose, f̄j. *Tinctura*, f̄ij. to f̄vi.

Limonis Oleum.—See *Oleum Limonis*.

Limonis Succus. Lemon Juice.

Citrus Limonum D. C. The expressed juice of the ripe fruit.

Charact.—A slightly turbid yellowish liquor, with sharp acrid taste, and agreeable flavour.

Actions and uses.—A pleasant refrigerant in fevers; and useful occasionally in acute rheumatism, but it has been rated too high in this disease. At one time held in high repute for scorbutus, but now that we know the value of variety in diet, and especially of a liberal supply of vegetables, we depend less upon it. It is generally taken as a drink alone, or in the form of a lemonade, with any of the alkaline bicarbonates.

Acidum Citricum.—See that acid.

Lini Farina. Linseed Meal.

Linum Usitatissimum Linn. The seeds ground and deprived of their oil by expression. Useful in the form of poultice as an emollient.

Cataplasma.—Linseed meal, ʒiv.; olive oil, f̄ss.; boiling water, f̄x.

Lini Oleum.—See *Oleum Lini*.

Lini Semen. Linseed.

Linum Usitatissimum Linn. The seeds; cultivated in Britain.

Uses.—A demulcent in dysentery and hemorrhoids, in the form of enema, and by the mouth in catarrh and urinary diseases.

Infusum.—Linseed, 160 grains; fresh liquorice root, 60 grains; boiling dist. water, 10 ounces. Infuse one hour, and strain. Dose, $f\bar{z}j.$ to $f\bar{z}iv.$

Lithargyrum. Litharge. Pb O.

Emplastrum Lithargyri.—Litharge, four pounds; olive oil, one gallon; water, three pints and a half; boil in a copper pan, and stir until it acquires a proper consistence for a plaster. As "diachylon plaster" it is used for retaining the edges of wounds in contact, for "strapping" in ulcerous legs, and as the basis of other plasters.

Lithiæ Carbonas. Carbonate of Lithia. L O, C O².

Charact.—In white powder, or in minute crystalline grains, alkaline in reaction, soluble in 100 parts of cold water, insoluble in alcohol.

Uses.—Given in gout, and in some skin diseases, such as urticaria, prurigo, and lichen. Dose, gr. x. to xv.

Lithia Citras. Citrate of Lithia. 3 L O, C¹², H⁵ O¹¹.

Charact.—A white amorphous powder, deliquescent, and soluble in water, without leaving any residue.

Uses.—Same as the carbonate. Dose, gr. x. to xv.

Lobelia. Lobelia.

Lobelia Inflata Linn. The herb in flower, dried; imported from North America. Indian tobacco. N. F. Lobeliaceæ.

Charact.—Stem angular; leaves alternate, ovate, toothed, somewhat hairy beneath; capsule ovoid inflated, ten-ribbed; herbacrid.

Analysis.—Lobelin—the active principle, a shining yellow hygroscopic substance, somewhat analogous to the active principle of tobacco; lobelic acid, gum, resin, fixed oil, &c.; more recently an oily, transparent, volatile fluid, lobelina (an

alkaloid, possessing in minute doses the poisonous action of the plant,) has been detected.

Actions and uses.—Emetic, expectorant, antispasmodic. It is a powerful narcotic poison. A teaspoonful of the powder, if not rejected by the stomach, may prove fatal. It is not much used in this country as an emetic, being thought somewhat dangerous. As an antispasmodic it has been used with success in the paroxysm of asthma and whooping-cough; in dyspnoea attending pulmonary emphysema, and organic diseases of the heart, and as an expectorant in bronchitis. In large doses, it causes violent vomiting,—a burning sensation in the throat, followed by prostration, stupor, and convulsions. Coffin, an English quack, or his followers, can testify abundantly to these properties, many of their patients having been poisoned by its incautious use. Dose, powder, gr. xv. as an emetic. Gr. j. to gr. ij. as an antispasmodic and expectorant.

Tinctura.—Lobelia, ℥ijss.; proof spt. Oj. Macerate 48 hours, and percolate. Dose, f℥ss. to f℥j.

Tinctura Ætherea.—Lobelia, ℥ijss.; spirit of ether, Oj. Dose, min. xx. to min. lx. As an antispasmodic, this is the best form.

Lupulus. Hop.

Humulus Lupulus Linn.—The dried catkins of the female plant; cultivated in England. N. F. Urticaceæ.

Charact.—Greenish yellow scales, with an adherent golden yellow powder at their base; taste bitter; odour aromatic.

Analysis.—Lupulin and a volatile oil, (on which its efficacy depends;) gum, lignin, colouring matter, &c. The lupulin is separated simply by rubbing and sifting.

Actions and uses.—A feeble narcotic, and tonic. Used in medicine chiefly as a hypnotic in sleeplessness, connected with anxiety, nervous irritation, and delirium tremens, but not much to be relied on. A pillow filled with hops has long been a popular soporific. As a tonic, their power is not great; they are no more than a fair stomachic. Beer well impregnated

with hops has been alleged to correct the lithic acid diathesis of profuse eaters of animal food.

Extractum.—Dose, gr. v. to gr. xx.

Infusum.—Hops, \bar{z} ss. Boiling dist. water, $f\bar{z}x$. Infuse two hours, and strain. Dose, $f\bar{z}j$. to $f\bar{z}ij$.

Tinctura.—Hops, $\bar{z}ij$ ss., proof spt. Oj. Macerate, and percolate. Dose, $f\bar{z}$ ss. to $f\bar{z}ij$.

Magnesia. Magnesia. Mg O.

Charact.—A white powder, insoluble in water, but readily dissolved by acids without effervescence.

Magnesia Levis.—Light magnesia. Mg O.

Charact.—A bulky white powder differing from the preceding only in its greater levity.

Magnesia Carbonas. Carbonate of Magnesia.

$3 (\text{Mg O, CO}^2, + \text{HO}) + \text{Mg O, } 2 \text{ HO.}$

Charact.—A white granular powder ; the magnesiæ carbonas penderosum of Dublin.

Magnesiæ Carbonas Levis. Light Carbonate of Magnesia.

$3 (\text{Mg O, CO}^2 + \text{HO}) + \text{Mg O, } 2 \text{ HO.}$

Charact.—A very light powder, found under the microscope to be partly amorphous, with numerous slender prisms intermixed.

Actions and uses.—Magnesia is laxative, antacid, and antilithic. As a laxative, it is very mild, and given chiefly to children, where it is also very useful in correcting the hyperacid condition of the alimentary canal which so often prevails. It is of great service in preventing heartburn and gastrodynia, given either alone, or with a tonic or aromatic, a little before meals ; and it is beneficial in gout at times, owing to its antacid and antilithic action. As an antilithic, it acts by correcting acidity, and by forming the soluble lithate of magnesia, where free lithic acid or the lithate of ammonia prevails. Combined with rhubarb and ginger, it forms a good laxative and stomachic, long popularly known as Gregory's powder. It has been used

for solidifying copaiba, and as an antidote for arsenic. The carbonates of magnesia are the weakest. Dose, magnesia; magnesia levis, gr. x. to g. xx. as an antacid and antilithic, thrice a-day; as a laxative for adults, gr. lx.; for children, gr. iij. to gr. xij. Double the above of the carbonates.

Pulvis Rhei Compositus.—Rhubarb powder, ℥ij.; light magnesia, ℥vi.; ginger powder, ℥j. Mix well, and pass through a fine sieve. Dose, gr. lx. to gr. xc. as a purgative.

Magnesia Sulphas. Sulphate of Magnesia.

Mg O, SO³ + 7 HO. Epsom salts.

Charact.—In minute colourless, transparent rhombic prisms, soluble in water.

Actions and uses.—A refrigerant cathartic, producing watery evacuations, without, in general, causing nausea or griping. It is well adapted for most forms of febrile and inflammatory affections. Dose, ℥ij. to ℥jss. Its nauseous taste is well concealed by acid. sulph. dil.

Enema.—Sulphate of magnesia, ℥j.; olive oil, f℥j.; mucilage of starch, ℥xv. M.

Manna. Manna.

Fraxinus Ornus Linn, and *Fraxinus Rotundifolia* D. C. A concrete exudation from the stem, obtained by incisions; imported from Sicily.

Charact.—In yellowish-white stalactiform pieces, from one to six inches long, and one or two inches wide, uneven, porous, friable, and with a sweetish taste.

Analysis.—A saccharine principle—mannite—obtained by boiling in alcohol, uncryst. sugar, gum, and nitrogenous matter.

Actions and uses.—Mild laxative, and chiefly given to children, or along with other cathartics, as senna. Dose, for children, ℥j. to ℥ss.; adults, ℥ss. to ℥j. Mannite, children, ℥ss. to ℥ij.; adults, ℥ss. to ℥j.

Mastiche, Mastich.

Pistacia Lentiscus Linn. A resinous exudation from the stem, obtained by incision; imported from Turkey and the Levant.

Charact.—Small yellowish brittle tears; soft and ductile when chewed.

Actions and uses.—A drug of trifling value. Once thought useful in leucorrhœa, and ulceration of the uterus; but now we know better. An ingredient of “dinner pills,” and useful for filling the cavities of carious teeth.

Matica. Matico.

Artanthe Elongata Miguel, Comment. The dried leaves; imported from Peru. N. F. Piperaceæ.

Charact.—From two to eight inches long, veined and tessellated on upper surface; downy beneath, with an aromatic, slightly astringent warm taste.

Analysis.—A volatile oil, tannin, and a resin. Water does not take up their astringency.

Actions and uses.—Astringent; but for internal use it has proved almost a failure, hemorrhages not being at all successfully arrested by it. It is a tolerable styptic in small bleedings, from leech-bites and incisions, but we have better ones.

Infusum.—Matico, \bar{z} ss.; boiling dist. water, $f\bar{z}$ x. Infuse half-an-hour, and strain. Dose, $f\bar{z}$ j. to $f\bar{z}$ ij.

Mel. Honey.

Apis Mellifica Linn. The Hive Bee. A saccharine secretion deposited by the insect in the honeycomb; British, and imported.

Charact.—A viscid brownish-yellow semitranslucent liquid, with a sweet taste.

Mel Depuratum.—Clarified honey. Take of honey five pounds; melt the honey in a water bath, and strain while hot through flannel, previously moistened with warm water.

Analysis.—Grape-sugar, cane-sugar, acetic acid, mannite, wax, &c.

Actions and uses.—Demulcent, and slightly laxative. Used chiefly as an ingredient of gargles, for sore-throat, and aphthous ulcerations of the mouth. The mel. boracis is useful in the sore-mouth of children, aphthæ, and in the sore-throat of scarlatina.

Menthæ Piperitæ Oleum.—See *Oleum Menthæ Piperitæ*.

Menthæ Viridis Oleum.—See *Oleum Menthæ Viridis*.

Mezereum. Mezereon.

Daphne Mezereum Linn. Mezereon, or *Daphne Laureola* Linn. Spurge Laurel. The bark, dried.

Charact.—In tough pliable olive-brown stripes, or quilled pieces, white within; taste hot and acrid.

Analysis.—A neutral crystalline principle contained in the inner bark—daphnin—an acrid resin combined with wax, sugar, &c.

Actions and uses.—A stimulating diaphoretic and alterative, once a good deal used as an antivenereal remedy, but now, probably owing to its acridity, as well as its frequent failure, more seldom employed. It is very apt to disorder the primæ viæ. As a masticatory, Dr Withering found it serviceable in a case of difficult deglutition from paralysis. It is much employed on the Continent as an epispastic; here we believe in better ones.

Decoctum Sarsæ Compositum.—See *Sarsa*.

Mori Succus. Mulberry Juice.

Morus Nigra Linn. The juice of the ripe fruit; cultivated in Britain.

Charact.—Dark violet colour, faint odour, sweet acidulous taste.

Actions and uses.—Refrigerant and laxative. Proves a grateful drink in fevers, by cooling and allaying thirst. When too much is taken, it is apt to produce diarrhœa.

Syrupus.—Mulberry juice, Oj.; refined sugar, lb.ij.; rect. spt. f̄ijss. Dissolve the sugar in the juice by a gentle heat. Add the spt. lastly. The product should weigh three pounds six ounces. Dose, f̄j.

Morphiæ Hydrochloras. Hydrochlorate of Morphia.

Synonym.—*Morphiæ Murias*, Ed. Dub. The hydrochlorate of an alkaloid, C³⁴, H¹⁹, NO⁶, HCl + 6 HO, prepared from opium.

Characters.—In white flexible acicular prisms of a silky lustre, with a very bitter taste, and soluble in water and spirit.

Tests.—Entirely destructible by heat, leaving no residue. Gr. xx. of the salt, dissolved in \bar{z} ss. warm water, with ammonia added slightly in excess, give on cooling a crystalline precipitate, which, when washed with a little cold water, and dried by exposure to the air, weighs 15·18 grains.

Prep.—Take of opium, sliced, one pound; distilled water, a sufficiency; chloride of calcium, three quarters of an ounce; solution of ammonia, a sufficiency. Purified animal charcoal, a quarter of an ounce; dilute hydrochloric acid, two ounces, or a sufficiency. Macerate the opium 24 hours with 2 pints of the water, and decant. Macerate the residue for 12 hours with 2 pints of the water; decant, and repeat the process with the same quantity of the water, subjecting the insoluble residue to strong pressure. Unite the liquors, evaporate on a water-bath to the bulk of one pint, and strain through calico. Pour in now the calc. chlorid., previously dissolved in four fluid ounces of dist. water, and evaporate until the solution is so far concentrated that on cooling it becomes solid. Envelope the mass in a double fold of strong calico, and subject it to powerful pressure, preserving the dark fluid which exudes. Triturate the squeezed cake with about half a pint of boiling dist. water, and the whole being thrown upon a paper filter, wash the residue well with boiling distilled water. The filtered fluids having been evaporated as before, cooled, and solidified, again subject the mass to pressure; and if it be still much coloured, repeat this process a third time, the expressed liquids being always preserved. Dissolve the pressed cake in six fluid ounces of boiling dist. water; add the animal charcoal, and digest for 20 minutes; filter, wash the filter and charcoal with boiling dist. water, and to the solution thus obtained, add the solution of ammonia in slight excess. Let the pure crystalline morphia which separates as the liquid cools, be collected in a paper filter, and washed with cold dist. water, until the washings cease to

give a precipitate with solution of nitrate of silver, acidulated by nitric acid. Diffuse the pure morphia obtained as above, through two fluid ounces of boiling dist. water placed in a porcelain capsule kept hot, and add, constantly stirring, the dilute hydrochloric acid, proceeding with caution, so that the morphia may be entirely dissolved, and a neutral solution obtained. Set aside to cool and crystallize. Drain the crystals, and dry them on filtering paper.

Actions and uses.—Narcotic, sedative, anodyne, hypnotic. This preparation is a narcotic poison the same as opium, gr. x. having proved fatal. It is used for the same purposes, such as, subduing pain, allaying spasm, soothing irritability, and procuring sleep; and while, in general, in no way inferior, possesses certain advantages over that drug. For example: it does not, in general, constipate the bowels so much; nor occasion so often giddiness, headache, sickness, impaired appetite, weight about the stomach, indigestion, and feeling of wretchedness; nor is it so fruitful of excitement, apprehension, feverishness, and horrible dreams. Its taste also commends it, especially where we wish the patient not to know he is getting an opiate, being much less disagreeable. As a set off to these advantages, we have to note that the morphia is rather more liable to occasion an itchiness of the skin, with an eruption and irritability of the bladder, but only in rare cases. The injection of a few drops of a strong solution into the areolar tissue, is now a common, and, at times, successful way of palliating various neuralgic pains, such as sciatica and tic-doloureux. This salt, like opium and some other drugs, when continued for any length of time, requires to be increased in dose, the system, by getting habituated to it, tolerating more. Dose, gr. $\frac{1}{4}$ to gr. ss. When applied by the skin, the cuticle is removed by blistering, and a grain or so sprinkled over the raw surface.

Liquor.—Take of hydrochlorate of morphia, gr. iv.; dilute hydrochloric acid, min. viij.; rectified spirit, fʒij.; distilled water, fʒvj. Mix the acid, spirit, and water, and dissolve the hydrochlorate in the mixture. Dose, min. xxv. to xl.

Trochisci.—Hydrochlor. morph.; tinct. tolu; sugar and gum. Each lozenge contains gr. 1-36th of hydrochlor. morph. Dose, No. vj. to x. daily.

Trochisci Morphicæ et Ipecacuanhæ.—Same as preceding, with the addition of ipecac. Each contains 1-36th of hydrochlor. morph. and gr. 1-12th of ipecac. These lozenges are useful for allaying irritable cough.

Suppositoria Morphicæ.—Morph. hydrochlor. gr. iij.; sugar, gr. xxx.; lard, a sufficiency; white wax, enough. Mix. Divide into xij.

Incompatibles.—Astringent decoctions and infusions; alkalies, and alkaline earths; earthy and metallic salts in general.

Morrhuæ Oleum.—See *Oleum Morrhuæ*.

Moschus. Musk.

Moschus moschiferus Linn. Native of Thibet and other parts of central Asia. The inspissated secretions from the preputial glands, dried; imported from China. Class, mammalia; order, ruminantia.

Charact.—Small reddish-black unctuous grains, with a strong, peculiar, and diffusible odour, and bitter aromatic taste; contained in an oval membranous sac, about 2 inches in diameter, covered on the outer side with stiff greyish hairs.

Analysis.—Ammonia, stearine, elaine, cholesterine, volatile oil, gelatine, albumen, an undetermined acid, and different salts.

Actions and uses.—Antispasmodic. It is not much employed, being dear; but it does good in hysteria and in hic-cough and subsultus tendinum of fevers. In chorea, its influence is variable, or doubtful. Dose, gr. x.

Myristica. Nutmeg.

Myristica officinalis Linn. Suppl. The kernel of the seed; imported from Sumatra and the Molucca Islands. N. F. Myristicaceæ.

Actions and uses.—An aromatic stimulant, and carminative. Useful at times in vomiting. It is narcotic in virtue of its essential oil, in large quantity, and therefore contra-

indicated in those who have an apoplectic habit of body, or a tendency to paralysis. Dose, gr. x. to gr. xxx.

Pulvis Aromaticus.—Take of cinnamon, ℥iv.; nutmeg, ℥iij.; saffron, ℥iij.; cloves, ℥jss.; cardamoms (freed from their capsules), ℥j.; refined sugar, ℥xxv. Mix thoroughly, after reducing each to fine powder, and pass through a fine sieve. This, in doses of from gr. v. to gr. xx., forms an agreeable adjunct and corrective to other powders.

Tinctura Lavandulæ Composita.—See *Oleum Lavandulæ*.

Myristicæ Adeps. Concrete Oil of Nutmeg.

A concrete oil obtained by means of expression and heat, from nutmegs. An ingredient of the Emplast. Picis.

Myristicæ Oleum.—See *Oleum Myristicæ*.

Myrrha. Myrrh.

Balsamodendron Myrrha. Ehrenb. A gum-resinous exudation from the stem; collected in Arabia Felix and Abyssinia. N. F. Amyridaceæ.

Charact.—In reddish-yellow tears, somewhat translucent; odour aromatic, taste acrid and bitter.

Analysis.—Volatile oil, resin, gum, carbonate of magnesia and lime, and oxide of iron.

Actions and uses.—A warm stimulant and tonic. In small doses, it stimulates the stomach, promoting digestion. It has been used as an expectorant in chronic bronchitis, though not with anything like marked success; and it has occasionally done good in phthisis, probably by its combined tonic and expectorant action. It was at one time in vogue as an emmenagogue, and as a remedy in genito-urinary mucous discharges, but it has failed to maintain a reputation in these diseases. In consequence of its stimulant and heating nature, it should not be given where there is a tendency to inflammatory action. Dose, gr. x. to gr. xxx.

Decoctum Aloes Compositum.—Ext. soc. aloes, gr. xc.; myrrh, gr. lx.; saffron, gr. lx.; carb. potash, gr. xl.; ext. liquorice, ℥ss.; comp. tinct. cardam. f℥iv.; distilled water a sufficiency. Triturate the aloes, myrrh, and carb. potash to-

gether ; add the saffron and ext. liquorice, and boil in ℥xiv. of the water for ten minutes in a covered vessel ; cool, strain through flannel, and add the tinct. card. with water to make up to f℥xvj. Cathartic and slightly tonic. Dose, f℥ss. to f℥jss.

Tinctura Aloes.—Socotrine aloes, ℥ss.; ext. liquorice, ℥jss.; proof spt., Oj. Macerate 7 days, and filter. Dose, f℥ss. to ℥ij. (Omitted under aloes.)

Pilula Aloes et Myrrhae.—Take of socot. aloes, ℥ij.; myrrh, ℥j.; saffron dried, ℥ss.; confect. ros., ℥ijss. Mix. Divide into 5 gr. pills. Cathartic and emmenagogue. Dose, gr. v. to gr. xx. daily.

Pilula Rhei Composita.—See Rheum.

Tinctura.—Myrrh in coarse powder, ℥ijss.; rect. spt. Oj. Macerate 48 hours, then percolate : add enough spt. to make a pint. Dose, f℥j. to ℥ij.

Nectandra. Bebeeru Bark.

Nectandra Rodiaei Schomburgk. The green-heart tree. The bark imported from British Guiana. N. F. Lauraceæ.

Charact.—In large flat heavy pieces, one to two feet long, two to six inches broad, about $\frac{1}{4}$ inch thick ; greyish-brown externally, cinnamon-brown internally. Taste very bitter and astringent. Used for preparing the *berberia sulphas*.

Berberia Sulphas.—Take of Bebeeru bark, lb. j ; sulphuric acid, f℥ss ; slaked lime a sufficiency ; rectified spt. ℥xvj. ; dilute sulphuric acid a sufficiency ; water, one gallon ; dist. water, a sufficiency. The process is then somewhat similar to that for the sulphate of quinia.

Charact.—In small shining reddish-brown plates, with an intense and persistently bitter taste, soluble in water, but more so on the addition of a little dilute sulphuric acid.

Actions and uses.—An excellent tonic and antiperiodic. As a tonic it is useful in dyspepsia, convalescence from acute diseases, and the debility attending phthisis,—the colliquative sweating of which it also helps to arrest. As an antiperiodic it cannot be confided in in intermittent fever, and is therefore not an adequate substitute for quinine. Periodic headache

and periodic neuralgia often give way to it, and benefit is obtained in flying rheumatism. It is not so apt to excite the circulation, or produce ringing in the ears and headache, as quinia; nor does it affect so much the nervous system. The introduction of this medicine into practice in this country, is chiefly owing to the investigations (twenty years ago) of Dr Douglas Maclagan. Dose, gr. i. to gr. v., three or four times a-day.

Formula.—℞ Beberiaë sulphatis, gr. xxiv.; aquæ, f̄ʒv.; acidi sulphurici diluti, f̄ʒj.; syrupi aurantii, f̄ʒvij. Misce. Fiat mixtura, capiat cochleare magnum ter in die.

Nux Vomica. Nux Vomica.

Strychnos Nux Vomica Linn. The seeds; imported from the East Indies. N. F. Apocynaceæ.

Charact.—Nearly circular and flat, about an inch in diameter, umbilicated, and slightly convex on one side; ash-grey colour externally, thickly covered with short satiny hairs, internally translucent, tough, and horny; taste intensely bitter, without odour.

Analysis.—Strychnia and brucia, combined with igasuric acid, concrete oil, wax, &c.

Actions and uses.—A special stimulant, acting on the medulla oblongata, and medulla spinalis; and a nerve-tonic. In poisonous doses it occasions violent tetanic spasms, without sensibly affecting the sensorium. Two drachms of the powder have killed in two hours, and even gr. xv. have caused death. Death may result from irritation in the alimentary canal, after recovery from the primary effects on the nervous system. Nux vomica is mostly employed for its stimulant and tonic action on the nervous system; and affects chiefly the motor nerves, as is seen by the twitchings of the voluntary muscles which it occasions when largely or protractedly used. Benefit is obtained by it in chronic paralysis, general and more limited; and it seems to have done most good in the former, and been more successful in paraplegia than hemiplegia. In paralysis of the muscles of the bladder, and in constipation

(along with a purgative,) arising from an atonic state of the muscular coat of the large bowel, it has been of signal service. A few rare cases of epilepsy have improved under it; and some have trusted it in prolapsus ani, nervous diarrhoea, and amenorrhœa. Dose, gr. v. to gr. xv., gradually increased.

Formula.—℞ Extracti nucis vomicæ, gr. xii.; extracti rhei, gr. xxiv.; extracti colocynthidis compositi, gr. xxiv. Misce. Divide in pilulas xii. Capiat unam bis die. Useful for restoring tone in constipation from atony of the muscular coat.

Strychnia.—See *Strychnia*.

Extractum.—See Brit. Ph. Dose, gr. ss, gradually increased to iij.

Tinctura.—Nux vomica, ℥ij.; rect. spt. Oj. Apply steam to the nux vom. till it is softened, then dry rapidly, and reduce to powder. Macerate 48 hours, and percolate, as usual, adding spt. to make a pint. Dose, m. xv. to xxx.

Oleum Amygdalæ. Almond Oil.

The oil expressed in England from the almonds.

Charact.—Pale-yellow, almost odourless, with a bland oleaginous taste.

Uses.—Laxative, but chiefly employed externally, and for ointments.

Ung. Cetacei.—Spermaceti, ℥v.; white wax, ℥ij.; almond oil, Oj, or a sufficiency. M. A simple dressing.

Ung. Simplex.—See *White Wax*.

Oleum Anethi. Oil of Dill.

The oil distilled in England from dill.

Charact.—Colour pale-yellow, odour pungent, taste acrid sweetish.

Uses.—An aromatic carminative. Dose, min. i. to v. on sugar.

Aqua.—See *Anethum*.

Oleum Anisi. Oil of Anise.

Pimpinella Anisum. Anise. N. F. Umbelliferæ. The oil, distilled from the fruit in Europe. And Illicium Anisatum

Linn. Star Anise. The oil, distilled from the fruit in China.

Charact.—Pale-yellow, with the odour of anise, and a warm sweetish taste. Concretes at 50°.

Uses.—An aromatic stimulant and carminative, and useful in flatulent colic and griping of children, along with a little magnesia. It is alleged to favour the secretion of milk in nurses. An ingredient of the tinct. camph. cum op. Dose, min. i. to min. v. on sugar.

Formula for children.—℞ Sacchari albi, gr. cxx.; magnesiæ levis, gr. lx.; olei anisi min. xii. M. A few grains in milk.

Oleum Anthemidis. English Oil of Chamomile.

The oil distilled in England from chamomile flowers.

Charact.—Pale-blue, or greenish-blue, gradually becoming yellow, with the odour and aromatic taste of the flowers.

Uses.—An excellent carminative in the flatulence of dyspepsia, and in pains of colic. Dose, min. v. to x. on a bit of sugar.

Oleum Cajuputi. Oil of Cajuput.

Melaleuca Minor D. C. N. F. Myrtaceæ. The oil distilled from the leaves in the Molucca Islands.

Characters.—Very mobile, transparent, of a fine pale bluish-green colour; strong agreeable odour, and warm aromatic taste, and leaves a sensation of coldness in the mouth.

Uses.—Stimulant and rubefacient. A good deal used in the East for chronic rheumatism, hysteria, gout, and nervous disorders. Was tried in Asiatic cholera, but did not prove of service. Topically it is applied in cases of rheumatism. Dose, min. v. on sugar.

Spiritus.—Oil of cajuput, fʒj.; rect. spt. fʒix. Dissolve. Dose, min. xx.

Oleum Carui. Oil of Caraway.

The oil, distilled in England from caraway.

Charact.—Colourless, or pale-yellow, odour aromatic, and taste spicy.

Uses.—Carminative, and a corrective of other drugs, such as aloes in the pil. aloes barb. Dose, min. j. to v.

Aqua Carui.—Dose, f̄z̄j. to f̄z̄ij.

Oleum Caryophylli. Oil of Cloves.

The oil distilled in England from cloves.

Charact.—Colourless when recent, but gradually becoming red-brown, having the odour of cloves, and a pungent spicy taste. Sinks in water.

Uses.—Aromatic stimulant, chiefly used to flavour, and correct the griping qualities of other drugs. A drop or two into the cavity of a carious tooth often palliates toothache. Dose, min. j. to v.

Oleum Cinnamomi. Oil of Cinnamon.

The oil distilled from cinnamon; imported from Ceylon.

Charact.—Yellowish when recent, gradually becoming red, having the odour and taste of cinnamon. Sinks in water.

Uses.—A warm stimulant, used principally for its pleasant flavour as an adjunct. Dose, min. j. to v.

Aqua Cinnamomi.—Cinnamon, bruised, ℥xx.; water, cong. ij. Distil one gallon. A pleasant vehicle for other drugs, and an article of the mist. cretæ.

Oleum Copaibæ. Oil of Copaiva.

The oil distilled from copaiva.

Charact.—Pale-yellow colour, odour and taste of copaiva.

Actions and uses.—Same as copaiva, but not quite so effectual in most cases. It seems not to occasion so much nausea. Dose, min. xv. to xxx.

Oleum Coriandri. Oil of Coriander.

The oil distilled in England from coriander.

Charact.—Yellowish, having the odour of coriander.

Uses.—Aromatic and carminative. Dose, min. j. to v.

Oleum Crotonis. Croton Oil.

Croton Tiglium Linn. The oil expressed from the seeds in England. N. F. Euphorbiaceæ.

Charact.—Slightly viscid; colour brownish-yellow, taste acrid, odour faintly nauseous.

Tests.—Agitated with its own volume of alcohol, and gently heated, it forms a clear solution, from which about $\frac{3}{4}$ of the oil separate on cooling.

Analysis.—Crotonic acid, and a bland fixed oil.

Adulterations.—Castor oil; detected by its solubility in alcohol.

Actions and uses.—An intensely strong irritant and cathartic. In large doses it is poisonous, and even a few drops occasion severe hypercatharsis. It is a hydragogue cathartic, producing copious watery stools, and operating speedily. It is given for the most part in obstinate constipation, dropsy, comatose affections, neuralgia, convulsions, and apoplexy. In tic-doloureux, with constipation, common among some sedentary females, it is often of great service; so much so, indeed, as to have led some to call it a specific; in which view, however, we do not concur. It occasions an acrid sensation in the throat, unless given in the form of pill, well covered with powder. When given in apoplexy, or coma, a drop or two on sugar may be placed on the back of the tongue. It is contraindicated in cases of debility, and where there is a tendency to inflammation of the digestive organs. Applied to the skin, croton oil excites inflammation, followed by a pustular eruption, and is therefore an active counterirritant. If applied to the face or scalp, however, it is apt, in some cases, to induce erysipelatous inflammation. Dose, gtt. j. to gtt. vj.

Formula.—℞ Olei crotonis, gtt. ij.; extracti colocynthidis compositi, gr. viij. Misc. Divide in pilulas ij. Dust well with powder of liquorice, or magnesia.

Linimentum Crotonis.—Croton oil, f̄ss.; olive oil, f̄iijss. Mix. A useful counterirritant.

Oleum Cubebæ. Oil of Cubebs.

The oil distilled in England from Cubebs.

Charact.—Pale greenish-yellow, with the peculiar odour and taste of cubebs.

Uses.—Same as the powder, but hardly so effectual. Dose, min. x. to xxx.

Oleum Juniperi. English Oil of Juniper.

Juniperis communis Linn. N. F. Coniferæ. The oil distilled in England from the unripe fruit.

Charact.—Pale greenish-yellow, of a sweetish odour, and warm aromatic taste.

Actions and uses.—A stimulating diuretic, of considerable power; used chiefly along with others. In renal disease, or in presence of inflammatory symptoms, it should be withheld. It quickly imparts its odour to the urine. "Hollands" owes its flavour and diuretic properties to this oil. Dose, min. iij. to v.

Spiritus Juniperi.—English oil of Juniper, f ℥j.; rect. spt. f ℥ix. Dissolve. Dose, min. x. to xxx.

Oleum Lavandulæ. English Oil of Lavander.

Lavandula vera D.C. N. F. Labiatae. The oil distilled in England from the flowers.

Charact.—Colourless, or pale yellow, odour pleasant, like lavender, and a hot bitter aromatic taste.

Uses.—Stimulant and carminative, but inferior to others, such as peppermint. Principally used for giving an agreeable flavour to mixtures, and in perfumes. Dose, min. ij. to v.

Spiritus.—Eng. oil of lavender, f ℥j.; rect. spt. f ℥ix. Dissolve. Dose, min. xv. to xxx.

Tinctura Lavandulæ Composita.—Eng. oil lavender, f ℥jss.; Eng. oil of rosemary, m. x.; cinnamon, bruised, gr. cl.; nutmeg, bruised, gr. cl.; red sandal-wood, gr. ccc.; rect. spt., Oij. Macerate the cinnam., nutmeg, and red s.-wood in the spt. for 7 days; then press out and strain; dissolve the oils in the strained tincture, and add sufficient rect. spt. to make two pints. Commonly known as red lavender, and given as an aromatic stimulant in sickness, flatulence, and dull spirits. It is useful combined with the aromatic spt. of ammonia. Dose, f ℥ss. to f ℥ij.

Oleum Limonis. Oil of Lemon.

The oil expressed or distilled from fresh lemon peel; imported chiefly from Sicily.

Charact.—Colour pale-yellow, odour agreeable, taste warm and bitter.

Uses.—An aromatic stimulant, and used chiefly for imparting an agreeable flavour to other drugs. German oculists drop it into the eye in strumous ophthalmia, where it is said to be a useful stimulant. An ingredient of the spt. ammon. arom. Dose, min. ij. to v.

Oleum Lini. Linseed Oil.

The oil expressed without heat from linseed.

Charact.—Viscid yellow, with a faint odour, and oleaginous taste.

Uses.—Emollient. Some prefer it to olive oil for mixing with lime water as application to recent burns.

Oleum Menthæ Piperitæ. English Oil of Peppermint.

Mentha Peperita Linn. The oil distilled in England from the fresh herb when in flower.

Charact.—Colourless, or pale-yellow, with the odour of peppermint; taste warm aromatic, succeeded by a sensation of coldness in the mouth.

Actions and uses.—A strong aromatic and diffusible stimulant, carminative, and antispasmodic. It is of great service often in this way, in gastrodynia, flatulence, and griping pains in the bowels. It is widely used for covering the taste, and correcting the disagreeable properties of other drugs. Dose, min. ij. to v. on sugar.

Aqua Menthæ Piperitæ—Eng. oil peppermint, f ʒjss.; water, cong. jss. Distil one gallon. Dose, f ʒj. to f ʒij.

Spiritus Menthæ Piperitæ.—Eng. oil peppermint, f ʒj.; rec. spt., f ʒix. Dissolve. Dose, min. x. to xxx.

Oleum Menthæ Viridis. English Oil of Spearmint.

Menthæ Viridis Linn. The oil distilled in England from the fresh herb when in flower.

Charact.—Colourless, or pale-yellow, with the odour and taste of spearmint.

Uses.—Same as peppermint, but not so strong. Dose, min. j. to v.

Aqua Menthæ Viridis.—Eng. oil of spearmint, f ʒjss.; water, cong. Ojss. Distil one gallon. Dose, f ʒj. to f ʒij.

Oleum Morrhuæ. Cod Liver Oil.

Gadus Morrhuæ Linn. The oil extracted from the fresh liver by a steam heat not exceeding 180°.

Charact.—Pale yellow, with a slight fishy odour, and bland fishy taste.

Analysis.—Gaudine, oleic and margaric acids, glycerine, traces of butyric, acetic, fellic, and choleic acids, iodine, chlorine, bromine, phosphorus, phosphoric acids, soda, lime, &c. The therapeutical powers of the oil are due to the presence of iodine, bromine, &c.

Actions and uses.—Alterative. Cod liver oil was long popularly employed as a kind of restorative in phthisis, and other emaciating diseases, but fell somewhat into disuse until about 20 years ago, when it was lauded in a book written by Professor Bennett. There can be no doubt but that cod liver oil is of great service in scrofula and the diseases connected with it, such as glandular swellings, abscesses, disease of joints and bones, ophthalmia, tabes mesenterica, &c. Some cases of phthisis have been benefitted by it, too, and chronic rheumatism. It does not, however, deserve the very high encomiums that some physicians have passed upon it, to the effect that it would ultimately banish consumption from the land! The fact is, that only a few adults are able to assimilate it, many more having to abandon it owing to the nausea which it occasions, and on account of its disturbance of the digestive functions. Children, as a rule, tolerate it best, and derive most benefit from it. It has been employed in the form of inunction as well as internally, but with doubtful benefit. Dose for children, f ʒj. three or four times a-day; adults, f ʒss. to f ʒij. thrice a-day. The quantity may be increased considerably when the stomach becomes habituated to it.

Oleum Myristicæ. Volatile Oil of Nutmeg.

The oil distilled in England from nutmeg.

Charact.—Colourless, or straw-yellow, having the odour and taste of nutmegs.

Uses.—An aromatic stimulant, and used chiefly as a corrective to other drugs. Topically it has been applied as a stimulant in palsy and rheumatism. Dose, min. j. to v.

Spiritus Myristicæ.—Volatile oil of nutmeg, f̄ij.; rect. spt. f̄ix. Dissolve. Dose, min. x. to xxx.

Oleum Olivæ. Olive Oil.

Olea Europæa Linn. N. F. Oleaceæ. The oil expressed from the fruit in the south of Europe.

Charact.—Pale-yellow, with scarcely any odour, and a bland oleaginous taste; congeals partially at about 36°.

Adulterations.—Poppy oil, cocoa-nut oil, rape seed oil. "Mixed with a twelfth of its volume of sol. nit. hydr., prepared by dissolving with a gentle heat, ̄iv. hydr. in ̄jxss. nitric acid; if pure, it becomes in three or four hours like a firm fat, without any separation of liquid oil."

Uses.—Emollient and laxative. Used for the most part as an emollient in the form of liniment and ointment, and as an addition to clysters in enteric inflammation and spasm. Dose, f̄ij. to f̄ij., by the mouth, but seldom given; in clyster, f̄ij. to f̄iv.

Linimentum Calcis.—See *Lime*.

Linimentum Camphoræ.—Camphor, ̄j.; olive oil, f̄iv. Dissolve.

Oleum Pimentæ. Oil of Pimento.

The oil distilled in England from pimento.

Charact.—Colourless, but becoming brown by age, with odour and taste of pimento. Sinks in water.

Uses.—An aromatic stimulant, but little employed in medicine. Communicates warmth and flavour to other drugs. Dose, min. ij. to v.

Oleum Ricini. Castor Oil.

Ricinus Communis Linn. N. F. Euphorbiaceæ. The oil

expressed from the seeds in England, or imported from the East Indies and America.

Charact.—Viscid, colourless, or pale straw-yellow, having a slightly nauseous odour, and a somewhat acrid taste.

Tests.—Entirely soluble in one volume of alcohol, and in two volumes of rectified spt.

Analysis.—Three fatty acids, ricinic, elaiodic, and margaritic. The active part or principle has not yet been detected, but is worthy of investigation.

Adulterations.—Seldom any now; if so, easily detected by the above tests.

Actions and uses.—One of our mildest and most effectual cathartics, its operation being seldom attended by abdominal pain or irritation, though sometimes with nausea and vomiting. It acts on the whole bowel, occasioning three or four thin, but not watery evacuations. It is an admirable laxative in hemorrhoidal affections, in spasmodic and inflammatory diseases of the bowel, or urethra, in stricture of the rectum, prostatic disease, during pregnancy and after delivery, in infantile disorders, and after surgical operations about the pelvis and abdomen. Dose, fʒss. to fʒij.

Oleum Rosmarini. English Oil of Rosemary.

Rosmarinus Officinalis Linn. The oil distilled in England from the flowering tops.

Charact.—Colourless, with the odour of rosemary, and a warm aromatic taste.

Actions and uses.—An aromatic stimulant, used chiefly in discutient fomentations. Dose, min. ij. to v.

Lin. Saponis.—See *Sapo*.

Spiritus.—Eng. oil of rosem. fʒj.; rect. spt. fʒjx. Dissolve. Dose, min. x. to xx., but chiefly used in lotions.

Oleum Rutæ. English Oil of Rue.

Ruta Graveolens Linn. N. F. Rutaceæ. The oil distilled in England from the fresh leaves and the unripe fruit.

Charact.—Colour pale-yellow, odour disagreeable, taste bitter acrid.

Actions and uses.—Stimulant and antispasmodic. Given in hysteria, colic, and infantile convulsions. Externally it may be used as a rubefacient. Dose, min. j. to v.

Oleum Sabinæ. English Oil of Savin.

The oil distilled in England from fresh savin.

Charact.—Colourless, or pale-yellow.

Actions and uses.—Irritant, stimulant, emmenagogue. In large doses a poison; in smaller doses, stimulates the uterus, and is employed in chlorosis, and amenorrhœa. It should not be given where there is a tendency to irritation or inflammation of the uterus or intestines. Dose, min. ij. to v.

Oleum Terebinthinæ. Oil of Turpentine.

Pinus Palustris, Pinus Tæda, Pinus Pinaster. N. F. Coniferæ. The oil distilled from the turpentine; imported from America and France.

Charact.—Limpid, colourless, with a strong peculiar odour, and pungent and bitter taste.

Actions and uses.—Anthelmintic, cathartic, diuretic, stimulant, epispastic. As an anthelmintic it often proves successful in tapeworm, operating by killing the parasite; it is also useful in the lumbrici and ascarides. As a cathartic it succeeds best along with castor oil, and may be given in constipation resulting from cerebral disease, in spasmodic diseases, such as chorea, hysteria, epilepsy, tetanus; in sciatica, lumbago, and other neuralgic affections; in purpura hemorrhagica, tympanitis, and passive hemorrhages. As a diuretic it is not much employed; but it is of service in gleet and chronic cystitis, and from increasing the quantity of lithic acid in the urine, it does good sometimes in gravel. It is contraindicated if there be any inflammatory tendency. As a stimulant, it has been given in the adynamic stage of continued fever, in chronic rheumatism, in iritis, mucous hemorrhages from defective vascular tone, and in neuralgia. Externally it is one of our most useful and effectual counterirritants. It is applied to the soles of the feet in the stupor of continued fever, in coma, apoplexy, and narcotic poisoning; over the chest in cardiac

and pulmonary disease, and over the abdomen in peritonitis, painters' colic, and renal disease. It is also thrown up the rectum as an anthelmintic, and as a counterirritant in coma. Dose, cathartic, $\text{f}\bar{\text{z}}\text{ij}$. to $\text{f}\bar{\text{z}}\text{jss}$; diuretic, and stimulant, min. x. to xxx.; anthelmintic, $\text{f}\bar{\text{z}}\text{ss}$. to $\text{f}\bar{\text{z}}\text{jss}$.; children, $\text{f}\bar{\text{z}}\text{ss}$. to $\text{f}\bar{\text{z}}\text{ij}$.

Confectio.—Oil turpentine, $\text{f}\bar{\text{z}}\text{j}$.; liquorice powder, $\bar{\text{z}}\text{j}$.; clarified honey, $\bar{\text{z}}\text{ij}$. M. Anthelmintic. Dose, $\bar{\text{z}}\text{ij}$.; children, $\bar{\text{z}}\text{ss}$.

Enema.—Oil turpentine, $\text{f}\bar{\text{z}}\text{j}$.; mucilage of starch, $\text{f}\bar{\text{z}}\text{xv}$.

Linimentum.—Oil turp., $\text{f}\bar{\text{z}}\text{v}$.; oint. of resin, $\bar{\text{z}}\text{viiij}$. Melt the oint., then add the turp. gradually, and stir. Counterirritant. Useful as a dressing for extensive burns when the vital powers are sinking; also in rheumatic pains and neuralgia.

Linimentum Terebinthinæ Aceticum.—Oil turp., $\text{f}\bar{\text{z}}\text{j}$.; acetic acid, $\text{f}\bar{\text{z}}\text{j}$.; liniment of camphor, $\text{f}\bar{\text{z}}\text{j}$. M. A strong counterirritant.

Unguentum.—Oil turp., $\text{f}\bar{\text{z}}\text{j}$.; resin, gr. lx.; yellow wax, $\bar{\text{z}}\text{ss}$; prepared lard, $\bar{\text{z}}\text{ss}$. M.

Opium. Opium.

Papaver Somniferum Linn. N. F. *Papaveraceæ*. The inspissated juice; obtained by incision from the unripe capsules, grown in Asia Minor.

Charact.—Irregular lumps, weighing from $\bar{\text{z}}\text{iv}$. to lb.ij., enveloped in a poppy leaf, and generally covered with rumex seeds; when fresh, plastic, tearing with an irregular slightly moist chestnut-brown surface, shining when rubbed smooth with the finger, having a most peculiar odour and nauseous bitter taste.

Adulterations.—Moisture, sand, stones, leaves, woody fibre, seeds, &c. The best test of opium is the quantity of morphia yielded by it. Christison says, a pound of good opium treated according to the Edinb. process, should yield at least 10 p. ct. of salt. *Analysis*.—

1.—Alkaloids.

Substances.	Action.
Morphia ($\text{C}^{35} \text{H}^{20} \text{O}^6 \text{N}$) - - -	Narcotic.

Codeia ($C^{36} H^{21} O^6 N$)	-	-	Narcotic.
Narcotina ($C^{46} H^{25} O^{14} N$)	-	-	Bitter tonic.
Thebaina ($C^{38} H^2 O^6 N$)	-	-	Stimulant, resembling Strychnia.

2.—Neutrals.

Narcein ($C^{46} H^{29} O^{18} N$)	-	-	Inert.
Meconin ($C^{10} H^5 O^4$)	-	-	Inert.
Porphyroxin ($C^{66} H^{36} O^{23} N$)	-	-	Inert.

3.—Acid.

Meconic acid ($C^{14} H O^{11}$)	-	-	Inert.
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Unimportant.

Bitter extractive, albumen, gluten, gum, caoutchouc, lignin, salts, &c.

Actions and uses.—Narcotic, sedative, antispasmodic, hypnotic. In large doses it is a narcotic poison, occasioning giddiness, stupor, depression of the circulation and respiration, relaxation of the muscles, contraction of the pupils, then deep stupor, and death. These are to be met by the stomach-pump, stimulating emetics, cold affusion, ammonia to the nostrils, making the patient move about supported, internal stimulants, as brandy and coffee, galvanic shocks, and artificial respiration, maintained, if need be, for hours. In smaller doses, opium produces, first, excitement of the system, increased pulse, and heat, with various very pleasurable sensations; then, in about an hour or so, fulness in the head, a benumbing of the limbs, disinclination to exertion, and apathy are experienced, and ultimately the flight of pain, and the advent of sleep. This sleep may continue from 6 to 12 hours, after which there is generally sickness, want of appetite, headache, languor, with depression and indisposition for any effort. Constipation and a checking of the mucous secretions also result. If approaching sleep be battled with and resisted, we may have a state of high excitement of the brain and nervous system prolonged for hours, during which there is an intensifying of the various faculties of the mind; excogitation, and speech becoming more original, profound, or brilliant; or, if the individual cannot be troubled with the application of his mental powers to any walk

of study, he may indulge in the strangest fancies, and perform the oddest freaks. Other symptoms are observed, and probably due to idiosyncrasy. For example, some, instead of obtaining sleep, are rendered feverish and extremely miserable,—with anxiety, restlessness, frequent pulse, headache, and horrible visions. Again, there is dry tongue, intense thirst, vomiting, discomfort of body, and wretchedness of mind. In some, there is unusual susceptibility to the action of the drug, a small dose proving a powerful soporific; and this is almost always the case with children. Individuals, again, are to be met with who tolerate considerable quantities without experiencing the usual effects. Further, and this is of considerable importance, habit diminishes susceptibility more or less in all. The man who is merged into a deep sleep by a grain of opium, or 30 minims of the tincture to-day, may, if he continues to use it, require ten times that quantity in fewer months; and from an ounce to ten ounces of the tincture, is a common feat daily to the regular opium eater. This large quantity, however, is not partaken of with impunity. Each successive dose is followed by depression and misery, though productive for the time of perhaps pleasant feelings and mental activity; and the body also suffers: there is want of appetite, indigestion, and emaciation, sallow complexion, and often early decrepitude, and shortening of life. Certain states of the system, too, countervail or modify its action; larger doses are borne in most cases of extreme pain or spasm; in diarrhoea and dysentery, in the advanced stages of peritonitis and pneumonia, in uterine hemorrhage, in delirium tremens, (apparently at least), in tetanus and hydrophobia, and in some kinds of mania. Combination with other drugs also alters its action: it has fewer disagreeable concomitants when given with camphor; and along with ipecacuan, we may often safely extend the dose. The physiological action of opium is developed by whatever channel it may find its way into the circulation, whether by the rectum or mouth, vein, wound, or skin-denuded surface. But we must now come to the therapeutics of the drug. It is given, speaking generally,

to procure sleep, to subdue spasm, and assuage pain. It is a valuable remedy in the advanced stages of pleurisy, pneumonia, peritonitis; in gastritis, enteritis, dysentery, diarrhoea, and cholera. It is also useful in acute rheumatism, in gout (for allaying the pain), in spasm of the ureter or gall duct from the passage of calculi, in colic, neuralgia, tetanus, and hydrophobia. In continued fever, it is given to induce sleep, where there is watchfulness and delirium, without much vascular excitement, but here it should be given with care, and well watched. It is invaluable in the cerebral disturbance which sometimes occurs from the eighth to the tenth day of the eruption of small-pox; and in intermittent fever, a large dose at the beginning of the cold stage, sometimes arrests the fit. Along with ether, it is of service in asthma; ordinary catarrh is often cut short by an early dose, and it is as yet the best remedy we possess in diabetes, that is, along with attention to diet. In rupture of the uterus, given speedily in full doses, it has at times saved the patient's life. Externally, in the form of lotion, liniment, plaster, &c., it is used to subdue pain, and check inflammation, as in neuralgia, erysipelas, gout, rheumatism, &c., and up the rectum in piles, spasm, and tenesmus. It is also injected into the urethra, to allay pain, in ischuria, nephritis, spasmodic stricture, and urethral inflammation. Dose of the solid opium, or powder, gr. j. to gr. iij.

Morph. Hydrochlor.—See *Hydrochlorate of Morphia*.

Emplastrum Opii.—Opium, in powder, ℥j.; resin plaster, ℥jx. Mix. An anodyne in neuralgic and rheumatic pains.

Enema Opii.—Tincture of opium, f℥ss.; mucilage of starch, f℥ij. Mix. Useful in dysentery, irritation of the rectum, &c. Opium acts in this way nearly as energetically as by the mouth.

Extractum Opii.—Dose, gr. $\frac{1}{4}$ to ij.

Extractum Opii Liquidum.—Dose, min. x. to xxx.

Linimentum Opii.—Tincture of opium, f℥ij.; liniment of soap, f℥ij. Mix. An anodyne liniment for rheumatic and other pains.

Pilula Opii.—Opium in fine powder, ℥ss.; hard soap, ℥ij.;

dist. water, a sufficiency. Reduce the soap to a fine powder, add the opium with the water, and beat into an uniform mass. Divide into 5 grain pills. Dose, one pill to three.

Pilula Plumbi cum Opio.—See *Acetate of Lead*.

Pulvis Cretæ Aromaticus cum Opio.—Aromatic powder of chalk, $\bar{z}jx\frac{3}{4}$.; opium in powder, $\bar{z}j\frac{1}{4}$. Mix well, and pass through a fine sieve. Dose, adults, gr. xxx. to lx.

Pulvis Ipecacuanhæ cum Opio.—Ipecacuan, in powder, $\bar{z}ss$.; opium, in powder, $\bar{z}ss$.; sulphate of potash, $\bar{z}jv$. Rub well together, and pass through a fine sieve. An excellent sudorific, commonly called Dover's Powder. Dose, adult, gr. v. to gr. xx.

Pulvis Kino cum Opio.—Kino, powder, $\bar{z}ijj\frac{3}{4}$.; opium, powder, $\bar{z}j\frac{1}{4}$.; cinnamon powder, $\bar{z}j$. Mix well, and pass through a fine sieve. For diarrhœa. Dose, adult, gr. x. to xl.

Tinctura Opii.—Opium, $\bar{z}jss$.; proof spt., Oj. Macerate 7 days, strain, express, and filter; then add p. spt. to make Oj. Dose, min. xv. to xxx.

Tinctura Camphoræ cum Opio.—Opium, gr. xl.; benzoic acid, gr. xl.; camphor, gr. xxx.; oil of anise, f $\bar{z}ss$.; proof spt., Oj. Macerate 7 days. Paregoric elixir, a good deal used as an anodyne in chest complaints. Dose, f $\bar{z}ss$. to f $\bar{z}ijj$.

Vinum Opii.—Opium, $\bar{z}jss$.; sherry, Oj. Macerate 7 days. Used chiefly externally, such as to the eye in chronic ophthalmia. Dose, min. x. to xxx.

Unguentum Gallæ cum Opio.—Ointment of galls, $\bar{z}j$.; opium powder, gr. xxxij. Mix. For hemorrhoids.

Incompatibles.—Acetate of lead, sulphates of zinc, copper, and iron, corrosive sublimate, and astringent vegetable preparations.

Papaver. Poppy Capsules.

Papaver Somniferum Linn. White Poppy. N. F. *Papaveraceæ*. The nearly ripe capsules, dried, and deprived of the seeds; cultivated in Britain.

Charact.—Globular, 2 or 3 in. diam. crowned by a sessile stellate stigma; of an opiate taste.

Uses.—Chiefly for fomenting inflamed parts.

Syrupus Papaveris.—A popular anodyne in infantile complaints, but owing to its variable strength, should be cautiously given. Many chemists make it with some preparation of opium instead of the poppy heads. Dose, f ℥ss. f ℥ij.

Decoctum Papaveris.—Poppy capsules, bruised, and freed from the seeds, ℥jv. ; dist. water, Oij. Boil 10 minutes, and strain. The product should be f ℥xxxij. For fomenting inflamed and painful swellings.

Pareira. Pareira.

Cissampelos Pareira Linn. F. F. Menispermaceæ. The dried root from Brazil.

Charact.—Cylindrical, oval, or compressed pieces, entire, or split longitudinally, $\frac{1}{2}$ in. to 4. in. diam., and 4 in. to 4 ft. in length. Bark greyish-brown, longitudinally wrinkled, crossed transversely by annular elevations ; interior woody, yellowish-grey, porous, with well marked, often incomplete, concentric rings and medullary rays. Taste at first sweetish and aromatic, afterwards intensely bitter.

Analysis.—Cissampelina, on which its activity depends, and which is an alkaline white powder ; a soft resin, various salts, &c.

Actions and uses.—Diuretic. It seems to act specifically on the urinary organs, giving tone to the mucous membrane, and ultimately diminishing secretion. It is thus useful in chronic inflammation of the bladder. Dose, powder, (but not a good form), gr. xxx. to lx.

Decoctum Pareiræ.—Pareira, ℥jss ; dist. water, Ojss. Boil 15 minutes and strain. The product should be Oj. Dose, f ℥j. to f ℥ij.

Extractum Pareiræ Liquidum.—Dose, f ℥j. to f ℥ij.

Pimenta. Pimento.

Eugenia Pimenta D.C. Allspice Tree. N. F. Myrtaceæ. The dried unripe berries ; from the West Indies.

Actions and uses.—An aromatic stimulant, little used in medicine.

Aqua Pimentæ.—Pimento, bruised, ℥xjv. ; water, cong. ij.

Distil one gallon. Carminative for children, but inferior to dill and anise. Dose, $f\text{ʒj.}$ to $f\text{ʒij.}$

Piper. Black Pepper.

Piper Nigrum Linn. N. F. Piperaceæ. The dried unripe berries; chiefly from the West Indies.

Analysis.—Piperin, a neutral crystalline principle; an acrid soft resin, gum, bassorin, &c.

Actions and uses.—A hot aromatic stimulant, but not much used in medicine. Piperin in doses of gr. ij. to vj., every hour or two, has been lauded by some as a remedy in ague, and it appears to have succeeded frequently. It is given in the form of pill with conserve.

Confectio Piperis.—Black pepper, powder, ʒij. ; caraway, powder, ʒiij. ; clarified honey, ʒxv. Mix well. Given in hemorrhoids with debility. Dose, gr. lx. to ʒss. t

Pix Burgundica. Burgundy Pitch.

Abies Excelsa. Spruce Fir. A resinous exudation from the stem, melted and strained; imported from Switzerland.

Charact.—Hard and brittle, yet gradually taking the form of the vessel in which it is kept; pale-yellow.

Adulterations.—It is sometimes a mere mixture of turpentine resin and palm oil. It should be without bitterness, free from vesicles, and give off no water when heated.

Uses.—An external stimulant, and useful for affording support to a weak part.

Emplastrum Picis.—Burgundy pitch, ʒxxvi. ; common frankincense, ʒxiiij. ; resin, ʒjvss. ; yellow wax, ʒjvss. ; expressed oil of nutmeg, ʒj. ; olive oil, $f\text{ʒij.}$; water, $f\text{ʒij.}$ Add the oils and water to the frankincense, burg. pitch, resin, and wax, previously melted together; then, constantly stirring, evaporate to a proper consistence. As a stimulant to the chest in chronic bronchitis, and over the seat of rheumatic pains.

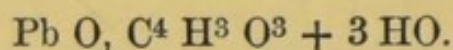
Pix Liquida. Tar.

A bituminous liquid obtained from the wood of *Pinus Sylvestris* Linn, and other pines, by destructive distillation.

Charact.—Thick, viscid, brownish-black, of a well-known peculiar aromatic odour.

Actions and uses.—Formerly employed as a stimulant, diaphoretic, and expectorant, in chronic catarrh, and in the form of inhalation, in phthisis and other chest complaints, but now seldom used internally. It is one of the best remedies for external use in lepra and psoriasis, tinea, and capitis.

Plumbi Acetas. Acetate of Lead.



Charact.—In white masses of interlaced acicular crystals, slightly efflorescent, having an acetous odour, and a sweet astringent taste. Its solution in water slightly reddens litmus, gives a yellow precip. with iodid. potass. and is precipitated white by sulphuric acid, acetic acid being set free.

Test.—Its solution in dist. water is clear, or has only a slight muddiness, which vanishes on the addition of acetic acid.

Actions and uses.—Irritant, and a sedative-astringent. In large doses, it occasions inflammation of the alimentary canal; and the antidotes are sulphate of magnesia, phosphate and sulphate of soda, emetics, and doses of castor oil and opium. When lead is conveyed into the body in small, but protracted quantities, it induces a variety of effects, the aggregate of which has been termed lead-poisoning, or plumbism. The symptoms are constipation, dyspepsia, dejection of spirits, and fits of colic. Ultimately apoplectic symptoms may ensue, or paralysis of the extensor muscles of the arms and fingers. A blue line upon the gums is also observed. Painters, plumbers, and workers in lead, are most liable to this, and it is supposed that the carbonate of lead is the preparation most likely to induce it. The treatment is abandonment of the occupation for a time, baths, tonics, iodide of potassium, and the antidotes named above. The diseases for which acetate of lead is given are diarrhoea, dysentery, and passive hemorrhages, in which, by its combined sedative and astringent action, it is of great service. In hæmoptysis, hæmatemesis, hæmaturia, and me-

norrhagia, it proves of great use ; and it is often successful in the way of arresting the profuse expectorations of some cases of bronchitis and phthisis, together with the diarrhœa and colliquative sweating of the latter. It should not be too long administered where there is a tendency to dyspepsia, or irritable stomach. Externally in the form of lotion (often with a little opium,) it is widely used in erythema, erysipelas, and superficial inflammations generally : in ophthalmia, leucorrhœa, gonorrhœa, and in skin eruptions attended with inflammation. In ulceration of the cornea, it should not be used, as it is apt to produce an indelible white stain. Dose, gr. iij. to vj. every three or four hours.

Pilula Plumbi cum Opio.—Acetate of lead, fine powder, gr. xxxvj.; opium, in fine powder, gr. vj.; confection of roses, gr. vj. Beat into a mass, and divide into 4 grain pills. Excellent for sedative and astringent purposes. Dose, one to three pills, or gr. iv. to xij.

Incompatibles.—Hard water, mineral acids and their salts, the alkalies, lime water, opium, iod. potass., tinct. galls, albuminous fluids, and many other vegetable infusions.

Plumbi Carbonas. Carbonate of Lead.

$2 (\text{Pb O}, \text{CO}^2) + \text{HO}, \text{Pb O}.$

Charact.—A soft heavy white powder, blackened by sulph. hydrog., insoluble in water, soluble with effervescence in dilute nitric acid, which solution is precipitated yellow by iod. potass., and white by sulph. acid.

Uses.—External astringent, and aids the cicatrization of excoriations and ulcerations. It sometimes does good in chronic eczema, and other skin diseases attended with itching and discharge.

Unguentum Plumbi Carbonatis.—Carbonate of lead, in fine powder, gr. lxiv.; simple ointment, \bar{z} j. Mix.

Plumbi Subacetatis Liquor. Subacetate of Lead.

$2 \text{ Pb O}, \text{C}^4 \text{ H}^3 \text{ O}^3,$ dissolved in water.

Charact.—A dense clear colourless liquid, with alkaline reaction, and sweet astringent taste, becoming turbid by ex-

posure to the air, and forming with mucilage of gum-arabic an opaque white jelly. Sp. gr. 1.26.

Uses.—External astringent, and applied in the same cases as the acetate. Should be diluted with 20 to 40 parts of water. Not used internally.

Liquor Plumbi Subacetatis Dilutus.—Solut. subacet. lead, f̄ij.; rect. spt. f̄ij.; dist. water, f̄xixss. Mix. A useful lotion for superficial inflammations, and for the inflammatory stages of many skin diseases.

Unguentum.—Sol. subacet. of lead, f̄vj.; camphor, gr. lx.; white wax, ʒviij.; olive oil, Oj. M. Soothing and astringent application to superficial inflammations.

Podophylli Resina.

A resin obtained from podophyllum, by means of rectified spirit.

Charact.—A pale greenish-brown amorphous powder, soluble in rect. spt. and in ammonia; precipitated from the former solution by water, from the latter by acids.

Test.—Almost entirely soluble in pure ether.

Actions and uses.—Cathartic, cholagogue, alterative. This drug, which has been extensively employed in America for a considerable period, has of late had many patrons in this country. We have bestowed some little attention upon it, and do not think it so highly worthy of the encomiums bestowed upon it by a few distinguished physicians. As an alterative, it possesses no great power; for skin diseases, secondary syphilis, and its varied concomitants, do not seem to improve very rapidly under it. It seems, however, to be useful in the way of stimulating and improving the biliary secretions, thus doing good in hepatic derangements of minor importance; the stools, tongue, and appetite, also sharing in the amelioration. This benefit—these results—we think, may be obtained equally well by means of aloes, or rhubarb and taraxacum, not to speak of moderate doses of blue pill, and without the tormina—the painful griping—often occasioned by this drug. It is somewhat uncertain in its action, or else some are much more

susceptible than others; for what will painfully operate on one, may not affect another. Dose, gr. $\frac{1}{4}$ to ss., in pill.

Formula.—℞ Podophylli resinæ, gr. iij.; pulveris rhei, gr. xxiv.; extracti hyoscyami, gr. xx. Misce. Divide in pilulas duodecim. Dose, one or two. It is better to give small doses, until it is seen how the patient bears it.

Podophyllum. Podophyllum.

Podophyllum Peltatum Linn. The root, dried; imported from North America.

Charact.—In pieces of variable length, about two lines thick, mostly wrinkled longitudinally, dark reddish-brown externally, whitish within, breaking with a short fracture; accompanied with pale-brown rootlets. Powder yellowish-grey, sweetish in odour, bitterish subacid, and nauseous in taste.

Uses.—Employed for preparing the resina.

Potassa Caustica. Caustic Potash.

Hydrate of Potash, KO, HO.

Charact.—In hard white pencils, very deliquescent, powerfully alkaline and corrosive.

Actions and uses.—Caustic, and a powerful corrosive and irritant poison; antidotes,—vinegar, fixed oils, lemon juice. It is not used internally, but as a caustic for making issues. This is done by covering the part with several layers of adhesive plaster, and rubbing the potass on through an aperture in the centre. A poultice is afterwards applied, and when the slough separates, a pea is inserted. Owing to its deliquescent character, it is not so convenient a caustic for general purposes; it may, however, be employed for the destruction of tumours, and the useless and unhealthy parts of ulcers. Mixed with gutta percha, it is less apt to attract moisture; and equal parts of the caustic and lime, with a little glycerine, form an excellent dry caustic for the destruction of growths. *Vienna paste* is a mixture of caustic potash and lime.

Liquor Potassæ.

Charact.—A colourless transparent fluid, feeling somewhat soapy; odourless, and of an extremely alkaline and caustic taste. Should be kept in well-stoppered bottles, as it absorbs carbonic acid from the air. Prepared by mixing ℥xij. slaked lime in lb.j. of carb. potash, dissolved in a gallon of water, brought to the boiling point in a clean iron vessel; and the boiling continued for ten minutes with constant stirring.

Actions and uses.—In large doses, a corrosive and irritant poison, destroying animal textures. In small doses, it is antacid and antilithic, and is given in dyspepsia, attended with acidity and gastrodynia, where it is of considerable service. In the lithic acid diathesis, from its solvent power over the urinary deposits, and in the acidity of the stomach of gouty patients, it is often beneficial. It is given with doubtful benefit in chronic skin diseases, such as lepra and psoriasis; but probably with more success in some of the manifestations of scrofula. In gonorrhœa it diminishes the acidity of the urine, lessening the pain of micturition. Taken for some time, it diminishes nutrition, and is thus useful in some fatty diseases, and for promoting the absorption of redundant fat in those who happen to labour under excess of adipose tissue. Dose, min. x. to xl., largely diluted, in some aromatic water.

Potassa Sulphurata. Sulphurated Potash.

Tersulphuret of potassium, K_2S_3 , with sulphate of potash.
“Liver of sulphur.”

Charact.—In solid greenish masses, liver-brown when recently broken, and acrid to the taste.

Actions and uses.—Narcotic and irritant, occasioning inflammation of the alimentary canal, and tetanic spasms. In small doses, it was formerly employed as a stimulant and alterative in obstinate skin diseases, and in chronic rheumatism, but owing to its irritant properties, and want of success, it has been abandoned. It was at one time thought to be an antidote in metallic poisoning, but this has been disproved. It is now chiefly used in the form of bath in cutaneous eruptions, chronic

rheumatism, and lead colic. The proportion is, \bar{z} iv. to cong. xxx. or so of water. Dose, gr. ij. to gr. viij.

Potassæ Acetas. Acetate of Potash, $\text{KO}, \text{C}^4 \text{H}^3 \text{O}^3$.

Charact.—White foliaceous satiny masses, very deliquescent, with a watery solution of which tartaric acid causes a crystalline precip., sulphuric acid the evolution of acetic acid, and a dilute solution of perchloride of iron strikes a blood-red colour.

Tests.—Neutral to test paper, entirely soluble in rect. spt. Its solution is unaffected by hydrosulphuret of ammonia.

Actions and uses.—Cathartic and diuretic. It is rarely employed as a cathartic, but it is an excellent and widely used diuretic. In dropsies, especially ascites and hydrothorax, it is often beneficial; and it is generally useful combined with decoctum scoparii. Its influence in jaundice and some chronic skin diseases is doubtful. Dose, gr. x. to xxx., and as a laxative, gr. cxx.

Incompatibles.—Tartaric acid, the mineral acids, and their soluble salts.

Potassæ Bicarbonas. Bicarbonate of Potash, $\text{KO}, \text{HO}, 2 \text{CO}^2$.

Charact.—Colourless right rhombic prisms, not deliquescent, of a saline feebly alkaline taste, not corrosive.

Actions and uses.—Antacid, antilithic, and diuretic. Used for the same purposes as the liquor potassæ, but acts more powerfully on the kidneys. Dose, gr. x. to xx. as an antacid and antilithic; and gr. lx. to cxx. as a diuretic.

Incompatibles.—Lime water, acids, acetate and hydrochlorate of ammonia, most of the metallic salts.

Potassæ Carbonas. Carbonate of Potash. $\text{KO}, \text{CO}^2, + 2 \text{HO}$.

Charact.—A white crystalline powder, alkaline and caustic to the taste, very deliquescent, readily soluble in water.

Actions and uses.—Corrosive and irritant, antilithic, antacid, and diuretic. It corrodes the mucous membrane of the ali-

mentary canal, giving rise to vomiting (sometimes bloody), burning pain, and, provided death is averted, irritability of the stomach, indigestion, and emaciation. The antidotes are vinegar and fixed oils. Owing to its irritant nature and strong taste, it is not so much used as the bicarbonate, but it is an excellent remedy in deposits of lithic acid and the lithates. It is sometimes, in solution, injected into the bladder. Dose, gr. v. to xv. in a good deal of fluid, two or three times a-day.

Incompatibles.—Same as the bicarbonate, but sulphate of magnesia in addition.

Potassæ Chloras. Chlorate of Potash. $KO, Cl O^5$.

Charact.—In colourless rhomboidal crystalline plates, with a cool saline taste, sparingly soluble in cold water. Explodes when triturated with sulphur.

Actions and uses.—It were hard to give a short name to this drug; it is refrigerant, but it is much more. Phagedenic ulcers such as cancrum oris, seem to improve under it, and in some cases of scarlatina, continued fever, and even malignant cholera, temporary advantages, at least, have been gained. The tongue will sometimes get clean under it, too, in infantile remittents, and other disorders of children, but it is not easy to say how. It is held by some to supply oxygen to the blood, and thus proves useful in malignant fevers with defective arterialization. Dose, gr. x. to xxx. in water, with a little syrup. For children, gr. ij. to v.; and in cancrum oris, this should be given every hour or two.

Potassæ Citras. Citrate of Potash. $3 KO, C^{12}, H^5, O^{11}$.

Charact.—A white powder of saline feebly acid taste, deliquescent, and very soluble in water.

Uses.—Refrigerant. Dose, gr. xx. to xc.

Potassæ Nitras. Nitrate of Potash. KO, NO^5 .

Charact.—In white opaque masses or fragments of opaque striated six-sided prisms, colourless, of a peculiar cool saline taste. Deflagrates when thrown on the fire.

Actions and uses.—In large doses, it is an irritant, producing inflammation of the alimentary lining membrane, sinking of the pulse, attended with sickness, vomiting, purging, and sometimes proving fatal. In smaller doses, it is diuretic, and useful in anasarca and ascites, but not equal to the acetate or acid tartrate. It is also a sedative and refrigerant, and is in consequence of service occasionally in hemoptysis. It is a good deal employed by some physicians in acute rheumatism, but for this it is not anything like a reliable remedy. When its use is continued for some time, it causes irritability of the stomach and nausea. It should not be given where there is any inflammatory affection of the kidneys, bladder, stomach, or bowels. Dose, gr. x. to xx. In acute rheumatism, large doses, such as from 4 to 8 drachms, are given in the 24 hours.

Nitre Whey.—This is prepared by boiling gr. cxx. in Oj. of fresh milk, and straining. It forms a refrigerant drink in in fevers.

Incompatibles.—Alum, sulphuric acid, metallic sulphates, sulphate of magnesia.

Potassæ Permanganas. Permanganate of Potash. KO , Mn^2 , O^7 .

Charact.—Dark purple slender prismatic crystals, inodorous, with a sweet astringent taste, soluble in water. A single small crystal suffices to form with an ounce of water a rich purple solution.

Uses.—Stimulant and antiseptic. Used for making the liquor, and for gargles and disinfecting solutions.

Liquor Potassæ Permanganatis.—Permanganate of potash, gr. jv.; dist. Water, f̄j. Dissolve. This fluid diluted with water is now pretty extensively employed, (often under the name, "Condy's"), topically to foul or gangrenous ulcers and fetid sores, and as a gargle in ulceration of the mouth and fauces; and these often improve speedily under it. It may be also employed as an injection to correct the fetor of dysenteric evacuations, and offensive discharges from the vagina and uterus in cases of malignant ulceration. The

usual strength is ℥j. of the liquor, or gr. ss. of the solid, to ℥ij. of water.

Potassæ Sulphas. Sulphate of Potash. KO, SO^3

Charact.—In colourless hard six-sided prisms, terminated by six-sided pyramids, which decrepitate strongly when heated, and are sparingly soluble in water.

Actions and uses.—A mild cathartic, but not much used, being rather insoluble. It is a good purgative for women after delivery, if we wish to check the secretion of milk. Dose, gr. clx. to ℥ss.

Potassæ Tartras. Tartate of Potash. $2 \text{KO}, \text{C}^8, \text{H}^4, \text{O}^{10}$.

Charact.—In small colourless four or six-sided prisms. Heated with sulphuric acid it forms a black tarry fluid, evolving inflammable gas, and the odour of burned sugar.

Actions and uses.—A mild cathartic, but not much employed. It accelerates the action of other cathartics such as scammony and jalap.

Potassæ Tartras Acida. Acid Tartrate of Potash. $\text{HO}, \text{KO}, \text{C}^8, \text{H}^4, \text{O}^{10}$.

Synonym.—Potassæ Bitartras. Cream of Tartar. Obtained from argol, which is deposited on the inside of wine-casks.

Charact.—A finely gritty white powder; crystallized on one surface; of an agreeable acid taste, sparingly soluble in water, insoluble in spirit. Heated in a crucible it evolves inflammable gas and the smell of burned sugar, and leaves a black residue.

Adulterations.—Alum, wheaten flour, starch, and bisulphate of potash.

Actions and uses.—An excellent mild cathartic, producing frequent watery discharges. Along with sulphur, it is a common and very suitable purgative in piles; and with jalap it forms an admirable hydragogue cathartic in dropsies. In small doses, largely diluted, it is also a useful diuretic. Dose, ℥ss. to ℥j., and as a diuretic, gr. xx. to xl. often repeated.

Confectio Sulphuris.—See *Sulphur Sublimatum*.

Pulvis Jalapæ Compositus.—See *Jalapa*.

Imperial,—a refrigerant and diuretic drink in fevers, is made by dissolving gr. clx. or so, in Oj. boiling water, and adding a little sugar and lemon peel.

Cream of Tartar Whey,—is made of the same strength with boiling milk, the curd being removed. It is used for the same purpose, and both may be taken at pleasure.

Incompatibles.—The mineral acids, alkalies, lime water, acetate of lead, carbonates of potash and soda.

Potassii Bromidum. Bromide of Potassium. K Br.

Charact.—In white transparent cubical crystals, with no odour, but a pungent saline taste, readily soluble in water, less soluble in spirit.

Actions and uses.—Alterative and deobstruant. Its physiological and therapeutical effects are much the same as those of the iodide of potassium, but it appears to be much less active, and not at all so successful in general. For example, secondary syphilis—periostitis, nodes, caries, sore-throat, ulcers, skin diseases—do not improve so quickly under it, although, on the other hand, we have better results in fibrous uterine tumours and glandular swellings. In neuralgia of various kinds, in chronic rheumatism, and in dropsical effusions, it is also inferior to the iodide. It would seem, moreover, to be more effectual in strumous disorders, than in syphilis. Some physicians have found it of service in enlargement of the spleen, and in hysterical epilepsy depending on disordered menstruation. Dose, gr. iij. to x. three times a-day. For an ointment, gr. lx. may be mixed with ℥j. lard.

Incompatibles.—Acids, and acidulous and metallic salts.

Potassii Iodidum. Iodide of Potassium, K. I.

Charact.—In colourless, generally opaque, cubic crystals, readily soluble in water, less so in spirit.

Adulterations.—Occasionally with carbonate of potash; detected by nitrate of baryta, with which it gives a white precip. If iodate of potash be present, a blue colour is developed by the addition of mucilage of starch, or tartaric acid.

Actions and uses.—Alterative, deobstruant, diuretic, and an exciter of iodism, but possesses less of this power than iodine. Few medicines have been, or are still being, run upon so extensively as this one, it being the common resort of practitioners in disorders mild and grave, doubtful and obscure, after other drugs have failed; and yet it is somewhat difficult to state precisely what it can do, and what it cannot perform, while admitting that it can achieve no ordinary amount of good. It may be employed for all the diseases for which iodine is given, and it is more agreeable to the patients, better tolerated by the system, and less apt to produce the peculiar and disagreeable physiological effects of that drug. It is serviceable in bronchocele, in scrofula, and its long train of disorders, enlarged glands, abscesses, osseous disease; and highly beneficial in articular and chronic rheumatism, dropsy, periostitis, chronic enlargement of different viscera, and neuralgia. In some forms of this latter malady, probably of syphilitic origin, we will obtain the most decided benefit when iron, quinia, beberia, and arsenic, have been tried in vain. But it is probably in secondary syphilis that we find the best results, and few at the present day would think of omitting it from their list of remedies for this disorder, if they did not, as is highly probable, resort to it at once. Ulcers improve and heal under it, swellings soften and vanish, sore-throat gradually ameliorates, scales and pustules drop from the skin, and caries more or less quickly gives place to healthy bone. When this drug is pushed too far, disturbed digestion is an exceedingly common result; and there is also often headache, simple catarrh, articular pains, emaciation, nervous irritability, tremors; sometimes ptyalism, and there has been once or twice absorption of healthy parts, such as the mammæ and testes. Many a man, however, has swallowed ounces of it, in small doses, often repeated, in the course of a year, without anything more than a little disturbance of the stomach, and often not even that. There is a growing tendency again to combine the iodine with the iodide, as being more efficacious. It has been further given in large doses with the view of removing the

discolouration of the skin produced by nitrate of silver ; but there is as yet nothing to shew in the way of success. Dose, gr. ij. to gr. x. in f̄j. infusion of calumba, dulcamara, or quassia, three times a-day. Some give much larger doses, but it is better at least to begin with the smaller dose.

Linimentum Iodi.—See *Iodum*.

Tinctura Iodi.—See *Iodum*.

Unguentum Potassii Iodidi.—Iod. potass. gr. lxiv. ; dist. water, f̄j. ; prepared lard, ̄j. Dissolve the iod. potass. in the water, then mix well with the lard. A few drops of caustic potash preserves this ointment, and restores its whiteness when it has become yellow. Useful for rubbing over enlarged glands and tumours, and to aid the internal action of the iodide.

Ung. Iodi Co.—See *Iodum*.

Formula for Secondary Syphilis.—R Potassii iodidi, gr. lx. ; iodi, gr. v. ; infusi dulcamaræ, ̄jx. Misc. Sumat cochleare magnum ter die.

Incompatibles.—Acids, and acidulous and metallic salts.

Prunum. Prune.

Prunus Domestica Linn. The plum. The dried drupe ; from plants cultivated in southern Europe.

Uses.—A mild laxative, and occasionally added to infusions of senna, into the confection of which they enter.

Confectio Sennæ.—See *Senna Indica*.

Pterocarpus. Red Sandal-Wood.

Pterocarpus Santalinus Linn. The wood, from Coromandel and Ceylon.

Uses.—Used only as a colouring ingredient in the compound tincture of lavender.

Quassia. Quassia.

Picræna Excelsa Lindl. N. F. Simarubaceæ. The wood ; from Jamaica.

Charact.—Billets varying in size, seldom thicker than the thigh ; wood dense, tough, yellowish-white, intensely and purely bitter. Also chips of the same.

Analysis.—A neutral bitter principle, quassin; lignin, gum, a trace of volatile oil, salts of lime, &c.

Adulterations.—Other woods resembling it are at times substituted. They are not so bitter, and their infusions are rendered black by the persalts of iron, while that of quassia is unaffected.

Actions.—A powerful and pure bitter tonic. It is chiefly employed in dyspepsia from want of tone of the digestive organs. In the form of infusion it is a suitable vehicle for alkaline remedies in heartburn, and for saline cathartics in the constipation of indigestion from defective tone. It possesses somewhat feeble narcotic properties. An infusion in the way of clyster is a useful anthelmintic in thread-worm. It is not given in powder.

Infusum Quassiae.—Quassia chips, gr. lx.; cold dist. water, f̄ʒx. Infuse for half-an-hour, and strain. Dose, f̄ʒj. to f̄ʒij. As it is not altered in colour by iron, it forms a suitable vehicle for the chalybeates.

Extractum.—Dose, gr. v. to x. in pill.

Incompatibles.—With the infusion, nitrate of silver, and acetate of lead.

Quercus. Oak Bark.

Quercus Pedunculata. N. F. *Cupuliferæ.* The dried bark of the small branches and young stems; collected in spring from plants growing in Britain.

Charact.—Covered with a greyish shining epidermis, cinnamon coloured on the inner surface, fibrous, brittle, and strongly astringent.

Analysis.—About 20 per cent. of tannin, some gallic acid, sugar, pectin, and salts.

Actions and uses.—Astringent. In the form of decoction it may be used in chronic diarrhoea and dysentery, and in intestinal hemorrhage. Topically it is much employed as an injection in leucorrhoea, in prolapse of the uterus and rectum, and as a gargle in relaxed uvula and sore-throat. It may also be applied to the flabby granulations of unhealthy ulcers. It

is, on the whole, an astringent entitled to more support than it has met with of late.

Decoctum Quercus.—Oak bark, bruised, ℥jss.; dist. water, Ojss. Boil ten minutes, and strain. Dose, fʒj. to fʒiv. This is also the proper strength for injection, &c.

Incompatibles.—Same as tannin.

Quiniæ Sulphas. Sulphate of Quinia.

The sulphate of an alkaloid, $C^{40} H^{24} N^2 O^4, HO, SO^3 + 7 HO$, prepared from yellow cinchona bark, and from the bark of cinchona lancifolia.

Charact.—Filiform silky snow-white crystals, of a pure intensely bitter taste, sparingly soluble in water, yet imparting to it a peculiar bluish tint. A few drops of a dilute acid added renders it freely soluble in water. The solution gives, with chloride of barium, a white precipitate, insoluble in nitric acid; and when treated first with solution of chlorine, and afterwards with ammonia, a fine emerald-green colour is developed.

Prep.—Yellow cinchona bark, in coarse powder, lb.j.; hydrochloric acid, fʒiij.; dist. water, a sufficiency; solution of soda, Ojv.; dilute sulphuric acid, a sufficiency. Dilute the hydrochl. acid with O.x. of the water. Place the bark in a porcelain basin, and add to it as much of the dilute sulph. acid as will render it thoroughly moist. After maceration, with occasional stirring for 24 hours, place the bark in a displacement apparatus, and percolate with the dilute hydrochloric acid, until the solution which drops through is nearly destitute of bitter taste. Into this liquid pour the solut. of soda, agitate well, let the precip. completely subside, decant the supernatant fluid, collect the precip. on a filter, and wash it with cold dist. water until the washings cease to have colour. Transfer the precip. to a porcelain dish containing a pint of dist. water, and applying to this a steam heat, gradually add dilute sulphuric acid until very nearly the whole of the precip. has been dissolved, and a neutral liquid has been obtained. Filter the solution while hot through paper; wash the filter

with boiling dist. water, concentrate till a film forms on the surface of the solution, and set it aside to crystallize. The crystals should be dried on filtering paper without applying heat.

Adulterations.—Sulphate of lime, gum, mannite, starch, fatty matters, and sulphate of cinchonia. A solution of gr. x. in f̄ssj. dist. water, and two or three drops sulphuric acid, if decomposed by a solut. of ʒss. carb. soda in two waters, and heated till the precip. shrinks and fuses, yields on cooling a solid mass, which, when dry, weighs 7·4 grains, and in powder dissolves entirely in solution of oxalic acid. If salicin be present, it becomes bright-red on the addition of a few drops of sulphuric acid.

Actions and uses.—Tonic and antiperiodic. In small doses it strengthens the pulse, and invigorates the nervous and muscular system. Its most conspicuous and singular property is that whereby it arrests periodic diseases, especially intermittent fevers,—a power not possessed in an equal degree by any other drug. How it operates in these cases is not known; it may be in virtue of its tonic property, (yet other more bitter tonics do not succeed so well;) or by breaking in some occult way more or fewer of the links of that chain of elements which may constitute the fevers in question. Not being able to account for or explain its operation, it is said to be a specific. In these diseases, large doses are necessary, and it is given during the stage of intermission. In some cases, large doses, and even smaller ones, occasion headache, giddiness, nausea, pain in the stomach, flushed countenance, ringing in the ears; and more rarely, numbness of the feet, blindness, deafness, and delirium. (Cinchonism.) It is contraindicated in acute local inflammations, and where there is much tendency to vomiting or dysentery. Quinia, in small doses, is also an excellent tonic, not in cases of dyspepsia so much as in general debility, induced by protracted diseases and long confinement. It has, moreover, been employed for almost every malady under the sun; tetanus, acute rheumatism, erysipelas, cholera, diphtheria, continued fever, delirium tremens, &c., but its success in these cases being extremely small and variable, it may be permitted

to doubt whether, when good accrued, other causes had not a better title to credit. In the minor periodic diseases, such as neuralgia, headache, and other regularly-recurring pains, it is of great service; and in some strumous diseases, such as ophthalmia, it is also highly beneficial. In debility connected with anemia, it is not equal to iron. Dose, tonic, gr. ss. to ij.; antiperiodic, gr. v. to xx.; and for smaller periodic diseases, gr. j. to v. It is best given in water with a few drops of dilute sulphuric acid. It should not be prescribed in the *infusum rosæ acidum*, as it is precipitated by the tannin in that preparation.

Incompatibles.—The alkalies and their carb., lime water, tartaric acid, and infusions and tinctures containing tannin.

Resina. Resin.

The residue of the distillation of the turpentine from various species of *Pinus* Linn. and *Abies* Lam.

Charact.—Translucent, semi-opaque, yellowish, brittle; fracture shining; odour and taste faintly terebinthinate. It is easily fusible, and burns with a dense yellow flame and much smoke.

Uses.—External stimulant; used chiefly for giving consistency to plasters and ointments.

Emplastrum Resinæ.—Resin, ℥jv.; litharge plaster, lb. ij.; hard soap, in powder, ℥ij. M. Stimulant, and for affording support to weak parts.

Unguentum Resinæ.—Resin, ℥viiiij.; yellow wax, ℥jv.; simple oint. ℥xvj. M. A stimulant to indolent and foul ulcers.

Rheum. Rhubarb.

One or more undetermined species of *Rheum* Linn. N. F. Polygonaceæ. The root, deprived of the bark, and dried; from Chinese Thibet, and Tartary.

Charact.—Trapezoidal roundish cylindrical or flattish pieces, frequently bored with one hole, yellow externally, internally marbled with fine waving greyish and reddish lines, finely gritty under the teeth; taste bitter, faintly astringent and aromatic; odour strong and peculiar.

Analysis.—Rhabarberic acid, (rhabarberin, or chrysophanic acid of others,) gallic acid, tannin, uncrystallizable sugar, starch, gum, colouring matter, pectic acid, oxalate of lime, iron, silica, &c.

Actions and uses.—Tonic, cathartic, and a feeble astringent, the latter properly being overborne by the cathartic, and only coming into play afterwards. In small doses, it improves digestion and appetite, and renders the intestinal secretions more healthy. In larger doses, it is an excellent cathartic, acting on the whole bowel, and especially the duodenum, and increasing the peristaltic action. It is well suited for the early stages of diarrhœa, as a laxative in constipation from debility of the digestive organs, and in the disorders of children, such as flatulence and irritation of the alimentary canal. It is extensively employed in combination with bicarbonate of soda as an aperient and stomachic. It renders the serum of the blood yellow, and while using it, the urine is almost of a blood-red colour. Dose of the powder : tonic, gr. iij. to v. ; cathartic, gr. xv. to xxx.

Extractum Rhei.—Dose, gr. v. to xx.

Infusum Rhei.—Rhubarb, $\bar{3}\frac{1}{4}$.; boiling dist. water, f $\bar{3}x$. Infuse one hour. Dose, f $\bar{3}ss$. to f $\bar{3}ij$.

Pilula Rhei Composita.—Rhubarb powder, $\bar{3}ij$.; socotrine aloes, in fine powder, $\bar{3}ij\frac{1}{4}$.; myrrh powder, $\bar{3}jss$.; hard soap, $\bar{3}jss$.; Eng. oil of peppermint, f $\bar{3}jss$.; treacle by weight, $\bar{3}jv$. M. Divide into 5 grain pills. Dose, one to four pills. They are purgative and mildly tonic.

Pulvis Rhei Compositus.—(Gregory's Powder.) Rhubarb, $\bar{3}ij$.; light magnesia, $\bar{3}vj$.; ginger, $\bar{3}j$. Mix well, and pass through a fine sieve. A stomachic powder, antacid, laxative, and mildly tonic. Dose, gr. xxx. to xl., and for children, gr. v. to x.

Tinctura Rhei.—Rhubarb, $\bar{3}ij$.; cardamoms, bruised, $\bar{3}\frac{1}{4}$.; coriander, bruised, $\bar{3}\frac{1}{4}$.; saffron, $\bar{3}\frac{1}{4}$.; proof spt. Oj. By maceration and percolation as before. Dose, f $\bar{3}ss$. to f $\bar{3}j$., and for children, f $\bar{3}j$. to f $\bar{3}ij$.

Rhœas. Red-Poppy Petals.

Papaver Rhœas. N. F. Papaveraceæ. The petals dried ; from indigenous plants.

Charact.—When fresh, scarlet, and of a heavy poppy odour ; when dry, scentless and more dingy red.

Uses.—Feebly narcotic, but only used for making the syrup.

Syrupus Rhœados—Used only for colouring mixtures.

Ricini Oleum. -See *Oleum Ricini*.**Rosa Canina. Hips.**

Rosa Canina Linn. The Dog Rose ; and other allied species. N. F. Rosaceæ. The ripe fruit of indigenous plants, deprived of the hairy seeds (achenes).

Charact.—1 in. or more long, ovate, scarlet, smooth, shining ; taste sweet, subacid, pleasant.

Uses.—Refrigerant, but only used for the confection of hips.

Confectio Rosæ Caninæ.—Hips, lb.j.; refined sugar, lb.ij. Beat well together. Used as a basis for pills and electuaries, and compatible with the persalts of Iron.

Rosa Centifolia. Cabbage Rose Petals.

Rosa Centifolia Linn. The fresh petals, fully expanded ; from plants cultivated in Britain.

Charact.—Taste sweetish, bitter, and faintly astringent ; odour roseate.

Uses.—An agreeable perfume, and for making the water.

Aqua.—Fresh petals of the 100-leaved roses, lb.x.; water, cong. ij. Distil one gallon. A pleasant perfume.

Rosa Gallica. Red-Rose Petals.

Rosa Gallica Linn. The unexpanded petals, and dried ; from plants cultivated in Britain.

Charact.—Colour fine purplish-red, retained after drying ; taste bitterish, feebly acid, and astringent ; odour roseate, developed by drying.

Actions and uses.—Mildly astringent, but chiefly used for their colour and odour, and as adjuncts to more active remedies.

Confectio Rosæ Gallicæ.—Fresh petals, lb. j; refined sugar, lb. iij. Beat and rub well together. Feebly astringent. Dose, gr. lx. to cxx. Used for the most part as a basis for pills, but should not be employed with the persalts of iron, owing to the tannin it contains. The confection of hips may, however, be used.

Infusum Rosæ Acidum.—Red-rose petals, ℥i.; dilute sulphuric acid, f℥j.; boiling dist. water, f℥x. Infuse half-an-hour, and strain. A pleasant refrigerant, and feebly astringent. Dose, f℥ss. to f℥ij. A good vehicle also for the neutral laxative salts.

Syrupus Rosæ Gallicæ.—Dried petals, ℥ij.; refined sugar, ℥xxx.; boiling dist. water; filter, then dissolve the sugar by means of heat. Used for flavouring and colouring purposes.

Incompatibles.—Same as under tannin.

Rosmarini Oleum.—See *Oleum Rosmarini*.

Rutæ Oleum.—See *Oleum Rutæ*.

Sabadillæ. Cevadilla.

Asagræa Officinalis. N. F. The dried fruit; imported from Vera Cruz and Mexico.

Charact.—Fruit about $\frac{1}{2}$ in. long, consisting of 3 light-brown papyraceous follicles, each containing from 1 to 3 seeds, which are about $\frac{1}{4}$ in. long, blackish-brown, shining, slightly winged, with an intensely acrid bitter taste.

Analysis.—Cevadic acid, fatty matter, wax, veratria in union with gallic acid, gum, colouring matter, and sabadilline.

Actions and uses.—Anthelmintic and stimulant, but also highly poisonous. It is employed on the Continent in tapeworm and ascarides; and as an external stimulant in chronic rheumatism and paralysis, and for destroying pediculi. It is used for preparing veratria. Its internal use requires the utmost caution. Dose, powder of the seeds, gr. j. to iij. for children, followed by a little castor oil; adults, gr. viij. or so.

Prep. Veratria.—See *Veratria*.

Sabina. Savin.

Juniperus Sabina Linn. The fresh and dried tops; collected in spring, from plants cultivated in Britain.

Charact.—Twigs densely covered with minute imbricated appressed leaves in four rows; odour strong, peculiar, and unpleasant; taste acrid, bitter, resinous, and disagreeable.

Analysis.—Resin, volatile oil, on which its properties depend; gallic acid, extractive, &c.

Actions and uses.—Emmenagogue, and irritant. It has a stimulating effect on the uterus, and is occasionally employed in amenorrhœa with chlorosis. Being poisonous, however, its use demands caution, and it should not be employed where there is a tendency to inflammation of the uterus or pelvic viscera. Savin is occasionally surreptitiously used in order to produce abortion, but serious risk to life may be occasioned without the accomplishment of the cherished object. In cases of poisoning, use emetics, afterwards demulcents, opiates, and general antiphlogistic treatment. Externally, the ointment is employed as an irritant to keep up discharges from a blistered surface, making a kind of chronic blister.

Tinctura Sabinæ.—Savin, ℥ijss.; proof spt. Oj. Proceed in the usual way. Dose, xx. to xl.

Unguentum Sabinæ.—Fresh savin, bruised, ℥viiij.; white wax, ℥ijj.; prepared lard, ℥xvj. Melt the lard and wax together, add the savin, and digest 20 minutes. Then remove the mixture, and impress through calico.

Sabinæ Oleum.—See *Oleum Sabinæ*.

Saccharum Album. Refined Sugar. C¹², H¹¹, O¹¹.

Saccharum Officinarum Linn. The crystallized refined juice of the stem; from plants cultivated in the West Indies, &c.

Uses.—Nutrative, emollient, and demulcent. Used in coughs, in irritant poisoning, and for making syrups, lozenges, confections, &c.

Syrupus.—Refined sugar, lb.v.; dist. water, Oij. Dissolve with the aid of heat. Used for suspending insoluble substances, and as an agreeable adjunct to mixtures.

Saccharum Lactis. Sugar of Milk. C^{24}, H^{24}, O^{24} .

Crystallized sugar, obtained from the whey of cow's milk by evaporation.

Uses.—Employed in medicine as an excipient for active drugs, such as calomel.

Sambucus. Elder Flowers.

Sambucus Nigra Linn. N. F. Caprifoliaceæ. The fresh flowers; from indigenous plants.

Charact.—Flowers small, white, fragrant, crowded in large cymes.

Uses.—Mildly emollient, used for preparing the aqua.

Aqua Sambuci.—Fresh elder flowers, separated from the stalks, lb. x.; water, cong. ij. Distil one gallon. Used generally as a vehicle for alkalies in cutaneous diseases, and in collyria.

Santonica. Santonica.

The unexpanded flower-heads of an undetermined species of *Artemisia* Linn. Imported from Russia.

Charact.—Flower-heads rather over a line long, and nearly $\frac{1}{2}$ line broad, fusiform, blunt at each end, pale greenish-brown, smooth, resembling seeds in appearance, but consisting of imbricated involucral scales with a green midrib, enclosing 4 or 5 tubular flowers; odour strong, taste bitter, camphoraceous.

Actions and uses.—Anthelmintic, and adapted for ascarides and lumbrici; but it has not been much used for a long time, and has now been displaced by its active principle santonine. Dose of the powder, gr. x. to xxx., in milk or honey. A purgative should be given the following day.

Santoninum. Santonin. C^{30}, H^{18}, O^6 .

A crystalline neutral principle obtained from santonica.

Charact.—Colourless flat rhombic prisms, feebly bitter, fusible and sublimable by a moderate heat; scarcely soluble in cold water, sparingly in boiling water, but freely in chloroform and in boiling rect. spt. Sunlight renders it yellow.

Prep.—See *Brit. Ph.*

Actions and uses.—An excellent anthelmintic in ascarides and lumbrici. Formerly, I was in the habit of combining the santonine with scammony, calomel, and a little ginger, and though a powder of this kind was successful in expelling the worms, I am now of opinion that it should be given alone, or simply along with a little sugar. The powder of scammony, &c. should follow after the last dose. Dose, gr. j. to iij. every night for three nights.

Sapo Durus. Hard Soap.

Soap made with olive oil and soda.

Sapo Mollis. Soft Soap.

Soap made with olive oil and potash.

Uses.—For cerates, plasters, and some pill masses. They are slightly laxative.

Emplastrum Saponis.—Hard soap, \bar{z} vj; litharge plaster, lb. ij $\frac{1}{4}$., resin, \bar{z} j. M. For affording protection and support.

Linimentum Saponis.—Hard soap, \bar{z} ijss; camphor, \bar{z} j $\frac{1}{4}$.; Eng. oil. rosemary, f \bar{z} ijj.; rect. spt. f \bar{z} xviiij.; dist. water, f \bar{z} ij. M. Soap Liniment. (Opodeldoc). An external stimulant in chronic swellings and rheumatism.

Linimentum Opii.—See *Opium*.

Sarsa. Jamaica Sarsaparilla.

Smilax Officinalis Humb. and Bonpl. N. F. Similaceæ. The dried root; native of Central America, imported from Jamaica.

Charact.—Roots not thicker than a goose-quill, generally many feet in length, reddish-brown, covered with rootlets, and folded in bundles about 18 in. long; scentless; taste mucilaginous, feebly bitterish, faintly acid.

Analysis.—A white crystallizable neutral principle, smilacin, volatile oil, (lost in drying), acrid bitter resin, lignin, starch, &c.

Actions and uses.—Diaphoretic, tonic, and alterative. Much discrepancy of opinion exists in regard to the therapeutic actions of this drug, but it seems to possess, when fresh, no

insignificant power. It is given in scrofula and secondary syphilis, and the concomitants of these diseases, such as ulcers, cutaneous eruptions, nodes, indurated glands, caries, necrosis, articular swellings, and rheumatism, often improve under a protracted course of it. We are well aware that it has often been employed for months in strumous and syphilitic cases, without apparent benefit, but this may have been owing to inert specimens of the drug, the active part being easily expelled. This want of success has led many eminent men to doubt its virtues, and if they employ it at all, it is only as a vehicle for more active alteratives, such as the iodide of potassium. There are others who, sceptical in regard to its alterative or antisiphilitic powers, still think it a kind of restorative after an exhausting course of mercury, (a line of practice not now common); or in cases of debility from grave strumous disease; and some believe it capable of strengthening the generative powers. Dose, powder, but a bad form, gr. lx. to cxx.

Decoctum Sarsæ.—Jamaica sarsaparilla, not split, \bar{z} ijss.; boiling dist. water, Ojss. Digest for an hour, boil for ten minutes in a covered vessel, strain. The product should be Oj. Dose, $f\bar{z}$ jv. three or four times a-day.

Decoctum Sarsæ Compositum.—Jam. sarsap. \bar{z} ijss.; sassafras chips, $\bar{z}\frac{1}{4}$.; guaiac wood turnings, $\bar{z}\frac{1}{4}$.; fresh liquorice root, $\bar{z}\frac{1}{4}$.; mezereon, gr. lx.; boiling dist. water, Ojss. Digest. Prepare as the last. The product should be Oj. Dose, $f\bar{z}$ jv. three or four times a-day.

Extractum Sarsæ Liquidum.—Dose, $f\bar{z}$ ij. to $f\bar{z}$ ss.

Incompatibles.—Acetate of lead, and lime water.

Sassafras. Sassafras.

Sassafras Officinale Nees. N. F. Lauraceæ. The dried root; from North America.

Charact.—In branched pieces, sometimes 8 in. in diam. at the crown; bark externally greyish-brown, internally rusty-brown; of an agreeable odour, and a warm aromatic taste; wood light, porous, greyish-yellow, more feeble in odour and taste than the bark. Also in chips.

Analysis.—A volatile oil, tannin, &c.

Actions and uses.—Diaphoretic, but not much employed. A constituent of decoct. sarsæ co. An infusion may be made, ℥j. to Oj. water, the dose of which is f ℥ij. to f ℥iv.

Scammoniaë Radix. Scammony Root.

Convolvulus Scammonia Linn. N. F. *Convolvulaceæ*. The dried root; from Syria.

Charact.—Tap-shaped roots, sometimes 3 in. diam. at the top; brown without, white within, slightly odorous, but tasteless. Ether agitated with the powder, and evaporated, leaves a residue having the properties of scammony resin.

Uses.—For making the resin of scammony.

Scammoniaë Resina. Resin of Scammony.

A resin obtained by means of rect. spt. from scammony root or scammony.

Charact.—In brownish translucent pieces, brittle, resinous in fracture, of a sweet fragrant odour, if prepared from the root.

Tests.—It cannot form singly an emulsion with water. Its tincture does not render the fresh cut surface of a potato blue. Dissolved entirely by ether.

Actions and uses.—This preparation, which must be distinguished from the gum-resin scammony, (from which it may also be prepared), is a drastic cathartic, and much prized for its purity, scammony having been much adulterated. It produces copious watery discharges, and is useful in dropsies, and along with other cathartics, in habitual constipation. Being easily disguised in milk, &c., it is well adapted for children. Dose, gr. iij. to viij.; and for children, gr. ss. to ij.

Confectio Scammonii.—Resin of scammony, ℥iij.; ginger, ℥jss.; oil of caraway, f ℥j.; oil of cloves, f ℥ss.; syrup, f ℥iij.; clarified honey, ℥jss. Mix. Dose, gr. xx. to lx.; children, gr. iij. to v.

Mistura Scammonii.—Resin of scammony, gr. iv.; milk, f ℥ij. Triturate, and mix gradually and well. An excellent

cathartic, the milk covering the taste of the resin. Dose, f̄ij. to f̄iiv.; and for children, f̄jss.

Scammonium. Scammony.

Convolvulus Scammonia Linn. N. F. *Convolvulaceæ*. A gum-resin, obtained by incision from the living root, in Syria.

Charact.—Ash-grey, and rough externally; fresh fracture resinous, splintery, shining, black when dry, odour and flavour cheesy; causes, when chewed, a slight prickly sensation in the back of the throat; easily triturated into a dirty-grey powder, and converted with water into a smooth emulsion.

Analysis.—About 76 per cent. of resin, 10 per cent. gum, starch, moisture, woody fibre, &c. The resin is the active part.

Adulterations.—This drug has been very much adulterated. The substances are chalk, gum tragacanth, flour, guaiacum resin.

Tests.—Does not effervesce with hydrochloric acid. Boiling water agitated with the powder, cooled, and filtered, does not strike a blue colour with tincture of iodine. Ether removes from 80 to 90 per cent. of resin; and what remains is chiefly soluble gum, with a little moisture.

Actions and uses.—A drastic cathartic, producing copious watery evacuations, and griping a good deal. It is generally combined with other purgatives, as in the compound colocynth pill, and thus forms an excellent cathartic in torpidity of the intestines, head affections, and dropsies. Along with a little calomel, it is often given to children, in worms, and other disorders. Dose, if pure, gr. viij. to x.; and for children, gr. j. to iij.

Confectio.—See the *Resin*.

Ext. Coloc. Co.—See *Colocynth*.

Mistura.—See *Resin*.

Pil. Coloc. Co.—See *Colocynth*.

Pil. Coloc. et Hyoscy.—See *Coloc.*

Pulvis Scammonii Compositus.—Scammony, ʒjv.; jalap, ʒiij.; ginger, ʒj. Mix well, and pass through a fine sieve. A

hydragogue cathartic. Dose, gr. \bar{x} . to xxx.; for children, gr. iij. to v.

Incompatibles.—Acids.

Scilla. Squill.

Urginea Scilla Steinheil. N. F. Liliaceæ. The bulb; from the Mediterranean coasts; sliced and dried.

Charact.—Bulb pear-shaped, weighing from $\frac{1}{2}$ to 4 pounds; outer scales membranous, brownish-red, or white; inner scales thick, whitish, fleshy, juicy; taste mucilaginous, strongly and disagreeably bitter, somewhat acrid.

Analysis.—An intensely bitter, uncrystallizable, semi-transparent substance, named scillitine; an acrid poisonous resinoid substance, a fatty matter, sugar, mucus, citrate of lime.

Actions and uses.—Diuretic, expectorant, emetic, cathartic, and a narcotico-acrid poison. In large doses, it produces inflammation of the alimentary and urinary canals, and gr. xxjv. have proved fatal. As an emetic or cathartic, it is seldom given, being less certain and suitable than many others we possess. It is a good deal employed, along with others, such as digitalis, juniper, and spt. of nitrous ether, as a diuretic in dropsies; and it succeeds better in general than in local effusions, and in asthenic cases; indeed, it is not admissible where inflammatory symptoms are present. A little calomel, or a saline purgative, also favours its operation. It is one of our most common and efficient expectorants, and is useful in chronic bronchitis, and pneumonia, and in the viscid sputa of other chest affections. In some few cases it exerts its irritant action unusually (it may be owing to idiosyncrasy,) not only on the alimentary canal, but also on the bronchial mucous membrane: here the addition of a little opium or hydrochlorate of morphia answers admirably, both in the way of prevention and cure. Some physicians believe it admissible even in acute chest diseases, but if given alone in these cases, it is rather apt to aggravate matters; combined, however, with opium and ipecacuan, it answers very well. Dose, as a diuretic and expectorant, powder, gr. j. to iij.

Pilula Scillæ Composita.—Squill, in fine powder, $\bar{z}j\frac{1}{4}$.; ginger, $\bar{z}j$.; ammoniac, $\bar{z}j$.; hard soap, $\bar{z}j$.; treacle, $\bar{z}ij$., or a sufficiency. Mix. Divide into 5 grain pills. An expectorant pill. Dose, one to three.

Syrupus Scillæ.—Squill, $\bar{z}ijss$.; dilute acetic acid, Oj.; refined sugar, lbij. ; proof spt., f $\bar{z}jss$. Digest the squill in the acid for 3 days with a gentle heat ; express, add the spt., and filter ; then mix in the sugar, and dissolve with heat. The product should weigh 3 pounds 2 ounces. One of the best expectorant preparations. Dose, adults, f $\bar{z}j$. to f $\bar{z}ij$.; children, min. v. to xv.

Tinctura Scillæ.—Squill, $\bar{z}ijss$.; proof spt., Oj. M. Proceed in the usual way. This is commonly prescribed in diuretic mixtures, such as in decoctum scopariï. Dose, min. x. to xxx.

Incompatibles.—Persalts of iron, and the alkalies.

Scoparius. Broom Tops.

Sarothamnus Scoparius Wimmer. (Spartium Scoparium.) N. F. Leguminosæ. The fresh tops, dried ; from native plants.

Charact.—Long, straight, angular, green twigs of a bitter taste.

Analysis.—A yellow crystalline substance scoparin, volatile oil, a concrete oil, mucilage, albumen, &c.

Actions and uses.—An excellent diuretic in dropsies, inducing, sooner or later, a profuse flow of urine. There is reason to believe that heat impairs its active properties. A cold infusion in water and a little spt. is a good form. It is not given in substance.

Scoparin, though not officinal, is an active diuretic. Dose, gr. v.

Decoctum Scopariï.—Broom tops, $\bar{z}ss$.; dist. water, Oss. Boil 10 minutes in a covered vessel, and strain. Dose, f $\bar{z}j$. to f $\bar{z}ij$., three or four times a-day.

Succus Scopariï.—Broom tops, lb.vij. ; rect. spt. a sufficiency. Bruise the tops in a mortar ; press out the juice, and to every 3 measures of juice add 1 of spt. ; set aside 7 days, and filter.

This is an excellent preparation, and has been much wanted.
Dose, min. xxx. to xl.

Formula for Diuretic Purposes. — R Spiritus ætheris nitrosi, f̄ss.; spiritus juniperi, f̄ij.; succi scoparii, f̄ij.; tincturæ digitalis, f̄ij.; aquæ ad f̄vi. Misc. Sumat cochleare magnum ter die. A powerful diuretic mixture.

Senega. Senega.

Polygala Senega Linn. N. F. Polygalaceæ. The root, dried; from North America.

Charact.—A contorted knotty root-stock, with a branched tap-root, from the thickness of a quill to that of the little finger; cortical part yellowish, sweetish, then acrid, causing salivation; woody part whitish, inert.

Analysis.—A volatile acid, polygalic, the active principle tannin, pectic acid, fixed oil, albumen, gum, &c.

Actions and uses.—An excellent stimulating expectorant, well adapted for chronic bronchitis in old people, and for the advanced stages of pneumonia. It is of service, too, in hooping-cough when it has run on for several weeks, and some have found it useful in the latter stages of croup. Dose, powder, gr. x. to xxx.

Infusum Senegæ.—Senega, ʒss.; boiling dist. water, f̄x. Infuse for an hour. Dose, f̄j. to f̄ij.

Tinctura Senegæ.—Senega, ʒijss.; proof spt. Oj. Proceed as usual. Dose, f̄ss. to f̄ij.

Senna Alexandrina. Alexandrian Senna.

Cassia Lanceolata Lamarek; and Cassia Obovata Colladon. N. F. Leguminosæ. The leaves, from Alexandria, freed from the flowers, leaf-stalks, and pods; and from the leaves, fruit, and flowers, of Solenostemma Arghel.

Charact.—Lanceolate leaflets, about one inch long, base unequally oblique, of a grayish-green colour.

Adulterations.—Arghel leaves, and a few of the leaves of tephrosia apollinea, and coriaria myrtifolia, a poisonous article. The spurious are known by being equal at the base, and the arghel leaves are paler, thicker, and more wrinkled. The

tephrosia leaves have their veins proceeding parallel, and without bifurcation to the very edge. Those of the coriaria myrtifolia have three prominent longitudinal nerves, and their infusion gives a black precip. with a solution of sulphate of iron.

Senna Indica. Tinnively Senna.

Cassia Elongata Lemaire. The leaves; from plants grown in southern India.

Charact.—Green, thin, flexible, lanceolate, acute; leaves about $1\frac{1}{2}$ in. long, and unequal at the base.

Analysis.—A deliquescent uncrystallizable bitter substance, named cathartin, mucus albumen, malic acid, &c.

Actions and uses.—An admirable cathartic, stimulating the peristaltic action, and affecting chiefly the small intestines. Its action is frequently attended with nausea and griping, but less so if combined with a saline purgative. It seems to enter the circulation before catharsis is induced, hence breast-milk acquires from it a laxative property, and its cathartic effect is developed when an infusion is introduced by the veins. A little ginger, coriander, or anise, corrects its griping property. It is seldom given in the form of powder, but if so, the dose is gr. cxx. to \bar{z} ss.

Confectio Sennæ.—This contains a host of substances, such as tamarinds, figs, prunes, coriander, cassia pulp, &c. Dose, gr. cxx. to \bar{z} ss. It is commonly called lenitive electuary.

Infusum Sennæ.—Senna, \bar{z} ss.; ginger, gr. xxx.; boiling dist. water, f \bar{z} x. Infuse an hour. Dose, f \bar{z} j. to f \bar{z} ij.

Syrupus Sennæ.—A pleasant cathartic for children. Dose, f \bar{z} ss. to f \bar{z} ij.

Tinctura Sennæ.—Senna, \bar{z} ijss.; raisins, freed of seeds, \bar{z} ij.; caraway, \bar{z} ss.; coriander, \bar{z} ss.; proof spt. Oj. Make, as usual, by maceration and percolation. Dose, f \bar{z} j. to f \bar{z} ij. Seldom given alone, but as an addition to the infusion, and other cathartics.

Incompatibles.—Acids.

Serpentaria. Serpentry.

Aristolochia Serpentaria Linn. N. F. Aristolochiaceæ. The root, dried; from the south of North America.

Charact.—A yellowish-brown tufted head, with numerous attached radicles, about 3 in. long, with a subdued valerianic odour, and a warm camphoraceous taste.

Analysis.—A volatile oil, soft resin, gum albumen, starch, &c.

Actions and uses.—Tonic, stimulant, and diaphoretic, but not much relied on in this country. It has been used in continued fever, intermittents, amenorrhœa, and gangrenous affections, but has not been very successful. In the adynamic stages of continued fever (typhus), some little temporary benefit is obtained. Dose, powder, (not a good form,) gr. x. to xxx.

Infusum Serpentariæ.—Serpentary, $\overline{3}\frac{1}{4}$.; boiling dist. water, $f\overline{3}x$. Infuse two hours. Dose, $f\overline{3}j$. to $f\overline{3}ij$.

Tinctura Serpentariæ.—Serpentary, $\overline{3}ijss$.; proof spt. Oj. Proceed as usual. Dose, $f\overline{3}ss$. to $f\overline{3}ij$.

Sevum Præparatum. Prepared Suet.

Ovis Aries Linn. The Sheep. The internal fat of the abdomen, purified by melting and straining.

Uses.—It is employed for the same purposes as lard. It has more consistence, and a higher melting point. A constituent of the emp. cantharid.

Sinapis. Mustard.

Sinapis Nigra, and Sinapis Alba. Black mustard, and white mustard. N. F. Cruciferæ. The seeds, reduced to powder, mixed; native.

Charact.—Greenish-yellow, of an oily appearance, and an acrid burning taste; exhales when moist a powerful penetrating odour, irritating the nostrils and eyes.

Analysis.—The black mustard seeds contain a bitter uncrystallizable acid, named myronic, a peculiar principle resembling vegetable albumen, named myrosyne, and another crystallizable and somewhat volatile, termed sinapism. It is by the joint action of these principles, when water is added, that the pungent oil, on which the activity of mustard depends, is developed.

Adulterations.—Wheaten flour, detected by iodine; other

impurities may be detected by the colour of the specimen, or under the microscope.

Actions and uses.—Emetic, epispastic, stimulant. It is a powerful stimulating topical emetic, operating speedily, and is suitable in cases of depression of the vital powers, such as narcotic poisoning, and in the suffocative catarrh of the old and feeble. As an epispastic or external irritant, it is in daily use, in the form of poultice, (sinapism), to produce derivation, as for instance, on the chest in pulmonary disease, on the abdomen in colic and abdominal diseases. It is also applied over the seat of neuralgic and rheumatic pains, and to the thighs and soles of the feet in the adynamic stage of continued fever, in coma, apoplexy, and narcotic poisoning. Nothing need be said of mustard as a condiment. Dose, as an emetic, ℥j. or so, in f ℥iv. to f ℥viij. tepid water.

Cataplasma.—Mustard, ℥ijss.; linseed meal, ℥ijss.; boiling water, f ℥x. Mix gradually the meal with the water, and add the mustard, constantly stirring. A good form, producing redness in from twenty minutes to half-an-hour. If sinapisms are applied too long, vesication and ulceration may result.

Incompatible.—Vinegar.

Soda Caustica. Caustic Soda.

Hydrate of Soda. Na O, HO.

Charact.—In hard whitish fragments of cakes intensely alkaline and very corrosive.

Actions.—Corrosive and irritant; antidotes, fixed oils, and vinegar.

Liquor Sodæ.—Irritant. Used for preparing valerianate of soda, and sulphurated antimony.

Sodæ Arsenias. Arseniate of Soda. $2 \text{ Na O, HO, As O}^5$
+ 14 HO.

Charact.—In colourless hexahedral prisms, soluble in water, with a strong acrid taste.

Actions and uses.—Tonic and alterative. May be given for the diseases for which arsenic is administered, such as cutaneous, periodic, and syphilitic disorders, epilepsy, neuralgia, and

rheumatism. It is best given in solution ; and should be used as usual with watching and caution. Dose, gr. 1-20th, gradually increased to 1-8th, after food.

Liquor Sodæ Arseniatis. Arseniate of soda, gr. jv. ; dist. water, f ℥j. Dissolve. Dose, min. v. gradually increased.

Sodæ Bicarbonas. Bicarbonate of Soda, Na O, HO, 2 CO².

Charact.—In powder, or in indistinct rectangular prisms, white, odourless, with a mild alkaline taste.

Actions and uses.—An excellent antacid, antilithic, and diuretic, but it is not so energetic a diuretic as the bicarbonate of potash. It is much employed in the heartburn and vomiting of dyspepsia, along with tonics ; and for making effervescing drinks. Used also as a lotion in skin diseases, papular and vesicular. Dose, gr. x. to xxx. ; for lotion, gr. x. to xx. to f ℥j. water.

Incompatibles.—Acids, metallic salts, except those of magnesia, lime water.

Sodæ Carbonas. Carbonate of Soda. Na O, CO² + 10 HO.

Prepared on the large scale from sea-salt.

Charact.—In large transparent crystals, of the oblique rhombic form, with a disagreeable, alkaline, and caustic taste, odourless. Heat fuses it, depriving it of its water of crystallization.

Actions and uses.—Irritant, diuretic, antacid, antilithic. As a diuretic, it is not equal to the carbonate of potash. It is a good antacid, but is harsher to the taste than the bicarbonate. It operates as an antilithic, by correcting stomachic acidity, and rendering the urine alkaline, but phosphatic deposits may result from this alkalinity. The bicarbonate is not open to this objection, because the excess of carbonic acid keeps the earthy phosphates in a state of solution. Alkalies in solution well charged with carbonic acid, are thus useful in averting gravel, and probably tend to break down calculi of the bladder. Dose, gr. xx. to xxx.

Sodæ Carbonas Exsiccata—Prepared by exposing the carbonate in a porcelain capsule to a strong sand heat. It is about 3 times stronger than the other, and being of a strong caustic taste, it should be given either in the form of a pill, or in some sweet substance, such as the sugar of milk. Dose, gr. v. to xx.

Incompatibles.—Acids and their salts, magnesia, and lime water.

Sodæ Chloratæ Liquor. Solution of Chlorinated Soda.

A mixed solution of hypochlorite of Soda, Na O, Cl O, chloride of sodium, and bicarbonate of soda.

Charact.—A colourless liquid, with a sharp astringent taste and feeble odour of chlorine. Decolorizes sulphate of indigo.

Actions and uses.—Stimulant and antiseptic, and used for the same purposes as the liquor calcis chloratæ, such as in fevers, dysentery, gangrenous sores, burns, chronic cutaneous diseases, and to correct fetid discharges in general. It is perhaps preferable to the liq. calcis. chlor. as a disinfectant, as chloride of sodium which remains is not deliquescent. Dose, min. xv. to xxx. in syrup.

Sodæ et Potassæ Tartras. Tartarate of Soda and Potash.

Na O, KO, C⁸, H⁴, O¹⁰ + 8 HO. (Rochelle Salt.)

Prepared by the combination of carbonate of soda and bitartrate of potash.

Charact.—In large beautiful, transparent, colourless, right rhombic prisms, 8 and 12 sided; inodorous, and of a saline taste.

Actions and uses.—A mild laxative, and being less disagreeable to the taste, it is a good deal used in the seidlitz powders. Dose, gr. cxx. to ʒj. In seidlitz powders, there is usually, gr. lx. to cxx. in the blue paper, with gr. xl. bicarb. sodæ; and in the white paper, gr. xxx. tartaric acid.

Incompatibles.—Lime water, acetate of lead, salts of lime, most acids and acidulous salts.

Sodæ Phosphas. Phosphate of Soda. $2 \text{ Na O, HO, PO}^5 + 24 \text{ HO.}$

Charact.—Translucent colourless, oblique rhombic prisms, inodorous, and with a cooling saline taste.

Actions and uses.—A gentle saline cathartic, and, in consequence, as well as owing to its not unpleasant taste, it is well adapted for children and delicate people. It possesses a solvent action on uric acid, and may be given as a laxative, where there is a tendency to this deposit. Dose, \bar{z} ss. to \bar{z} jss. For children it may be given in soup or other diet, without their knowledge.

Incompatibles.—Lime water, magnesia, the mineral acids, nitrate of silver, and acetate of lead.

Sodii Chloridum. Salt. Na Cl.

Charact.—In small white cubes, odourless, and with a pleasant saline taste.

Actions and uses.—Stimulant, cathartic, and emetic. It is used by mankind over the world, as an adjunct to diet, and it stimulates gently the digestive organs. It also prevents so far the growth of worms in the intestines, these parasites being more profuse where little salt is used, or where it is necessarily absent for a time. As a cathartic, it is useful in the way of aiding others, and it is the chief constituent of many mineral waters. In pretty full doses, such as \bar{z} j. or \bar{z} ij. it may be employed as an emetic, if sulphate of zinc or mustard be not at hand. Warmed, it is applied to the surface of the body as a stimulant, or irritant, in severe pains of various kinds; and a solution is sometimes thrown up the rectum as an anthelmintic. Dose, stimulant, gr. x. to xl. Emetic, \bar{z} j. to \bar{z} ij. in Oj. water.

Spiritus Ætheris Nitrosi.—See *Ætheris Nitrosi Spiritus.*

Spiritus Pyroxylicus Rectificatus. Rectified Pyroxylic Spirit.

Hydrated Oxide of Methyle, $\text{C}^2, \text{H}^3, \text{O, HO,}$ with about 10 per ct. of water. (Medicinal Naphtha).

Prepared by the destructive distillation of wood.

Char.—A colourless, transparent, mobile fluid, inflammable, with an ethereal alcoholic odour, and a kind of aromatic taste.

Actions and uses.—Slightly stimulant, then sedative. A good many years ago, it was introduced with a flourish of trumpets as the drug, at length, that was to banish pulmonary consumption from the land; but long trial enables us to take a calmer view and humbler estimate of its value. It is by no means a worthless drug, however; it will palliate very much the cough of phthisis, and relieve the vomiting which often attends the advanced stages of that disease. In chronic vomiting, in general, we place more reliance on creasote. Dose, min. v. to xx. three or four times a-day in a little aromatic water. Here is a useful formula. ℞ Spiritus pyroxylici, f̄ij.; tinct. cardam. co., f̄ss.; infusi calumbæ, ad f̄vj. Misce. Sumat, f̄ss. ter die.

Spiritus Rectificatus. Rectified Spirit.

Alcohol, C⁴ H⁵ O, HO, with 16 per ct. of water. Sp., gr. 0·838, obtained by the distillation of fermented saccharine fluids, and by rectification, if necessary.

Charact.—Colourless, transparent, mobile, and inflammable, with a peculiar and agreeable odour and a hot taste.

Actions and uses.—Stimulant, irritant, sedative, diuretic, but seldom used alone in medicine. It is most extensively used, however, in pharmacy as a solvent, and for preparing alcohol (absolute), and the spiritus tenuior. A few observations on alcoholic fluids are made under wine.

Spiritus Tenuior, Proof Spt.—Rect. spt., Ov.; dist. water, Oij. Mix. Sp., gr. 0·920. The great majority of tinctures are made with this; the remainder with rectified spirit.

Stramonii Folia. Stramonium Leaves.

Datura Stramonium Linn. Thorn apple. N. F. Solanaceæ. The leaves dried; collected from native plants when in flower.

Charact.—Large, ovate, angulato-sinuate, glabrous, with a heavy odour, and slightly bitter mawkish taste.

Stramonii Semina. Stramonium Seeds.

Datura Stramonium Linn. The ripe seeds.

Charact.—Small, brownish-black, kidney-shaped, rough, of a nauseous and bitter taste.

Analysis.—In the seeds and leaves are found an alkaloid named daturia, in colourless prismatic crystals, somewhat volatile, and on which the properties of the drug depend. The seeds also contain fixed oil, resin, wax, &c.

Actions and uses.—The seeds and leaves are strongly narcotic, occasioning dryness and burning sensation of the throat and tongue, nausea, delirium, coma, interrupted by convulsions, and death. 100 seeds have killed a child of 2 years in 24 ho. It is used chiefly, but not extensively, (and perhaps not so widely as it ought), for anodyne and antispasmodic purposes, such as in sciatica, tic, lumbago, in chronic rheumatism, and other painful diseases. It is very commonly applied in the form of smoke, by means of a tobacco-pipe, in asthma, and in the attacks of dyspnœa, which result from pulmonary emphysema and cardiac disease, and in this way the paroxysms of shortness of breathing are often relieved. It should not be pushed too far, as danger may be incurred; and it is inadmissible in the old and feeble, or those with a tendency to palsy or apoplexy. Dose, powder of the leaves, gr. j. to jv.; of the seeds, gr. $\frac{1}{4}$ to j., gradually increased.

Extractum Stramonii.—Prepared from the seeds with proof spt. Dose, gr. $\frac{1}{4}$.

Tinctura Stramonii.—Stramonium seeds, ʒijss.; proof spt., Oj. Proceed as usual; the product should be Oj. Dose, min. x. to xxx.

Strychnia. Strychnia.

An alkaloid, $C^{42} H^{22} N^2 O^4$. Obtained from nux vomica.

Charact.—In colourless, minute octahedrons, inodorous, sparingly soluble in water, yet imparting to it its own intensely bitter taste; soluble in ether, chloroform, and boiling rect. spt. Gives a deep violet hue with sulphuric acid, and bichromate of potash.

Adulterations.—Brucia and colouring matter: nitric acid develops a red colour if brucia be present.

Actions and uses.—A special stimulant, and nerve tonic, acting on the medulla oblongata, and medulla spinalis, but not affecting the sensorium. It is also an active poison, occasioning violent tetanic spasms and death; and so little as 2-3ds gr. by the mouth, has excited violent spasms and locked-jaw. One grain, if introduced into a wound, would probably prove fatal; and 1-6th gr. has killed dogs and other animals in less than a minute. There is, moreover, as yet, no antidote for it. It is not a cumulative poison, nor does its power diminish after using it for a while, although a slight increase of the dose may be borne. It has been used chiefly in chronic paralysis, such as hemiplegia, paraplegia, partial palsy, amaurosis, and in paralysis of the muscles of the bladder. It is of more service in paraplegia than hemiplegia; and, as a general rule, not very successful in local palsies, such as of the optic nerve, or the bladder. While using it, the paralysed muscles are first affected, and thrown into spasms; there is starting of the limbs; and if improvement is to follow, it is not in general very long delayed. It should not be given where there is a determination of blood to the head, or congestion of the nervous centres, as it is likely to prove injurious. It is applied endermically, either in the form of the liquor, or gr.ss. of the alkaloid may be sprinkled over the raw surface. This method is adopted in amaurosis, and different limited palsies. Dose, gr. 1-20th to 1-8th, carefully watched.

Liquor Strychniæ.—Strychnia in crystals, gr.jv.; dilute hydrochloric acid, min. vj.; rectified spt., fʒij.; dist. water, fʒvj. Mix the hydrochloric acid with four drachms of the water, and dissolve the strychnia in the mixture by the aid of heat. Then add the spt. and the remainder of the water. As will be seen, there is gr. j. in fʒij. The dose will then be min. vj. (or gr. 1-20th) to min. xv. (or gr. 1-8th), observing well its effects.

Styrax Præparatus. Prepared Storax.

Liquidambar Orientale. N. F. Ebenaceæ. A balsam got from the bark, in Asia Minor; purified by rect. spt., and straining.

Charact.—A dirty-brown, or yellowish half-fluid resin, with a pleasant aromatic odour.

Actions and uses.—Expectorant, but thoroughly unimportant. It is an ingredient of the tinct. benzoin co., but never given alone.

Sulphur Præcipitatum. Precipitated Sulphur.

Prep.—Precipitated from sulphuret of calcium by means of hydrochloric acid. (Lac sulphuris. Milk of sulphur.)

Charact.—A yellowish-white soft powder, not gritty.

Actions and uses.—A mild cathartic, and preferred by some to the sublimed sulphur, as having, if anything, less taste and smell. Useful in hemorrhoidal affections, stricture of the rectum, &c. Dose, gr. lx. to \bar{z} ss.

Sulphur Sublimatum. Sublimed Sulphur.

Prepared from sulphur by sublimation.

Charact.—A bright greenish-yellow powder, somewhat gritty, with little taste, but a peculiar odour when rubbed.

Actions and uses.—A gentle cathartic, and cutaneous stimulant, painlessly stimulating the peristaltic action, and effectual in its operation. In spasm and stricture of the rectum, in piles, and where a mild intestinal action is wanted, it is very useful. The eructations and evacuations after using it, as well as the insensible perspiration, being tainted by sulphuretted hydrogen, it is not so much prescribed as it might otherwise have been. It is held in high repute by many as a laxative in skin diseases; but while it is one of the best drugs locally applied in these, especially scabies, it is doubtful whether internally it possesses advantages superior to others. It is one of the most popular diaphoretics of the day, few old women failing to use it where any eruption is supposed to be struggling through the skin. Dose, $\bar{z}\frac{1}{4}$. to \bar{z} ss., in treacle or honey, as it does not mix freely in water.

Confectio Sulphuris.—Sublimed sulph. \bar{z} jv.; acid tartrate of potash, \bar{z} j.; syrup, orange peel, f \bar{z} jv. Mix. Very useful in piles. Dose, \bar{z} ss.

Unguentum Sulphuris.—Sublimed sulph., \bar{z} j.; prepared lard,

℥jv. Mix well. Used in scabies, where it is supposed to act as a poison to the insect existing in the pustules. The skin should be well cleaned previously, and the oint. rubbed well in to the involved parts. It is also used in lepra and psoriasis.

Tabacum. Leaf Tobacco.

Nicotiana Tabacum Linn. Virginian tobacco. The dried leaves; grown in America.

Charact.—Dark-brown, with yellowish spots, lanceolate acuminate, with an unctuous feel, a heavy odour, and a bitter nauseous taste.

Analysis.—A liquid, colourless, volatile alkaloid, named nicotina, and which is the active part, a concrete volatile oil, nicotianin, gum, albumen, starch, malic acid, &c.

Actions and uses.—A potent narcotico-acrid poison, the symptoms being sickness, exhaustion, relaxation of muscles, voluntary and involuntary, intense depression of the circulation, as indicated by the pulse, which is weak and fluttering; pallid countenance, coldness of the surface of the body, convulsions, and death. In small doses, tobacco is a laxative and diuretic, but very rarely employed as such, its use being attended with danger. It was formerly used as a relaxant of the muscular system in strangulated hernia and dislocations, but chloroform has entirely superseded it. Some few employ it yet to subdue spasm, as in tetanus, or to overcome obstruction, as in ileus, but it is better to seek these influences or results from drugs of less hurtful tendency. As an anthelmintic, (in the form of enema,) it has also fallen into disuse. Mode of administration. In the form of enema.

Enema Tabaci.—Leaf tobacco, gr. xx.; boiling dist. water, fʒviiij. Infuse half-an-hour, and strain. This is the usual strength for injection.

In poisoning, if it has been taken by the mouth, give stimulating emetics. Tannin, and strong external and internal stimulants, should also be administered.

Tamarindus. Tamarind.

Tamarindus Indica Linn. N. F. Leguminosæ. The preserved pulp of the fruit; imported from the West Indies.

Charact.—A reddish-yellow pulp, preserved in sugar, with seeds and vegetable fibres, and of a pleasant acid taste.

Adulterations.—Copper, detected by plunging a clean iron knife into the pulp, when the metal will adhere.

Actions and uses.—Laxative and refrigerent, and given occasionally in fevers. It is an ingredient of the confect. senna. A pleasant cooling whey is made by boiling them with milk. Dose, \bar{z} ss. to \bar{z} jss.

Taraxacum. Dandelion Root.

Taraxacum Dens Leonis D.C. N. F. Compositæ. The fresh roots; gathered between September and February, in Britain.

Charact.—Dark-brown tap-shaped roots, white within, brittle, and yielding a bitter milky juice, which on exposure turns pale-brown.

Analysis.—A bitter extractive named taraxacine, mannite, resin, sugar, gum, &c.

Adulterations.—To prevent the substitution of other roots, the genuine should be ordered with some of the leaves attached: these are runcinate and smooth, and easily known.

Actions and uses.—Tonic, and a weak aperient. It is a good deal used by some in functional disorders of the liver, and after using it for some time, the biliary secretion is promoted, the intestinal motions become more natural, and the appetite improves. Large doses are required, and in a good many cases, very little influence seems to be exerted by it. It is not given in substance.

Decoctum Taraxaci.—Dandelion root, sliced, \bar{z} j.; dist. water, Ojss. Boil 10 minutes, and strain. Dose, f \bar{z} j. to f \bar{z} jv.

Extractum.—Dose, gr. x. to xxx.

Succus Taraxaci.—Dose, f \bar{z} j. to f \bar{z} ss.

Terebinthina Canadensis. Canada Balsam.

Abies Balsamea. Balm of Gilead Fir. N. F. Coniferæ. The turpentine, obtained from the stem by incision, in Canada.

Charact.—Of a honey colour and consistence when fresh, but gradually thickens into a resinous looking mass; with a terebinthinate odour, and an acrid taste.

Actions and uses.—A stimulant and tonic to the mucous membranes, especially of the bladder and urethra. It proves useful in gleet, leucorrhœa, and cystirrhœa. Dose, gr. xx. to xxx. three or four times a-day, mixed in magnesia.

Terebinthinæ Oleum.—See *Oleum Terebinthinæ*.

Theriaca. Treacle.

The uncrystallized residue of the refining of sugar.

Actions and uses.—Emollient and demulcent. Used chiefly for pills, electuaries, &c.

Thus Americanum. Common Frankincense.

Pinus Tæda Linn. the Frankincense Pine, and *Pinus Palustris*, the Swamp Pine. The concrete turpentine from the south of North America.

Uses.—For plasters, chiefly to give odour and consistency. A constituent of the emp. picis.

Tragacantha. Tragacanth.

Astragalus Verus Olivier; and other species. N. F. Leguminosæ. A gummy exudation from the stem; gathered in Asia Minor.

Charact.—In yellowish-white, broad, thin, somewhat curved plates, tough and elastic, inodorous, and tasteless.

Analysis.—Soluble gum, 51 per ct., the remainder bassorin.

Actions and uses.—Demulcent, and used for same purposes as gum arabic, but not so widely employed. Dose, gr. xxx. to cxx.

Pulvis Tragacanthæ Compositus.—Tragacanth, ℥j.; gum arabic, ℥j.; starch, ℥j.; refined sugar, ℥ij. Mix well. Used as a vehicle for powders containing calomel, &c. Dose, gr. lx. to cxx., as a demulcent.

Mucilago.—Tragacanth, gr. c.; boiling dist. water, f ℥x. Macerate 24 ho., and express through calico.

Ulmus. Elm Bark.

Ulmus Campestris Linn. Broad-leaved Elm. N. F.

Cupuliferæ. The dried inner bark, deprived of its outer layers, from indigenous trees.

Charact.—A brownish-yellow bark, about half a line thick, inodorous, taste bitter and astringent.

Analysis.—Tannin, resin, gum, &c.

Actions and uses.—Tonic, but not very active or important. Some prescribe it in skin diseases, as it is said to act a little on the cutaneous capillaries. It is not given in substance.

Decoctum Ulmi.—Elm bark, \bar{z} ijss. ; dist. water, Oj. Boil down to Oj. Dose, f \bar{z} ij. to f \bar{z} iv.

Tinctura Quiniæ Comp.—Sulphate of quinia, gr. clx.; tincture of orange peel, Oj. Digest seven days. Dose, for tonic purposes, f \bar{z} ss. to f \bar{z} ij. (*Omitted under Quinia.*)

Uva Ursi. Bearberry leaves.

Arctostaphylos Uva Ursi. N. F. Ericaceæ. The dried leaves ; from indigenous plants.

Charact.—Dark-green entire, obovate, shining, coriaceous leaves, convex above, concave and reticulated on the under surface, with an astringent bitter taste, and odour of hay.

Analysis.—A bitter principle, in long thin colourless prisms, named arbutin, tannin, gallic acid, resin, gum, &c.

Adulterations.—Leaves of the red whortle-berry (*vaccinium vitisidæa*), and of the common box (*buxus semper-virens*) are often mixed with the true. The former have their under surface dotted, not reticulated ; and the latter are not astringent.

Actions and uses.—An astringent to the genito-urinary mucous membrane. Employed in chronic mucous discharges, such as gleet, leucorrhœa, and catarrh of the bladder. In chronic nephritis, and diabetes, it sometimes does a little good, and may be tried at least as a change from other remedies. Dose of the powder, gr. x. to xl.

Infusum Uvæ Ursi.—Bearberry leaves, \bar{z} ss.; boiling dist. water, f \bar{z} x. Infuse 2 hours. Dose, f \bar{z} j. to f \bar{z} ij.

Incompatibles.—Same as tannin.

Uvæ. Raisins.

Vitis Vinifera Linn. The Grape Vine. The ripe fruit, dried in the sun, or with artificial heat ; from Spain.

Uses.—Nutritive and demulcent. Used as agreeable adjuncts, in tinctures, such as that of senna, and cardamoms.

Valeriana. Valerian.

Valeriana Officinalis Linn. N. F. Valerianaceæ. The root of indigenous plants, collected in autumn, and dried: that from wild plants on dry soil is best.

Charact.—A short tuberous yellowish-brown rhizome, with numerous root-fibres, from 2 to 4 in. long, of a penetrating odour, and a bitter, acrid, somewhat aromatic taste.

Analysis.—Valerianic acid, volatile oil crystallizable, resin, gum, &c. The active properties are due to the acid.

Actions and uses.—A powerful stimulant and antispasmodic. When given in large doses, it affects the cerebral organs, occasioning headache and vertigo. It is now chiefly employed in hysteria, where it is of undoubted service, few remedies being equal to it in the way of subduing the paroxysm of that disease. Some cases of epilepsy in young people have been benefited by it, and in the nervousness of the adynamic stage of continued fever, good has resulted, but it is not much to be relied on here. Dose, powder, gr. xx. to xl.

Infusum Valerianæ.—Valerian, gr. cxx.; boiling dist. water, f̄ʒx. Infuse one hour. Dose. f̄ʒj. to f̄ʒij.

Tinctura Valerianæ.—Valerian, ʒijss.; proof spt. Oj. Proceed as usual. Dose, f̄ʒij. to f̄ʒss.

Tinctura Valerianæ Ammoniata.—Valerian, ʒijss.; aromatic spt. of ammonia, Oj. Macerate 7 days. This is the best preparation of this drug. Dose, f̄ʒss. to f̄ʒij.

Formula.—℞ Tinct. valerian. ammon. f̄ʒvj.; tinct. assa-foetidæ, f̄ʒij.; infusi cuspariæ, ad f̄ʒvj.; Misc. Sumat, f̄ʒss. pro re nata. Useful in hysteria.

Incompatibles.—Salts of iron, alkalies; the earthy and metallic oxides.

Veratria. Veratria.

An alkaloid C⁶⁴, H⁵², N² O¹⁵, obtained from Cevadilla; not quite pure.

Charact.—A greyish-white powder, uncrystallizable, of an intensely acrid and bitter taste, powerfully irritating to the nostrils, the smallest portion exciting violent sneezing. It is insoluble in water, sparingly in ether, more so in spirit. Acids dissolve it readily, traces of an insoluble brown resinoid matter being left.

Prepared from *sabadilla*, by maceration in water and spirit, and precipitation by solution of ammonia, &c.

Adulteration.—Lime occasionally: heated in a platinum spoon, the pure leaves no residue.

Actions and uses.—A general stimulant, but a strong irritant poison, occasioning inflammation of the alimentary canal, vomiting, and diarrhoea: the least particle also inflaming the lining membrane of the nostrils, and producing coryza. In very small doses, it stimulates generally the secretions of the skin, kidney, and intestines. It was at one time highly praised as a remedy in neuralgia, for which purpose it was used internally and externally; but we do not now trust it much in this many-formed disease. On the Continent it has been used in pneumonia, and has acquired also a kind of name in acute rheumatism, but it is not believed in here for these diseases. In the form of ointment, it is recommended in strumous diseases of joints. Dose, gr. 1-12th, in the form of pill. If heat in the throat, pain in the stomach, vomiting or diarrhoea result, it should be discontinued.

Unguentum Veratriæ.—*Veratria*, gr. viij.; olive oil, f ʒss.; prepared lard, ʒj. Rub the oil and *veratria* well together, then add the lard.

In poisoning, give emetics, demulcent drinks, tannin, and stimulants, such as coffee, brandy, and ammonia.

Vinum Xericum. Sherry.

A Spanish wine.

Charact.—A transparent liquid of a pale-yellow colour, containing about 18 per ct. of alcohol.

Actions and uses.—Stimulant. Used in the preparation of all the wines in the pharmacopœia. About the use and

utility of alcoholic liquids in medicine there is considerable contrariety of opinion, the temperance question coming in often, even among professional men, to bias the mind, and prevent a calm estimate of its therapeutical effects and position. We think there is little doubt but that, whether in the form of wines, whisky, brandy, &c., they are often useful stimulants, helping to tide patients, for a little while at least, over periods of weakness and exhaustion. In fevers, in convalescence from acute diseases, and in debility from protracted discharges, they are often of service; and in cases of shock from injury, or faintness and exhaustion from other causes, benefit is derived. In general, they should not be used where there is acute local inflammation.

Zinci Acetas. Acetate of Zinc. $\text{Zn O, C}^4, \text{H}^3, \text{O}^3, + 2 \text{HO.}$

Charact.—Thin white translucent crystalline plates, of a pearly lustre, inodorous, and with a sharp styptic taste.

Actions and uses.—An excellent astringent for external use. Employed in chronic mucous discharges, as gleet and leucorrhœa; and in skin diseases, such as lupus, eczema, and impetigo, when they are attended with much discharge. It is also used with benefit in ophthalmia. Internally, it is not much employed. Dose, gr. j. to iij. in pill with ext. rhei. For a lotion, gr. ij. to x. in \bar{z} j. water.

Incompatibles.—Lime water; the alkalies and their carbonates.

Zinci Carbonas. Carbonate of Zinc.

$(\text{Zn O, CO}^2 + \text{HO}) + 2 (\text{Zn O, HO.})$ (Prepared Calamine.)

Charact.—A whitish, heavy, tasteless, inodorous powder, insoluble in water. Entirely soluble with effervescence in dilute sulphuric acid.

Actions and uses.—Astringent. Used externally for drying the skin in excoriations, and in the profuse discharges of chronic cutaneous diseases. An ointment, called "Turner's Cerate," is made with this, with wax, lard, &c. It is popularly used for all kinds of sores of limited extent.

Zinci Chloridum. Chloride of Zinc. $Zn\ Cl.$

Charact.—In snow-white opaque rods, inodorous, very deliquescent and caustic, with a powerfully styptic, taste; soluble in water, alcohol, and ether.

Actions and uses.—A powerful caustic, involving the vitality of the organized textures, and occasioning severe burning pain, which lasts for several hours. It is used to destroy fungous tumours, *nævi materni*, fibrous growths, and as an application to malignant ulcer, fungus hematodes, &c. It is said to be of some benefit in open cancer, by promoting a new action in the neighbourhood. It is used also for making issues.

Chloride of Zinc Paste, for the gradual destruction of growths, &c., is made by mixing one part of the caustic with two of flour. The paste is applied in a layer, one to two lines thick, and left on from six to ten hours, the contiguous parts being well protected.

Zinci Oxidum. Oxide of Zinc. $Zn\ O.$

Charact.—A soft white powder, inodorous and tasteless, becoming yellowish-white when heated. Insoluble in water, soluble in most acids.

Actions and uses.—Tonic and astringent. As a tonic, it is employed in convulsive and spasmodic diseases, such as chorea and epilepsy, and in the latter disease it is often of service when given for a lengthened period. In spasmodic cough it is not much to be depended on, but in chronic catarrh it helps to diminish excessive expectoration. Some give it in scaly skin diseases, but it is inferior to arsenic in these. Externally it is pretty widely used for healing chaps, excoriations, superficial ulcers, and in herpetic eruptions, intertrigo, &c. Dose, gr. j. to iij. in pill, with ext. tarax. and ext. gent., three times a-day, after food.

Unguentum Zinci Oxidi.—Oxide of zinc, gr. lxxx.; simple oint. $\zeta j.$ Mix.

Zinci Sulphas. Sulphate of Zinc. $Zn\ O, SO^3 + 7\ HO.$

Charact.—Transparent colourless crystals of the right

rhombic form, inodorous, with a strong styptic metallic taste ; freely soluble in water.

Actions and uses.—Irritant, emetic, astringent, tonic. In large doses it is an irritant poison, but it is usually discharged by vomiting ; or, if not, warm demulcent drinks should be given, and inflammatory symptoms met in the usual way, if they arise. As an emetic, it is one of our best, operating immediately and effectually, and thus, as well as from its not depressing the circulation, being useful in narcotic poisoning. As a tonic, some use it in those disorders for which the oxide is given, but it has not proved so successful. As an astringent, internally it is used in chronic diarrhoea and dysentery, in bronchitis with excessive secretion, in leucorrhœa and gleet, and in all these with occasional benefit. Externally it is much employed in the form of injection in gonorrhœa, gleet, and leucorrhœa, as a lotion in old and weak ulcers, and as a collyrium in ophthalmia. Dose, as an astringent and tonic, gr. j. to v. in pill, with ext. gentian.; as an emetic, gr. xv. to xxx. in ℥jv. of water.

Red Lotion is a solution of this salt, of the strength of gr. ij. to jv. to ℥j. of water, and coloured with tinct. lavand. co. It is useful as a stimulant to weak, an astringent to flabby, and a corrective to foul ulcers.

A Caustic Paste for reducing growths, is made by drying the sulphate of zinc, and mixing it with 1-8th part, or so, of glycerine ; and a more powerful one still, by adding sulphuric acid, (the super-sulphate of zinc.)

Zinci Valerianas. Valerianate of Zinc. $Zn O, C^{10} H^9 O^3$.

Prepared by the action of valerianate of soda on sulphate of zinc. See Brit. Pharm.

Charact.—In brilliant, snow-white, pearly, tabular crystals, with a bitter, metallic, slightly astringent taste, and a slight odour of valerian ; soluble in water, but requires to be rubbed in a mortar.

Actions and uses.—A powerful antispasmodic and tonic. It has been found of great service in hysteria and neuralgic affec-

tions, especially of the face and head. In the convulsive disorders of children, when these depend on worms, its use is also attended with benefit. Dose, gr. ss. to ij. in pill, with ext. tarax., twice or thrice a-day.; for children, gr. $\frac{1}{8}$, in a little scammony and aromatic powder.

Incompatibles.—The soluble carbonates, most metallic salts, the acids, and astringent infusions.

Zingiber. Ginger.

Zingiber Officinale, (Amomum Zingiber.) N. F. Zingiberaceæ. The rhizome, scraped and dried; from plants grown in the West Indies.

Charact.—Knotty, palmated, hard, decorticated pieces, three or four inches long, yellowish-white, with a mealy fracture, hot taste, and aromatic odour.

Actions and uses.—An aromatic stimulant, tonic, and carminative. It is popularly employed for flatulence, and as a condiment; and in practice very extensively, to give flavour to, or to correct the griping tendency of, other drugs. When chewed, it irritates the mouth, and increases the flow of saliva, and it has been used in paralysis of the tongue. It stimulates the digestion a little, but should not be used in irritable stomach; and from its stimulant effect on the genito-urinary organs, it should be avoided in acute gonorrhœa, and where there is a tendency to stricture.

Syrupus Zingiberis.—Tincture of ginger, fʒj.; syrup, fʒvij. Mix with agitation. Dose, fʒj. to fʒss.

Tinctura Zingiberis.—Ginger, ʒijss.; rect. spt. Oj. Proceed as usual. Dose, fʒj. to fʒss.

PART II.

MEDICINES ARRANGED ACCORDING TO THEIR ACTIONS.

Antacids.

(Alkalines, Absorbents, Antilithics, Lithontriptics.)

Antacids are medicines which neutralize, by combining chemically with, any free acid existing in the stomach or intestines. Tonics should be given with them, in order to improve that feeble or perverted state of the digestive organs on which the acidity depends. If the acid exists in the gaseous condition, ammonia, from its volatility, will best combat it; if in the lower bowel, magnesia or lime are most suitable, as they withstand for a longer time the action of the intestinal juices. When the acidity is in the urinary organs, the alkalies are to be preferred, from their direct diuretic action. Ammonia is most suitable for the old and feeble, being most stimulating.

Ammonia Carbonas. Spiritus Ammonia Aromaticus. Calcis Liquor. Calcis Carbonas Praecipitata. Lithia Carbonas. Lithia Citras. Magnesia Levis. Magnesia Carbonas. Magnesia Carbonas Levis. Potassa Bicarbonas. Potassa Carbonas. Potassa Liquor. Soda Bicarbonas. Soda Carbonas.

Anthelmintics. (Vermifuges.)

These are substances which destroy or extirpate worms located in the intestines: as a rule they should be given on an empty stomach. If the parasite exists in the large bowel, as is the case with the ascaris vermicularis, which is chiefly in the rectum, enemata will very readily deal with it, and they should be added to internal remedies.

Cusso. Filix. Granati radix. Kamela. Sabadilla. Santoninum. Terebinthinae oleum. Most cathartics also act as vermifuges.

Antispasmodics.

These allay spasm, that is, undue or irregular muscular con-

traction. There are the pure or direct, and the indirect; the former have a direct influence on spasmodic action; the latter, (such as a purgative in chorea, where it depends on intestinal irritation, or a tonic in epilepsy arising from vascular atony,) operate indirectly. The pure or direct are, Assafœtida. Castoreum. Galbanum. Moschus. Rutæ Oleum. Valeriana; and the salts of valerianic acid.

Astringents. (Styptics. Constringents.)

Substances which arrest secretions and excretions: they do so by causing a condensation of contractile fibres, improving tone, and altering action.

Acetum. Acidum Gallicum. Acidum Sulphuricum, Acidum Tannicum. Alumen. Bela. Bismuthum Album. Borax. Catechu. Creasotum. Calcis. Carb. Præcip. Cupri Sulphas. Ergota. Ferri Sulphas. Ferri Perchlor. Tinct. Ferri Pernit Liquor. Galla. Granati Radix. Hæmatoxylum. Kino. Krameria. Matica. Plumbi Acetas. Plumbi Carbonas. Plumb. Subacet. Liquor. Dil. Quercus. Rosa Gallica. Uva Ursi. Zinci Acetas. Zinci Carb. Zinci Oxidum. Zinci Sulphas.

Cathartics. (Purgatives. Evacuants.)

Medicines which promote the evacuation of the intestinal contents. Mild ones are laxatives; stronger purgatives; and those are drastic which operate with painful energy. They vary in their mode of action; some rouse and increase the peristaltic action, others merely stimulate the mucous glands—inducing watery evacuations. Further, these medicines elect certain parts of the bowel on which to operate. Jalap deals with the small intestine chiefly; aloes and colocynth prefer the large bowel; while rhubarb embraces both.

Aloe. Calomelas. Cambogia. Cassia. Colocynthis. Crotonis Oleum. Elaterium. Hydrarg. cum Creta. Hydrarg. Oil. Jalapa. Jalapæ Resina. Magnesia. Magnes. Sulph. Manna. Mel. Olivæ Oleum. Podophylli Resina. Potass. Acet. Potass. Sulph. Potass. Tart. Acida. Prunum. Rheum. Ricini Oleum. Scammonia Resina. Scammonium. Senna. Sodæ Phosphas. Sodæ et Potass. Tart. Sulphur. P. Sulphur Sub. Tamarindus. Terebinth. Oleum.

Caustics. (Cauterants. Escharotics.)

Substances possessing the power of destroying living tissue. When they act powerfully, they produce an eschar, hence escharotic.

Acidum Aceticum. Acid. Arseniosum. Acid. Hydrochlor. Acid. Nitric. Acid. Sulphuric. Ammon. Liq. Fortior. Antimon. Terchlor. Liquor. Argenti Nitras. Cupri Sulphas. Hydrarg. Nit. Liquor Acid. Hydrarg. Oxid Rub. Potassa Caustica. Zinci Chloridum. Zinci Sulphas.

Diaphoretics. (Sudorifics.)

Remedies which increase the cutaneous transpiration. Some of them act by increasing the functional activity of the skin; some by quickening the circulation; others by lowering it where, as in fevers, increased vascular action is associated with a perversion of the cutaneous function. While using them, the surface of the body should be kept warm.

Ammon. acet. liquor. Antimon. Oxid. Antimon. pulv. Antimon. Sulphuratum. Antim. Tartaratum. Dulcamara. Guaiaci lignum. Guaiaci resina. Ipecac. pulv. cum Opio. Mezereum. Sarza. Sassafras. Sulphur.

Disinfectants.

Substances which destroy by decomposition, foul effluvia, and infectious or putrescent emanations. Carbo. Calx Chlorata. Cerevisiæ fermentum. Chlori liquor. Potassæ permanganas. Sodæ chlor. liquor. Zinci chlor. liquor.

Diuretics.

These promote the secretion and evacuation of urine, generally by stimulating the secreting vessels of the kidneys. Their operation is favoured by a cool skin, and that of some of them by not giving so much as would induce catharsis. Ætheris Nitrosi Spiritus. Bucco. Cambogia. Cantharis. Digitalis. Juniperi Oleum. Pareira. Potass. Acetas. Potass. Nitras. Potass. Tart. Acid. Scilla. Scoparius. Terebinth. Canadensis. Terebinth. Oleum.

Emetics. (Vomits.)

Medicines which occasion the emptying upwards of the contents of the stomach. There are the direct, topical, or irritant, producing vomiting by reflex action, and only when received into the stomach, and whose action is immediate; and the general, or specific, which act alike whether when introduced into the stomach, or any part of the vascular system, as for instance, the veins, and whose operation is more tardy, a gradually deepening depression preceding it. The specific are marked thus*.

*Antimonium Tartaratum. Cupri Sulphas. *Ipecacuanha. Sinapis. Sodii Chloridum. Zinci Sulphas.

Emmenagogues.

Medicines which promote the menstrual discharge, by stimulating the uterus to increased action. Many so-called emmenagogues are merely cathartics, their influence on the rectum being reflected on the uterus. The following operate directly, and may be termed the true.

Borax. Ergota. Rutæ Oleum. Sabina.

Emollients. (Demulcents. Relaxants.)

Substances which render the tissues softer and laxer, by lessening vital tone or cohesion; or which soften and protect the sensible surfaces of the body.

Acacia. Adeps Præp. Amygdala. Amygdal. Oleum. Amylum. Cera Alba. Cera Flava. Cataceum. Ficus. Glycerinum. Glycyrrhiza. Hemidesmus. Hordeum. Lini Farinæ. Lini Oleum. Lini Semen. Olivæ Oleum. Saccharum. Theriaca. Tragacantha. Uvæ.

Epispastics. (Counterirritants. Derivatives. Rubefacients. Revulsives.)

These redden, inflame, and vesicate the skin.

Ammon. Liq. Fortior. Antim. Tart. Aqua Fervens. Cantharis. Capsicum. Crotonis Oleum. Mezereum. Sabina Sinapis. Terebinth. Oleum.

Expectorants.

Medicines which increase pulmonary secretion, or promote its discharge.

Acid. Benzoicum. Ammon. Benzoas. Antim. Tart. Bals. Peru. Bals. Tolut. Benzoinum. Ammoniacum. Ipecacuanha. Lobelia. Scilla. Senega.

Liquefacients. (Deobstruants. Alteratives.)

Medicines acting obscurely or specifically, and altering morbid conditions of the system; others acting on the lymphatic and capillary systems, accelerating the metamorphosis of tissue, and thus promoting the removal of swellings, fluid and solid.

Acidum Arseniosum. Hydrargyrum. Hydr. Corrosiv. Sub. Hydr. Iodid. Rub. Hydr. Iodid. Virid. Hydr. Subchlor. (Calomelas). Iodum. Morrhuæ Oleum. Podopyhilli Resina. Potassii Bromidum. Potassæ Chloras. Potassii Iodidum.

Narcotics. (Hypnotics. Soporifics. Anodynes.)

Medicines which induce prostration of the vital powers and sleep; this being preceded by a stimulating effect on the brain and heart. In large doses, the stimulant effect is overborne, and they operate like sedatives.

Belladonna. Cannabis Indica. Hyoscyamus. Lupulus. Morphiæ Hydrochloras. Opium. Papaver. Rhœas. Stramonii Folia et Semina.

Refrigerants.

These act by diminishing the force of the circulation when it is unduly or morbidly excited, thus reducing the heat of the body, and giving rise to a sensation of coolness throughout the system. The most powerful are cold drinks, cold baths, cold air. Freezing mixtures.

Acetum. Acid. Citric. Acid. Sulph. Dil. Acid. Tart. Limonis Succus. Mori Succus. Potass. Chlor. Potass. Nit.

Sedatives. (Contra-Stimulants. Calmatives.)

Medicines which directly depress the vital powers, there being no antecedent excitement. In large doses, they give rise to delirium, whereas in the case of narcotics, the tendency is to apoplexy and coma.

Acidum Hydrocyanicum. Aconitum. Aconiti Radix. Antimonium Tartaratum. Chloroformum. Conii Fructus. Conium.

Creasotum. Digitalinum. Digitalis. Laurocerasus. Lobelia.
Spiritus Pyroxylicus. Rect. Tabacum.

Sialagogues.

Substances which excite the secretion of saliva by a topical, irritant, or stimulant action.

Armoracia. Caryophyllum. Mezereon. Senega. Zingiber.

Stimulants. (Excitants. Hypersthenics.)

Remedies which excite the vital powers, and give an impulse to the circulation, by increasing the force and frequency of the heart's contractions. The most important are marked thus *.

*Æther. Ammoniacum. *Ammoniæ Carbonas. *Ammoniæ Liquor. *Ammon. Spt. Aromat. Anethum. Anisi Oleum. Armoracia. Arnica. Bals. Peruv. Cajuputi Oleum. *Calx Chlorata. *Camphora. Capsicum. Cardamomum. Carui. Caryophyllum. Cerevisiæ Fermentum. *Chlori Liquor. Cinnamomum. Coriandri Oleum. Elemi. Fœniculum. Lavandulæ Oleum. Menth. Piperit. Oleum. Menth. Virid. Ol. Myristica. Pimentæ Oleum. Piper. Rosmarini Oleum. Serpentaria. Sinapis. *Sodæ. Chlor. Liq. Sodii Chloridum. *Terebinth. Oleum. Thus Americanum. *Vinum Xericum, (and other alcoholic drinks.) Zingiber.

Tonics. (Corroborants.)

Medicines which impart firmness, vigour, and tone to the body when it is relaxed and debilitated. They are stimulants so far, inasmuch as they quicken the vital powers; but this result is brought about gradually, and is of a more lasting nature. Some act upon the nervous system only, others on the vascular, but our arrangement compels us to class them all together. The more important are marked thus *.

Acid. Hydrochlor. Dil. Acid. Nitric. Dil. Acid. Phosph. Dil. Acid. Sulph. Dil. Anthemis. *Argenti Nitras. Argent. Oxid. Aurantii Cortex. *Beberiæ Sulphas. *Bismuth. Alb. *Calumba. Cascarilla. Cetraria. *Chirata. *Cinchona. *Cusparia. Fel. Bovinum Pur. *Ferri Carb. Sacch. Ferri

et Ammon. Cit. *Ferri et Quin. Cit. *Ferri Iodidum. *Ferri Perchlor. Tinct. *Ferri Pernit. Liq. Ferri Perox. Ferri Perox. Hydrat. Ferri Phosph. *Ferri Sulph. Ferrum Redact. Ferri Tart. *Gentiana. Myrrha. *Nux Vomica. *Quassia. *Quiniæ Sulphas. *Strychnia. Taraxacum. Ulmus. *Zinci Oxidum. *Zinci Sulph.

The Natural Families, Classes, and Orders.

<i>N. F.</i>	<i>Class.</i>	<i>Order.</i>
Apocynaceæ	Pentandria	Monogynia
Aurantiaceæ	Polyadelphia	Icosandria
Algæ	Cryptogamia	Algæ
Aristolochiaceæ	Gynandria	Hexandria
Caprifoliaceæ	Pentandria	Trygynia
Cichoraceæ	Syngenesia	Polygamia <i>Æqualis</i>
Colchicaceæ	Hexandria	Trigynia
Coniferæ	Monœcia	Monadelphia
Convolvulaceæ	Pentandria	Monogynia
Corylaceæ, or Cupuliferæ	Monœcia	Polyandria
Corymbiferæ	Syngenesia	Polygamia <i>Superflua</i>
Cruciferæ	Tetradynamia	Siliquosa
Cucurbitaceæ	Monœcia	Monadelphia
Ericaceæ	Decandria	Monogynia
Euphorbiaceæ	Monœcia	Monandria
Filices	Cryptogamia	Filices
Gentianaceæ	Pentandria	Digynia
Graminaceæ	Triandria	Digynia
Guttiferæ	Polygamia	Monœcia
Iridaceæ	Triandria	Monogynia
Labiatae	Diandria	Monogynia
Laufaceæ	Enneandria	Monogynia
Leguminosæ	Diadelphia	Decandria
Lichenes	Cryptogamia	Lichenes
Liliaceæ	Hexandria	Monogynia
Linaceæ	Pentandria	Pentagynia
Menispermaceæ	Diœcia	Hexandria
Myrtaceæ	Icosandria	Monogynia
Papaveraceæ	Polyandria	Monogynia
Piperaceæ	Diandria	Trigynia
Polygonaceæ	Octandria	Trigynia
Polygalaceæ	Diadelphia	Octandria
Ranunculaceæ	Polyandria	Polygynia
Rosaceæ	Icosandria	Polygynia
Rubiaceæ or Cinchonaceæ	Tetrandria	Monogynia
Rutaceæ	Decandria	Monogynia
Scrofulariaceæ	Didynamia	Angiospermia
Smilaceæ		
Solanaceæ	Pentandria	Monogynia
Terebinthaceæ	Octandria	Monogynia
Thymelaceæ	Octandria	Monogynia
Ulmaceæ	Pentandria	Digynia
Umbelliferæ	Pentandria	Digynia
Urticaceæ	Tetrandria	Monogynia
Valerianaceæ	Triandria	Monogynia
Zingiberaceæ	Monandria	Monogynia

PART III.

ON PRESCRIPTION WRITING, AND CERTAIN POINTS WHICH SHOULD BE ATTENDED TO IN PRESCRIBING.

1. On Prescription Writing.

A prescription may often properly and preferably contain only one drug, as for example, Ergota, Acidum Gallicum, or Ferri Pernitratis Liquor : these, (the one in uterine inaction, and the others for astringent purposes,) it would be difficult to improve by the addition of others. This is exceptional, however, most other drugs being rendered either more active and pleasant, by combination with others, or having objectionable properties neutralized or modified. For instance, scilla is the better of digitalis, and both (for diuretic purposes,) of a little calomelas ; colocynthis is improved by scammonium or jalapa ; and aloe by ferri sulph. or extract. hyoseyam : while the acrid properties of elaterium, sabadilla, crotonis oleum, and cambogia, may be modified by judicious combinations. There are other drugs, again, which cannot be given in substance. although they may not require to be united with others, such as Hydr. Corrosiv. Sub. Acid. Arsenious. Argenti Nit., &c. As a result of this, a medicinal formula is usually divided into several parts, and most commonly into four, viz. the Base, the Adjuvant, the Corrective, and the Excipient.

1. *The Base.* This is the active ingredient. 2. *The Adjuvant.* This is meant to promote the action of the base. 3. *The Corrective.* This is intended to neutralize, or modify, or diminish its hurtful or disagreeable properties. 4. *The Excipient.* This gives consistence and form.

Now let us take for example the Pilula Cambogiæ Co. In this, the gamboge is the base, the aloes and aromatic powder the adjunct and corrective ; while the soap and syrup form the excipient.

When any officinal preparation (that is, one ordered in the pharmacopœia, and for which a formula is given,) is pre-

scribed, its officinal name is simply written ; as for instance, Unguentum Atropiæ ; Pilula Rhei Composita, &c. ; but in extemporaneous formulæ, the medicines are placed in separate lines, the base going first. Incompatibles, though not always therapeutically inert or objectionable when combined, should, in general, be avoided : acid. sulph. dil. should not go along with potassii iodid. (as we have seen) ; acid. gallic. with the persalts of iron, nor ammonia with peruvian bark ; and so on.

2. On certain points which demand the consideration of the Prescriber.

In prescribing, it should be borne in mind that the action of medicines is influenced by age, sex, temperament, and habit, by diet, condition of system, idiosyncrasy, and climate.

1. *Age*.—Children bear nearly as large a dose of calomel as an adult, but they are extremely susceptible of the action of opiates. Old people do not tolerate narcotics and sedatives so well as those of middle life.

Sex.—Females, as a rule, require rather smaller doses than males, and they are especially susceptible to the operation of drastic cathartics. The state of the uterine system always requires attention.

3. *Temperament*.—The phlegmatic tolerates stimulants and cathartics better than the sanguine.

4. *Habit*.—This is an important head. It is a well-known fact that the habitual use of many drugs, as for instance, opium, arsenic, and even such powerful cathartics as croton oil and colocynth, &c., begets a tolerance of them in gradually and greatly increased doses : so much so, that some individuals are in the habit of taking daily as much of any one of these as would certainly destroy those unaccustomed to their use. Many persons are known who daily take as much opium as would kill a dozen people, and we know an individual who can now hardly obtain a motion from any of the drastic cathartics. Again, we know some who at one time had their neuralgic pains effectually allayed by ext. belladonnæ, who can now obtain no relief whatever from it ; and many more examples might be multiplied.

5. *Diet, or condition of stomach.*—Anthelmintics, in general, operate most effectually on an empty stomach, while this condition is unfavourable in the case of iron, zinc, arsenic, &c., pain and nausea being more apt to follow when they come in contact with the mucous membrane of the stomach.

6. *Condition of system.*—If a disease is going on favourably, it is as well to consider whether improvement can be furthered by the administration of drugs, or whether, on the other hand, it may not be retarded. If a patient is suffering from intense pain, say in acute rheumatism, and the agony is aggravated by the least personal movement, we had better abstain from the use of cathartics, though called for by the state of the intestines, until the pain be lessened or allayed. Again, if the patient were suffering from an acute internal inflammation, it would be as well to know the state of the kidneys before resorting to mercury. The head, moreover, merits attention in a contemplated resort to narcotics, and the heart in connection with sedatives.

7. *Circumstances of the patient.*—We should not give a diaphoretic to a man obliged to be in the open air, nor suppositories to those who could not command a good deal of rest in the recumbent posture, nor drugs in diabetes, where we could not thoroughly control the diet.

8. *Idiosyncrasy.*—We occasionally meet individuals, (but the class is not a very large one,) in whom the usual and common effects of certain drugs are either aggravated or lessened, inverted or absent. In one, a small dose of mercury will salivate intensely, in another, a purgative will constipate, and in a third, the smallest opiate will induce profound sleep. There are others again whom an astringent will loosen, and some who are slowly acted upon by either opium or mercury. The explanation is not easily given, and it is as well to begin always with moderate doses of powerful drugs, until the patient's system is understood.

9. *Climate.*—Narcotics are better borne in hot climates than in cold, but the reverse is the case in general with mercurials.

10. *Peculiarities connected with certain drugs.*—Lead, digitalis, silver, and probably mercury and iodine, accumulate in the system; hence the doses should not follow each other too quickly, nor be administered for protracted periods without considerable breaks or intermissions.

The following Table represents the gradation of doses from infancy to manhood.

For an adult, supposing the dose to be 1, or gr. lx.			
Under 1 year, will be	.	.	1-12th or gr. v.
“ 2 “ “	.	.	1-8th or gr. vijss.
“ 3 “ “	.	.	1-6th or gr. x.
“ 4 “ “	.	.	1-4th or gr. xv.
“ 7 “ “	.	.	1-3rd or gr. xx.
“ 14 “ “	.	.	1-half or gr. xxx.
“ 20 “ “	.	.	2-3rds or gr. xl.

Above 21, the full dose.

“ 70, the dose should be diminished in the inverse ratio of the above.

There are some drugs which should be cautiously given to children, if given at all, such as Opium, including Morphia, Crotonis Oleum, Elaterium, Strychnia, Digitalis, Acidum Arseniosum, Aconitum, Aconiti Radix, Stramonii Fol. et Sem., Veratria.

There are some drugs never given internally either to the child or adult. They are: Aconitia, Antimonii Terchloridi Liquor, Atropia, Belladonnæ Radix, Cocculus, Eimi, Ferri Perchloridi Liquor. Hydrarg. Nit. Liq. Acid. Hydrarg. Oxid. Rub. Hydrarg. Ammon. Lythargyrum. Plumb. Subacet. Liq. Potassa Caustica. Zinci Chloridum.

—

Officinal Preparations containing Opium, with the Proportion in each.

Tinctura Opii	contains gr. j.	in min. xjv.
Tinctura Camphoræ cum Opio	“ gr. j.	in f̄ss.
Extractum Opii Liquidum	“ gr. j.	in min. xx.
Vinum Opii	“ gr. j.	in min. xjv.

Pilula Opii	contains gr. j.	in gr. v.
Pilula Plumbi cum Opio	“ gr. j.	in gr. viij.
Pulvis Cretæ Aromat. cum Opio	“ gr. j.	in gr. xl.
Pulvis Ipecacuanhæ cum Opio	“ gr. j.	in gr. x.
Pulvis Kino cum Opio	“ gr. j.	in gr. xx.
Enema Opii,	min. xv. tinct. or gr. j.	in f̄ij.
Emplastrum Opii	“ 1 part	in 10 parts.
Linimentum Opii	“ f̄ij. tinct.	in f̄ijv.
Unguentum Gallæ cum Opio	“ gr. xxxij.	in oz.

*Official Preparations containing Mercury, with the Proportion
in each.*

Hydrargyrum cum Creta	contains gr. j.	in gr. iij.
Pilula Hydrargyri	“ gr. j.	in gr. iij.
Unguentum Hydrargyri	“ 1 part	in 2 parts.
Linimentum Hydrargyri	“ 1 “	in 6 “
Emplastrum Hydrargyri	“ 1 “	in 4 “
Emplastrum Ammoniaci cum Hydrargyro	“ 1 “	in 4 “

PART IV.

ON PARTICULAR FORMS OF MEDICINES.

Alkaloids.

These are the active principles of drugs, removed, in general, by the addition of alkalies, such as Lime, Potash, and Ammonia, to solutions in water or spt. Many of them are highly poisonous.

Cataplasms. (Poultices.)

These are soft pultaceous preparations, for external use, and made extemporaneously. There are six in the Brit. Ph. The C. Carbonis, (Absorbent and Disinfectant); C. Conii, (Anodyne); C. Fermenti, (Stimulant); C. Lini, (Emollient and Suppurative); C. Sinapis, (Rubefacient); C. Sodæ Chloratæ, (Stimulant and Disinfectant.)

Confections. (Conserves. Electuaries.)

These are preparations of the consistence of honey, composed of dry powders mixed with honey, sugar, syrup, or mucilage. They are a convenient form for covering the taste of disagreeable drugs, or diminishing the bulk of light powders, such as Guaiacum, Sulphur, &c. ; and useful excipients for pill masses. There are seven in the B. Pharm., but none of them contain any very potent drugs.

Decoctions.

Solutions of the active parts of vegetables, obtained by boiling in dist. water. They are generally a little stronger than infusions.

Emulsions.

Preparations in which substances sparingly soluble in water, such as oils and resins, are suspended by means of mucilage, sugar, yolk of egg, &c.

Enemas. (Clysters.)

Liquid preparations for injection by the rectum. If intended

to promote the evacuation of the intestine, a pint or so should be used ; but if to be retained, f̄ij. to f̄jv. is enough.

Extracts.

These are prepared by evaporating the juices, infusions, or decoctions of vegetables, down to masses of the consistence of an electuary. They are rather stronger than the drugs from which they are prepared. Liquid extracts are not evaporated, and have, in general, a little spt. added.

Infusions.

Aqueous solutions of vegetables, made by maceration either in hot or cold water. Many of them are now made with cold water, thus preserving principles liable to be dispelled by heat, and rendering them less liable to decay. They are not strong preparations, the dose of the great bulk of them being f̄ij. to f̄ij.

Liniments.

Liquid preparations for external use, and generally combinations of rather strong drugs with fluid and concrete oils ; which latter render them of a somewhat emollient nature.

Lotions. (Fomentations. Collyria. Gargles.)

Liquids for external use, not oily, and often watery. Fomentations are of the same nature, and are applied of various degrees of temperature. Collyria are those applied to the eye ; and gargles those to the mouth and throat. Injections are for throwing up the various canals opening on the surface of the body.

Mixtures

Are liquid preparations, consisting of combinations of different solids and fluids in water, syrup, mucilage, milk, &c. The dose of most of them is the same as the infusions.

Ointments. (Cerates.)

Preparations for external use, of the consistence of butter, being combinations of lard or wax and resin (melted at a moderate heat), with various solid ingredients.

Pills.

Masses of a firmer consistence than the preceding, so that

they may retain the globular form. They are usually combinations of active ingredients reduced to fine powder, and mixed with soap, syrup, confection, water, &c. They are a convenient form for the administration of disagreeable or acrid drugs. The usual size is 5 grains, which should not be exceeded: many now make them 4 gr. The usual dose is from one to three pills.

Plasters.

Combinations of wax, resin, fats, or soap, with more active ingredients, of firmer consistence than ointments, and intended for application to the surface of the body. There are twelve in the pharmacopœia. Two stimulant and resolvent, the emplast. ammon cum hydrarg., and emplast. hydrarg.; four stimulant and protective, the emplast. ferri., emplast. galbani., emplast. resinæ, and emplast. picis; one vesicant, emplast. cantharidis; one rubefacient, emplast. calefaciens; two anodyne and sedative, the emplast. belladonnæ, and emplast. opii; the remaining two, emplast. lithargyri, and emplast. saponis, being employed for strapping, and to afford support to weak parts.

Syrups.

Watery infusions, juices, solutions, and tinctures, combined with sugar.

Suppositories.

Preparations of a rather harder consistence than pill masses, of a conical shape, and about the diameter of the little finger, intended for introduction into the rectum. They are made of various drugs, combined with wax and lard.

Tinctures.

Solutions of the active parts of vegetables in proof spt. (which consists of 5 parts of rect. spt., and 3 parts dist. water,) or rect. spt. They are made either by maceration for 7 days, or 48 hours, in which case they also undergo the process of percolation. The dose of the great bulk of them is from half a drachm to two or three drachms. The exceptions are: T. Aconiti, T. Belladonnæ, T. Cannabis Indicæ, T. Cantharidis, T. Conii Fructus, T. Iodi, T. Nucis Vomicæ, T. Opii.

APPENDIX.

CONTRACTED TERMS IN COMMON USE.

- A. Aa. Ana.* Of each ingredient.
Ad libit. Ad libitum. At pleasure.
Adde, or, addantur. Add.
Admov. Admoveatur. Apply.
Alternis horis. Every other hour.
Alvo adstricto. When costive.
Aqua bulliens. Boiling water.
Aqua fervens. Boiling water.
Bis indies. Twice a-day.
Bulliat. It should boil.
Balneum vaporis. A vapour bath.
Capiat. Take.
Capillitium abradatur. Let the head be shaved.
Cras mane. To-morrow morning.
Coch. amp. Cochleare amplum. A table-spoon.
Coch. mag. Cochleare magnum. A table-spoon.
Coch. med. Cochleare mediocre. A dessert-spoon.
Coch. parv. Cochleare parvum. A teaspoon.
Col. Colatus. Strained.
Congius. A gallon.
Cont. med. Continuantur medicamenta. The medicines to be continued.
Contr. Contritus. Finely powdered.
Coq. Coque. Boil.
Cras. Crastinus. To-morrow.
Cujus. Of which.
Cyathus. A wine-glass.
Dej. alvi. Dejectiones alvi. stools.
Det. Detur. It should be given.
Diebus alternis. Every other day.
Diebus tertiis. Every third day.
Dimidius. One half.
Donec alvus soluta fuerit. Until a stool has been obtained.
Extende super alutam. Spread upon leather.
Femoribus internis. On the inner part of the thighs.
Fiat venæsectio. Bleed.

- Fist. arm.* *Fistula armata*. A clyster-pipe and bladder, fitted.
- Gr.* *Granum*. A grain.
- Gtt.* *Gutta*. A drop.
- Hor. decub.* *Hora decubitus*. At going to bed.
- Hora somni*. At bedtime, or the hour of sleep.
- Injiciatur enema*. An enema should be given.
- Lateri dolenti*. To the affected side.
- Lb.* *Libra*. A pound weight.
- M.* *Misce*. Mix.
- Manipulus*. A handful.
- Mane primo*. Early in the morning.
- Min.* *Minium*. The 60th part of a drachm.
- Mitte*. Send.
- Mor. sol.* *More solito*. In the usual manner.
- O.* *Octarius*. A pint.
- Omni hora*. Every hour.
- Omni biduo*. Every two days.
- Omni bihorio*. Every two hours.
- Omni mane*. Every morning.
- Omni nocti*. Every night.
- Omni quadrante horæ*. Every quarter of an hour.
- Partitis vicibus*. In divided doses.
- Post singulas sedes liquidas*. After every loose stool.
- Pro re nata*. As occasion serves.
- Quantum sufficit*. As much as may suffice.
- ℞* *Recipe*. Take.
- Redactus in pulverem*. Powdered.
- Repet.* *Repetatur*. It should be continued.
- Semihora*. Half-an-hour.
- Sesquihora*. An hour and a half.
- Si opus sit*. If necessary.
- Signa.* (*Signetur.*) Write (as follows, or the direction.)
- Singulorum*. Of each.
- S. V. R.* *Spiritus vinosus rectificatus*. Rectified spt.
- Temp. dext.* *Tempori dextro*. To the right temple.
- Ult. præscr.* *Ultimo præscritus*. The last ordered.
- V. O. S.* *Vitello ovi solutus*. Dissolved in the yolk of an egg.
- Vom. urg.* *Vomitione urgente*. When the vomiting begins.

Modern Medicines in frequent use, not in the British Pharmacopœia.

Acid. Carbolic. Carbolic Acid.

Actions and uses.—Astringent, antiseptic, disinfectant. Used chiefly in the form of lotion, 1 part to 30 or 40 of water, in fetid ulcers and gangrenous sores. It has been given also in doses of gr. j. or so, in chronic vomiting, diarrhœa, and dysentery.

Actæa Racemosa.

Uses.—Has been given with pretty frequent benefit in acute rheumatism. Dose, tinct. min. x. to xl.

Aloine.

Prepared from Barbadoes Aloes.

Uses.—An excellent cathartic. Dose, gr. ss. to iij.

Cerii Oxalas. Oxalate of Cerium.

Uses.—Given in chronic vomiting. Dose, gr. ss. to iij. in pill.

Chlorodynia.

A mixture of various powerful sedatives.

Uses.—For irritable and spasmodic cough, and asthma. The secret preparation should not be prescribed by professional men. Every one can prescribe his own combination. A useful formula is: R̄ Acid. hydrocyanic. dil. f̄ʒj.; sol. morph. hydrochlor, f̄ʒiij.; tinct. cannab. ind., f̄ʒiij.; tinct. lobel. eth., f̄ʒiij.; syrup. rhæad, ad f̄ʒjv. M. Dose, f̄ʒj.

Hypophosphites of Soda, Lime, and Maganese.

Uses.—A syrup of these is extensively used in scrofula, anemia with debility, &c. It is supposed to improve the blood and invigorate the system, by supplying elements which are deficient. Dose, f̄ʒss. to f̄ʒss.

Physostigma Venenosum. The Calabar Bean.

The beans are of a greyish colour when unwashed. Cleared of adherent earthy matter they are brownish-black. Length about an inch; breadth, $\frac{3}{4}$ inch.

Actions and uses.—Irritant, sedative; and powerfully contracts the pupil. Used chiefly by oculists for this latter purpose, in the form of solution in syrup.

Sarracenia Purpurea.

Uses.—This was highly lauded some time ago as a remedy in small-pox, the virus of which it was alleged to be capable of neutralizing, as well as diminishing or shrivelling up the eruption. Infusions of it were tried here with very poor results.

Veratrum Viride.

Actions and uses.—Said to be an arterial sedative, lowering the circulation and pulse, without depressing the vital powers. This has been denied, various trials having shewn that it occasions nausea, headache, griping pain, and depression. Dose of the tincture, (which is made by macerating ℥jv. of the root in Oj. proof spt.) min. x. to xl.

Weights and Measures of the Brit. Pharmacopœia.

WEIGHTS.

1 pound	lb.	=	16 ounces	=	7000 grains.
1 ounce	oz.			=	437·5 grains.
1 grain	gr.			=	1 grain.

MEASURES.

1 gallon	C.	=	8 pints	O.viiij.
1 pint	O.	=	20 fluid ounces . . .	fl.oz. xx.
1 fluid ounce	fl.oz.	=	8 fluid drachms . . .	fl.drs. viij.
1 fluid drachm	fl.drm.	=	60 minims	min. lx.
1 minim	min.	=	1 minim	min. j.

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