Thomson's conspectus : adapted to the British pharmacopoeia / edited by Edmund Lloyd Birkett.

Contributors

Thomson, Anthony Todd, 1778-1849.
Birkett, Edmund Lloyd, 1814-1903.
Phillips, John, Sir, 1855-1928
King's College London

Publication/Creation

London : Longmans, Green, 1875.

Persistent URL

https://wellcomecollection.org/works/rcu4ndf7

License and attribution

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

THOMSON'S CONSPECTUS

EDITED BY

DR. BIRKETT

NEW EDITION

King's College Hospital
Medical School

(UNIVERSITY OF LONDON).

Presented by

Sir John Phillips
M.A., M.D., F.R.C.P.,
Emeritus Professor
of
Obstetric Medicine

May 1921

J. Phillips.
St. John's Coll
Cambs.
Jan 7. 1847.

CONSPECTUS

ADAPTED TO THE

BRITISH PHARMACOPŒIA.

LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

THOMSON'S CONSPECTUS

ADAPTED TO THE

BRITISH PHARMACOPŒIA.

EDITED BY

EDMUND LLOYD BIRKETT, M.D. CANTAB.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS:
PHYSICIAN TO THE CITY OF LONDON HOSPITAL
FOR DISEASES OF THE CHEST.

'The pictures drawn in our minds are laid in fading colours, and, if not sometimes refreshed, vanish and disappear.'—LOCKE.

NEW EDITION

WITH A SUPPLEMENT CONTAINING NOTICES OF THE NEW MEDICINES AND PREPARATIONS CONTAINED IN THE ADDITIONS (MAY 1874) OF THE BRITISH PHARMACOPŒIA.

LONDON:
LONGMANS, GREEN, AND CO.
1875.

TO THE

JUNIOR MEMBERS OF THE PROFESSION

THE EDITOR DEDICATES

THIS LITTLE WORK

WITH

EVERY SENTIMENT OF ESTEEM AND RESPECT.

ADVERTISEMENT

TO

THE NEW EDITION.

The General Medical Council, being about to issue a reprint of the 'British Pharmacopœia,' wisely determined to publish 'Additions' in a separate form, containing such medicines and preparations as have been introduced into general use since the previous edition. As soon as any new medicine has been proved by competent persons, and its value fully determined, it is most desirable, if not positively necessary, that it should obtain the sanction of the highest medical authorities at the earliest possible period. But this could scarcely be done, if it were necessary to prepare a new edition of the entire Pharmacopœia on every such occasion. The issue of a Supplement from time to time fully answers the purpose, without any of the disturbing causes of the other alternative.

The 'Additions' contain medicines which all will allow ought to have a place in the British Pharmacopœia, in evidence of which it is only necessary to mention Hydrate of Chloral, Pepsin, and Phosphorus. The treatment by Hypo-

dermic Injection is properly acknowledged by the introduction of the Hypodermic Injection of Morphia. Two new vegetable juices have been added, and also a form for preparing mustard leaves. On the whole, though there are certainly some omissions, yet the Medical Public, being aware of the difficulties of selection, will acknowledge that a delicate work has been fulfilled with much ability, and it is hoped that it will be attended with corresponding success.

In preparing the notices for the SUPPLEMENT, the same plan has been followed as has been adopted in the body of the work.

E. L. BIRKETT.

RUSSELL SQUARE, LONDON:
June, 1874.

PREFACE.

LITTLE or no apology appears to be due for the reappearance of this unpretending work. Its merits have been generally acknowledged, and its place not otherwise occupied. The limits of medicine and its cognate sciences have been continually widening, and thus it has become more and more necessary to supply to the student and junior practitioner, if not to him of maturer age and experience, some work to enable him, amid his multifarious and extended pursuits, to keep before his mind the botanical, chemical, and therapeutical properties of the several substances contained in the Pharmacopœia. The plan of the work has been preserved, and only such corrections and alterations made, as the change of circumstances and the progress of science have rendered necessary. The writings of the best authors have been consulted, but as no credit is claimed beyond what is due to a careful and accurate compilation, any special reference to their labours, and the uses which have been made of them, would be out of place.

To make up for the shortness of the descriptions in the body of the work, a more general and full account of each of the classes of substances employed is given in the Introduction; and to facilitate the art of prescription to the student, a few of the more common formulæ are introduced by way of example. There is also added a Table, graduating

the doses of medicines to the ages of the patients. The Appendix on Poisons, having been found useful, is also reproduced in the present Edition.

The Editor, in conclusion, can only express a hope that this work may still continue to hold the same position it has hitherto enjoyed in public estimation.

RUSSELL SQUARE:
March, 1868.

CONTENTS.

INTRODUCTION.

IN THE PRESENT EDITION of the British Pharmacopœia, the Materia Medica and the preparations and compounds have been arranged together in alphabetical order in the body of the work. The Appendix is divided into three sections—I. Articles used in chemical analysis; II. Test solutions for qualitative analysis; III. Test solutions for volumetric analysis.

To save repetition, and to facilitate study, we propose to give a general view of the peculiarities of each of the principal groups of Medicine, by way of introduction to the particular notices of the individual articles contained in the Pharmacopœia.

ACIDS.

All the acids employed in Pharmacy, with the exception of the hydrochloric, the hydrocyanic, and the hydrosulphuric acids, are supposed to be compounds of *oxygen* with *one* or *more* combustible substances; the hydrochloric acid is a compound of *chlorine* and *hydrogen*, the hydrocyanic of *hydrogen* and *cyanogen*, and the hydrosulphuric of hydrogen and sulphur. Acids are characterised by the following properties. They are sour to the taste, change to red the blue and purple vegetable colours; form neutral compounds with alkalies and earths, in which the properties of both the components are lost; and unite with the metallic oxides, constituting a peculiar class of salts. They unite, also, with water in any proportion.

The names of acids formed from the same base generally vary in their terminations, according to the quantity of oxygen they are presumed to contain. Thus, when sulphur is united with its full portion of oxygen, the acid is named *sulphuric*; when with a smaller portion, *sulphurous*; the terminations *ic* and *ous* marking the degree of acidification. Chlorine combines with substances in different proportions, and its compounds are accordingly named *subchlorides* or *perchlorides*. The term *chlorate* implies that the chlorine acid is in combination with oxygen, and an oxide. Thus the chlorate of potassa is a compound of *chloric acid* and potassa.

The stronger acids should be kept in well-stopped glass bottles, and the name of the acid each bottle contains engraved on the glass. They should also be dispensed in glass-stopped phials; for cork blackens the sulphuric acid, and it is dissolved by the nitric and the hydrochloric acids.

Sulphuric acid is sometimes adulterated with sulphate of potassa; which may be detected by saturating the acid with ammonia, and exposing it in a crucible to a red heat, so as to expel the sulphate of ammonia;—the sulphate of potassa, when present, will remain in the crucible.

Nitric acid, also, is sometimes adulterated with *sulphuric* and *hydrochloric* acids. These adulterations are discovered by dropping into the diluted nitric acid a solution of nitrate of baryta, which is precipitated white, if sulphuric acid be present; and the presence of hydrochloric acid may be detected by the precipitation of the white chloride of silver on the addition of a solution of the nitrate of silver. In the same manner *sulphuric* acid is detected in acetic acid, by dropping into it a solution of acetate of baryta; copper by the acid becoming bluish when supersaturated with ammonia; or the ferrocyanide of potassium throwing down a copper-coloured precipitate; and lead, by a black precipitate being thrown down when sulphuretted hydrogen gas is added to it.

Most of the dilute acids are so prepared as to have the same neutralising power. The acidum sulphuricum aromaticum is weaker than the simple diluted acid, and the acidum aceticum dilutum is of the strength of vinegar.

ALKALIES, AND THEIR SALTS.

Two of the mineral ALKALIES employed in Pharmacy are compounds of *oxygen* with *metallic bases*; *ammonia* is a compound of *hydrogen* and *nitrogen*. They possess properties the reverse of the acids. Their taste is urinous and acrid: they change to green or blue, the vegetable red colours; they are caustic, or inflame and corrode the skin, and dissolve animal matter: they have a strong affinity for water, and by their greater solubility in it are distinguished from the earths; they unite with oils and fat, forming soap; and form neutral salts with the acids. There are three alkalies: one is volatile, and cannot be obtained perfectly pure in a solid form; the other two are fixed. They should be kept in well-stopped glass bottles, and dispensed with glass-stopped phials.

The strength of the alkalies may be determined by the use of the volumetric solution of oxalic acid, a thousand grain-measures of which contain half an equivalent in grains (63 grains) of oxalic acid, and are, therefore, capable of neutralising an equivalent in grains of any alkali, or alkaline carbonate.

Ammonia, the volatile alkali, is often over diluted with water, which may be known by the spec. grav. of the fluid: or one fluid drachm of the strong solution of ammonia ought to contain 15·83 grains of ammonia. *Liquor potassæ* often contains lime, which is known by the solution, diluted with distilled water, becoming milky when the breath is blown through it; or on a solution of carbonate of potassa being added to it; the lime being thus formed into a carbonate. The purity of *potassa*, in the solid form, is of little consequence, as it is used for external application only: pure *soda* is not used in medicine.

The *Alkaloids*, or alkalies found in the barks, and the leaves, and the seeds of some plants, are compounds of carbon, oxygen, hydrogen, and nitrogen. They possess many of the chemical properties of the mineral alkalies.

Alkaline Salts should, when neutral, have neither alkaline nor acid properties; but some salts combine with two proportions of acid. When the acid is in excess, *bi* or *bin* is added to the appellation of the salt, as bicarbonate of potassa. They require for their solution various proportions of water, from one-half to 2,000 times the weight of the salt. When they attract moisture they are said to be *deliquescent*; when they lose their water of crystallisation, become opaque, dry, and easily fall to powder, *efflorescent*; if, when exposed to heat, they gradually dry to a mass, they are said to undergo the *watery fusion*; and to *decrepitate*, if they split, fly, and crackle, when exposed to a high temperature.

The salts most commonly adulterated are *carbonas potassæ* and *carbonas sodæ*. To try the first, make a solution of one part of the salt in eight of distilled water. If this become turbid after being neutralised with pure nitric acid, it indicates the presence of *silex*; if a white precipitate be thrown down in the neutralised solution by chloride of barium or acetate of lead, *sulphuric salts* are indicated; and *hydrochloric salts* by a white precipitate being formed with nitrate of silver. If a white precipitate be produced by a solution of oxalate of potassa, *lime*, or its *carbonates*, are present. The same tests show the presence of similar substances in *carbonate of soda*, if added to a saturated solution of it in nitric acid. The addition of *tartaric acid* discovers *potassa*, by forming a precipitate of bitartrate of potassa.

The deliquescent and efflorescent salts should be kept and dispensed in stopped bottles; while those that are persistent will not suffer from being put up in paper.

EARTHS, AND THEIR SALTS.

The earths, like the alkalies, are mostly compounds of *oxygen* with *metallic bases*. They are of very difficult fusibility; very sparingly soluble; and unite with the acids, forming neutral

salts. Those which are soluble in water possess properties very similar to those of the alkalies; they are caustic; change to green vegetable blues and reds; and combined with oils, form soap.

Two earths only in their pure state are used in medicine, namely *lime* and *magnesia*. The former, which is chiefly employed in pharmaceutical operations, should be used as soon after it is burnt as possible; and each should be preserved in very closely-stopped bottles, as both attract, powerfully, the carbonic acid contained in atmospheric air. The solution of lime or lime-water should be kept in small bottles perfectly full and well corked; for, by the contact of air, the lime attracts carbonic acid, loses its solubility, and forms a pellicle of carbonate of lime on the surface of the water, till the whole of the lime is abstracted.

The NEUTRAL EARTHY SALTS do not require any particular care or management, except that they ought not to enter into extemporaneous prescriptions with substances which are likely to decompose them; or with those acids with which they form insoluble compounds; as, for example, chalk with sulphuric acid.

METALS, AND THEIR SALTS.

Metals, which are supposed to be simple substances, have, with a few exceptions, a greater specific gravity than any other class of bodies; they are dense, opaque, susceptible of a fine polish, tenacious; and are the best conductors of heat. They are more or less fusible, and may be volatilised by heat. In their metallic state they have affinities for each other, and also for oxygen, hydrogen, carbon, sulphur, phosphorus, chlorine, iodine, and bromine; and when united with oxygen, form acids, alkalies, and the earths.

None of the metals, except *tin* and *mercury*, have been employed in the metallic form as remedies in the practice of medicine; but for pharmaceutical purposes it is of importance to obtain them in as pure a state as possible. Metals, united with simple substances, form compounds, which are named from the base; for example, *chlorides*, *sulphurets*, *phosphurets*, *iodides*, *bromides*, *oxides*.

METALLIC SALTS are either simple combinations of the metals with oxygen, or combinations of their oxides with acids.

Metals combine with various portions of oxygen, which are denoted and expressed by the colour of the oxides, as *grey oxide of mercury*, *red oxide of mercury*, &c. Oxides have not the lustre, opacity, tenacity, nor gravity of the metals; they are uninflammable, generally insipid, nearly insoluble in water, and have an earthy appearance. They require to be kept in stopped bottles, as some of them are reduced by hydrogen, which is more or less constantly floating in the atmosphere.

The *metallic salts*, which, properly speaking, are oxides combined with the acids, are of a saline nature, generally soluble in water, and crystallisable. They are named from the acid, and the metal with the oxide of which it is combined, as *sulphate of iron*, *nitrate of silver*, &c., meaning *sulphate of the oxide of iron*, &c. The active properties of metallic salts vary much, according to the degree of previous oxidisement of the metals they contain; thus the same acid, united with an imperfect oxide, will form an insipid, insoluble compound; while, with a more perfect oxide, the compound will be acrid, and soluble in water.

Many of the metallic salts effloresce, and attract oxygen from the atmosphere; others are altered in their properties by moisture, and some of them are decomposed by the action of light; hence, perhaps, it ought to be a general rule to keep all of them in well-stopped bottles made of green glass, or otherwise rendered opaque. In forming those which are soluble into lotions, *distilled* water should be used; and in mixtures, attention should be paid not to unite them with incompatible substances.

PREPARATIONS OF SULPHUR.

The combinations of sulphur with the alkalies and the earths are named *sulphurets*, and require to be carefully preserved from the atmosphere, as they attract moisture from it, deliquesce, and are decomposed. When they are prepared with water, the oxygen of the water acidifies part of the sulphur, and forms sulphates; while one part of the hydrogen, uniting with a portion of the sulphur, volatilises it in the form of sulphuretted hydrogen gas, and another assists in producing hydrosulphates of the alkaline base. One test of the goodness of concrete sulphurets is their want of odour; for whenever the fœtid gas is evident, decomposition has already commenced.

PREPARATIONS OF IODINE, BROMINE, AND CHLORINE.

All of these substances combine with metals forming *iodides*, *bromides*, and *chlorides*. When the compound consists of one equivalent of each of the components, the addition of *prot* or *proto* is used, as *protiodide*, *protochloride*, &c.; when it contains two equivalents of the base, the syllable *bin* or *bi* or *per* is added; thus, *biniodide*, *bichloride*, *perchloride*.

The iodide of iron should never be kept in the solid form: the syrup is the best mode of preserving it.

VEGETABLES.

Vegetable substances ought to be collected in a dry season, when moistened neither by showers nor dew. They should be gathered annually, and not kept beyond a year. Roots and rhizomes ought to be dug up when the leaves and old stem have fallen off, and before the new ones are put forth. Barks ought to be collected in the season when they can be most easily separated from the wood. Herbs and leaves ought to be gathered after the flowers have blown, and before the seeds have ripened. Flowers must be gathered when freshly blown. Fruits and seeds must be collected when ripe.

But as the collection of vegetable substances cannot be attended to by the medical practitioner, the directions usually given relative to the mode and time of gathering plants are of less importance than a knowledge of their botanical characters, and their proper appearance when well and recently dried; for many inert plants are often introduced by the collectors among those which possess the most active and useful properties. They are generally tied in bundles, and hung up in the air, without any regard to the action of light, which often very materially affects both the colour and the efficacy of the vegetable: but it would be better to pick the flowers and leaves from the stems, when these are useless, and cut roots into small pieces after they are well dried; and preserve them in closely covered tin canisters or oil jars, lined with paper. Some things, as, for instance, the squill bulb, and the colchicum cormus, should always be dried by the apothecary. Both should be cut transversely, the laminæ of the bulb separated and dried by a heat under 150° Fahr., after which the pieces ought to be friable, and have as bitter and as acrid a taste as the moist bulb. The cormus should be dried in transverse slices.

GUM RESINS.

These are natural combinations of gum and resin: the former predominating in some, the latter in others. They have generally a strong odour, owing to volatile oil, and a pungent, bitter taste; they are solid, brittle, opaque, almost all entirely soluble in diluted alcohol, and form emulsions when triturated with water; but by standing, the resin is deposited, and, therefore, fluid preparations of gum resins should always be extemporaneous. They soften by a gentle heat; but in a high temperature are decomposed.

The gum resins, particularly *opium*, should be well freed from extraneous matters; and when it is wished to retain them in a soft state for making pills, they must be kept in the mass, wrapped in a bladder, in a well-covered opaque jar; but when they are to be powdered, they should be cut into small pieces and laid in an open drawer, or exposed to the air.

EXPRESSED OILS.

These oils are compounds of oxygen, hydrogen, and carbon. They are prepared by nature in the seeds and fruits of some vegetables, from which they are expressed, and hence their appellation: but the title *fixed oils* is preferable, as it implies their character, and as some of the volatile oils also are obtained by expression. Those which are expressed without heat are to be preferred, as by heat they are apt to acquire acrimony and an empyreumatic odour. The greater number of them, when pure, are liquid in a moderate temperature, unctuous, perfectly transparent, colourless, or having a pale yellow or greenish tinge; inodorous; lighter than water, and not miscible with it: they unite with alkalies and form soap; and with oxide of lead and form plasters. Almond and olive oil should be insipid; linseed and castor oils have some taste, but they should not feel hot nor acrid in the throat. Palm oil is a soft solid, or butter.

The rancidity of oils probably depends on the absorption of oxygen, on which account they should be kept in bulk as much as possible, and in narrow-necked bottles; so that a very small surface only will be exposed to the air.

DISTILLED OILS.

For similar reasons to those stated above, regarding expressed oils, we prefer the title of *volatile oils* for these preparations. They are mostly compounds of oxygen, hydrogen, and carbon, and in some instances also of nitrogen; and are produced by nature in various parts of the vegetable system; either in the flowers, the fruit, the leaves, the bark, the wood, and sometimes in all of these parts. The majority of them are obtained by distillation, but some of them by expression. They possess the unctuosity, inflammability, and viscidity of the fixed oils; but they are in general coloured, odoriferous, pungent, and acrid. The majority are lighter than water, but some of them are heavier, and some congeal at a moderate temperature. They are dissolved in small quantity, in *distilled water*, by simple agitation. Almost all of them are soluble in alcohol, and miscible with fixed oils, and with each other; hence they are often adulterated with alcohol, or with oil of olives or of almonds, or with oil of turpentine, which is the cheapest of the volatile oils. The first is discovered by an increase of temperature and a milky appearance, when the oil is mixed with water; the second, by a greasy stain being left on paper on which the oil is dropped and exposed to a considerable heat, and by not being soluble in alcohol; and the third by its odour, when the suspected oil is dropped on paper and heated, or sometimes even when rubbed between the fingers.

The odour and taste are the usual tests of their goodness; and to preserve them, they should be kept in a cool place, in small bottles, quite full, and well corked.

DISTILLED WATERS.

The distilled waters are prepared by distillation either from the plants themselves, or the volatile oils.

In the distillation of volatile oils, the water which comes over during the process contains dissolved in it a portion of the oil, and forms this class of preparations. They should, therefore, have the odour and taste, in a slight degree, of the oil; be free from empyreuma; and if again rectified, which enables them to be kept for two or three years, they should appear nearly as transparent as pure water. They are seldom prepared by the apothecary, but generally in the large way, and often very carelessly. When they appear ropy and thick, or have a fœtid odour, they are unfit for medicinal use. To prevent their spoiling, a small portion of spirit is often added; but the second rectification is a preferable method of preserving them.

Common distilled water is seldom used by the apothecary, owing to the trouble of preparing it. But this may be remedied by procuring the simple apparatus invented by Doctor Lamb, or by getting a pewter tube fitted to the spout of a common tea-kettle, which may be kept cool, when in use, by being wrapped round with wet rags. Neither boiled nor filtered water will answer the purposes for which distilled water should be used.

INFUSIONS.

The majority of the infusions are ordered to be made with boiling distilled water; but water at 120° is ordered in the preparation of the infusions of chiretta and cusparia, and cold water in those of calumba and quassia. Water at 212° extracts the gum, sugar, extractive, tannic acid, saline matters, and a portion of the volatile oil, and of the resinous matter of vegetables; thence infusion, perhaps, is equivalent in the majority of cases to decoction. Cold water also extracts most of the active principles of plants. The infusion made with boiling water, although, perhaps, less grateful, yet contains more active matter. In either case, infusions should be extemporaneous preparations, and therefore the British Pharmacopœia properly directs half a pint only to be made at once. The substances infused should be coarsely powdered only, for when the powder is fine, the infusion never can be rendered perfectly clear.

MUCILAGES.

These, which are simple solutions of gum in water, are of a thick consistence and adhesive. They should be strained through a coarse cloth, in order to separate the extraneous matters which have adhered to the gum. When thick, they may be kept for a considerable time without undergoing any change. In a chemical point of view, the *solutions of starch* and of *tragacanth* are improperly styled mucilages.

DECOCTIONS.

These are aqueous solutions of the active principles of vegetables obtained by boiling. The directions of the Pharmacopœia, particularly as to the time of boiling, should be strictly attended to; for although the solvent power of the water is increased by boiling, yet the notion that long coction renders the preparation more active is erroneous. Vegetables containing volatile principles and extractive matter cannot, with strict propriety, be subjected to decoction, as the first are dissipated by the boiling, and the second attracts oxygen with so much avidity at a temperature of 212°, that it is converted into an *insipid inert matter*, which is no longer soluble, and is precipitated in the decoction. This is the case with *cinchona*, and some other vegetable matters, which are still, nevertheless, ordered to be prepared by decoction. When they are so prepared, the vessels should be very closely closed. Vegetables, also, which contain tannic acid and starch, should not be made into decoctions, because a tannate of fecula is formed which is insoluble in cold water, and is inert.

Decoctions should be strained when hot, and not be kept longer than twenty-four hours in warm weather, as they very soon ferment, become ropy, and spoil.

EXTRACTS.

These are prepared by evaporating vegetable solutions till a tenacious mass is obtained. An extract prepared from an infusion or decoction is termed a *watery extract*; from a tincture, a *spirituous extract*. Both kinds of extracts should contain all the principles of the vegetable soluble in the menstrua with which they are prepared; but the volatile matters are dissipated, and some of the fixed parts are decomposed, the proper extractive is oxygenised, and the virtues of the vegetable substance consequently are often altered or destroyed. This class of preparations, as usually formed, might be altogether rejected; but when they are made from the expressed juice of the recent vegetable, inspissated at a very low heat, they form a most valuable class of remedies. In addition to these a class of liquid

extracts have been introduced into the British Pharmacopœia, and experience has fully determined their usefulness. Extracts are ordered to be kept in a *hard* and in a *soft* state; the consistence of the soft being such as to retain the round form of a pill without the addition of any powder. Both varieties should be preserved in a dry place, to prevent them from becoming mouldy; and the soft should be wrapped in oil bladders and kept in closely covered pots.

MIXTURES.

These are chiefly simple suspensions of insoluble substances in fluids, by means of mucilages. They should always be extemporaneous preparations; and the only attention required in ordering them is not to bring together incompatible substances. These are pointed out in their places in the body of this work.

SPIRITS.

This title comprehends spirituous solutions, prepared by simple mixture, by solution, and by distillation. They are uniform, transparent, unchanging solutions. In the majority they are prepared by mixing a solution in the proportion of one minim of volatile oil to forty-nine minims of rectified spirit. The spirit of camphor contains one ounce in ten ounces, and the spirit of chloroform one in twenty. The spirits of nitrous ether, the aromatic spirits of ammonia, fœtid spirits of ammonia, and the compound spirits of horseradish are ordered to be distilled. In the spirits of chloroform, one minim of chloroform is dissolved in nineteen of rectified spirits. They should be perfectly free from impurities and empyreuma, and have the odour and taste of the volatile oils of the substances from which they are distilled.

TINCTURES.

Tinctures are spirituous solutions of vegetable, animal, and some saline substances. They are made either with pure alcohol, or with proof spirit. The first kind are precipitated by the addition of water, and therefore are more seldom employed; but the latter are very common additions to infusions and decoctions. They ought not to be united with any vehicle which can decompose the tincture, 'or separate anything from it in a palpable form.'

Tinctures should always be prepared by the apothecary, as the adulterations of them, which are daily practised by the druggist, are not easily detected. The ingredients should be reduced to a coarse powder, and the maceration made in close vessels, exposed to a heat of 80°, and frequently shaken. When completely made, they should not be put away upon the in-

gredients, but filtered through bibulous paper, and kept for use in close bottles; for although they are not liable to spoil, yet, by the evaporation of the menstruum, their strength is altered, which, if they contain opium, or other active matters, may be productive of bad effects. In the British Pharmacopœia the percolator is recommended in most cases. Parmentier* proposes that one half of the spirituous menstruum be added to the vegetable ingredients at first, and after digesting six days, this part be poured off, and the remainder added. In six days more the whole is to be strongly expressed, and the two tinctures mixed together. By this method he imagines more of the active principles of the vegetables are extracted, and the tinctures obtained of a more uniform strength. My method of making tinctures is to mix the vegetable substance in powder with clean siliceous sand, and, having moistened it with the spirit, to put the mixture in an oblong funnel or percolator, and to pour the remainder of the spirit over it. By this method a strong tincture is procured in as many hours as days are required by the present method of preparation. The Edinburgh College has adopted the percolator. Dr. Barton has proposed another method. He puts the ingredients into a bag large enough to hold twice the quantity, and then suspends the bag in the spirits. This acts gradually on the contents of the bag; the heavy tincture gravitates, and fresh spirit is carried up until the whole is saturated.†

ÆTHERS.

Æthers are compounds produced from a new arrangement of the elements of alcohol, by the agency of the acids, at a heat of 160°. They are extremely light and volatile; have a peculiar strong odour and taste; and, when pure, boil at a temperature under 100°. They require to be kept in very closely stopped bottles, and in a cool place. In composition, æthers should not be added to mixtures until they are put into the phials, and ready to be corked; and directions should be given that any æthereal mixture be taken immediately after it is poured from the phial.

WINES.

Wine is a tolerably good menstruum for many vegetable principles; but it is liable to the objection of inequality of strength; and medicated wines are more liable to suffer decomposition from keeping than tinctures. They should be kept in well-corked bottles, in a cool place.

---

* Annales de Chimie, vol. lxii. p. 40. † Med. Gazette, Aug. 30, 1844.

PREPARATIONS OF HONEY.

Honey was formerly considered as a medicine of some efficacy, particularly in pectoral affections; but more correct views of these diseases have deservedly thrown it into neglect. It acts on the bowels, but in other respects possesses no advantages over syrup. In the present Pharmacopœia, the only medicine ordered to be prepared with honey is *mel boracis*. It is not apt to spoil, and therefore requires less attention to preserve it than syrups.

SYRUPS.

These are saturated solutions of sugar in water, either simple or united with some vegetable principle, with the view to colour, flavour, or medical virtue. With few exceptions, as regards the last intention, this is perhaps the worst of all forms for obtaining the medical powers of substances; syrups are also used chiefly to render the more active preparations palatable. Upon the whole, however, they do not even answer this intention well, few persons thinking that sweetness renders a nauseous drug more palatable; and they might therefore be easily dispensed with.

In the new Pharmacopœia, a little spirit has been added to most of the syrups, to prevent fermentation. Any of them, however, may be made by adding to ♏xl. or f℥j. of simple syrup, ♏x. of the particular tincture. A small quantity only should be retained in the shop for immediate use; and the stock kept in a good cellar, in a temperature not exceeding 55°. They should never be used after they have begun to ferment. Among the additions to this class of medicines in the present work will be found, the syrup of the phosphate of iron, the syrup of squill, in the place of the oxymel and acetum, and an excellent preparation of syrup of senna.

CONFECTIONS.

These preparations consist of vegetable matters, beaten, when recent, into a uniform pulpy mass, with sugar; and of vegetable and light earthy powders mixed with syrup and honey. They form a class of preparations of no great activity, when compared with the other forms in which the same remedies may be given; but some vegetable matters can be thus preserved better than by drying; and they are useful as vehicles, and for giving form to more active medicines. They should be kept in closely covered jars, to preserve their proper consistence and moisture.

POWDERS.

This class is the simplest, and perhaps may be thought the least objectionable form of exhibiting medicines; but, never-

theless, this mode of preparation is hurtful to many remedies. Some substances cannot be reduced to powder, unless very much dried, and the heat necessary to effect this alters their properties; even the impalpable form given to powders is hurtful to some resinous substances; and if we reflect that many of these, when kept in the mass, have their surface altered by the action of the atmosphere, we shall not wonder that a great alteration should be effected in a short time, by so great an extension of surface as takes place in the formation of a fine powder: this is particularly the case with *cinchona*, *rhubarb*, and *guaiacum*. It would, perhaps, be a good general rule to keep all powders in opaque or green glass bottles; for, besides those which are generally known to be hurt by the action of light, almost every powder is in some degree affected by it: hence the labelled sides of clear bottles, containing powders, which are always turned to the light, become, as it were, incrusted with the powder changed in its colour, while the other side remains clean.

PILLS.

These are masses of a proper consistence for forming into pills, and are preserved in this state, by being kept in covered pots, wrapped in bladders, and occasionally moistened. A pill should not exceed gr.v. in weight.

PREPARATIONS OF ANIMAL MATTERS.

The substances of this class are seldom prepared by the apothecary, and require little of his attention for their preservation.

PLASTERS.

A chemical union takes place between the semivitreous oxide of lead and oil: and a solid, hard compound is formed, tenacious in a moderate degree of heat. This forms the base of the majority of the plasters; but some of them owe their consistence to wax and resin.* They should not adhere to the hand when cold, should be easily spread when heated, and remain tenacious and pliant after they are spread. Those that contain metallic oxides ought to be melted by the heat of boiling water, for in a greater degree of heat the fatty matter is apt to reduce the oxide. All plasters become too consistent by age; when this is the case, they may be re-melted by a gentle heat, and some oil added to them. They are spread either on linen, silk, or leather.

---

* Deyeux, Annales de Chimie, vol. xxxiii. p. 52, proposes to confine the name plasters to the combinations of the oxides and oils or fat; and to give to those not containing oxides the term *solid ointments*.

OINTMENTS, LINIMENTS.

These are preparations nearly resembling each other, but of a different degree of consistence. The ointments should have the consistence of butter, while the liniments are scarcely thicker than common oil. The most important circumstance in these preparations is, the freshness of the fat and oils employed, and their preservation in this state. The mercurial ointment, however, forms an exception to this rule, as a slight degree of rancidity of the lard facilitates the oxidisement of the mercury, and the formation of the ointment; and old mercurial ointment is always more to be depended upon than that which has been recently prepared.

CATAPLASMS.

These are extemporaneous preparations, and have a place in the Pharmacopœia merely to fix the proportions of the ingredients.

JUICES.

Three of these preparations have been introduced into the British Pharmacopœia: viz. succus conii, succus scoparii, succus taraxaci; these are made by mixing rectified spirit with the expressed juice in the proportion of one of the former to three of the latter.

SUPPOSITORIES.

Suppositories have always been used in practice; but they were for the first time introduced into the last edition of the Pharmacopœia, when two only were noticed: viz. suppositoria acidi tannici, and suppositoria morphiæ. To these have been added in the present edition, suppositoria hydrargyri and the suppositoria plumbi composita.

PREPARATIONS OF GLYCERINE.

The property which belongs to glycerine of dissolving several substances has been made use of in the present edition, and we have in consequence several useful preparations, especially the glycerinum acidi tannici and the glycerinum acidi gallici.

LOZENGES.

These preparations held a place in the Edinburgh Pharmacopœia, and for good reasons have been introduced here. They are made of definite strength, and offer to the physician a convenient mode of prescribing certain remedies in small doses.

VAPOURS.

Several preparations for inhalations have been inserted, and will be found useful in some affections of the larynx and the large tubes.

EXPLANATION OF THE REFERENCES.

N. O. Natural Orders.

♄ Signifies that the plant is a shrub, or tree.

♃ That it is a perennial.

☉ That it is annual.

♂ That it is biennial.

Comp. Implies *components*, showing the chemical constituents of the substance under consideration.

Prop. Its chemical and natural properties.

Oper. Its operation or medicinal effects.

Use. Its medical uses.

Incomp. The incompatibles, or those substances with which it cannot be combined in prescription, without altering either its chemical or its medicinal properties.

Off. Prep. Officinal preparations into which the substance under consideration enters as a part.

The parentheses after the title of any article contain the name of the substance from which it is obtained; if a plant, its class and order in the Linnæan system, the natural order, the place of its growth, and the kind of plant.

The old name of many articles is placed in Italics, after their botanical arrangement.

CONSPECTUS.

[Those preparations which are marked with an asterisk are not Officinal.]

ACACIÆ GUMMI. Gum Acacia. (Acacia, *Polygam. Monœcia.* N.O. *Leguminosæ.* Africa. ♄) *Gum exuded from the stems of one or more undetermined species of Acacia and dried in the air.*

Comp.—Carbon, hydrogen, oxygen, nitrogen, and lime.

Prop.—Inodorous, insipid; in irregular spheroidal pieces, colourless, or of a pale yellow colour; hard, brittle, fracture shining, cracked and semi transparent, soluble in water, insoluble in alcohol: spec. grav. 1·355.

Oper.—Demulcent.

Use.—In affections of mucous membranes, especially the pulmonary and urino-genital.

Dose.—In substance, gr.xxx. to a quarter of an ounce. In decoctions, *ad libitum.*

Test.—The aqueous solution forms with subacetate of lead an opaque white jelly; the powder does not become blue on addition of solution of iodine.

Incomp.—Goulard's extract, alcohol, sulphuric æther, tincture of perchloride of iron.

Off. Prep.—*Mucilago Acaciæ. Mistura Cretæ. Mistura Guaiaci. Pulv. Amygdalæ Comp. Pulv. Tragac. Comp. Trochisci Acaciæ.*

ACÈTUM. Vinegar. (An acid liquid, prepared from malt and unmalted grain by the acetous fermentation.)

Synonym.—Acetum (*Britannicum*), *Lond.*

Comp.—Acetic acid, water, alcohol, mucilage, tartaric acid, tartrate of potassa, sugar, extractive.

Prop.—Brown colour; pungent and peculiar odour; pleasant acid taste; sp. gr. 1·017 to 1·019.

Oper.—Refrigerant, diaphoretic, antiseptic, astringent: externally stimulant and discutient.

Use.—In febrile complaints, hæmorrhages, and scorbutus; to counteract the effects of opium and other narcotics, after the stomach has been completely cleared; steam of it inhaled in putrid sore throats and in scurvy; as a lotion in bruises, sprains, burns, and chronic ophthalmia.

Dose.—Fl.dr.j. to fl.dr.iv. In clysters fl.unc.j. to fl.unc.ij. Lotion: ℞ Aceti fl.unc.j.; spiritus ten. fl.unc.iv.; Aquæ fl.unc.viij.

Tests.—The colour of common vinegar should not be affected by sulphuretted hydrogen, and very slightly by chloride of barium or oxalate of ammonia. 445·4 grs. by weight (1 fl.unc.) require at least 402 grain-measures of the volumetric solution of soda for their neutralisation, corresponding to 4·6 per cent. of anhydrous acetic acid. One fluid ounce should saturate dr.j. of crystallised carbonate of soda; 10 min. of the liquor barii chloridi should entirely precipitate the sulphuric acid.

Off. Prep.—*Emplastrum Cerati Saponis.*

ACĒTUM CANTHĂRĬDIS. Vinegar of Cantharides. (*Cantharidis in pulverem redacti* unc.ij.; *Acidi Acetici Glacialis* unc.ij.; *Acidi Acetici* fl.unc.xviij. vel q.s.s. Digest the Cantharides at a temperature of 208° in 13 fl. ounces of the acetic acid previously mixed with the glacial acid; transfer the ingredients to a percolator, and add sufficient acetic acid to the clear expressed liquor with the filtered residuum to make a pint.)

Comp.—Acetate of Cantharidin and some animal matter.

Oper.—Rubefacient, epispastic, diuretic.

Use.—To form an immediate blister; it has been used internally as a diuretic.

Dose.—Six to sixteen minims.

ACĒTUM SCILLÆ. Vinegar of Squills. (*Scillæ contusæ* unc.ijss.; *Acidi Acetici diluti* Oj.; *Sp. tenuioris* fl.unc.jss. Macerate the squills in acetic acid for 7 days, and add spirit to the strained liquor and filter.)

Comp.—The acrid principle of the bulb, Scillitina, dissolved in dilute acetic acid and a little spirit.

Prop.—Taste bitter and acidulous.

Oper.—Diuretic, expectorant, emetic.

Use.—In dropsies, asthma, and chronic catarrh.

Dose.—15 to 40 minims.

Off. Prep.—*Oxymel Scillæ*, *Syrupus Scillæ*.

ACĬDUM ACĒTĬCUM. Acetic Acid. (Prepared from wood by destructive distillation.)

Comp.—Water and anhydrous acetic acid in the proportion of 33 parts per cent. of acetic acid, $HO,C_4H_3O_3$ or $\mathbf{HC_2H_3O_2}$, corresponding to 28 parts of anhydrous acetic acid $C_4H_3O_3$ or $\mathbf{C_4H_6O_3}$.

Prop.—Odour very pungent and grateful; taste acid and acrid; spec. grav. 1·044, very volatile. 182 grs. by weight require for neutralisation 1000 grain-measures of the volumetric solution of soda. It should not be coloured by sulphuretted hydrogen, nor precipitated by chloride of barium nor nitrate of silver. If fl.dr.j. mixed with fl.unc.ss. of distilled water and half a drachm of pure hydrochloric acid be put into a small flask with a little granulated zinc, and while the effervescence continues a slip of bibulous paper moistened with a solution of acetate of lead be suspended in the flask above the liquid for about 5 minutes the paper will not be discoloured.

Oper.—Stimulant, rubefacient, escharotic.

Use.—Applied to the nostrils in syncope, asphyxia, and headache; destroys corns and warts.

Incomp.—Alkalies, earths, alkaline and earthy carbonates.

Off. Prep.—*Acetum Cantharidis. Acid. Acet. Glac. Acid. Acet. dil. Ext. Colch. Acet. Lin. Terebinth. Acetic. Liq. Epispasticus. Oxymel.*

ACĬDUM ACĒTĬCUM DILŪTUM. Dilute Acetic Acid. (Acetic acid one pint, distilled water seven pints.) Specific grav. 1·006. 440 grs. by weight (fl.unc.j.) require for neutralisation 313 grain-measures of the volumetric solution of soda, corresponding to 3·53 per cent. of anhydrous acetic acid: fl.unc.j. is equivalent to 16 grs. of anhydrous acid.

Dose.—One to two drachms.

Off. Prep.—*Acetum Scillæ. Liq. Morphiæ Acetatis.*

ACĬDUM ACĒTĬCUM GLACIĀLE. Glacial Acetic Acid. *Acidum Aceticum*, E. (Prepared by the action of sulphuric acid on acetate of soda.)

Comp.—Acetic acid, $C_4H_3O_3$ (or $\mathbf{C_4H_6O_3}$) and water HO=60; it is therefore an acetate of water. Sp. grav. 1·065.

Prop.—It crystallises at 34° and vaporises at 248° F. Its physical properties the same, though stronger than the acidum aceticum. 60 grains by weight mixed with fl.unc.j. of distilled water require for neutralisation 990 grain-measures of volum. sol. of soda.

Oper.—Stimulant, vesicant, escharotic.

Use.—The same as Acidum aceticum.

ACĬDUM ARSENIŌSUM. Arsenious Acid. Arsenicum Album, Edin. (The acid of commerce purified by sublimation.)

Comp.—Arsenic, 1 eq.=75+oxygen 3 eq.=24 eq.=99. Chemical symbol, AsO_3 or $\mathbf{As_2O_3}$.

Prop.—A heavy, white, or semi-transparent powder; sublimed in a glass tube it is converted into colourless octahedral crystals. Mixed with charcoal and exposed to heat it is reduced to metallic arsenic, exhaling an alliaceous odour. It is soluble in boiling water, and octahedral crystals are deposited on cooling; from this solution a yellow precipitate falls on the addition of sulphuretted hydrogen; and a canary-yellow precipitate, insoluble in water, but soluble in ammonia and nitric acid, on the addition of ammonio-nitrate of silver. It is entirely vaporised at a temperature not exceeding 400°. 4 grs. dissolved in boiling water with 8 grs. of bicarbonate of soda discharge the colour of 808 grain measures of the volumetric solution of iodine. Inodorous, tasteless. Sp. grav. 3·7.

Use.—To prepare the arsenical solution.

Off. Prep.—*Liq. Arsenicalis. Liq. Arsenici Hydrochlor. Ferri Arsenias. Sodæ Arsenias. Liq. Sodæ Arsenitis.*

ACĬDUM BENZOĬCUM. Benzoic Acid. (Sublime the benzoin, press the sublimate between bibulous paper, and sublime a second time.)

Comp.—Carbon 14 eq.=84+hydrogen 5=5+oxygen 3=24+water=9, eq. =122; combined in a crystalline state with one equivalent of water. Chemical symbol, $\bar{B}$, or $C_{14}H_5O_3,HO$ or $\mathbf{HC_7H_5O_2}$.

Prop.—Colour white, or nearly so; odour aromatic and fragrant; taste hot, slightly acidulous, and agreeable; soluble in boiling water, alcohol, and in the solutions of the caustic alkalies and of lime; crystals white, brilliant, ductile, slender needles; should sublime entirely by heat.

Oper.—Stimulant; as an expectorant doubtful; errhine.

Use.—In chronic catarrh, but of very little efficacy.

Dose.—Gr.x. to gr.xxx.

Off. Prep.—*Ammoniæ Benzoas. Tinct. Camphoræ Co. Tinct. Opii Ammoniata.*

ACĬDUM BORACĬCUM. Boracic Acid. (Appendix I.)

Comp.—1 eq. of boron=11+3 eq. of oxygen=24+3 eq. of water=27= 62. Chemical symbol, BO_3+3HO or $\mathbf{H_3BO_3}$.

Prop.—Efflorescent; fuses at red heat and soluble in alcohol; burns with a dull green flame.

Use.—Only used for making a solution for qualitative analysis.

ACĬDUM CARBŎLĬCUM. Carbolic Acid. Phenic Acid. (An acid obtained from coal tar by fractional distillation and subsequent purification.)

Comp.—$HO,C_{12}H_5O$ or $\mathbf{HC_6H_5O}$.

Prop.—In colourless acicular crystals, becoming at 95° an oily liquid with taste and odour of creosote. Sp. grav. 1065; boils at 370°. The crystals on exposure absorb moisture, are but slightly soluble in

water, but freely so in alcohol, ether, and glycerine. The acid does not redden litmus paper; it coagulates albumen. A slip of deal dipped into it, and afterwards into hydrochloric acid, becomes greenish-blue on drying.

Oper.—Antiseptic; in most respects like creosote.

Use.—To correct fetid odours, whether in sick rooms or as an application to ulcers, or as a sedative in neuralgia and vomiting.

Dose.—Externally to ulcers, 1 part of the acid to 7 or 8 of water; internally gr.j. to gr.ij. in form of pills.

Off. Prep.—*Glycerinum Acidi Carbolici.*

ACĬDUM CITRĬCUM. Citric Acid. (Crystals.) A crystalline acid prepared from lemon juice, or from the juice of the Citrus Limetta, Lime. *Succi Limonis* Oiv.; *Cretæ præparatæ* unc.ivss.; *Acidi Sulphur* fl.unc. ijss.; *Aquæ destill.* q.s. Add chalk to the boiling lemon juice till the effervescence ceases, wash the deposit collected on a calico filter till it is colourless; mix it in a pint of distilled water, and gradually add the sulphuric acid diluted with a pint and a half of distilled water. Boil for half an hour, keeping the mixture constantly stirred. Separate the acid solution by filtration, wash the insoluble matter with a little distilled water, and add the washings to the solution. Concentrate this to the density of 1·21; let it cool, and after 24 hours decant the liquor; further concentrate till a film forms on the surface, then set aside to crystallise.

Comp.—Carbon 12 eq.=72+hydrogen 5=5+11 oxygen=88+3 water 27=192. Chemical symbol, C̄i or $C_{12}H_5O_{11}+3HO+2HO$ or $\mathbf{H_3C_6H_5O_7}$, $\mathbf{H_2O}$.

Prop.—Sharp acidity of lemon juice; crystals right rhomboidal prisms, persistent, white, semi-transparent: soluble in less than twice their weight of cold water, and in half their weight of boiling water; less soluble in rectified spirit, and insoluble in pure ether; 70 grains dissolved in distilled water are neutralised by 1000 grain-measures of the volumetric solution of soda. Incinerated with red oxide of mercury, no ash, or a mere trace is left.

Oper.—Refrigerant, antiseptic.

Use.—In febrile and inflammatory complaints, and scorbutus: and dissolved in water, instead of recent lemon juice, for the effervescing draught. (Proportion fl.dr.xjss. to water Oj.)

Dose.—Gr.x. to gr.xxx. dissolved in water or any bland fluid.

Incomp.—Sulphuric acid, nitric acid, acetates of lead, nitrate and acetate of mercury, alkalies, alkaline sulphurets.

Tests.—Acetate of lead for detecting sulph. acid; potassa for tartaric acid; when incinerated with red oxide of mercury, no ash is left.

Off. Prep.—*Vinum Quiniæ.*

ACĬDUM GALLĬCUM. Gallic Acid. (Crystals obtained from Gall-nuts.)

Comp.—Carbon 14 eq.=84+hydrogen 3 eq.=3+oxygen 7 eq.=56+2· water=18=161 and 3 eq. of water. Chemical symbol, 3HO, $C_{14}H_3O_7+2HO$, or $\mathbf{H_3C_7H_3O_5H_2O}$.

Prop.—Acicular crystals, generally of a fawn colour, but sometimes colourless, inodorous, with a slightly acidulous styptic taste, leaving a sweetish impression in the mouth; sparingly soluble in cold water; soluble in 3 parts of boiling water and in alcohol. Renders solution of a persalt of iron bluish black, gives no precipitate with isinglass, and burns without residue. The crystals when dried at 212° lose 9·5 per cent. of their weight.

Oper.—Astringent, styptic.

Use.—In hemorrhages, colliquative sweats and diarrhœa, and desquamative nephritis.

Dose.—Gr.iij. to x. in pill, or suspended in water by mucilage, 2 or 3 times a day.

Off. Prep.—*Glycerinum Acidi Gallici.*

ACĬDUM HYDROCHLORĬCUM. Acidum Muriaticum purum. Hydrochloric Acid.

Comp.—Chlorine 1 eq.=35·5+1 hydrogen=1 eq. 36·5; real acid 1 atom; water 8 atoms. Chemical symbol, HCl or **HCl**. (*From common salt.*)

Prop.—Colourless: sp. grav. 1·16. Emits suffocating white fumes on exposure to the air, entirely vaporised by heat; mixed with water gives no precipitate with chloride of barium or sulphuretted hydrogen, ammonia, or the carbonate; nitrate of silver throws down a curdy white precipitate, soluble in excess of ammonia but not in nitric acid; does not tarnish bright copper foil in boiling. 114·8 grs. by weight, mixed with fl.unc.ss. of distilled water, are neutralised by 1000 grain-measures of the volumetric solution of soda.

Oper.—Tonic, antiseptic, diuretic.

Use.—In typhus; dyspepsia; cutaneous eruptions; in gargles in inflammatory and putrid sore throats; in injections in gonorrhœa.

Dose.—Min.j. to min.v. properly diluted; in gargles fl.dr.ss. to fl.dr.j. in Oj. of fluid; injection min.viij. to water fl.unc.iv.

Incomp.—Alkalies, earths, and their carbonates, metallic oxides, sulphuret of potassium, tartrate of potassa, tartar emetic, and most metallic salts.

Tests.—Chloride of barium in the diluted acid for sulph. acid; ammonia for salts of iron. Bibulous paper moistened with a solution of subacetate of lead is not discoloured by the vapour arising from the action of the acid on a piece of zinc.

Off. Prep.—*Acidum Hydrochloricum dilutum. Acidum Nitro-hydrochloricum dilutum. Liquor Antimon. Chloridi. Liquor Arsenici Hydrochloricus. Liquor Ferri Perchloridi fortior.*

ACĬDUM HYDROCHLORĬCUM DILŪTUM. Diluted Hydrochloric Acid. (*Acidi Hydrochlorici*, fl.unc.viij.; *Aquæ destillatæ*, q.s.) Dilute the acid with 16 oz. of water, then add more water; at 60° the mixture should measure 26½ fl.oz.

Test.—Sp. gr. 1·052; 345 grs. by weight (fl.drs.vj.) are neutralised by 1000 grain-measures of the volumetric solution of soda, corresponding to 10·58 per cent. of real acid. The acid agrees in strength with the corresponding acid of the Edinburgh, and is rather stronger than that of the London and Dublin Pharmacopœias.

Dose.—Min.x. to min.xl.

Use.—The same as the strong acid.

ACĬDUM HYDROCYANĬCUM DILŪTUM. Diluted Hydrocyanic Acid. (*Potassii Ferrocyanidi*, unc.2¼; *Acidi Sulph.* fl.unc.j.; *Aq. dest.* fl.unc.xxx., vel q.s.s.)

Comp.—1 eq. cyanogen=26+hydrogen 1 eq.=1=27. Anhydrous hydrocyanic acid dissolved with water and constituting 2 per cent. by weight of the solution. Chemical symbol, HC_2N, or **HCN**.

Prop.—Colourless, transparent, with a peculiar odour; taste sweetish and bland at first, afterwards pungent and acrimonious; very volatile; decomposed by a high temperature and light, gives a slight and transient redness to litmus paper. Sp. gr. ·997.

Oper.—Sedative.

Use.—In spasmodic coughs; asthma and hooping cough; hiccough, and in allaying the irritability of the stomach in dyspepsia. As a local application, properly diluted, it is useful in abating the itching in impetigo and pruriginous affections.

Dose.—Min.ij. gradually increased to min.viij. in a glassful of water, almond emulsion, or infusion of cinchona. When an overdose has been taken, the effects are best counteracted by ammonia, chlorine, brandy, and the cold affusion.

Incomp.—Metallic oxides, chlorine.

Tests.—100 grains treated with nitrate of silver should precipitate gr.x. of cyanide of silver; if iodo-cyanide of potassium and mercury redden the acid, it contains some other acid. Chloride of barium causes no precipitate in the pure acid. 270 grs. rendered alkaline by soda requires 1000 grain-measures of the volumetric solution of nitrate of silver to be added before a permanent precipitate begins to form, which corresponds to 2 per cent. of the real acid.

Off. Prep.—*Vapor Acidi Hydrocyanici.*

Note.—*This acid contains rather more than half as much real acid as the Acidum Hydrocyanicum of the Edinburgh Pharmacopœia; and corresponds in strength with the Acidum Hydrocyanicum Dilutum of the London and Dublin Pharmacopœias.*

ACĬDUM NITRĬCUM. Nitric Acid. (Prepared from nitrate of potash or nitrate of soda by distillation with sulphuric acid and water, and containing 70 per cent. by weight of the nitric acid.)

Comp.—Nitrogen 1 eq.=14+oxygen 5=40, eq.=54. Chemical symbol, HO,NO_5 or $\mathbf{HNO_3}$, corresponding to 60 per cent. of anhydrous nitric acid, NO_5 or $\mathbf{N_2O_5}$. The acid is combined with 3 eq. of water.

Prop.—Odour suffocating, taste very acid and caustic, corrosive, liquid, yellowish, transparent; absorbs water from the air; tinges the skin yellow. Sp. gr. 1·42. Gives off dense red fumes when poured on copper filings; but if the acid be diluted with an equal volume of water the gas given off is found colourless, but acquires an orange-red colour on mixing with the air. It boils at 250°. 90 grains, by weight, mixed with half an ounce of distilled water, are neutralised by 1000 grain-measures of the volumetric solution of soda. It should not precipitate solution of nitrate of silver nor of chloride of barium, when diluted with distilled water.

Oper.—Tonic, antiseptic, antisyphilitic, escharotic.

Use.—As an external application to phagedænic and cancerous ulcers; but otherwise the strong acid is seldom used for any other than pharmaceutical purposes; in the form of vapour, it is extracted from nitre gr.ccxl. and sulphuric acid fl.dr.iv. in a saucer, placed on a pipkin of hot sand, for the purposes of fumigation.

Incomp.—Spirit of lavender, and the strong tinctures, in any large quantities; and the essential oils; metallic oxides.

Off. Prep.—*Acidum Nitricum Dilutum. Acidum Nitro-hydrochloricum. Acidum Phosphoricum Dil. Argenti Nitras. Bismuthi Carbonas. Bismuthi Subnitras. Ferri Pernitratis Liquor. Hydrargyri Nitratis Acidus Liquor. Hydrargyri Oxidum Rubrum. Ung. Hydrarg. Nit.*

ACĬDUM NITRICUM DILŪTUM. Diluted Nitric Acid.

Comp.—Nitric Acid, fl.unc.vj.; aquæ destillatæ q. s. Dilute the acid with 24 fl. ounces of water, and then add more, until at 60° it shall measure 31 ounces.

Prop.—Sp. grav. 1·101. The same as nitric acid in a weaker degree.

Oper.—The same as that of nitric acid.

Use.—As a drink, diluted largely, in fevers of the typhoid kind; in

chronic affections of the liver, attended with a redundant and hasty formation of bile; and in dyspepsia. As a remedy in venereal complaints; yet in this climate it is not to be depended on, but it is a very useful adjunct to mercury, and allays the violent irritation induced by it. It is also very useful in the cure of old ulcerated legs.

Dose.—Min.x. to min.xxx. twice or thrice a day, largely diluted.

ACĬDUM NITRO-HYDROCHLORĬCŪM DILŪTUM. Dilute Nitro-hydrochloric Acid. Nitromuriatic Acid (*Acidi Nitrici*, fl.unc.iij.; *Acidi Hydrochlorici* fl.unc.iv.; *Aquæ destillatæ*, fl.unc.xxv. Mix the acids, and allow them to remain for 24 hours in a partially closed bottle, add water in successive portions, shaking the bottle after each addition, and preserve the mixed acids in a stoppered bottle.

Comp.—It is a solution of Chlorine and Nitrous Acid in water. 352·4 grains by weight (fl.dr.vj.) are neutralised by 920 grain-measures of the volumetric solution of soda. Chemical symbol, Cl,NO_4,HO.

Prop.—Odour suffocating, colour pale yellow. Sp. gr. 1·074.

Oper.—Stimulant, tonic, antiseptic.

Use.—Largely diluted, it has been strongly recommended in malignant scarlatina, in dyspepsia, chronic affections of the liver, in oxaluria, and in syphilis, and still more diluted as a bath in chronic derangement of the hepatic secretion, which it improves, and acts gently on the bowels.

Dose.—Min.v. to min.xx. in fl.unc.iij. of water twice or thrice a day. When used as a bath, the mixed acid should be added to the water until it tastes as sour as weak vinegar.

Incomp.—Oxides, earths, alkalies, the sulphurets, and the acetates of potassa and of lead.

ACĬDUM OXALĬCUM. Oxalic Acid. (Appendix I.)

Comp.—$2HO,C_4O_6+4HO$ or $\mathbf{H_2C_2O_4.2H_2O}$.

Prop.—Crystals transparent, tetrahedral prisms, soluble in water and alcohol, entirely destroyed by heat below 350°.

Use.—In quantitative and qualitative analysis. It is purified by dissolving the acid in water, filtering and recrystallising.

ACĬDUM PHOSPHORĬCUM DILUTŪM. Diluted Phosphoric Acid. (*Phosphori* gr.ccccxiij.; *Acidi Nitrici* fl.unc.vj.; *Aquæ destillatæ* q.s.)

Comp.—Phosphoric acid and water. Chemical symbol $3HO,PO_5$. Phosphorus 1 eq. = 31 + 5 oxygen = 40 + water 3 eq. = 27 = 98.

Prop.—Colourless, inodorous, strongly acid, fluid. Sp. gr. 1·08. Ammonio-nitrate of silver gives a canary-yellow precipitate soluble in ammonia, and in dilute nitric acid; neither chloride of barium, nor nitrate of silver, nor sulphuretted hydrogen gives a precipitate. It leaves on evaporation a residue which melts at a low red heat, and looks glassy on cooling. Mixed with an equal volume of sulphuric acid, and then introduced into a solution of sulphate of iron, it does not produce a dark colour. Mixed with an equal volume of perchloride of mercury, and heated, no precipitate is formed. Six fluid drachms correspond to 35·5 grains of anhydrous phosphoric acid (half an equivalent of PO_5, or a quarter of an equivalent of $\mathbf{P_2O_5}$).

Oper.—Tonic, refrigerant, aphrodisiac.

Uses.—In disposition to urinary deposition of the phosphate of lime; in cachexia, or general debility, especially after nervous exhaustion; and to allay diabetic thirst.

Dose.—Min.x. to min.xxx.

Tests.—A fluid ounce saturates 132 grains of crystallised carbonate of soda; a precip. by chloride of barium insoluble in nitric acid indicates sulph. acid.

Off. Prep.—*Ammoniæ Phosphas. Syrupus Ferri Phosphatis.*

ACĬDUM SULPHŪRĬCUM. An acid produced by the combustion of sulphur, and the oxidation of the sulphurous acid by means of nitrous vapours. Sulphuric Acid.

Comp.—It contains 96·8 per cent. by weight of sulphuric acid, HO,SO_3 or H_2SO_4, and corresponds to 79 per cent. of anhydrous sulphuric acid.

Prop.—Inodorous; strong acid taste; corrosive; fluidity dense, apparently oily; transparent, colourless. Sp. grav. 1·843. It has a powerful attraction for water, and evolves much heat on being mixed with it. 50·6 grains by weight neutralise 1000 grain-measures of the volumetric solution of soda.

Oper.—Escharotic, stimulant, rubefacient.

Use.—In local pains, in the form of an ointment made with lard, unc.j. sulphuric acid fl.dr.j.; and in scabies, with dr.ss. of the acid to lard unc.j.

Tests.—Distilled water should cause no muddiness; solution of sulphate of iron no reddening at the point of contact: evaporated in a platinum dish it leaves little or no residue; diluted with 6 times its weight of water it gives no precipitate with sulphuretted hydrogen.

Off. Prep.—*Acidum Hydrochloricum. Acid. Hydrocyanicum dilutum. Acid. Nitricum. Acid. Sulphuricum dilutum. Acid. Sulphur. Aromaticum. Acidum Sulphurosum. Æther. Chloroformum. Beberiæ Sulphas. Ferri Sulphas. Ferri Sulphas Granulata. Hydrargyr. Sulphas. Liq. Ferri Persulphatis. Zinci Sulphas.*

ACĬDUM SULPHŪRĬCUM AROMĂTĬCUM. Aromatic Sulphuric Acid. (*Spiritus rect.* Oij. vel satis; *Acidi Sulphurici* fl.unc.iij.; *Cinnamomi Cort. cont.* unc.ij.; *Zingiberis Rad. cont.* 1¼unc. Mix the acid gradually with the spirit, add the cinnamon and ginger, macerate for 7 days, agitating frequently, and filter.

Comp.—An imperfect æther, with sulphuric acid predominating, and holding dissolved the essential oil of cinnamon and of ginger.

Prop.—Odour aromatic, taste acid and slightly æthereal, colour brownish. Sp. gr. 0·927. 6 fl.drs. require for neutralisation 830 grain-measures of the volumetric solution of soda, corresponding to 10·91 per cent. of anhydrous acid.

Oper.—Stimulant, tonic.

Use.—In dyspepsia; the debility following intermittents, and other fevers, combined with vegetable bitters; and in chronic asthma.

Dose.—Min.v. to min.xxx. in fluids, twice or thrice a day,

ACĬDUM SULPHURĬCUM DILŪTUM. Diluted Sulphuric Acid. (*Acidi Sulphurici* fl.unc.vij. *Aquæ destillatæ* q s. Dilute the acid with 77 fluid ounces of water, and when the mixture has cooled to 60° add more water, so that it shall measure 83½ fluid ounces.) It is about $\frac{1}{12}$ weaker than the dilute acid of the London Pharmacopœia. Sp. gr. 1·094. 6 fluid drachms require for neutralisation 1000 grain-measures of the volumetric solution of soda, corresponding to 10·14 per cent. of anhydrous acid. Six fluid drachms correspond to 40grs. of the anhydrous acid.

Prop.—Inodorous, strong acid taste, transparent, colourless.

Oper.—Tonic, astringent, refrigerant.

Use.—In dyspepsia, debility, menorrhagia, hæmoptysis, cutaneous eruptions, hectic: in gargles, in cynanche, and to check salivation.

Dose.—Min.v. to min.xl. largely diluted: in gargles fl.dr.j. to fl.dr.iij. in fl.unc.viij. of fluid.

Off. Prep.—*Aconitia. Antimonium Sulphuratum. Atropia. Atropiæ Sulphas. Beberiæ Sulphas. Infusum Rosæ Acidum.*

ACĬDUM SULPHURŌSUM. Sulphurous Acid. (Prepared by distilling sulphuric acid with wood charcoal.)

Comp.—Sulphurous acid (SO_2 or $\mathbf{SO_2}$), dissolved in water.

Prop.—Sp. grav. 1·04. Colourless, suffocating odour; water takes up 33 times its bulk of the gas.

Oper.—Escharotic.

Use.—Externally in cutaneous diseases, dependent on vegetation—mixed with an equal part of glycerine.

Dose.—Fl.dr.ss. to fl.dr.j.

Tests.—It gives a slight precipitate, if any, with chloride of barium, but a copious one if a solution of chlorine be added. 34·7 grains by weight mixed with an ounce of distilled water and a little mucilage of starch do not acquire a permanent blue colour with the volumetric solution of iodine, until 1000 grain-measures of the latter have been added. When evaporated it leaves no residue.

ACĬDUM TANNĬCUM. Tannic Acid. (*Gallar. contrit.* q.s.; *Ætheris, Aquæ destillatæ* ā ā.)

Comp.—Carbon 54 eq. = 324 + 22 eq. hydrogen = 22 + 34 eq. oxygen = 272 = 618. Chemical symbol, $C_{54}H_{22}O_{34}$ or $\mathbf{C_{27}H_{22}O_{17}}$.

Prop.—In pale yellow vesicular masses or thin glistening scales; inodorous. By exposure to air absorbs oxygen, and is converted into gallic acid. Soluble in water and rectified spirit, very sparingly in ether. The aqueous solution precipitates a solution of gelatine yellowish white, and the persalts of iron a bluish-black colour. It leaves no residue when burned with free access to air. Taste styptic, but not bitter.

Oper.—Astringent.

Use.—In atonic hemorrhage, and mucorrhœa.

Dose.—Gr.ij. to gr.xx. in pills, or dissolved in water or glycerine. Lotion, gr.vj. in aquæ unc.j.

ACĬDUM TARTARĬCUM. Tartaric Acid. (℞ *Potassæ Tartratis Acidæ* unc.xlv.; *Aquæ destillatæ* q.s.s.; *Cretæ preparatæ* unc.xijss.; *Calcii Chloridi* unc.xiijss.; *Acidi Sulphurici* fl.unc.xiij.)

Comp.—Carbon 8 eq. = 48 + hydrogen 4 = 4 + oxygen 10 = 80 eq. = 132. Chemical symbol, $\bar{T}+2HO$ or $C_2H_4O_{10}+2HO$ or $\mathbf{H_2C_4H_4O_6}$.

Prop.—Crystals white, oblique rhombic, imperfectly transparent, in irregular groups. It has a strongly acid taste, and is readily soluble in water and in rectified spirit: a white crystalline precipitate follows the addition of a little acetate of potash. 75 grains of crystallised tartaric acid in solution requires for neutralisation 1000 grain-measures of the volumetric solution of soda. Sp. grav. 1·5962. They do not effloresce nor deliquesce when exposed to the air; they melt into a transparent mass when heated above 212°; and after this process they deliquesce. They dissolve readily in water, combine with earths, alkalies, and metallic oxides; and consist of 1 part of real acid, and 2 of water.

Oper.—Refrigerant, antiseptic.

Use.—In inflammatory affections, fevers, and scorbutus.

Dose.—Gr.x. to gr.xxx. dissolved in water.

Incomp.—Alkalies and their carbonates, all the salts of potassa.

Tests.—The precipitate by acetate of lead not dissolving in dilute nitric acid indicates a sulphate. When incinerated with red oxide of mercury, it should leave no residue.

ACONĬTĬA. Aconitia. (*Aconiti Rad. exsiccati et contusi* lb.xiv.; *Spir. rect.*; *Aquæ destillatæ*; *Ammoniæ liquoris*; *Ætheris puri*; *Acidi Sulph. dil. sing. q.s.s.*)

Comp.—Carbon, oxygen, hydrogen, nitrogen. Chemical symbol, $C_{60}H_{47}NO_{14}$.
Prep.—Whitish powder, inodorous, taste bitter, acrid, soluble in 150 times its weight of water at 60°, and 50 at 212°; alcohol and æther dissolve it readily; alkaline; permanent in the air; with acids forms dry, gummy, bitter masses, which the caustic alkalies decompose.
Use.—Externally anodyne; too poisonous to be used internally.
Off. Prep.—*Unguentum Aconitiæ.*

ACONĪTI FOLĬA. Fresh leaves and flowering tops of the Aconitum Napellus. (*Polyandria Trigynia.* N.O. *Ranunculaceæ.* Leaves smooth, palmate, divided into 5 deeply cut wedge-shaped segments. Flowers numerous, irregular, deep blue, in dense racemes.)
Prop.—Excites a tingling sensation when chewed.
Oper. & Use.—See *Aconiti Radix.*
Off. Prep.—*Extractum Aconiti.*

ACONĪTI RĀDIX. Aconite, or Monk's-hood root. (*Aconitum Napellus.* Monk's-hood; *Polyand. Trigyn.* N.O. *Ranunculaceæ.* Mountains of Germany, and cultivated in Britain. The roots ought to be taken in the winter or in the spring, before the leaves appear, and the leaves when the flowers have just begun to expand. ♃)
Prop.—Inodorous, taste subacrid; bitterish; fresh very acrid.
Oper.—Narcotic, sudorific, deobstruent.
Use.—In chronic rheumatism, scrofula, scirrhus, palsy, amaurosis, and venereal nodes.
Dose.—Gr.j. gradually increased to gr.v. twice or thrice a day.
Off. Prep.—*Aconitia. Lin. Aconiti. Tinct. Aconiti.*

ĂDEPS BENZOĀTUS, Benzoated Lard. (*Adipis preparati* lb.j.; *Benzoini* gr.clx. Add the Benzoin to the lard melted with a water-bath, frequently stirring for 2 hours; remove the residual benzoin by straining.)
Comp.—Lard mechanically mixed with benzoin.
Use.—In the formation of ointments, the benzoin tending to prevent rancidity.

ĂDEPS PRÆPĂRĀTUS. Hog's Lard separated and purified by heat. Axungia. That which has been preserved with chloride of sodium is not to be used. (Sus scrofa, the hog. Cl. *Mammalia*, Ord. *Pachyderma*, Cuv.)
Prop.—Inodorous, insipid, soft, unctuous, white, melting at about 100°, soluble in æther.
Oper.—Emollient.
Use.—In the formation of ointments, cerates, plasters, and liniments.
Off. Prep.—*Adeps Benzoatus. Unguenta Varia.*

ÆTHER. Æther Sulphuricus. (*Spir. rect.* fl.unc.j.; *Ac. Sulph.* fl.unc.x.; *Calcii Chlor.* unc.x.; Calcis recens ustæ unc.ss.; Aquæ destill. fl.unc.xiij. Prepared by the action of sulphuric acid upon alcohol.)
Comp.—Contains not less than 92 per cent. of pure æther. Oxide of Ethyl, oxygen, 1 eq.=8+carbon 4 eq.=24+hydrogen 5=5:—equiv. =37. Chemical symbol, C_4H_5O=Ethyl (AE or Et) C_4H_5+O or $\mathbf{C_4H_{10}O}$. Sp. gr. 0·735.
Prop.—A limpid, colourless, very inflammable, volatile liquor; odour penetrating and fragrant; taste, hot and pungent; inflammable, boiling below 105°; readily mixing with alcohol; soluble in ten parts of water, produces cold during its evaporation, and leaves no residue. Its volume is not lessened when agitated with half its weight of con-

centrated solution of chloride of calcium. 50 measures agitated with an equal volume of water are reduced to 45.

Oper.—Diffusibly stimulant, narcotic, antispasmodic, externally refrigerant.

Use.—Hysteria, asthma, tetanus, epilepsy, and most spasmodic complaints; externally in head-ache, and dropped into the meatus in ear-ache; it has also been used in burns.

Dose.—Min.xx. to fl.dr.j. of water or other fluid.

Tests.—If it redden litmus strongly it has been improperly prepared.

Off. Prep.—*Æther purus. Collodium. Liquor Epispasticus. Spiritus Ætheris.*

ÆTHER PURUS. Pure Ether. Ether free from alcohol and water. (*Ætheris, Aquæ destillatæ* āā Oij.; *Calcis recens ustæ* unc.¼; *Calcii Chloridi* unc.iv. Wash the ether with successive portions of water, and then place it with the lime and chloride of calcium in a retort, and distil with gentle heat.)

Use.—In the preparation of Aconitia and Digitalinum.

Test.—Sp. gr. 0·720.

ÆTHĔRIS NITRŌSI SPĬRITUS. See *Spiritus Ætheris Nitrosi.*

ÆTHĔRIS SPIRĬTUS. Spirit of Æther. (Æther fl.unc.x., Rectified Spirit *one pint.*)

Comp.—Alcohol holding æther in solution. Sp. gr. 0·809.

Prop.—Odour fragrant, taste warm.

Oper.—Stimulant, stomachic.

Use.—In weakness of the stomach, flatulencies, and languor.

Dose.—fl.dr.ss. to fl.dr.jss. in bitter infusions.

ALBŪMEN OVI. Egg Albumen. (The liquid white of the egg of *Gallus Banckiva, var. domesticus*, the common fowl. Cl. *Aves*, Ord. *Gallinaceæ.*)

Comp.—Albumen 12·0, mucus 2·7, salts 0·3, and water 85·0. *Gmelin.*

Prop.—Coagulated by heat, corrosive sublimate, and ether, but not by acetic acid.

Oper.—Demulcent.

Use.—In poisoning by corrosive sublimate, sulphate of copper, and bichloride of tin and as a test.

Off. Prep.—*Solution of Albumen.* (Appendix II.)

ALCŎHOL. (Appendix I.) Alcohol. (*Rectified Spirit distilled with Carbonate of Potass and Slaked Lime.* 0·795.

Comp.—A hydrated oxide of Ethyl—C_4H_5O+HO, or $EtO+HO$, or $\mathbf{C_2H_6O}$.

Prop.—Odour fragrant, penetrating; taste pungent, burning; colourless; transparent; boils at 174°; is entirely volatilised by heat; is not rendered turbid by the addition of water; it dissolves all the vegetable secretions, either wholly or partially, except gum; dissolves also ammonia, potass, and soda: the addition of anhydrous sulphate of copper does not give rise to a blue colour.

Oper.—Stimulant (*powerful and diffusible*), sedative.

Use.—Scarcely ever used internally in its pure state, but often and advantageously in a highly diluted form; in cases of debility and low fevers; externally as a fomentation in muscular pains; to burns, and to restrain hæmorrhages.

Off. Prep.—*Spiritus Rectificatus.*

ALCŎHOL AMYLĬCUM. Amylic Alcohol. Fousel Oil. (An oily liquid contained in the crude spirit produced by the fermentation of saccharine solutions with yeast, and separated in the rectification or distillation of such crude spirit.)

Comp.—$C_{10}H_{12}O_2$ or $\mathbf{C_5H_{12}O}$.
Prop.—Colourless, odour penetrating and oppressive, taste burning; sparingly soluble in water, but fully so in alcohol, ether, and essential oils. Exposed to the air in contact with platinum black is slowly oxidised, yielding valerianic acid.
Use.—In the preparation of valerianate of soda.
Test.—Sp. gr. 0·818, boiling point 270°.

ALŎE. *Socotrina et Barbadensis.* The Socotrine and Barbadoes Aloe. *Hexand. Monogyn.* N. O. *Liliaceæ.* Socotra and Barbadoes. *Aloe* Vulgaris. The species from which the Socotrine Aloes is derived is not known. Inspissated juice of the divided leaf. ♃)
Comp.—Peculiar bitter principle (Aloïn) 60 per cent., colouring principle 40 per cent.
Prop.—Odour not unpleasant, rather fragrant; taste very bitter, not unlike that of animal bile, and slightly aromatic; colour reddish brown, with a shade of purple; mass hard, friable; fracture conchoidal and glossy; soluble in diluted alcohol; powder of a bright cinnamon-yellow colour. Dissolves entirely in proof spirit, and during solution exhibits under the microscope numerous crystals. The Barbadoes variety has an unpleasant odour, a bitter nauseous taste, and a brown or dark-brown colour.
Oper.—Cathartic, warm, and stimulating, emmenagogue, anthelmintic, stomachic; hurtful in hemorrhoids.
Dose.—To act as a cathartic, gr.ij. to gr.x.; as an emmenagogue, gr.j. to gr. ij. twice or thrice a day. The form of a pill is the most convenient mode of exhibition.
Off. Prep.—Barbadoes variety:—*Enema Aloes. Ext. Aloes Barbaden. Pil. Al. Barbaden. Pil. Aloes Barb. et Ferri. Pil. Cambogiæ Comp. Pil. Coloc. Co. Pil. Coloc. et Hyosc.* Socotrine variety:—*Dec. Aloes Comp. Enema Aloes. Extract. Aloes Socotrinæ. Extr. Coloc. Comp. Pil. Aloes et Assafœtidæ. Pil. Aloes et Myrrh. Pil. Aloes Socotrinæ. Tinct. Aloes. Tinct. Benzoini Comp. Vinum Aloes. Pil. Rhei Comp.*

ALŬMEN. Alum (from schistose clays).
Comp.—A sulphate of ammonia and alumina, crystallised from solution in water. Eq. 325·5. Chemical symbol, NH_4O,SO_3,Al_2O_3+24HO or $\mathbf{NH_4Al(SO_4)_2,12H_2O}$.
Prop.—Crystals regular octahedrons, but generally in large white semi-transparent masses; taste sweetish, styptic; effloresces in the air; 16 pts. water at 60° dissolve one part of alum. Its aqueous solution gives with caustic potash or soda a white precipitate soluble in an excess of the reagent, and the mixture evolves ammonia, especially when heated. The aqueous solution gives an immediate precipitate with chloride of barium; it does not become blue on the addition of yellow or red prussiate of potash.
Oper.—Tonic, astringent; and, in some instances, laxative.
Use.—In hemorrhages, leucorrhœa, diabetes, colica pictonum, pertussis; externally in relaxation of the uvula, ophthalmia, gleet, and leucorrhœa.
Dose.—Gr.x. to gr.xx. united with an aromatic; or in whey, made with gr.xx. of the powder and Oj. of hot milk, a teacupful occasionally; in gargles gr.xxx. in fl.unc.iv. of fluid; in collyria and injections gr.xij. in fl.unc.vj. of rose-water.
Incomp.—Alkalies and their carbonates, lime, magnesia, acetate of lead, tannic acid.
Off. Prep.—*Alumen Exsiccatum.*

ALŪMEN EXSICCĀTUM. Alumen Siccatum. Dried Alum. (Melt the alum in an earthen vessel over the fire, until the salt has lost 47 per cent. of its weight, taking care that the heat does not exceed 400°; and reduce to powder, and keep in a well stopped bottle.)

Comp.—As above, without the water of crystallisation.

Prop.—Dry, friable, white, opaque.

Oper.—Escharotic.

Use.—To destroy fungus in ulcers; internally in colic.

AMMŌNIĂCUM. Ammoniacum. (Dorema *Ammoniacum. Don, in Act. Soc. Linn. Pentandria Digynia.* N.O. *Umbelliferæ.* Persia and the Punjaub.)

Comp.—Gum 20 per cent.; resin 7 per cent.; essential oil; volatile oil 4 per cent.; proportions unknown.

Prop.—Irregular, dry masses and tears, yellow externally, whitish within; odour peculiar, not ungrateful: taste nauseous, sweet and bitter; forms a white emulsion with water; soluble in vinegar; particularly so in alcohol, æther, and solutions of the alkalies.

Oper.—Expectorant, deobstruent, antispasmodic, discutient, resolvent.

Use.—In asthma and chronic catarrh; visceral obstructions, and obstinate colic from viscid matters lodged in the intestines; externally in scirrhous tumours and white swelling of the joints.

Dose.—Gr.v. to gr.xx. in pills, with squill, myrrh, &c., or in emulsion: see Mist. Ammoniaci.

Off. Prep.—*Empl. Galbani. Emp. Ammoniaci cum Hydrargyro. Mistura Ammoniaci. Pilulæ Scillæ Compositæ. Pil. Ipecac. c. Scilla.*

AMMONĬÆ LIQUOR. See *Liquor Ammoniæ.*

AMMONĬÆ LIQUOR FORTIOR. Vide *Liquor Ammoniæ Fortior.*

AMMONĬÆ ACETĀTIS LIQUOR. See *Liq. Ammoniæ Acetatis.*

AMMONĬÆ BENZŎAS. Benzoate of Ammonia. (Crystals prepared by the evaporation of a solution of benzoic acid in liquor ammoniæ and distilled water.)

Comp.—Ammonia, benzoic acid, and water. Chemical symbol, NH_4O, $C_{14}H_5O_3=139$ or $\mathbf{NH_4C_7H_5O_2}$.

Prop.—Colourless laminar crystals, soluble in water and alcohol, and sublimed by heat; hydrochloric acid precipitates benzoic acid from the watery solution; ammonia is driven off when heated with caustic potash; persalts of iron throw down a bulky precipitate.

Oper.—Diuretic, stimulant.

Use.—Chronic inflammation of the bladder, when there is a tendency to phosphatic deposits.

Dose.—Gr.x. to gr.xx.

AMMŌNĬÆ CARBŌNAS. Ammoniæ Carbonas. Sesquicarbonate of Ammonia.

Comp.—Ammonia 40, carbonic acid 60=100 parts, or 3 eq. carb. acid = 66+2 ammonia 44: equiv. 110: but the quantity of acid varies according to the heat employed in the preparation. Chemical symbol, $2NH_4O,3CO_2$ or $\mathbf{N_4H_{16}C_3O_8}$.

Prop.—A colourless, transparent, striated, crystallised mass; odour and taste pungent and ammoniacal; turns turmeric brown; soluble in 4 pts. of water at 62°; insoluble in alcohol; effloresces in the air; sublimed by heat. Gives no precipitate with chloride of barium nor nitrate of silver, when dilute nitric acid is added in excess; 59 grs. are exactly neutralised by 1000 grain-measures of the volumetric solution of oxalic acid. 20 grains of the carbonate neutralise 23½ grains of citric acid and 25½ grains of tartaric acid.

Oper.—Stimulant, antacid, diaphoretic, antispasmodic, emetic.
Use.—In hysteria, dyspepsia, chronic rheumatism, typhus, atonic bronchitis; applied to the nostrils in syncope.
Incomp.—Mineral acids, alkalies and their carbonates, alum, chloride of calcium, bitrartras and bisulphas potassæ, salts of iron with exception of the potassio-tartrate, bichloride of mercury, salts of lead, sulphate of zinc.
Dose.—Gr.iij. to gr.v., and gr.xxx. as an emetic.

AMMŌNĬÆ OXĂLAS. Oxalate of Ammonia. (Appendix I.) (The solution of oxalic acid neutralised while hot by carbonate of ammonia.)
Comp.—$2NH_4O,C_4O_6$ or $(\mathbf{NH_4})_2\mathbf{C_2O_4}.\mathbf{H_2O}$.
Use.—To make the solution.

AMMŌNIÆ PHOSPHAS. Phosphate of Ammonia. (Crystals obtained by mixing a solution of phosphoric acid and ammonia.)
Comp.—$2NH_4O,HO,PO_5$ or $(\mathbf{NH_4})_2\mathbf{HPO_4}$.
Prop.—Effloresceing transparent crystals, soluble in water, insoluble in rectified spirit; evolves ammonia on being heated with caustic potash; nitrate of silver throws down a canary precipitate; acidulated with hydrochloric acid, it gives no reaction with sulphuretted hydrogen. If 20 grains dissolved in water be added to a solution of ammonio-sulphate of magnesia, a crystalline precipitate falls, which, after being washed with dilute liquor ammoniæ, dried and heated to redness, leaves 16·8 grains.
Oper.—Diuretic, with a special power of dissolving urate of soda.
Use.—In gouty cachexia, and where there is a tendency to the formation of uric acid in the urine.
Dose.—Gr.v. to gr.xx. freely diluted.

AMMONĬI BROMĬDUM. Bromide of Ammonium.
Comp.—NH_4Br or $\mathbf{NH_4Br}$.
Prop.—Crystals colourless, become yellow on exposure to air, taste pungently saline, sublimed unchanged by heat, soluble in water, less so in spirit. No blue colour is seen on dropping an aqueous solution of bromine or chlorine into an aqueous solution of the salt mixed with starch mucilage.
Oper.—Anæsthetic, alterative, resolvent.
Use.—To deaden the sensibility of the fauces and palate, and in some convulsive diseases, as pertussis.
Dose.—Gr.ij. to gr.x. It is prepared in a granulated form for effervescence, a drachm of which contains 2 grains of the salt.

AMMONĬI CHLORĬDUM. Chloride of Ammonium. Murias Ammoniæ. Hydrochlorate of Ammonia. Sal Ammoniac.
Comp.—NH_4Cl or $\mathbf{NH_4Cl}$. It may be formed by neutralising hydrochloric acid with ammonia and evaporating to dryness, but is usually prepared by sublimation.
Prop.—Inodorous, colourless: taste acrid, pungent, bitterish, urinous: 3 pts. of cold water dissolve 1 pt.; usually in the form of a hard, translucent, striated cake; soluble also in 4·5 pts. of alcohol. When heated with caustic potash its aqueous solution evolves ammonia, and forms with nitrate of silver a copious curdy precipitate. Volatilises without decomposition by heat and leaves no residue.
Oper.—Aperient, diuretic, alterative, emmenagogue, and sedative; externally to produce cold during its solution; stimulant.
Use.—In rheumatic neuralgia; seldom used internally; externally, while dissolving, to abate the heat and pain of inflammation: to allay headache: in lotion, composed of the salt unc.j. alcohol fl.unc.j. water fl.unc.ix. to indolent tumours, gangrene, scabies, and chilblains.

Dose.—Gr.v. to gr.xxx.
Incomp.—Sulphuric and nitric acids, acetate of lead, potassa, carbonates of soda and potassa, lime.
Off. Prep.—*Liquor Ammoniæ fortior.*

AMMONĬÆ HYDROSULPHURĔTUM. Hydrosulphuret of Ammonia. Hydrosulphate of Ammonia.
Comp.—Am,HS or NH_3HS or NH_4S. It is a solution of the neutral hydrosulphate of ammonia in water.
Prop.—Odour very fœtid; taste nauseous, styptic; dark, yellowish-green colour. It deposits sulphur on exposure to the air, in consequence of ammonia escaping; sulphuretted hydrogen gas is evolved on addition of any of the mineral acids.
Oper.—Sedative, nauseating, emetic, deoxygenising?
Use.—In diabetes, and diseases of increased excitement, but seldom prescribed; as a test in the same instances as hydrosulphuric acid.
Dose.—Min.ij. to min.iv. three or four times a day; larger doses produce vomiting.
Incomp.—All acids, and metallic solutions.

AMYGDĂLA AMĀRA. Bitter Almond. Amygdalus communis, var. Amara. (*Icosandria Monogynia.* N. O. *Rosaceæ, Jussieu. Mogadore.*)
Prop.—Broader and shorter than the sweet almond; taste bitter; and emitting a characteristic odour when moistened and rubbed.
Oper.—Sedative.
Use.—For preparing the *Ol. Amygdalæ.*

AMYGDĂLA DULCIS. Sweet Almonds. Amygdalus communis, var. *dulc.* (*Icosand. Monogyn.* N. O. *Rosaceæ, Jussieu.* Cultivated about Malaga. ♄)
Prop.—Taste soft and sweet; kernels flat, long, with a brownish powdery cuticle; yield by expression a sweet bland oil, used for emulsions.
Oper.—Demulcent.
Use.—In affections of the mucous membranes, especially the pulmonary and urinary; after the operation of lithotomy; and as a vehicle for more active remedies.
Off. Prep.—*Oleum Amygdalæ. Mistura Amygd. Pulv. Amygd. Comp.*

AMYGDĂLÆ OLEUM. See *Oleum Amygdalæ.*

AMŸLUM. Seminis fecula. Starch. (Triticum vulgare, Wheat. *Tri-and. Digynia.* N. O. *Gramineæ.* Europe. ☉)
Comp.—Amidin, oxygen, hydrogen, carbon ($C_{24}H_{20}O_{20}$).
Prop.—Inodorous, insipid; in white, friable, hexagonal columnar pieces, emitting a peculiar sound when pressed; insoluble in cold water and alcohol; forming, with boiling water, a strong, opaline, semi-transparent jelly.
Oper.—Demulcent.
Use.—In dysentery, tenesmus, and ulceration of the rectum, in the form of clyster; it is the common vehicle for exhibiting opium per anum.
Test.—Mixed with boiling water and cooled, a blue colour is apparent on addition of iodine.
Off. Prep.—*Glycerinum Amyli. Mucilago Amyli. Pulv. Tragacanthæ Comp.*

ANĒTHI FRUCTUS. Dill Fruit. (Anethum *Graveolens. Pentand. Digyn.* N. O. *Umbelliferæ.* (Cultivated in England and South of Europe. ☉)
Prop.—Seeds of a brown colour, oval, somewhat flattened, about a line and a half in length; convex on one side, concave on the other, with a pale membranous margin; odour aromatic, but not agreeable; taste aromatic and pungent.

Oper.—Stimulant, carminative.
Use.—In flatulent colic, and hiccough, particularly of infants.
Dose.—Gr.x. to lx.
Off. Prep.—*Aqua Anethi. Oleum Anethi.*

ANĒTHI OLĔUM. See *Oleum Anethi.*

*ANĬSUM. Anise. (*Pimpinella Anisum. Pentand. Digyn.* N. O. *Umbelliferæ* (*Apiaceæ*). ☉)
Prop.—Odour aromatic; taste sweetish, warm, grateful. Figure oblong-ovate.
Oper.—Carminative.
Use.—In dyspepsia, and the tormina of infants.
Dose.—Gr. x. to lx. bruised.
Off. Prep.—*Oleum Anisi.*

ANĬSI OLĔUM. See *Oleum Anisi.*

ANTHĔMĬDIS FLŌRES. Anthemidis nobilis flores. Chamomile Flowers. (Anthemis *Nobilis*, Common Chamomile. *Syngen. Polygamia Superfl.* N. O. *Compositæ.* (*Asteraceæ, Lindley.*) Indigenous. ♃)
Prop.—Odour powerful, flagrant, grateful; taste bitter, warm: these properties reside in the disc of the flower. The active properties depend on essential volatile oil, bitter extractive, and piperina.
Oper.—Tonic, stomachic; the warm effusion is emetic; externally discutient, emollient, antiperiodic.
Use.—In intermittents, dyspepsia, hysteria, flatulent colic, gout; to promote the operation of emetics; externally as fomentations in gripings, and to ripen suppurating tumours.
Dose.—In powder unc.ss. to unc.ij. twice a day.
Off. Prep.—*Extractum Anthemidis. Infusum Anthemidis. Oleum Anthemidis.*

ANTHĔMĬDIS OLĔUM. Vide *Oleum Anthemidis.*

ANTIMŌNII OXĬDUM. Oxide of Antimony. (*Liquoris Antimonii Chloridi* fl.unc.xvi.; *Sodæ Carbonatis* unc.vj.; *Aquæ* cong.ij.; *Aquæ Destillatæ* q.s. Pour the antimonial solution into the water, and having stirred the mixture well, set it by until the white precipitate which forms has subsided. Decant off the supernatant liquor. Agitate the sediment with a gallon of distilled water, and allow the whole to stand until the oxide has fallen to the bottom. To the precipitate now add the carbonate of soda, dissolved in 2 pints of distilled water, and leave them in contact for half an hour, stirring frequently; collect the deposit on a calico filter and wash with boiling distilled water, until the washings cease to give a precipitate with a solution of nitrate of silver, acidulated with nitric acid. Lastly, dry the product at a heat not exceeding 212°. Chemical symbol, SbO_3=146.)
Comp.—SbO_3 or Sb_2O_3.
Prop.—Greyish-white powder, fusible at a low red heat; insoluble in water, but readily dissolved by hydrochloric acid. The solution dropped into distilled water gives a white deposit, at once changed to orange by sulphuretted hydrogen. It dissolves entirely when boiled with an excess of acid tartrate of potash.
Oper.—Diaphoretic, expectorant, emetic.
Use.—In pyrexiæ; but seldom used except in the preparation of tartar emetic.
Dose.—Gr.j. to gr.iv.
Off. Prep.—*Antimonium Tartaratum. Pulvis Antimonialis.*

ANTIMŌNĬI CHLORĬDI LIQUOR. Terchloride of antimony (Terchloride of antimony, $SbCl_3$), dissolved in hydrochloric acid.

Prop.—A heavy liquid of a yellowish red colour. Sp. gr. 1·47. When dropped into water a white precipitate falls, and from the filtered solution there is a copious deposit on the addition of nitrate of silver. If the white precipitate formed by water be treated with sulphuretted hydrogen, it becomes orange-coloured. One drachm, mixed with a solution of a quarter of an ounce of tartaric acid in four ounces of water, gives an orange precipitate when treated with sulphuretted hydrogen, weighing when washed and dried at 212° at least 22 grains.
Oper.—Escharotic.
Use.—Externally to carcinomatous growths and poisoned wounds, and bites of serpents.
Off. Prep.—Used in the preparation of oxide of antimony.

ANTIMŌNIUM NIGRUM. Black Antimony. Prepared Sulphuret of Antimony. Native Sulphide of Antimony, purified from siliceous matter by fusion, and afterwards reduced to fine powder.
Comp.—SbS_3 or $\mathbf{Sb_2S_3}$=122+48=170.
Prop.—A greyish-black crystalline powder, almost entirely soluble in boiling hydrochloric acid with evolution of sulphuretted hydrogen.
Use.—In the preparation of Antimonium Sulphuratum, and Liquor Antimonii Chloridi.

ANTIMŌNIUM SULPHURĀTUM. Sulphurated Antimony. Antimonii Oxysulphuretum. Antimonii Sulphuretum aureum. Præcipitatum. Oxysulphuret of Antimony.
Comp.—Sulphide of antimony (SbS_3 or $\mathbf{Sb_2S_3}$), with a small and variable amount of oxide of antimony (SbO_3 or $\mathbf{Sb_2O_3}$).
Prop.—Powder of an orange colour, taste scarcely metalline and styptic; insoluble in cold water, but soluble in caustic soda, and also by hydrochloric acid.
Oper.—Emetic, diaphoretic, cathartic, according to the extent of the dose; alterative; used, now, only for forming Plummer's pill.
Use.—In chronic rheumatism and obstinate eruptions. Seldom ordered.
Dose.—Gr.j. to gr.v. twice or thrice a day in a pill.
Off. Prep.—*Pil. Hydrarg. Subchlor. Co.*
Test.—Totally soluble in hydrochloric acid, with the emission of fumes of hydrosulphuric acid, and the separation of a little sulphur. When boiled in water with acid tartrate of potash, an orange precipitate falls on addition of sulphuretted hydrogen. Sixty grains dissolved in hydrochloric acid and dropped into water give a white precipitate, which, when washed and dried, weighs 53 grains.

ANTIMONIUM TARTARĀTUM. Tartarated Antimony. Antimonii Potassio-Tartratis. Antimonium Tartarizatum. Emetic Tartar. (First form a paste by mixing 5 ounces of the oxide of antimony and 6 ounces of the acid tartrate of potash in fine powder with a little water, and let it remain for 24 hours; then having stirred well with what remains of the 2 pints of water first ordered, filter, and allow the clear filtrate to crystallise. In the process one eq. of oxide of antimony replaces the eq. of water in the acid tartrate.)
Comp.—Tartrate of antimony and potash. Chemical symbol, SbO_3KO, $C_8H_4O_{10}+2HO$ or $\mathbf{KSbC_4H_4O_7.H_2O}$.
Prop.—In colourless transparent crystals exhibiting triangular facets; but, as it effloresces, it appears generally as a white powder; taste styptic and metallic; fl.unc.j. of water at 60°, dissolves gr.25; at 212° gr.240. It should always be dissolved in distilled water to prove emetic. It is insoluble in alcohol. The solution in water is not affected by ferrocyanide of potassium. Neither chloride of barium

nor nitrate of silver gives a precipitate, or only what is soluble in water. A precipitate is given by nitric acid, but soluble in excess of acid. Hydrosulphuric acid throws down gr.49 of tersulphuret of antimony from a solution of gr.100 of this salt in water.

Oper.—Emetic, sometimes cathartic, diaphoretic, expectorant, alterative, contra-stimulant, rubefacient.

Use.—In the beginning of fever, to clear the stomach and bowels; but it is an improper emetic in advanced stages of typhus; in large doses in pneumonic inflammations as a contra-stimulant; and in small as an alterative in cutaneous diseases; externally in the chronic stage of internal inflammations, and in affections of the joints, &c.

Dose.—As the means of subduing inflammation gr.j. to gr.vj.; as an emetic, gr.j. to gr.iv. in solution; diaphoretic and expectorant, gr.$\frac{1}{8}$ to $\frac{1}{2}$. It is made into an ointment for external use, by rubbing up gr.cxx. with lard unc.j.

Incomp.—Alkalies and earths with their carbonates; strong acids; hydrosulphurets: lime-water, chloride of calcium, salts of lead; decoctions of bitter and astringent plants.

Off. Prep.—*Vinum Antimoniale. Ung. Antimonii Tartarati.*

Test.—Solubility complete in a moderate quantity of water. Hydrosulphuric acid, into which one or two of the crystals may be dropped, should form an orange colour on them. Neither chloride of barium nor nitrate of silver should cause a precipitate.

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

Test.—Free from odour, taste, and visible impurity.

AQUA ANĒTHI. Dill Water. (Properties, &c., the same as those of the seed.)

AQUA AURANTĬI FLŌRIS. Orange flower water. The distilled water of the flowers of the bitter orange tree, Citrus Bigaradia; and of the sweet orange, Citrus Aurantium—prepared mostly in France.

Use.—To flavour medicine, and to prepare Syrupus Aurantii Floris.

AQUA CAMPHŎRÆ. Camphor Water. Mistura Camphoræ. (Camphor broken in pieces, and enclosed in a muslin bag, and placed in water for two days.)

Comp.—Camphor gr.j. in 1000 gr. of water.

Oper.—The same as camphor, only in a weaker degree.

Use.—In faintings, typhus and nervous fevers, but seldom given alone.

Dose.—Fl.unc.ss. to fl.unc.ij., combined with cordial tinctures.

AQUA CARŬI. Caraway Water.

—— CHLORINĔI. Chlori Liquor. Chlorine Water.

Comp.—Chlorine and water.

Prep.—Odour suffocating; taste harsh, astringent; colour pale greenish yellow; sp. grav. 1·003; decomposed by light; destroys vegetable colours.

Oper.—Stimulant.

Use.—In scarlatina maligna. But noticed by the London College as a test of the presence of the salts of morphia.

Dose.—Fl.unc.j. to fl.unc.ij. in a small cupful of fluid.

AQUA CINNAMŌMI. Cinnamon Water. (*Should be milky.*)

—— DESTILLĀTA. Distilled Water. (Although this is very generally ordered in extemporaneous prescriptions, yet it is scarcely ever used; but it is nevertheless absolutely necessary when the following and many other articles are ordered; *Acidum Citricum, Argenti Nitras,*

Antimonium Tartaratum, Ferrum Tartaratum, Hydrargyrum Corrosivum Sublimatum, Liquor Ammoniæ, Liquor Plumbi subacetatis, Liquor Potassæ, Chloridum Barii, Plumbi Acetatis, Vinum Ferri, Zinci Sulphas, et præparationes variæ.) Chemical Symbol HO or H_2O.

Test.—An ounce evaporated in a clean glass capsule leaves scarcely any visible residue. It is not affected by sulphuretted hydrogen, oxalate of ammonia, nitrate of silver, chloride of barium, or solution of lime.

AQUA FŒNICULI. Fennel Water.

—— LAURŎ-CERĂSI. Laurel Water. (*Fresh common laurel leaves* lb.j.; *Water* Oijss. Let the leaves be chopped, crushed in a mortar, and macerate in water for 24 hours; then distil one pint of liquid. Shake the product, filter through paper, and preserve in a stoppered bottle.)

Prop.—Taste and odour resembling those of bitter almonds, and hydrocyanic acid.

Oper.—Sedative.

Use.—In spasmodic affections and dyspepsia.

Dose.—From min.v. to min.xxx.

AQUA MENTHÆ PIPERĪTÆ. Peppermint Water.

—— MENTHÆ VIRĬDIS. Mint Water.

—— PIMENTÆ. Pimenta Water.

—— ROSÆ. Rose Water.

—— SAMBŪCI. Elder Water.

These waters, which contain a small portion of the essential oil of the plants in solution, are used chiefly as vehicles for more active medicines; in doses of fl.unc.j. to fl.unc.iij.

ARGENTI NITRAS. Nitrate of silver.

Comp.—1 eq. of oxide of silver=116+1 eq. of nitric acid=54, equiv.=170; or 68·24 parts of oxide+31·76 of acid=100·00. (AgO,NO_5 or $AgNO_3$.)

Prop.—Taste styptic, austere, bitter; decomposes animal matter. In little cylindrical pieces of a dull-white colour; fracture radiated; reduced by light; soluble in an equal weight of water at 60°, also in alcohol. Solution of chloride of sodium throws down a white curdy precipitate (chloride of silver), which becomes black on exposure to a strong light. A small fragment heated on charcoal with the blowpipe melts, then deflagrates, leaving behind a dull white metallic coating. Ten grains dissolved in two drachms of distilled water give with hydrochloric acid a precipitate, which when washed and thoroughly dried weighs 8·44 grs. The filtrate when evaporated by a water-bath leaves no residue.

Oper.—Tonic, antispasmodic, escharotic.

Use.—In chorea and epilepsy; locally in ophthalmia, follicular affections of the throat, laryngitis, and to relieve strictures; to fungous ulcers, warts, and venereal chancres; gr.ij. in distilled water fl.unc.j. is a good injection in fistulous sores: and as an application to spongy gums. A solution of gr.xxx. in fl.unc.j. of distilled water, highly useful when pencilled over the surface in erysipelas. Solutions of gr.xx., gr.xl, or gr.lx. to the fl.unc.j. of distilled water have been recommended to be locally applied by means of a sponge on a curved whalebone rod in affections of the larynx; also in follicular disease of throat.

Dose.—Gr. ½. increased to gr.iv. in a pill, with a crumb of bread, three times a day; or in solution, increased to gr.iij. The dark colour communicated to the skin of some individuals is an objection to its

internal employment, but this may be prevented by the administration of diluted nitric acid.

Off. Prep.—*Argenti Oxidum.*

Incomp.—Sulphuric, hydrochloric, and arsenious acids and their salts; alkalies, except ammonia; lime; chlorides; sulphurets; astringent vegetable infusions and decoctions; aqueous solutions of salts of mercury, or of copper.

*ARGENTI NITRĀTIS CRYSTALLI. Crystals of Nitrate of Silver. (Used as a test for chlorine and soluble chlorides; also for hydrocyanic acid.) In colourless tabular crystals, the primary form of which is the right rhombic prism.

ARGENTI OXĬDUM. Oxide of Silver. (*Argenti Nitrat.* unc.ss.; *Liquor. Calcis* cong.iijss.; *Aquæ Destillatæ* fl.unc.x. Dissolve the nitrate in 4 ounces of water, and having poured the solution into a bottle containing lime-water, shake it well, and set it by till the sediment subsides. Then place it (the sediment) on a filter, and wash with the remainder of the water. Dry it at a heat not exceeding 212°.)

Comp.—1 eq. of silver = 108 + 1 of oxygen = 8 = 116. (AgO or Ag_2O.)

Prop.—Olive brown, becoming darker when dried, inodorous, and tasteless, insoluble in water, but soluble in ammonia and nitric acid, decomposed by heat and light. 29 grains heated to redness leave 27 grains of metallic silver. Sp. grav. 7·143.

Oper.—Tonic and astringent.

Use.—In menorrhagia, gastrodynia, and states of debility, as an application to the urethra in gonorrhœa.

Dose.—Gr.ss. to gr.ij. in pill; as an ointment dr.j. to unc.ij. of lard.

ARGENTUM. Silver: used only to prepare the nitrate. (Chemical symbol, Ag. Equiv. 108.)

ARGENTUM PURIFICATUM. Refined Silver.

Test.—If ammonia be added in excess to a solution of the metal in nitric acid, the resulting fluid is clear and colourless.

ARMORACĬÆ RADIX. Horse Radish Root. (Cochlearia *Armoracia*, Horse Radish. *Tetradynamia Siliculosa.* N.O. *Cruciferæ.* (*Brassicaceæ, Lindley.*) Indigenous. ♃)

Prop.—A long, cylindrical, fleshy root, half an inch to an inch in diameter, expanding at the crown into several very short stems; the section of the root is white; odour pungent; dependent on volatile oil ($C_8H_3NS_2$), identical with the oil of mustard: taste sweetish, biting, acrid; lost in drying.

Oper.—Stimulant, sudorific, diuretic.

Use.—In scorbutus, rheumatism, dropsy; and locally in hoarseness.

Dose.—Gr.xx. to gr.lx. Vide Infusion: of the following syrup a teaspoonful often, slowly swallowed in hoarseness. (℞ of the scraped root gr.lx., boiling water fl.unc.ij. sugar *q.s.* to the strained liquor.)

Off. Prep.—*Spir. Armor. Comp.*

ARNĬCÆ RADIX. Arnica Root. The dried rhizome and rootlets. (Arnica montana, *Syngenesia Polygamia superflua.* N.O. *Compositæ.* Mountainous parts of Europe. ♃)

Prop.—Rhizome from one to three inches long, and two to three lines thick, cylindrical, contorted, rough from the scars of the coriaceous leaves, and furnished with numerous long slender fibres; peculiar odour, exciting sneezing; active properties taken up by water; contains a volatile oil, a bitter principle identical with cytisin, and a vegetable alkaloid, resembling lobellina.

Oper.—Stimulant and irritant, supposed to affect the spinal chord.

Use.—As an external application in bruises and sprains.
Off. Prep.—*Tinctura Arnicæ.*

ARSENĬCI OXĬDUM ALBUM VENĀLE. Arsenicum Album. Acidum Arseniosum. Sublimed white arsenic. Arsenious acid.
Comp.—1 eq. arsenic = 75 + 3 oxygen = 24—equiv. = 99. (AsO_3 or $\mathbf{As_2O_3}$.)
Prop.—In white, semivitreous, brittle lumps; some transparent, others opaque; odour, when heated with charcoal, that of garlic; taste sweetish. When heated with charcoal in a close glass tube, it sublimes in brilliant metallic scales, by which it may be detected when suspected as the cause of death. Its solution reddens litmus; sp. grav. 3·7; 1000 parts of water at 212° dissolve 37 parts, and retain 18, when cold, of the transparent acid; 115 of the opaque, and retain 29. The solution combines with alkalies.
Oper.—Tonic, escharotic. The most virulent of the mineral poisons.
Use.—In intermittents, periodic headaches, and chronic rheumatisms. An application to cancerous sores, in lotion.
Dose.—In solution, vide *Liquor Arsenicalis*; gr. $\frac{1}{60}$ to gr. $\frac{1}{12}$ in a pill.
Off. Prep.—*Liq. Arsenicalis. Liq. Arsenici Hydrochloricus. Sodæ Arsenias.*

*ARSENĬCI ET HYDRARGŸRI HYDRIODĀTIS LIQUOR. D. Solution of Hydriodate of Arsenic and Mercury. (*Pure arsenic in fine powder* 6 grs.; *pure mercury* 16 grs.; *pure iodine* 50½ grs.; *alcohol* dr.ss.; *distilled water* unc.ix., *or a sufficient quantity.* Rub together the arsenic, mercury, iodine, and spirit, until a dry mass is obtained, and having triturated unc.viij. of the water with this in successive portions, let the whole be transferred to a flask, and heated until it begins to cool; when cool and filtered, let as much distilled water be added to it as will make the bulk of the solution exactly fl.unc.viij. and dr.vj.)
Prop.—Pale greenish-yellow; inodorous; taste styptic; dr.j. contains $\frac{1}{12}$ gr. of oxide of arsenic, $\frac{1}{4}$ of oxide of mercury, 5-7ths gr. of iodine in shape of hydriodic acid, in chemical combination.
Oper.—Stimulant, tonic, alterative.
Use.—Chronic cutaneous diseases, especially those of a scaly character, and occurring on the scalp.
Dose.—Min.x. to min.xxx. largely diluted with distilled water thrice a day, and as a lotion fl.dr.j. to fl.unc.j. of distilled water.
Incomp.—Acids; most salts; opium; and the salts of morphia.

ASSAFŒTĬDA. Assafœtida. (Narthex (*Ferula*) *Assafœtida. Pent-and. Digyn.* N. O. *Umbelliferæ.* (*Apiaceæ, Lindley.*) Affghanistan and the Punjaub. ♃)
Comp.—Gum 19·44, resin 65·0, essential oil 3·6, salts 11·66, parts in 99·7.
Prop.—In masses of a whitish or reddish and violet hue, adhering together: odour fœtid and alliaceous; taste bitter and subacrid; forms an emulsion with water; almost entirely soluble in rectified spirit.
Oper.—Antispasmodic, expectorant; emmenagogue; anthelmintic when injected into the rectum.
Use.—Hysteria, tympanitis, asthma, dyspnœa, pertussis, worms.
Dose.—In pill gr.v. to gr.xx.; in clyster gr.cxx. dissolved in water fl.unc.viij.
Off. Prep.—*Enema Assafœtidæ. Pil. Aloes et Assafœtidæ. Pil. Assafœtidæ Comp. Pil. Galbani Comp.* (P. L.) *Spir. Ammoniæ fœtidus. Tinct. Assafœtidæ.*

ATRŎPĬA. Atropia. An alkaloid, the active principle of the Atropa Belladonna. (34 eq. of carbon = 204; 23 eq. of hydrogen = 23; 6 eq. of oxygen = 48; 1 eq. nitrogen = 14 = 289 ($C_{34}H_{23}O_6N$ or $\mathbf{C_{17}H_{23}NO_3}$).

Prop.—White, transparent, acicular crystals of silky lustre, inodorous, nauseously bitter and acrid. Soluble in 500 parts of cold water, the solution having a bitter taste and an alkaline reaction; very soluble in alcohol and ether. Leaves no ash when burned with free access of air. Combines with acids to form salts. Terchloride of gold throws down a citron yellow precipitate from the aqueous solution. It is an active poison.

Oper.—Anodyne, sedative, narcotic, dilating pupil.

Use.—Principally in Germany in ophthalmic disease, but also by Mr. Wilde, of Dublin, to dilate pupil. (Atropia gr.j., dilute nitric acid min.j., rectified spirit min.iij., distilled water fl.dr.j.) Stronger solutions, containing gr.ij. to gr.iij. respectively, are also used. Not to be used internally.

ATROPĬÆ SULPHAS. Sulphate of Atropia. (*Atropiæ* gr.cxx.; *Aquæ Destillatæ* fl.dr.iv.; *Acidi Sulphurici Diluti* q.s. Add the acid gradually to the atropia mixed with the water, until the solution is complete but neutral. Evaporate to dryness at a temperature not exceeding 100°.)

Prop.—A colourless powder, soluble in water; the solution being neutral and acting on the pupil as atropia. It leaves no ash when burned with free access of air.

Oper.—Anodyne, sedative, narcotic, dilating the pupil. Less irritating than the uncombined alkaloid.

Use.—In the preparation of the Liquor Atropiæ Sulphatis.

AURANTĬI FLORIS AQUA. Orange flower water.

Use.—As a vehicle for other substances.

AURANTĬI CORTEX. AURANTĬI FLŌRES. The dried outer part of the rind of the bitter-orange (Citrus Bigaradia), and the flowers of the bitter and also of the sweet-orange tree. (Citrus *Aurantium. Polyadelphia, Polyandria.* N. O. *Aurantiaceæ.* South of Europe. ♄)

Prop.—Juice gratefully acid; rind aromatic, bitter; unripe fruit more bitter, but less aromatic: flowers agreeably odorous.

Oper.—Juice refrigerant, antiseptic; the rind and immature fruit, tonic, carminative.

Use.—The juice, in febrile, inflammatory complaints, and scurvy, as a beverage; the rind and immature fruit in dyspepsia, particularly that of drunkards; the latter is also used in issues; and the juice as a lotion, and the pulp as a poultice to fœtid sores.

Dose.—Juice ad libitum: of the rind, &c., vide Off. Preparations.

Off. Prep.—Of the rind:—*Infusum Aurantii. Inf. Aurantii Comp. Infus. Gentianæ Comp. Mistura Gentianæ Comp. Tinct. Aurantii. T. Cinchonæ Comp. Tinct. Gentianæ Comp. Spiritus Armoraciæ Comp.* Of the flowers:—*Aqua Floris Aurantii. Syrupus Aurantii Floris.*

AURUM. Gold. (Appendix I.) (Eq. 196·5. Chemical symbol, Au. Employed in chemical analysis.)

Oper.—Similar to that of mercury.

Use.—In venereal and scrofulous affections; also in form of gold-leaf to stop teeth.

Dose.—Gr.$\frac{1}{4}$ to gr.j.; peroxide gr.$\frac{1}{10}$ and upwards; terchloride gr.$\frac{1}{20}$; the latter very poisonous, and similar in operation to corrosive sublimate.

Off. Prep.—*Liquor Auri Chloridi* (*App.* II.).

AXUNGIA. See *Adeps.*

BALSĂMUM CANĂDENSE. See *Terebinthina Canadensis.*

BALSĂMUM PERUVIĀNUM. Myroxyli Peruviani Balsamum. Peruvian Balsam. (Myrospermum of Sonsonate. *Decand. Monogyn.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley.*) It exudes from the trunk of the tree after the bark has been scorched and removed. Salvador in Central America. ♄)

Comp.—Benzoic acid, resin, volatile oil, styracene or metacinnamene ($C_{36}H_{18}O_4$ or $\mathbf{C_{18}H_{16}O_2}$); styroine or Peruvine ($HO,C_{18}H_9O_4$ or $\mathbf{H_2O,C_9H_9O_2}$).

Prop.—Odour fragrant and aromatic, taste hot and bitter, consistence that of honey, colour reddish-brown, soluble in 5 parts of rectified spirit, miscible in water by means of mucilage.

Oper.—Stimulant, tonic, expectorant.

Use.—In palsy; chronic asthma, bronchitis, and rheumatism; gleet; leucorrhœa; and externally for cleansing and stimulating foul, indolent ulcers; fl.dr.j. with fellis Bovini gr.clxxx., forms a mixture which is dropped into the ear in cases of a fœtid discharge from that organ, every day after syringing with a solution of mild soap.

Dose.—Gr.x. to gr.xxx. twice or thrice a day, made into an emulsion with mucilage of gum.

BALSĂMUM TOLUTĀNUM. Tolu Balsam. (It exudes from the trunk of the Myroxylon Toluifera after incisions have been made into the bark. New Granada.)

Comp.—The same as that of balsam of Peru.

Prop.—Odour very fragrant; taste warm, sweetish, communicated to boiling water, soluble in rectified spirit: colour reddish-yellow.

Oper.—Stimulant, expectorant.

Use.—In chronic coughs: but principally used on account of its flavour.

Dose.—Gr.x. to gr.xxx., triturated with mucilage.

Cff. Prep.—*Syrupus Tolutanus. Tinct. Benzoini Comp. Tinct. Tolutana.*

BARĬI CHLORĬDI LIQUOR. Solutio Barytæ Muriatis. Solution of Chloride of Barium. (Appendix II.) (*Barii Chloridi* unc.j.; *Aquæ Destillatæ* unc.x. Dissolve the salt in the water, and filter through paper. Sp. grav. 1·088.)

Use.—As a test for detecting sulphuric acid and the sulphates.

BARĬI CHLORĬDUM. Murias Barytæ. Chloride of Barium from the Carbonate. (Appendix II.)

Comp.—1 eq. Barium = 68·5 + 1 eq. Chlorine = 35·5 + 2 eq. water = 18 = 122. ($BaCl,2HO$ or $\mathbf{BaCl_2,2H_2O}$.)

Prop.—Inodorous; taste bitter, disagreeable; crystals colourless, permanent tables; soluble in three parts of water at 60°, scarcely at all in alcohol; 95 grs. in solution, acidulated with nitric acid, are not wholly precipitated by 49 grs. of sulphate of magnesia.

Use.—For making the solution.

BAROSMA CRENĀTA. See *Buchu.*

BEBERIÆ SULPHAS. Sulphate of Beberia. The sulphate of an alkaloid prepared from Nectandra Bebeeru Bark. The sulphate is prepared by the action of dilute sulphuric acid on the bebeeru bark; milk of lime is then added to separate the colouring and other matters. Ammonia is then added, and the precipitate collected and dried, and treated with dilute sulphuric acid. It is then evaporated to dryness, and the sulphate of beberia dissolved out by cold water.

Comp.—1 eq. of beberia, 1 eq. of water, and 1 eq. of sulphuric acid. Chemical symbol $C_{35}H_{20}NO_6,HO,SO_3$ or $\mathbf{C_{35}H_{40}N_2O_6.H_2SO_4}$.

Prop.—In dark brown thin translucent scales, yellow when in powder,

inodorous, with a strong astringent taste; soluble in water slightly acidulated with sulphuric acid, and alcohol; the aqueous solution gives a white precipitate with chloride of barium, with caustic soda a yellowish-white precipitate, soluble by agitation in double its volume of ether. Entirely destroyed by heat.

Oper.—Tonic, antiperiodic, antispasmodic.

Use.—In neuralgia, debility, and periodic affections.

Dose.—Gr.j. to gr.v. three times a day.

BELÆ FRUCTUS. Bael fruit. Bael. Half-ripe fruit, dried. Ægle Marmelos. (*Polyandria Monogynia.* N. O. *Aurantiaceæ.* Malabar and Coromandel.)

Comp.—An astringent principle, more or less allied to tannic acid.

Prop.—Fruit roundish, about the size of a large orange, with hard woody rind; usually imported in dried slices, or in fragments consisting of portions of the rind and adherent dried pulp and seeds. Rind about a line and a half thick, covered with small pale-brown or greyish epidermis, and internally, as well as the dried pulp, brownish orange or cherry-red. The moistened pulp is mucilaginous.

Oper.—Astringent, and in some degree sedative to the intestinal mucous membrane.

Use.—In dysentery and diarrhœa, and atonic conditions of the intestinal mucous membrane.

Dose.—See *Extractum Belæ liquidum.*

BELLADONNÆ FOLIA. RADIX. The fresh Leaves and Root of Deadly Nightshade. (Atropa *Belladonna. Pentand. Monogyn.* N. O. *Solanaceæ.* Indigenous, and imported from Germany. ♃)

Comp.—Albumen, salts of potash, and a narcotic principle, which is an alkali that has been named *Atropia*, discovered by Messrs. *Meissner* and *Brandes* in Germany: its crystals are acicular, white, shining, tasteless, and scarcely soluble in water.

Prop.—Odour slightly narcotic, taste subacrid, bitter, nauseous; does not lose its activity by drying.

Oper.—Powerfully narcotic, diaphoretic, diuretic, repellent; causes dilatation of pupil.

Use.—In obstinate intermittents, neuralgia, spasmodic affections, tic douloureux, palsy, epilepsy, pertussis, and the cachexiæ; amaurosis; dysmenorrhœa, fever with contracted pupil;—sprinkling the powdered leaves over cancerous sores has been found to allay the pain: and the leaves form a good poultice. The root is used for the same purpose as the leaves.

Dose.—Gr.$\frac{1}{8}$ gradually increased to gr.ij. or iij. daily; or fl.unc.ij. of this infusion. ℞ of the leaves gr.xx. hot water fl.unc.x., strained cold.

Off. Prep.—From the leaves:—*Extractum Belladonnæ. Tinctura Belladonnæ.* From the root:—*Atropia. Linimentum Belladonnæ. Ext. Belladonnæ. Emplastrum Belladonnæ. Tinct. Belladonnæ. Ung. Belladonnæ.*

In poisoning with Belladonna, stimulating emetics, followed by active cathartics, should be employed with cold applications to the head; and if coma be present, ammonia and external stimulants. After the stomach has been freely evacuated, the deleterious effects are best counteracted by vinegar.

BENZOĪNUM. Benzoin. (Styrax *Benzoin, Decandria Monogynia.* N. O. *Styracaceæ, Lindley.* A balsamic resin procured by making incisions into the bark of the tree. Imported from Siam and Sumatra. ♄)

Comp.—Benzoic acid 19·8, resin 80·7.
Prop.—Odour fragrant, taste slightly aromatic; in masses composed of white and brown pieces; volatile; soluble in alcohol and æther, and liquor potassæ.
Use.—Principally for obtaining the acid it contains.
Incomp.—Alkalies, acids :—and so with all the balsams.
Off. Prep.—*Acidum Benzoicum. Adeps Benzoatus. Tinct. Benzoini Comp.*

BISMŪTHI CARBŌNAS. Carbonate of Bismuth. (*Bismuthi purificati* unc.ij.; *Acidi Nitrici* fl.unc.iv.; *Ammoniæ Carbonatis* unc.vj.; *Aquæ destillatæ quant. suff.* Dissolve the bismuth in the acid, heat the solution, and then having evaporated it, add it gradually to a cold filtered solution of the carbonate of ammonia. Collect the precipitate and dry it at a temperature not exceeding 150°.)
Comp.—$2(BiO_3,CO_2),HO$ or $2(\mathbf{Bi_2CO_3}).\mathbf{H_2O}$.
Prop.—A white powder, blackened by sulphuretted hydrogen, insoluble in water, effervesces with nitric acid. When added to sulphuric acid coloured with sulphate of indigo, the colour of the latter is not discharged. The solution in nitric acid gives no precipitate with diluted sulphuric acid, or with solution of nitrate of silver.
Oper.—Sedative, tonic.
Use.—In dyspepsia attended with cardialgia. Pyrosis. Colliquative diarrhœa of phthisis. More soluble, and more easily borne by the stomach than the nitrate.
Dose.—Gr.v. to gr.xx.

BISMŪTHI SUBNĪTRAS. Subnitrate of Bismuth. Bismuthum Album (1864). Bismuthi Nitras, Lond. Nitrate of Bismuth. White Bismuth. (℞ *Bismuthi* unc.ij.; *Acidi Nitrici* unc.iv.; *Aquæ destillatæ* quant. suff. Mix the water with the acid, add the bismuth, and, effervescence having ceased, apply for 10 minutes heat approaching ebullition. Then add the rest of the water and strain; set aside the mixture till the powder subsides. Wash it with distilled water, and dry at a temperature not exceeding 150°.)
Comp.—18·36 pts. of nitric acid + 81·64 of oxide of bismuth = 100·00: or 1 eq. oxide = 234 + 1 eq. acid = 54, equiv. 288. ($BiO_3NO_5.2HO$ or $\mathbf{BiNO_4.H_2O}$.)
Prop.—A white, inodorous, tasteless powder; insoluble in water, soluble in nitric acid without effervescence.
Oper.—Tonic, antispasmodic.
Use.—In dyspepsia attended with cardialgia. Colliquative diarrhœa of phthisis.
Dose.—From gr.v. to gr.xv.
Off. Prep.—Trochisci.

BISMŪTHUM. Bismuth. (Chemical symbol, Bi or **Bi**. Eq. 210.)
Prop.—In spicular plates of a reddish-white colour, considerable lustre, pulverisable, moderately hard; sp. grav. 9·8; fusible at 400° Fah.; volatile in a high temperature. It has a sensible odour and taste.
Use.—For preparing the Bismuthum Purificatum.

BISMŪTHUM PURĪFICĀTUM. Purified Bismuth. (*Bismuthi* unc.x.; *Potassæ nitratis contritæ* unc.ij. Fuse the salt and metal together, and remove the former, which forms a slag at the top. This being removed, fuse the metal, and pour into suitable moulds.
Use.—In the preparation of the Carbonate and Subnitrate, the Liquor Bismuthi et Ammoniæ Citratis, and the Trochisci Bismuthi.

BORAX. Sodæ Biboras. A native salt; it is also made by neutralising boracic acid with carbonate of soda. A Biborate.

Comp.—2 eq. of boracic acid=70+1 of soda, 31+10 water=90=equiv. =191. ($NaO,2BO_3,10HO$ or $Na_2B_4O_7.10H_2O$.)

Prop.—Inodorous, taste cooling, slightly efflorescent, in transparent colourless crystals, insoluble in rectified spirit, soluble in water. A concentrated solution treated with sulphuric acid deposits scaly colourless crystals of boracic acid, the solution of which in alcohol burns with a green flame. 191grs. dissolved in 10 ounces of distilled water require for saturation 1000 grain-measures of the volumetric solution of oxalic acid.

Oper.—Antacid, diuretic, detergent, emmenagogue.

Use.—In aphthous affections, it is administered internally; and also in gastric irritation. As a gargle in aphthæ, and in salivation. As a diuretic in cases of lithic acid calculus.

Dose.—Gr.v. to gr.xxx. or unc.j. to fl.unc.v. of water as a lotion or gargle.

Off. Prep.—*Glycerinum Boracis. Mel Boracis.*

BROMUM. Eq. 80. Chemical symbol, Br. or **Br.**

Prep.—Prepared from bittern.

Prop.—A liquid, by reflected light dark brownish-red, by transmitted hyacinth-red; odour and taste acrid; volatile; sp. gr. 2·966.

Use.—Test solution.

Off. Prep.—*Ammonii Bromidum. Potassii Bromidum.*

BUCHU FOLĬA. Buchu. Dried leaves of the Barosma betulina, crenulata, and serratifolia. (*Pentandria, Monogyn.* N.O. *Rutaceæ.* Cape of Good Hope. ♃)

Prop.—Taste warm and camphoraceous; odour aromatic. The dried leaves are stiff, of a yellow olive hue on the upper disc, pale and rugose on the lower; studded with glands.

Comp.—Volatile oil and bitter extractive matter.

Oper.—Sudorific, tonic, diuretic.

Use.—In rheumatism, gout, and catarrhal affections, especially of the mucous membrane of urinary bladder.

Off. Prep.—*Infus. Buchu. Tinct. Buchu.*

CADMĬI IODĬDUM. Iodide of Cadmium. Formed by the direct combination of iodine and cadmium.

Comp.—CdI or CdI_2, eq. 56+127=183, or 112+254=366.

Prop.—White, flat, micaceous crystals, of a pearly lustre, which at about 600° melt, forming an amber-coloured fluid; but at a dull red heat emit violet vapours. Soluble in water and rectified spirit; the solution reddens litmus paper. Sulphuretted hydrogen throws down a yellow precipitate. 10 grs. dissolved in water, and nitrate of silver added in excess, give a precipitate, which, when washed with water, and afterwards with liq. ammoniæ, and dried, weighs 12·5 grains.

Oper.—Alterative, resolvent, resembling the iodide of lead, but not causing any stains on the skin.

Use.—In the preparation of the ointment.

Off. Prep.—*Unguentum Cadmii Iodidi.*

CAJUPŪTUM. Cajupuli Oleum. Cajeputum. Cajeput Oil. (Melaleuca *Minor. Polyadel. Icosand.* N.O. *Myrtaceæ.* Batavia and Singapore. ♄)

Comp.—10 eq. of carbon=60, 9 eq. hydrogen=9, 1 eq. oxygen=8=77. ($C_{10}H_8+HO$.)

Prop.—Odour strong, fragrant, somewhat like camphor; taste pungent, aromatic; limpid, colour green, when rectified colourless. Sp. gr. 0·914.

Oper.—Stimulant, antispasmodic, diaphoretic.

Use.—In hysteria, tympanitis, palsy of the tongue; and externally as an embrocation in rheumatism, gout, and to weak joints after luxations. Like other strong volatile oils, it relieves tooth-ache when applied to the decayed tooth.

Dose.—Min.j. to min.v. on a lump of sugar, as an oleo-saccharum.

Off. Prep.—*Linimentum Crotonis. Spir. Cajuputi.*

CALCĬI CHLORĬDUM. Chloride of Calcium. Formed by neutralising hydrochloric acid with carbonate of lime.

Comp.—CaCl or $\mathbf{CaCl_2}$. Equiv. 20+35·5=55·5 or 40+71=111.

Prop.—In white agglutinated masses, dry, but very deliquescent; evolves no chlorine or hydrochlorous acid on addition of hydrochloric acid; soluble in twice its weight of water, also in alcohol. No precipitate with Liquor Calcis.

Oper.—Resolvent, alterative.

Use.—In fibrous tumours of uterus, glandular and scrophulous affections.

Dose.—Gr.x. to gr. xx.

CALCIS CARBŌNAS PRÆCIPITĀTA. Precipitated Carbonate of Lime. (This is a very pure carbonate of lime, precipitated from solution of Chloride of Calcium by Carbonas Sodæ, and is fitter for internal use than the common prepared chalk.)

Dose.—Gr.x. to gr.lx.

Off. Prep.—*Hydrargyrum cum Cretâ. Pulv. Cretæ Aromaticus Mistura Cretæ. Trochisci Bismuthi.*

CALCIS CHLORĬDI LIQUOR. See *Liquor Calcis Chloridi.*

CALCIS HYDRAS. Slaked Lime. (Recently prepared lime slaked with water.)

Use.—To make Liq. Calcis and Liq. Calcis Saccharatis, and in the preparation of the caustic alkalies.

CALCIS PHOSPHAS. Phosphate of Lime. (Take of bone-ash unc.iv., hydrochloric acid fl.unc.vj., distilled water Oij., solution of ammonia fl.unc.xij., or as much as may be sufficient.)

Comp.—3CaO,PO or $\mathbf{Ca_3P_2O_8}$=Equiv. 84+71=155 or 120+62+128=310.

Oper.—Antacid.

Use.—Rickets.

Dose.—Gr.x. to gr.xx.

Off. Prep.—*Pulv. Antimonialis.*

CALOMĔLAS. Calomel. Subchloride of Mercury. Prepared by trituration of mercury with sulphate of mercury, and then with the chloride of sodium. The whole to be sublimed, washed, and dried at a temperature not exceeding 212°.

Comp.—2 eq. of mercury=200 and 1 eq. of chlorine=35·5=235·5. Chemical symbol, Hg_2Cl or $\mathbf{HgCl}$.

Prop.—Inodorous, nearly insipid; requiring 1152 parts of water at 212° for its solution; formed in a compact, hard, shining, striated cake, which by pulverisation and levigation is reduced to an impalpable, ivory-coloured powder: sp. grav. 7·14. Sublimes without a residuum: not soluble in æther. Becomes black on the addition of potash, and by heat is resolved into globules of mercury. Nitrate of silver, lime-water, or hydrosulphuric acid, when added to water in which it has been washed or boiled, gives no precipitate. Contact with hydrocyanic acid darkens its colour.

Oper.—Antisyphilitic, alterative; in larger doses purgative.

Use.—As an alterative and specific in various phases of syphilis; as a purgative, generally combined with other remedies, in constipation,

dyspepsia, hepatic, and cerebral diseases; as an alterative in diseases of children; also in the various stages of the phlegmasiæ, more especially when the serous membranes or the substance of internal organs are the seat of disease, when it is usefully combined with ipecacuanha or antimony, and opium; in dropsies, excepting such as occur in morbus Brightii, with squills, elaterium, &c.; in rheumatism and cutaneous diseases, with antimonials, guaiacum, and other sudorifics. From its action on the glandular system, it aids the operation of other remedies.

Dose.—Gr.ss. to ij. twice or thrice a day in a pill—if it do not purge, it gradually excites ptyalism; gr.iij. to gr.x. purge. Children bear comparatively larger doses than adults.

Incomp.—Nitric and hydrochloric acids, alkalies and their carbonates, lime-water, soaps, sulphurets, iron, lead, copper. The bicarbonates of the alkalies do not decompose it.

Off. Prep.—*Lotio Hydrargyri nigra. Pil. Hydrargyri Subchlor. comp. Ung. Hydrargyri Subchloridi.*

CALŪMBÆ RADIX. Calumba Root. The root cut transversely and dried,—of the Jateorrhiza Calumba. (Cocculus *Palmatus*. Eastern Africa, between Ibo and Zambezi. *Diœcia, Hexand.* N. O. *Menispermaceæ*. Africa. ♄)

Comp.—A non-nitrogenised crystallisable principle called *Calumbin* ($C_{42}H_{22}O_{14}$), slightly soluble in water or proof spirit, an acid *Calumbic* ($C_{42}H_{21}O_{14}$), and an alkaloid *Berberia* ($C_{42}H_{17}NO_8$), the salts of which are soluble, and colour the root.

Prop.—Odour slightly aromatic, taste an unpleasant bitter; in circular flat pieces, bark of the sections thick, dark, olive; central part yellowish. Water at 212° takes up one-third of the weight of the root. Alcohol also extracts its virtues. A decoction when cold is blackened by solution of iodine.

Oper.—Tonic, antiseptic.

Use.—In bilious vomitings, and those attendant on pregnancy, dyspepsia, and cholera; in the mesenteric fever of infants, we have found the following powder, aided by daily long-continued frictions of the abdomen with soap liniment, of great efficacy. ℞ Potassæ Sulphatis gr.x.; Pulv. Calumbæ gr.vj.; P. Rhei Rad. gr.iij.; Misce: bis, terve quotidie sumend.

Dose.—Gr.x. to gr.xx. twice or thrice a day.

Incomp.—Salts of lead; infusion of galls; lime-water and corrosive sublimate. Not affected by preparations of iron.

Off. Prep.—*Infusum Calumbæ. Tinct. Calumbæ.*

CALX. *Recens usta.* Lime, or Quick Lime. (*From marble or native carbonate of Lime.*)

Comp.—1 eq. of calcium=20+1 oxygen=8, eq. 28. CaO (or **CaO**, new equiv. 40+16=56).

Prop.—White, pulverulent; taste burning, urinous; sonorous; decomposes animal matter; spec. grav. 2·3; difficult of fusion; dissolves in hydrochloric acid without effervescence: solution does not precipitate ammonia.

Oper.—Escharotic; but not now used.

Off. Prep.—*Calcis hydras.*

CALX CHLŎRĀTA. Chlorinated Lime. (*Calcis hydratis* lb.j.; *Chlori quantum satis sit.* Pass the chlorine through the lime spread in a proper vessel until it is saturated.)

Comp.—Hypochlorite of lime (CaO,ClO) with chloride of calcium and a variable amount of hydrate of lime.

Prop.—White, with the odour of chlorine.
Use.—As a disinfecting agent.
Off. Prep.—*Liq. Calcis Chloratæ. Vapor Chlori.*

CAMBOGĬA. Gamboge. (A gum resin, obtained from Garcinia Morella, var. pedicellata, imported from Siam. *Diœcia Monadelphia.* N. O. *Guttiferæ.*)
Comp.—Gum, resembling cherry-tree gum, and nearly insipid, and about 70 per cent. of resin, or gambogic acid. ($C_{40}H_{23}O_8$.)
Prop.—In cylindrical pieces, breaking easily, with a smooth conchoidal glistening fracture; colour tawny, changing to yellow when it is rubbed with water; inodorous, taste acrid. An emulsion made with boiling water does not become green with a solution of iodine.
Oper.—Cathartic (*drastic*), emetic, hydragogue, anthelmintic.
Use.—In visceral obstructions and dropsy; in tape-worm, conjoined with carbonate of potassa.
Dose.—Gr.ij. to iv. in powder joined with calomel, squill, &c.
Off. Prep.—*Pilulæ Gambogiæ Comp.*

CAMPHŎRA. Camphor. (Concrete volatile oil, obtained from wood by sublimation. Laurus *Camphora*, Camphora *officinarum*, *Enneandria Monogyn.* N. O. *Lauraceæ.* ♄)
Comp.—Carbon 78·02 + hydrogen 10·39 + oxygen 11·59 (*Dumas*). Carbon 10 eq., oxygen 1 eq., hydrogen 1 eq. ($C_{10}H_8O$); an oxide of camphogen ($C_{10}H_8$, or $\mathbf{C_5H_8}$).
Prop.—Odour strong, peculiar, fragrant; taste bitterish, aromatic, accompanied with the sensation of cold; volatile, white, semi-pellucid, brittle, yet not easily pulverised, except by the addition of a few drops of spirit; texture crystalline; soluble in alcohol, æther, oils, vinegar, and, in a very small degree, in water: lighter than water.
Oper.—Diffusible, stimulant. Narcotic, diaphoretic, sedative; externally anodyne.
Use.—In typhus, cynanche maligna, confluent small-pox, and other exanthemata of the typhoid type; in atonic gout, and as an adjunct to bark and opium in checking gangrene. Combined with hyoscyamus it gives great relief in dysmenorrhœa and affection of the urinary organs. It produces its narcotic and sedative effects with very little increase of pulse, and therefore may be used in mania, pneumonia, and other inflammatory complaints, united with nitre and antimonials. Externally it allays the pains of rheumatism, and other deep-seated inflammations, when dissolved in oil.
Dose.—Gr.iij. to gr.x. in powder, with sugar, &c.; in pills; or in mixture with mucilage, or almond confection. The effects of an overdose are counteracted by opium. For external application it is dissolved in oil or alcohol.
Off. Prep.—*Aqua Camphoræ. Lin. Belladonnæ. Linimentum Camphoræ. Lin. Camphoræ comp. Lin. Chloroformi. Lin. Hydrargyri. Lin. Iodi. Lin. Opii. Lin. Saponis. Lin. Sinapis comp. Lin. Terebinthinæ. Lin. Terebinthinæ Aceticum. Spir. Camphoræ. Tinct. Camphoræ comp. Ung. Hydrargyr. comp. Ung. Plumbi Subacet. comp.*

CANELLÆ ALBÆ CORTEX. Canella Alba Bark. *Canella Alba. Dodecand. Monogynia.* N. O. *Meliaceæ.* (*Canellaceæ, Lindley.*) West Indies. ♄)
Prop.—In quills or broken pieces, hard, of a yellowish-white or pale orange colour, somewhat lighter on the internal surface. It has an aromatic clove-like odour, and an acrid peppery taste. Virtues partially extracted by water, entirely by alcohol.

Oper.—Aromatic, tonic, stomachic.
Use.—In atonic dyspepsia, and generally as an aromatic addition to bitter tonics and cathartics. It enters into the composition of Hiera Picra (sacred bitter) in the United States Pharmacopœia.
Dose.—Gr.x. to gr.xxx. in powder; in infusion fl.unc.jss.
Off. Prep.—*Vinum Rhei.*

CANNĂBIS INDĬCA. Indian Hemp. The dried tops of the female plant. (*Cannabis Sativa, Diœcia Pentand.* N. O. *Urticaceæ.* (*Cannabinaceæ, Lindley.*) India.)
Prop.—Gunjah is sold in bundles about 2 feet long and 3 in. in diameter; it consists of the stems with the leaves of the plant, the remains of the flowers, and a few ripe fruits, accreted together by the resinous exudation.
Comp.—Cannabin, volatile oil, resin.
Oper.—Narcotic, antispasmodic, anodyne. Resembling the solanaceous plants, it in small doses excites the mental powers; and in larger causes delirium. It does not dilate the pupil.
Use.—Neuralgia, spasmodic coughs, as pertussis and asthmas, dysmenorrhœa, tetanus, hydrophia, chorea, chronic rheumatism. Administered in the form of tincture or extract, a little ammonia causes it to be held in solution.
Off. Prep.—*Tinct. Cannabis Indicæ. Extractum Cannabis Indicæ.*

CANTHĂRIS. Cantharis Vesicatoria. The Blistering Fly. (Cantharis *Vesicatoria, Insecta, Coleoptera.* Russia, Sicily, and Hungary.) *Cantharis.*
Comp.—Cantharidin ($C_{10}H_6O_4$) about 4 per cent., green oil, black insoluble matter, yellow viscid matter, fat, phosphates of lime and magnesia, uric acid.
Prop.—Odour fœtid; taste slightly acrid; body oblong, green-gold, and shining, from 8 to 10 lines long; antennæ filiform, black. They retain their acrimony for many years, if kept dry.
Oper.—Stimulant, diuretic, rubefacient, vesicant; both their internal use and their external application are apt to produce strangury: active properties depend on the cantharidin.
Use.—Internally in dropsies, obstinate gleet, and leucorrhœa: retention of urine, owing to want of action in the bladder, and an incontinence of urine from debility of the bladder; lepra; but their internal use requires caution. For their external use see officinal preparations.
Dose.—Gr.$\frac{1}{2}$ to gr.j. in a pill, with opium, or the extract of henbane and camphor, twice a day.
Off. Prep.—*Acetum Cantharidis. Charta Epispastica. Emplastrum Calefaciens. Emplast. Cantharidis. Liquor Epispasticus. Tinct. Cantharidis. Ung. Cantharidis.*

CAPSĬCI FRUCTUS. Capsicum *Fastigiatum.* Capsicum Fruit, dried and ripe. (Capsicum. *Pentand. Monogyn.* N. O. *Solanaceæ.* Imported from Zanzibar, and distinguished in commerce as Guinea and pod pepper. ☉)
Comp.—A volatile oil *capsicin*, and an acrid soft resin.
Prop.—Pod membranous, from 5 to 8 lines long, 2 lines broad, straight, conical pointed, smooth shining, but somewhat corrugated, orange red; odour aromatic, pungent; taste very biting, hot, aromatic; its active matter is yielded to æther, alcohol, and water.
Oper.—Stimulant, rubefacient.
Use.—In atonic gout, the flatulence of dyspepsia, lethargy. Its solution (*Capsici pulv.* gr.lx.; *Sodii Chlor.* gr.xx.; *Aceti* fl.dr.iv.; *Aquæ fervent*is

fl.unc.vj. *Cola* forms the best gargle in cynanche maligna and scarlatina. Cataplasms of it are used in coma and the delirium of typhus.
Dose.—Gr.½. to gr.j. in pills. Usually administered in form of tincture.
Incomp.—Nitrate of silver, bichloride of mercury, acetates of lead, sulphates of iron, zinc, and copper, and the carbonates of alkalies.
Off. Prep.—*Tinctura Capsici.*

CARBO ANIMĀLIS. Animal Charcoal. Bone-black. (The residue of bones which have been exposed to a red heat without the access of air. Consists principally of charcoal and phosphate and carbonate of lime.)
Use.—In the preparation of Carbo Animalis Purificatus.

CARBO ANIMĀLIS PURIFICĀTUS. Purified Animal Charcoal. (Bone-black deprived of its earthy salts by means of hydrochloric acid.)
Prop.—Inodorous and tasteless, absorbs gases and odours.
Oper.—Antiseptic, antacid, antidotal.
Use.—In flatulent eructations; to correct fœtid breadth, also as an antidote in poisoning by opium, nux vomica, Aconite (*Garrod*). Externally, mixed with bread in a poultice in fœtid ulcers, &c.
Dose.—A teaspoonful to a tablespoonful suspended in water.

CARBO LIGNI. Charcoal of Wood. (Prepared by exposure to red heat without access of air.)
Comp.—Carbon 68·4, hydrogen 1·5, a minute portion of oxygen, salts, earths, &c.
Prop.—Inodorous, tasteless, black, brittle.
Oper.—Antiseptic.
Use.—In the putrid eructations of dyspepsia: as a cataplasm with linseed meal in fœtid ulcers: the best tooth powder.
Dose.—Gr.x. to gr.xx. often united with rhubarb.
Off. Prep.—*Cataplasma Carbonis.*

CARDAMŌMUM. Seeds of the Elettaria Cardamomum. (*Monandria Monogynia.* N. O. *Zingiberaceæ.* East Indies. Malabar.)
Prop.—Odour agreeably aromatic; taste pungent, grateful.
Oper.—Carminative, stomachic.
Use.—In the flatulent colic of children, united with rhubarb and magnesia: but principally to give warmth to other remedies.
Dose.—Gr.v. to gr.lx. in powder.
Off. Prep.—*Ext. Col. Comp. Pulv. Cinnamomi Comp. Pulvis Cretæ Aromaticus. Pulv. Cretæ Aromat. c. Opio. Tinct. Cardam. Comp. Tinct. Gentianæ Comp. Tinct. Rhei. Vinum Aloes.*

CARŬI FRUCTUS. Carum Carui, Semina. Caraway Fruit. (Carum *Carui, Pentand. Digyn.* N.O. *Umbelliferæ.* (*Apiaceæ, Lindley.*) England and Germany. ♂)
Prop.—Fruit usually separates into two parts, each about 2 lines long, curved, tapering at the ends, brown, with 5 paler longitudinal ridges. Odour aromatic; taste warm, grateful. Contains 4·7 to 5·4 per cent. of a volatile oil.
Oper.—Stimulant, carminative.
Use.—In flatulent colic, and to give warmth to purgatives.
Dose.—Gr.x. to gr.lx. swallowed whole or in powder.
Off. Prep.—*Aq. Carui. Confectio Opii. Confectio Piperis. Ol. Carui. Pulv. Opii Comp. Spir. Juniperi Comp. Tinct. Cardam. Comp. Tinct. Sennæ.*

CARŬI OLĔUM. See *Oleum Carui.*

CARŸŎPHYLLUM. Caryophyllus Aromaticus. The Clove. The dried unexpanded flower-bud. (*Caryophyllus Aromaticus. Polyandria Monogyn.* N.O. *Myrtaceæ.* Penang, Bencoolen, and Amboyna. ℞)

Prop.—About 6 lines long, dark reddish-brown, plump and heavy, consisting of a nearly cylindrical body, surmounted by four teeth and a globular head; odour strong, aromatic, and peculiar; taste acrid, pungent; figure like a small nail with a toothed head. Contains 18 per cent. of volatile oil.

Oper.—Stimulant, carminative.

Use.—In atonic dyspepsia, in the vomiting of pregnancy, flatulence, and as a corrective to other remedies. Also to arrest pain from a carious tooth.

Dose.—Gr.v. to gr.xxx. in powder.

Off. Prep.—*Caryophylli Oleum. Inf. Aurantii Comp. Mistura Ferri Aromaticæ. Vinum Opii. Infusum Caryophylli. Conf. Scammonii.*

CARŸOPHYLLI OLĔUM. Oil of Cloves. (Distilled from the unexpanded flower.)

Comp.—Carbon, hydrogen, and oxygen in a small proportion.

Prop.—Odour and taste of the clove; colour yellow; heavier than water, 1·03 to 1·05.

Oper. and *Use.*—The same as the clove; externally, diluted with olive oil, as an embrocation in hooping-cough; as an application in toothache.

Dose.—Min.j. to min.vj. on sugar.

Off. Prep.—*Confect. Scammonii. Pil. Coloc. Co. Pil. Coloc. et Hyoscyami.*

CASCARILLÆ CORTEX. Cascarilla Bark. (Croton *Eluteria. Monœc. Monadelphia.* N.O. *Euphorbiaceæ.* Bahamas. ℞)

Prop.—In quills 2 or 3 inches in length, and from 2 to 5 lines in diameter; dull brown, with a coating of crustaceous lichens; breaks with a resinous fracture; odour slightly aromatic; taste bitterish, aromatic; when burning, and the flame extinguished, the smoke has the odour of musk; active parts an essential oil, and bitter extractive, completely extracted by proof spirit. According to Duval, a bitter, crystalline, neutral principle. (*Cascarillin.*) And also tannic acid, colouring matter, and a volatile oil.

Oper.—Tonic, stomachic.

Use.—As an adjunct to cinchona in ague; in obstinate diarrhœa, and after dysentery; in dyspepsia and flatulent colic.

Dose.—Gr.x. to gr.xxx. in powder.

Off. Prep.—*Infusum Cascarillæ. Tinct. Cascarillæ.*

CASSĬÆ PULPA. Cassia Pulp. (Cassia *Fistula. Decand. Monogyn.* N.O. *Leguminosæ, Cisalpinæ.* (*Fabaceæ, Lindley.*) East and West Indies. ℞)

Prop.—Pulp blackish-brown, viscid, bright, shining; sweet, slightly acid; inodorous.

Oper.—Laxative.

Use.—Where a gentle medicine is required in costive habits, combined with aromatics.

Dose.—Gr.cxx. and upwards.

Off. Prep.—*Confectio Sennæ.*

CASTORĔUM. Castor. (Castor *Fiber.* The Beaver. *Mammalia, Glires,* L. *Mammalia, Rodentia,* Cuv. From the Hudson's Bay Territory.)

A peculiar secretion from the follicles of the prepuce, in great part soluble in rectified spirit and ether.

Comp.—Carbonates of potassa, of lime, of ammonia, and of iron; uric,

phosphoric, and benzoic acids; resin; extractive, mucilaginous matter, volatile oil. *Carbolic Acid*, or *Castorine*. (Brandes.)

Prop.—Odour strong, unpleasant, peculiar; taste bitter; subacrid; colour orange brown.

Oper.—Antispasmodic, emmenagogue?

Use.—In typhus, hysteria, epilepsy, amenorrhœa.

Dose.—Gr.v. to gr.xx. in a bolus; gr.lx. or more in clysters; of little value as a remedy.

Off. Prep.—*Tinctura Castorei.*

*CATĂPLASMA ALŪMĬNIS. Cataplasm of Alum. (*Ovorum duorum Albumen*; *Aluminis* gr.lx. Agitate them together until they form a coagulum.)

Use.—In ecchymosis of the eye.

CATĂPLASMA CARBŌNIS. Charcoal Poultice. (*Carbonis ligni contriti* unc.ss.; *Micæ panis* unc.ij.; *Lini Seminis contriti* unc.jss.; *Aquæ ferventis*, fl.unc.x. Macerate the bread in the water for 10 minutes near the fire, then mix, and add the meal gradually, stirring the ingredients to make a soft poultice; mix this with half the charcoal, and sprinkle the remainder on the surface.)

Use.—In gangrene and fœtid ulcers.

CATAPLASMA CONĪI. Hemlock Poultice. (*Foliorum Conii cont.* unc.j.; *Lini Seminis contriti* unc.iij.; *Aquæ ad* c.° *calefactæ* fl.unc.x. Mix the meal and hemlock, adding the water gradually, and constantly stirring.)

Use.—In cancer, painful sores, and glandular swellings.

*CATĂPLASMA DAUCI. Carrot Poultice. (*Dauci Carotæ hortensis Radicis*, q.s. Boil the root in the water until it be soft enough to make a poultice. The admixture of a little bread improves the poultice.)

Use.—In gangrene and foul ulcers.

CATĂPLASMA FERMENTI. Yeast Poultice. (*Cerevisiæ fermenti* fl.unc.vj.; *Farinæ tritici* unc.xiv.; *Aquæ ad* c.° *calefactæ* fl.unc.vj. Mix the yeast with the water, add the meal, and stir about. Then place it near the fire till it rises.)

Oper.—Antiseptic.

Use.—Applied to gangrenous and sloughing sores.

CATĂPLASMA LINI. Linseed Poultice. (*Aquæ ferventis* fl.unc.x.; *Lini Seminis contriti* unc.iv.; *Olei Olivæ* fl.unc.ss. Mix the linseed with the oil, and add the water gradually, constantly stirring.)

Use.—A suppurative poultice.

CATĂPLASMA SINĀPIS. Mustard Poultice. (*Aquæ ferventis* fl.unc.x.; *Lini Seminis contriti, Sinapis contriti sing.* unc.ijss.)

Oper.—Rubefacient, stimulant.

Use.—Applied to the soles of the feet, in delirium, coma, and sinking of typhus, &c.; in affection of the heart and lungs; to the pained part in rheumatism, and in neuralgic and hysterical pains.

CATĂPLASMA SODÆ CHLORĀTÆ. Chlorine Poultice. (*Aquæ ferventis* fl.unc.viij.; *Lini Seminis contriti* unc.iv.; *Liquoris Sodæ Chloratæ* fl.unc.ij. Mix the meal with the water, and then add the chlorinated soda.)

Oper.—Antiseptic, stimulant.

Use.—In gangrenous sloughing fœtid ulcers.

CATĔCHU PALLĬDUM. Pale Catechu. An extract of the leaves and young shoots of Uncaria Gambir (*Pentandria Monogynia*. N.O. *Cinchonaceæ*.) Singapore, and other places in the Indian Archipelago. ♄

Comp.—Pale Catechu Corticis, Tann. 48·5, Extr. 36·5, Muc. 8·0, Imp. 7·0.

Prop.—In cubes, or masses formed of coherent cubes, the former about an inch in diameter, externally brown, internally ochrey-yellow or pale brick-red, breaking easily with a dull earthy fracture. Inodorous; taste bitter, astringent, mucilaginous, sweetish; soluble in water and alcohol. The best kind yields to sulphuric ether 53, the lowest 28 per cent. of tannic acid when passed through the percolator.

Oper.—Astringent.

Use.—In diarrhœa, from a relaxed state of the bowels; and in intestinal hæmorrhages; locally in aphthæ, ulceration of the gums, and in coughs and hoarseness from the relaxation of the uvula.

Dose.—Gr.x. to gr.xl. in powder; in the latter case a piece is allowed to to dissolve slowly in the mouth.

Off. Prep.—*Infusum Catechu. Pulv. Catechu Comp. Tinct. Catechu. Trochisci Catechu.*

CERA ALBA, CERA FLAVA. White and Yellow Wax. (*A secretion of the Apis mellifica, or honey bee, Insecta Hymenoptera.* Yellow wax is the prepared honeycomb of the hive-bee: and the white wax is obtained by bleaching the yellow variety by exposure to moisture, air, and light.)

Comp.—Carbon 63·12, hydrogen 16·91, oxygen 19·97 parts. Cerine, Myricine, and Cerolein.

Prop.—White wax is hard, nearly white, translucent, not unctuous to the touch, not melting under 150°. The yellow wax is firm, breaking with a granular fracture; odour aromatic, resembling that of honey; tasteless; dry; colour yellow, when recent.

Oper.—Demulcent, emollient.

Use.—In diarrhœa and dysentery; but principally used in the formation of ointments.

Dose.—Gr.xx. to gr.xxx. twice or thrice a day, in form of emulsion; melt the wax with a little oil, then triturate it with yolk of egg, and groat gruel, fl.unc.ij.

Off. Prep.—*Ung. Emp. Varia. Suppositoria. Charta Epispastica.*

*CERĀTUM. Cerate. (*Olei Olivæ* Oj.; *Ceræ* unc.xx. Melt the wax, then add the oil, and mix.)

Oper.—Emollient.

Use.—To excoriations, &c.

*CERĀTUM CALAMĪNÆ. Calamine Cerate. (*Calaminæ Præp. Ceræ* ā ā unc.vijss.; *Ol. Olivæ* Oj. The oil and wax being melted, mix; then remove them from the fire: as soon as they begin to thicken add the calamine, and stir until the whole be cold. *Turner's Cerate.*

Oper.—Desiccative, healing.

Use.—To ulcers, with a thin, acrid discharge; to burns after the inflammation is abated: to the eyelids in ophthalmia tarsi.

*CERĀTUM CANTHARĬDIS. Unguentum Cantharidis. Cerate of the Spanish Fly. (*Cerati Cetacei* unc.vj. (*Ung. Resinæ* unc.vij. E.); *Cantharidum in Pulv. sub.* unc.j. The Cerate being softened by heat, stir in the flies.

Oper.—Irritative, drawing.

Use.—For keeping up a discharge from a blistered surface; but few constitutions can bear the irritation it induces.

*CERĀTUM CETĀCĔI. Ceratum Simplex. Unguentum Cetacei. Spermaceti Cerate. (*Cetacei* unc.ij.; *Ceræ Alb.* unc.viij.; *Olivæ Ol.* Oj.

The wax and oil being melted together, add the spermaceti, and stir until the whole is cold.)

Oper.—Emollient, cooling.

Off. Prep.—*Ceratum Cantharidis.* (L.)

*CERĀTUM HYDRARGYRI COMPŎSĬTUM. Compound Mercurial Cerate. (*Unguenti Hydrargyri, Cerati saponis sing.* unc.vj.; *Camphoræ* unc.jss. *Mix.*) *Scott's Dressing.*

Aper.—Stimulant and rubefacient.

Use.—In chronic thickening of synovial membranes.

*CERĀTUM PLUMBI ACETĀTIS. Ung. Acetatis Plumbi. Cerate of Acetate of Lead. (*Plumbi Acetatis cont.* gr.ccc.; *Ceræ Alb.* unc.j.; *Olivæ Ol.* Oj. Melt the wax in eighteen fluid ounces of the oil, then add the acetate rubbed down with the remainder; and stir with a wooden spatula until the whole be united.)

Oper.—Cooling, astringent, resolvent.

Use.—In inflamed sores, excoriations, and burns.

*CERĀTUM PLUMBI COMPŎSĬTUM. Compound Lead Cerate. (*Liq. Plumbi subacetatis* fl.unc.vj.; *Ceræ* unc.viij.; *Olivæ Ol.* Oj.; *Camphoræ*, unc.j. Melt the wax in fl.unc.xvj. of the oil, then remove the mixture from the fire, and when it begins to thicken, add gradually the solution of diacetate of lead, and assiduously stir the whole with a wooden spatula until it is cold: lastly, add the camphor dissolved in what remained of the oil, and mix.)

Oper. and *Use.*—The same as the former.

*CERĀTUM RESĪNÆ. Resin Cerate. (*Resinæ, Ceræ* ā ā unc.xv.; *Olivæ Ol.* Oj. Melt the resin and wax over a slow fire, then add the oil, and strain while hot.) *Yellow Basilicon.*

Oper.—Digestive, cleansing, incarnating.

Use.—To foul indolent ulcers.

Off. Prep.—*Ung. Cantharidis.* (E.)

*CERĀTUM SABĪNÆ. Unguentum Sabinæ. Savine Cerate. (*Sabinæ* lb.ss.; *Ceræ* unc.iij.; *Adipis præp.* lb.j. Having melted the wax and lard, boil therein the savine leaves, and strain through a linen cloth.)

Oper.—Irritative, drawing.

Use.—To keep a discharge from a blistered surface. It is much preferable to the Ceratum Cantharidis, occasioning less pain, and preserving a sufficient discharge.

*CERĀTUM SAPŌNIS. Comp. Soap Cerate. Emplastrum Cerati Saponis. (*Sapon.* unc.x.; *Ceræ* unc.xijss.; *Plumbi Oxidi Cont.* unc.xv.; *Olivæ Ol.* Oj.; *Aceti* cong.j. Boil together the vinegar and oxide of lead, over a slow fire, stirring constantly until they combine; then add the soap, and boil again until the water be evaporated; lastly, mix in the oil and wax melted together.)

Oper.—Desiccative, resolvent.

Use.—Applied, spread on linen, round fractured limbs, after all inflammation is abated, and the bones are united; and to strumous swellings.

The Cerates are not introduced into the British Pharmacopœia, but in consequence of many being in extensive use, it has been considered advisable to retain them here. *The ointments supply their place, and they are only introduced here as many practitioners are in the habit of using them.*

CEREVĬSĬÆ FERMENTUM. Yeast. (The frothy matter collected on the surface of beer during fermentation.)

Prop.—Viscid, semifluid, frothy, exhibiting under the microscope numerous round or oval confervoid cells.
Oper.—Stimulant, tonic, alterative, antiseptic.
Use.—To induce fermentation in poultices. It has also been given internally, with advantage, in combination with sugar and wine in typhus fevers, and also to prevent boils and carbuncle, and in diabetes. Also may be used in the preparation of citric acid.
Dose.—Fl.unc.½ to fl.unc.ij.
Off. Prep.—*Cataplasma fermenti.*

CERĬI OXĂLAS. Oxalate of Cerium. Obtained as a precipitate by adding a solution of oxalate of ammonia to a soluble salt of cerium.
Comp.—Two equivalents of oxide of cerium=108+2 eq. of oxalic acid=72+6 eq. of water=54=234 or $CeC_2O_4.3H_2O$.
Prop.—A white granular powder, insoluble in water, decomposed at a dull red heat into a reddish-brown powder, which dissolves completely without effervescence in boiling hydrochloric acid, and the resulting solution gives with a solution of sulphate of potash a white crystalline precipitate. If the salt be boiled with solution of potash, and filtered, the filtrate is not affected by chloride of ammonium, but when supersaturated with acetic acid, it gives with chloride of calcium a white precipitate, which is soluble in hydrochloric acid. Ten gr. when incinerated lose 5·2 gr. in weight.
Oper.—Sedative, especially to the mucous membrane of the stomach, much resembling bismuth.
Use.—To relieve sympathetic vomiting—especially the vomiting of pregnancy.
Dose.—Gr.j. to gr.ij. in pill.

CETĀCĔUM. Spermaceti. (Physeter *Macrocephalus.* The Spermaceti Whale. A concretion prepared from the oily matter of the head. *Mammalia, Cetacea.*)
Comp.—2 atoms of margaric acid; 1 of oleic acid; 3 of cetin (a palmitate or cetylate of the oxide of cetin, $C_{32}H_{23}O$, $C_{31}H_{32}O_3$); 3 of water.
Prop.—Inodorous, insipid, white, crystallised, friable, semitransparent, unctuous. Sp. grav. ·943; melts at 112° of heat; partially soluble in alcohol; reducible to powder by the addition of a little rectified spirit.
Oper.—Demulcent, emollient.
Use.—In coughs and dysentery; and in the composition of ointments.
Dose.—Gr.xxx. to gr.xc. rubbed up with sugar, or with an egg, in emulsion.
Off. Prep.—*Charta Epispastica. Ung. Cetacei.*

CETRARĬA. Cetraria Islandica. Lichen Islandicus. Liverwort. Iceland Moss. (Cetraria Islandica. *Cryptogamia, Lichenes.* N.O. *Lichenaceæ.* (*Lichenales, Lindley.*) North of Europe. ♃)
Comp.—A gelatinous matter, *lichenin*; and a crystallisable bitter principle, *Cetraric acid.*
Prop.—Foliaceous, lobed, crisp, cartilaginous, brownish-white, paler beneath; inodorous, taste bitter, mucilaginous.
Oper.—Tonic, demulcent, nutritive.
Use.—See *Decoct. Cetrariæ.*
Dose.—Gr.lx. to ¼unc., first steeped in water, holding in solution Carb. Potash to extract the bitter; then boiled in milk, chocolate, or cocoa.

CHARTA EPISPASTĬCA. Blistering paper. (*Ceræ Albæ* unc.iv.; *Cetacei* unc.jss.; *Olei Olivæ* fl.unc.ij.; *Resinæ* unc.§; *Balsami Canadensis* unc.¼; *Cantharidis contritæ* unc.j.; *Aquæ destillatæ* fl.unc.vj. Digest

all the ingredients, except the Canada balsam, in a water-bath for 2 hours, constantly stirring, then strain and separate the plaster from the watery liquid. Mix the balsam with the plaster melted in a shallow vessel, and pass strips of paper over the surface of the hot liquid, so that one surface of the paper shall receive a thin coating of plaster.)

Oper.—Vesicant.

Use.—Milder than the Emplastrum Cantharidis, but used in similar cases.

CHIRĀTA. Chiretta. (Ophelia Chirata vel Gentiana Chirata. *Tetrandria Monogynia.* N. O. Gentianaceæ. India. ☉)

Prop.—Stem about 3 feet long, as thick as a goose quill, round, smooth, pale-brown, branches opposite, flowers small, numerous, panicled. Bitter without astringency.

Oper.—Tonic, laxative.

Use.—In atonic dyspepsia and general debility.

Dose.—Fl.unc.½ to fl.unc.ij. of the infusion; gr.x. to gr.xx. of the powder.

Off. Prep.—Infusum Chiratæ. Tinct. Chiratæ.

CHLORI LIQUOR. See *Liquor Chlori.*

CHLOROFORMUM. Terchloride of Formyl. Chloroform. (*Calcis Chloratæ* lb.x.; *Spiritus rectificati* fl.unc.xxx.; *Aquæ* Oiij.; *Calcii Chloridi in crustula contusi* unc.ij.; *Calcis ustæ* q.s.; *Acidi Sulphurici* q.s.; *Aquæ destillatæ* fl.unc.ix. Raise the water and spirit mixed to 100° Fahr., add the chlorinated lime, and 5lb. of the slaked lime, then distil, and having agitated the distillate with water, the crude chloroform remains at the bottom; it is washed with water, shaken with sulphuric acid, and redistilled with chloride of calcium and slaked lime.)

Comp.—2 eq. of carbon, 1 of hydrogen (*Formyl*), and 3 of chlorine. ($C_2H+Cl_3=119{\cdot}5$ or $CHCl_3$.)

Prop.—Colourless, pleasant odour, taste sweetish; specific gravity 1·49, soluble in alcohol and ether, scarcely soluble in water. Does not redden litmus paper; when rubbed on the skin, soon evaporates, almost without leaving any odour. Burns, but not readily, with a green smoky flame, not coloured by agitation with sulphuric acid.

Oper.—Stimulant, antispasmodic, sedative, narcotic, anæsthetic.

Use.—Internally, in asthma, spasmodic cough, cancer, chorea, tetanus, obstinate vomiting, hysteria. Externally, to allay pain and local irritation. But it is principally ordered to be inhaled for the prevention of pain during surgical operations, and in childbirth. It should always be administered most cautiously, and never without proper assistance. When it proves fatal, it does so suddenly.

Dose.—Internally, min.j. to min.v.; being volatile it should be administered in draught, suspended in water by mucilage with a little spirit. Externally, fl.dr.j. to fl.dr.iv. to fl.unc. of any liniment, or fl.unc.ss. to unc.j. of an ointment. Anæsthesia is usually produced from the inhalation of the vapour from fl.dr.j. to fl.dr.ij. If faintness or sinking occur, atmospheric air, with ammonia to the nostrils, quickly restores the patient.

Off. Prep.—Linimentum Chloroformi. Spiritus Chloroformi. Tinctura Chloroformi Comp.

CINCHŌNÆ FLAVÆ CORTEX. Yellow Cinchona Bark. *Chinchona Calisaya. Pent. Monogynia.* N. O. *Cinchonaceæ.* Bolivia and Southern Peru. ♃)

Prop.—Odour aromatic; taste bitter, slightly astringent; in pieces a span long, not always rolled, often without the epidermis, which is

very thick and inert; light, friable, fracture fibrous; internally of a yellowish cinnamon colour. Its active principle is an alkali, named *Quinia.*

CINCHŌNÆ PALLIDÆ CORTEX. Pale Cinchona Bark. Pale or Brown Bark. Cinchona Condaminea, Chahuarguera, and Crispa. Loxa in Ecuador.

Prop.—Odour aromatic; taste pleasant, less bitter and astringent than yellow bark; pieces rolled in double or single quills, a span long, thin; epidermis brown, cracked: fracture resinous; internally of a cinnamon or fawn colour. Its active principle is an alkali, which has been named *Cinchonia.*

CINCHŌNÆ RUBRÆ CORTEX. Red Cinchona Bark. Cinchona Succirubra. Forests at the foot of Chimborazo.

Prop.—Odour and taste the same as the pale, but more intense; in quill and flat pieces, solid, heavy, dry; fracture short and smooth; internally woody, fibrous, of a deep brownish-red colour. Its active principle three alkalies, *Quinia*, *Cinchonia*, and *Aricina* or *Cuzconia.*

Oper.—These three species are strongly and permanently tonic, and antiperiodic, slightly astringent, stomachic, and febrifuge (the yellow is preferred in Peru); the red is apt to nauseate.

Use.—In intermittents, after evacuating the stomach and bowels; in continued fevers, keeping the bowels clear; confluent small-pox; erysipelas; acute rheumatism; cynanche maligna; scarlatina; passive hæmorrhages; and in every disease attended with deficient action. Also in enemata, gargles, and externally as a lotion, in gangrenous ulcerations, &c. To check the nausea excited by it, wines, aromatics, carbonic and sulphuric acids are added; to prevent purging, opium; costiveness, rhubarb. The red is the most useful in gangrene.

Dose.—Gr.x. to gr.lx.

Off. Prep.—C. Flava:—*Dec. Cinchonæ Flavæ. Ext. Cinchonæ Flavæ Liquidum. Inf. Cinchonæ Flavæ. Tinct. Cinchonæ Flavæ.* C. Pallida:—*Mistura Ferri Aromatica. Tinct. Cinchonæ Comp.*

CINNAMŌMI CORTEX. Cinnamon Bark. (*Cinnamomum Zeylanicum. Enneandr. Monogyn.* N.O. *Lauraceæ.* Ceylon. ♃.)

Prop.—Odour aromatic; taste pleasantly pungent, sweetish, depending on essential oil; a hydride of cinnamyl ($C_{18}H_7O_2H$); colour light yellow, brown; pieces quilled within each other, not thicker than paper: pliable; fracture fibrous and woody.

Oper.—Stimulant, astringent, carminative, tonic.

Use.—As a grateful aromatic in dyspepsia and diarrhœa; to cover the taste of nauseous remedies. The infusion checks vomiting. Chewed in palsy of the tongue.

Dose.—Gr.v. to gr.xx. in powder.

Off. Prep.—Acidum Sulphuricum Aromat. Aq. Cinnamomi. Dec. Hæmatoxyli. Infusum Catechu. Oleum Cinnamomi. Pulv. Catechu Comp. Pulv. Cinnamomi Comp. Pulv. Cretæ Aromaticus. Pulv. Kino Comp. Tinct. Cardamomi Comp. Tinct. Catechu. Tinct. Cinnamomi. Tinct. Lavandulæ Comp. Vinum Opii.

CINNAMŌMI OLĔUM. Oil of Cinnamon. Oil distilled from Cinnamon Bark.

Prop.—Odour of the bark; taste pungent, hot; yellowish when recent, gradually changing to a cherry-red colour; sinks in water; soluble in alcohol. Nitric acid converts it into a uniform crystalline mass.

Oper.—Powerfully stimulant; stomachic; emmenagogue.

Use.—In cramps of the stomach, hiccough, and flatulent colic; inserted into a decayed tooth to allay tooth-ache.
Dose.—Min.j. to min.iij. on a lump of sugar.

*COCCŬLUS. Cocculus suberosus. Fructus Vulg. Cocculus Indicus. Cocculus *Indicus.* (Anamirta *cocculus. Diœcia, Dodecandria.* N.O. *Menispermaceæ.* Malabar. ♃) Contains *Picrotoxin.*
Comp.—The nucleus contains *picrotoxin* ($C_{10}H_6O_4$), resin, gum, and fatty acid. The pericarp, a peculiar principle which has been called *menispermin* ($C_{18}H_{12}NO$), united with an acid, *Cocculinic acid.*
Prop.—Blackish purple, not unlike a small dry cherry.
Oper.—Stimulant, narcotic, poisonous, acting on the corpora quadragemina; and destroys controlling powers; produces in man an unwillingness to move.
Use.—Externally as an ointment in tinea capitis and to destroy pediculi, and occasionally in chronic skin diseases.
Prep.—*Unguentum Cocculi.*

COCCUS. Coccus Cacti. Cochineal. (Coccus Cacti. *Insecta Hemiptera.* Mexico and Teneriffe.) *The Dried Female.*
Prop.—Faint, heavy odour; taste acrid, bitterish, astringent; colour blackish red externally, purple red within; small, irregular, ovate, plano-convex.
Use.—Chiefly for giving a red colour to tinctures, &c.; in pertussis on the Continent.
Off. Prep.—*Tinct. Cardamomi Comp. Tinct. Cinchonæ Comp. Tinct. Cocci.*

COLCHĬCI CORMUS ET SEMĬNA. Colchicum Autumnale. The Cormus recent and dried, and fully ripe Seeds of the Meadow Saffron. (Colchicum *Autumnale. Hexand. Trigyn.* N. O. *Melanthaceæ.* Europe. ♃) *Dug at the end of June.* The Cormus must be stripped of its coats, sliced transversely, and dried at a temperature not exceeding 150°.
Comp.—*Colchicia*, a peculiar alkaloid resembling Veratria, fecula.
Prop.—Fresh corm about the size of chestnut, flattened when it has an undeveloped bud, furnished with outer brown and inner yellow coat, internally white, solid, and fleshy. The seeds are about the size of white mustard seeds, very hard, and of a reddish-brown colour. Taste acrid, excoriating the mouth; acrimony lost in drying.
Oper.—Sedative, narcotic, diuretic, favouring the excretion of urine and uric acid, also of bile by the bowels; cathartic.
Use.—In dropsies, gout, and rheumatism. (*It is supposed that it forms the active ingredient of the Eau Médicinale.*)
Dose.—Gr.j. to gr.iij. of the recent cormus in pills.
Off. Prep.—Cormus:—*Extractum Colchici. Extract. Colchici Aceticum. Vinum Colchici.* Seeds:—*Tinctura Colchici Seminum.*

COLLŌDĬUM. Collodion. (*Pyroxylin* unc.j.; *Ætheris* fl.unc xxxvi.; *Spiritus rectificat.* fl.unc.xij. Mix the ether and rectified spirit and dissolve the pyroxlin (gun cotton) in it.)
Comp.—Pyroxlin (gun cotton) dissolved in ether.
Prop.—A colourless, inflammable liquid, which leaves on evaporation a thin transparent film insoluble in water or rectified spirit.
Oper.—Protective as a plaster.
Use.—In wounds, to arrest hæmorrhage from leech-bites, in chapped nipples, and in some skin diseases. It must be applied by means of a camel's-hair brush. Best applied in the form of the succeeding preparation, Collodium Flexile.

COLLŌDĬUM FLEXĬLE. Flexible Collodium. (*Collodii* unc.vj.; *Balsami Canadensis* gr.cxx.; *Olei Ricini* fl.dr.j. Mix and keep in a well-corked bottle.)
Use. –A manageable form for the application of collodium.

COLŎCYNTHĬDIS PULPA. Colocynth Pulp. (The dried decorticated fruit of the Citrullus (*Cucumis*) Colocynthis. *Monœc. Syngen.* N.O. *Cucurbitaceæ, L. J.* Smyrna, Trieste, France, and Spain. ☉)
Comp.—*Colocynthin*, a peculiar bitter principle; soluble in water and alcohol but insoluble in ether.
Prop.—Dry pulp; taste bitter, nauseous, acrimonious; light, white or pale yellow; spongy.
Oper.—Drastic, cathartic.
Use.—Too violent to be used alone.
Dose.—Gr.j. to gr.viij.
Off. Prep.—*Extract. Colocynthidis Comp. Pil. Colocynth. Comp. Pilulæ Colocynthidis et Hyoscyami.*

*CONFECTĬO CATĔCHU COMPOSĬTA. Compound Confection of Catechu. (*Pulv. Catechu Comp.* unc.v.; *Syrupi Simplicis* fl.unc.v. Add the syrup gradually to the powder, and mix them well.)
Oper.—Astringent.
Use.—In diarrhœa or mucous discharges; it may be combined with astringent medicine, or Mist. Cretæ.
Dose.—Gr.lx. to ¼ unc.

CONFECTĬO OPĬI. (*Pulveris Opii compositi* gr.cxcij.; *Syrupi* fl.unc.j.; mix. Gr.xl. contain gr.j. of opium.)
Oper.—Narcotic and stimulant.
Use.—Atonic gout, flatulent colic, colliquative diarrhœa, in the chalk mixture.
Dose.—Gr.v. to gr.xxx. in a bolus or mixture.

CONFECTĬO PIPERIS. Electuarium Piperis. Confection of Pepper. (*Piperis nigri in pulverem subtilissimum redacti* unc.ij.; *Carui contriti* unc.iij.; *Mellis depurati* unc.xv. Rub them well together in a mortar.)
Substitute for Ward's Paste.
Prop.—Warm stimulant.
Use.—In hæmorrhoids.
Dose.—Gr.xl. to gr.cxx. and upwards.

CONFECTĬO RŌSÆ CANĪNÆ. Conservæ Rosæ Fructus. Confection of Hips. (*Rosæ Can. enucleatæ* lb.j.; *Sacch.* lb.ij. Rub them together until they be well incorporated.)
Use. –Chiefly as a vehicle for other remedies.
Off. Prep.—*Pilula Quiniæ.*

CONFECTĬO RŌSÆ GALLĬCÆ. Conserva Rosæ. Confection of Roses. (*Rosæ Gal. recentis* lb.j.; *Sacch.* lb.iij. Beat the petals in a stone mortar, then add the sugar, and beat into a uniform mass.)
Oper.—Astringent, tonic.
Use.—In diarrhœa. Rubbed up with new milk, it is useful in early convalescence from acute diseases. A good vehicle.
Dose.— Gr.lx. or more.
Off. Prep.—*Pilula Aloes Barbadensis. Pil. Aloes et Assafœtida. Pil. Aloes et Ferri. Pil. Aloes et Myrrhæ. Pil. Aloes Socotrina. Pil. Ferri Carbonatis. Pil. Hydrargyri. Pil. Plumbi cum Opio.*

CONFECTĬO SCAMMŌNII. Confection of Scammony. (*Scammonii contriti* unc.iij.; *Zingiber. contriti* unc.jss.; *Olei Carui* fl.dr.j.; *Ol. Cary-*

ophyll. min.xxx.; *Syr. Rosæ* fl.unc.iij.; *Mellis depurati* unc.jss. Rub the dry substances to a very fine powder, then rub them again with the syrup and honey ; and add the oils.)

Oper.—Warm cathartic.

Dose.—Gr.x. to gr.xxx. or more, in a bolus.

CONFECTĬO SENNÆ. Elect. Sennæ. Confection of Senna. (*Sennæ Fol. Contrit.* unc.vij.; *Corian.* unc.iij.; *Ficor.* unc.xij.; *Tamarindi* unc.ix.; *Cassiæ pulp.* unc.ix.; *Prun.* unc.vj.; *Ext. Glycyr.* unc.¾.; *Sacch. purific.* unc.xxx.; *Aquæ destill.* quant. suff.)

Oper.—Laxative.

Use.—In habitual costiveness, and that attending pregnancy.

Dose.—Gr.xxx. to gr.cxx.

CONFECTĬO SULPHŬRIS. Confection of Sulphur. (*Sulphuris Sublimati* unc.iv.; *Potassæ Tartrat. Acid. pulv.* unc.j.; *Syr. Aurant.* fl.unc.iv Triturate all the ingredients in a mortar till they are well mixed.)

Oper.—Laxative.

Use.—In hæmorrhoidal affections.

Dose.—Gr.xx. to gr.cxx.

CONFECTĬO TĔRĔBINTHINÆ. Confection of Turpentine. (*Ol. Terebinthinæ* fl.unc.j.; *Glycyrrhizæ radicis pulverisatæ* unc.j.; *Mellis* unc.ij. Rub the oil of Turpentine with the powder, then add the honey, and beat them altogether into an uniform consistence.

Oper.—Anthelmintic, purgative.

Use.—In cases of tænia, and also of ascarides.

Dose.—Gr.lx. to gr.cxx.

CONĬI FOLĬA ET FRUCTUS. Hemlock Leaves and Fruit. (Conium *Maculatum. Pentand. Digyn.* N. O. *Umbelliferæ.* (*Apiaceæ, Lindley.*) Indigenous. ☉)

Comp.—Conia ($C_{16}H_{15}N$), resin, albumen, odorous oil, extractive.

Prop.—Broadly ovate, compressed laterally ; half-fruit, with 5 waved or crenated ridges ; odour heavy and disagreeable ; taste bitter, nauseous, herbaceous ; colour a dull green ; light destroys its virtues, therefore the powder should be kept in opaque bottles, well corked. The powder, triturated with Liquor Potassæ, exhales the odour of Conia.

Oper.—Sedative, narcotic ; principally acting on nerves of motion, in large doses causing paralysis, poisonous in an overdose.

Use.—In rheumatism, neuralgia, pulmonary affections ; as a palliative in cancer and scirrhous, scrofulous, and syphilitic ulcerations and swellings ; pertussis. Externally, unc.iij. of the dried herb boiled in Oj. of water, as a fomentation to open scrofulous and cancerous ulcers ; or as a cataplasm by adding linseed meal and oatmeal.

Dose.—Gr.ij. to gr.xx. of the powder, or from min. xij. of the expressed juice very gradually increased to min.lx.

Off. Prep.—Leaves :—*Cataplasmi Conii. Extractum Conii. Succus Conii.* Fruit :—*Tinct. Conii.*

COPAĪBA. Copaiva. Oleo-resin obtained from incisions in the trunk. (Copaifera multijuga, and various species, *Decand. Monogyn.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley.*) Valley of the Amazon. ♄)

Comp.—41 per cent of volatile oil, $C_{20}H_{16}$, 51·38 of hard yellow resin (*Copaivic acid*, $C_{40}H_{30}O_4$), 2·18 of brown soft resin, 5·44 water and loss.

Prop.—Odour peculiar, not unpleasant ; taste pungent, bitter ; consistence of olive oil ; yellowish, transparent ; soluble in two parts of alcohol, in æther, the expressed oils, and in an equal volume of benzol ; miscible in *distilled* water, by means of mucilage ; spec. grav. 0·950. It dissolves ½ its weight of Carbonate of Magnesia, aided by gentle

heat, and remains translucent. Does not become gelatinous after having been heated to 270°. Is not fluorescent.

Oper.—Stimulant, diuretic, purgative in large doses; acts on the urethra and mucous membranes generally.

Use.—In gonorrhœa, gleet, leucorrhœa, chronic bronchitis, and hæmorrhoidal affections.

Dose.—Min.xv. to fl.dr.j. in emulsion with gum or yolk of egg; in pills by mixing the copaiba with magnesia and exposing the mixture to the air.

Incomp.—Nitric acid.

Test.—Agitate fl.dr.j. of liq. ammoniæ with fl.dr.ijss. of copaiba; if it remains milky when at rest, it contains castor oil.

Off. Prep.—*Oleum Copaibæ.*

COPAIBÆ OLĔUM. Oil of Copaiva. (Distillation of the Copaiba with water.)

Prop.—Pale straw colour; odour of the Copaiba.

Use.—The same as Copaiba.

Dose.—Min.v. to min.xxx., triturated with mucilage and water.

CORĬANDRI FRUCTUS. Coriander Fruit, ripe and dried. (Coriandrum *Sativum. Pentand. Digyn.* N. O. *Umbelliferæ.* (*Apiaceæ, Lindley.*) Italy. ☉)

Prop.—Odour aromatic; taste grateful, pungent; fruit globular, nearly as large as white pepper, beaked, finely ribbed, yellowish brown.

Oper.—Carminative.

Use.—In flatulencies; but chiefly to cover the taste of other medicines.

Dose.—Gr.xx. to gr.lx. entire, or in powder.

Off. Prep.—*Confectio Sennæ. Mist. Gentianæ. Oleum Coriandri. Syrupus Rhei. Tinct. Rhei. Tinct. Sennæ.*

CORĬANDRI OLĔUM. See *Oleum Coriandri.*

CREASŌTUM. Creasote. (*An oxy-hydro-carburet. A product of the distillation of wood tar.*)

Prop.—Colourless when recent; of a peculiar strong odour and burning taste; sp. grav. 1·071; soluble in alcohol, ether, glacial acetic acid, but sparingly in water; a slip of deal dipped into it, and afterwards into hydrochloric acid, acquires on a brief exposure to the air a greenish-blue colour. It turns the plane of polarisation of a ray of polarised light to the right. It is not solidified by the cold produced by a mixture of hydrochloric acid and sulphate of soda: leaves no stain upon white paper when heated. A powerful stimulant. It coagulates albumen, dissolves most resins, preserves animal substances (κρέας and σώζω).

Oper.—Irritant, narcotic, anodyne, styptic, antiseptic, stomachic, sedative.

Use.—Externally applied in rheumatism, tooth-ache depending on carious teeth, and neuralgia, as an astringent in hæmorrhage. Given in some stomachic affections, as a sedative to allay sickness, especially that of pregnancy, as a tonic, and externally in porrigo *scutulata.* The vapour mixed with that of hot water may be inhaled in chronic *bronchitis,* and to correct fœtid expectoration.

Dose.—From min.j. to min.v.

Off. Prep.—*Mistura Creasoti. Unguentum Creasoti. Vapor Creasoti.*

CRĒTA. Chalk. Native friable carbonate of lime.

Use.—In producing carbonic acid.

Off. Prep.—*Creta Præparata.*

CRĒTA PRÆPARĀTA. Calcis Carbonas præcipitata. Prepared Chalk. (Chalk freed from most of its impurities by elutriation, and afterwards dried in small masses, which are usually of a conical form.)

Comp.—Lime 56, carbonic acid 44, in 100 parts. Chemical symbol, CaO,CO_2 or $\mathbf{CaO,CO_2}$.
Oper.—Internally antacid; externally absorbent.
Use.—In diarrhœa from acidity: externally when sprinkled over burns, after the inflammation has subsided, and a poultice applied, the skinning over the sore is much hastened. Used also as an antidote in cases of poisoning by oxalic acid.
Dose.—Gr.x. to gr.lx. or more.
Off. Prep.—*Mistura Cretæ. Hydrargyrum cum Cretâ. Pulv. Cretæ Aromaticus. Pulv. Cretæ Aromaticus cum Opio.*

CRŎCUS. Crocus Sativus, Stigmata. Saffron. The stigma and part of the style dried. (Crocus *Sativus. Triand. Monogyn.* N.O. *Iridaceæ.* ♃) Imported from Spain, France, and Italy.
Prop.—Thread-like styles, each terminated by 3 long orange-brown stigmas, broadest at the summit. Odour diffusive, aromatic, narcotic; taste aromatic, pungent bitter; colour deep orange-red (*polychroite*); residing in an attractive essential oil and resin; yields its virtues to alcohol, wine, vinegar, and water.
Oper.—Stimulant, exhilarating, diaphoretic, emmenagogue.
Use.—In hysteria and other nervous affections, but principally as a colouring agent.
Dose.—Gr.v. to dr.ss.
Off. Prep.—*Dec. Aloes Comp. Pilul. Aloes et Myrrhæ. Pulv. Cretæ Aromaticus. Tinct. Cinchonæ Comp. Tinct. Croci. Tinct. Opii Ammoniata. Tinct. Rhei.*

CUBĒBA. Cubebs. The unripe fruit dried. (*Cubeba Officinalis. Diand. Trigyn.* N.O. *Piperaceæ.* Java and Guinea. ♄)
Comp.—Volatile oil, peculiar principle *Cubebin.* ($C_{30}H_{24}$.)
Prop.—The size of black pepper, globular, wrinkled, blackish, supported on a stalk of rather more than half its own length. Odour aromatic; taste cooling at first, afterwards pungent; active principle an essential oil.
Use.—In gonorrhœa and catarrh of the bladder, and in dysmenorrhœa.
Oper.—Stimulant, carminative, diuretic, purgative.
Dose.—From gr.x. to gr.lx. of the powder, every six hours.
Off. Prep.—*Oleum Cubebæ. Tinctura Cubebæ.*

CUBĒBÆ OLĔUM. See *Oleum Cubebæ.*

CUPRI SUBACĒTAS. Appendix II. *Ærugo.* Verdigris.
Comp.—2 eq. of oxide of copper, 1 of acetic acid, and 6 of water. Chemical symbol, $2CuO,\bar{A}+6HO$.
Prep.—By the action of the fermenting marc of grapes on copper plates.
Prop.—Mass difficult to break, dry, not deliquescent; foliaceous, of a fine bluish-green colour; taste salt, metallic; completely soluble in sulphuric and hydrochloric acid; partially in water.
Oper.—Tonic, emetic, escharotic, detergent.
Use.—Scarcely ever used internally. Applied to the callous edges of sores, and to consume fungus, but now seldom used. A solution (gr.j. in an ounce of rose or elder-flower water) in scorbutic ulcerations of the mouth, but it cannot be recommended. It is used as a test for the presence of butyric acid in valerianate of zinc.

CUPRI AMMŌNIO-SULPHĀTIS SOLŪTIO. Solution of Ammonio-Sulphate of Copper. (Appendix II.) Ammoniated Copper. (*Cupri Sulphatis* unc.ss.; *Ammoniæ Liquor, q.s.s.*; *Aquæ destillatæ q.s.s.*) Add ammonia to the sulphate of copper, dissolved in fl.unc.viij. of water,

until the precipitate first formed is nearly dissolved, clear the solution by filtration, and add distilled water, so that the bulk may be fl.unc.x. An azure blue powder, with an ammoniacal odour, and styptic metallic taste. By heat is converted into the oxide; soluble in water; changes turmeric to a brown, and becomes green on the addition of arsenious acid.

Comp.—Chemical symbol, CuO,SO_3+2NH_3,HO.

Prop.—A crystalline powder of a rich violet colour; taste hot, styptic, metalline. Its colour is lost by keeping, if exposed to the air, and it becomes green; being partly converted into carbonate of copper.

Oper.—Tonic, antispasmodic.

Use.—In epilepsy and chorea, after a course of purging, and as a test of arsenious acid; but introduced into Appendix II. as a test for sulphur in a strong solution of ammonia, and for arsenious acid.

Dose.—Gr.¼ gradually increased to gr.iij. in a pill twice a day.

Incomp.—Acids, alkalies, lime-water.

CUPRI SULPHAS. Sulphate of copper. May be obtained by heating sulphuric acid and copper together, dissolving the product in hot water, evaporating and crystallising.

Comp.—Hydrate of oxide of copper 42·6, sulphuric acid 33, water 25·4, in 100 pts.: or dry salt 1 eq. protoxide of copper=39·75+1 sulphuric acid=40 : eq.=79·75. (CuO,SO_3+5HO or $\mathbf{CuSO_4.5H_2O}$.

Prop.—Crystals rhomboidal, rich blue, semi-transparent, effloresing, inodorous; taste harsh, styptic, corrosive; soluble in 4 parts of water at 60°; 2 of water at 212°. The precipitate, which falls on the addition of ammonia, is redissolved if the ammonia be in excess. Its solution gives with chloride of barium a white precipitate insoluble in hydrochloric acid, and a maroon red precipitate with ferrocyanide of potassium. If the liq. ammoniæ be added in excess to an aqueous solution, mixed with twice its volume of solution of chlorine, a sapphire blue liquid remains without sediment.

Oper.—Tonic, emetic, astringent, escharotic.

Use.—In epilepsy, hysteria, intermittent fever, diarrhœa, and dysentery; and to produce vomiting in incipient phthisis, in croup, and in poisoning: externally, as a stimulant to ulcers; and to reduce fungus. A weak solution is sometimes used as a collyrium in ophthalmia, and as an injection in gleets. It formed the base of a very unchemical preparation, Bate's Aqua Camphorata, which Ware recommends, diluted with 16 parts of water, in the purulent ophthalmia of infants. The following will answer instead of it. ℞ Cupri sulph. gr.iij., Aquæ camphoræ fl.unc.v., cola.

Dose.—Gr.¼ to gr.ij. in a pill: gr.v. to gr.x. in fl.unc.ij. of water as an emetic.

Incomp.—Alkalies, earths, and their carbonates; sodæ biboras; salts of lead; acetate of iron; acetate and diacetate of lead; astringent vegetable infusions, decoctions, and tinctures.

CUPRUM. Copper. (Cu, equivalent 31·75 or **Cu**, eq. 63·5.)

Prop.—Odour peculiar, but sensible only when rubbed; taste disagreeable and metallic; colour red yellow: spec. grav. 8·86; ductile; very malleable; hardness less than that of iron; easily oxidised.

Use.—For preparing the salts of the metal,* and as a test of nitric and

* Copper, when clean, produces no deleterious effects in the stomach; nor does it appear that the acids it meets with there and in the bowels render it very active when in a mass. We have seen two instances where halfpence were swallowed, and retained, in the one case six months, and in the other two, without altering the state of health.

hydrochloric acid, also for detection of silver, also used in Reinsch's test for arsenic.

CURCŪMA. (Appendix.) The Rhizome of Turmeric. (Curcuma *Longa. Monand. Monogyn.* N. O. *Zingiberaceæ.* India. ♃) A tuberose root.

Prop.—Colour pale yellow; taste bitter and aromatic; odour slightly aromatic. It tinges the urine reddish, after being taken for a short time.

Oper.—Stimulant, tonic.

Use.—In debilitated states of the stomach; intermittent fever; dropsy. But used chiefly as a test for alkalies.

Dose.—From gr.xxx. of the powder to gr.cxx.; three tablespoonfuls three times a day, of an infusion made with gr.clxxx. of the root in Oj. of water.

Off. Prep.—Charta Curcumæ. Tinctura Curcumæ.

CURCUMÆ CHARTA. (Appendix I.) Turmeric Paper. Unsized white paper, steeped in tincture of turmeric, and dried by exposure to the air.

Use.—To test the presence of alkalies.

CUSPARĬÆ CORTEX. Angustura:—Cusparia Bark. (Galipea *Cusparia* vel *officinalis. Pentandria Monogynia.* N. O. *Rutaceæ.* South America. ♄)

Prop.—Odour peculiar; taste intensely bitter, and slightly aromatic; pieces thin, externally grey, wrinkled; internally yellowish fawn; fracture short, resinous. Yields its virtues to water and proof spirit. (*Contains 3·7 per cent. of bitter principle, Cusparine.*) It is distinguished from *false Cusparia* by its outer surface not turning green, nor its transverse fracture red, by nitric acid.

Oper.—Tonic, stimulant, aromatic.

Use.—In dyspepsia, removing flatulence and acidity; chronic diarrhœa, dysentery, convalescence from low fever.

Incomp.—Sulphates of iron and copper, nitrate of silver, tartarised antimony, acetate and diacetate of lead, corrosive sublimate, pure potassa, and infusion of galls and yellow cinchona bark, &c.

Dose.—Gr.v. to gr.xx. in powder.

Off. Prep.—Infusum Cusparіæ.

CUSSO. The dried flowers and tops. Kousso. (Brayera Anthelmintica. *Diœcia Polyandria.* N. O. *Rosaceæ.* Abyssinia. ♄)

Comp.—Fatty oil, acrid resin, volatile oil, and a crystalline substance, *Koussine.*

Prop.—Flowers small, reddish-brown, on hairy stalks, outer limb of calyx five-parted, the segments oblong or oblongo-lanceolate, reticulated; odour balsamic, taste acrid and unpleasant.

Oper.—Anthelmintic.

Use.—In cases of tænia solium, or botryocephalus latus.

Dose.—Unc.ss. infused for 15 minutes in fl.unc.x. of water with a little lemon juice for an adult; gr.xxx. to gr.cxx. for children. Castor oil or some aperient should be taken after 4 or 6 hours.

DECOCTUM ALŎES COMPOSĬTUM. Compound Decoction of Aloes. *Extracti Aloes Socot.* gr.cxx.; *Myrrhæ, Croci, sing.* gr.xc.; *Potassæ Carb.* gr.lx.; *Ext. Glycyrr.* unc.j.; *Tinct. Card. Comp.* fl.unc.viii.; *Aquæ destillatæ quant. suff.* Boil aloes and myrrh, powdered, with the potash and liquorice in a pint of distilled water for 5 minutes, then add the saffron, and, on cooling, the tincture; strain after 2 hours' maceration,

---

Both the patients were boys under ten years of age; and the halfpence were much corroded when passed.

allowing sufficient distilled water to pass through the strainer to make the mixture measure 30 ounces.

Comp.—The soluble matter of the aloes and myrrh dissolved in water, which is enabled, by the alkali, to take up a little more than the water alone could do. The tincture keeps it unchanged. This decoction contains 4gr. of extract of aloes in the ounce, the decoction of the Pharmacopœia of 1864 contains gr.5·6, and that of Lond. Phar. gr.3·3.

Oper.—A warm cathartic; emmenagogue.

Use.—In habitual costiveness from torpor of the bowels; in jaundice hypochondriasis, chlorosis, and dyspepsia.

Dose.—Fl.unc.ss. to fl.unc.ij. taken in the morning.

Incomp.—Acid and acidulous salts, metallic salts.

DECOCTUM CETRARĬÆ. Decoct. Lichenis Islandici. Decoction of Iceland Moss. (*Cetrariæ* unc.j.; *Aquæ destill.* Ojss. Steep the moss in cold water and then boil for 10 minutes, and strain, pouring distilled water over the strainer till the product measures a pint.

Comp.—Bitter, extractive, *cetraric acid*; a gelatinous matter, *lichenin*, and fecula, dissolved in water.

Prop.—Inodorous; taste bitter; mucilaginous; colour yellow.

Oper.—Tonic, demulcent.

Use.—In protracted coughs, phthisis, emaciation from the great discharge of ulcers, pertussis.

Dose.—Fl.dr.iv. to fl.unc.ij three or four times a day. The bitter is completely extracted by steeping the lichen in several waters before it is boiled, adding to each water about half a scruple of carbonate of potassa. Its nutritive qualities are considerable.

DECOCTUM CINCHŌNÆ FLAVÆ. Decoction of Yellow Cinchona. (*Cinchonæ Flavæ contritæ* unc.1½; *Aquæ destill.* Oj. Boil for ten minutes in a slightly covered vessel, and strain; when cold, pour over the strainer sufficient distilled water to make up a pint.

Comp.—Cinchonia, Quinia, as Bikinates, and resinous extractive dissolved in water.

Prop.—Odour and taste of the bark.

Oper.—The same as that of the bark.

Use.—When the powder does not sit easy on the stomach; and when large doses are necessary, or ingredients of a nature which cannot be combined with the powder are required to be given with the bark.

Dose.—Fl.unc.j. to fl.unc.ij. three or four times a day.

Incomp.—Tartarised antimony, infusions of astringent barks, salts of iron, silver and lead.

*DECOCTUM CINCHŌNÆ PALLĬDÆ. Decoction of Pale Bark.

Comp.—Kinate of Cinchonia with a small proportion of Kinate of Quinia.

Oper, *Use*, and *Dose.*—Same as *Dec. Cinchonæ Flavæ.*

*DECOCTUM CINCHŌNÆ RUBRÆ. Decoction of Red Bark.

Use.—In gangrene and general debility.

*DECOCTUM DULCAMĀRÆ. Decoction of Woody Nightshade. (*Dulcamaræ* unc.1¼; *Aquæ dest.* Ojss. Boil to one pint, and strain.)

Prop.—Odour strong and unpleasant; taste bitter and nauseous, followed by a degree of sweetness. (Contains *Solania* and *Picroglycein*, from πικρὸς bitter and γλυκὺς sweet.)

Oper.—Alterative, diuretic, diaphoretic.

Use.—In dropsy; humoral asthma, lepra, and some other diseases of the skin.

Dose.—Fl.unc.ss. to fl.unc.j. with any aromatic tincture, twice or thrice a day.

•DECOCTUM GALLÆ. Decoction of Galls. (*Gallæ contusæ* lb.½; *Aquæ destillatæ* Oij. Boil to one pint, and strain.)

Oper.—Astringent.

Use.—In passive hæmorrhages; in chronic diarrhœa or dysentery; in gleet and in leucorrhœa. As an antidote in poisoning with tartar emetic, ipecacuanha, and the vegetable alkaloids generally.

DECOCTUM GRANĀTI RADĪCIS. (*Granati Radicis Concisæ* unc.ij.; *Aquæ destillatæ* Oij. Boil to one pint, and strain.)

Prop.—Contains tannic acid, extractive, gum.

Oper.—Astringent, anthelmintic.

Use.—In tapeworm, dysentery.

Dose.—Fl.unc.j. to fl.unc.ij.

DECOCTUM HÆMATOXŸLI. Decoction of Logwood. (*Hæmatoxyli concisi* unc.j.; *Cinnamomi contriti* gr.lx.; *Aquæ destillatæ* Oj. Boil for ten minutes, adding the cinnamon towards the end, strain, and pour over the strainer sufficient distilled water to make the product measure a pint.

Prop.—Taste sweetish, subastringent; nearly inodorous: colour deep red.

Oper.—Tonic, astringent.

Use.—In diarrhœa, and some cases of dyspepsia, where the secretions of the intestines are acrid.

Dose.—Fl.unc.j. to fl.unc.iij. frequently.

Incomp.—The mineral acids, solution of alum, sulphates of iron and of copper, acetate of lead, tartarised antimony.

DECOCTUM HORDĔI. Decoction of Barley. (*Hordei Sem.* unc.ij.; *Aquæ destill.* Ojss. First wash the barley well, then boil it for twenty minutes in Oss. of the water, and strain.)

Oper.—Nutritive, demulcent.

Use.—As a diluent in febrile affections; recent gonorrhœa, and strangury; and to form the bulk in enemata.

Dose.—Ad libitum.

DECOCTUM PAPAVĔRIS. Decoction of Poppy. (*Papav. contusi* unc.ij.; *Aquæ destillatæ* Ojss. Boil for ten minutes, and strain, passing over the strainer sufficient distilled water to make up a pint.)

Comp.—Bimeconate of morphia, and the other soluble salts of opium, with mucilage, extractive, &c., in water.

Prop.—Anodyne, emollient.

Use.—As a fomentation in painful swellings, excoriations arising from the acrid discharge of ulcers, and those common to infants.

DECOCTUM PARĒIRÆ. Decoction of Pareira. (*Pareiræ concisæ* unc.jss.; *Aquæ destill.* Oj. Boil for fifteen minutes, and strain, pouring over the strainer sufficient distilled water to make up a pint.)

Comp.—Peculiar uncrystallisable principle (*Cissampelin*), soft resin, tannin, starch.

Oper.—Slightly tonic and diuretic.

Dose.—Fl.unc.j. to fl.unc.ij.

DECOCTUM QUERCUS. Decoction of Oak Bark. (*Quercûs Cort.* unc.1¼; *Aquæ destillatæ* Oj. Boil for fifteen minutes, and strain, pouring over the strainer sufficient distilled water to make up a pint.)

Oper.—Astringent.

Use.—As an injection in leucorrhœa, and the gleety discharge which frequently remains after miscarriages; a fomentation in local vitiated ulcer; an application to warts.

Incomp.—Decoction of cinchona; gelatine; metallic salts; alkalies destroy its astringency.

DECOCTUM SARSÆ. Decoctum Sarsaparillæ. Decoction of Sarsaparilla. (*Sarsæ* unc.ijss.; *Aq. destill.* Ojss. Digest the Sarsaparilla in water for an hour; then boil for ten minutes in a covered vessel, strain, and cool. The product should be made to measure a pint by pouring sufficient distilled water over the strainer.)
Comp.—*Similacin.* Acrid bitter resin, lignin, starch, and mucilage.
Prop.—Inodorous; taste bitter, glutinous.
Oper.—Alterative; slightly diaphoretic and tonic; demulcent.
Use.—In the sequelæ of syphilis, after a mercurial course.
Dose.—Fl.unc.ij.; to fl.unc.x. twice or thrice a day, alone or with milk.
Incomp.—Lime-water, acetates of lead.

DECOCTUM SARSÆ COMPŎSĬTUM. Compound Decoction of Sarsaparilla. (*Sarsæ* unc.ijss. *Sassafras concisæ, Guaiaci Ligni derasi, Glycyrr. recentis cont. sing.* unc.¼; *Mezerei* gr.lx.; *Aquæ destillatæ ferventis*, Ojss. Proceed as in the simple decoction.)
Oper.—Diaphoretic, alterative.
Use.—The same as the former; in secondary syphilis, chronic rheumatism and lepra.
Dose.—Fl.unc.ij. to fl.unc.x. twice or thrice a day.
*** This preparation is similar to the celebrated *Lisbon Diet Drink.*

DECOCTUM SCOPĀRII. Decoction of Broom. (*Scoparii* unc.j.; *Aquæ* Oj. Proceed as in the former decoctions.)
Oper.—Diuretic.
Use.—In dropsy.
Dose.—Fl.unc.j. to fl.unc.iv.

*DECOCTUM SCOPĀRII COMPŎSĬTUM. Compound Decoction of Broom. *Scoparii, Juniperi contusi, Taraxaci contusi*, āā.unc.ss.; *Aquæ destillatæ* Ojss. Boil to a pint, and strain.
Use.—In dropsy.
Dose.—Fl.unc.jss. three times a day.

*DECOCTUM SENĔGÆ. Decoction of Senega. (*Senegæ* unc.jss.; *Aquæ* Ojss. Boil to Oj. and strain.)
Prop.—Inodorous; taste hot and pungent; colour brown olive.
Oper.—Diuretic, purgative, stimulant.
Use.—In dropsy, rheumatism, and 'affections of the lungs, attended with debility, and inordinate secretion.'
Dose.—Fl.unc.jss. to fl.unc.iij. three or four times a day.

DECOCTUM TARAXĂCI. Decoction of Dandelion. *Taraxaci concisi et contusi* unc.j.; *Aquæ destill.* Oj. Boil for ten minutes, and proceed as above.)
Prop.—Taste bitter.
Oper.—Purgative, diuretic, tonic.
Use.—In dropsies, and deficient and irregular action of the hepatic organs.
Dose.—Fl.unc.j. to fl.unc.ij. twice or thrice a day.

DECOCTUM ULMI. Decoction of Elm Bark. (*Ulmi contusæ* unc.ijss.; *Aquæ destill.* Oj. Boil for ten minutes and strain, and proceed as in the other decoctions.)
Prop.—Odour faint; taste slightly bitter; colour brown.
Oper.—Diuretic, alterative.
Use.—In lepra and herpetic eruptions. Willan thinks it has little efficacy. I have ascertained that it is equal to Decoction of Sarsaparilla.
Dose.—Fl.unc.iv. to fl.unc.vj. twice or thrice a day.
Incomp.—Alcohol and tinctures in any considerable quantity.

DIGITALĪNUM. Digitalin. The active principle of Digitalis.

Prop.—White or yellowish scales, or porous mammillated masses; inodorous, bitter, irritating to the nostrils; soluble in spirit, but slightly so in water or æther. Soluble in acids, but without combining with them; its solution in hydrochloric acid is of a faint yellow colour, but rapidly becomes green; burns without residue.

Oper.—Sedative, diminishing the velocity and force of the pulse; diuretic. In overdoses it causes vomiting, purging, faintness, dimness of sight, vertigo, delirium, syncope.

Use.—It must be used with the *greatest caution*, and is of service in the same cases as the plant. It has been ordered with success as a diuretic.

Dose.—Gr. $\frac{1}{60}$ to $\frac{1}{30}$ in the form of granules.

DIGITĀLIS FOLĬA. Digitalis Purpurea. Purple Foxglove Leaves, dried. (Digitalis Purpurea, *Didynam. Angiosperm.* N.O. *Scrophulariaceæ.* Indigenous. ♂)

Botanical Characters.—Stem erect, three to four feet high, with purplish hue: leaves large, veiny, ovate-lanceolate, crenate, shortly petiolate, rugose, downy, purplish on their under surface. Flowers numerous, purple, spotted within, drooping in very long spikes. The leaves are gathered in June and July, just before the plant comes into flower, and the midrib and stalk removed. They are dried in a dark place.

Prop.—Inodorous; taste acrimonious, bitter, nauseous; injured by light, both in colour and virtues. Its action depends on the presence of Digitalinum.

Oper.—Sedative, diminishing the velocity and force of the pulse, and lessening the irritability: diuretic. In overdoses it occasions vomiting, purging, dimness of sight, vertigo, delirium, hiccough, convulsions, and death. These symptoms of poisoning are obviated by cordials, opium, and blisters.

Use.—In disease of the heart and large vessels; in insanity and epilepsy. In inflammatory diseases; phthisis; active hæmorrhages; and dropsies, unattended by palsy and unsound viscera; particularly when combined with nitric acid, in dropsies which occur after long and harassing courses of mercury; most useful where there is a laxness of fibre, pale countenance, intermittent, weak pulse, cold skin, and when the swelling pits. This state may be produced by bleeding, saline purges, &c. It has also been recommended in the form of tincture, in doses of fl.unc.ss., in cases of delirium tremens. When nausea occurs, its use must be intermitted for a little time; but we are not of opinion that purging counteracts its desired effects; for, although the kidneys may not act so powerfully, yet the body is unloaded of the morbid fluid by the intestines. Its use may be followed by a generous diet, and tonics; and during its employment diluents are necessary.

Dose.—Gr. $\frac{1}{2}$ to $1\frac{1}{2}$ in a pill, united with ammoniacum, squill, soap, calomel, or opium, every six or eight hours, till the remedy acts by the kidneys, when it must be discontinued, and the intervals extended: but it may again be given, after a further interval.

Off. Prep.—*Infusum Digitalis. Tinct. Digitalis. Digitalinum.*

DULCAMĀRA. Dulcamara. Bitter-sweet. Woody Nightshade, dried young branches. (Solanum Dulcamara. *Pentand. Monogyn.* N.O. *Solanaceæ.* Indigenous. ♄. To be collected in autumn, when the leaves are off.)

Comp.—*Solania*, combined with malic acid; *picroglycein* (πικρὸς et γλυκύς).

Prop.—In short cylindrical pieces, dried, inodorous; of a pale green colour, hollow, and about the thickness of a goose quill; taste bitter, followed by sweetness.
Oper.—Diuretic, sudorific, alterative, sedative.
Use.—In chronic rheumatism, humoral asthma, dropsy, lepra; scrofula and jaundice.
Dose.—Gr.xx. to gr.lx. in powder; in the form of extract gr.v. to gr.x. An overdose produces vomiting and delirium.*
Off. Prep.—*Infusum Dulcamaræ.*

ECBĂLĬI FRUCTUS. The fruit of the Squirting Cucumber very nearly ripe.

ELATĒRĬUM. Fecula of the Wild Cucumber. Extractum Elaterii. Ecbalium Officinarum. (*Momordica Elaterium. Monœcia Syngenesia* N.O. *Cucurbitaceæ*. South of Europe. ☉)
Com.—*Elaterin*, bitter principle, fecula, chlorophyll, salt of potash.
Prop.—In light, friable, slightly incurved cakes, about a line in thickness; inodorous; taste bitter, acrid, of a pale greyish-green colour. Does not effervesce with acids; yields half its weight to boiling rectified spirit. The concentrated solution added to warm liquor potassæ yields on cooling not less than 20 per cent. of Elaterin in colourless crystals. A concentrated alcoholic solution poured into hot diluted liq. potassæ deposits minute, silky-white crystals 1-7th the weight of the Elaterium.
Oper.—Violently cathartic; hydragogue.
Use.—In dropsies.
Dose.—Gr.1-16th to gr.½ in a pill.

ELĔMI. Canarium Commune(?); Resina, Elemi. (Canarium Commune. *Polygamia, Diœcia.* N.O. *Amyridaceæ.* Manilla. ♄)
Comp.—Resin, volatile oil.
Prop.—Odour fragrant, strong; taste bitter. In large solid masses of a yellow and greenish colour, semi-transparent; fusible, soluble in alcohol, partly also in essential oil.
Oper.—Stimulant.
Use.—Scarcely ever used internally; but chiefly for forming a pleasant digestive ointment, for promoting the discharge from blisters, issues, and setons.
Off. Prep.—*Unguentum Elemi.*

*EMPLASTRUM AMMŌNIĂCI. Ammoniacum Plaster. (*Ammoniaci præparati* unc.v.; *Acidi Acetici dil.* fl.unc.viij. After dissolving the Ammoniacum, the plaster is formed by evaporating the mixture, constantly stirring to a proper consistence.)
Prop.—Adhesive.
Oper.—Stimulant, resolvent.
Use.—To scrofulous tumours, bronchocele, white swelling.

EMPLASTRUM AMMŌNIĂCI CUM HYDRARGŸRO. Ammoniacum Plaster with Mercury. (*Ammoniaci præparati* unc.xij.; *Hydrarg.* unc.iij.; *Olei Olivæ* fl.dr.j.; *Sulphuris* gr.viij. Add the sulphur to the oil heated, stirring constantly until they combine, then rub the mercury with them until the globules disappear; lastly, add the ammoniacum melted, and mix.)

---

* The influence of Dulcamara is regulated by the soil and temperature of the climate where the plants grow; the warmer the better.

Oper,—Resolvent, discutient.
Use.—To indurated glands, hydrarthrus, nodes, tophi, bronchocele, and indolent tumours.
The mercury is in the state of a protoxide.

EMPLASTRUM BELLADONNÆ. Plaster of Belladonna. (*Extracti Belladonnæ* unc.iij.; *Empl. Resinæ* unc.iij.; *Spiritus Rectificati* fl.dr.vj. Rub the extract and spirit together in a mortar, and, when the insoluble matter has subsided, decant the clear solution; remove the spirit by distillation or evaporation, and mix the alcoholic extract with the resin plaster melted by the heat of a water-bath.)
Oper.—Sedative, anodyne.
Use.—In chronic rheumatism, and local pains; dysmenorrhœa; painful affections of the heart, uterus, &c.

EMPLASTRUM CALĔFACĬENS. Calefacient Plaster. Warm Plaster. (*Cantharidis contritæ*, *Olei Myristicæ*, *Ceræ Flavæ*, *Resinæ* āā unc.iv.; *Empl. Saponis* lb.iij‡; *Empl. Resinæ* lb.ij.; *Aquæ ferventis* Oj. To the evaporated aqueous extract of Cantharides add the other ingredients, and melt in a steam or water-bath.)
Oper.—Calefacient, rubefacient, stimulant.
Use.—In catarrh, pertussis, inflammatory affections of the chest, and sciatica.

EMPLASTRUM CANTHĂRĬDIS. Plaster of the Spanish or Blistering Fly. (*Cantharidis in pulv. sub.* unc.xij.; *Ceræ Flavæ*, *Sevi*, *singulorum* unc.vijss.; *Resinæ* unc.iij.; *Adipis* unc.vj. First melt the resin, then the wax, suet, and lard, and as the mixture becomes thick in cooling, sprinkle in the flies, and mix.)
Oper.—Epispastic.
Use.—In every case where blisters are required. Heat destroys the acrimony of the flies, and therefore this plaster fails when incautiously prepared. It should be spread on leather, for a plaster, with the thumb, and never with a hot spatula; perhaps the most certain mode of raising blisters would be to sprinkle the finely powdered flies on some farinaceous paste, as suggested by Parmentier. In using this plaster, the part which it is to cover should be bathed with vinegar; and a piece of thin gauze pressed down on the surface of the plaster interposed between it and the skin, by which means it is easily and cleanly removed. It requires to remain applied twelve hours in order to produce a perfect blister. But in a child, after any debilitating disease, especially measles, it ought to be taken off after three, four, or six hours, and a bread and water poultice applied, when in due time a good blister will be the consequence, without any tendency to sloughing.

EMPLASTRUM CERĀTI SAPŌNIS. Soap Cerate Plaster. Ceratum Saponis. Vide Ceratum Saponis.

EMPLASTRUM FERRI. Chalybeate Plaster. (*Ferri Peroxidi Hydrati* unc.j.; *Empl. Plumbi* unc.viij.; *Picis Burg.* unc.ij. Melt the plaster, then add the peroxide, and mix.) *Emplastrum Roborans.*
Oper.—Strengthening, stimulant.
Use.—In muscular relaxations; and in weaknesses of the joints after sprains. In lumbar weaknesses and pains of women. It acts chiefly in giving a mechanical support, by its stiffness and adhesive quality.

EMPLASTRUM GALBĂNI. Galbanum Plaster. (*Galbani* unc.j.; *Ammoniaci* unc.j.; *Ceræ Flavæ* unc.j.; *Emp. Lithargyri* unc.viij. Melt the galbanum and ammoniac together, then add the litharge plaster and yellow wax previously melted, and mix.)

Oper.—Stimulant, suppurative.
Use.—To scrofulous tumours, old arthritic joints; and to the lumbar regions in rickets. For the purposes of a digestive in discharged abscesses, when induration remains.

EMPLASTRUM HYDRARGŸRI. Mercurial Plaster. (*Hydrarg.* unc.iij.; *Olivæ Olei* fl.dr.j.; *Emplastri Plumbi* unc.vj.; *Sulphuris Sublimati* gr.viij. Having heated the oil, add the sulphur, and rub in the mercury till no globules remain, then mix the whole with the melted litharge plaster.) *Emplastrum Lithargyri cum Hydrargyro.*
Qper.—Stimulant, resolvent, discutient.
Use.—To buboes and venereal tumours; nodes, when not painful to the touch; and indurations; and to joints affected with syphilitic pains.

*EMPLASTRUM LITHARGŸRI. Litharge Plaster. Emplastrum Plumbi. (*Lithargyri* lb.iv.; *Olei Olivæ* cong.j.; *Aquæ* Oiijss. Boil together over a slow fire, stirring constantly until the oil and litharge form a plaster.
Comp.—Protoxide of lead, and oil so changed as to approximate to the nature of volatile oil. The water is evaporated.
Oper.—Defensive, slightly adhesive.
Use.—In excoriations; as a defence in slight wounds, and to retain their edges together; as a covering to corns, and to form a basis of some other plasters.
Off. Prep.—Emp. Ferri. Emp. Galbani. Emp. Hydrargyri. Emp. Resinæ. Emp. Saponis.

EMPLASTRUM OPĬI. Opium Plaster. (*Opii Pulverisati* unc.j.; *Emp. Resinæ* unc.ix. Melt the resin in a steam or water-bath, and add the opium.)
Oper.—Anodyne, stimulant.
Use.—Against internal pains. Although it is undoubtedly certain that opium, in that state of minute division in which it exists in the tincture, produces its specific effect on the system in a small degree, when externally applied; yet we doubt whether the effects of this plaster will sanction the adoption.

EMPLASTRUM PĬCIS. Pitch Plaster. (*Picis Burgundicæ* unc.xxvj.; *Thuris* unc.xiij.; *Resinæ, Ceræ Flavæ, sing.* unc.ivss.; *Myristicæ Olei expressi* unc.j.; *Olivæ Olei, Aquæ, sing.* fl.unc.ij. To the pitch, resin, and wax melted together, add the other matters, and boil to a proper consistence.
Oper.—Stimulant, rubefacient.
Use.—In catarrh, and other pulmonary affections, applied to the chest; and to the temples in pains of the head, and chronic ophthalmia. When any serous exudation takes place, the plaster should be frequently renewed.

EMPLASTRUM PLUMBI. Lead Plaster. Vide *Emplastrum Lithargyri.*

EMPLASTRUM PLUMBI IODĬDI. Iodide of Lead Plaster. (*Plumbi Iodidi* unc.j.; *Emplastri Saponis, Emplastri Resinæ* āā unc.iv. Add the iodide of lead in fine powder to the plasters previously melted, and mix them intimately.)
Oper.—Resolvent, mildly stimulant, sedative.
Use.—In cases of scrofulous tumours and large scrofulous joints.

EMPLASTRUM RESĪNÆ. Emplast. Resinosum. Resin Plaster. *Resinæ* unc.iv.; *Empl. Plumbi* lb.ij.; *Saponis duri* unc.ij. Melt the plaster with a gentle heat, then add the resin and soap, and mix.)
Oper.—Defensive, adhesive, slightly stimulant.

Use.—In retaining the lips of recent wounds together, that they may may heal by the first intention; and to give support to ulcerated parts, to assist their granulation, without rest. The plaster originally prepared by Mr. Baynton contained less resin; gr.ccclx. only to lb.j. of the litharge plaster. This preparation, however, answers the purpose equally well, except in very irritable habits.

Off. Prep.—*Emplastrum Belladonnæ. Empl. Calefaciens. Empl. Opii. Empl. Plumbi Iodidi.*

EMPLASTRUM SAPŌNIS. Soap Plaster. (*Saponis duri* unc.vj.; *Emplast. Plumbi* lb.ij¼; *Resinæ* unc.j. Mix the soap and resin with the melted plaster; and boil to a proper consistence.)

Oper.—Mildly discutient.

Use.—Applied to lymphatic tumours; and used with the same views as the mercurial plaster, but with much less effect.)

Off. Prep.—*Emplastrum Calefaciens. Emplastrum Plumbi Iodidi.*

ENĔMA ALOES. Enema of Aloes. (*Aloes* gr.xl.; *Potassæ Carbonatis* gr.xv.; *Mucilag. Amyli* Oss. Mix and rub together.)

Use.—As a stimulant cathartic in amenorrhœa; and for dislodging ascarides.

ENĔMA ASSAFŒTĬDÆ. Enema of Assafœtida. Enema Fœtidum. (*Assafœtidæ* gr.xxx.; *Aquæ destillatæ* fl.unc.iv. Rub the assafœtida in a mortar with the water added gradually so as to form an emulsion; or it may be conveniently and quickly prepared by mixing six fl.drachms of tincture of assafœtida with six fl.unc. of mucilage of starch.)

Oper.—Antispasmodic, vermifuge.

Use.—In hysteria, spasmodic colic, in some diseases of children, also in pertussis.

ENĔMA MAGNĒSIÆ SULPHĀTIS. Enema Catharticum. Enema of Sulphate of Magnesia. (*Ol. Olivæ* fl.unc.j.; *Sulph. Magnesiæ* unc.j.; *Mucilag. Amyli* fl.unc.xv.)

Use.—This is a good, gently stimulating, and emollient clyster; but it does not possess any peculiar advantage over those which are every day ordered in extemporaneous prescriptions.

ENĔMA OPII. Enema of Opium. (*Tincturæ Opii* min.xxx.; *Mucilag. Amyli* fl.unc.ij.)

Use.—In irritable bladder, diseases of the prostate gland, and dysentery; in the diarrhœa of typhoid fever, phthisis, &c.; and strangury from blisters.

ENĔMA TABĂCI. Enema of Tobacco. (*Tabaci* gr.xx.; *Aquæ ferventis* fl.unc.viij. Macerate for half an hour and strain.)

Oper.—Sedative.

Use.—In strangulated hernia, and spasmodic affections.

ENĔMA TEREBINTHĪNÆ. Enema of Turpentine. (*Terebinthinæ Olei* fl.unc.j.; *Mucilag. Amyli* fl.unc.xv.)

Use.—In affections of the urinary organs, intestinal worms, especially tænia; in spasmodic affections, as chorea; in tympanitis of fever; in peritoneal inflammation, especially of puerperal peritonitis.

ERGŎTA. Ergot. (The sclerotium (compact mycelium or spawn) of Claviceps purpurea, produced within the paleæ of common rye, Secale cereale. Europe.)

Prop.—Subtriangular, curved, with a longitudinal furrow on the concave side, obtuse at the ends, from ⅓ of an inch to 1½ inch in length; violet-coloured body, pinkish within; inodorous, mawkish; burns with a whitish flame.

Comp.—A soft, reddish-brown extract; very soluble in water, *ergotin*, on which the obstetric and anti-hæmorrhagic properties depend; a colourless fixed oil, very soluble in æther, which is the poisonous principle. (*Bonjean.*) Dr. Nevins states that the medicinal qualities depend on the oil, and that the ergotin, an acrid solid substance soluble in æther and alcohol, is poisonous, but not capable of inducing uterine contraction.

Oper.—Stimulant, acting chiefly on the muscular system of the uterus, and also probably on the extreme arteries, causing, when taken for a long continuance, gangrena senilis.

Use.—In parturition when the pains languish, and the uterine action becomes torpid, provided the os uteri be fully dilated, and the membranes ruptured. In leucorrhœa.. In passive hæmorrhages.

Dose.—Gr.xx. to gr.xxx. in cases of parturition: gr.v. to gr.x. in leucorrhœa or atonic hæmorrhage three or four times a day.

Off. Prep.—*Extractum Ergotæ liquidum. Infusum Ergotæ. Tinct. Ergotæ.*

ESSENTĬA ANĬSI.* Essence of Anise. (*Olei Anisi* fl.unc.j.; *Spir. rectificati* fl.unc.iv. Mix.)

Oper.—Aromatic, stimulant, carminative.

Use.—In flatulence, and in the diarrhœa of infants.

Dose.—Min.x. to min.xx.

ESSENTĬA MENTHÆ PIPERITÆ.* Essence of Peppermint. (*Olei Menthæ Piperitæ* fl.unc.j.; *Spiritus rectificat.* fl.unc.iv. Mix.)

Oper.—Aromatic, stimulant, carminative.

Use.—In nausea, cardialgia, flatulence, colic, &c.

Dose.—Min.x. to min.xx.

EXTRACTUM ACONĪTI. Extract of Aconite. (*Aconiti fol. recent.* lb.cxij. Bruise in a stone mortar, press the juice out, and evaporate to a proper consistence, with due regard to temperature.)

Prop.—Odour disagreeable; taste acrid, slightly styptic; colour obscure green or brownish red. It loses its virtues when long kept.

Oper.—Narcotic, anodyne, diuretic.

Use.—In chronic and even acute rheumatism, neuralgia, and ague; glandular swellings, convulsions; and also acute uterine hæmorrhages, and externally to relieve rheumatic and neuralgic pains.

Dose.—Gr.¼ night and morning, gradually increased to gr.v., in the form of pills. But its internal use must be recommended with the greatest caution.

EXTRACTUM ALŎES SOCOTRĪNÆ. Extract of Socotrine Aloes. (*Aloes Socotrinæ* lb.j.; *Aquæ destillatæ ferventis* cong.j. The gummy part extracted by boiling water, defecated, and inspissated.)

Prop.—Almost inodorous; taste bitter, but less unpleasant than the aloes.

Oper.—Cathartic, emmenagogue.

Use.—In the same cases for which the aloes is used.

Dose.—Gr.j. to gr.vj. in pills.

Off. Prep.—*Decoctum Aloes Compositum. Pil. Coloc. Comp.*

EXTRACTUM ALŎES BARBADENSIS. Extract of Barbadoes Aloes. (Prepared as the above. The same as the above.)

EXTRACTUM ANTHEMĬDIS. Extract of Chamomile. *Florum Anthemidis* lb.j.; *Aquæ destillatæ* cong.j.; *Olei Anthemidis* min.xv. Add the oil to the extract obtained by evaporating the infusion.

---

* Both these essences are double the strength of the preparation of the same name in the Dublin Pharmacœpia.

Prop.—Almost inodorous; taste a pure grateful bitter; colour dark brown.
Oper.—Tonic, stomachic.
Use.—In dyspepsia, chlorosis, and general debility.
Dose.—Gr.ij. to gr.xx. in pills, twice or thrice a day.

EXTRACTUM BĒLÆ LĬQUĬDUM. Liquid Extract of Bael. (*Belæ* lb.j.; *Aquæ destillatæ* Oxij.; *Spir. rect.* fl.unc.ij. Macerate, and after filtration evaporate to fourteen ounces, and when cold, add the spirit.)
Prop.—Bitter.
Oper.—Astringent, and in some degree sedative.
Use.—In dysentery and diarrhœa, and in atonic conditions of the mucous membrane of the stomach and intestines.
Dose.—Fl.dr.j. to fl.unc.ss.

EXTRACTUM BELLADONNÆ. Extract of Belladonna. (An expressed juice inspissated. Prepared as the Extractum Aconiti.)
Prop.—Inodorous; taste bitterish.
Oper.—Narcotic, but said to act as an antidote to opium; it is used in the same cases as the plant; principally however, locally, to produce dilatation of the pupil in iritis, &c.
Dose.—Gr.¼ gradually increased to gr.ij. in pills.
Off. Prep.—*Emplastrum Belladonnæ.*

EXTRACTUM CALUMBÆ. Extract of Calumba. (An evaporated aqueous extract.)
Oper.—Tonic and stomachic.
Use.—In debility of digestive organs, in non-inflammatory gasterodynia, pyrosis.
Dose.—Gr.ij. to gr.x.

EXTRACTUM CANNĂBIS INDĬCÆ. Extract of Indian Hemp. (*Cannabis Indicæ* lb.j.; *Spir. rectif.* Ojv. Dissolve the hemp in the spirit; and when the dregs have subsided, decant the clear liquid, and evaporate by means of a water-bath to consistence of a soft extract.)
Oper.—Narcotic; in small doses it exalts the mental powers, and in larger it causes delirium—it does not dilate the pupil.
Use.—Neuralgia, tetanus, hydrophia, chorea, chronic rheumatism.
Dose.—Gr.¼ to gr.j.
Off. Prep.—*Tinctura Cannabis Indicæ.*

EXTRACTUM CINCHŌNÆ FLAVÆ LĬQUĬDUM. Extract of Yellow Cinchona Bark. (*Cinchonæ Flavæ crasse contritæ* lb.j.; *Aquæ destillatæ q.s.*; *Spiritus Rectificati* fl.unc.j. Add two pints of water to the bark, briskly stirring till the whole is wet. Macerate for twenty-four hours and strain. Pass the residue through the percolator with the rest of the water and strain. Evaporate at a temperature not exceeding 160°, and when cold add the spirit.)
Comp.—Kinate of quinia, a small portion of kinate of cinchonia and of lime, extractive, mucilage, and tannic acid. (2·3 per cent. quinia + 0·08 cinchonia. *Thiel.*)
Prop.—Odour sweetish; taste bitter, but less austere than the bark; colour deep brown, and if the temperature be strictly attended to, it is a most valuable preparation. It is almost identical with the Liquor Cinchonæ of Mr. Battley.
Oper.—The same as the bark in substance; and consequently it is used in the same cases. The specific gravity should be about 1·100.
Dose.—Min.v. to dr.ss. dissolved in any distilled water.

EXTRACTUM COLCHĬCI. Extract of Colchicum. Prepared in the same manner as the Extractum Aconiti.

Comp.—Gallate of colchicia, fecula, mucilage.

Oper.—Purgative, narcotic.

Use.—In gout and acute rheumatism.

Dose.—Gr.ss. to gr.ij. repeated every four or six hours.

EXTRACTUM COLCHĬCI ACĒTĬCUM. Acetic Extract of Colchicum. (*Colchici Cormi recentis decorticati* lb.vij.; *Acidi Acetici*, fl.unc.vj.) Bruise the cormi, gradually sprinkling them with the acid; then express the juice, heat to 212°, strain and evaporate in a vessel not glazed with lead to a proper consistence, at a temperature not exceeding 160°.

Comp.—Acetate of colchicia, fecula, mucilage.

Oper.—Diuretic, narcotic.

Use.—In gout, acute rheumatism, biliary congestion, and diseases of excitement.

Dose.—Gr.ss. to gr.ij. twice or thrice a day.

Incomp.—Alkalies and their carbonates, magnesia, lime-water.

EXTRACTUM COLŎCYNTHĬDIS COMPŎSĬTUM. Compound Extract of Colocynth. (*Colocynthidis pulpæ* unc.vj.; *Extracti Aloes Socotrinæ* unc.xij.; *Scammonii resinæ* unc.iv.; *Saponis duri contriti* unc.iij.; *Cardamomi seminum ad pulverem subtilissimum redactorum* unc.j.; *Spir. ten.* cong.j.) Macerate the colocynth in the spirit, add the soap, scammony, and extract of aloes to the spirit pressed out, distil, evaporate, and finally add the cardamoms.

Oper.—Cathartic, mild in its operation, and not apt to occasion gripings.

Use.—For evacuating the bowels; and as an adjunct to other purgatives.

Dose.—Gr.ij. to gr.x. in pills at bed-time.

EXTRACTUM CONĪI. Extract of Hemlock. (An expressed juice inspissated without defecation.)

Comp.—Conia, extractive, mucilage, volatile oil, chlorophyll.

Prop.—Odour disagreeable; taste bitterish and saline; colour dark olive; it loses its virtues when kept, and a saline efflorescence appears on its surface.

Oper.—Narcotic, alterative, resolvent.

Use.—In chest affections, scrofula, scirrhus, and cancer, particularly for allaying the pain of uterine cancer, without producing costiveness, as opium does; a useful addition to mercurial salts in cutaneous complaints.

Dose.—Gr.j. gradually increased to gr.vj. or more, twice or thrice a day.*

Test.—Triturate with Liquor Potassæ: if good, a strong odour of Conia is evolved.

Off. Prep.—*Pilula Conii Comp. Vapor Coniæ.*

EXTRACTUM ERGŎTÆ LĬQUĬDUM. Liquid Extract of Ergot. (*Ergotæ contrit.* lb.j.; *Ætheris* Oj.; *Aquæ destillatæ* Oiijss.; *Spiritus rectificati* fl.unc.viij.) Prepared by percolation. It is an ethereal and aqueo-spirituous extract. Each fl.dr. contains 60 grs. of Ergot.

Oper.—Stimulant and astringent, acting on the small arteries and the muscles, especially of the uterus.

---

* Impotentiam virilem, *says Bergius*, sub usu Conii curatam observavi, in viro quodam plusquam quadragenario, qui omnem erectionem penis perdiderat, postinde tamen plures liberos procreavit.—Mat. Med. vol. i. p. 195.

Use.—In parturition, when the pains languish, and the uterine action becomes torpid, provided the os be fully dilated and the membranes ruptured. Also sometimes in leucorrhœa and passive hæmorrhages.
Dose.—Min.x. to fl.dr.j.

EXTRACTUM FĬLĬCIS LĬQUĬDUM. Liquid Extract of Fern Root. (*Filicis radicis contritæ* lb.ij.; *Ætheris* Oiv. vel q.s.s. Prepared by percolation, and afterwards by evaporation and distillation.
Oper.—Anthelmintic.
Use.—In tænia lata, and solium, and bothriocephalus latus.
Dose.—Min.xxx. to fl.dr.ij., to be given in the early morning, after several hours' fast. It sometimes requires to be followed by a purgative.

*EXTRACTUM ELATĒRĬI.[1] Elaterium, E. Extract of Elaterium. (The fecula of the expressed juice.)
Comp.—Elaterin 44+green resin 17+fecula 6+saline inert matter 6+lignin 27=100 parts.
Oper.—Violently cathartic, hydragogue, sometimes emetic.
Use.—In ascites, when other remedies have failed, renal anasarca, and in very obstinate costiveness.
Dose.—Gr.1-6th made into a pill, with extract of gentian, or with calomel gr.j., or in powder with bitrartate of potash, every sixth hour till it operate; and then repeated every sixth or eighth hour till a cure be effected.

EXTRACTUM GENTIĀNÆ. Extract of Gentian. (Macerate one pound of sliced gentian in a gallon of boiling distilled water; pour off the liquor and strain; and evaporate.)
Comp.—Gentianite, its bitter principle, gentianin, mucilage, sugar.
Prop.—Inodorous, intensely bitter, black, shining, tenacious.
Oper.—Tonic, stomachic; in large doses aperient.
Use.—In dyspepsia, jaundice, &c., but it is chiefly used as a medium for giving the metallic oxides in the form of pills: an excellent adjunct to ipecacuanha in the latter stage of dysentery.
Dose.—Gr.x. to gr.xxx. twice or thrice a day.

EXTRACTUM GLYCYRRHĪZÆ. Extract of Liquorice. (Macerate for twenty-four hours lb.j. of liquorice-root in coarse powder in four pints of distilled water; percolate, strain, and then evaporate.)
Prop.—Almost inodorous; taste sweet, mucilaginous; brittle.
Oper.—Demulcent.
Use.—In the tickling cough of catarrh it is perhaps the most useful of the demulcents, as it hangs about and sheaths the fauces.
Doses.—Gr.x. to gr.lx. ad libitum.
Off. Prep.—*Confectio Sennæ. Decoctum Aloes Compositum. Mistura Sennæ Comp. Tinctura Aloes. Trochisci Opii.*

EXTRACTUM HÆMATOXŸLI. Extract of Logwood. (The evaporated decoction.)
Comp.—Hæmatoxylin.
Prop.—Almost inodorous; taste sweet, austere; colour a deep reddish purple; soon hardens and becomes brittle.
Oper.—Astringent.
Use.—In diarrhœas; the protracted stage of dysentery; and internal hæmorrhages. It may be given clysterwise in solution.
Dose.—Gr.x. to gr.lx. in pills, or dissolved in cinnamon water.
Incomp.—Alkalies and their carbonates; magnesia; carbonate of lime.

[1] This substance is improperly termed an extract.

EXTRACTUM HYOSCYĂMI. Extract of Henbane. (The expressed juice inspissated without defecation.)

Comp.—Hyoscyamia; a narcotic empyreumatic oil; albumen, gum, fecula, salts.

Prop.—Odour slightly fœtid; taste nauseous, bitterish, sub-saline.

Oper.—Narcotic, sedative.

Use.—In nervous and pulmonary affections, rheumatism, gout, chordee, obstinate ulcerations; and whenever it is required to allay pain, and avoid the costiveness which opium is apt to induce.

Dose.—Gr.ij. to gr.x. It has been increased to the extent of gr.xx. twice a day.

Incomp.—Caustic fixed alkalies.

Off. Prep.—*Pilula Colocynthidis et Hyoscyami.*

EXTRACTUM JALĂPÆ. Extract of Jalap. (A spirituous tincture distilled, and an aqueous decoction evaporated, and the remains mixed together.)

Oper.—Cathartic, hydragogue.

Use.—In costiveness, worms, dropsy, generally combined with soap or calomel.

Dose.—Gr.v. to gr.xx. in pills or powder.

EXTRACTUM KRAMĒRIÆ. Extract of Krameria. (Prepared in the same way with that of liquorice root.)

Comp.—Tannic acid, extractive.

Prop.—A powerful astringent.

Use.—In chronic diarrhœa, and internal hæmorrhages.

Dose.—From gr.iv. to gr.xx.

EXTRACTUM LACTŪCÆ. Extract of Lettuce. (Prepared in the same manner as the Extractum Aconiti.)

Prop.—Odour narcotic, like opium, taste bitter.

Oper.—Narcotic, diaphoretic.

Use.—In cases where opium is indicated but from some constitutional causes cannot be borne; in irritable gastric dyspepsia. Not so useful as Lactucarium.

Dose.—Gr.iij. to gr.xv.

EXTRACTUM LUPŬLI. Extract of Hops. (Prepared in the same manner as the Extractum Jalapæ.)

Prop.—Inodorous; taste bitter, with the peculiar flavour of the hop.

Oper.—Tonic, anodyne, diuretic.

Use.—In gout; dyspepsia; and mania, to procure rest; but its virtues are very doubtful.

Dose.—Gr.v. to gr.xx. in pills.

EXTRACTUM MEZĒREI ÆTHĔRĔI. Ethereal Extract of Mezereon. (*Mezerei Corticis* lb.j.; *Spiritus Rectificati* Oviij.; *Ætheris* Oj. Macerate the bark in 6 pints of spirit for 3 days, strain and press, and repeat the process with the residue of the spirit; mix and filter; recover the greater part of the spirit by evaporation, and afterwards deal in a similar manner with the ether.)

Oper.—Alterative, diuretic, vesicant.

Use.—In the preparation of the Lin. Sinapis Comp.

EXTRACTUM NUCIS VOMĬCÆ. Extract of Nux Vomica. (*Nucis Vomicæ* lb.j.; *Spiritus rectific. q.s.s.* Soften the nux vomica with steam, then dry rapidly and reduce to powder. Exhaust the powder by boiling it with successive portions of the spirit, until the latter comes off free from bitterness; strain, distil off the spirit, and evaporate by a water-bath to the consistence of a soft extract.)

Oper.—Stimulant, tonic, affecting particularly the anterior columns of the spinal chord.
Use.—In paraplegia, and other cases of partial paralysis; chorea, epilepsy, atonic diarrhœa, and nervous tremor; and also combined with aloes and tonics, as iron and quinine, in obstinate constipation.
Dose.—From gr.¼ to gr.ij.

EXTRACTUM OPĬI. Ext. Opii Aquosum, D. Extract of Opium. (*Opii concisi* lb.j.; *Aquæ destillatæ* Ovj. Add two pints of water to the opium, and macerate for twenty-four hours, then express the liquor. Macerate the residue, reduced to a pulp, in the remaining water for twenty-four hours, and express. Repeat the operation a third time. Lastly, evaporate the strained liquors to a proper consistence.)
Comp.—Bimeconate of morphia, codein, narcotina, narcein, sulphate of lime, gum, and very little resin.
Prop.—Inodorous; taste bitter; colour black; dissolved in water, it is not precipitated by alcohol.
Oper.—Narcotic, anodyne, sedative, antispasmodic, with less subsequent derangement of the nervous system than crude opium occasions.
Use.—In all cases in which opium is useful; and better fitted for children, should it be deemed advisable to give any form of opium, and very irritable habits.
Dose.—Gr.ss. to gr.iij. in pills. This preparation is about 1-3rd stronger than opium; it is less stimulating than the tinctures and more soporific.
Off. Prep.—*Extractum Opii Liquidum. Trochisci Opii. Vinum Opii.*
Incomp.—Solutions of astringent vegetables, carbonate of potassa, bichloride of mercury, sulphate of copper, sulphate of zinc, acetates of lead, nitrate of silver, all of which precipitate this extract from its solution altered in its nature.

EXTRACTUM OPĬI LĬQUĬDUM. Liquid Extract of Opium. (The Extract of Opium dissolved in water, and afterwards mixed with spirit.) The same strength as laudanum, containing 22 grs. in the fluid ounce.
Oper.—The same as the preceding, but perhaps more sedative.
Use.—In all cases requiring the use of opium, but more especially in cases where the action of opium is not so well borne.
Dose.—Min.iv. to min.xl.

EXTRACTUM PAPĀVĔRIS. Extract of Poppies. Extractum Papaveris Albi. (Prepared by maceration and percolation and the subsequent addition of rectified spirit.)
Comp.—Nearly the same as the Extract of Opium, with a smaller proportion of the alkaloids.
Oper.—Narcotic, anodyne, not producing delirium, headache, and nausea so generally as opium and its extract.
Use.—As this extract possesses nearly the same virtues as opium, only in a less degree, so it is employed in the same instances. It is to be preferred when the head is much affected.
Dose.—Gr.ij. to gr.v. in form of pill.
Incomp.—As under Extractum Opii.

EXTRACTUM PAPEIRÆ. Extract of Papeira. (Prepared by digestion, percolation, and evaporation.)
Oper.—Diuretic, tonic.
Use.—In affections of the urinary organs.
Dose.—Gr.x. to gr.xx.

EXTRACTUM PAREIRÆ LĬQUĬDUM. Liquid Extract of Pareira. (Prepared by maceration in water, and percolation, and afterwards evaporation, and subsequently by addition of rectified spirit.)
Prop.—Diuretic, tonic.
Use.—In affections of the urinary organs, especially catarrh of the bladder.
Dose.—From fl.dr.ss. to fl.dr.ij.

EXTRACTUM PHYSOSTIGMĂTIS. Extract of Calabar Bean. (A spirituous extract obtained by maceration, percolation, and evaporation.)
Oper.—Sedative, acting, perhaps, specially on the nervous centres which control the heart's motions.
Use.—In chorea and tetanus.
Dose.—Gr.$\frac{1}{16}$ to gr.$\frac{1}{4}$.

EXTRACTUM QUASSĬÆ. Extract of Quassia. (Prepared by maceration, percolation, and evaporation.)
Comp.—Quassin, mucilage, but no tannin, nor gallic acid.
Prop.—Tonic and stomachic.
Use.—In atonic dyspepsia, and general debility.
Dose.—From gr.iij. to gr.x.

EXTRACTUM RHEI. Extract of Rhubarb. (*Rhei contriti* lb.j.; *Spiritus rectific.* fl.unc.x.; *Aquæ destillatæ* Ov. Macerate for four days with a gentle heat, and allow the dregs to subside, evaporate at a temperature not exceeding 160° the liquor to a proper consistence.)
Oper.—Purgative and stomachic; but as the extractive matter attracts oxygen in the humid state, and particularly when heated, much of the virtue of the medicine is destroyed, but not to the same extent as before, now that the heat of the water-bath is ordered.
Use.—In the same cases for which the powdered root is employed; but chiefly 'as a basis for pills to which more active matters are to be added.'
Dose.—Gr.v. to gr.xv. in pills, or dissolved in peppermint water.

EXTRACTUM SĀRSĂPĂRILLÆ LIQUĬDUM. Liquid Extract of Sarsaparilla. (*Sarzæ* lb.j.; *Aquæ destill.* 160° Oxiv.; *Spir. rectific.* fl.unc.j. Macerate the sarsaparilla in half the water for six hours, and pour off the liquor. Digest the residue in the remainder of the water; express, filter, and evaporate the mixed liquors until the sp. grav. is 1·13, and when cold add the spirit.)
Use.—In the same cases as the powder of the root.
Dose.—From fl.dr.ij. to fl.dr.iv., twice or thrice a day.

EXTRACTUM STRAMŌNĬI. Extract of Stramonium. (℞ *Seminorum Stramonii* lb.j.; *Ætheris* Oj. vel *q.s.*; *Aquæ destillatæ et Spir. Tenuior* āā *q.s.s.* Shake the ether in a bottle with half a pint of the water, and after separation decant the ether; pack the stramonium in a percolator, and remove the oil by means of the washed ether; rejecting the ethereal solution, pass the spirit over the residue; and afterwards distil and evaporate.)
Prop.—Odour rank; taste bitter.
Oper.—Similar to that of belladonna, sedative, narcotic, antispasmodic.
Use.—In asthma and other spasmodic affections.
Dose.—From gr.$\frac{1}{4}$ to gr.j. in the form of pill, twice or thrice a day.

EXTRACTUM TARAXĂCI. Extract of Dandelion. (The juice of the plant evaporated.)
Prop.—Inodorous; taste bitter, mucilaginous.

Oper.—Deobstruent, laxative, diuretic.
Use.—In jaundice, chronic inflammation, and incipient schirrus of the liver, chronic derangements of the stomach, hypochondriasis, and dropsy.
Dose.—Gr.iv. to gr.lx.

FARĪNÆ TRITĪCI. Wheaten Flour. (Triticum Vulgare *Triandria Digynia.* N. O. *Gramineæ.*)
Use.—In the preparation of the Cataplasma Fermenti.

FEL BOVĪNUM PURIFICĀTUM. Purified Ox Bile. (Bos Taurus. *Mammalia.*) Ox Gall purified by spirit.
Comp.—Some biliary substances, as *Glycocholic Acid* ($HO,C_{52}H_{42}NO_{11}$) and *Tauro-cholic Acid* ($HO,C_{52}H_{44}NO_{13}S_2$) in combination with soda and colouring matter and fatty matters. (*Cholesterin.*)
Prop.—Colour yellowish green; taste bitter-sweet; soluble in water and spirit. If sulphuric acid be added to a solution of bile mixed with syrup, a change of colour from cherry-red to violet is developed. Rectified spirit does not throw down any precipitate from the watery solution.
Oper.—Laxative and stomachic.
Use.—In various forms of dyspepsia attended with constipation.
Dose.—Gr.v. to gr.x.

FERRI ARSĔNIAS. Arseniate of Iron. (*Ferri Sulphatis* unc.ix; *Sodæ Arseniatis*, 300° *desiccatæ* unc.iv.; *Sodæ Acetatis* unc.iij.; *Aquæ destillatæ ferventis q.s.s.* Dissolve the sulphate in three parts, and the arseniate and acetate in two parts, of water. Mix the two solutions, and collect and wash and dry the precipitate on porous bricks in a warm air chamber, the temperature of which shall not exceed 100°.)
Comp.—Arseniate of iron, partially oxidised ($3FeO,AsO_5$ or $\mathbf{Fe_3As_2O_8}$).
Prop.—Tasteless, amorphous; green; insoluble in water, but soluble in hydrochloric acid. Ferridcyanide of potassium (red prussiate of potash) throws down a light blue, the ferrocyanide (yellow prussiate) a deeper blue precipitate. A small quantity boiled with an excess of caustic soda and filtered, neutralised by nitric acid, gives a brick-red precipitate with nitrate of silver (*arseniate of silver*). The solution in hydrochloric acid, when diluted, gives no precipitate with chloride of barium; 20 grs. dissolved in an excess of the acid diluted with water continue to give a blue precipitate with the red prussiate, until at least 170 grain-measures of the volumetric solution of the bichromate of potash have been added.
Oper.—Tonic and alterative.
Use.—In cutaneous diseases and anæmia.
Dose.—Gr.1-24th to gr.$\frac{1}{2}$.

FERRI ET AMMŌNIÆ CITRAS. Citrate of Iron and Ammonia. Ferri Ammonio-Citras. (*Ferri Persulphatis solutionis* fl.unc.viij.; *Liq. Ammoniæ* fl.unc.xixss.; *Acidi Citrici crys.* unc.iv.; *Aquæ destillatæ* quant.suff. The ammonia precipitates the hydrated peroxide, to this the citric acid in solution is added, neutralised by ammonia, and the precipitate evaporated on glass or porcelain plates.)
Comp.—$(Fe_2O_3,NH_4O,\bar{C}+2HO.)$?
Prop.—In thin transparent scales of a deep red colour, slightly sweetish and astringent to the taste. It feebly reddens litmus paper, almost insoluble in rectified spirit, but soluble in water. Evolves ammonia, and deposits peroxide of iron on being heated with liq. potassæ. When incinerated with exposure to air it leaves not less than 27 per cent. of peroxide of iron

Oper.—Tonic, hæmatic, emmenagogue, but not astringent.
Use.—In uterine complaints, cardiac diseases, anæmia of children and adults, especially that resulting from Morbus Brightii.
Dose.—Gr.v. to gr.x.
Off. Prep.—*Vinum Ferri Citratis.*

FERRI CARBŌNAS SACCHARĀTA. Saccharated Carbonate of Iron. (*Ferri Sulph.* unc.ij.; *Ammoniæ Carbonatis* unc.1¼; *Sacchari purificati* unc.j.; *Aquæ destillatæ ferventis* cong.ij. Dissolve the sulphate and carbonate separately in half a gallon of water. Mix the liquors, and let the carbonate of iron subside. Pour off the supernatant liquor, and frequently wash the precipitated carbonate, and add to it the sugar; then, at a temperature not exceeding 212°, evaporate to a powder, which must be kept in a well-closed bottle.)
Comp.—Carbonate of iron (FeO,CO_2) with peroxide of iron and sugar, or $\mathbf{FeCO_3}$. The Carbonate forms at least 57 per cent. of the mixture.
Prop.—Greyish-brown colour, inodorous, sweetish chalybeate taste. Soluble with effervescence in diluted warm hydrochloric acid; the solution gives a copious blue precipitate with ferridcyanide of potassium, but little with chloride of barium.
Oper.—Tonic, emmenagogue, but not astringent.
Use.—As the other salts of iron; but especially adapted for children and delicate women.
Dose.—Gr.v. to gr.xx.
Off. Prep.—*Pilula Ferri Carbonatis.*

FERRI ET QUINĬÆ CITRAS. Citrate of iron and quinine. (*Liq. Ferri Persulph.* fl.unc.ivss.; *Quiniæ Sulphatis* unc.j; *Acidi Sulphurici diluti* fl.dr.xij.; *Acidi Citrici* unc.iij.; *Liq. Ammoniæ et Aquæ destillatæ sing.* q.s. Dissolve the citric acid in 5 fluid ounces of water, and having applied the heat of the water-bath, add the oxide of iron precipitated from the solution of the persulphate by the liq. ammoniæ, and afterwards the quinia, also precipitated by the ammonia. Filter, evaporate, and dry on porcelain plates at the temperature of 100°.)
Comp.—Citrate of the protoxide and peroxide of iron with citrate of quinia.
Prop.—Thin golden yellow scales; deliquescent; soluble in cold water; ammonia throws down a white, soda a reddish-brown, ferrocyanide of potassium and the ferridcyanide, blue, and tannic acid greyish-black precipitates; taste bitter; gr.l. in an ounce of water will yield gr.viij. of quinine, on the addition of ammonia.
Oper.—Tonic, hæmatic, emmenagogue, having the combined properties of iron and quinine.
Use.—In anæmia and debility.
Dose.—Gr.v. to gr.xij.; gr.vj. contains gr.j. of quinine.

FERRI IODĬDUM. Iodide of Iron. (*Ferri in fila tract.* unc.jss.; *Iodi* unc. iij.; *Aq. destil.* fl.unc.xv. Introduce the iodine, iron, and unc.xij. of water into a flask, and having heated the mixture gently for ten minutes, boil until the froth becomes white. Pass the liquid now through wetted calico into a dish of polished iron, washing the filter with the remainder of water, and boil down the liquor until a drop of it taken out on the end of an iron wire solidifies on cooling. Pour the liquor out into a porcelain dish, when cold remove iodide by breaking the dish. Let it be enclosed in a well-stopped bottle.
Prop.—In aggregates of needle-formed crystals, green with a tinge of brown, inodorous, almost entirely soluble in water, very deliquescent; taste acrid; metallic. Red prussiate of potash throws down a copious blue precipitate; mixed with mucilage of starch it becomes blue on the

addition of a minute quantity of solution of chlorine. When exposed to the air it is decomposed, and peroxide of iron is deposited.

Comp.—1 eq. of iodine=127+1 iron=28+4 water=36, equiv. 191. (FeI +4HO or FeI_2.)

Oper.—Tonic, emmenagogue, deobstruent.

Use.—In all cases of debility, in scrofula, incipient cancer, amenorrhœa, secondary syphilis, mesenteric obstructions. A bad form of the preparation. It should only be kept in solution.

Dose.—Gr.j. to gr.v. in solution.

Off. Prep.—*Pilula Ferri Iodidi. Syrupus Ferri Iodidi.*

FERRI OXĬDUM MAGNETĬCUM. Magnetic Oxide of Iron. (*Liq. Ferri Persulphatis* fl.unc.vss.; *Ferri Sulphatis* unc.ij.; *Liq. Sodæ* Oiv.; *Aquæ destillatæ* q.s. Dissolve the sulphate in 2 pints of water, and mix it with the liq. ferri and liq. sodæ. Boil the mixture, filter, wash the filtrate with distilled water until chloride of barium gives no precipitate with the liquid passing through the filter. Dry at a temperature not exceeding 120°.

Comp.—Peroxide of iron Fe_2O_3, with nine per cent. of protoxide FeO, and 22 of water.

Prep.—Brownish-black, tasteless, strongly magnetic, soluble in diluted hydrochloric acid without effervescence, and from this solution the ferrocyanide and ferridcyanide of potassium throw down blue precipitates. When a small quantity is heated in a dry test-tube, moisture is deposited in the cool part of the tube. 20grs. dissolved in hydrochloric acid continue to give a blue precipitate with the red prussiate (ferridcyanide) until 230 grain-measures of the volumetric solution of bichromate of potash have been added.

Oper.—Hæmatic, tonic, without astringency.

Use.—In anæmia and debility.

Dose.—Gr.iij. to gr.x.

FERRI PERCHLORĬDI LIQUOR, vide *Liq. Ferri Perchloridi.*

FERRI PERNITRĀTIS LIQUOR, vide *Liq. Ferri Pernitratis.*

FERRI PEROXĬDUM HUMĬDUM. Moist Peroxide of Iron. Ferri Peroxidum Hydratum (1864). Hydrated peroxide of iron with about 86 per cent. of uncombined water. (*Liq. Ferri Persulphatis* fl.unc.iv.; *Liq. Sodæ* fl.unc.xxxiij.; *Aquæ destillatæ* q.s. Mix the solution of the persulphate, and a pint of water, and add this gradually to the liq. sodæ. Wash the precipitate and put it into a stoppered bottle without drying. This preparation should be made when wanted.

Prop.—A moist pasty mass of a reddish-brown colour. Soluble in dilute hydrochloric acid; and the solution gives a copious blue precipitate with the yellow but not with the red prussiate of potash.

Oper.—Tonic and chalybeate.

Dose.—Unc.¼ to unc.½.

FERRI PEROXĬDUM HYDRĀTUM. Ferrugo, Hydrated Peroxide of Iron. Ferri Peroxidum (1864), Ferri Sesquioxidum. Ferri Oxidum Rubrum. The ferri peroxidum humidum dried at a temperature not exceeding 212°, until it ceases to lose weight, and then powdered.

Comp.—Hydrated peroxide of iron, with a variable quantity of uncombined water ($2Fe_2O_3+3HO$) or $Fe_2O_3.H_2O$.

Prop.—Reddish-brown; inodorous; tasteless; insoluble in water, but soluble, by the aid of heat, in diluted hydrochloric acid, and the solution gives a copious precipitate with the yellow but not with the red prussiate of potash. Heated to dull redness in a test tube it gives off water.

Oper.—Tonic, antidote to arsenic.
Use.—In debility : in poisoning by arsenic.
Dose.—Gr.v. to dr.ss. mixed with pulvis aromaticus. Employed in cases of poisoning by arsenious acid ; a tablespoonful may be mixed with water, and given every five or ten minutes.

FERRI PHOSPHAS. Phosphate of Iron. (*Ferri Sulphatis* unc.iij.; *Sodæ Phosphatis* unc.ijss.; *Sodæ Acetatis* unc.j.; *Aquæ destill. ferventis* Oiv. The precipitate resulting from the mixture of the above, carefully washed and dried at a temperature not exceeding 120°.)
Comp.—Three equivalents of oxide of iron and one of phosphoric acid ($3FeO,PO_5$ or $\mathbf{Fe_3P_2O_8}$). The salt by keeping attracts oxygen.
Prop.—Slate-blue powder, insoluble in water, but soluble in hydrochloric acid. The ferrocyanide and ferridcyanide of potassium both throw down precipitates. The addition of tartaric acid and excess of ammonia, and subsequently of the solution of ammonio-sulphate of magnesia, produces a crystalline precipitate. When the salt is digested in hydrochloric acid with a lamina of pure copper, a dark deposit does not form on the metal. Twenty grains dissolved in hydrochloric acid continue to give a blue precipitate with red prussiate of potash, until 250 grain-measures of the volumetric solution of bichromate of potash have been added.
Oper.—Hæmatic, tonic.
Use.—In anæmia, diabetes (*Prout*), rickets.
Dose.—Gr.v. to gr.x.
Off. Prep.—*Syrupus Ferri Phosphatis.*

FERRI SULPHAS. Sulphas Ferri. Sulphate of Iron. (A protoxide, at the minimum of oxidation, and sulphuric acid, prepared by acting on iron wire with dilute sulphuric acid.) *Ferrum Vitriolatum.*
Comp.—1 eq. oxide of iron = 36, sulphuric acid = 40 + 7 water of crystallisation = 63, equivalent of the crystallised salt = 139. ($FeOSO_3+7HO$ or $\mathbf{FeSO_4.7H_2O}$.)
Prop.—Inodorous ; taste strong ; styptic ; crystals light green, transparent, rhomboidal prisms ; soluble in two parts water, insoluble in rectified spirit : effloresce in the air, and turn yellow. The aqueous solution is clear, gives a white precipitate with chloride of barium ; a blue one with the red, and a nearly white or light blue one with the yellow prussiate of potash. It gives no precipitate with sulphuretted hydrogen.
Oper.—Tonic, hæmatic, emmenagogue ; anthelmintic ; in large doses emetic.
Use.—In diseases of general debility, anæmia and spanæmia, amenorrhœa with a weak languid pulse ; diabetes ; in clysters against ascarides.
Dose.—Gr.j. to gr.v. combined with myrrh, ammoniacum, and bitter extracts.
Incomp.—The earths, chloride of calcium, chloride of barium, alkalies, and their carbonates, biboras sodæ, nitras argenti, acetas plumbi, soaps, tannin.
Off. Prep.—*Ferri Arsenias. Ferri Carbonas Saccharata. Ferri Phosphas. Ferri Sulphas Exsiccata. Mistura Ferri Composita. Pil. Aloes et Ferri.*

FERRI SULPHAS EXSICCĀTA. Dried Sulphate of Iron.
Comp.—FeO,SO_3,HO or $\mathbf{FeSO_4.H_2O}$.
Use.—The same as the sulphate ; intended for being administered in the form of pills.
Dose.—Gr.ss. to gr.iij.

FERRI SULPHAS GRANULĀTA. Granulated Sulphate of Iron. (This salt is prepared by pouring the hot solution of sulphate of iron into rectified spirit, and stirring the mixture so that the salt shall separate in minute granular crystals.)

Comp.—One eq. of sulphate of iron and seven of water (FeO,SO_3+7HO or $\mathbf{FeSO_4,7H_2O}$.)

Prop.—Granular pale green crystals, soluble in water, but insoluble in rectified spirit; taste styptic; sulphuretted hydrogen throws down no precipitate from the aqueous solution. Generally corresponds to the character and tests for sulphate of iron.

Oper.—Hæmatic, tonic, emmenagogue, astringent.

Use.—In all cases requiring iron.

Dose.—Gr.ij. to gr.v.

*FERRI VALERIĀNAS. D. Not Officinal. Valerianate of Iron. (*Valerianate of Soda* unc.v.gr.clxxx.; *Sulphate of Iron* unc.iv.; *Distilled water* Oj. Let the sulphate be converted into a persulphate as directed in the formula for *ferri peroxidum hydratum*, and, by the addition of distilled water, let the solution of the persulphate be augmented to the bulk of fl.unc.viij. Dissolve the valerianate of soda in fl.unc.x. of the water, then mix the two solutions cold, and having placed the precipitate, which forms, upon a filter, and washed it with the remainder of the water, let it be dried by placing it for some days rolled up in bibulous paper on a porous brick. This preparation should be kept in a well-stopped bottle.)

Comp.—1 eq. of protoxide of iron + 1 eq. of valerianic acid.

Prop.—Reddish-brown dull powder; tasteless, disagreeable valerianic odour; undergoes decomposition by exposure to the air: insoluble in water, soluble in alcohol.

Oper.—Tonic, antispasmodic.

Use.—In neuralgia, hysteria, debility, but seldom used on account of its offensive odour, and the facility with which it undergoes decomposition.

Dose.—Gr.ss. to gr.v. in pill.

FERRUM. Iron. *Ferrum in fila tractum. Filum et limatura.* Wrought iron in the form of wire or nails, free from oxide.

Prop.—Colour bluish-grey; texture fibrous; fracture brilliant and fine-grained; spec. grav. 7·6 to 7·8: hard, ductile, malleable, magnetic. Chemical symbol and equivalent Fe 28, or **Fe** 56.

Oper.—Tonic, deobstruent; anthelmintic; producing fœtid eructations, owing to its meeting with acid in the stomach, which oxidises it, sulphuretted hydrogen gas being evolved.

Use.—In general debility, dyspepsia, hysteria, chlorosis, worms, and in passive hæmorrhages; it can prove useful only when it is oxidised, which is known by the eructations and black fæces.

Dose.—Of the filings gr.ij. to gr.xx., with some aromatic powder; or in the form of electuary with honey; or pills with extract of gentian.

Off. Prep.—Ferri Iodidi. Ferri Sulphas. Ferri Sulphas Granulata. Liquor Ferri Perchloridi Fortior. Liquor Ferri Pernitratis. Mistura Ferri Aromatica. Pil. Ferri Iodidi. Syrupus Ferri Iodidi. Vinum Ferri.

FERRUM REDACTUM. Reduced Iron. Ferri Pulvis. Metallic iron with a variable amount of magnetic oxide of iron. (Prepared by reducing the peroxide by passing over it a stream of hydrogen in a heated gun barrel.)

Oper. and *Use.*—The same as iron and its filings.

FERRUM TARTARĀTUM. Tartarated Iron. Tartrate of iron and

potash. Ferri Potassio-Tartras, L. Ferrum Tartaratum, E. D. (*Ferri Persulphatis* fl.unc.vss.; *Liquoris Ammoniæ* fl.unc.x.; *Potassæ Tartratis Acid. contritæ* unc.ij; *Aquæ destill. q. s.* The hydrated peroxide precipitate is mixed with the acid tartrate in solution, and the solution is evaporated at a temperature not exceeding 140°, and dried on porcelain slabs.)

Prop.—In garnet scales, inodorous, soluble in water, neutral, taste styptic ; unchanged by the ferrocyanide of potassium ; gives no prepitate with alkalies. Incinerate 56 grs. at a red heat, and treat the residue with hydrochloric acid. The resulting solution digested with a little nitric acid and diluted with water fl.unc.iv., and supersaturated with ammonia, will give a precipitate of peroxide equal to 15 grs.

Comp.—(Fe_2O_3,KO,$C_8H_4O_{10}$+HO.)

Oper.—Tonic, deobstruent.

Use.—This is one of the mildest of the salts of iron, and so palatable that children may be easily persuaded to take it. In scrofulous tumours, weakened bowels, &c.

Dose.—Gr.v. to dr.ss. in powder, or bolus, mixed with any aromatic or with calumba.

Incomp.—Potassa sulphurata, infusions of oak bark, galls, or other astringent vegetables.

FICUS. The Fig. Ficus Carica. The dried fruit. Fig Tree. (*Polygam. Diœcia.* N.O. *Moraceæ, Lindley.* Smyrna. ♄)

Prop.—Taste sweet and mucilaginous.

Oper.—Nutritive, emollient, laxative, suppurative.

Use.—In pulmonary and other inflammatory diseases ; in decoctions ; in cynanche tonsillaris ; during suppuration as a gargle (℞ *Ficor.* unc.ij.; *Aquæ* unc.vj.; *coque et cola*); in gumboils roasted, then split, and applied to the part.

Off. Prep.—*Conf. Sennæ.*

FILIX MAS. Male Fern. The dried rhizome, with the bases of the footstalks and portions of the root fibres. (Aspidium *Filix Mas. Cryptogamia. Filices.* N.O. *Filices.* Indigenous. Collected in summer. ♃)

Prop.—Odour weak ; taste sweet, mucilaginous ; slightly bitter and austere.

Oper.—Anthelmintic.

Use.—In tænia.

Dose.—Gr.lx. to gr.clxxx. of the solid part of the powdered root, taken in the morning, and soon after it a strong cathartic of gamboge or jalap, worked off with green tea. This was Madame Nouffer's celebrated remedy.

Off. Prep.—*Ext. Filicis Liquidum.*

FŒNICŬLI FRUCTUS. Fennel Fruit. (*Fœniculum dulce.* N.O. *Umbelliferæ.* (*Apiaceæ, Lindley.*) *Pentand. Digynia.*)

Prop.—About 3 lines long and 1 broad, elliptical, slightly curved, beaked, having 8 pale brown longitudinal ribs, the two lateral being double ; odour aromatic ; taste warm, sweetish.

Oper.—Carminative, diuretic.

Use.—In flatulencies.

Dose.—Gr.xx. to gr.lx. bruised.

Off. Prep.—*Aqua Fœniculi.*

FOUSEL OIL. Vide *Alcohol Amylicum.*

GALBĂNUM. Galbanum, Gum-Resin, from an unascertained umbelliferous plant. (Galbanum *Officinale.*(?) *Pentandria. Digyn.* N.O. *Umbelliferæ.* (*Apiaceæ, Lindley.*) India and Levant. ♄)

Comp.—Resin, gummy extractive, volatile oil, malate of lime.
Prop.—Odour fœtid; taste bitter, acrid; the agglutinated tears of a greenish-yellow colour; forms an emulsion when triturated with water; soluble in proof spirit, wine, and vinegar.
Oper.—Internally antispasmodic, deobstruent, expectorant; externally resolvent, discutient.
Use.—In hysteria, particularly that which attends irregular and deficient menstruation; chlorosis; externally to indolent tumours.
Dose.—Gr.v. to gr.lx. in pills or emulsion.
Off. Prep.—*Emplast. Galbani. Pilulæ Assafœtidæ Comp.*

GALLA. Gall. (Quercus infectoria. Dyer's Oak. *For class and order, vide Quercus Cortex.* Asia Minor. ♀) Excrescences caused by punctures and deposited ova of Diplolepis Gallæ Tinctoriæ.
Comp.—Tannic acid 130, mucilage 12, gallic acid and extractive 31, calcareous earth and saline matter 12, insoluble matter 315 grains in 500 of galls (*Davy*); but the goodness of the galls varies these results. The tannic acid consists of 54 eq. carbon = 324 + 22 hydrogen = 22 + 34 oxygen = 272 = 618.
Prop.—Inodorous; taste very austere and astringent; hard, ligneous, 4 to 12 lines in diameter, covered with tubercles; the colour of the best is blackish-grey or blue; the unpierced are the best.
Oper.—Powerfully astringent, tonic.
Use.—They have been used in diarrhœa, passive hæmorrhages, and intermittents; but they are principally employed in gargles and injections; and the powder to form an ointment for piles, in the proportion of gr.cxx. to lard unc.ij. and powdered opium gr.lx. The tincture is used as a test for the salts of iron.
Dose.—When exhibited internally, gr.x. to gr.xx. twice or thrice a day.
Incomp.—Lime-water, potassæ carbonas, plumbi acetas et diacetas, cupri sulphas, argenti nitras, ferri iodidum, ferri sulphas, antimonium tartaratum, hydrargyri nitras, hydrargyri perchloridum, infusum cinchonæ, solution of isinglass, solution of opium; all of which precipitate the infusion of galls.
Off. Prep.—*Acidum Gallicum. Acidum Tannicum. Tinctura Gallæ. Ung. Gallæ c. Opio. Ung. Gallæ.*

GENTIĀNÆ RADIX. Gentiana Lutea Radix. Gentian Root. (*Pentand. Digyn.* N.O. *Gentianaceæ.* Mountains of Europe. ♀)
Prop.—Almost inodorous, extremely bitter, but not astringent; from ½ inch to 1 inch in thickness and several inches in length; externally brownish-yellow, wrinkled; internally yellow, spongy; flexible; virtues yielded to æther, alcohol, and water.
Comp.—Gentianite, an uncrystallisable, bitter principle; gentianin ($C_{14}H_5O_5$), crystallisable but not bitter; sugar, pectin, extractive, gum.
Oper.—Tonic, stomachic, in large doses aperient; antiseptic.
Use.—In dyspepsia; hysteria; jaundice; gout, united with aromatics; chlorosis, and dropsies, with squill and neutral salts; in dysentery, with ipecacuanha. Externally in putrid ulcers.
Dose.—Gr.x. to gr.xxx. Vide *Infusion*, &c.
Off. Prep.—*Extractum Gentianæ. Infus. Gent. Comp. Mistura Gentianæ. Tinct. Gent. Comp.*

GLYCERĪNUM. Glycerine. (A sweet principle obtained from fat and fixed oils, and containing a small per-centage of water.)
Comp.—$C_6H_8O_6$ or $C_3H_8O_3$.
Prop.—A clear, colourless fluid, oily to the touch, sweet; it dissolves

arsenious acid, wax, lime, oxide of lead, tannic and gallic acids, many vegetable alkaloids and acids; inodorous; soluble in water and alcohol; is the salifiable base of oils; when decomposed by heat it evolves intensely irritating vapours. Sp. gr. 1·25.

Oper.—Emollient, slightly nutrient.

Use.—Internally used instead of cod liver oil (in doses of min.xx. to fl.dr.ij.). Externally in eruptions of scalp, lepra, psoriasis, lichen, inveterate impetigo, prurigo; diluted with water is frequently applied to chapped hands, and also in deafness from rigidity of membrana tympani. It may be added to lotions, cataplasms, or ointments, in the proportion of 1-8th or 1-16th.

Off. Prep.—*Glycerinum Acidi Carbolici. Glycerinum Acidi Gallici. Glycerinum Acidi Tannici. Glycerinum Amyli. Glycerinum Boracis. Linimentum Potassii Iodidi cum Sapone.*

GLYCERĪNUM ACĬDI CARBŎLĬCI. Glycerine of Carbolic Acid. (*Acidi Carbolici* unc.j.; *Glycerini* fl.unc.iv. Rub them together in a mortar until the acid is dissolved.)

Oper. & Use.—Action like creosote, the most convenient mode of administering the acid, vide *Acidum Carbolicum.*

GLYCERĪNUM ACĬDI GALLĬCI. Glycerine of Gallic Acid. (*Acidi Gallici* unc.j. *Glycerini* fl.unc.iv. Rub them together in a mortar, and then transferring the mixture to a porcelain dish, apply a gentle heat until complete solution is effected.)

Oper.—Astringent, styptic. A convenient form for the administration of gallic acid.

Use.—Vide *Acidum Gallicum.*

Dose.—Min.x. to min.xxx. or fl.dr.j.

GLYCERĪNUM ACĬDI TANNĬCI. Glycerine of Tannic Acid. (*Acidi Tannici* unc.j.; *Glycerini* fl.unc.iv. Mix as in the preceding preparation.)

Oper.—Astringent, styptic. An agreeable mode of administering Acidum Tannicum.

Use.—Vide *Acidum Tannicum.*

Dose.—Min.x. to min.xxx.; for a gargle in the proportion of $\frac{1}{12}$th.

GLYCERĪNUM AMŸLI. Glycerine of Starch. (*Amyli* unc.j.; *Glycerini* fl.unc.viij. Rub together, then having transferred to a porcelain dish, apply heat raised to 240°, stirring constantly until a translucent jelly is formed.)

Oper. & Use.—Emollient and protective—for external use.

GLYCERĪNUM BORĀCIS. Glycerine of Borax. (*Boracis Contritæ* unc.j.; *Glycerini* fl.unc.iv. (Rub them together in a mortar until the borax is dissolved.)

Oper.—Detergent.

Use.—Locally as a gargle—in the proportion of $\frac{1}{8}$th.

GLYCYRRHĪZÆ RADIX. Liquorice Root—the root and underground stem fresh and dried. (Glycyrrhiza *glabra. Diadelphia Decand.* N. O. *Leguminosæ. Papilionaceæ.* (*Fabaceæ, Lindley.*) Indigenous. ♃) Should be three years old.

Prop.—Inodorous; taste sweet, mucilaginous, leaving, when unpeeled, a degree of bitterness in the mouth; flexible; cuticle brown.

Oper.—Demulcent.

Use.—In catarrh; but it is generally combined with other mucilages, and is a pleasant and useful demulcent.

Dose.—Of the powder gr.xxx. to gr.lx.

Off. Prep.—*Decoct. Sarsaparillæ Comp. Infusum Lini. Ext. Glycyrrhizæ. Confectio Terebinthinæ. Pil. Hydrargyri. Pil. Ferri Iodidi.*

GOSSYPIUM. The downy investiture of the seeds of Raw Cotton. (*Gossypium Herbaceum et Barbadense. Monadelph. Polyand.* N. O. *Malvaceæ.* America, India.)

Comp.—($C_{36}H_{30}O_{30}$).

Use.—In burns and scalds, and for the preparation of pyroxylin (gun-cotton).

GRANĀTI RADĪCIS CORTEX. Pomegranate Root Bark. Punica Granatum, Radicis Cortex. Pomegranate; dried bark of the roots. (*Icosandria Monogyn.* N. O. *Granaceæ.* South of Europe. ♃)

Prop.—In quills or fragments of a greyish-yellow colour externally, yellow internally, having short fracture. Inodorous; taste bitter, styptic; strikes a permanent blue with sulphate of iron: virtues yielded to water.

Oper.—Astringent.

Use.—In tænia, chronic and colliquative diarrhœas, and the protracted stage of dysentery; but chiefly externally, as an injection in leucorrhœa, and gargle in angina.

Dose.—In substance gr.xxx. to gr.lx. of a decoction, to fl.unc.iij. every three hours.

Incomp.—Sulphate of iron, iodide of iron, nitrate of silver, acetates of lead.

Off. Prep.—*Dec. Granati Radicis.*

GUAIĂCI LIGNUM. GUIĂCI RESĪNA. The wood; and the resin obtained from the stem by natural exudation, by incisions, or by heat. *Guaiacum Officinale.* (*Decandria. Monogynia.* N. O. *Zygophyllaceæ.* West India Islands. ♃)

Prop.—Odour slightly fragrant; taste warm and bitter, the resin more so than the wood. The resin is concrete, brittle; colour externally greenish, internally greyish; fresh fracture reddish; water dissolves about one-tenth, alcohol 95 parts in 100: soluble also in liquor potassæ 15 parts; in liquor ammoniæ 31 parts. The powder is whitish, but changes to green in the air.

Oper.—Stimulant, diaphoretic; in large doses purgative.

Use.—In chronic rheumatism, gout, cutaneous diseases, and the sequela of lues venerea.

Dose.—To produce its first effects gr.v. to gr.xx. of the resin in pills, or in emulsion made with mucilage or yolk of egg; to purge, gr.xv. to gr.xl. in the same form.

Incomp.—The mineral acids.

Off. Prep.—*Decoct. Sarsap. Comp. Mist. Guaiaci. T. Guaiaci Ammoniata. Pilula Hydrargyri Subchloridi Composita.*

*** *It is often adulterated with manchineel gum; to discover which, add to the alcoholic solution a few drops of sweet spirit of nitre, and dilute with water; the guaiacum is precipitated blue, while the adulteration floats.*

HÆMATOXŸLI LIGNUM. Log Wood. The sliced heart-wood. (*Hæmatoxylon Campechianum. Decand. Monogyn.* N. O. *Leguminosæ. Cisalpinæ.* (*Fabaceæ, Lindley.*) Campeachy, Honduras, aud Jamaica. ♄)

Prop.—Almost inodorous; taste sweetish, sub-astringent; colour deep red; firm, heavy. Its virtues extracted both by water and alcohol. A small portion chewed imparts to the saliva a dark pink colour.

Comp.—Hæmatoxylin ($C_{32}H_{14}O_{12}+2HO$). Tannin, resin.

Oper.—Astringent, tonic.

Use.—In the protracted stage of diarrhœa and dysentery, under the form of decoction.

Dose.—Fl.unc.j. to fl.unc.ij., every three or four hours.

Incomp.—The mineral acids, acetic acid, solutions of alum, sulphate of iron and of copper, acetate of lead, opium, decoction of cinchona flava, antimonium tartaratum.

Off. Prep.—*Decoctum Hæmatoxyli. Ext. Hæmatoxyli.*

HEMIDESMI RADIX. Root of the Hemidesmus Indicus dried. Indian Sarsaparilla. (*Pentandria Digyn.*) N. O. *Asclepiadaceæ.* India.

Prop.—Yellowish-brown, cylindrical, tortuous, furrowed, and with annular cracks. Agreeable odour, sweet taste, imparting both to boiling water; it contains a volatile crystallisable acid, smilasperic (*hemidesmic acid. Pareira*).

Oper.—Demulcent, diaphoretic, tonic.

Use.—As a substitute for sarsaparilla, and for imparting an agreeable flavour to medicines, especially to the salts of iron.

Off Prep.—*Syrupus Hemidesmi.*

HIRŪDO. Sanguisuga. 1. S. Medicinalis, the Speckled Leech; 2. S. Officinalis, the Green Leech. (*C. Vermes, O. Helmintheca.*) Spain, France, Italy, and Hungary.

Prop.—Body oblong, 2 or 3 inches long, tapering to each end, plano-convex, wrinkled transversely; colour on the back olive green, with six rusty red longitudinal stripes; the two central yellow, broken with black: two lateral yellow, entire; two intermediate black, and yellow chain; on the belly turkey blue, maculated with yellow; mouth and bite triangular; anal extremity a circular sucker.

Use.—In every species of local inflammation, except the erysipelatous; particularly in ophthalmia, placed as near the eye as possible. The best mode of making them bite is to clean the part well with soap and water, then to dry it, and before applying the leech, to allow it to dry itself by crawling on a clean cloth; or the part may be scratched with the point of the lancet. Leeches will not bite when casting their skins, which they often change; nor in rooms in which there is any strong or offensive odour. It is not advisable to use them in icterus, chlorosis, or other blood diseases, in consequence of the difficulty of arresting the hæmorrhage.

HORDEUM DECORTĬCĀTUM. Hordeum Distichum Semina Decorticata. Pearl Barley. (*Triand. Digyn.* N. O. *Gramineæ.* Indigenous. ☉) *Semina tunicis nudata.*

Prop.—Taste sweetish, viscid; prepared granules roundish, of a pearly whiteness; consists almost entirely of starch.

Use.—See *Decoctum.* As it is apt to get musty, barley should always be washed before it is made into decoction.

Off. Prep.—*Decoctum Hordei.*

HYDRARGŸRI IODĬDUM RUBRUM. (*Hydrargyri Perchloridi* unc.iv.; *Potassii Iodidi* unc.v.; *Aquæ destillatæ ferventis* Oiv. Dissolve the perchloride in unc.iij, and the iodide in the remainder of the water, and mix the solutions when cold. Wash and finally dry the precipitate at a temperature not exceeding 212°, and preserve in a close bottle.)

Prop.—A brilliant red powder, obtained in rhomboidal crystals by sublimation, becoming yellow when gently heated over a lamp on a sheet of paper; almost insoluble in water, sparingly in alcohol, freely in ether or in an aqueous solution of iodide of potassium. Digested with soda it becomes reddish-brown, and the fluid cleared by filtration and mixed with solution of starch gives a blue precipitate with nitric acid; volatilised by a heat under redness; inodorous; strong metallic taste. Sp. grav. 6·32.

Comp.—1 eq. of mercury+1 of iodine=100+127=227 (HgI) or 1 eq. mercury=200+2 of iodine=254=454 (**HgI_2**). Some consider this a biniodide.

Use.—The same as the Iodide.

Dose.—Gr.$\frac{1}{16}$ to gr.$\frac{1}{4}$.

Off. Prep.—*Ung. Hydrargyri Iodidi Rubri.*

HYDRARGŸRI IODĬDUM VIRĬDE. Green Iodide of Mercury. Hydrargyri Iodidum, L. (*Hydrargyri* unc.j.; *Iodi* gr.cclxxviij.; *Spiritus rectificati* q. s. Rub together until the globules disappear, gradually adding the alcohol, and dry the powder immediately with a gentle heat without the access of light, and keep it in a well-stopped black glass bottle.)

Comp.—2 eq. mercury=200+1 iodine=127, eq.=327. (Hg_2I.) 1 eq. mercury=200+1 eq. of iodine=127=327. (**HgI**.)

Prop.—A dull green powder insoluble in water, darkened by exposure to light. When heat is cautiously applied, it is sublimed in red crystals, after a time becoming yellow, and by exposure to light black. It is not dissolved by æther, water, or by a boiling solution of chloride of sodium; inodorous, taste strongly metallic.

Oper.—Excitant, alterative.

Use.—In strumous affections, lepra, and infantile syphilis; as an external application.

Dose.—Gr.$\frac{1}{6}$ to gr.$\frac{1}{2}$.

HYDRARGŸRI NITRĀTIS LIQUOR ACĬDUS. See *Liq. Hydrargyri Nitratis Acidus.*

HYDRARGŸRI OXĬDUM RUBRUM. Oxidum Hydrargyri Rubrum. Red Oxide of Mercury. Nitric Oxide of Mercury. A peroxide, probably containing some undecomposed acid and water. *Hydrargyri* (pondere) unc.viij; *Acidi Nitrici* fl.unc.ivss.; *Aquæ* fl.unc.ij. Dissolve half the mercury in the diluted nitric acid and evaporate to dryness; triturate the dry salt with the remainder of the mercury, heat the mixture in a porcelain dish, with repeated stirrings until no acid vapours are evolved.

Comp.—Quicksilver 82, oxygen 18, parts in 100; or 1 eq. mercury=100+1 oxygen=8, equiv.=108 (HgO) or 1 eq. of mercury=200+1 eq. oxygen=16=216 (**HgO**). When well prepared it consists of bright red crystalline scales, sublimed at a high temperature, emitting no nitrous vapour. It is dissolved in hydrochloric and nitric acid.

Prop.—An orange-red powder, soluble in hydrochloric acid, which solution with caustic potash in excess gives a yellow, and with liq. ammoniæ, a white, precipitate.

Oper.—Stimulant, escharotic.

Use.—In the proportion of gr.ss. to sugar gr.iv. it is blown into the eye to remove specks on the cornea; applied to chancres and foul ulcers, to cleanse and stimulate them, either sprinkled on the part in fine powder, or united with lard into an ointment.

Off. Prep.—*Ung. Hydrargyri Oxidi rubri.*

HYDRARGŸRI PERCHLORĬDUM. Hydrargyrum Corrosivum Sublimatum, 1864; Hydrargyri Bichloridum, L. Sublimatus Corrosivus, E. Sublimatum Corrosivum, D. Corrosive Sublimate.

Comp.—1 eq. of chlorine 35·5+1 eq. of mercury=100=135·5. (HgCl.) 1 eq. of mercury=200+2 eq. of chlorine=71=271. (**$HgCl_2$**.) *Hydrargyri Sulphatis* unc.xx.; *Sodii Chloridi Exsiccati* unc.xvj.; *Manganesii Oxidi Nigri in subtilissimum pulverem redacti* unc.j. Place

the materials well and intimately mixed in an apparatus adapted for sublimation, and apply sufficient heat to cause the vapours of the perchloride to rise into the less heated parts, where they may be condensed.

Prop.—Taste acrid, styptic, metallic, durable; a white, compact, semi-transparent mass of right rhombic prismatic crystals; partially decomposed by solution in light. It is soluble in æther, rectified spirit, and water. Its aqueous solution gives a yellow precipitate with caustic potash, a white precipitate with caustic ammonia, and a curdy white precipitate with nitrate of silver. It is sublimed without decomposition and without residue.

Oper.—Stimulant, antisyphilitic, alterative.

Use.—In venereal complaints, with the greatest advantage, when a quick and general action is required; but its effects are often not permanent. In lepra, combined with antimonials; in some forms of infantile cachexia, particularly when connected with mesenteric disease, when it may be given in combination with rhubarb and bark; and in chronic rheumatism. Dissolved in the proportion of gr.iij. to water Oj. as a gargle in venereal sore-throats; and a little stronger we have found it useful as gargle in breaking the abscess in cynanche tonsillaris. It is applied externally to tetters, and for destroying fungus; gr.iv. in water Oj. is a good wash in scabies. It may be given per anum, when the stomach will not bear it.

Dose.—Gr. 1-16th to gr.$\frac{1}{8}$ made into a pill, with extract of poppies, once in twenty-four hours. When swallowed as a poison, the best antidote is white of egg. (*Orfila.*)

Off. Prep.—*Liq. Hydrargyri Perchloridi. Lotio Hydrargyri Flava.*

HYDRARGŸRI SUBCHLORĬDUM. Calomelas. 1864. *Hydrargyri Chloridum*, L. Subchloride of Mercury, or Calomel. (A subchloride by sublimation.)

Comp.—2 equivalents of mercury=200 and 1 of chlorine=35·5=235·5. (Hg_2Cl) or 1 eq. of mercury=200+1 eq. of chlorine=35·5=235 (**HgCl**). (*Hydrargyri Sulphatis* unc.x.; *Hydrargyri* unc.vij.; *Sodii Chloridi Exsiccati* unc.v.; *Aquæ destillatæ ferventis, quant. suff.* Rub the mercury and the moistened sulphate together until globules are no longer visible, add the chloride of sodium and mix by trituration. Sublime by a suitable apparatus, which allows the calomel to fall as a fine powder, which wash and dry at a heat not exceeding 212°, and preserve in a vessel impervious to light.

Prop.—Inodorous, nearly insipid; requiring 1152 parts of water at 212° for its solution; formed in a compact, hard, shining, striated cake, which by pulverisation and levigation is reduced to an impalpable, ivory-coloured powder: spec. grav. 7·14. Sublimes without a residuum; not soluble in æther. Becomes black on the addition of potash, and by heat is resolved into globules of mercury. Nitrate of silver, lime-water, or hydrosulphuric acid, when added to water in which it has been washed or boiled, gives no precipitate.

Oper.—Antisyphilitic, alterative; in larger doses purgative.

Use.—As an alterative and specific in various phases of syphilis; as a purgative, generally combined with other remedies, in constipation, dyspepsia, hepatic and cerebral diseases; as an alterative in diseases of children; also in the various stages of the phlegmasiæ, more especially when the serous membranes or the substance of internal organs are the seat of disease, when it is usefully combined with ipecacuanha or antimony, and opium; in dropsies, excepting such as occur in morbus Brightii, with squills, elaterium, &c.; in rheumatism and cutaneous

diseases, with antimonials, guaiacum, and other sudorifics. From its action on the glandular system, it aids the operation of other remedies.

Dose.—Gr.½ to ij. twice or thrice a day in a pill—if it do not purge, it gradua ly excites ptyalism; gr.iij. to gr.x. to purge. Children bear comparatively larger doses than adults.

Incomp.—Nitric and hydrochloric acids, alkalies and their carbonates, lime-water, soaps, sulphurets, iron, lead, copper. The bicarbonates of the alkalies do not decompose it.

Off. Prep.—*Lotio Hydrargyri Nigra. Pilula Hydrargyri Subchloridi Composita. Unguentum Hydrargyri Subchloridi.*

HYDRARGŸRI SULPHAS. Sulphate of Mercury. (*Hydrargyri, pondere*, unc.xx.; *Acidi Sulphurici* fl.unc.xij. Heat the mercury with sulphuric acid in a porcelain vessel, stirring constantly till the metal disappears, and continue the heat till a dry white salt remains.)

Comp.—1 eq. of oxide of mercury=108+1 eq. of sulphuric acid=40=148 (HgO,SO_3) or 1 eq. of mercury=200+1 eq. of sulphur=32+4 eq. of oxygen=64=296 (**$HgSO_4$**).

Prop.—A white, crystalline, heavy powder, rendered yellow by water, entirely volatilised by heat. Sp. gr. 6·444.

Oper.—Emetic, alterative.

Use.—Seldom used, except for preparing the perchloride and subchloride of mercury.

HYDRARGŸRUM. Quicksilver. Mercury. (In its metallic state uncombined.)

Prop.—Fluid above 39° below zero, and under 656° of Fahr.: bright, shining, of a silvery whiteness; spec. grav. when liquid, 13·568 (*Cavendish*). Easily oxidised; volatilised at a heat below that of visible redness, leaving no residue. (Chemical equivalent and symbol 100, Hg, or 200 **Hg**.)

Oper.—Metallic quicksilver does not act, except mechanically, on the body, even when taken into the stomach; oxidised, and combined with acids, it acts powerfully.

Use.—It has been exhibited in constriction of the bowels, and intussusception, but from a mistaken notion that it would pass through the bowels by its gravity. In constipation it acts by insinuating itself into the hardened fæcal mass, and also by mechanical stimulus.

HYDRARGŸRUM AMMONIĀTUM. Ammoniated Mercury. Hydrargyri Precipitatum Album. Ammonio-chloride, or White Precipitated Mercury. A chloro-amidide of mercury. (*Hydrargyri Perchloridi* unc.iij.; *Liq. Ammoniæ* fl.unc.iv.; *Aquæ destillatæ* Oiij. Mix the Liq. Ammoniæ with the perchloride dissolved in water, collect, wash and dry the precipitate at a temperature not exceeding 212°.)

Comp.—It may be regarded as a chloride of ammonium, in which two equivalents of hydrogen are replaced by two equivalents of mercury, or a chloro-amidide of mercury; and its chemical notation will be NH_2Hg_2Cl or $Hg_2Cl+HgAD$ (*Kane*) or **NH_2HgCl**.

Prop.—Inodorous, tasteless, snowy white, ponderous, insoluble in water, alcohol, and ether; digested with caustic potash, it evolves ammonia and becomes yellow, and the fluid, filtered and acidulated with nitric acid gives a weak precipitate with nitrate of silver. Boiled with a solution of tin it becomes grey, and affords globules of metallic mercury. Entirely volatilised at a heat under redness. It does not become black when triturated with lime-water, but with potassa it becomes yellow.

Oper.—Detergent.

Use.—As an external application, united with lard, in scabies, and some other cutaneous affections, or to destroy pediculi.
Off. Prep.—*Ung. Hydrargyri Ammoniati.*

*HYDRARGŸRUM CORROSĪVUM SUBLIMĀTUM. See *Hydrargyri Perchloridum.*

HYDRARGŸRUM CUM CRETA. Mercury with chalk. (*Hydrargyri*, *pondere*, unc.j.; *Cretæ Præparatæ* unc.ij. Rub the mercury and chalk together till the globules disappear, and the mixture acquires a uniform grey colour.)
Comp.—This preparation appears to consist of metallic mercury in a state of minute division, suboxide of mercury, and carbonate of lime combined mechanically.
Prop.—A greyish, heavy, insoluble powder, partly dissolved by diluted hydrochloric acid, leaving the mercury in a finely divided state. Chloride of tin throws down no precipitate in the solution with the hydrochloric acid; inodorous, but having an astringent metallic taste.
Oper.—Alterative, purgative, antisyphilitic.
Use.—In infantile syphilis; but generally in venereal complaints its operation is so slow and weak as to merit no attention. An invaluable alterative in visceral diseases of children.
Dose.—Gr.ij. to gr.x. twice a day, in any viscid substance.
Incomp.—Acids and acidulous salts.

HYOSCYĂMI FOLĬA. Henbane Leaves. The fresh leaves with the branches to which they are attached. (Hyoscyamus Niger. *Pentand. Monogyn.* N.O. *Solanaceæ.* Indigenous. ♂)
Comp.—Narcotic extractive, soluble in water and alcohol, bitter extractive, gummy extractive, and salts of magnesia, and hyoscyamia.
Prop.—Leaves sinuated, clammy, and hairy; odour narcotic, peculiar; not unlike tobacco when bruised; taste insipid, mucilaginous, lost by drying; virtues yielded to proof spirit.
Oper.—Narcotic, anodyne, antispasmodic, slightly stimulant, dilating pupil.
Use.—To procure sleep and rest, and to calm irritability in mania and nervous affections; to mitigate pain in neuralgia and spasmodic diseases, in affections of the bronchial and urinary mucous membranes; combined with purgatives it allays griping; externally as a cataplasm in cancer and glandular swellings, or in fine powder sprinkled on cancerous ulcers. It ought not to be prescribed with caustic alkalies, nor with opium nor its salts.
Dose.—Gr.iij. to gr.x. of the powder; but generally the extract or tincture is preferred.
Off. Prep.—*Extractum Hyoscyami. Tinctura Hyoscyami.*

ICHTHŸOCOLLA. Isinglass. (Appendix I.) (The sound or swimming bladder of the sturgeon (*Acipenser*) prepared and cut into fine shreds.)
It is only admitted into the Pharmacopœia as a test, to distinguish tannic from gallic acid, as it gives a precipitate with the former, but none with the latter. A solution of it laid on silk forms court-plaster.
Off. Prep.—*Solution of Gelatine.*

INDĬGO. Prepared from the several species of the Indigofera. Introduced into Appendix I. for making the solution of the sulphate of indigo.

INFŪSUM ANTHEMĬDIS. Infusion of Chamomile. (*Anthemidis* unc.ss.; *Aq. destill. fervent.* fl.unc.x.) Macerate for fifteen minutes in a covered vessel, and strain.)

Prop.—The odour and taste of the flowers.

Oper.—Tonic; emetic when taken warm.

Use.—The cold infusion in dyspepsia, hysteria, and other complaints attended with debility of the stomach; the warm is employed either alone to excite gentle vomiting, or to assist the operation of other emetics.

Dose.—Fl.unc.j. to fl.unc.ij.; as an emetic fl.unc.viij. to Oj.

Incomp.—Isinglass; infusions of yellow cinchona; solutions of sulphate of iron, nitrate of silver, bichloride of mercury, acetates of lead.

*INFŪSUM ARMORĀCĬÆ COMPOSĬTUM. Compound Infusion of Horse-Radish. (*Armor. concisæ, Sinapis contusæ sing.* unc.j.; *Spiritus Armoraciæ comp.* fl.unc.j.; *Aquæ destillatæ ferv.* Oj. Macerate the horse-radish and mustard for two hours in a covered vessel, then strain, and add the Spir. Armoraciæ Comp.)

Prop.—Little odour: a mawkish, acrid taste.

Oper.—Stimulant, diuretic, sialagogue, diaphoretic.

Use.—In paralysis, scorbutus, chronic rheumatism, and dropsies: in hoarseness, dependent on relaxation of the uvula or palate, when the root ought to be ordered to be chewed.

Dose.—Fl.unc.j. to fl.unc.iij. three or four times a day.

Incomp.—Carbonates of alkalies, perchloride of mercury, nitrate of silver, infusion of galls, and of cinchona.

INFŪSUM AURANTĬI. Infusion of Orange Peel. (*Aurant. Cort.* unc.ss.; *Aquæ destillatæ ferventis* fl.unc.x. Macerate for fifteen minutes in a covered vessel, and strain.)

Oper.—Tonic, stomachic, stimulant.

Use.—In dyspepsia, particularly that of drunkards; flatulent colic; in gout, united with absorbents; and in the debility which follows acute diseases.

Dose.—Fl.unc.jss. to fl.unc.ij. every four hours.

Incomp.—Sulphas ferri, Acetas plumbi, infusion of yellow cinchona bark, lime-water.

INFŪSUM AURANTĬI COMPŎSĬTUM. Compound Infusion of Orange Peel. (*Aurantii Corticis* unc.¼; *Limonis Corticis Recentis* gr.lx.; *Caryophyllorum contus.* gr.x.; *Aquæ destillatæ ferventis* fl.unc.x. Infuse in a covered vessel for a quarter of an hour, and strain.)

Oper.—Tonic, stomachic, stimulant, carminative.

Use.—In dyspepsia, particularly that of drunkards, flatulent colic; in gout, combined with absorbents; and in the debility following acute diseases.

Dose.—Fl.unc.j. to fl.unc.ij. three or four times a day.

Incomp.—*Ferri Sulphas, Plumbi Acetas, Infusum Cinchonæ Flavæ, Liq. Calcis.*

INFŪSUM BUCHU. Infusion of Buchu or Diosma. (*Buchu foliorum contus.* unc.ss.; *Aquæ destillatæ ferventis* fl.unc.x. Macerate for one hour in a close vessel, and strain.)

Prop.—Odour aromatic; taste slightly bitter, aromatic, and cooling, resembling peppermint.

Oper.—Stimulant, aromatic, tonic, diaphoretic, and diuretic.

Use.—In chronic inflammation of mucous membrane of the bladder, and by the Hottentots in chronic rheumatism.

Dose.—Fl.unc.ss. to fl.unc.ij. twice or thrice a day.

INFŪSUM CALUMBÆ. Infusion of Calumbo. (*Calumbæ, pulvere crasso* unc.ss.; *Aq. dest. frigidæ* fl.unc.x. Macerate for one hour and strain.)

Prop.—Odour and taste of the root.

Oper.—Tonic without stimulating; stomachic, antiseptic.

Use.—In dyspepsia; and cholera, the vomiting of which it sometimes checks; in bilious remittent fever; to check the nausea and vomiting of pregnancy, and the severe diarrhœa and vomiting often attending dentition; in the hectic of phthisis, to correct acrimony, and strengthen the digestion; and in the low state of puerperal fever.

Dose.—Fl.unc.ss. to fl.unc.ij. three or four times a day.

Incomp.—*Antimonium tartaratum, hydrargyri perchloridum, nitras argenti, acetas plumbi; infusion of cinchona.*

INFŪSUM CARŸŎPHYLLI. Infusion of Cloves. (*Caryophyl. contus.* unc.¼; *Aq. destillatæ fervent.* fl.unc.x. Macerate in a covered vessel for half an hour and strain.)

Prop.—Odour fragrant; taste warm, aromatic; colour red.

Oper.—Stimulant, tonic, stomachic.

Use.—In atonic gout, when the stomach is affected; and flatulent colic.

Dose.—Fl.unc.ss. to fl.unc.ij. three or four times a day.

Incomp.—*Sulphas ferri; sulphas zinci; antimonium tartaratum; nitras argenti; acetas plumbi; infusion of cinchona.*

INFŪSUM CASCĂRILLÆ. Infusion of Cascarilla. (*Cascarillæ Cort. cont.* unc.j.; *Aq. destillatæ fervent.* fl.unc.x. Macerate for one hour in a covered vessel, and strain.)

Prop.—Odour aromatic; taste bitter and aromatic.

Oper.—Tonic, stomachic.

Use.—In alvine fluxes, particularly after measles; in the aphtha gangrenosa of children.

Dose.—Fl.unc.ss. to fl.unc.ij. for adults twice or thrice a day.

Incomp.—Infusion of galls, and yellow cinchona; lime-water; solutions of sulphate of iron, nitrate of silver, acetates of lead.

INFŪSUM CATĔCHU. Infusum Catechu. Infusion of Catechu. (*Catechu contriti* unc.¼; *Cinnam. contusi* gr.xxx.; *Aq. destillatæ ferventis* fl.unc.x. Macerate for half an hour in a covered vessel, and strain.)

Oper.—Astringent, stomachic.

Use.—In diarrhœas from a laxity of the bowels.

Dose.—Fl.unc.j. to fl.unc.ij., every three hours, or after every loose stool.

Incomp.—*Tartar emetic, sulphate of iron, sulphate of zinc, solution of isinglass, infusion of cinchona, the strong acids, hydrargyri perchloridum.*

INFŪSUM CHIRĀTÆ. Infusion of Chiretta. (*Chiratæ contusæ* unc.¼; *Aquæ destillatæ* (120°) fl.unc.x. Infuse in a covered vessel for half an hour, and strain.)

Pryp.—An agreeable bitter.

Oper.—Tonic and aromatic, resembling gentian.

Use.—In dyspepsia and convalescence.

Dose.—From fl.unc.ss. to fl.unc.ij. twice or thrice a day.

INFŪSUM CINCHŌNÆ FLĀVÆ. Infusion of Yellow Cinchona. (*Cinch. flavæ contritæ* unc.ss.; *Aq. destillatæ ferv.* fl.unc.x. Macerate for two hours, and strain.)

Prop.—The peculiar aromatic flavour and bitterness of the bark employed.

Oper.—Tonic. stomachic.

Use.—In dyspepsia and convalescence.

Dose.—Fl.unc.j. to fl.unc.ij. united with some aromatic tincture, or a mineral acid, three or four times a day.

Incomp.—*Tartar emetic, sulphates of iron and of zinc, nitrate of silver, and corrosive sublimate, acetates of lead. Decoction of galls, lime-water, carbonates of alkalies, and infusions of almost all the vegetable bitters.*

INFŪSUM CUSPĀRĬÆ. Infusion of Cusparia. (*Cuspariæ contritæ* unc.ss.; *Aquæ destillatæ* (120°) fl.unc.x. Macerate for two hours, and strain.)

Prop.—Almost inodorous; taste bitter, and slightly aromatic.

Oper.—Tonic, aromatic, antiseptic, febrifuge.

Use.—In atonic febrile diseases, obstinate bilious diarrhœa, and dysentery, after proper evacuations.

Dose.—Fl.unc.j. to fl.unc.ij. three or four times a day.

Incomp.—*Infusion of galls and of catechu; tartar emetic; sulphates of iron and of zinc; nitrate of silver, corrosive sublimate, acetates of lead.*

INFŪSUM CŪSSO. Infusion of Kousso. (*Cusso contriti* unc.½; *A. destillatæ fervent.* fl.unc.viij. Infuse in a covered vessel for fifteen minutes, and use without straining.)

Prop.—Of yellowish-green colour, and peculiar odour like tea.

Oper.—Anthelmintic.

Use.—In cases of tænia solium, or botryocephalus latus.

Dose.—Fl.unc.iv. to fl.unc.viij. Castor oil or some aperient should be taken after four or six hours.

INFŪSUM DIGITĀLIS. Infusion of Foxglove. (*Digitalis exsiccat.* gr.xxx.; *Aq. destillatæ ferv.* fl.unc.x. Infuse for one hour, and strain.)

Prop.—Inodorous, taste bitter and nauseous.

Oper.—Diuretic, sedative.

Use.—In dropsies, humoral asthmas, cardiac diseases of sthenic character, aneurism, hæmoptysis, phthisis pulmonalis; and in diseases of increased action.

Dose.—Fl.dr.ij. to fl.dr.iv. as a diuretic, fl.unc.j. to fl.unc.ij. as a sedative every eight or ten hours, till it affects the kidneys, the pulse, stomach, or bowels; and then stopped.

Incomp.—*Sulphas ferri, acetas plumbi; infusion of yellow cinchona.*

*** *This infusion has half the strength of the infusion of the Dublin and Edinburgh Colleges.*

INFŪSUM DULCAMĀRÆ. Infusion of Dulcamara. (*Dulcamaræ contusæ* unc.j.; *Aquæ destillatæ ferventis* fl.unc.x. Infuse in a covered vessel for one hour, and strain.)

Prop.—Odour strong and unpleasant; taste bitter and nauseous, followed by a degree of sweetness. (Contains *Solania.*)

Oper.—Alterative, diuretic, diaphoretic.

Use.—In dropsy; humoral asthma, lepra, and some other forms of skin disease.

Dose.—Fl.unc.j. to fl.unc.ij., with any aromatic tincture, twice or thrice a day.

INFŪSUM ERGŎTÆ. Infusion of Ergot of Rye. (*Ergotæ contritæ* unc.¼; *Aquæ destillatæ ferventis* fl.unc.x. Infuse for half an hour, and strain.)

Prop.—Odour faint; taste acrid and disagreeable.

Oper.—Stimulant, emmenagogue, acting chiefly on the muscular coat of the uterus.

Use.—In parturition when the pains languish, and the uterine action becomes torpid, provided the os uteri be fully dilated, and the membrane ruptured. In leucorrhœa, chlorotic amenorrhœa, and to promote the evacuation of substances contained in the uterus.

Dose.—During parturition fl.unc.ij. repeated at intervals of half an hour unless its effects be sooner produced; in other cases fl.dr.ss. to fl.unc.j.

INFŪSUM GENTIĀNÆ COMPOSĬTUM. Compound Infusion of Gentian. (*Gentianæ radicis concisæ, Aurantii Corticis concisæ, sing.* gr.lx.; *Limonis Corticis recentis* unc.¼; *Aquæ destillatæ ferventis* fl.unc.x. Infuse in a covered vessel for one hour, and strain.)
Oper.—Tonic, stomachic.
Use.—In dyspepsia and in chlorosis; diarrhœa and gout.
Dose.—Fl.unc.j. to fl.unc.ij. three times a day.
Incomp.—*Acetates of lead.*

INFŪSUM KRAMĒRIÆ. Infusion of Rhatany. (*Krameriæ contusæ* unc.ss.; *Aquæ destillatæ ferventis* fl.unc.x. Macerate for one hour in a covered vessel, and strain.)
Prop.—Earthy odour, taste powerfully astringent.
Oper.—Tonic, astringent.
Use.—In chronic diarrhœa; as a gargle in relaxation of the uvula; as lotion to spongy gums; leucorrhœa, prolapsus ani.
Dose.—Fl.unc.j. to fl.unc.ij.

INFŪSUM LĪNI. Infusum Lini. Infusion of Linseed. (*Lini Sem.* gr.clx.; *Glycyrrh. recentis con.* gr.lx.; *Aq. destillatæ ferv.* fl.unc.x. Infuse in a covered vessel for four hours, and strain.)
Prop.—Inodorous, sweetish, mucilaginous.
Oper.—Demulcent.
Use.—In catarrh, pneumonic affections, strangury, gonorrhea; and after operations on the urethra or the bladder.
Dose.—A teacupful ad libitum.
Incomp.—*Alcohol, acetates of lead.*

INFŪSUM LUPŬLI. Infusion of Hop. (*Lupuli* unc.ss.; *Aq. dest. ferv.* fl.unc.x. Infuse in a covered vessel for 2 hours, and strain.)
Prop.—Taste aromatic, bitter, odour agreeable.
Oper.—Tonic, slightly narcotic.
Dose.—Fl.unc.j. to fl.unc.ij.

INFŪSUM MATĬCÆ. Infusion of Matico. (*Maticæ foliorum concisæ* unc.½; *Aquæ destillatæ ferventis* fl.unc.x. Infuse for half an hour in a covered vessel and strain.)
Prop.—Taste astringent and aromatic; odour aromatic, somewhat resembling that of sage.
Oper.—Styptic and astringent.
Use.—In vesical catarrh and hæmorrhages from nose, bowels, bladder and uterus: externally in hæmorrhages.
Dose.—Fl.unc.j. to fl.unc.ij.

INFŪSUM QUASSĬÆ. Infusion of Quassia. (*Quassiæ concisæ* gr.lx.) *Aquæ destillatæ frigidæ* fl.unc.x. Infuse for half an hour, and strain.
Prop.—Inodorous: taste a very pure bitter; limpid; possessing no astringency.
Oper.—Tonic, antiseptic.
Use.—In bilious fevers, united with alkaline salts; hysteria, with camphor and tincture of valerian; gout, with aromatics and ginger; and in dyspepsia, with sulphate of zinc, or with mineral acids.
Dose.—Fl.unc.j. to fl.unc.ij. twice or thrice a day.
Incomp.—*Acetas plumbi, nitras argenti.*

INFŪSUM RHĔI. Infusion of Rhubarb. (*Rhei concisi* unc.¼; *Aq.*

destillatæ ferv. fl.unc.x. Infuse for one hour in a covered vessel, and strain.)

Prop.—Odour fragrant like that of the root; taste bitter, and aromatic; limpid; red-yellow; not so astringent as the root.

Oper.—Purgative, stomachic.

Use.—In costiveness; and united with ginger and aromatics, in diarrhœas from weakness of the bowels.

Dose.—Fl.unc.j. to fl.unc.ij. united with neutral salts: fl.unc.ss. with tinct. of cinnamon, where its stomachic effect only is required.

Incomp.—*Solution of isinglass, infusion of yellow cinchona, all the strong acids, nitrate of silver, corrosive sublimate, acetates of lead, sulphate of iron, tartar emetic, magnesia.*

INFŪSUM ROSÆ ACĬDUM. Infusion of the Rose. (*Rosæ Gallicæ petalorum contrit.* unc.¼; *Aquæ destillatæ ferventis* fl.unc.x.; *Acidi Sulph. dilut.* fl.dr.j. Pour the water on the separated petals, add the acid and macerate for half an hour; then strain.

Prop.—Odour of the rose; taste slightly austere, acid, and sweet.

Oper.—Sub-astringent, refrigerant.

Use.—In the colliquative sweats of phthisis; and with additional acid and some nitre, in uterine and pulmonary hæmorrhages; topically as a gargle in cynanche tonsillaris. The infusion is an elegant vehicle for many active remedies, particularly sulphate of magnesia, the nauseous taste of which it covers.

Dose.—Fl.unc.j. to fl.unc.ij. every three or four hours.

Incomp.—Sulphates of iron and zinc, alkalies, earths.

INFŪSUM SENĔGÆ. Infusion of Senega. (*Senegæ radicis contus.* unc.ss.; *Aquæ ferventis* fl.unc.x. Digest for one hour, and strain.)

Prop.—Inodorous; taste nauseous; acrid.

Oper.—Stimulating, expectorant.

Use.—In advanced stages of chronic bronchitis and pneumonia: in aged persons, when the secretion is inordinate.

Dose.—Fl.unc.j. to fl.unc.ij.

INFŪSUM SENNÆ. Infusion of Senna. (*Sennæ* unc.j.; *Zingiberis con.* gr.xxx.; *Aquæ destillatæ ferv.* fl.unc.x. Infuse for an hour in a covered vessel, and strain.) This infusion corresponds in strength with the Infusum Sennæ Compositum L. It is double the strength of the infusion of B. Phar. 1864.

Oper.—Purgative.

Use.—In costiveness, and to move the bowels in acute diseases; the ginger counteracts the griping quality of the senna. It is generally united with neutral purgative salts and manna.

Dose.—Fl.unc.j. to fl.unc.ij.

Off. Prep.—*Mistura Sennæ Composita.*

INFŪSUM SERPENTARĬÆ. Infusion of Serpentary. (*Serpentariæ radicis* unc.¼; *Aq. dest. ferv.* fl.unc.x. Infuse in a covered vessel for two hours, and strain.)

Oper.—Excitant, diaphoretic, tonic.

Use.—In cases of debility, especially after acute diseases, as typhus, when it acts most beneficially in combination with carbonate of ammonia. It is given when the tongue is dry, and brown or black, and the pulse low.

Dose.—Fl.unc.j. to fl.unc.ij.

Incomp.—*Strong acids, lime-water, solutions of nitrate of silver, perchloride of mercury, acetates of lead, tartarised antimony, and infusion of yellow cinchona.*

INFŪSUM UVÆ URSI. Infusion of Bearberry. (*Uvæ ursi* unc.ss.; *Aq. destillatæ ferventis* fl.unc.x. Infuse in a covered vessel for two hours, and strain through calico.)

Comp.—Tannin and gallic acid.

Oper.—Astringent, diuretic.

Use.—In dropsies, hæmorrhages of the prostate gland and the intestinal canal, and catarrh of the urinary organs.

Dose.—Fl.unc.j. to fl.unc.ij.

INFŪSUM VALERIĀNÆ. Infusion of Valerian. (*Valerianæ radicis contusæ* gr.cxx.; *Aquæ destillatæ ferventis* fl.unc.x. Infuse for an hour, and strain.)

Oper.—Tonic, antispasmodic.

Use.—In hysteria and neuralgia.

Dose.—Fl.unc.j. to fl.unc.ij. twice or thrice a day.

Incomp.—Nitrate of silver, sulphate of iron, infusion of yellow cinchona.

IŌDUM. Iodineum. Iodine. (So called from ἰώδης, violet. Prepared from kelp.)

Prop.—Crystals small, feebly tenacious; in colour and general aspect resembles black-lead (*plumbago*), with the odour of chlorine: fuses at 338° Fahr.: volatilises at 347° Fahr., producing a violet-coloured vapour. Soluble in æther and alcohol. Water dissolves 1-7000th part only of its weight. Gr.xxxix. with gr.ix. of quicklime, and fl.unc.iij. of water, when heated short of 212°, form a yellowish or brownish solution: when the solution is colourless the iodine is impure. The aqueous solution strikes a deep blue colour with starch. Sublimes without residue; and the portion first coming over does not include any slender colourless prisms emitting a pungent odour. 12·7 grs. dissolved in an ounce of water containing 15 grs. of iodide of potassium; require for complete discoloration 1000 grain-measures of the volumetric solution of the hyposulphite of soda.

Oper.—Stimulant, absorbent, emmenagogue,* giving rise occasionally to a condition called *Iodism*, the symptoms of which are nausea, headache, coryza, languor, anorexia, followed by vomiting and purging, extreme depression, frequent small pulse, great weakness, faintings, cough, bronchitis, terminating in death.

Use.—In bronchocele and other glandular swellings, not of scirrhous nature; to bring on menstruation in young females, in whom it has not occurred: to assist the cicatrisation of venereal ulcers. Externally as a counter-irritant to indolent tumours, enlarged glands, and to the chest, in certain stages of phthisis, pneumonic and pleuritic effusions, &c.

Off. Prep.—Cadmii Iodidum. Ferri Iodidum. Hydrargyri Iodidum viride. Linimentum Iodi. Liq. Iodi. Pilula Ferri Iodidi. Potassii Iodidum. Sulphuris Iodidum. Syrupus Ferri Iodidi. Tinctura Iodi. Unguentum Iodi.

IPECACUANHA. Ipecacuan Root Dried. (Cephaëlis *Ipecacuanha. Pentand. Monogyn.* N. O. *Cinchonaceæ*. Brazils.)

Prop.—Odour faint and peculiar; taste bitter, subacrid, aromatic, mucilaginous; in small annulated pieces, twisted, somewhat fissured and encircled by deep grooves: colour brown of various shades; it consists of two parts, the cortical or active portion which is brittle, and a slender tough white woody centre; powder pale-brown; both water

---

* I have ascertained that it passes through the kidneys unaltered.—T.

and alcohol extract its virtues, which have been found to depend on a peculiar principle, named *emetina*.

Oper.—Emetic in large doses; sudorific, expectorant, in smaller.

Use.—To produce vomiting in the commencement of fevers, phthisis, inflammatory diseases, buboes, swelled testicles and before the paroxysms of ague; to excite nausea in dysentery, asthma, pertussis, hæmorrhages, pneumonia; to aid expectoration in pulmonary disease; and, combined with opium, to produce diaphoresis in rheumatism, gout, and febrile disorders. It is the safest remedy in the pulmonary affections of children. It is a useful adjunct to purgatives.

Dose.—For the first intention gr.xx. to gr.xxx. alone or united with tartar emetic gr.j.; for the second gr.½ to gr.iij.; and the third gr.ij. to gr.vj. with opium and extract of gentian gr.j.

Incomp.—Vegetable acids, astringent vegetable infusions.

Off. Prep.—*Pilula Conii Comp. Pil. Ipec. c. Scilla. Pulvis Ipecacuanhæ Comp. Trochisci Ipecacuanhæ. Trochisci Morphiæ et Ipecacuanhæ. Vinum Ipecacuanhæ.*

JALĂPA. Exogonium Purga. Ipomæa Jalapa. Dried tubercles. (*Pentand. Monogyn.* N. O. *Convolvulaceæ.* ♄) Mexico.

Comp.—Resin, *Jalapine* ($C_{62}H_{50}O_{32}$) and *Jalapic Acid* ($C_{40}H_{34}O_{18}$), and starch.

Prop.—Odour slightly nauseous; taste nauseous and acrid; varying from the size of a nut to that of an orange, ovoid; solid, hard, heavy, brittle; fracture resinous; internally light grey, externally covered with a deep brown, wrinkled bark. Rectified spirit is its proper menstruum.

Oper.—Hydragogue, cathartic: the resinous part gripes violently.

Use.—In costiveness, mania, worms, and as a hydragogue in dropsy. It is also a good adjunct to quicken the operation of subchloride of mercury, and other purgatives of slow operation. A drop of essential oil prevents it griping.

Dose.—Of the powder, gr.x. to gr.xxx.; of the resin, gr.ij. to gr.vj.

Off. Prep.—*Extractum Jalapæ. Pulvis Jalapæ Comp. Pulvis Scammonii Comp. Resina Jalapæ. Tinct. Jalapæ.*

JALĂPÆ RESĪNA. Resin of Jalap. (*Jalapæ contritæ* unc.viij.; *Spiritus rectificati* q.s.; *Aquæ destillatæ* q.s. The aqueo-spirituous extract evaporated and dried.)

Prop.—In dark-brown opaque fragments, translucent at the edges, brittle, with resinous fracture, sweetish odour, acrid taste, soluble in rectified spirit, partially so in ether, and insoluble in oil of turpentine.

Oper.—Hydragogue, cathartic.

Use.—Vide *Jalapa.*

Dose.—Gr.ij. to gr.v.

*JUNĬPĔRUS. Juniperus Communis. Juniper fruit and tops. (*Diœcia Monadelphia.* N. O. *Coniferæ.* (*Pinaceæ, Lindley.*) North of Europe. ♄)

Prop.—Odour strong, but not unpleasant; taste warm, pungent, sweetish, followed by a bitter; depending on an essential oil and sweet mucilage. They yield their active properties to both water and alcohol.

Oper.—Diuretic, carminative, diaphoretic?

Use.—In dropsies; but cannot be depended on alone, although an admirable adjunct to digitalis and squill.

Dose.—Gr.xx. to gr.xxx. triturated with sugar, three or four times a day. The best form of exhibiting the fruit is an infusion made with unc.j. bruised, and boiling water Oss.

JUNĬPĔRI OLĔUM. See *Oleum Juniperi.*

KAMĂLA. Kamala. Warrus. (*Rottlera Tinctoria.* N. O. *Euphorbiaceæ.*) The powder which consists of the minute glands that adhere to the capsules. India.

Prop.—Granular; colour orange-red; inflammable; sparingly miscible with water; forms red solution in boiling alcohol; ether dissolves most of it. It should be free from sand and earthy impurities.

Oper.—Anthelmintic and purgative.

Use.—In tænia.

Dose.—Gr.xxx. to unc.ss. in any thick fluid.

KINO. Pterocarpus Marsupium. Juice obtained from incisions of the trunk, inspissated. *Diadelphia Decandria.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley.*) Malabar.

Comp.—Tannin and catechu, and insoluble matter.

Prop.—Inodorous; taste sweetish, bitter; sometimes gritty between the teeth; in fragments of a dark ruby red colour; easily pulverised; powder reddish brown; more soluble in warm than in cold water.

Oper.—Astringent, tonic.

Use.—In obstinate chronic diarrhœas; relaxation of throat; uterine, intestinal, and pulmonary hæmorrhages; leucorrhœa.

Dose.—Gr.x. to xx. in powder; or in solution of the powder gr.lx., mucilage of gum fl.unc., cinnamon water, fl.unc.v., two tablespoonfuls occasionally. Vide *Tinct.*

Incomp.—The mineral acids, alkalies, and their carbonates, acetates of lead, nitrate of silver, tartar emetic, sulphate of iron, bichloride of mercury.

Off. Prep.—Pulv. Catechu comp. Pulvis Kino. Tinctura Kino.

KOUSSO. *Vide* Cusso.

KRAMĒRIÆ RADIX. Rhatany Root. (Krameria Triandra. *Triand. Monogynia.* N. O. *Polygalaceæ.* Peru. ♄)

Comp.—Tannin, gallic acid, krameric acid.

Prop.—About an inch in diameter, branches numerous, long brownish-red and rough externally, reddish-yellow internally, strongly astringent, tinging the saliva. Taste bitter; communicates a deep red colour both to water and to spirit.

Oper.—Astringent, tonic, diuretic, detergent.

Use.—In dysentery, diarrhœa, passive hæmorrhages; in ulceration of the gums, and as a stomachic in dyspepsia.

Dose.—Gr.xx. to gr.lx. in powder.

Off. Prep.—Extractum Krameriæ. Infusum Krameriæ. Pulvis Catechu compositus. Tinctura Krameriæ.

LAC. Milk. The fresh milk of the cow, Bos Taurus. Mammalia.

Oper.—Nutritious, emollient.

Use.—In the preparation of Mistura Scammonii, and also of a preparation known as Lac cum Sevo, which is very beneficial in cases of dysentery, intestinal and bronchial irritation.

LACTUCA. Lettuce. The flowering herb of the Lactuca virosa. (*Syngenesia Æqualis.* N. O. *Compositæ.* (*Asteraceæ*, Lindley.) Indigenous. ♂)

Prop.—Odour strong, narcotic like opium; taste bitter.

Oper.—Narcotic, diuretic, diaphoretic, gently laxative.

Use.—In dropsies from visceral obstructions, coughs, phthisis pulmonalis, and all painful affections.

Off. Prep.—Extractum Lactucæ.

LAUROCERĂSI FOLĬA. Cherry Laurel Leaves. (Prunus Lauro-

cerasus. *Icosandria Monogynia.* N. O. *Rosaceæ.*) The fresh leaves from indigenous plants.

Comp.—Volatile oil.

Prop.—Ovate, lanceolate or elliptical, distantly toothed, furnished with glands at the base, smooth, shining, deep green, on strong short footstalks. Taste and odour resembling those of bitter almonds and hydrocyanic acid.

Oper.—Sedative.

Use.—The powdered leaves are sometimes spread upon a linseed meal poultice and applied to painful ulcers.

Off. Prep.—*Aqua Laurocerasi.*

LICHEN CETRARĬA. *Vide* Cetraria.

LIMŌNIS SUCCUS, CORTEX, OLĔUM. Citri Fructus Succus, tunica exterior, ejusque oleum volatile. Lemons, the bark, the juice, and the oil. (Citrus *Limonum. Polydelphia, Polyandria.* N. O. *Aurantiaceæ.* South of Europe. ♃)

Prop.—Odour of the fruit fragrant, depending on the essential oil, which gives the rind its warm bitter taste; the juice is sharp, but gratefully acid; spec. grav. 1·039; average quantity of citric acid in an ounce 32·5 grs.; it contains gallic acid, extract, saccharine mucilage, and water; soon spoils. The rind contains volatile oil, bitter extractive, and a little gallic acid and *hesperidine.*

Oper.—Juice refrigerent, antiseptic; bark and oil aromatic and stomachic.

Use.—The juice as a beverage, diluted with water and sweetened, is useful in febrile and inflammatory complaints, cooling and quenching thirst; alone, or combined with wine, in scorbutus; with camphor mixture, decoction of cinchona, or wine, in putrid sore throats, remittent fevers, diabetes, and lienteria; and with common salt in dysentery and colics; and latterly employed with much success in acute rheumatism.

Dose.—Of the juice, fl.dr j. to fl.dr.iv. or more, two or three times a day; fl.unc.j. or more, thrice a day in rheumatism; diluted ad libidum.

Off. Prep.—Cortex: *Infusum Aurantii compositum. Infusum Gentianæ compositum. Oleum Limonis. Syrupus Limonis. Tinctura Limonis.* Succus: *Syrupus Limonis.*

LINI FARĪNA ET SEMĬNA. Linseed Meal and Seeds. Linum Usitatissimum. (*Pentandria Digynia.* N. O. *Linaceæ.* Indigenous. ☉)

Prop.—Small, oval, pointed, flat, with acute edges, smooth, shining, brown externally, yellowish white within; mucilaginous; taste oily.

Oper.—Emollient, demulcent.

Use.—In irritation of mucous membrane; the meal to make poultices.

Dose.—Vide *Infusum Lini.*

Off. Prep.—Farina: *Cataplasma Lini. Cataplasma Carbonis. Cataplasma Conii. Catapl. Sinapis. Catapl. Sodæ Chloratis.* Semina: *Farina Lini. Infusum Lini.*

LĬNĬMENTUM ACONĪTI. Liniment of Aconite. (*Aconiti radicis* unc.xx.; *Camphoræ* unc.j.; *Spiritus rectificati* quant. suff. Moisten the aconite with some spirit and macerate in a close vessel for 3 days, then adding more spirit, percolate slowly into a receiver containing camphor, until the product measure a pint.) One fluid ounce represents one ounce of the dried root.

Oper.—Anodyne.

Use.—In rheumatism and neuralgia, to be applied with a brush.

LĬNĬMENTUM AMMŌNĬÆ. Liniment of Ammonia. (*Liquoris*

Ammoniæ fl.unc.j.; *Olivæ Olei* fl.unc.iij. Mix together with agitation.) A soap.

Oper.—Stimulant, rubefacient, diaphoretic.

Use.—In cynanche tonsillaris, spread on a piece of flannel, and applied round the throat; when the skin is very irritable, a larger proportion of oil is requisite.

LĬNĬMENTUM BELLĂDONNÆ. Belladonna Liniment. The same as the Aconite Liniment. (An alcoholic solution of Belladonna and Camphor. A fl.dr.j. contains gr.lx. of Belladonna.)

Oper.—Anodyne.

Use.—In neuralgic and spasmodic affections, in combination with other liniments. Too strong for separate use.

LĬNĬMENTUM CALCIS. Liniment of Lime-water. Carron Oil. (*Liquoris Calcis, Olivæ Olei, singulorum* fl.unc.ij. Mix with agitation. A soap.)

Oper.—Cooling, emollient.

Use.—To burns and scalds, spread thick upon lint, and applied over the affected parts.

LĬNĬMENTUM CAMPHŎRÆ. Camphor Liniment. (*Camphoræ* unc.j.; *Olivæ Olei* fl.unc.iv. Fl.dr.j. contains gr.xv. of camphor.)

Oper.—Stimulant, anodyne.

Use.—To glandular swellings, sprains, bruises, and joints affected with chronic rheumatic pains, applied by friction. Mr. Ware recommends this liniment in combination with a solution of carbonate of potass fl.dr.iv. to be applied to the edges of the eyelids night and morning, in incipient amaurosis.

Off. Prep.—Linimentum Chloroformi. Linimentum Hydrargyri. Lin. Terebinthinæ Aceticum.

LĬNĬMENTUM CAMPHŎRÆ COMPOSĬTUM. Compound Camphor Liniment. (*Camphoræ* unc.ijss.; *Olei Lavandulæ* fl.dr.j.; *Spiritus rectificati* fl.unc.xv.; *Liquoris Ammoniæ fortior.* fl.unc.v. Dissolve the camphor and the oil in spirit, and add the liq. ammon., and agitate till a clear solution is formed.)

Oper.– Stimulant, anodyne.

Use.—To sprains, bruises, and chronic rheumatic pains. Except in rare cases, too strong to be used undiluted.

Incomp.—All acids, water.

*LĬNĬMENTUM CANTHĂRĬDIS. Liquor Epispasticus. Liniment of Cantharides. (*Cantharidis in pulverem subtilissimum tritæ* unc.viij.; *Acidi Acetici* fl.unc.iv.; *Ætheris* Oj. Prepare by maceration and percolation.

Oper.—Rubefacient, vesicant.

Use.—In all cases where blisters are required. It is very manageable, as it can be applied with a brush.

LĬNĬMENTUM CHLŌROFORMI. Liniment of Chloroform. (Prepared by mixing equal parts of Chloroform and Camphor Liniment.)

Oper.—Sedative and stimulant.

Use.—In neuralgia, spasms: and, combined with the liniment of aconite, in chronic rheumatic affections.

LĬNĬMENTUM CROTŌNIS. Liniment of Croton Oil. (*Crotonis Olei* fl.unc.j.; *Olei Cajuputi, Spiritus rectificati sing.* fl.unc.iijss. Mix.)

Oper.—Epispastic.

Use.—In sprain, spasmodic pain, and affections of the chest.

LĬNĬMENTUM HYDRARGŸRI. Mercurial Liniment. (*Ung. Hydrarg.* unc.j.; *Liq. Ammoniæ* fl.unc.j.; *Linimenti Camphoræ* fl.unc.j. A fl.dr.j. contains about gr.x. of mercury.)

Oper.—Stimulant, discutient.

Use.—To parts affected with chronic venereal pains, nodes, and tophi; to indolent swellings, and to discuss collections of fluids; fl.dr.j. rubbed on the affected parts night and morning.

LĬNĬMENTUM IŌDI. Liniment of Iodine. (*Iodi* unc.j.¼; *Potassii Iodidi* unc.ss.; *Camphoræ* unc.¼; *Spir. Rectificati* fl.unc.x. This is half the strength of the Lin. Iodi (1864), and not being so strong is better adapted for general use.)

Oper.—Counter-irritant and vesicant.

Use.—In bronchocele and glandular swellings, chronic enlargement of joints; in various pulmonary affections.

LĬNĬMENTUM OPĬI. Liniment of Opium. (A mixture of equal parts of *Tinctura Opii* and *Linimentum Saponis.*)

Use.—To allay pains; and to procure sleep when opium cannot be taken into the stomach.

LĬNĬMENTUM POTASSĬI IODĬDI CUM SAPŌNE. Liniment of Iodide of Potassium and Soap. (*Saponis duri, Potassii Iodidi, sing.* unc.ss.; *Glycerini* fl.unc.j.; *Olei Limonis* fl.dr.j.; *Aquæ destillatæ* fl.unc.x. Dissolve the soap in 7 ounces of water by the heat of a water-bath; dissolve the iodide and glycerine in the remainder, and mix the two solutions. Add the oil of lemon when the mixture is cold.)

Oper.—Alterative and resolvent.

Use.—In glandular enlargement, and affection of joints.

LĬNĬMENTUM SAPŌNIS. Soap Liniment. (*Saponis* unc.ijss.; *Camphoræ* unc.1¼; *Aquæ destillatæ* fl.unc.ij.; *Olei Rosmarini* fl.dr.iij.; *Spiritus rectificati* fl.unc.xviij. Mix the water with the spirit and add the oil, soap, and camphor; macerate for 7 days at a temperature not exceeding 70°, with occasional agitation, and filter.)

Oper.—Stimulant, anodyne.

Use.—Against local pains rubbed on the part; with the addition of Tincture of Spanish Flies, and of opium, we have found this liniment of great use in allaying the violent pains of colic, and procuring sleep.

LĬNĬMENTUM SINĀPIS COMPŎSĬTUM. Compound Liniment of Mustard. (*Olei Sinapis* fl.dr.j.; *Extracti Mezerei Ætherei* gr.xl.; *Camphoræ* gr.cxx.; *Olei ricini* fl.dr.v.; *Sp. rectificati* fl.unc.iv. Dissolve the extract and camphor in the spirit, then add the oil of mustard and the castor oil.)

Oper.—Stimulant, irritant.

Use.—In the same class of cases as the mustard poultice.

LĬNĬMENTUM TEREBINTHĬNÆ. Linimentum Terebinthinatum. Turpentine Liniment. Prepared by dissolving an ounce of camphor in 16 ounces of oil of turpentine, and afterwards rubbing in 2 ounces of soft soap.

Oper.—Stimulant.

Use.—To parts chronically inflamed; to burns; first used for this purpose by Dr. Kentish, then a surgeon in Newcastle.

LĬNĬMENTUM TEREBINTHĬNÆ ACETĬCUM. Liniment of Turpentine and Acetic Acid. (*Olei Terebinth., Acid. Acet., Linimenti Camphoræ, sing.* fl.unc.j.)

Oper. and Use.—More powerful than the former, and used in chest diseases and similar cases.

LĪNI OLĔUM SĒMEN. Linum Usitatissimum. Linseed oil. (Linum *Usitatissimum. Pentand. Pentagynia.* N.O. *Linaceæ.* Indigenous.)

Prop.—Seed inodorous, almost tasteless; small, flat, oval, smooth, shining, brown; yielding mucilage to warm water, and oil by expression. Mucilage clear, colourless, indorous, nearly insipid.

Oper.—Demulcent, emollient.

Use.—The infusion has been already noticed. In substance, the linseed is ground into powder, and used as poultices very advantageously. It is preferable on account of the facility with which it is made, the powder being simply stirred into boiling water. To phlegmons, and parts affected with pain and inflammation; and to gout, the pain of which it has been found to relieve if the weight of a poultice can be borne.

LINI FARĪNA. Linseed meal.

Use.—For making poultices.

*LIQUOR ALUMĬNIS COMPŎSĬTUS. Compound Solution of Alum. (*Aluminis, Zinci Sulphatis, sing.* unc.j.; *Aq. destillatæ* Oiij. Dissolve, and strain the solution through paper. *Aqua Aluminis Composita.*)

Oper.—Detergent, stimulant.

Use.—As a collyrium properly diluted in ophthalmia: an injection in gleet, and in leucorrhœa; and as a solution for cleansing wounds, and removing cutaneous eruptions.

LIQUOR AMMŌNĬÆ. Solution of Ammonia. (*Liq. Ammoniæ fort.* Oj.; *Aquæ destillatæ* Oij.)

Comp.—Ammoniacal gas (a compound of 82·36 nitrogen, and 17·64 hydrogen, or 3 eq. hydrogen = 3 + 1 nitrogen = 14 equiv. = 17), 10 parts, and water 90 parts, when of a spec. grav. 0·960.

Prop.—Odour pungent, strong, peculiar; taste hot, pungent; is colourless, transparent; absorbs rapidly carbonic acid from the atmosphere, so as to require to be well corked up.

Oper.—Stimulant, antacid, rubefacient.

Use.—Largely diluted in asphyxia, acidities of the primæ viæ, and in hysteria; externally it is applied to the nostrils in faintings; a rag moistened with it, and laid over the scrobiculus cordis, sometimes raises an instantaneous blister, and always proves useful in spasms, and gout of the stomach; a liniment composed of camphor gr.lx. dissolved in olive oil fl.unc.j. and Liq. ammon. fl.unc.ij. is an excellent application to parts affected with deep-seated inflammation.

Dose.—Min.v. to min.xxx. diluted with water or milk.

Incomp.—All the metallic salts; the acids, sulphas aluminis.

Off. Prep.—Linimentum Ammoniæ. Linimentum Hydrargyri.

LIQUOR AMMŌNĬÆ ACETĀTIS. Solution of Acetate of Ammonia. (*Acidi Acetici* fl.unc.x.; *Ammoniæ Carbonatis* unc.iij.½ vel q.s.; *Aquæ destillatæ* Oijss. Reduce the carbonate to powder, and add it gradually to the acetic acid, until a neutral solution is formed, then add the water.) This nearly corresponds with the Liquor Ammoniæ Acetatis of the London and Edinburgh and about one-third stronger than that of the Dublin Pharm., but only one-fifth the strength of the Liq. Ammoniæ Acetatis 1864.

Comp.—Acetate of ammonia, water, proportions variable. $NH_4O,C_4H_3O_3$ or $NH_4C_2H_3O_2$.

Prop.—Inodorous; taste neutral, nauseous; colourless; neutral; colour not affected by litmus, turmeric or hydrosulphuric acid, giving no

precipitate with chloride of barium. The precipitate with nitrate of silver is redissolved by nitric acid. If potash be added it gives off ammonia; if sulphuric acid, acetic acid vapours. The residuum, after evaporation, is entirely destroyed by fire.

Oper.—Diaphoretic; externally cooling, astringent.

Use.—Diluted, in febrile and inflammatory complaints; as a lotion, to inflamed surfaces, sprains, and fractures; diluted with rose-water, a good collyrium; and still more diluted, an injection in the commencement of gonorrhœa. Combined with the Extractum Opii Liquidum it allays itching.

Dose.—Fl.dr.ij. to fl.dr.vj.

Incomp.—Acids, alkalies.

LIQUOR AMMŌNĬÆ CITRĀTIS. Solution of Citrate of Ammonia. (*Acidi Citrici* unc.iij.; *Liq. Ammoniæ Fort.* unc.ij.$\frac{3}{4}$ vel q.s.; *Aquæ destillatæ* Oj. Dissolve the citric acid in the water, and add the liquor ammoniæ, until the liquid is neutral.)

Comp.—Citrate of ammonia $3NH_4O,C_{12}H_5O_{11}$ or $3\mathbf{NH_4},\mathbf{C_6H_5O_7}$ dissolved in water.

Prop.—Neutral; not so nauseous as the liquor ammoniæ acetatis.

Oper.—Diaphoretic, refrigerant.

Use.—In fevers, and the phlegmonæ, as a drink, or a vehicle for stronger remedies.

Dose.—Fl.dr.ij. to fl.dr.vj.

LIQUOR AMMŌNĬÆ FORTĬOR. Strong Solution of Ammonia.

Comp.—Ammoniacal gas (NH_3 or $\mathbf{NH_3}$) dissolved in water, and constituting 32·5 per cent. of the solution.

Prop. — Colourless, strongly pungent, with strong alkaline reaction. Sp. gr. ·891. 52·3 grs. by weight require for neutralisation 1000 grain-measures of the volumetric solution of oxalic acid. One fl.dr. contains 15·83 grains of ammonia. Diluted with four times its volume of distilled water, it gives no precipitate with liq. calcis, oxalate of ammonia, sulphide of ammonium, or ammonio-sulphate of copper; and when treated with an excess of nitric acid, is not rendered turbid by nitrate of silver or chloride of barium. It may be reduced to the strength of liquor ammoniæ by adding 2 ounces of distilled water to each ounce.

Oper.—Escharotic, vesicant.

Use.—As a rubefacient when combined with oil; as an instantaneous vesicant in gout of the stomach.

Off. Prep.—*Ammoniæ Phosphas. Lin. Camphoræ Comp. Liq. Ammoniæ. Liq. Ammoniæ Citratis. Spir. Ammoniæ Arom. Tinct. Opii Ammoniata.*

LIQUOR ANTIMŌNĬI CHLORĬDI. Solution of Chloride of Antimony. (*Antimonii Nigri* lb.j.; *Acidi Hydrochlorici* Oiv.)

Prop.—A heavy liquid of a yellowish-red colour. Sp. gr. 1·47. When dropped into water a white precipitate falls, and from the filtered solution there is a copious deposit on the addition of nitrate of silver. If the white precipitate formed by water be treated with sulphuretted hydrogen it becomes orange. One fluid drachm mixed with a solution of a quarter of an ounce of tartaric acid in 4 ounces of water gives an orange precipitate, when treated with sulphuretted hydrogen, weighing when washed and dried at 212° at least 22 grains.

Oper.—Escharotic.

Use.—Externally to carcinomatous growths and poisoned wounds, and bites of serpents.

Off. Prep.—*Antimonii Oxidum.*

*LĪQUOR ANTIMŌNĬI TARTĂRIZĀTI. Solution of Emetic Tartar. (*Antimonii Tartarati* gr.lx.; *Aquæ destillatæ* Oj.; *Spir. rectificati* fl.unc.vij.)

Oper.—Emetic, sudorific.

Use.—In the febrile affections of infancy and youth; in hooping-cough, and whenever it is necessary to clear the stomach, or determine to the skin.

Dose.—As an emetic from min.xxx. to fl.dr.iij., every five or ten minutes until it operates; as a diaphoretic from min.vj. to fl.dr. every three or four hours.

Incomp.—Alkalies, astringent vegetable solutions, cinchona.

*LIQUOR ARGENTI NITRĀTIS. Solution of Nitrate of Silver. (*Argenti Nit. Crystallorum* dr.j.; *Aq. dest.* fl.unc.j. The addition of min.viij. of diluted nitric acid improves the solution.)

Use.—To apply to excoriations in fevers, and cases of long confinement to bed in low conditions of the habit; to the diseased surface in erysipelas. A test for chlorine and all soluble chlorides, and also for hydrocyanic acid.

LIQUOR ARSENĬCĀLIS. Arsenical Solution. Liquor Potassæ Arsenitis. Fowler's Solution. (*Arseniosi Acidi in frustula triti, Potassæ Carbonatis sing.* gr.lxxx.; *Tinct. Lavand. co.* fl.dr.v.; *Aq. destil.* q.s. Heat the acid and carbonate with Oss. of water until they are dissolved. Add the tincture to the cooled liquor, and lastly as much water as may be sufficient, that it may exactly fill a pint measure.) Each fluid ounce contains 4 grains of arsenious acid.

Comp.—A mixed solution of arsenite and carbonate of potassa dissolved in water; the spirit of lavender gives only colour and taste.

Prop.—A reddish, alkaline liquid, with the odour of lavender. Sp. gr. 1·009. Acidulated with hydrochloric acid, it gives with sulphuretted hydrogen a yellow precipitate. 441·5 grs. by weight (1 fluid ounce), boiled for 5 minutes with 10 grains of bicarbonate of soda, and diluted when cold with 6 ounces of water to which a little mucilage of starch has been added, does not give with the volumetric solution of iodine a permanent blue colour until 808 grain-measures have been added, corresponding to 4 grains of arsenious acid in an ounce.

Oper.—Tonic, antiperiodic.

Use.—In intermittent fever, in scaly diseases of the skin, neuralgia; in protracted rheumatism, where there is much debility, and the joints much affected. We have given it with decided advantage in threatened apoplexy, after cupping and purging, when the strength is diminished, and the complexion pale. Chorea;

Dose.—Min.ij. gradually increased to min.x. twice a day on a full stomach.

Incomp.—Mineral acids, hydrosulphuric acid, acidulous salts, hydrosulphates and sulphurets, salts of calcium, lime-water, alum, salts of magnesia; salts of iron, silver, and copper; decoction and tincture of cinchona.

LIQUOR ARSĔNĬCI HYDROCHLORĬCUS. Hydrochloric Solution of Arsenic. (*Acidi Arsenici in frustula triti* gr.lxxx.; *Acidi Hydrochlorici* fl.dr.ij.; *Aquæ destillatæ* q.s. Boil the arsenious acid with the hydrochloric acid and 4 ounces of water until it is dissolved, then add distilled water to make up the bulk to one pint.) This solution is of the same strength as the liq. arsenicalis, and nearly 3 times the strength of the liq. arsenici chloridi, Lond.

Prop.—Colourless. Sp. gr. 1·009. Sulphuretted hydrogen causes an orange precipitate; in other respects as liq. arsenicalis.
Use & Dose.—The same as liq. arsenicalis.

*LIQUOR ARSĔNĬCI ET HYDRARGŸRI HYDRIODĀTIS. Solution of the Hydriodate of Arsenic and Mercury. Donovan's Solution. (*Arsenici in pulverem subtilissimum contusi* gr.vj.; *Hydrargyri* gr.xvj.; *Iodi* gr.lss.; *Alcoholis* min.xxx.; *Aquæ destillatæ* fl.unc.ix., *vel quantum satis sit.* Rub together the arsenic, mercury, iodine, and spirit, until a dry mass be obtained, and having triturated fl.unc.viij. of water with this in successive portions, let the whole be transferred to a flask, and heated until it begins to boil. When cooled and filtered, let as much distilled water be added as will make the bulk of the solution exactly fl.unc.viij. and fl.dr.vj.)
Prop.—Inodorous; taste styptic; colour pale greenish-yellow; each fl.dr. contains gr.$\frac{1}{10}$ of arsenious acid, gr.$\frac{1}{4}$ of oxide of mercury, and gr.5-7ths of iodine in the state of hydriodic acid.
Oper.—Tonic, alterative.
Use.—In chronic cutaneous eruptions, especially those of a scaly character.
Dose.—Min.x. to min.xxx. largely diluted thrice a day. Externally fl.dr.j. to fl.unc.j. of distilled water.

LIQUOR ATRŎPĬÆ. Solution of Atropia. (A solution of Atropia in weak spirit, containing gr.iv. in fl.unc.j.)
Oper.—Narcotic; produces dilatation of pupil.
Use.—Min.j. dropped into the eye causes the pupil to dilate.
Incomp.—Caustic alkalies, opium.

LIQUOR ATRŎPĬÆ SULPHATIS. Solution of Sulphate of Atropia. (*Atropiæ Sulphatis* gr.iv.; *Aquæ destillatæ* fl.unc.j. Dissolve.)
Use.—As a collyrium, supposed to be less irritating than the liquor atropiæ.

LIQUOR BARĬI CHLORĬDI. Solutio Muriatis Barytæ. Solution of Chloride of Barium. (Appendix I.) (*Barii Chloridi* unc.j.; *Aquæ destillatæ* fl.unc.j. Dissolve and strain. A limpid colourless fluid.)
Oper.—Stimulant, deobstruent, diuretic; in large doses a narcotic; acrid poison; externally escharotic.
Use.—Formerly in scrofulous affections, bronchocele, glandular obstructions, worms and cutaneous diseases; but its efficacy is doubted. Externally to fungous ulcers, and specks on the cornea. At present chiefly employed as a test for detecting sulphuric acid and the sulphates.
Dose.—Min.v. to min.x. gradually increased to nausea.

LIQUOR BISMŪTHI ET AMMŌNĬÆ CITRĀTIS. Solution of Citrate of Bismuth and Ammonia. (*Bismuthi Puri* gr.ccccxxx.; *Acidi Nitrici* fl.unc.ij.; *Acidi Citrici* unc.ij.; *Liq. Ammoniæ, Aquæ destillatæ, sing.* q.s. Dissolve the bismuth in the nitric acid, concentrate the solution, add the citric acid in solution, and lastly the liq. ammonia, until the solution is neutral or slightly alkaline. Dilute with distilled water to the volume of a pint.)
Prop.—Colourless; metallic taste. Sp. gr. 1·22. Neutral or slightly alkaline; mixes with water without change; gives off ammonia, and yields a white precipitate when heated with liq. potassæ. Hydrochloric acid throws down a white precipitate, soluble in excess of the reagent. Three drachms of the solution mixed with an ounce of distilled water, and treated with sulphuretted hydrogen, yields a black

precipitate, which washed and dried weighs 9·92 grains. One fl.drachm contains 3 grains of oxide of bismuth.

Oper.—Sedative and tonic.

Use.—In pyrosis and gastralgia, and also in cases of irritable bowel.

Dose.—Fl.dr.½ to fl.dr.j.

LIQUOR CALCĬI CHLORĬDI. Calcis Muriatis Solutio. Solution of Chloride of Calcium. (Appendix II.) *Chloridi Calcis* unc.j.; *Aq. dest.* fl.unc.viij.)

Use.—Chiefly used as a test for citric acid, and the arseniate of soda; in the first case it throws down a precipitate from a *hot* solution of citric acid, in the second case a white precipitate, the arseniate of lime.

LIQUOR CALCIS. Aqua Calcis. Lime-water. (*Calcis Hydratis* unc.ij. *Aq. destillatæ* cong.j. Agitate well, and after subsidence draw off clear fluid with a siphon.)

Comp.—The clear fluid consists of about gr.11·6 of lime in every Oj. of water, at 60° Fahr. Fl.unc.x. are neutralised by 200 grain-measures of the volumetric solution of oxalic acid, corresponding to gr.5·6 of lime.

Prop.—Inodorous; taste austere, acrid, sweetish; colourless; transparent. Changes vegetable blue colours green. Absorbs carbonic acid, whilst the whole of the lime is rendered insoluble.

Oper.—Antacid, anthelmintic; externally detergent.

Use.—Diarrhœa, diabetes, leucorrhœa; dyspepsia, when there is much acid or irritability of the stomach: in slimy bowels and worms; externally as a lotion to foul and cancerous ulcers; also in tinea capitis and scabies, but with little advantage.

Dose.—Fl.unc.j. to fl.unc.vj. with milk. When long used in dyspepsia, it should be discontinued at intervals.

Incomp.—Acids, alkaline carbonates, tartar emetic, barytes, tartrates and citrates. Infusions of orange-peel, calumba, cinchona, rhubarb, and senna.

Off. Prep.—Argenti Oxidum. Lin. Calcis. Lotio Hydrargyri Flava. Lotio Hydrargyri Nigra.

LIQUOR CALCIS CHLORĀTÆ. Solution of Chlorinated Lime. (*Calcis Chlorinatæ* lb.j.; *Aquæ destillatæ* cong.j.) Sp. gr. 1·035.

Oper.—Stimulant, antiseptic, disinfecting.

Use.—As a lotion in foul ulcers, cutaneous diseases, ophthalmia; as an injection in diseases of rectum or vagina, accompanied with fœtid discharges. It is the best antidote in poisoning by sulphuretted hydrogen, hydrosulphuret of ammonia, sulphuret of potassium and hydrocyanic acid. Used also as a disinfectant.

LIQUOR CĀLCIS SACCHARĀTUS. Saccharated Solution of Lime. (*Calcis Hydratis* unc.j.; *Sacchari purificati* unc.ij.; *Aquæ destillatæ* Oj.)

Prop.—Sp. gr. 1·052. 254 grain-measures of the volumetric solution of oxalic acid will neutralise fl.unc.j., corresponding to 7·11 gr. of lime.

Oper.—Antacid, sedative.

Use.—In irritable states of the stomach, and as liquor calcis.

Dose.—Min.xv. to fl.dr.j. being twelve times the strength of liquor calcis.

LIQUOR CHLORĪ. Solution of Chlorine. (*Acidi Hydrochlorici* fl.unc.vj.; *Manganesii oxidi nigri contriti* unc.j.; *Aquæ destillatæ* fl.unc.xxxiv. Mix the acid and binoxide in the retort; then pass chlorine into the water, until it shall cease to come off.)

Prop.—A yellowish-green liquid, with the odour of chlorine, decolorising the solution of sulphate of indigo. Sp. gr. 1·003. Leaves no residue on evaporation. When 20 grs. of iodide of potassium dissolved in an ounce of distilled water are added to 439 grains by weight (1 fluid ounce) of this preparation, the mixed solution acquires a deep-red colour, requiring for its discharge 750 grain-measures of the volumetric solution of hyposulphite of soda, corresponding to 2·66 grains of chlorine.

Use.—As a test for the salts of morphia; also as a gargle or lotion, diluted in the proportion of one part to seven of water: also more diluted, internally in typhus fever.

LIQUOR EPISPASTĬCUS. Blistering Liquid. Linimentum Cantharidis, 1864.

Use.—Vide *Linimentum Cantharidis.*

LIQUOR FERRI PERCHLORĬDI. Solution of Perchloride of Iron. (*Liquoris Ferri Perchloridi Fortioris* fl.unc.v.; *Aq. destillatæ* fl.unc.xv.; mix.) This is ¼th of the strength of Liq. Ferri Perchloridi, 1864, and of the same strength as the tincture of the perchloride.

Oper.—Astringent and tonic; diuretic.

Use.—Vide *Tinctura Ferri Perchloridi.*

LIQUOR FERRI PERCHLORĬDI FORTĬOR. Strong solution of Perchloride of Iron. Liq. Ferri Perchloridi, 1864. (Prepared by dissolving iron in hydrochloric acid, and afterwards by evaporating the solution with nitric acid; the peroxide of iron is formed and converted into the perchloride.

Comp.—Perchloride of iron Fe_2Cl_3 dissolved in water; fl.dr.j. contains 31·728 grs. of perchloride.

Prop.—Orange-brown colour; strong styptic taste; sp. gr. 1·44: nitrate of silver throws down a white, ferrocyanide of potassium a blue, precipitate.

Oper.—Tonic, diuretic, styptic.

Use.—Chiefly to make the liquor ferri perchloridi and the tinctura ferri perchloridi, and seldom alone.

Dose.—Min.iij. to min.x.

Incomp.—Alkalies, lime-water, magnesia, and their carbonates; astringent vegetable infusions, and decoctions, mucilage.

LIQUOR FERRI PERNITRĀTIS. Solution of the Pernitrate of Iron. (*Fine iron wire free from rust* unc.j.; *Pure Nitric Acid* fl.unc.ivss.; *Distilled Water a sufficient quantity.* Introduce the iron into the acid mixed with water, and leave them until gas ceases to be disengaged.)

Comp.—Pernitrate of Iron ($Fe_2O_3,3NO_5$), dissolved in water.

Prop.—Transparent; fine orange colour; weak nitric acid odour: acid styptic taste: sp. gr. 1·107. The ferrocyanide, but not the ferridcyanide, of potassium throws down a blue precipitate. Fl.dr.j. contains 7·865 grs. of pernitrate of iron. One fl.dr. treated with excess of liq. ammoniæ gives a precipitate, which, when washed, dried, and incinerated, weighs 2·6 grains.

Oper.—Astringent, tonic.

Use.—In colliquative diarrhœa, leucorrhœa.

Dose.—Min.x. to min.xl.

Incomp.—All astringent vegetable infusions, decoctions, or syrups.

LIQUOR FERRI PERSULPHATIS. Solution of Persulphate of Iron. (Prepared by action of nitric acid on the solution of sulphate of iron.)

Prop.—Dark-red coloured liquid; inodorous, astringent; miscible in all proportions with water and alcohol. Diluted with 10 volumes of water it gives a white precipitate with chloride of barium, and a blue precipitate with the yellow but not with the red prussiate of potash. Sp. gr. 1·441. 1 fl.dr. diluted with 2 ounces of distilled water gives, with excess of ammonia, a precipitate, which, when washed and incinerated, weighs 11·44 grains.

Use.—Chiefly to make the following preparations: Ferri Ammoniæ Citras, Ferri et Quiniæ Citras, Ferri Oxidum Magneticum, Ferri Peroxidum Humidum, Ferrum Tartaratum, Tinctura Ferri Acetatis.

*LIQUOR HYDRARGŸRI ET ARSĔNĬCI HYDRIODĀTIS. Solution of the Hydriodate of Mercury and Arsenic. (See *Liquor Arsenici et Hydrargyri Hydriodatis.*)

LIQUOR HYDRARGŸRI NITRATIS ACĬDUS. Acid Solution of Nitrate of Mercury. (*Hydrargyri* unc.iv.; *Acidi Nitrici* fl.unc.v.; *Aquæ destillatæ* fl.unc.jss.)

Comp.—Nitrate of Mercury (HgO,NO_5) dissolved in nitric acid.

Prop.—Colourless, sp. gr. 2·246; acid. A solution of potash in excess throws down a yellow precipitate.

Oper.—Escharotic.

Use.—As an application to malignant ulcers, as carcinoma, lupus, &c.; also to ulcers of the cervix uteri. It is much used on the Continent. Applied by means of a brush.

LIQUOR HYDRARGŸRI PERCHLORĬDI. Solution of Perchloride of Mercury. (*Hydrarg. Perchloridi, Ammonii Chloridi, sing.* gr.x.; *Aq. destil.* Oj. Dissolve in water.)

This preparation is superfluous, except that it 'facilitates the administration of minute divisions of a grain of this active medicine;' fl.dr.j. contains 1-16th grain of the salt.

Dose.—Min.xx. to fl.dr.ij. in any mucilage; or in syrup and water.

Incomp.—Alkalies and their carbonates, lime-water, iodide of potassium, tartar emetic, nitrate of silver, acetates of lead, sulphurets, soaps, infusion and decoctions of astringent vegetables, albumen ovi.

LIQUOR IŌDI. Solution of Iodine. (*Iodi* gr.xx.; *Potassi Iodidi* gr.xxx.; *Aquæ destillatæ* fl.unc.j. Dissolve.)

Oper.—Alterative, resolvent, rubefacient.

Use.—As an external application in cases requiring the action of iodine.

LIQUOR LITHĬÆ EFFERVESCENS. Effervescing Solution of Lithia. Aqua Lithiæ Effervescens. Lithia Water. (*Lithiæ Carbonatis* gr.x.; *Aquæ* Oj. Mix in a suitable apparatus, and pass into it carbonic acid, obtained from the action of sulphuric acid on chalk. Preserve in well-corked bottles.)

Prop.—Clear, sparkling, effervescing, with an agreeable acidulous taste. Half a pint evaporated to dryness yields 5 grains of a white solid residue, answering to the tests for carbonate of lithia.

Oper.—Antacid, diuretic.

Use.—In gout and rheumatism.

Dose.—Fl.unc.v. to fl.unc.x.

LIQUOR MAGNESĬÆ CARBONĂTIS. Solution of Carbonate of Magnesia. (Prepared by mixing the solutions of Sulphate of Magnesia and Carbonate of Soda. Collect and wash the precipitate of Carbonate of Magnesia, and having added distilled water, pass into it

carbonic acid gas. Keep in a well-corked bottle.) An ounce of the solution contains 13 grs. of carbonate of magnesia.

Prop.—Slightly effervescent; clear and free from bitterness. An ounce evaporated to dryness yields a white solid residue, which, after being calcined, weighs not less than 5 grs. This residue is insoluble in water, and answers to the tests for magnesia.

LIQUOR MORPHĬÆ ACETĀTIS. Solution of Acetate of Morphia. (*Morphiæ Acetatis* gr.iv.; *Acidi Acetici diluti* gr.viij.; *Spiritus Rectificati* fl.dr.ij.; *Aquæ destillatæ* fl.dr.vj. Mix acid, spirit, and water, and dissolve the acetate of morphia in the meantime.) Each drachm contains gr.½ of the acetate.

Oper.—Narcotic, anodyne, sedative.

Use.—Vide *Morphiæ Acetas.*

Dose.—Min.x. to fl.dr.j.

LIQUOR MORPHĬÆ HYDROCHLŌRĀTIS. Liquor Morphiæ Muriatis. Solutio Morphiæ Muriatis. Solution of the Hydrochlorate of Morphia. (*Morphiæ Hydrochloratis* gr.iv.; *Acidi Hydrochlorici dil.* min.viij.; *Spiritus rectificati* fl.dr.ij.; *Aquæ destillatæ* fl.dr.vj. Mix and dissolve.) The fl.dr.j. contains half a grain of the hydrochlorate.

Oper. and *Use.*—See *Morphiæ Hydrochloras.*

Dose.—Min.x. to min.xl.

*** *Both these solutions are half the strength of the solutions of the same name in the London Pharmacopœia.*

LIQUOR PLUMBI SUBACĒTĀTIS. Plumbi Diacetatis Solutio. Solution of Subacetate of Lead. (*Plumbi Acetatis* unc.v.; *Plumbi Oxidi in pulv. triti* unc.iijss.; *Aquæ destillatæ* Oj. vel q.s. Boil for half an hour, occasionally stirring, and when the solution cools make up the quantity to unc.xx.; strain.

Comp.—It is an aqueous solution of the subacetate of lead, and is composed of 1 eq. of acetic acid, 2 of protoxide of lead, and 1 of water ($2PbO,\bar{A}$) or $PbC_2H_3O_2$.

Prop.—Colourless; limpid: sp. gr. 1·260; odour acetous; taste austere, astringent, sweetish with alkaline reaction, becoming turbid on exposure to the air, and forming with mucilago acaciæ an opaque white jelly. Sulphuric acid in excess gives a white precipitate, acetic acid being set free. 413·3 grs. by weight (6 fl.dr.) require for perfect precipitation 810 grain-measures of the volumetric solution of oxalic acid.

Oper.—Externally when diluted, cooling, astringent, discutient.

Use.—Diluted with forty times its quantity of *distilled* water, it is a useful application in phlegmonous inflammations and burns; and still more diluted, it forms a good collyrium, and a wash for the mouth in salivation.

Incomp.—Mucilaginous solutions or decoctions; common pump-water.

Off. Prep.—*Liq. Plumbi Subacetatis Dilutus. Unguentum Plumbi Subacetatis Compositus.*

LIQUOR PLUMBI SUBACETĀTIS DILŪTUS. Diluted Solution of Subacetate of Lead. (*Liq. Plumbi Subacetatis* fl.dr.ij.; *Spiritus Rectificati* fl.dr.ij.; *Aquæ destillatæ* fl.unc.xixss. Mix and filter through paper. Keep the clear solution in a stoppered bottle.)

Use.—See *Liquor Plumbi Subacetatis.*

LIQUOR POTASSÆ. Aqua Potassæ. Liquor Potassæ Causticæ. Solution of Potash. (*Potassæ Carbonatis* lb.j.; *Calcis Hydratis* unc.xij.; *Aquæ dest.* cong.j. Dissolve the alkali in the water, boil and add the

lime. Mix the whole; set the mixture aside in a close vessel, and when it is cold and clear from the subsidence of the insoluble matter, decant, and keep the decanted fluid in well-stopped phials of green glass.)

Comp.—Oxide of potassium and water.

Prop.—Inodorous; taste caustic, alkalescent; colourless; appearance oily when shaken; more dense than water; feels soapy between the fingers, owing to the solution of the cuticle; will not effervesce with acids; spec. grav. 1·058; 462·9 grains by weight (1 fluid ounce) require for neutralisation 482 grain-measures of the volumetric solution of oxalic acid, corresponding to 5·84 per cent. by weight of hydrate of potash, KO,HO or **KHO**. It gives very slight, if any, precipitate with lime-water, nor, after saturation with nitric acid, with carbonate of soda, chloride of barium, or nitrate of silver. The precipitate with bichloride of platinum is pale yellow. One ounce contains 27 grains of hydrate of potash.

Oper.—Lithontriptic in some cases; antacid; diuretic; seems to favour morphotic changes; externally escharotic, stimulant.

Use.—The reputation of alkalies in calculus is not so high as formerly; potassa acts on uric acid calculi, and therefore may be useful in nephritic calculus; but its chief use is in preventing the formation of uric acid. It neutralises acids in the stomach, and allays irritability in that organ; it is useful in cases of boils, lepra vulgaris, psoriasis and some other cutaneous complaints. It has also been recommended in ovarian disease. Externally diluted, as a lotion in rachitis and gouty swellings.

Dose.—Min.x. to fl.dr.j. in chicken broth or beer, three or four times a day. When used to counteract acidity, a bitter should be united to it.

Incomp.—Acids, metallic salts, carbonate, acetate, and hydrochlorate of ammonia, subchloride and perchloride of mercury.

LIQUOR POTASSÆ EFFERVESCENS. Effervescing Solution of Potash. Aqua Potassæ Effervescens. Potash Water. (*Potassæ Bicarbonatis* gr.xxx.; *Aquæ* Oj. Pass into the filtered solution of the bicarbonate a stream of carbonic acid gas. Keep the solution closely corked.)

Prop.—It is clear, sparkling, effervescing, with agreeable acidulous taste. 10 ounces, after being boiled 5 minutes, require for neutralisation 150 grain-measures of the volumetric solution of oxalic acid. 5 ounces evaporated to ⅓th with 12 grs. of tartaric acid, yield a crystalline precipitate, which when dried, weighs not less than 12 grs.

Oper.—Antacid, diuretic, refrigerant.

Use.—In gouty dyspepsia.

Dose.—fl.unc.ij. to fl.unc.iv.

LIQUOR POTASSÆ PERMANGĂNĀTIS. Solution of Permanganate of Potash. (80 grains of permanganate of potash dissolved in Oj. of distilled water. A form of Condy's solution.)

Oper.—Antiseptic.

Use.—As a lotion or a gargle in cases of sloughing ulcers in mouth or elsewhere, and as a remedy in diabetes.

Dose.—Fl.dr.ij. to fl.dr.iv. As a lotion or gargle min.xv. to min.xxx. in two or three tablespoonfuls of water. It must be mixed fresh whenever required.

LIQUOR SODÆ. Sodæ Causticæ Liquor. Solution of Soda. (*Sodæ*

Carbonatis unc.xxviij.; *Calcis hydratis* unc.xij.; *Aquæ destill. fervent.* cong.j.) Prepared in same way as the Liquor Potassæ.

Prop.—Specific gravity 1·047. An ounce contains 18·8 grs. of hydrate of soda. 458 grs. by weight (an ounce) require for neutralisation 470 grain-measures of volumetric solution of oxalic acid, corresponding to 41 per cent. of hydrate of soda NaO.HO or **NaHO**. Does not effervesce when added to an excess of dilute hydrochloric acid; mixed with an equal volume of distilled water it gives no precipitate with liquor calcis or oxalate of ammonia. Treated with diluted nitric acid in excess and evaporated to dryness, the residue forms with water a clear solution, only slightly precipitated by chloride of barium and nitrate of silver, and not at all by ammonia.

Oper.— Antacid.

Use.—Used in the preparation of Valerianate of Soda.

LIQUOR SODÆ ARSENIĀTIS. Solution of Arseniate of Soda. (Four grains of Arseniate of Soda rendered anhydrous by heat, not exceeding 300°, dissolved in fl.unc.j. of distilled water.) Each fluid ounce contains 6·6 grains (4 grains dried) of the arseniate of soda.

Oper.—A mild preparation of arsenic. See *Liquor Arsenicalis.*

Dose.—Min.v. to min.x. not on empty stomach.

LIQUOR SODÆ CHLORĀTÆ. Solution of Chlorinated Soda. Labaraque's Soda Disinfecting Fluid. (*Sodæ Carbonatis* unc.xij.; *Manganesii Oxidi Nigri in pulverem redacti* unc.iv.; *Acidi Hydrochlorici* fl.unc.xv.; *Aquæ destillatæ* Oij. Pass the gas, obtained by the action of hydrochloric acid on the black oxide, into a solution of carbonate of soda.

Prop.—A pale yellow colour, taste sharp, astringent, brackish, evolves chlorine when exposed to the air; bleaches the solution of indigo. The colour of turmeric is at first changed to brown, and soon after destroyed. Sp. gr. 1·03. It is not precipitated by oxalate of ammonia.

Comp.—Hypochlorite of soda, bicarbonate of soda, and chloride of sodium.

Oper.—Astringent, antiseptic.

Use.—In typhus, in other low fevers, largely diluted: to destroy fœtor, and tendency to putrefaction in the bowels. A disinfecting agent.

LIQUOR SODÆ EFFERVESCENS. Effervescing Solution of Soda. (*Prepared as the Liquor Potassæ Effervescens.*) Aqua Sodæ Effervescens. Soda Water.

Prop.—Clear, sparkling, with an agreeable acidulous taste; strongly effervescent. 10 ounces, after being boiled for 5 minutes, require for neutralisation 178 grain-measures of the volumetric solution of oxalic acid.

Oper.—Antacid, diuretic.

Use.—In dyspepsia, acidity of stomach.

Dose.—Fl.unc.ij. to fl.unc.iv.

LIQUOR STRYCHNĬÆ. Solution of Strychnia. (Four grains of strychnia dissolved in a fl.unc. of rectified spirit and water, slightly acidulated with hydrochloric acid. Fl.dr.j. contains half a grain.)

Oper.—Spinal excitant; tonic.

Use.—In dyspepsia; local paralysis, especially when arising from lead.

Dose.—Min.v. to min.xv.

LIQUOR ZINCI CHLORĬDI. Vide *Zinci Chloridi Liquor.*

*LITHARGŸRUM. Litharge. (See *Plumbi Oxidum.*)

LITHĬÆ CARBŌNAS. Carbonate of Lithia. (Chemical Symbol, LO,CO_2. 1 eq. of lithia, oxide of lithium=15+1 eq. carbonic acid=22=37, or L_2CO_3, 14+12+48=74.)

Prop.—Minute white crystalline grains, reaction alkaline, soluble in 100 parts of water, but not in alcohol. Soluble with effervescence in hydrochloric acid; the solution evaporated leaves the chloride of lithium, which communicates a red colour to the flame of a spirit lamp, and re-dissolved yields a precipitate with phosphate of soda. 10 grains of the salt neutralised with sulphuric acid, and afterwards heated to redness, leave 14·86 grains of dry sulphate of lithia, which, when re-dissolved, gives no precipitate with oxalate of ammonia or liquor calcis.

Oper.—Diuretic, with a tendency to render urine alkaline.

Use.—In gout, and especially in those cases in which the urates are deposited in the joints.

Dose.—Gr.iij. to gr.vj. in aërated water; dilution aids its action.

Off. Prep.—*Liquor Lithiæ Effervescens. Lithiæ Citras.*

LITHĬÆ CITRAS. Citrate of Lithia. (*Lithiæ Carbonatis* gr.l.; *Acidi Citrici Crystall.* gr.xc.; *Aquæ destillatæ calidæ* fl.unc.j. The carbonate is decomposed, and the citrate evaporated and powdered.

Comp.—Three eq. of Lithia, and one eq. of Citric Acid ($3LO,C_{12}H_5O_{11}$) or $L_3C_6H_5O_7$.

Prop.—White, amorphous powder, deliquescent, soluble in water.

Oper.—Diuretic, with a tendency to render the urine alkaline.

Dose.—Gr.v. to gr.x.

LĬTMUS. LACMUS. (Appendix I.) Litmus or Archil. (Lichen Roccella. *Cryptogamia.* N. O. *Lichenaceæ.* Azores. ♃)

Prop.—Inodorous; taste saltish; and when chewed subacrid.

Use.—Colour blue or violet. As a test of great delicacy for acids. To prepare it, the plant is reduced to powder; some of the soda of commerce is then added to it; and it is repeatedly moistened with urine till it ferments, and gradually acquires a violet colour; it is then dried. The watery infusion of it, or paper stained with it, shows the presence of an otherwise imperceptible portion of acid in any fluid.

LOBĒLIA. Indian Tobacco. The flowering plant dried. (Lobelia *inflata. Pent. Monog.* N.O. *Lobeliaceæ.* United States of America. ♃)

Prop.—Odour faint but disagreeable. Taste acrid. Stem angular; leaves alternate, ovate, toothed, somewhat hairy beneath; capsule ovoid, inflated, ten-ribbed. Yields its properties to water, alcohol, and æther. Contains lobelic acid and *lobelina.*

Oper.—Emetic, sedative, purgative, expectorant, antispasmodic.

Use.—In the paroxysm of asthma; in certain cases of bronchitis, in croup, hooping cough.

Dose.—In powder gr.j. to gr.v.; tincture min.x. to min.xxx.

Off. Prep.—*Tinctura Lobeliæ. Tinctura Lobeliæ Ætherea.*

LOTIO HYDRARGYRI FLAVA. Yellow Mercurial Lotion. Yellow Wash. (*Hydrargyri Perchloridi* gr.xviij.; *Liq. Calcis* fl.unc.x. Mix.)

Oper.—Alterative, resolvent.

Use.—In syphilitic ulceration.

LOTIO HYDRARGYRI NIGRA. Black Mercurial Lotion. Black Wash. (*Hydrargyri Subchloridi* gr.xxx.; *Liq. Calcis* fl.unc.x. Mix.)

Oper.—Stimulant, alterative, resolvent.

Use.—In syphilitic and certain forms of cachectic ulceration.

LŬPŬLUS. Humulus Lupulus, Strobili Siccati. The dried strobiles of the female plant. Hops. (Humulus Lupulus, *Diœcia*, *Pentand.* N. O. *Cannabinaceæ*, *Lindley*. Indigenous. ♃)

Prop.—Odour fragrant, sub-narcotic; taste bitter, aromatic: depending on a peculiar principle named *lupuline*, extractive, and essential oil; extracted equally by water and spirit from the dried strobili. Strobiles of a greenish yellow colour, with minute yellow grains (Lupuline) adherent to the base of the scales.

Oper.—Narcotic, anodyne, diuretic.

Use.—In gout and rheumatism; under the form of infusion in the proportion of unc.ss. to Oj. of boiling water; but the extract already noticed is preferable. The powder, formed into an ointment with lard, is said to ease the pain of open cancer. A pillow, stuffed with hops, is an old mode of procuring sleep in the watchfulness of delirious fever. Its powers have been overrated.

Dose.—Gr.iij. to gr.xx. united with fl.unc.ss. of cinnamon water, twice or thrice a day; of the infusion fl.unc.jss.

Off. Prep.—Ext. Lupuli. Infusum Lupuli. Tinct. Lupuli.

MAGNĒSĬA. Heavy Magnesia. (Obtained from Carbonate of Magnesia, by exposure to a strong heat. *Magnesia Usta.*)

Comp.—A metallic base, named by Sir H. Davy magnesium 60, and oxygen 40 in 100 parts; or 1 eq. magnesium = 12, 1 eq. oxygen = 8 equiv. = 20. (MgO.) 1 eq. of magnesium = 24 + 1 eq. of oxygen = 16 = 40. (**MgO**.)

Prop.—Inodorous; taste very slightly bitter; in the form of a powder, white, light, spongy, soft; spec. grav. 2·3, requiring 5,142 times its weight of water at 60°, and 36,000 at 212° for its solution. Moistened with water renders turmeric brown. Fifty grains should wholly dissolve without effervescence in fl.unc.j. of hydrochloric acid; and the solution should not afford a precipitate either to bicarbonate of potash or chloride of barium; but neutralised by a mixed solution of ammonia and chloride of ammonium, gives a copious crystalline precipitate on addition of phosphate of soda.

Oper.—Antacid, laxative when it meets with acids in the stomach.

Use.—In heartburn, aphthæ, pyrosis, and dyspepsia depending on acidities; preferable to chalk when the bowels are costive. Sometimes it is given in dysentery, combined with ipecacuanha and opium, and followed by successive draughts of lemonade.

Dose.—Gr.x. to gr.lx. occasionally in water or milk.

Incomp.—Acids, metallic salts, hydrochlorate of ammonia.

MAGNĒSĬA LEVIS. Light Magnesia. (Made as the preceding, but from the light carbonate. Differs only from heavy magnesia in being $3\frac{1}{7}$ times lighter.)

Off. Prep.—Pulv. Rhei Compositus.

MAGNĒSĬÆ CARBŌNAS PONDERŌSA ET LEVIS. Heavy and Light Carbonate of Magnesia. (*Magnesiæ Sulphatis* unc.x.; *Sodæ Carbonatis* unc.xij.; *Aquæ destillatæ ferventis* unc.x. Dissolve the salts separately, mix the solutions, and a double decomposition takes place.)

Comp.—Mixture of carbonate of magnesia with the hydrate: $(3MgO\ CO_2 + HO) + MgO_2HO$; $(MgOCO_2)_3 + MgO + 5HO$ or $(\mathbf{MgCO_3})_3.\mathbf{MgO}.5\mathbf{H_2O}$.

Oper.—Antacid, laxative when it meets with acid.

Use.—The same as that of magnesia; but, owing to the carbonic acid, it sometimes occasions unpleasant distension.

Dose.—Gr.x. to gr.xx. as an antacid; gr.xx. to gr.lx. as a purgative.
Off. Prep.—*Liquor Magnesiæ Carbonatis. Magnesia. Trochisci Bismuthi.*

MAGNESIÆ SULPHAS. Sulphate of Magnesia Crystals. (Obtained from magnesian limestone (dolomite) by means of sulphuric acid, which unites with the magnesia, and remains in solution.)
Comp.—Sulphuric acid 18·779, magnesia 9·39, water of crystallisation 71·8 parts in 100. (*Bergman.*) Or 1 eq. magnesia = 20 + 1 sulphuric acid = 40, equiv. = 60, and 7 equiv. of water. ($MgO,SO_3,7HO$) or (**$MgSO_4.7H_2O$**).
Prop.—Taste bitter, disagreeable; in rhombic crystals, which occasionally, owing to an admixture of hydrochlorate of magnesia, deliquesce; the pure sulphate effloresces; spec. grav. 1·66; soluble in an equal part of water at 60°, increasing the volume of the water four-tenths. Emits no hydrochloric acid on the addition of sulphuric acid. Ten grains in fl.unc.j. of water, treated with carbonate of ammonia, should not be wholly precipitated by min.200 of a solution of phosphate of soda. The precipitate by carbonate of soda, obtained from a boiling solution of 100 grs. of the salt, should, when well washed, dried, and heated to redness, weigh 16·26 grs.
Oper.—Purgative, antiphlogistic.
Use.—In all cases which require purgatives. It operates without griping, and, when united with infusion of roses acidulated, will sit on the stomach when all other things are rejected. The less it is diluted, if a draught of warm water be taken an hour afterwards, the better and more easily it operates. An adjunct to clysters.
Dose.—Gr.xxx. to unc.j. In clysters unc.jss. to unc.iij.
Incomp.—The fixed alkalies and their carbonates, lime-water, chloride of barium, nitrate of silver, acetates of lead.
Off. Prep.—*Enema Magnesiæ Sulphatis. Mistura Sennæ Compositus.*

MANGĂNESĬI BINOXĬDUM. Manganesii Peroxidum. Manganesii Oxidum. (Native or Black Oxide of Manganese.)
Comp.—Manganesium (a peculiar metal) 63·21+oxygen 36·78, in 100 parts, or 1 eq. manganesium = 27·5+2 oxygen=16, equiv. = 43·5. (MnO_2.) (**MnO_2.**)
Prep.—In friable dull black masses; becomes grey when exposed to great heat, and affords abundance of oxygen gas, and chlorine when dissolved in hydrochloric acid.
Use.—It has been used with success to relieve pain and sickness in irritability of the stomach. In pharmaceutical operations; for making liquor sodæ chloratæ, and liquor chlori; for procuring oxygen and chlorine gas; and for fumigation in cases of infection. (*Sodii Chloridi* unc.j.; *Manganesii Binoxidi* unc.j.; *Acidi Sulphurici* fl.unc.j.; *Aquæ* fl.unc.ij. Mix the acid and water, and pour the mixture over the other ingredients, in a china basin, placed in a pipkin of hot sand.) The doors and windows of the room under fumigation must be closely shut for an hour or two: then thrown open, and a current of air allowed to pass through the room.
Dose.—Gr.x. three times a day before meals.

MANNA. Fraxinus rotundifolia et ornus. Manna. (*Diandria, Monogynia.* N.O. *Oleaceæ.* Sicily and Calabria. ♃ Obtained by spontaneous exudation and incisions.)
Comp.—Saccharine matter, mannite ($C_6H_7O_6$) nauseous extractive, mucilage.
Prop.—Inodorous; sweetish, with a very slight degree of bitterness; in

friable flakes of a whitish or pale yellow colour, opaque; soluble in water and alcohol.

Oper.—Laxative; apt to gripe.

Use.—As a purgative for children, who readily take it on account of its sweetness; but more generally it is used as an adjunct to other purgatives.

Dose.—Gr.lx. to unc.ss. for children, and unc.ss. to unc.ij. for adults, alone, or dissolved in fluid purgatives.

*MARANTA. Arrow-root. (Maranta *arundinacea* et *Indica*. *Monandria, Monogynia*. N.O. *Marantaceæ*. West Indies. Not Officinal.)

The fecula of the tubers, when boiled with water or milk, forms a mild nutritious article of food, well adapted for infants and convalescents.

MARMOR ALBUM. White Marble. Hard, white, crystalline, native carbonate of lime in masses. (*Carbonas Calcis dura.*)

Prop.—Colour, various shades of white; internal lustre vitreous; fracture foliated; brittle; spec. grav. from 2·7 to 2·84. It has scarcely any taste, and is composed of 43·14 of carbonic acid, and 56·86 of lime.

Use.—For preparing quicklime and carbonic acid gas.

MASTĬCHE. Mastick. The Resin. Concrete Resinous Extract. (*Pistacia Lentiscus. Diœcia, Pentandria.* N.O. *Anacardiaceæ.* Turkey and the Levant. ℞)

Comp.—Resin, essential oil, and a matter resembling caoutchouc.

Prop.—Odour agreeable when heated; almost insipid; in globular, irregular, yellowish, semi-transparent masses: soluble in æther, partially in alcohol.

Oper.—Stimulant, sialagogue? astringent, diuretic.

Use.—In old obstinate coughs; gleet, and chewed in paralysis of the tongue; but rarely used except in dental surgery to fill carious teeth.

Dose.—Gr.x. to gr.xxx. twice a day.

MATĬCÆ FOLĬA. Matico. Leaves, dried. (*Artanthe Elongata* or *Piper Angustifolium. Diandria, Monogynia.* N.O. *Piperaceæ.* Peru. ℞)

Prop.—Leaves from 2 to 8 inches long, veined and tesselated on the upper surface, downy and reticulated beneath; taste aromatic, scarcely astringent; odour aromatic; active bitter principle; soluble in water and alcohol.

Comp.—Tannic acid, artanthic acid, aromatic volatile oil.

Oper.—Styptic and astringent.

Use.—Hæmorrhage, especially externally; vesical catarrh.

Dose.—Inf. fl.unc.j. to fl.unc.ij. To arrest hæmorrhage the under side of the leaf is applied.

Off. Prep.—*Infusum Maticæ.*

Incomp.—Mineral acids and alkalies, persalts of iron; acetate of lead; tincture or infusion of galls.

MEL. Honey. (Collected from flowers by the *Apis Mellifica. Insecta, Hymenoptera.*)

Comp.—Saccharine matter, chiefly grape sugar; mucilage: some acid, occasionally essential oil; varying according to the kinds of plants used by the bee.

Prop.—Odour peculiar; taste sweet and slightly acrid; the best is limpid, containing small concretions; nearly colourless; and tenacious. The solution in water at 170°, when cold, gives no blue tint on the addition of iodide of potassium and dilute nitric acid.

Oper.—Aperient, externally detergent; stimulant.

Use.—Seldom used internally as a medicine, but when freely eaten it is apt to produce colic; externally as an adjunct to gargles in cynanche tonsillaris; in aphthæ; sometimes applied to foul ulcers.
Off. Prep.—*Mel Depuratum.*

MEL BORĀCIS. Honey of Borax. (*Boracis contriti* gr.lxiv.; *Mellis depurati* unc.j. Mix.)
Oper.—Detergent.
Use.—Applied to the tongue and insides of the cheeks, in aphthous affections, and in ptyalism.

MEL DEPURĀTUM. Clarified Honey. (Melt the honey in a water-bath; then take off the scum.)
Prop.—Limpid; so consistent that, when divided with the edge of the spoon, it does not again instantly unite; spec. grav. 1·31.
Use.—The same as that of honey; for pharmaceutical purposes.
Off. Prep.—*Confectio Piperis. Confectio Scammonii. Confectio Terebinthinæ. Mel Boracis. Oxymel.*

MENTHA PIPERĪTA. Peppermint. (*Didynamia, Gymnospermia.* N.O. *Labiatæ.* (*Lamiaceæ, Lindley.*) Indigenous. ♃ The fresh dried flowering plant.)
Prop.—Odour strong, agreeable; taste pungent, aromatic, and producing a sensation of coldness in the mouth; depending on a volatile oil and camphor.
Oper.—Stomachic, carminative.
Use.—Vide under *Aqua et Ol. Menthæ Piperitæ.*
Dose.—Gr.x. to gr.lx. scarcely ever used in substance.
Off. Prep.—*Aqua Menthæ Piperitæ. Oleum Menthæ Piperitæ. Spir. Menthæ Piperitæ.*

*MENTHA PULEGĬUM. Pulegium. Pennyroyal. (*For class and order, see Mentha Piperita.* Indigenous. ♃ Not Officinal.)
Prop.—Odour aromatic; taste warm, pungent; not unlike that of spearmint.
Oper.—Expectorant, diaphoretic, emmenagogue, antispasmodic.
Use.—In asthma and pertussis, hysteria, obstructed menstruation, but of little value; seldom used.
Dose.—Gr.x. to gr.lx.

MENTHA VIRĬDIS. Spearmint. (*Class and order as above.* The fresh dried flowering plant.)
Prop.—Odour strong, aromatic; taste warm, austere, bitterish.
Oper.—Stomachic, carminative.
Use.—Vide under *Aqua et Ol. Menthæ Viridis.* An infusion of it is a good diluent in febrile diseases.
Dose.—Gr.x. to gr.lx., scarcely ever used in substance.
Off. Prep.—*Aqua Menthæ Viridis. Ol. Menthæ Viridis.*

MENTHÆ PIPERĪTÆ OLEUM. See *Oleum Menthæ Piperitæ.*

MEZĒRĔI CORTEX. Mezereon. Daphne Mezereum, or Daphne Laureola, Spurge Laurel. Mezereon Bark Dried. (*Octand. Monogyn.* N.O. *Thymelaceæ.* North of Europe. ♄)
Comp.—Daphnin, oleo-resin, wax, extractive, gum, sugar, malates.
Prop.—In strips or quilled pieces of various lengths, tough and pliable; olive-brown on the surface, white within; fibrous; inodorous; taste, when chewed for some time, acrid, burning; yields its virtues to water and vinegar.
Oper.—Stimulant, diuretic, diaphoretic; in large doses emetic.

Use.—In venereal diseases, but its efficacy is doubtful. It is sometimes useful in the sequelæ of syphilis: in chronic rheumatism; lepra and scrofulous swellings; and chewing frequently thin slices of the recent root has been found useful in palsy of the tongue; externally, the fresh bark soaked in vinegar is useful for keeping open issues.
Dose.—Of the powder gr.j. gradually increased to gr.x. Vide *Decoctum.*
Off. Prep.—*Decoct. Sarsaparillæ Comp. Extractum Mezerei Æthereum.*

MICA PANIS. Crumb of Bread. The soft part of bread, made with wheat flour.
Use.—To make poultices and pills.

MISTŪRA AMMONIĂCI. Mixture of Ammoniacum. (*Ammoniaci Præparati* unc.‡; *Aquæ destillatæ* fl.unc.viij. Rub the ammoniacum, adding the water gradually, until the mixture assumes a milky appearance, then strain through muslin. *Lac Ammoniaci.*)
Comp.—The resin and oil suspended by means of gum in water: when kept, the resin separates.
Oper. and *Use.*—The same as those of the ammoniacum.
Dose.—Fl.unc.ss. or fl.unc.j., united with ipecacuanha, tincture of squills, &c.
Incomp.—Corrosive sublimate, acetate of potassa, oxymel, æther, spirit of nitrous æther.

MISTŪRA AMYGDĂLÆ. Mistura Amygdalarum. Almond Mixture. (*Pulveris Amygdalæ Compositi* unc.ijss.; *Aquæ destillatæ* Oj. Rub together, adding the water by degrees, and strain. *Lac Amygdalæ.*)
Comp.—The oil of the almond suspended in water by means of its mucilage; and fecula.
Oper.—Demulcent, cooling; if the bitter almond be used, sedative.
Use.—In catarrh, gonorrhœa, strangury, hectic fever, irritation or inflammation of bladder, as after lithotomy.
Dose.—Fl.unc.jss. to Oss., et ad libitum.
Incomp.—Acids, and all acidulous salts, spirits, tinctures, spirit of nitrous æther, and common pump water.

*MISTŪRA CASCARILLÆ COMPŎSĬTA. Compound Mixture of Cascarilla. (*Infusi Cascarillæ* fl.unc.xvij.; *Aceti Scillæ* fl.unc.j.; *Tincturæ Camphoræ comp.* fl.unc.ij. Misce.)
Use.—In chronic affections of the chest, attended with much debility.
Dose.—Fl.unc.j. thrice a day.

MISTŪRA CREASŌTI. Mixture of Creasote. (*Creasote, Glacial Acetic Acid*, ā ā min.xvj.; *Spirit of Juniper* fl.dr.ss.; *Syrup* fl.unc.j.; *Water* fl.unc.xv. Mix the creasote with the acid, then gradually add the water, and lastly the syrup and spirit.)
Use.—A ready mode of administering creasote.
Dose.—Fl.unc.ss. to fl.unc.jss.

MISTŪRA CRĒTÆ. Chalk Mixture. (*Cretæ Præparatæ* unc.‡; *Pulveris Acaciæ* unc.‡; *Aquæ Cinnamomi* fl.unc.vijss.; *Syrupi* fl.unc.ss. Triturate the chalk and gum acacia with the cinnamon water, then add the syrup, and mix.)
Oper.—Antacid, astringent, absorbent.
Use.—In acidities of the stomach, particularly those attending dentition, provided the bowels be kept open: in diarrhœas, united with opium and catechu.
Dose.—Fl.unc.j. to fl.unc.ij. every three or four hours; or after every liquid motion.

MISTŪRA FERRI AROMATĬCA. Aromatic Mixture of Iron. (*Cinchonæ Pallidæ Corticis Contritæ* unc.j.; *Calumbæ Radicis Contritæ* unc.ss.; *Caryophyllorum contus.* unc.¼; *Ferri in fila tracti* unc.ss.; *Tinct. Cardam. Comp.* fl.unc.iij.; *Tinct. Aurantii* fl.unc.ss.; *Aquæ Menthæ Piperitæ quantum suff.* Macerate the bark, calumba, cloves and iron in 12 ounces of peppermint water in a closed vessel for 3 days, agitating occasionally, then filter the liquid, adding as much peppermint water to the filtrate as will make the product measure fl.xijss.; to this add the tinctures, and preserve in a well-stoppered bottle.)

Oper.—Aromatic, chalybeate, emmenagogue, tonic.

Use.—In pale lymphatic people, where iron is not contra-indicated; in dyspepsia.

Dose.—Fl.unc.j. to fl.unc.ij.

MISTŪRA FERRI COMPŎSĬTA. Compound Mixture of Iron. (*Ferri Sulphatis* gr.xxv.; *Potassæ Carbonatis* gr.xxx.; *Myrrhæ cont.* gr.lx.; *Sacchari* gr.lx.; *Spir. Myristicæ* fl.dr.iv.; *Aquæ Rosæ* fl.ixss. Rub together the myrrh, carbonate of potassa, and sugar; then add, while triturating, seven ounces of the rose water, the spirit of nutmeg, and, lastly, the sulphate of iron dissolved in the residue of rose water. Pour the mixture directly into a glass bottle, and stop it close.)

Comp.—The salts are decomposed, and the mixture contains protocarbonate of iron, and sulphate of potassa, suspended with the other ingredients.

Oper.—Tonic, emmenagogue.

Use.—In all cases in which preparations of iron are useful; particularly in amenorrhœa, hysteria, and chlorosis, depending on weak arterial action, after unloading the stomach and bowels.

Dose.—Fl.unc.j. to fl.unc.ij. twice or three times a day.

Incomp.—Acids, vegetable astringents.

MISTŪRA GENTIĀNÆ. Gentian Mixture. Infusum Gentianæ Compositum, 1864. (*Gentianæ Concisæ* unc.¼.; *Aurantii Corticis, Coriandri sing.* gr.xxx.; *Spir. Tenuioris* fl.unc.ij.; *Aq. destill.* fl.unc.viij. Macerate gentian, orange peel, and coriander in spirit for 2 hours, add the water, macerate again for 2 hours, and strain.)

Oper.—Tonic, stomachic.

Dose.—Fl.unc.ss. to fl.unc.ij.

*MISTŪRA GENTIĀNÆ COMPŎSĬTA. Compound Mixture of Gentian. (*Infusi Gentianæ Comp.* fl.unc.xij.; *Infusi Sennæ Comp.* fl.unc.vj.; *Tinct. Cardam. Comp.* fl.unc.ij. Mix.)

Use.—As a mild tonic purgative in dyspeptic affections accompanied with costiveness.

Dose.—Fl.unc.ss. to fl.unc.ij.

MISTŪRA GUAIĂCI. Mixture of Guaiacum. *Guaiaci contriti* unc.ss.; *Sacchari* unc.ss.; *Acaciæ contritæ* unc.¼; *Aq. Cinnamomi* Oj. Rub the guaiacum with the sugar and acacia, and add gradually, while stirring, the cinnamon water.)

Oper.—The same as that of the guaiacum in substance.

Use.—In rheumatism, retrocedent gout, and dropsy.

Dose.—Fl.unc.jss. to fl.unc.ss. night and morning: diluting freely with tepid barley-water or gruel.

MISTŪRA SCAMMŌNĬI. Mixture of Scammony. (*Resin of Scammony* gr.iv.; *Milk* fl.unc.ij. Form an emulsion.)

Comp.—The gummy portion of the scammony, with a small portion of the oleo-resin, held suspended in the milk.

Use.—As a purgative.
Dose.—Fl.unc.ss. to fl.unc.ij. for a child.

MISTŪRA SENNÆ COMPŎSĬTA. Compound Mixture of Senna. (*Magnesiæ Sulphatis* unc.iv.; *Extracti Glycyrrhizæ* unc.ss.; *Tincturæ Sennæ* fl.unc.ijss.; *Tincturæ Cardamomi Comp.* fl.dr.x.; *Infusi Sennæ quantum suff.* Dissolve the sulphate and extract in 14 ounces of the infusion with the aid of gentle heat, then add the tinctures and sufficient of the infusion to make a pint.)
Use.—As a mild purgative for ordinary use.
Dose.—Fl.unc.j. to fl.unc.jss.

MISTŪRA SPĬRĬTUS VINI GALLĬCI. Mixture of Spirit of French Wine. (*Spir. Vini Gallici, Aq. Cinnamomi, sing.* fl.unc.iv.; *Ovorum duorum Vitellos, Sacchari* unc.ss. Mix.)
Use.—Excitant. In cases where the stomach has lost its tone, whether from organic or other chronic disease. A dangerous mixture, calculated to encourage a desire for spirituous liquors.
Dose.—Fl.unc.j. to fl.unc.ij.

MORI SUCCUS. Mulberry juice. (Morus Nigra. *Monœcia, Tetrandria.* N. O. *Moraceæ, Lindley.* ♄) Indigenous.
Prop.—Inodorous; taste sweet, subacid; contains tartaric acid, jelly, and mucus.
Oper.—Cooling, laxative.
Use.—Seldom used medicinally; as an article of food mulberries are wholesome, unless eaten too freely, in which case they occasion diarrhœa.
Off. Prep.—*Syrupus Mori.*

*MORPHIA. D. Morphia. The active principle of Opium. (*Turkey Opium cut in thin slices* lb.j.; *Distilled Water* Ovj.; *Chloride of Calcium* gr.ccclx.; *Water of Ammonia* and *Prepared Animal Charcoal, as much as is sufficient.* Macerate the opium for twenty-four hours with a quart of water, and decant. Macerate the residuum for twelve hours with a second quart of water, decant, and repeat this process with the rest of the water, subjecting the insoluble residuum to strong expression. Let the decanted solutions and expressed liquor be evaporated by a steam or water-heat to the bulk of one pint, and then passed through a calico filter. Pour in now the chloride of calcium, first dissolved in four ounces of distilled water, and then proceed with the evaporation until the solution is so far concentrated, that upon cooling nearly the whole of it becomes solid. Let this solid matter be enveloped in a couple of folds of strong calico, and subjected to a powerful pressure, the dark liquid which exudes being reserved for subsequent use. The squeezed cake is now to be acted upon with about half a pint of boiling water, and the whole being thrown on a paper filter, the precipitates must be well washed. The filtered solution having been evaporated as before, cooled and solidified, the residue is again to be subjected to expression. If the product be not quite white, this process should be repeated a third time, the liquid forced out during expressions being always preserved. Let the squeezed cake be dissolved in six ounces of boiling water, and, if necessary, cleared by filtration through prepared animal charcoal, the portion of it soaked by the filter being carefully washed out of it; and to the solution thus obtained let water of ammonia be added, in slight excess, and let the crystalline precipitate, which forms when the liquor has cooled, be collected on a paper filter, and washed with cold distilled water, until the washings cease to give a precipitate upon

being dropped into an acid solution of nitrate of silver. Lastly, let the filter be transferred to a porous brick, in order that the morphia it contains may become dry. The liquids separated by expression from the muriate of morphia, in the preceding process, having been diluted with water, so as to occupy the bulk of four ounces, and then slightly supersaturated with ammonia, let the precipitate which forms be collected, after the lapse of six hours, on a filter, and washed with a little cold water. This, if redissolved in dilute muriatic acid, boiled with a little animal charcoal, and filtered, will, upon cooling, afford a crystalline deposit, from which, when pressed, dissolved in water, and supersaturated with ammonia, an additional quantity of morphia will be procured.)

Prop.—Inodorous; colourless, or pure white: taste intensely bitter. Crystals small, rectangular, four-sided prisms; sparingly soluble in cold water and spirit of wine; water at 212° dissolves 1-100th of its weight.

Comp.—Carbon 71·57, nitrogen 4·91, hydrogen, 6·66 oxygen 16·84, in 99·98 parts. 34 eq. of carbon = 204 + 19 hydrogen = 19 + 6 oxygen = 48 + 1 nitrogen = 14, eq. = 285. (Mor., or $C_{34}H_{19}O_6N$.)

Oper.—Narcotic, excitant.

Use.—Chiefly to prepare the more soluble salts. Dissolved in oil, and rubbed upon the skin, it produces narcotic effects.

MORPHĬÆ ACĒTAS. Acetate of Morphia. (*Morphiæ Hydrochloratis* unc.ij.; *Liq. Ammoniæ, Acidi Acetici, Aquæ destillatæ sing.* q.s. Dissolve the hydrochlorate in the water, precipitate the morphia by the liq. ammoniæ, and then add the acetic acid, and evaporate the solution, dry with gentle heat, and reduce to powder.)

Comp.—Morphia 1 eq. = 285 + acetic acid 1 eq. = 51, and 1 eq. of water = 9, equiv. = 345. ($C_{34}H_{19}NO_6.C_4H_3O_3+HO$ or $\mathbf{C_{17}H_{19}NO_3.C_2H_4O_2}$.)

Prop.—White powder, deliquescent, and easily decomposed by alkalies, and by water. Soluble in water and rectified spirit. The crystals, after the distillation of the spirit, burn without residue. With nitric acid it first becomes red and then yellow. The tincture of the sesquichloride of iron gives a blue tint. Recently prepared chlorine with ammonia gives a brown tint, which disappears on the addition of more chlorine. Morphia is precipitated by liquor potassæ, till redissolved by an excess of it. When sulphuric acid is added, acetous vapours are evolved.

Oper.—Narcotic.

Dose.—Gr.1-12th to gr.j.

MORPHĬÆ HYDROCHLŎRAS. Morphiæ Murias. Hydrochlorate of Morphia. (Prepared from opium.)

Comp.—Morphia 1 eq. 292 + hydrochloric acid 1 eq. 36·5 equiv. = 328·5. ($C_{34}H_{19}NO_6HCl+6HO$ or $\mathbf{C_{17}H_{19}NO_3.HCl.3H_2O}$.)

Prop.—Crystals acicular, anhydrous, nearly colourless, inodorous and bitter; soluble in 16 parts of water; soluble in alcohol. The precipitate by nitrate of silver is not entirely soluble in ammonia, unless in excess, nor hydrochloric, nor nitric acid. In other respects the tests are those of the acetate. 20 grains dissolved in half an ounce of warm water, with ammonia slightly in excess, give on cooling a crystalline precipitate, which, washed and dried, weighs 15·18 grains.

Use.—As a narcotic it is preferable to the acetate.

Dose.—Gr.1-12th to gr.j.

Off. Prep.—*Liquor Morphiæ Hydrochloratis. Suppositoria Morphiæ. Trochisci Morphiæ. Trochisci Morphiæ et Ipecacuanhæ.*

MORPHĬÆ HYDROCHLORĀTIS LIQUOR. Vide *Liquor Morphiæ Hydrochloratis.*

MORRHUÆ OLEUM. Vide *Oleum Morrhuæ.*

MOSCHUS. Musk. Inspissated secretion found in the follicle of the prepuce. (Moschus Moschiferus, the Musk Deer. *Mammalia, Pecora, Ruminantia, Cuv.* Asia.)

Prop.—Odour peculiar, aromatic, strong, durable; taste bitterish; colour dark reddish-brown; feel slightly unctuous; partially soluble in water, yielding to it taste and smell; soluble in alcohol and sulphuric acid, with the loss of its odour.

Oper.—Stimulant, antispasmodic, diaphoretic.

Use.—In spasmodic affections, as hysteria, singultus, chorea, pertussis, trismus, and epilepsy. In epilepsy we have seen it, when given to the extent of gr.xxx. three times a day, stop the fits in an old and confirmed case for three months. In typhus attended with subsultus tendinum; in cholera it suspends the vomiting; and it arrests the progress of gangrene. It raises the pulse, and excites the nervous system without heating.

Dose.—Gr.ij. to gr.xxx. every three or four hours in a bolus.

MUCĬLĀGO ACĀCIÆ. Mucilage of Gum Acacia. *Mucilago Gummi Arabici.* (Dissolve four ounces of gum arabic in six fluid ounces of distilled water, and strain, if necessary.)

Oper.—Demulcent.

Use.—To allay the tickling which keeps up the cough in catarrh: but chiefly to suspend insoluble matters in water and thin fluids.

Dose.—Fl dr.j. to fl.unc.j. united with syrup of poppies, occasionally.

Incomp.—Alcohol, æther, the metallic salts.

Off. Prep.—*Trochisci Acidi Tannici. Tro. Bismuthi. Tro. Catechu. Tro. Ferri Redacti. Tro. Ipecacuanhæ. Tro. Morphiæ. Tro. Morphiæ et Ipecacuanhæ. Tro. Potassæ Chloratis. Tro. Sodæ Carbonatis.*

MUCĬLĀGO AMŸLI. Mucilage of Starch. (*Amyli* gr.cxx.; *Aquæ* Oss. Rub the starch with the water gradually added, then boil it for a few minutes.)

Prop.—A gelatinous, opaline, insipid, inodorous solution; soluble in boiling water, insoluble in alcohol.

Oper.—Demulcent, sheathing.

Use.—Seldom given by the mouth, except in abrasions of the stomach; as clysters in diarrhœa, dysentery, and other intestinal irritations, particularly as a vehicle for exhibiting opium in enema.

Incomp.—Iodine and its preparations.

Off. Prep.—*Enema Aloes. Enema Magnesiæ Sulphatis. Enema Opii. Enema Terebinthinis.*

*MUCĬLĀGO HORDĔI. Mucilage of Barley. (*Hordei* unc.ss.; *Aquæ* fl.unc.xvj. Triturate the barley with water gradually added, then boil for a few minutes.)

MUCĬLĀGO TRĂGĂCANTHÆ. Mucilage of Tragacanth. (Macerate 60 grains of Tragacanth in ten fluid ounces of distilled water, then triturate and press through calico. *Mucilago Gummi Tragacanthæ.*)

Use.—For pharmaceutical purposes.

*MUCŪNA. Mucuna *pruriens.* Cowhage. (M. *pruriens. Diadelphia Decandria.* N. O. *Leguminosæ. Fabaceæ, Lindley.*)

Use.—To dislodge lumbrici and ascarides. The legumes are dipped in syrup, and the hairs scraped off, until the syrup acquires the consis-

tence of honey. A teaspoonful to a child, and a tablespoonful to an adult, for three mornings: then followed by a brisk purge.

MYRISTĬCA: MYRISTĬCÆ OLEUM ET OLEUM EXPRESSUM. Myristica Moschata, Myristicæ adeps, Nutmegs; Concrete Oil and the Essential Oil. (*Myristica Officinalis. Moschata. Diœcia, Monadelph.* N. O. *Myristicaceæ.* The Moluccas. ♄)

Prop.—Nutmegs have a fragrant aromatic odour, and an agreeable pungent taste; are roundish, greyish-brown, streaked, unctuous, and easily cut. Alcohol extracts their active matter. The concrete oil is of firm consistence, of an orange colour, unctuous, and has the odour and taste of the nutmeg. It is obtained by pressure. The oil obtained by distillation is yellow, possessing the odour and taste of the nutmeg in an eminent degree.

Oper.—Stimulant, stomachic, narcotic in large doses.

Use.—To relieve nausea and vomiting, and to check diarrhœa; but chiefly to give flavour to other remedies. Being narcotic, they are hurtful in apoplectic and paralytic habits.

Dose.—Of the nutmeg gr.v. to gr.xv.; of the oil min.ij. to min.vj.

Off. Prep.—Of the nutmeg, *Pulv. Catechu. Pulvis Cretæ Aromaticus. Spir. Armoraciæ Comp. Tinct. Lavandulæ Comp.* Of the oil, *Pil. Aloes Socotrinæ. Spir. Ammoniæ Aromat. Spiritus Myristicus.* Of the expressed oil, *Emplast. Calefaciens. Emplast. Picis.*

MYRRHA. Myrrh. A gum resinous exudation from the stem. (*Balsamodendron Myrrha. Octandria Monogynia.* N. O. *Amyridaceæ.* Abyssinia, Arabia Felix.)

Comp.—Resin, muco-extractive, volatile oil.

Prop.—Odour fragrant, peculiar; taste bitter, aromatic; in reddish-yellow, light, brittle, irregular tears, or in masses; partially soluble in distilled water, when aided by friction; alcohol dissolves only the resin; soluble in alkalies; spec. gr. 1·360; easily pulverised.

Oper.—Stimulant, expectorant, antispasmodic, emmenagogue.

Use.—In amenorrhœa, leucorrhœa, cachectic complaints, humoral asthma, chronic catarrh, and phthisis pulmonalis unattended by hectic or much active inflammation.

Dose.—Gr.x. to gr.xxx. in powder, united with nitre, camphor, sulphate of potassa, sulphate of zinc, or of iron.

Off. Prep.—Dec. Aloes Comp. Mist. Ferri Comp. Pilula Aloes et Myrrhæ. Pil. Assafœtidæ Comp. Pil. Rhei Comp. Tinct. Myrrhæ.

NECTANDRÆ CORTEX. Bebeeru Bark. The Green-heart Tree. (Nectandra Rodiæi. *Dodecandria Monogynia.* N. O. *Lauraceæ.* British Guiana. ♄)

Prop.—Large flat pieces from one to two feet long and from two to six inches broad, heavy, hard, and fibrous; externally greyish-brown, internally reddish-brown; taste bitter and rather astringent, due to the presence of the alkaloid beberia.

Oper.—Tonic, and antiperiodic.

Use and *Dose.*—See *Beberiæ Sulphas.*

NUX VOMĬCA. Nux Vomica. Ratsbane Seeds. (Strychnos Nux Vomica. *Pentandria Monogynia.* N. O. *Apocynaceæ.* East Indies. ♃)

Prop.—Nearly circular and flat, about an inch in diameter, umbilicated and slightly convex on one side, externally of an ash-grey colour, thickly covered with short satiny hairs, internally translucent, tough and horny; inodorous, taste intensely bitter, poisonous. Its efficacy as a remedy depends on a peculiar alkali, strychnia, combined with igasuric acid.

Oper.—Tonic, stimulant; when taken in large doses, it produces tetanic spasms.
Use.—In dyspepsia, gout, rheumatism, atonic sickness, diarrhœa, and especially in paralysis of the lower extremities.
Dose.—Vide Preparations.
Off. Prep.—*Extractum Nucis Vomicæ. Strychnia. Tinctura Nucis Vomicæ.*

OLĔUM AMYGDĀLÆ. Ol. Amygdalæ Communis. Oil of Almond. (Expressed from both sweet and bitter almonds. Unc.xvj. of Almonds yield fl.unc.v. of oil.)
Prop.—Nearly inodorous, insipid; of a pale straw colour; unctuous, limpid, lighter than water; insoluble in water and alcohol, but miscible in distilled water by means of mucilage or yolk of egg; attracts oxygen from the atmosphere, and becomes dense, viscid, and rancid.
Oper.—Demulcent, emollient.
Use.—In catarrh and coughs, united with water by means of mucilage and sugar, or a few drops of liquor ammoniæ. An injection composed of oil of almonds fl.unc.iv. and solution of subacetate of lead min.viij., is said to be useful at the commencement of gonorrhœa.
Dose.—Fl.dr.j. to fl.unc.ss.
Off. Prep.—*Unguentum Cetacei. Ung. Hydrargyri Oxidi Rubri. Ung. Plumbi Subacetatis Comp. Ung. Simplex.*

OLĔUM ANĒTHI. (Distilled from Dill in Britain.)
Prop.—Pale yellow colour, pungent odour, acrid sweetish taste.
Oper.—Stimulant, aromatic, carminative.
Use.—In flatulent colic, chiefly of infants.
Dose.—Min.ij. to min.vj.

OLĔUM ANĬSI. Oil of Anise. (Obtained by distillation from the Pimpinella Anisi, in Europe, and the Illicium Anisatum, in China.)*
Comp.—Stearoptène ($C_{20}H_{12}O_2$) forms four-fifths, and eleoptène isomeric with oil of turpentine ($C_{20}H_{14}$) the remainder.
Prop.—Odour that of the seed; taste pungent, bitter, sweetish; pale yellow colour; crystallises at 50° Fahr. in flat tables. Sp. grav. 0·977 to 0·99.
Oper.—Stimulant, carminative.
Use.—In flatulent colic.
Dose.—Min.v. to min.xv. rubbed up with sugar and camphor mixture.
Off. Prep.—*Essentia Anisi. Tinct. Camph. Comp. Tinct. Opii Ammoniata.*

OLĔUM ANTHEMĬDIS. Oil of Chamomile. (By distillation, in Britain, from the flowers.)
Prop.—Odour that of the flower; taste pungent; colour when recent cerulean blue; but when old, a dark yellow.

---

* These oils are volatile at a low temperature; soluble in alcohol, and separated from it by water; highly inflammable; and decomposed in a high temperature, hydrogen being evolved, and carbon obtained. Their components are carbon, hydrogen, and oxygen; and they differ from the fixed oils, in containing less carbon in proportion to the hydrogen. They unite with difficulty with the alkalies, more easily with their carbonates; and can be suspended in water by means of sugar and mucilage. Their adulteration with fixed and cheaper essential oils is detected by evaporating a drop on paper and examining the odour; and observing whether a greasy stain be left on the paper, which is the case when they are mixed with fixed oil; mixed with alcohol, they become milky on the addition of water to the suspected oil.

Oper.—Stimulant, stomachic, antispasmodic.
Use.—In atonic dyspepsia, colics, cramps of the stomach, and as an adjunct to purgative pills.
Dose.—Min.j. to min.v.
Off. Prep.—*Extractum Anthemidis.*

*OLĔUM CADĪNUM. Oil of Cade. (Obtained by dry distillation from the wood of the Juniperus Oxycedrus.)
Comp.—Similar to, if not identical with, common tar oil.
Prop.—A thick black liquid, with tarry odour.
Oper.—Stimulant, detergent.
Use.—In chronic cutaneous diseases, as lepra, psoriasis, eczema, favus, &c., in the form of ointment or of soap, or of a lotion mixed with spirit.

OLĔUM CAJUPŪTI. Cajuput Oil. (By distillation from the leaves of the Melaleuca Minor.)
Comp.—$C_{10}H_{90}$, or $C_{10}H_{90}+HO$. Sp. grav. 0·914.
Prop.—Very mobile, transparent, of a fine pale bluish-green colour; it has a strong agreeable odour, and a warm aromatic taste, and leaves a sensation of coldness in the mouth.
Oper.—Diffusible, stimulant, antispasmodic, diaphoretic; also a topical stimulant.
Use.—In flatulant colic, hysteria, cholera, chronic rheumatism, and in low states of the system; externally, mixed with oil, in chronic rheumatism and gout.
Dose.—Min.j. to min.v.
Off. Prep.—*Linimentum Crotonis. Spiritus Cajuputi.*

OLĔUM CARŬI. Oil of Caraway. (By distillation, in Britain, from the fruit.)
Prop.—Odour that of the seeds; taste pungent, sweetish; colour yellow; tenacious.
Oper.—Stimulant, carminative.
Use.—In flatulent colic; as an adjunct to purgative pills.
Dose.—Min.j. to min.v.
Off. Prep.—*Confectio Scammonii. Pilula Aloes Barbadensis.*

OLĔUM CARYŎPHYLLI. Oil of Cloves.
Prop.—Colourless when recent, but gradually becoming red-brown, having the odour of cloves, and a pungent spicy taste. Sinks in water.
Oper. and *Use.*—The same as cloves.
Dose.—Min.j. to min.ij.
Off. Prep.—*Conf. Scammonii. Pil. Colocynthidis Comp. Pil. Colocynthidis et Hyoscyami.*

OLĔUM CINNAMŌMI. Oil of Cinnamon, distilled from the bark.
Prop.—Yellowish when recent, gradually becoming red, odour and taste of cinnamon. Sinks in water.
Oper.—Stimulant, carminative.
Use.—In colic, &c.
Dose.—Min.j. to min.iv.

OLĔUM COPAIBÆ. Oil of Copaiba. (Distilled from the oleo-resin.)
Comp.—$C_{10}H_8$.
Use.—The same as the Copaiba.

OLĔUM CORĬANDRI. Oil of Coriander. (Oil distilled, in Britain, from Coriander seeds.)
Prop.—Yellowish, having the odour of coriander.
Oper.—Stimulant, aromatic, carminative.

Use.—In flatulence, and as a useful adjunct to purgative and carminative medicines.
Dose.—Min.ij. to min.v.
Off. Prep.—*Syrupus Sennæ.*

OLĔUM CROTŌNIS. Croton Oil. Crotonis Tiglii Oleum. Oil expressed from the seeds. (Croton Tiglium *Monœcia Monadelphia.* N.O. *Euphorbiaceæ.* Moluccas. ♄)
Prop.—Slightly viscid, colour brownish-yellow, taste acrid, odour faintly nauseous. Its action depends on the presence of crotonic acid.
Oper.—Drastic, purgative, counter-irritant.
Use.—In apoplexy, obstinate constipation, and whenever a quick and powerful action on the bowels is required, and externally as a counter-irritant in certain diseases of the chest and abdomen.
Dose.—Min.$\frac{1}{3}$ to min.j. made into pills with a few grains of rhubarb or crumb of bread, or rolled up with mucilage and syrup.
Off. Prep.—*Linimentum Crotonis.*

OLĔUM CUBĒBÆ. Oil of Cubebs.
Prop.—Colourless, or pale greenish-yellow, with the peculiar odour and taste of cubebs.
Comp.—$C_{15}H_{12}$.
Use.—The same as the powder, but not so certain in its effects.
Dose.—Min.v. to min.xx.

OLĔUM JUNIPĔRI. Oil of Juniper. (By distillation in Britain from the unripe fruit. *Ol. Juniperi Baccæ.*)
Comp.—$C_{10}H_8$. Sp. grav. 0·855.
Prop.—Odour similar to that of turpentine; taste acrid, hot, similar to that of the fruit; colour greenish-yellow; deposits a feculent matter when kept.
Oper.—Stimulant, carminative, diaphoretic, diuretic.
Use.—In dropsies; advantageously added to digitalis when it is given in the form of pills.
Dose.—Min.j. to min.ij. or more, rubbed up with sugar or mucilage and water.
Off. Prep.—*Spiritus Juniperi.*

OLĔUM LAVANDŬLÆ. Oil of Lavender. (By distillation in Britain from the flowers.)
Comp.—An oxidised volatile oil ($C_{15}H_{14}O_2$), or as a hydrocarbon ($C_{20}H_{16}$) containing camphor ($C_{20}H_{16}O_2$).
Prop.—Odour very fragrant, that of the flower; taste warm; of a lemon colour.
Oper.—Stimulant.
Use.—In hysteria and nervous headaches.
Dose.—Min.j. to min.v. on a lump of sugar.
Off. Prep.—*Linimentum Camphoræ Compositum. Spiritus Lavandulæ. Tinctura Lavandulæ Composita.*

OLĔUM LIMŌNIS. Oil of Lemon. (Expressed from the rind of the fruit.) Imported chiefly from Sicily.
Prop.—Pale greenish yellow, fragrant lemon odour, pungent aromatic taste.
Comp.—Isomeric with oil of turpentine ($C_{20}H_8$). Sp. gr. 0·85.
Oper.—Aromatic, stimulant.
Use.—To give an agreeable flavour to other medicines.
Dose.—Min.ij. to min.v.
Off. Prep.—*Linimentum Potassii Iodidi. Spiritus Ammoniæ Aromaticus.*

OLĔUM LĪNI. Ol. Lini Usitatissimi. Linseed Oil. (Expressed without heat from the bruised seeds.)

Comp.—Nearly the same as those of olive oil, with some mucilage.

Prop.—Odour strong; taste unpleasant, nauseous; does not congeal by cold; becomes easily rancid. Sp. gr. 0·93.

Oper.—Demulcent, emollient, laxative.

Use.—It has been given with advantage to allay irritation in bronchitis and catarrh; also in ileus when purgatives have failed; but it is chiefly used in the form of clyster, in flatulent colic, attended with costiveness, and in abrasions of the rectum: externally in burns and wounds.

Dose.—Fl.unc.ss. to fl.unc.j.; in clysters fl.unc.ij. to fl.unc.vj.

OLĔUM MENTHÆ PIPERĪTÆ. Oil of Peppermint. (By distillation in Britain from the fresh herb when in flower.)

Comp.—$C_{20}H_{20}O_2$.

Prop.—Odour strong, that of the plant; taste acrid, very hot and biting, with a peculiar sensation of coldness; lighter than water; colourless or pale yellow. Sp. gr. 0·92.

Oper.—Stimulant, antispasmodic, carminative.

Use.—In cramp of the stomach, and flatulent colic.

Dose.—Min.j. to min.iij. rubbed up with sugar or mucilage.

Off. Prep.—*Aqua Menthæ Piperitæ. Essentia Menthæ Piperitæ. Spiritus Menthæ Piperitæ. Pilula Rhei Comp.*

OLĔUM MENTHÆ VĬRĬDIS. Oil of Spearmint. (By distillation in Britain, from the fresh herb when in flower.)

Comp.—$C_{20}H_{20}O_2$.

Prop.—Odour that of the plant: taste warm, pungent; colourless or pale yellow. Sp. grav. 0·914.

Oper.—Stimulant, carminative.

Use.—In flatulence and anorexia.

Dose.—Min.ij. to min.v. on a lump of sugar.

Off. Prep.—*Aqua Menthæ Viridis.*

OLĔUM MORRHŬÆ. Oil prepared from the liver of the Gadus Morrhua by heat not exceeding 180°. (Cod Liver Oil.)

Comp.—Fellinic and cholic acid, constituents of bile, bilifulvin, bellifellinic acid, gadicin, iodine, iodides, a trace of bromides, and a trace of free phosphorus. The pale oil contains the greatest quantity of iodine, chlorine, bromine, phosphorus and salts. The brown oil has been said to be the richest in the component part of oils. But experience has shown that the pale oil is to be generally preferred.

Prop.—Transparent, varying in colour from pale straw to a rich golden brown; odour of fresh-boiled cod; greasy bland taste, leaving a disagreeable impression on the palate. A drop of sulphuric acid added to a few drops of the oil on a porcelain slab gives a violet colour, passing soon to a yellowish or brownish-red. Sp. grav. 0·917 to 0·920.

Oper.—Stimulant, alterative, nutritious.

Use.—In phthisis, chronic rheumatism, and in scrofulous and cachectic diseases.

Dose.—Fl.dr.j. to fl.dr.iv.

OLĔUM MYRISTĬCÆ. Vide *Myristica: Myristicæ Oleum.*

OLĔUM MYRISTĬCÆ EXPRESSUM. Vide *Myristica.*

OLĔUM OLĪVÆ. Vide *Olivæ Oleum.*

*OLĔUM ORIGĂNI. Oil of Origanum. (By distillation from the dried plant.)

Comp.—$C_{50}H_{40}O$.

OLĔUM PIMENTÆ. Oil of Pimento. (By distillation in England from the fruit.)

Prop.—Odour very fragrant; taste that of the pimento in an increased degree; colour when recent reddish, but by keeping becomes a red brown; heavier than water.

Oper.—Stimulant.

Use.—In debility of the stomach, colic, and tympanitis.

Dose.—Min.iij. to min.v. rubbed with sugar.

OLĔUM RICĬNI. Castor Oil. (Bruise the castor seeds, previously decorticated; then express the oil with or without the application of heat. Unc.xiv. of the seeds yield about fl.unc.iij. of oil. *Ol. e Seminibus Ricini.*) Imported chiefly from Calcutta.

Comp.—Ricinine, elaiodine, and margaratine. Sp. gr. 0·96.

Prop.—Recently drawn inodorous, nearly insipid; colourless, or of a very pale straw colour; thick, but perfectly transparent; lighter than water. Soluble in one volume of alcohol, and in two of rectified spirit. It is usually viscid, with a slightly nauseous odour, and rather acrid taste, and becomes soon rancid by keeping; thickens; deepens in colour to a reddish-brown, and has a hot nauseous taste.

Oper.—Purgative.

Use.—In all cases where stimulant purgatives would be hurtful; particularly in dysentery, colica pictonum; calculous complaints and ileus; and as it operates very quickly, in spasmodic affections. It is an excellent purge at all times for children, women in childbed, and after surgical operations in which the viscera are at all concerned. It is also a good adjunct to clysters.

Dose.—Fl.dr.j. to fl.unc.j. either floated on a little water, and covered with a small quantity of brandy, or in the following draught: ℞ *Olei Ricini* fl.unc.ss.; *Mucilaginis q. s. tere optime et paulatim adde Aquæ destillatæ* fl.unc.j.; *Spir. Lavandulæ Comp.* min.xx.; *Syr. Tolutani* fl.dr.ss. Misce. Vel ℞ *Olei Ricini* fl.unc.iv.; *Liq. Potassæ* fl.dr.ij.; *Aquæ Cinnamomi* fl.unc.viij.; Misce. Dosis sit fl.unc.j. ad fl.unc.ij.

Off. Prep.—*Collodium Flexile. Linimentum Saponis Compositum. Pil. Hydrargyri Subchloridi Composita.*

OLĔUM ROSMARĪNI. Oil of Rosemary. (By distillation from the tops of the flowering plant. *Oleum Roris Marini.*)

Comp.—$C_{44}H_{38}O_2$.

Prop.—Odour very fragrant, and taste like that of the plant; limpid like water; deposits crystals of camphor when long kept. Sp. gr. 0·888.

Oper.—Stimulant.

Use.—In nervous complaints.

Dose.—Min.ij. to min.vj. rubbed up with sugar.

Off. Prep.—*Linimentum Saponis. Spiritus Rosmarini. Tinct. Lavandulæ Comp.*

OLĔUM RŪTÆ. Oil of Rue. (Distilled from the fresh herb.)

Prop.—Odour that of the plant, but weaker, disagreeable; taste acrid, bitter, sharp, hot; colour yellow; when kept it becomes brown, and deposits a brownish resinous sediment; easily congeals. Sp. gr. 0·837.

Oper.—Antispasmodic; emmenagogue; externally rubefacient.

Use.—In hysteria; and the convulsive affections of infancy attendant on dentition; externally in palsy.

Dose.—Min.ij. to min.v. rubbed with sugar or mucilage.

OLĔUM SABĪNÆ. Oil of Savine. (By distillation in Britain from the fresh plant.)
Comp.—$C_{10}H_8$.
Prop.—Odour and taste of the plant; limpid like water; colour pale yellow. Sp. gr. 0·915.
Oper.—Stimulant, emmenagogue, in large doses causing abortion: externally vesicant.
Use.—In the same cases for which the plant is employed.
Dose.—Min.ij. to min.vj.

OLĔUM SINĂPIS. Oil of Mustard. (Oil distilled with water from the seeds, after the expression of the fixed oil.)
Prop.—Colourless or pale yellow. Sp. gr. 1·015. Soluble in alcohol and ether, and sparingly in water. Odour intensely penetrating. Taste acrid and burning.
Oper.—Stimulant, vesicating.
Use.—In the preparation of the Linimentum Sinapis Compositum.

*OLĔUM SUCCĪNI. Oil of Amber. (Distilled from amber with a very gentle heat, and rectified.)
Prop.—Odour strong, fœtid, bituminous; taste pungent, acrid; soluble in water; imperfectly in alcohol; nearly colourless at first, but it gradually becomes brown.
Oper.—Stimulant, antispasmodic, diuretic, rubefacient.
Use.—In hysteria, epilepsy, and deficient menstruation; externally in paralysis, and chronic rheumatism of the joints. The following is recommended as a friction in tic douloureux: ℞ *Ol. Succini* fl.unc.j.; *Tinct. Opii* fl.unc.ss. Misce. Or ℞ *Olei Succini* fl.dr.iij.; *Olei Caryophyllorum* fl.dr.j.; *Olei Olivæ* fl.unc.j. Misce. (Roche's Embrocation.)
Dose.—Min.v. to min.xij. rubbed up with mucilage.

OLĔUM TEREBINTHĪNÆ. Oil of Turpentine. (Oil distilled from the turpentine of the *Pinus Palustris, Tæda*, and sometimes *Pinaster*.)
Comp.—$C_{10}H_8$.
Prop.—Odour penetrating, taste hot, pungent: colourless, limpid, sp. gr. 0·864, volatile, soluble in alcohol and æther.
Oper.—Stimulant, astringent, diuretic, sudorific, anthelmintic, purgative, rubefacient.
Use.—In chronic rheumatism, lumbago, and sciatica; and in passive hæmorrhages; in chronic discharges from mucous surfaces, in atonic disease, first stage of acute hydrocephalus: dropped into the ear in deafness from defect of wax; applied to indolent tumours; and in embrocation, in rheumatism and bruises. It is given in very large doses, alone or united with honey, against the tænia solium, which it brings away entire, dead, after two or three doses. It is most useful in the form of enema in hysterical affections, especially when accompanied with flatulent colic.
Dose.—Min.x. to fl.dr.j. in the first cases; but for the expulsion of tænia fl.unc.ss. to fl.unc.ij.
Off. Prep.—Linimentum Terebinthinæ. Confectio Terebinthinæ. Enema Terebinthinæ. Lin. Terebinthinæ Aceticum. Unguentum Terebinthinæ.
*** *It forms the greater part of a reputed quack medicine, Whitehead's Essence of Mustard.*

*OLIBĂNUM. Olibanum. (Boswellia serrata. *Decandria, Monogynia.* N.O. *Coniferæ.* India.)
Comp.—Gum, resin, volatile oil.
Prop.—Odour peculiar, aromatic; taste bitterish, slightly pungent; in grains of different sizes, semi-transparent, brittle; colour reddish

yellow: partly soluble in alcohol, forms a milky emulsion when triturated with water.

Oper.—Stimulant, tonic.

Use.—In leucorrhœa and mucous discharges. Also as a perfume in sick rooms.

Dose.—Gr.x. to gr.xxx. in powder twice or thrice a day.

OLĔUM THEOBRŌMÆ. Oil of Theobroma. Cacao Butter. A concrete oil obtained by expression and heat from the ground seeds of Theobroma Cacao.

Prop.—Of the consistency of tallow; colour yellowish, chocolate odour, taste bland and agreeable, fracture clean, presenting no appearance of foreign matter. Does not become rancid from exposure to the air. Melts at about 95°.

Use.—In the preparation of the suppositories.

OLĪVÆ OLĔUM. Olive Oil. (Olea Europea. *Diand. Monogynia.* N.O. *Oleaceæ.* South of Europe. ♄ Expressed from the ripe fruit.)

Comp.—72 oleine, 28 margarine.

Prop.—Inodorous, insipid; transparent, of the palest straw colour; sp. gr. 0·92; cannot combine with water nor alcohol, but may be diffused through water by means of mucilage; boils at 600° of Fah., therefore not volatile; congeals at 36°; attracts oxygen, and becomes rancid when exposed to the air: forms soaps with the alkalies and lime; plasters with oxides of lead. Its purity is ascertained by mixing with it 1-12th of its volume of a concentrated solution of pernitrate of mercury; if pure, it becomes like a firm fat in a few hours.

Oper.—Demulcent, emollient, gently laxative, nutritious.

Use.—In catarrhs and pulmonary complaints, in emulsion with mucilage; in a simple state, when acrid matters are taken into the stomach; externally it has been advantageously used as a friction in plague; as an injection in gonorrhœa; an adjunct to clysters in dysentery and abrasions of the rectum; and in the formation of ointments and plasters.

Dose.—Fl.dr.j. to fl.unc.j., triturated with mucilage, or mixed with water by means of a few drops of liq. potassæ, or liquor ammoniæ.

Off. Prep.—Charta Epispastica. Cataplasma Lini. Emplastrum Ammoniaci cum Hydrargyro. Emplastrum Cerati Saponis. Empl. Hydrargyri. Emplastrum Picis. Emplastrum Plumbi. Enema Magnesiæ Sulphatis. Linimentum Ammoniæ. Linimentum Calcis. Linimentum Camphoræ. Unguentum Cantharidis. Unguentum Hydrargyri Compositum. Unguentum Hydrargyri Nitratis. Unguentum Veratriæ.

OPĬUM. Opium. The inspissated juice obtained by incisions from the unripe capsules. (Papaver Somniferum. *Polyand. Monogynia.* N.O. *Papaveraceæ.* South of Europe and Asia Minor. ☉)

Comp.—Gum, resin, caoutchouc, gluten, a volatile oil, narcotina, codein, meconin, narcein, morphia, meconic acid, thebaina, or paramorphia, porphyroxin, sulphuric acid, gum, albumen, resin, fixed oil, lignin, extractive matter, and numerous salts of inorganic bases. Opium generally contains 12 per cent. of morphia and about ¼ its weight of impurities.

Prop.—Odour heavy, narcotic; taste nauseous, bitter, acrid, warm; in flattish cakes, weighing from 4 ounces to 2 pounds, enveloped in the remains of the poppy leaves, and generally covered with the chaffy fruit of a species of rumex; solid, tenacious; of a reddish brown colour, yellowish when powdered; marks on paper a light brown interrupted streak. When fresh, plastic, tearing with an irregular,

slightly moist, chestnut-brown surface, shining when rubbed smooth on the finger.

Oper.—Stimulant in small doses, but in larger narcotic, antispasmodic, diaphoretic, sedative, anodyne; operating through the nerves on the living solid; externally its stimulant effects are considerable, but soon followed by its narcotic.

Use.—In all painful affections, where the inflammatory diathesis is not very considerable; in diarrhœa and dysentery; intermittents; in typhus, in smaller doses as a cordial, in larger to allay irritation and produce sleep; in cholera and pyrosis: in rheumatism when inflammatory fever is not present; retrocedent gout; and in convulsive and spasmodic diseases. When combined with calomel in inflammation, unless the pulse be full and strong, and in syphilis, and also to arrest the progress of gangrene. It is employed in a watery solution containing gr.ij. in fl.unc.j. of water, as an injection in gonorrhœa and spasmodic stricture, as an adjunct to clysters in diarrhœa; and by friction, united with oil, in tetanus and other spasms.

Dose.—Gr.¼ to gr.ss. to produce its stimulant effects; gr.j. to gr.ij. its narcotic; but in spasmodic complaints it has been given to a very great extent.

Incomp.—Lime-water, alkaline carbonates, bichloride of mercury, nitrate of silver, sulphates of zinc, copper, and iron, infusion of yellow bark, astringent infusions and decoctions; solution of catechu and of kino; acetates of lead.

*** When opium has been taken as a poison, the stomach should be first evacuated by the stomach-pump worked with infusion of yellow bark, or by emetics containing very little water, and after the whole of the opium has been evacuated, acidulous fluids freely exhibited; but these and all watery fluids are hurtful if vomiting has not been freely induced.

Off. Prep.—*Confectio Opii. Emplastrum Opii. Enema Opii. Extractum Opii. Extract. Opii Liquidum. Linimentum Opii. Morphiæ Acetas. Morphiæ Acetatis Liquor. Morphiæ Hydrochloras. Morphiæ Hydrochloratis Liquor. Pilulæ Ipecacuanhæ cum Scilla. Pil. Plumbi c. Opio. Pil. Saponis Comp. Pulv. Cretæ Aromaticus c. Opio. Pulv. Ipecacuanhæ Comp. Pulv. Kino Comp. Pulv. Opii Comp. Tinct. Camphoræ Comp. Tinct. Opii. Tinct. Opii Ammoniata. Trochisci Opii. Unguentum Gallæ c. Opii. Vinum Opio.*

*ORĪGĂNUM. Common Marjoram. (Origanum vulgare. *Didynam. Gymnosperm.* N.O. *Labiatæ.* (*Lamiaceæ, Lindley.*) Indigenous. ♃)

Prop.—Odour fragrant; taste aromatic, pungent, not unlike that of thyme.

Oper.—Tonic, stomachic, emmenagogue?

Use.—In debilities of the stomach; scarcely ever used.

Dose.—Gr.x. to gr.xx. in powder.

OS USTUM. Bone Ash. The residue of bones burnt to a white ash in contact with the air.

Comp.—Phosphate of lime mixed with about 10 per cent. of carbonate of lime and a little fluoride of calcium and phosphate of magnesia.

Use.—In the preparation of Calcis Phosphas and Sodæ Phosphas.

OVUM. OVI ALBŪMEN ET VITELLUS. (Gallus Banckiva, var. Domesticus, the Common Fowl. Cl. *Aves;* ord. *Gallinaceæ.*)

Oper.—Nutritive.

Use.—The yoke and white swallowed raw are said to be useful in jaundice; in convalescences the yoke is given, beat up with sugar and wine; triturated with oils, it renders them miscible with water. The

white or albumen is employed as an antidote in cases of poisoning with corrosive sublimate or salts of copper.
Off. Prep.—*Mistura Spiritus Vini Gallici.*

OXŸMEL. Simple Oxymel. *Mellis depurati* unc.xl.; *Acidi Acetici* fl.unc.v.; *Aquæ destillatæ* fl.unc.v. Mix the acid with water, and then add the honey made hot.) *Mel Acetatum.*
Oper.—Cooling, diaphoretic; externally detergent.
Use.—In fevers and pulmonary affections; as an adjunct to gargles in cynanche tonsillaris.
Dose.—Fl.dr.j. to fl.dr.iv. dissolved in barley water.

OXŸMEL SCILLÆ. Oxymel of Squill. (*Mellis Depurati* lb.ij.; *Aceti Scillæ* Oj. Mix and evaporate by a water-bath, until the product when cold shall have a sp. gr. 1·32.
Oper.—Expectorant, diuretic; in large doses emetic.
Use.—In humoral asthma, chronic coughs, dropsy; to vomiting in pertussis.
Dose.—Fl.dr.ss. to fl.dr.j.

PANIS. Bread made of Wheaten Flour. Mica Panis.
Oper.—Nutritive, emollient.
Use.—For making poultices.

PAPĀVĔRIS CAPSŬLÆ. Poppy Capsules, nearly ripe and dried. Papaver album; Capsulæ. White Poppy Capsules. (Papaver *somniferum.* Class and order, see *Opium.*) The ripe, dried seed-vessels. Cultivated in Great Britain.
Oper.—Narcotic, sedative, anodyne.
Use.—Externally as a fomentation (unc.iv. of the dried heads being bruised and boiled in Oiv. of water to Oij.) to inflamed or ulcerated parts. The addition of a little distilled vinegar aids the narcotic power of the decoction.
Off. Prep.—*Decoctum Papaveris. Extractum Papaveris. Syrupus Papaveris.*

PAREIRÆ RADIX. Pareira. The dried root. (Cissampelos Pareira. *Diœcia Monadelphia.* N. O. *Menispermaceæ.* South America.)
Use.—See *Decoctum Pareiræ.*
Off. Prep.—*Decoctum Pareiræ. Extractum Pareiræ. Extractum Pareiræ liquidum.*

*PEPSĪNA. Pepsin. (Obtained from the mucous membrane of the stomach of the calf or pig.)
Comp.—A protein body, of which little is known.
Prop.—A greyish-white powder, having an acid and mawkish taste. Soluble in water. When mixed with weak acid dissolves fibrin and albumen at 100°.
Oper.—Catalytic; promotes digestion by favouring the solution of fibrinous substances.
Use.—In atonic dyspepsia.

*PETRŌLĔUM. Barbadoes Tar. Black liquid bitumen oozing spontaneously out of the earth.
Prop.—Odour fœtid; taste bitter, acrid; semi-liquid, tenacious, semi-transparent; of a reddish-brown colour; insoluble in water and alcohol; combines with fixed and essential oils and sulphur; and is partially soluble in æther. Sp. gr. 0·88
Oper.—Antispasmodic, sudorific; externally stimulant and discutient.
Use.—In asthma, and coughs unattended with inflammation; externally

in diseases of the hip joint, rheumatic pains, lepra, and paralytic limbs applied by friction.
Dose.—Min.x. to fl.dr.j.

PHOSPHAS SODÆ. Phosphate of Soda crystallised. (Prepared from bones, sulphuric acid, and Sodæ Carbonas.)
Comp.—Soda 19, acid 15, water 66 parts. (*Thénard.*) 2 eq. soda=62+1 eq. phosphoric acid=71+24 eq. water=216, equiv.=349. (2NaO,HO, PO_3,24HO) or $Na_2HPO_4.12H_2O$.
Prop.—Inodorous; taste nearly that of common salt; crystals transparent rhomboidal prisms; efflorescent; soluble in three parts of water at 60°. Colours turmeric brown. The precipitate by chloride of barium is white, and soluble without effervescence in nitric acid. Nitrate of silver throws down a yellow precipitate, soluble in nitric acid. 100 gr. at red heat lose 63 gr. of water. Nitrate of silver added to the residue throws down a white precipitate. It burns with a yellow flame.
Oper.—Mild laxative, and diuretic.
Use.—In all cases where the bowels require to be opened. When dissolved in broth made without salt, the taste of the phosphate is not perceived.
Dose.—As a purgative gr.lx. to unc.j.; as a diuretic gr.xxx. to gr.cxx.
Incomp.—Mineral acids, lime-water, magnesia, chloride of barium, nitrate of silver, and acetate of lead.
Off. Prep.—*Ferri Phosphas. Syrupus Ferri Phosphatis.*

PHOSPHŎRUS. Phosphorus. A colourless, non-metallic element, obtained from bones, waxy, shining, luminous in the dark, which can only be preserved under water. Chemical symbol, P, equivalent 31.
Prop. and *Tests.*—Sp. gr. 1·177. Emits white vapour when exposed to the air; soft and flexible at common temperatures, melts at 110°, ignites in the air at a temperature a little above its melting point, burning with a luminous flame, and producing dense white fumes. Insoluble in water, but soluble in ether, and in boiling oil of turpentine.
Use.—For making phosphoric acid; but it has been used internally as a stimulant and aphrodisiac, in low states of the nervous system, in doses of gr. 1-40th to gr. 1-10th, but the greatest caution is required.

PHYSOSTIGMĂTIS FABA. Calabar Bean. The seed of the Physostigma Venenosum. Western Africa.
Prop.—About the size of a very large horse bean, with a very firm, hard, brittle, shining integument of a brownish-red, pale chocolate, or ash-grey colour. Irregularly kidney-shaped with 2 flat sides, and a furrow running longitudinally along its convex margin, ending in an aperture near one end of the seed. Within the shell is a kernel consisting of two cotyledons, weighing on an average about 46 grs., hard, white, and pulverisable, tasting like the edible leguminous seeds, without bitterness, acrimony, or aromatic flavour. It yields its virtues to alcohol, and imperfectly to water.
Oper.—Sedative, inducing paralysis of the lower extremities and contraction of the iris.
Use.—In chorea and tetanus.
Off. Prep.—*Extractum Physostigmatis.*

PILŬLA ALŌES BARBĂDENSIS. Pill of Barbadoes Aloes. (*Aloes Barbadensis contritæ* unc.ij.; *Saponis duri* unc.j.; *Olei Carui* fl.dr.j; *Confectionis Rosæ* unc.j. Beat them together that they may be intimately mixed into a mass fit for making pills.)

Oper.—In their operation, this and the following preparations are alike warm stomachic purgatives.
Use.—In habitual costiveness.
Dose.—Gr.v. to gr.xv. made into pills.

•PILŬLA ALŎES CUM SAPŌNE. Aloes and Soap Pill. (*Extracti Aloes Barbadensis contriti, Saponis mollis, Extracti Glycyrrhizæ, partes æquales; Theriacæ* q. s. s. Beat the extract of aloes with the soap, then adding the rest, beat altogether into a mass.
Oper.—Warm, stomachic, purgative.
Use.—In habitual constipation, hysteria, dyspepsia.
Dose.—Gr.v. to gr.xv.

PILŬLA ALŎES ET ASSAFŒTĬDÆ. Aloetic and Assafœtida Pill. (*Aloes Socotrinæ, Conf. Rosæ, Assafœtidæ, Saponis, sing. partes equales* q. s.)
Oper.—Purgative, emmenagogue, stomachic, anodyne.
Use.—In dyspepsia attended with flatulence and costiveness; hysteria; amenorrhœa.
Dose.—Gr.v. to gr.x. in pills twice a day; or at bed-time.

PILŬLA ALŎES ET FERRI. Pill of Aloes and Iron. (*Ferri Sulphatis* unc.jss.; *Aloes Barbadensis pulverisatæ* unc.ij.; *Pulv. Cinnamomi Compositæ* unc.iij.; *Conf. Ros.* unc.iv. Reduce the sulphate to powder, mix it with the aloes and cinnamon powder, and lastly, make into a mass with the confection.)
Use.—An excellent combination of a tonic and purgative.
Dose.—Gr.v. to gr.x.

PILŬLA ALŎES ET MYRRHA. Aloetic pill with Myrrh. (*Aloes Socotrinæ* unc.ij.; *Croci Stigmatum* unc.ss.; *Myrrhæ contritæ* unc.j. *Confect. Rosæ* unc.ijss. Beat together into a mass.)
Oper.—Cathartic, emmenagogue.
Use.—In chlorotic, hypochondriacal and cachectic habits, to stimulate and open the bowels.
Dose.—Gr.x. to gr.xx. made into pills.

PILŬLA ALŎES SOCOTRĪNÆ. Pill of Socotrine Aloes. (*Aloes Socotrinæ contritæ*, unc.ij.; *Saponis duri* unc.j.; *Olei Myristicæ volat.* fl.dr.j.; *Conf. Rosæ* unc.j.)
Use.—In habitual constipation, hysteria, dyspepsia.
Dose.—Gr.v. to gr.xv.

PILŬLA ASSAFŒTĬDÆ COMPŎSĬTA. Compound Pill of Assafœtida. Pilula Galbani Composita, Lond. (*Assafœtidæ, Galbani, Myrrhæ sing.* unc.ij.; *Theriacæ, pondere*, unc.j.
Use.—In hysteria, and other nervous affections.
Dose.—Gr.v. to gr.x.

PILŬLA CAMBŌGĬÆ COMPŎSĬTA. Compound Gamboge Pill. (*Cambogiæ contritæ* unc.j.; *Aloes Barbadensis contritæ* unc.j.; *Pulveris Cinnamomi Composita* unc.j.; *Saponis duri* unc.ij.; *Syrupi q. s.* Mix the powders together, then adding the soap and syrup, beat into a mass.)
Oper.—Cathartic.
Use.—In obstinate costiveness.
Dose.—Gr.x. to gr.xx. in pills occasionally.

PILŬLA COLOCYNTHĬDIS COMPŎSĬTA. Compound Pill of Colocynth. (*Aloes Barbadensis Scammonii* utriusque unc.ij.; *Colocynthidis contritæ* unc.j.; *Potassæ Sulphatis contritæ* unc. ½; *Olei Caryophyllorum* fl.dr.ij.; *Aquæ destillatæ q. s.* Mix the powders, add the oil of cloves, and beat into a mass with the aid of water.)

Oper.—Cathartic, emmenagogue.
Use.—In habitual costiveness; in chlorosis and hysteria.
Dose.—From gr.v. to gr.xx.

PILŬLA COLOCYNTHĬDIS ET HYOSCYĂMI. Pill of Colocynth and Henbane. (*Colocynth pill* unc.ij.; *Extract of Henbane* unc.j.)
Use.—The same as the Colocynth Pill, but milder and lest apt to gripe.

PILŬLA CONĪI COMPŎSĬTA. Compound Pill of Hemlock. (*Conii Ext.* gr.ijss.; *Ipecacuanhæ pulv.* gr.ss.; *Theriacæ q. s.*)
Oper.—Narcotic, antispasmodic, expectorant, diaphoretic.
Use.—In phthisis, pertussis, and bronchitis.
Dose.—Gr.v. to gr.viij.

PILŬLA FERRI CARBONĀTIS. Pill of Carbonate of Iron. (*Ferri Carbonatis Saccharatæ* unc.j.; *Conf. Rosæ Gallici* unc.$\frac{1}{2}$.)
Oper.—Tonic, emmenagogue.
Use.—In dyspepsia and chlorosis.
Dose.—Gr.v. to gr.xx. in pills, twice or thrice a day.

PILŬLA FERRI IODĬDI. Pill of Iodide of Iron. (*Ferri in fila tenuia tracti* gr.xl.; *Iodi* gr.lxxx.; *Sacchari purificati contriti* gr.lxx.; *Radicis Glycyrrhizæ contritæ* gr.cxl.; *Aquæ destillatæ* min.l. Agitate the iodine with the iron and water until the froth becomes white; pour the fluid upon the sugar, triturate, and gradually add the liquorice.)
Use.—The same as the iodide of iron. The pill contains gr.j. of the iodide in about gr.iijss.
Dose.—Gr.iij. to gr.viij.

*PILŬLA GALBĂNI COMPOSĬTA. Compound Galbanum Pill. (*Galbani præparati* gr.cxx.; *Myrrhæ, Sagapeni præparati, sing.* gr.clxxx.; *Assafœtidæ præparatæ*, gr.lx.; *Saponis mollis* gr.cxx.; *Theriacæ q. s. s.* Beat together into a mass.)
Oper.—Carminative, antispasmodic, and emmenagogue.
Use.—In chlorosis, hysteria, and hypochondriasis.
Dose.—Gr.x. to gr.xx. made into pills, every night at bed-time.

PILŬLA HYDRARGŸRI. Mercurial Pill. (*Hydrarg.* unc.ij.; *Confect. Rosæ* unc.iij.; *Glycyrrhizæ cont.* unc.j. Rub the quicksilver with the confection until the globules disappear; then add the liquorice, and beat the whole into a uniform mass.)
Comp.—Protoxide of mercury, and the other ingredients, the mercury being converted into the black oxide by the rubbing?
Oper.—Alterative, purgative.
Use.—To induce mercurial action in syphilis and the phlegmasiæ; to improve the biliary secretions; to remove lymphatic obstructions; to purge in jaundice, dropsies, and ileus.
Dose.—For the former objects gr.iij. to gr.viij. twice a day, united with opium, if the bowels are easily affected; for the latter gr.xij. to gr.xx. every three or four hours.

PILŬLA HYDRARGŸRI SUBCHLORĬDI COMPOSĬTA. Compound Pill of Subchloride of Mercury. Pilulæ Calomelanos Compositæ. Compound Pill of Calomel. (*Hydrargyri Subchloridi* unc.j.; *Antimonii sulphurati* unc.j.; *Guaiaci resinæ contritæ* unc.ij.; *Olei Ricini* fl.unc.j. *vel quantum suff.* Triturate the subchloride with the antimony, then add the resin and oil, and beat into a mass.) It contains 1 gr. of the subchloride in gr.v. of the pill.
Oper.—Alterative, diaphoretic.
Use.—In lepra; secondary syphilis, affecting the skin; and old venereal

ulcers. The decoction of elm bark, or of sarsaparilla, is generally ordered to be taken at the same time.

Dose.—Gr.v. to gr.x. in pills, night and morning.

PILŬLA IPECACUANHÆ CUM SCILLA. Ipecacuanha and Squill Pill. (*Pulv. Ipecac. Comp.* gr.iij., *Scillæ recens contritæ, Ammoniaci contriti* āā gr.j.; *Theriacæ q.s.*)

Oper. and *Use.*—Diaphoretic and expectorant in bronchial affections and phthisis.

Dose.—Gr.v. to gr.x.

*PILŬLA OPĬI. Pilula Saponis cum Opio. Opium Pill. (*Opii contriti* unc.ss.; *Saponis duri* unc.ij.; *Aquæ destillatæ q.s.*)

Oper.—Anodyne and narcotic.

Use.—To allay pain and procure sleep.

Dose.—Gr.ijss. and upwards; gr.v. contain gr.j. of opium.

PILŬLA PLUMBI CUM OPIO. Pill of Lead and Opium. (*Plumbi Acetatis in pulverem subtilissimum* gr.xxxvj.; *Opii contriti* gr.vj.; *Conf. Rosæ Gallici* gr.vj. Beat into a uniform mass, and make into 12 pills.)

Use.—In active hæmorrhages. Each pill contains gr.iij. of lead, and of opium gr.ss.

Dose.—One pill every two or three hours till four or five have been taken, or the hæmorrhage checked.

PILŬLA QUINĬÆ. Pill of Quinia. (*Quiniæ Sulphatis* gr.lx.; *Confectionis Rosæ Caninæ* gr.xx. Mix.)

Oper.—Tonic, antiperiodic.

Use.—In any cases requiring the use of quinine; it is a good form when it is thought advisable to give quinine without acid.

Dose.—Gr.ij. to gr.x.

PILŬLA RHEI COMPŎSĬTA. Compound Rhubarb Pill. (*Rhei contriti* unc.iij.; *Aloes Socotrinæ contritæ* unc.ij.¼; *Myrrhæ contritæ* unc.jss.; *Saponis duri* unc.jss.; *Olei Menthæ Piperitæ* fl.dr.jss.; *Theriacæ pondere* unc.iv.)

Oper.—Laxative, stomachic.

Use.—In dyspepsia attended with costiveness.

Dose.—Gr.v. to gr.x.

PILŬLA SAPŌNIS COMPŎSĬTA. Compound Soap Pill. Pilula Opii, 1864.

Use and *Dose.*—Vide *Pilula Opii.*

PILŬLA SCILLÆ COMPOSĬTA. Pilula Scillæ. Compound Squill Pill. (*Scillæ cont.* unc.1¼; *Zingiberis contriti* unc.j.; *Saponis duri* unc.j.; *Ammoniaci contriti* unc.j.; *Theriacæ* (*pondere*) unc.ij. *vel quant. suff.* Mix.)

Oper.—Expectorant, diuretic.

Use.—In asthma and chronic catarrh; as an adjunct to digitalis in hydrothorax, and other dropsies.

Dose.—Gr.x. to gr.xx. twice or thrice a day.

PIMENTA. Pimento, Allspice, Jamaica Pepper, Juniper berries. The dried unripe berries. (Eugenia *Pimenta, Icosand. Monogyn.* N.O. *Myrtaceæ.* West Indies. ♄) *Pimento, Bacca.*

Prop.—A small round two-celled berry, of the size of a small pea, odour aromatic, resembling a mixture of cinnamon, nutmeg, and cloves; taste pungent, but mixed like the odour; colour reddish-brown.

Oper.—Stimulant, carminative.

Use.—Chiefly as a condiment; and as an adjunct to other medicines.

Dose.—Gr.v. to gr.xl.

Off. Prep.—*Aqua Pimentæ. Oleum Pimentæ. Syrupus Rhamni.*

PIMENTÆ OLĔUM. Oil of Pimento.
Dose.—Min.j. to min.iv. rubbed with sugar. Vide *Oleum Pimentæ.*

*PĬPER LONGUM. Long Pepper. (*Diand. Trigyn.* N.O. *Piperaceæ.* Amboyna. ☌) The unripe fruit.
Prop.—Odour aromatic; taste warm, pungent: small round grains disposed spirally on a cylindrical axis.
Oper.—Stimulant, carminative, tonic.
Use.—In atonic dyspepsia, attended with flatulence; retrocedent gout; and paralysis. As a domestic condiment.
Dose.—Gr.v. to gr.xx.

PĬPER NIGRUM. Black Pepper. (*Class and order as above.* West Indies. ♄) The unripe fruit dried in the sun.
Prop.—Small, roundish, wrinkled; tegument brownish-black, containing a greyish-yellow globular seed. Odour aromatic; taste pungent, fiery. Its pungency depends on an oleo-resin.
Oper.—Tonic, antiperiodic, stimulant, carminative.
Use.—To check nausea in gouty habits; remove hiccough; and increase excitement in palsy. Steeped in rum it cures ague. A watery infusion of pepper has been found a useful gargle in relaxation of the uvula.
Dose.—Gr.x. to gr.xx. variously combined.
Off. Prep.—*Confectio Opii. Confectio Piperis. Pulvis Opii Compositus.*
**** *White pepper is the same fruit, freed from its cuticle by a preparation of lime and oil of mustard called Chunam, applied before it is dried. It is less pungent.*

PIPĔRIS CONFECTĬO. Confectio Piperis Nigri. Confection of Pepper. (*Piperis nigri* unc.ij.; *Carui* unc.iij.; *Mellis depurati* unc.xv.)
Oper.—Stimulant, carminative.
Use.—In hiccough, paralysis of the intestines, and gout affecting the stomach. In piles affecting leucophlegmatic habits.
Dose.—Gr.lx. to gr.cxx.

PIX BURGUNDĬCA. Abies excelsa. (Pinus Abies.) Dried Pitch, or Burgundy Pitch. (A resinous exudation from the stem, melted and strained; imported from Switzerland.)
Comp.—Resin, an essential oil.
Prop.—Concrete, semi-transparent, unctuous, tenacious, fragrant.
Oper.—Rubefacient, generally exciting an exudation of serous fluid.
Use.—Externally, spread on leather as plasters; in catarrh, pertussis, dyspnœa.
Off. Prep.—*Emplastrum Ferri. Emplast. Picis.*

PIX LIQUĬDA. Tar. (Obtained by destructive distillation from the Pinus *sylvestris* and various other species.)
Comp.—Resin, empyreumatic oil, charcoal, acetic acid.
Prop.—Of a deep brown colour, semi-fluid, sp. grav. 1·04, tenacious; odour empyreumatic.
Oper.—Stimulant, diuretic, sudorific; externally detergent.
Use.—Internally in ichthyosis; externally it is applied to foul ulcers, tinea capitis, lepra, and generally to chronic cutaneous diseases, and the vapour has been of service in chronic affections of the bronchial membrane.
Off. Prep.—*Unguentum Picis Liquidæ.*

PLATĬNI BICHLORĬDUM. (Appendix II.) Bichloride of Platinum. (Prepared by dissolving platinum in nitro-hydrochloric acid with the aid of heat.)

Comp.—1 equivalent of Platinum = 98·5 + 2 eq. of Chlorine = 71 = 169·5. ($PtCl_2$) or $PtCl_2$: 1 eq. of Platinum = 197 + 2 eq. of Chlorine = 76 = 273.

Use.—As a test to detect the presence of potash and ammonia, separating soda.

PLUMBI ACETAS. Acetate of Lead. (*Plumbi Oxidi* unc.xxiv.; *Acidi Acetici* Oij. *vel q.s.*; *Aquæ destillatæ* Oj.)

Comp.—Oxide of lead 58, acetic acid 26, water of crystallisation 16 parts; 1 eq. protoxide of lead = 111·5 + 1 eq. of acetic acid 51·48 + 3 eq. of water = 27, equiv. 189·5. (PbO,Ā,3HO) or $Pb(C_2H_3O_2)_2.3H_2O$.

Prop.—Inodorous; taste sweet, styptic; colour very white, with a silky lustre; crystals spicular; soluble in 24 parts of water; the solution becomes turbid in common water; soluble also in alcohol; sp. grav. 2·345. Gr. 48 dissolved in distilled water acidulated with acetic acid should not be entirely precipitated by gr. 30 of phosphate of soda. Carbonate of soda throws down a white, iodide of potassium a yellow, precipitate. It is rendered black by hydrosulphuric acid. If sulphate of soda be added to 100 gr. dissolved in water, 80 gr. of sulphate of lead will be precipitated. 38 gr. dissolved in water require for complete precipitation 200 grain-measures of the volumetric solution of oxalic acid.

Oper.—Astringent; in weak solutions cooling and sedative; in strong (gr.lx. to water fl.unc.vj.) stimulant.

Use.—Internal in visceral hæmorrhages washed down with water acidulated with distilled vinegar, which seems to prevent its deleterious effects. Recommended by Dr. Graves in cholera. External, in solution in phlegmonous inflammation, burns, bruises, gonorrhœa, &c.

Dose.—Gr. $\frac{1}{2}$ to gr.iij. made into a pill with gr. $\frac{1}{2}$ vel gr. $\frac{1}{4}$ of opium and crumb of bread. Distilled water must be used for the solution, and a little acetic acid added. The author was in the habit of ordering from gr.v. to gr.viij. in hæmorrhages.

Incomp.—Alkalies, earths, acids, alum; borax, soaps, tartarised iron, and antimony; lime-water, hard water, sulphuretted hydrogen.

Off. Prep.—*Liquor Plumbi Subacetatis. Pilulæ Plumbi cum Opio. Suppositoria Plumbi Composita. Unguentum Plumbi Acetatis.*

PLUMBI CARBŌNAS. Carbonate of Lead. *Cerussa.*

Comp.—Yellow oxide of lead 83·5, carbonic acid 16·5 parts. The yellow oxide contains lead 90·5, oxygen 9·5 parts in 100, or 1 eq. of protoxide of lead = 111·5 + 1 eq. of carbonic acid = 22, equiv. = 133. $2(PbOCO_2) + HOPbO$.

Prop.—Inodorous; taste sweet; brittle, friable, snow-white, of a minute scaly texture. Gr. 68 are wholly soluble in min. 150 of acetic acid diluted with fl.unc.j. of distilled water. Blackened by sulphuretted hydrogen, insoluble in water.

Oper.—Astringent, sedative.

Use.—Sprinkled on parts affected with local inflammation; in the formation of ointments and plasters.

Off. Prep.—*Unguentum Plumbi Carbonatis.*

PLUMBI SUBACETĀTIS LIQUOR. See *Liquor Plumbi Subacetatis.*

PLUMBI IODĬDUM. Iodide of Lead. (*Plumbi Nitratis, Potassii Iodidi sing.* unc.iv.; *Aquæ destillatæ* q.s. Dissolve the nitrate by the aid of heat in a pint and a half of water, and the iodide in half a pint, and mix the solutions. Collect, wash and dry the precipitate.)

Comp.—PbI = 1 equiv. of lead = 103·5 + 1 of iodine = 127 = 230·5, or PbI_2 = 1 eq. of lead = 207 + 2 of iodine = 254 = 461.

Prop.—Golden-yellow powder; scarcely soluble in cold, readily in hot

water; solution crystallises on cooling; sublimed by heat, the vapours being at first yellow and then violet coloured. If 100 gr. be dissolved in nitric acid, diluted with half its weight of water, at a boiling heat, and sulphate of soda be added, after the iodine be driven off, 66 gr. of sulphate of lead will be precipitated. This preparation ought to be kept in the dark.

Oper.—Alterative, deobstruent.

Use.—In glandular affections, scrofula; and externally, to discuss indolent tumours, in porrigo capitis, and carcinomatous tumours.

Dose.—Gr.$\frac{1}{2}$ to gr.iv.

Off. Prep.—*Emplastrum Plumbi Iodidi. Unguentum Plumbi Iodidi.*

PLUMBI NITRAS. Nitrate of Lead.

Comp.—PbO,NO_5 or $\mathbf{Pb(NO_3)_2}$.

Prop.—In colourless octahedral crystals, which are nearly opaque, permanent in the air, of a sweetish astringent taste, soluble in water and in alcohol. The aqueous solution is precipitated black by sulphuretted hydrogen, white by diluted sulphuric acid, yellow by iodide of potassium. It decolorises sulphate of indigo.

Use.—As a test for sulphates, and to form the iodide of lead. Ledoyen's Disinfecting Fluid consists of 60 gr. of the nitrate dissolved in an ounce of water.

PLUMBI OXĬDUM. Lithargyrum. Semi-vitrified Oxide of Lead or Litharge. (A red or orange-red protoxide of lead, prepared by heat and combined with carbonic acid; often adulterated with other oxides.) *Lithargyrus.*

Comp.—Yellow oxide of lead 96, carbonic acid 4 parts in 100, or 1 eq. of lead 103·5+1 oxygen=8; equiv.=111·5. (PbO) or **PbO.**

Prop.—In scales of a whitish-red colour; semi-vitrified. Soluble in dilute nitric acid; is rendered black by hydrosulphuric acid. The precipitate with potash is white and soluble in an excess of the alkali. 135 gr. of sulphate of lead are precipitated when sulphate of soda is added to a solution of 100 gr. of oxide in dilute nitric acid. Its solution in dilute nitric acid, when supersaturated with ammonia and cleared by filtration, does not exhibit a blue colour.

Use.—For pharmaceutical purposes, and as an application to excoriated parts, and superficial ulceration.

Off. Prep.—*Plumbi Acetas. Liquor Plumbi Subacetatis. Emplastrum Cerati Saponis. Empl. Plumbi.*

PODOPHYLLI RADIX, RESINA. Podophyllum dried rhizome and its resin, obtained by means of rectified spirit. (Podophyllum peltatum. *Polyandria. Monogynia.* N. O. *Ranunculaceæ.* American May-Apple. Mandrake.) Podophyllin.

Prop.—The podophyllum occurs in thin rhizomes, brown, jointed, with numerous radicles; the resin is a pale greenish-brown amorphous powder, soluble in rectified spirit and ammonia, precipitated from the former solution by water, from the latter by acids. Soluble in pure ether.

Oper.—Drastic hydragogue, cathartic, similar to Jalap.

Use.—In cases of hepatic congestions, and in habitual constipation.

Dose.—Of the powder gr.v. to gr.xx.; of the resin gr.$\frac{1}{4}$ to gr ij.

POTASSA CAUSTĬCA. Potassæ Hydras. Caustic Potassa. (Prepared by evaporating the solution of potassa to dryness in an iron vessel.) *Kali Purum.*

Comp.—Potassium 83·3, oxygen 17·6, in 100 parts of pure potassa: or 1 eq. potassium = 39+1 eq. oxygen = 8+1 of water=9, equiv.=56. (KO,HO)

or **KHO** : but fused potassa contains also a little carbonate of potassa, silex, lime, and oxide of iron, which do not affect its medicinal properties. Fifty-six gr. dissolved in water, leave but a trace of sediment, and require for neutralisation at least 900 grain-measures of the volumetric solution of oxalic acid.

Prop.—Solid ; of a grey colour ; deliquescent in the air ; soluble in rectified spirit ; feels soapy between the fingers, owing to its dissolving the skin. (It is generally run into little cylindrical moulds, and ought to be kept in well-corked phials.)

Oper.—Powerfully escharotic.

Use.—For forming issues. It has also been used to remove strictures.

Off. Prep.—*Liq. Potassæ. Potassæ Permanganas.*

POTASSA SULPHŬRĀTA. Sulphurated Potash. Tersulphuret of Potassium HS_3 with Sulphate of Potash. Hepar Sulphuris. Potassii Sulphuretum. (Mix carbonate of potash unc.x. and sublimed sulphur unc.v., and heat them gradually in a crucible.)

Prop.—Inodorous while dry, but when moistened, fœtid ; taste acrid, bitter ; colour liver-brown ; solid, brittle, deliquescent, decomposed by water and exposure to air.

Oper.—Expectorant, diaphoretic ; externally detergent.

Use.—In chronic asthma ? catarrh and rheumatism ; herpetic and other cutaneous diseases and cancer. Its solution is useful as a wash in scabies, lepra, psoriasis and tinea capitis. It was formerly used, though improperly, as an antidote to arsenical and saturnine poisons.

Dose.—Gr.iij. to gr.v., combined with soap or extract of conium in pills twice or thrice a day. Externally sixty grains to an ounce of lard.

Incomp.—Acids, acidulous salts ; metallic and earthy salts.

Off. Prep.—*Unguentum Potassæ Sulphuretæ.*

POTASSÆ ACĒTAS. Acetate of Potassa. (*Potassæ Carbon.* unc.xx. ; *Acidi Aceti* Oij. vel q.s. Mix, and add by degrees enough of acetic acid to saturate the alkali. Then strain and evaporate in a sand-bath with heat, cautiously applied, to dryness.) *Kali Acetatum.*

Comp.—Potassa 47·9, acid 52 : or 1 eq. potassa=47+1 acetic acid=51 equiv.=98. (KO,Ā) or $KO,C_4H_3O_3$ or $\mathbf{KC_2H_3O_2}$.

Prop.—Inodorous ; taste sharp, pungent : white, shining ; texture foliated, deliquescent ; soluble in an equal weight of water ; also in four times its weight of alcohol. The watery solution decomposes spontaneously ; does not tinge litmus nor turmeric ; gives no precipitate with chloride of barium, nor with nitrate of silver ; but should there be any precipitate by nitrate of silver from a strong solution, it is redissolved on the addition of water, or by dilute nitric acid. Tartaric acid throws down a crystalline precipitate, and a dilute solution of perchloride of iron a deep-red one. Its solution is unaffected by sulphide of ammonium. With sulphuric acid gives off acetic acid vapour. 100 gr. digested in sulphuric acid, and exposed to a brisk heat, leave 88·8 gr. of sulphate of potassa.

Oper.—Mildly cathartic, diuretic, deobstruent.

Use.—In pyrexiæ, dropsies, icterus, visceral obstructions, and cutaneous diseases.

Dose.—Gr.x. to gr.lx. as a diuretic ; dr.ij. to dr.iij. open the bowels.

Incomp.—Mineral acids, decoction of tamarinds, corrosive sublimate, nitrate of silver, sulphates of soda and of magnesia, hydrochlorate of ammonia, tartrate of potassa.

Off. Prep.—*Tinctura Ferri Acetatis.*

POTASSÆ BICARBŌNAS. Crystallised Bicarbonate of Potassa.

(Prepared by forcing carbonic acid into a solution of carbonate of potassa under considerable pressure.)

Comp.—1 eq. of potassa=47+2 eq. of carbonic acid=44+1 eq. of water =9, equiv.=100. ($KO,2CO_2,HO$) or $\mathbf{KHCO_3}$.

Prop.—Transparent, colourless crystals, the primary form of which is a right oblique-angled prism; inodorous; taste mildly alkaline; soluble in water; slightly affects the colour of turmeric; gives no precipitate (except by heat) with sulphate of magnesia; bubbles on the addition of nitric acid, and when the acid is in excess gives no precipitate with chloride of barium, and only a sparing one with nitrate of silver. 30·7 gr. of carbonic acid are obtained by heat from 100 gr. of the bicarbonate. Diluted hydrochloric acid causes strong effervescence, and from the resulting solution perchloride of platinum throws down a yellow precipitate. 50 grains exposed to a low red heat leave 34·5 grains of a white residue, requiring for exact saturation 500 grain-measures of the volumetric solution of oxalic acid. 20 grs. of the bicarbonate will neutralise 14 grs, of citric, and 15 grs. of tartaric acid.

Oper.—Antacid, rendering urine and blood alkaline, diuretic.

Use.—In certain forms of dyspepsia, acute diseases, acute rheumatism, and in certain urinary affections.

Dose.—Gr.x. to gr.xl.

Off. Prep.—*Liquor Potassæ Effervescens.*

POTASSÆ BICHRŌMAS. Bichromate of Potash.

Comp.—$KO,2CrO_3$ or $\mathbf{K_2Cr_2O_7}$.

Prop.—Red, transparent, quadrangular tables, soluble in water; on adding chloride of barium to the solution a yellowish-white chromate of baryta is precipitated, and with nitrate of silver the orange chromate of silver. At a high temperature is decomposed into oxide of chromium, and yellow chromate of potash.

Use.—To prepare the valerianate of soda, and as a test for the protosalts of iron.

POTASSÆ CARBŌNAS. Potassæ Carbonas Purum. Carbonate of Potassa. (Obtained from commercial pearl-ash, the product of lixiviation of wood ashes, by treating the pearl-ash with its own weight of distilled water, and evaporating the solution so formed to dryness, while it is kept briskly agitated, or by heating the bicarbonate to redness as from pearl-ashes.)

Comp.—Potassa 43·56, carbonic acid 47·53, water of crystallisation 8·91 parts; or 1 eq. potassa=47+1 eq. acid=22+2 eq. of water=18= equiv.=87. KO,CO_2 or $\mathbf{K_2CO_3}$, with about 16 per cent. of water of crystallisation.

Prop.—Inodorous; taste alkalescent, caustic; soluble in water; but insoluble in spirit, effervescing with dilute hydrochloric acid, and forming a solution with which perchloride of iron gives a yellow precipitate; crystals minute, white, deliquescent; turns turmeric brown; gives no precipitate with carbonate of soda, chloride of barium, and only in a very slight degree with nitrate of silver. 100 gr. with heat give off 16 gr. of water, and with dilute sulphuric acid 26·3 gr. of carbonic acid. It must be kept in a well-closed bottle. 83 grs. require for neutralisation 980 grain-measures of the volumetric solution of oxalic acid. 20 grs. of the carbonate will neutralise 17 grs. of citric, and 18 of tartaric acid.

Oper.—Diuretic, antacid, antilithic, deobstruent.

Use.—In dropsy, acidities of the primæ viæ, and glandular obstructions.

Dose.—Gr.x. to xxx. in solution; gr.xx. dissolved in fl.unc.viij. of water,

and mixed with fl.dr.iv. of lemon juice, forms an effervescing draught.

Incomp.—Mineral acids, borax, hydrochlorate and acetate of ammonia, alum, sulphate of magnesia, chloride of calcium, lime-water, all the metallic salts.

Off. Prep.—*Atropia. Decoctum Aloes Comp. Enema Aloes. Liquor Arsenicalis. Liquor Potassæ. Mistura Ferri Composita. Potassa Sulphurata. Potassæ Acetas. Potassæ Bicarbonas. Potassæ Chloras. Potassæ Citras. Potassæ Tartras.*

POTASSÆ CHLORAS. Chlorate of Potassa. (Prepared by passing a stream of chlorine through a concentrated solution of carbonate of potash and slaked lime until the alkali is neutralised.)

Prop.—Inodorous, in flat pearly crystals of the oblique prismatic system; taste cool and austere; sparingly soluble in cold water: gives no precipitate with nitrate of silver or oxalate of ammonia; melts by heat, 100 gr. giving off about 39 gr. of oxygen. With a few drops of sulphuric acid the crystals become yellow, then red, and exhale the yellow vapour of peroxide of chlorine; rubbed up with sulphur it explodes.

Comp.—Chloric acid 1 eq.=75·5+potassa 1 eq.=47, equiv.=122·5 (KO,ClO_5) or $\mathbf{KClO_3}$.

Oper.—Stimulant, tonic, diuretic, and supposed to supply oxygen to the system.

Use.—In typhus, cancrum oris, mercurial ulceration of the mouth, and other depressing affections.

Dose.—From gr.v. to gr.xxx.

Off. Prep.—*Potassæ Permanganas. Trochisci Potassæ Chloratis.*

POTASSÆ CITRAS. Citrate of Potash. (Formed by neutralising carbonate of potash by citric acid.)

Comp.—3 eq. of potash and 1 eq. of citric acid ($3KO,\bar{C}$)=306 or $\mathbf{K_3C_6H_5O_7}$.

Prop.—White powder, taste saline and slightly acrid, deliquescent; heated with sulphuric acid it forms a brown fluid, gives off an inflammable gas and an acetous odour; white precipitate, soluble in acetic acid, is thrown down on boiling a mixed solution of the salt and chloride of calcium. After burning 102 gr. the alkaline residue requires for exact saturation 1000 grain-measures of the volumetric solution of oxalic acid.

Oper.—Refrigerant, diuretic, diaphoretic.

Use.—In pyrexiæ, irritability of the stomach, and in gouty conditions.

Dose.—Gr.x. to gr.lx.

POTASSÆ NITRAS. Nitrate of Potassa, or Nitre. (Formed in an impure state by nature in warm climates, as India, and by means of artificial composts in France. Purified, if necessary, by crystallisation from solution in distilled water.) *Nitrum.*

Comp.—Potassa 46·5, nitric acid 53·4, in 100 of nitrate; or 1 eq. potassa =47+1 eq. acid+54 equiv.=101. (KO,NO_5) or $\mathbf{KNO_3}$.

Prop.—Inodorous; taste cool, bitterish, penetrating; crystals six-sided prisms; permanent in the air; brittle, soluble in seven parts of water at 60°. From this solution nothing is thrown down by chloride of barium or nitrate of silver; it melts, but loses no weight by heat; it yields oxygen on burning, and the residue, treated with sulphuric acid, gives off nitrous vapours. Its solution, acidulated with hydrochloric acid, gives a yellow precipitate with perchloride of platinum. Thrown on burning charcoal it deflagrates, carbonate of potash being

left. From 100 gr. digested in sulphuric acid, are obtained of sulphate of potash dried by a red heat 86 gr.

Oper.—Diuretic, refrigerant: in large doses purgative, externally cooling detergent.

Use.—In fevers, dropsies, acute rheumatism, herpetic eruptions, active hæmorrhages, mania. A small piece allowed to dissolve slowly in the mouth often removes incipient cynanche tonsillaris; hence its utility in gargles.

Dose.—Gr.x. to gr.xxx. In doses of unc.ss. it occasions hypercatharsis, bloody stools, and sometimes death.

Incomp.—Sulphuric acid, sulphates of soda and magnesia, alum, the metallic salts.

Off. Prep.—*Acidum Nitricum.*

POTASSÆ PERMANGĂNAS. Permanganate of Potash. (*Potassæ causticæ* unc.v.; *Manganesii Oxidi Nigri pulverisati* unc.iv.; *Potassæ Chloratis* unc.iijss.; *Acidi Sulphurici dil.* q.s.; *Aquæ destillatæ* Oijss. A concentrated solution of caustic potash is added to the chlorate of potash and oxide of manganese powdered together; and the whole evaporated to dryness, then exposed to a dull red heat until it has become semi-fused. The mass is cooled, pulverised, and boiled in water; the supernatant fluid is decanted, and neutralised with dilute sulphuric acid; it is then evaporated, and the permanganate obtained by crystallisation.

Comp.—KO,Mn_2O_7 or $\mathbf{KMnO_4}$.

Prop.—Dark purple, slender prismatic, crystals; inodorous; sweet astringent taste; soluble in water; gr.v. dissolved in water require for complete decoloration a solution of 44gr. of granulated sulphate of iron, acidulated with fl.dr.ij. of dilute sulphuric acid.

Oper.—Antiseptic and disinfecting.

Use.—In the form of gargle or lotion to remove decomposing matter, and to cleanse diseased surfaces. Internally in diabetes.

Dose.—Gr.j. to gr.iv.

Off. Prep.—*Liquor Potassæ Permanganatis.*

POTASSÆ PRUSSĬAS FLĀVA. Yellow Prussiate of Potash. Ferrocyanide of Potassium. (Obtained by fusing animal substances with carbonate of potash, in an iron pot, lixiviating the crude product with water, and purifying by crystallisation.)

Comp.—$K_2FeC_6N_3+3HO$ or $\mathbf{K_4FeC_6N_6.3H_2O}$.

Prop.—Large yellow crystals, permanent in the air, soluble in water, insoluble in alcohol. From the solution in water persulphate of iron throws down a deep blue; sulphate of copper a brick red; and acetate of lead a white precipitate. Heated with dilute sulphuric acid, hydrocyanic vapours are evolved.

Oper.—Sedative, astringent, diuretic. Seldom used in this country.

Dose.—Min.xx. to min.xl. of a solution of gr.cxx. of salt in an ounce of water.

Off. Prep.—*Acidum Hydrocyanicum Dilutum.*

POTASSÆ SULPHAS. Sulphate of Potassa. (The salt which remains after the distillation of nitric acid ignited until the excess of acid is driven off; then dissolved in water, and crystallised.) *Kali Vitriolatum.*

Comp.—Potassa 54·55, acid 45·45, in 100 parts of sulphate; or 1 eq. potassa 47+1 acid=40, equiv.=87. (KO,SO_3) or $\mathbf{K_2SO_4}$

Prop.—Inodorous; taste bitter; crystals small, six-sided prisms, ended by six-sided pyramids, grouped; hard, transparent, permanent in the air; soluble in nine parts of water at 60°; insoluble in alcohol; there

is no precipitate with oxalate of ammonia; a yellowish precipitate is thrown down by bichloride of platinum, and a white precipitate insoluble in nitric acid by chloride of barium; with heat it decrepitates; dissolves at a red heat without losing weight. From 100 gr. dissolved in distilled water, on the addition of chloride of barium and hydrochloric acid, 132 gr. of sulphate of baryta, dried at a red heat, are obtained.

Oper.—Purgative, deobstruent.

Use.—In the visceral obstructions to which children are liable; and as an adjunct to other purgatives.

Dose.—Gr.x. to gr.xxx. acts as a deobstruent; gr.lx. to g.clxxx. purge.

Incomp.—Nitric and hydrochloric acids, tartaric acid, chloride of calcium, salts of mercury, nitrate of silver, salts of lead.

Off. Prep.—Pil. Colocynthidis comp. Pulvis Ipecacuanhæ comp.

POTASSÆ TARTRAS. Tartrate of Potassa. (*Potassæ Tartratis Acidæ* unc.xx.; *Potassæ Carbonatis* unc.ix. *vel q.s.s.*; *Aquæ ferventis* Oijss. Dissolve the carbonate in the water, add the tartrate till the liquor is neutralised: boil and filter. Concentrate the liquor till a pellicle forms on its surface, and then set aside to cool and crystallise. The residual liquor will yield more crystals by further concentration and cooling. *Kali Tartarizatum.*)

Comp.—One equivalent of potassa=47, and one of tartaric acid=66, and two eq. of water=18, equiv.=131. (KO,$\bar{T}$,2HO) or $2KO,C_8H_4O_{10}$ or $\mathbf{K_2C_4H_4O_6}$.

Prop.—Inodorous, neutral; taste bitter, disagreeable in smell; colourless, four or six-sided prisms, but generally in the form of a white granular powder, soluble in four parts of water at 60°, soluble in alcohol. Affects neither litmus nor turmeric. On the addition of an acid the bitartrate is thrown down. The precipitates by chloride of barium and acetate of lead are soluble in dilute nitric acid. Heated with sulphuric acid, it forms a black tarry fluid, evolving an inflammable gas, and a burnt sugar odour. 113 grs. heated to redness leave an alkaline residue, which requires for neutralisation 1000 grain-measures of the volumetric solution of oxalic acid.

Oper.—Cooling, laxative, and diuretic.

Use.—To open the bowels in febrile diseases, mania, and hypochondriasis; and as an adjunct to senna, and the resinous purgatives in solution, the griping effects of which it corrects.

Dose.—Dr.j. to unc.j. in solution as a purgative; as a diuretic gr.xx. to gr.lx.

Incomp.—Acids; infusion of tamarinds, and other acid fruits; chloride of calcium; lime, magnesia, sulphates of soda, of potassa, and of magnesia; nitrate of silver, acetate of lead, and hydrochlorate of ammonia.

POTASSÆ TARTRAS ACĬDA. Acid Tartrate of Potassa. Potassa Bitartras. Cream of Tartar. (The tartar of wine purified.) *Tartari crystalli.*

Comp.—Potassa, 33, acid, 57, water 10 parts in 100 of the bitartrate. 1 eq. of potassa=47, 1 eq. of tartaric acid=66, 1 eq. of water=9 equiv.=122. (KO,$\bar{T}$,HO) or $\mathbf{KHC_4H_4O_6}$.

Prop.—Inodorous; reddens litmus; taste acid, harsh; crystals small, irregular; require 120 parts of water at 60° to dissolve them; brittle, pulverulent; decomposed when kept in solution; at a red heat is converted into the carbonate.

Oper.—Mildly purgative, refrigerant, diuretic.

Use.— In ascites, proceeding from visceral obstructions; and to open the bowels in inflammatory habits. Dissolved in water, with a small quantity of white wine, some sugar, and lemon peel, it forms an excellent beverage in febrile diseases, under the name of imperial.

Dose.—Gr.xx. to gr.lx. combined with gr.xx. of sodæ biboras, to excite the kidneys; and to open the bowels unc.$\frac{1}{4}$ to unc.$\frac{3}{4}$ are required.

Incomp.—Alkalies, alkaline earths, mineral acids.

Off. Prep.—*Acidum Tartaricum. Antimonium Tartaratum. Conf. Sulphur. Ferrum Tartaratum. Potassæ Tartras. Pulv. Jalapæ Comp. Soda Tartarata.*

POTASSĬI BROMĬDUM. Bromide of Potassium. (*Brominii* fl.unc.iv.; *Liquoris Potassæ* Oij.; *Carbonis lignei pulveris* unc.ij.; *Aquæ destillatæ ferventis* Ojss.)

Comp.—Bromine 1 eq. 80+potassium 1 eq. 39, equiv.=119. (KBr) or **KBr.**

Prop.—White transparent cubical crystals, inodorous; taste saline; soluble in water, less so in spirit. Its aqueous solution gives a white crystalline precipitate with tartaric acid. When its solution in water is mixed with a little chlorine, chloroform agitated with it in falling to the bottom exhibits a red colour. 10 grs. require for complete decomposition 840 grain-measures of the volumetric solution of nitrate of silver. Gives no blue colour on being treated with starch.

Oper.—Alterative. In large doses produces sleepiness and headache, and paralysis of the lower extremities and of the generative organs.

Use.—In glandular affections, nymphomania, menorrhagia, and in pharyngeal and laryngeal diseases.

Dose.—From gr.iij. to gr.xxx. twice or thrice a day.

*POTASSĬI ET HYDRARGŸRI IŌDOCYANĪDUM. Prepared by adding a concentrated solution of bicyanide of mercury to a solution of iodide of potassium, when beautiful white pearly crystals are deposited. When these are dissolved in water, and added to a solution of any acid, except hydrocyanic, they are decomposed, and the red biniodide of mercury set free.

Use.—As a test for the dilute hydrocyanic acid.

POTASSÆ FERRIDCYANĬDUM. Ferridcyanide of Potassium. Red Prussiate of Potash. (Appendix I.) Chemical symbol $K_3Fe_2Cy_6=329$ or $\mathbf{K_6Fe_2C_{12}N_{12}}$.

Prop.—Red prismatic crystals, soluble in water; gives no precipitate with the persulphate, but a dark blue with the protosalts of iron.

Use.—Test to distinguish the protosalts from the persalts of iron.

POTASSĬI FERROCYANĬDUM. Ferrocyanide of Potassium. Vide *Potassæ Prussias flava.*

POTASSĬI IODĪDUM. Iodide of Potassium. *Liquoris Potassæ* cong.j.; *Iodi* unc.xxix. *vel q. s.*; *Carbonis lignei* unc.iij.; *Aquæ destillatæ ferventis q. s.*) The iodate of potash is first formed, and converted into the iodide of potassium.

Comp.—1 eq. of iodine, 127+1 potassium=39, equiv. 166. (KI) or **KI.**

Prop.—Crystals opaque cubes, or quadrangular prisms, inodorous, taste penetrating; very soluble in water, less so in alcohol; scarcely, if at all, affecting the colour of turmeric, not at all of litmus; becoming blue on the addition of nitric acid and cold starch or a minute quantity of solution of chlorine. It gives a crystalline precipitate with tartaric acid. A yellow precipitate is thrown down by acetate of lead, soluble in boiling water. There is no precipitate with liquor

calcis or chloride of barium. The precipitate with nitrate of silver dissolved in the stronger liquor of ammonia, strained and treated with nitric acid, remains clear. 141 gr. of iodide of silver are precipitated by nitrate of silver from the solution of 100 gr. of the iodide in water.

Use.—The same as that of iodine; but chiefly as an alterative in secondary syphilis, rheumatism, lepra, strumous inflammation and abscess, asthma, and pulmonary emphysema. In some persons, if long continued, it causes iodism.

Dose.—Of the saturated solution from min.vj. to min.xx., of the dry salt from gr.ij. to gr.x.

Incomp.—Acids, metallic salts not iodides.

Off. Prep.—*Linimentum Iodi. Lin. Potassii Iodidi cum Sapone. Liquor Iodi. Tinctura Iodi. Unguentum Iodi. Unguentum Potassii Iodidi.*

*POTASSIUM. Obtained from potash salts.

Prop.—Metallic lead colour, sp. gr. 0·86; oxidises rapidly, and is converted into potash.

Use.—In chemical analysis.

PRUNUM. Prune. The dried Drupe. (Prunus *domestica. Icosandria Monogynia.* N. O. *Rosaceæ.* (*Drupaceæ, Lindley.*) South of Europe. ♄)

Prop.—Odour weak; taste sweet, acidulous.

Oper.—Cooling, laxative, nutrient.

Use.—In costiveness attended with heat and irritation; an article of diet, and in fever.

Off. Prep.—*Confectio Sennæ.*

PTEROCARPI LIGNUM. Red Sandal Wood. (Pterocarpus Santalinus. *Monadelph. Decand.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley.*) East Indies. ♄)

Prop.—Aromatic, faint peculiar odour, an obscurely astringent taste; colour deep bright red.

Use.—As a colouring material.

Off. Prep.—*Tinctura Lavandulæ Composita.*

*PULĒGĬI OLĔUM. See *Oleum Pulegii.*

PULVIS AMYGDĂLÆ COMPŎSĬTUS. Compound Powder of Almonds. Confectio Amygdalæ. Conserva Amygdalarum. (*Amygdal. dulc.* unc.viij.; *Sacchari purificati* unc.iv.; *Acaciæ gum.* unc.j.)

Use.—For making the almond mixture.

PULVIS ANTIMŌNIĀLIS. Antimonial Powder. James's Powder. *Antimonii Oxidi* unc.j.; *Calcis Phosphatis præcipitati* unc.ij. A mild preparation of antimony, and being uniform in strength, is now a certain and useful preparation.

Comp—Oxide of antimony and phosphate of lime.

Prop.—Inodorous, insipid; in the form of a white powder; insoluble in water.

Oper.—Diaphoretic and alterative; in large doses, emetic, purgative.

Use.—In febrile diseases, and every case in which diaphoresis can be useful; and in small doses in cutaneous diseases.

Dose.—Gr.iij. to gr.xv. in pills, combined with opium or camphor, every six or eight hours, diluting freely in the interval.

*PULVIS AROMĂTĬCUS. Aromatic Powder. (*Cinnamomi* unc.iv.; *Myristicæ, Croci, sing.* unc.iij.; *Caryophyllorum* unc.jss.; *Sacchari purificati* unc.xxv.; *Cardamomi Seminum* unc.j. Mix.)

Oper.—Carminative, stimulant, astringent.

Use.—In dyspepsia, flatulent colic, diarrhœa.

Dose.—Gr.xv. to gr.xxx.

PULVIS CATĔCHU COMPŎSĬTUS. Compound Catechu Powder. (*Catechu contriti* unc.iv.; *Kino, Krameriæ, sing. contritor.* unc.ij.; *Cinnamomi, Myristicæ, sing. contritor.* unc.j. (Mix thoroughly, and pass the powder through a sieve.)
Oper.—Astringent and carminative.
Use.—In diarrhœa or mucous discharges.
Dose.—Gr.xv. to gr.lx.

PULVIS CINNAMŌMI COMPŎSĬTUS. Compound Powder of Cinnamon. Pulvis Aromaticus E. (*Cinnamomi Corticis, Cardamomi Seminum, Zingiberis, contritorum, sing.* unc.j.)
Oper.—Stimulant, carminative.
Use.—In dyspepsia, flatulent colic, diarrhœa.
Dose.—Gr.iij. to gr.x.
Off. Prep.—*Pilula Aloes et Ferri. Pil. Cambogiæ Composita.*

PULVIS CRĒTÆ AROMĂTĬCUS. Aromatic Powder of Chalk. (*Cinnamomi Corticis contriti* unc.iv.; *Myristicæ, Croci contriti sing.* unc.iij.; *Caryophyllorum contritor.* unc.jss.; *Cardamomi Seminum contritor.* unc.j.; *Sacchari purificati* unc.xxv.; *Cretæ præparati* unc.xj.)
Oper.—Antacid, stomachic, absorbent, astringent.
Use.—In acidity of the stomach, and in diarrhœa.
Dose.—Gr.v. to gr.lx. rubbed up with mucilage and cinnamon water.

PULVIS CRĒTÆ ARŌMATĬCUS CUM OPĬO. Pulvis Cretæ Opiatus. Aromatic Powder of Chalk and Opium. (*Pulveris Cretæ Aromaticæ* unc.ix.¾; *Opii* unc.¼. Mix.) Contains gr.j. of opium in gr.xl.
Oper.—Anodyne, absorbent, astringent.
Use.—In the same cases as the former. As an anodyne to children affected with irritative diarrhœa during dentition.
Dose.—Gr.x. to gr.xl. for adults.

PULVIS IPECACŬANHÆ COMPŎSĬTUS. Compound Powder of Ipecacuanha. Pulvis Ipecacuanhæ cum Opio (1864). (*Ipecacuanhæ cont., Opii duri cont., sing.* unc.ss.; *Potassæ Sulphatis cont.* unc.iv. Mix.) *Pulvis Doveri* contains gr.j. of opium in gr.x.
Oper.—Narcotic and diaphoretic.
Use.—In rheumatism, dropsy, gout, fevers, dysentery, and diabetes.
Dose.—Gr.v. to gr.xx. in pills or bolus, diluting freely with tepid fluids, but not immediately, as they are apt to produce vomiting.
Off. Prep.—*Pilula Ipecacuanhæ cum Scilla.*

PULVIS JALĂPÆ COMPŎSĬTUS. Compound Powder of Jalap. (*Jalapæ* unc.v.; *Potassæ Tartratis Acidæ* unc.ix.; *Zingiberis* unc.j. Rub them well together, and pass through a fine sieve.)
Oper.—Purgative, hydragogue.
Use.—In costiveness, particularly of children with a tumid belly; in worm cases, in dropsy, and in cardiac affections.
Dose.—Gr.xx. to gr.xl. for adults; gr.vij. to gr.xij. for children.

PULVIS KINO COMPŎSĬTUS. Compound Powder of Kino. Pulvis Kino cum Opio (1864). *Kino* unc.iij.¾; *Cinnam.* unc.j.; *Opii duri* unc.¼. Rub each separately to a fine powder, and then mix.) Gr.xx. contain gr.j. of opium.
Oper.—Astringent and sedative.
Use.—In chronic diarrhœa, pyrosis, leucorrhœa, and uterine and intestinal hæmorrhages.
Dose.—Gr.v. to gr.xx. in aqueous fluids.

PULVIS OPĬI COMPŎSĬTUS. Compound Powder of Opium. (*Opii* unc.jss.; *Piperis Nigri* unc.ij.; *Zingiberis* unc.v.; *Carui* unc.vj.; *Traga-*

canth. unc.ss. Reduce to a fine powder and keep in a stoppered bottle.) This powder nearly represents the dry ingredients of Confectio Opii Lond. Gr.x. contain gr.j. of opium.

Oper.—Narcotic, stimulant.

Use.—In atonic gout, flatulent colic, colliquative diarrhœa; in the chalk mixture.

Dose.—Gr.ij. to gr.v.

Off. Prep.—*Confectio Opii.*

PULVIS RHĔI COMPŎSĬTUS. Compound Powder of Rhubarb. (*Rhei Radicis* unc.ij.; *Magnesiæ Levis* unc.vj.; *Zingiberis* unc.j. Reduce to powder and mix.)

Prop.—Purgative and antacid.

Use.—In a dyspeptic state of the stomach, attended with acid eructations.

Dose.—Gr.xx. to gr.xl.

PULVIS SCAMMŌNII COMPŎSĬTUS. Compound Powder of Scammony. (*Scammonii* unc.iv.; *Jalapæ* unc.iij.; *Zingiberis Rad.* unc.j. Rub each separately to a fine powder, and then mix.)

Oper.—Cathartic.

Use.—In hydropic and worm cases; and to remove mucous obstructions in children.

Dose.—Gr.v. to gr.xx.

PULVIS TRAGĂCANTHÆ COMPŎSĬTUS. Compound Powder of Tragacanth. (*Tragacanthæ cont.*, *Acaciæ cont.*, *Amyli*, *sing.* unc.j.; *Sacch. pur.* unc.iij. Rub the starch and sugar together, then add the tragacanth and acacia gum, and mix.) The starch might be omitted, as it is not soluble in cold water.

Oper.—Demulcent.

Use.—In hectic fever; catarrh attended with tickling cough; combined with nitre, in gonorrhœa and strangury; and with ipecacuanha powder, in dysentery.

Dose.—Gr.xx. and upwards, in distilled water, or any bland fluid. Gr.x. render fl.unc.ij. of fluid mucilaginous.

PYRETHRI RADIX. Pellitory Root. (Anacyclus Pyrethrum. *Syngenesia Superflua.* N.O. *Compositæ* (*Asteraceæ*). Levant. ♂)

Prop.—In pieces about the length and thickness of the little finger, covered with a thick brown bark studded with black shining points. Fracture resinous; internal structure radiated. Inodorous; taste hot and acrid, its acrimony depending on an acrid resin *Pyrethrin.* The dried is more acrid than the recent root.

Oper.—Stimulant, sialogogue.

Use.—In some affections of the head (by exciting a flow of saliva); in strumous swellings of the tonsils; toothache, neuralgia, rheumatism, and palsy of the mouth and throat. It is also used in infusion as a gargle.

Off. Prep.—*Tinctura Pyrethri.*

PYROXŸLIN. Gun Cotton. (Prepared by the action of nitric and sulphuric acids on cotton wool.)

Comp.—$C_{36}H_{22},8NO_4,O_{30}$.

Prop.—Soluble in a mixture of ether and rectified spirit, and leaves no residue on explosion.

Use.—To make collodion.

QUASSĬÆ LIGNUM. Quassia Wood. Picræna *excelsa.* (*Polygamia Monœcia.* N.O. *Simarubaceæ.* Jamaica. ♄)

Prop.—Inodorous; taste a very intense, durable bitter; colour whitish yellow; has no astringency; bitter principle (*Quassite* or *Quassin*) extracted by water and alcohol.

Oper.—Tonic, stomachic, and, according to some, narcotic.

Use.—In atonic dyspepsia; intermittents; bilious fever, combined with neutral acids; lienteria and cachexia; in hysteria, united with tincture of valerian; and with cretaceous powder and ginger in gout.

Dose.—Of the raspings gr.v. to gr.xxx., but infusion and extract are preferable forms of exhibiting it.

Incomp.—Nitrate of silver, acetate of lead.

Off. Prep.—*Infusum Quassiæ. Extractum Quassiæ. Tinctura Quassiæ.*

QUERCUS CORTEX. Oak Bark. The dried bark of the small branches and young stems, collected in spring. (Quercus *pedunculata*. Q. Robur. *Monœcia Polyand.* N. O. *Cupuliferæ.* (*Corylaceæ, Lindley.*) Britain. ♄)

Comp.—Tannin or tannic acid, with, perhaps, a small quantity of gallic acid.

Prop.—Covered with a greyish, shining epidermis; cinnamon-coloured on the inner surface; fibrous; brittle; inodorous; taste austere, styptic; differs from galls in not precipitating solutions of tartar emetic.

Oper.—Tonic, astringent.

Use.—In intermittents, combined with galls, bitters, and aromatics; useful also in form of lotion in leucorrhœa, and alvine fluxes, and as a gargle in relaxed states of the throat. See *Decoction.*

Dose.—Of the powder, gr.x. to gr.xxx. twice or thrice a day.

Off. Prep.—*Decoctum Quercus.*

QUINĬÆ SULPHAS. Sulphate of Quinia. (*Cinchonæ flavæ contritæ* lb.j.; *Acidi Hydrochlorici* fl.unc.iij.; *Aquæ destillatæ* q.s.; *Liquoris Sodæ* Oiv.; *Acidi Sulphurici dil.* q.s. Macerate the bark in a portion of the sulphuric acid, and having placed it in a percolator, add the hydrochloric acid diluted, and pour the solution of soda into the percolated fluid; collect the precipitate, redissolve in sulphuric acid, and again set apart for crystallisation.)

Comp.—1 eq. of quinia = 324+1 water = 9+1 sulph. acid = 40+7 water 63, 436. $(C_{40}H_{24}O_4N_2)HO,SO_3,7HO$ or $(\mathbf{C_{20}H_{24}N_2O_2})_2\mathbf{H_2SO_4}.7\mathbf{H_2O}$.

Prop.—Crystals filiform, silky, snow-white, bitter, inodorous, effloresce in the air. One part requires 740 parts of cold water, 30 of boiling, 80 of cold alcohol, for its solution; sp. gr. ·850. Soluble in water acidulated with sulphuric acid. 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, it becomes of a splendid emerald-green colour. If ammonia be added to a solution in acidulated water, quinia is precipitated, and the residue, after evaporation, ought not to taste sweet. Redissolved by agitation, with fl.unc.ss. of pure ether, without the production of any crystalline matter, floating on the lower of the two strata into which the agitated fluid separates on rest. 100 gr. of sulphate of quinine yield by a gentle heat 8 or 10 gr. of water. At a higher temperature it burns without residue. When freshly prepared chlorine followed by ammonia is added, it becomes green. From 100 gr. dissolved in water acidulated with hydrochloric acid, 26·6 gr. of sulphate of barytes may be obtained by the addition of chloride of barium, and the application of a red heat. In large doses it produces cinchonism, regarded by some in tropical climates as the proper therapeutic action of the medicine.

Oper.—Tonic, antiperiodic.
Use.—In intermittents; neuralgia; atonic inflammation, as erysipelas; strumous ophthalmia; and debility. It is the best and most certain preparation of bark. Its tendency to produce headache may be counteracted by a grain of capsicum.
Dose.—Gr.j. to gr.x. in any simple bitter infusion. Gr.xx. every three or four hours till the supervention of cinchonism.
Incomp.—Alkalies and their carbonates, lime-water, salts of baryta, lime, nitrate of silver, and salts of lead.
Off. Prep.—*Ferri et Quiniæ Citras. Pilula Quiniæ. Tinctura Quiniæ. Vinum Quiniæ.*

RESĪNA. Resin. (Pinus and Abies. The residue, after the distillation of turpentine, to procure the volatile oil.)
Prop.—Translucent, yellowish, brittle, pulverisable; fracture shining; odour and taste faintly terebinthinate.
Oper.—Stimulant.
Use.—In the composition of plasters and ointments.
Off. Prep.—*Charta Epispastica. Emplastrum Cantharidis. Emplastrum Calefaciens. Emplastrum Hydrargyri. Emp. Picis. Emplastrum Resinæ. Emp. Saponis. Unguentum Resinæ. Unguentum Terebinthinæ.*

*RESĪNA ALBA. E. White Resin. (Pinus *sylvestris*. The Scotch Fir. ♄) Exudes from wounds of the bark.
Prop.—Little odour or taste; semi-transparent; insoluble in water; soluble in alcohol, in oils, both fixed and volatile, and alkalies; pulverulent.
Oper.—Stimulant, diuretic, rubefacient.
Use.—Very seldom employed internally; but chiefly to render more adhesive and stimulating various plasters.

RHAMNI SUCCUS. Buckthorn Juice. The recently expressed juice of the ripe berries. (Rhamnus Catharticus. *Pentandria Monogynia*. N. O. *Rhamnaceæ*. Indigenous. ♄)
Prop.—Odour faint and disagreeable; taste bitterish and nauseous; the berries are the size of a pea; have four seeds; the juice stains paper green.
Oper.—Drastic, hydragogue, cathartic.
Use.—In the same cases as jalap and senna, but inferior to them. Its operation must be assisted with copious dilution, as it excites much thirst and griping.
Dose.—Of the recent berries gr.xx.; of the dried gr.lx. to gr.cxx.; of the expressed juice fl.unc.ss. to fl.unc.j.
Off. Prep.—*Syrupus Rhamni.*

RHEI RADIX. Rhubarb Root. (Rheum, but species not determined. *Enneand. Monogynia*. N. O. *Polygonaceæ*. China, Thibet, and Tartary. ♄) The best comes through Russia in flat perforated pieces.
Comp.—Rhabarberic or chrysophanic acid or rhein, on which its virtues depend, oxalate of lime, tannic acid, a gum.
Prop.—Odour aromatic, peculiar, rather nauseous; taste somewhat aromatic, subacrid, bitterish, astringent; feels gritty between the teeth; colours the saliva and urine saffron-yellow; not very mucilaginous. Pieces firm, but not flinty; external colour a clear yellow; fracture rugged, veined yellow, red, and white; easily pulverised: forming a powder of a fine bright buff-yellow colour; free from decay, not worm-eaten. Boracic acid does not turn the yellow exterior brown. Both water and spirit extract its virtues.
Oper.—Purgative, stomachic, astringent.

Use.—In costiveness, from laxity of bowels, particularly of children; and diarrhœa. It is a useful adjunct to neutral salts and calomel, rendering their operation more easy. Externally the powder is sprinkled over ulcers, to assist their granulation and healing.

Dose.—Gr.v. to gr.xxx. of the powder to open the bowels; gr.iij. to gr.x. to act as a stomachic.

Off. Prep.—*Extractum Rhei. Infusum Rhei. Pilula Rhei Composita. Pulvis Rhei Compositus. Syrupus Rhei. Tinct. Rhei. Vinum Rhei.*

RHŒĂDOS PETĂLA. Papaver Rhœas, Petala. Petals of the Red Poppy. (Papaver *Rhœas. Class and Order as Pap. somniferum.* Indigenous. ☉)

Use.—Chiefly to impart their fine red colour to syrup.

Off. Prep.—*Syrupus Rhœados.*

RICĬNI OLĔUM. See *Oleum Ricini.*

ROSÆ CANĪNÆ FRUCTUS. Rosæ Caninæ Fructus. Dog Rose or Hip Pulp. (*Icosand. Polygyn.* N. O. *Rosaceæ.* Indigenous. ♄)

Prop.—An inch or more in length, ovate, scarlet, smooth, shining, inodorous; taste sweet, acidulous, depending on the presence of uncombined citric acid and sugar.

Oper.—Cooling.

Use.—Vide *the Confection.*

Off. Prep.—*Confectio Rosæ Caninæ.*

ROSÆ CENTIFOLĬÆ PETĂLA. Cabbage Rose Petals. (*Class and order as above.* Britain. ♃)

Prop.—Odour extremely fragrant; taste subacidulous.

Oper.—Laxative.

Use.—Scarcely used for any purpose except for the distillation of rose-water, and the formation of a syrup.

Off. Prep.—*Aqua Rosæ.*

ROSÆ GALLĬCÆ PETĂLA. Unexpanded petals of the Red Rose, fresh and dried. (*Class and order as above.* Britain. ♄)

Prop.—Odour less fragrant than that of the damask rose; taste bitterish, astringent.

Oper.—Astringent, tonic.

Use.—See the preparations of it.

Off. Prep.—*Confectio Rosæ. Infusum Rosæ Acidum. Syrupus Rosæ Gallicæ.*

*ROSMARĪNUS. Rosmarinus officinalis. Rosmarini Oleum. Rosemary. (*Diandria Monogyn.* N. O. *Labiatæ.* (*Lamiaceæ, Lindley.*) South of Europe. ♃)

Prop.—Odour fragrant, grateful; taste aromatic, warm, bitterish; depending on an essential oil, combined with camphor.

Oper.—Tonic, stimulant, emmenagogue, resolvent.

Use.—In nervous headaches, and in chlorosis, under the form of infusion; but it is now scarcely ever used, unless as an adjunct, to give odour to sternutatory powders; much recommended in hair-washes for its stimulant and cleansing properties.

Dose.—Of the powders gr.x. to gr.xxx.

*ROSMARĪNI OLEUM. See *Oleum Rosmarini.*

RUTÆ OLEUM. See *Oleum Rutæ.*

SABĂDILLA. Cevadilla. The dried fruit. (Asagræa *officinalis. Hex-and. Trigyn.* N. O. *Melanthaceæ.* Vera Cruz Mexico.)

Prop.—Seeds elongated, pointed, inodorous; taste bitter, acrid (in small capsules, three together).

Comp.—Gallate of veratria, cevadic acids, eläine, steärine, wax.
Oper.—Cathartic, excitant, anthelmintic.
Use.—In cases of tænia and ascarides on the Continent; seldom in England; used in the form of powder to destroy pediculi.
Off. Prep.—*Veratria.*

SABĪNÆ CACŪMĬNA. Savine Tops. (Juniperus *Sabina. Diœcia Monadelphia.* N. O. *Coniferæ* or *Pinaceæ.* Britain. ♃)
Prop.—Twigs densely covered with minute imbricated appressed leaves in four rows. Odour strong, disagreeable; taste hot, acrid, bitter; depending on an essential oil.
Oper.—Stimulant, diaphoretic, emmenagogue, anthelmintic, escharotic.
Use.—In amenorrhœa with a languid pulse, but they require to be cautiously administered; in worms, and in gout. Externally, the powder is applied to old ulcers, carious bones, &c.; and the infusion, as a lotion, to gangrene, scabies, and tinea capitis.
Dose.—Gr.iv. to gr.x. of the powder.
Off. Prep.—*Oleum Sabinæ. Tinctura Sabinæ. Unguentum Sabinæ.*

SABĪNÆ OLĔUM. See *Oleum Sabinæ.*

SACCHĂRUM PURĬFĬCĀTUM. S. commune, officinarum, purificatum, purum. Sugar. (Saccharum *officinarum.* The Sugar Cane. *Triand. Digyn.* N.O. *Graminaceæ.* West Indies. ♃)
Comp. — Oxygen 50·8, carbon 42·85, hydrogen 6·35 parts = 100·0. $(C_{12}H_{11}O_{11})$ or $\mathbf{C_{12}H_{22}O_{11}}$.
Prop.—In its pure state it is inodorous; taste perfectly sweet, of a brilliant white colour, hard; when impure it has a peculiar taste and flavour arising from extract, mucilage, and oil; in shining grains of a yellow colour. Sugar is soluble in its own weight of water at 60°; also in alcohol; it is decomposed by the strong acids; but unites with lime and the alkalies; boiled with water it forms a syrup.
Oper.—Nutritive; the impure is laxative; externally the refined is escharotic.
Use.—Seldom given internally with a medical intention, unless to conceal the unpleasant taste of some medicines. It is said to be a preventive of worms. Externally it is applied to fungous ulcers. Hurtful to bilious and hypochondriacal habits and dyspeptics.
Off. Prep.—*Confectio Rosæ Gallicæ. Conf. Rosæ Caninæ. Conf. Sennæ. Ferri Carbonas Saccharata. Liq. Calcis Saccharatus. Mist. Ferri Comp. Mist. Guaiaci. Pilula Ferri Iodidi. Pulvis Cretæ Aromaticus. Pulv. Amygdalæ Comp. Pulv. Tragacanthæ Comp. Syrupi et Trochisci Omnes.*

SACCHĂRUM LACTIS. Sugar of Milk. (Obtained by evaporation of the whey of Cows' milk.)
Comp.—$C_{24}H_{24}O_{24}$; or $(C_{24}H_{19}O_{19}+5HO)$ $\mathbf{C_{12}H_{24}O_{12}}$.
Prop.—In cylindrical masses, crystallised on cord or wood; greyish-white, translucent, hard; slightly sweetish; soluble in six times its weight of water, but not in alcohol or ether. It does not undergo alcoholic fermentation.
Oper.—Laxative, nutritive.
Use.—In the preparation of medicines, especially powders.

*SAGO. Sago. (*Sagus lævis Rumphii, Cycas circinalis*, and other species of palm. *Monœcia Polyandria.* N. O. *Palmæ.*) A modification of starch, containing traces of chloride of sodium.
Oper.—Demulcent and nutritious.
Use.—As an article of diet in fevers, &c.

SAMBŪCI FLŌRES. Sambucus nigra. Common Elder Flowers. (*Pentand. Trigyn.* N.O. *Caprifoliaceæ.* Indigenous. ♄)

Prop.—Flowers small, white; crowded in large cymes. Odour of the flowers sickly; of the fruit the same, but weaker; bark inodorous; taste of the flowers bitterish; the fruit sweetish, slightly acidulous, arising from malic acid; the bark at first sweetish, then bitter, acrid, nauseous.

Oper.—Flowers diaphoretic, discutient; berries aperient, sudorific; bark purgative, hydragogue, deobstruent in small doses.

Use.—The flowers in fomentations, to yield their flavour to water in distillation, and to form a cooling ointment; the berries, or their expressed juice, in febrile diseases, rheumatism, arthritic cases, and the exanthemata; the bark in dropsy and hæmorrhoids. Seldom used except in the form of the ointment and the water.

Dose:—Of the juice of the berries fl.unc.j. to fl.unc.ij.; of the bark gr.v. to gr.xx. three times a day.

Off. Prep.—*Aqua Sambuci.*

SANTONĬCA. Santonica. The unexpanded flower heads. (Artemisia. Undetermined species. *Syngenesia, Polygamia Superflua.* N.O. *Compositæ.* Russia. ♃)

Prop.—The flower heads resemble seeds, about one line in length, fusiform, blunt at the ends; greenish-brown, smooth, consist of imbricated involucral scales with green mid-rib; strong odour; bitter camphoraceous taste; owing to the presence of a volatile oil and santonin.

Oper. and Use.—See *Santoninum.*

Dose.—Gr.x. to gr.lx.

SANTONINUM. Santonin. A crystalline neutral principle obtained from Santonica.

Comp.—$C_{30}H_{18}O_6$ or $\mathbf{C_{15}H_{18}O_3}$.

Prop.—Colourless flat rhombic prisms, slightly bitter, inodorous, fusible, sublimable by a moderate heat; scarcely soluble in cold, sparingly in boiling water, but abundantly so in chloroform, rectified spirit, and ether. It is converted into succinic acid by nitric acid. Sunlight renders it yellow. Entirely destructible by a red heat with free access of air.

Oper.—Anthelmintic.

Use.—To remove the round worm or lumbricus.

Dose.—Gr.ss. to gr.iij. for a child; gr.iij. to gr.x. for an adult.

SAPO DURUS. S. hispanicus. Hard Soap. Made with olive oil and soda.

Comp.—Recent oil 60·94, soda 8·56, water 30·50, in 100 parts.

Prop.—Greyish-white, dry, inodorous; horny and pulverisable when kept dry and warm; easily moulded when heated; imparts no oily stain to paper; taste alkalescent, nauseous; soluble in water and in alcohol.

Oper.—Purgative, diuretic; externally detergent, stimulant.

Use.—In habitual costiveness and jaundice, in pills, combined with rhubarb, or some bitter extract; but it is more useful externally to bruises and sprains. We have found much advantage from rubbing the bowels of children, in mesenteric fever attended with tumid bellies, with a strong lather of soap every morning.

Dose.—Gr.v. to gr.xxx. in pills.

Incomp.—Acids, earths, metallic salts, and alum; astringent vegetables and hard water decompose solutions of soap.

Off. Prep.—Emplastrum Resinæ. Emplast. Saponis. Extractum Colocynthidis Comp. Lin. Potassii Iodidi cum Sapone. Liniment. Saponis. Pil. Aloes Barbad. Pil. Aloes et Assafœtidæ. Pil. Aloes Soc. Pil. Cambogiæ Comp. Pil. Rhei Comp. Pil. Saponis Comp. Pil. Scillæ Comp.

SAPO MOLLIS. Soft Soap. (Prepared by boiling oil with caustic potassa.) Common soft soap, made from fish, suet, and potash, is on no account to be used instead of soap made of olive oil and potash.

Prop.—Consistence of hog's lard; other properties the same as the hard.

Oper. and *Use.*—As the hard; but scarcely ever given as an internal remedy.

Off. Prep.—Linimentum Terebinthinæ.

SARSÆ RADIX. Jamaica Sarsaparilla. (Smilax *officinalis. Diœcia Hexand.* N.O. *Smilaceæ.* Jamaica. ♄)

Comp.—A volatile oil lost in drying; smilacin, a white crystallisable substance obtained from the bark, and starch.

Prop.—Roots not thicker than a goose quill, generally many feet in length; reddish-brown, covered with rootlets, and folded in bundles about 18 feet long. Inodorous; taste bitterish, feculaceous; fibrous, of a brownish colour externally, white within.

Oper.—Diaphoretic, diuretic, demulcent.

Use.—In the sequelæ of syphilis, when, after a mercurial course, nocturnal pains, enlargements of the joints, and cutaneous ulcerations remain; in scrofula; elephantiasis, or cutaneous affections resembling it; chronic rheumatism.

Dose.—Gr.xx. to gr.lx. of the powder, or made into an electuary, three times a day. See *Decoct.*

Off. Prep.—Decoctum Sarsæ. Decoctum Sarsæ Comp. Extractum Sarsæ liquidum.

SASSĂFRAS RADIX. *Lignum, Radix.* Sassafras Wood and Root dried. (Sassafras *officinale. Laurus Sassafras. Enneandria Monogynia.* N. O. *Lauraceæ.* North America. ♃)

Prop.—In branched pieces, sometimes 8 inches in diameter at the crown; bark externally greyish-brown, internally rusty-brown; odour not unlike that of fennel; taste aromatic, subacrid, sweetish: depending on a volatile oil.

Oper.—Stimulant, sudorific, diuretic.

Use.—In cutaneous diseases; chronic rheumatism; and as an adjunct to the decoctions of guaiac, &c.

Off. Prep.—Decoctum Sarsæ Compositum.

SCAMMŌNĬÆ RADIX. Scammony Root dried.

SCAMMŌNĬÆ RESĪNA. Resin of Scammony. (Obtained by means of rectified spirit from Scammony Root or Scammony.)

Prop.—In brownish translucent pieces, brittle, fracture resinous, odour fragrant. It cannot form singly an emulsion with water. Its tincture does not render fresh cut surface of potato blue. Soluble in ether.

Oper.—Drastic, hydragogue, cathartic.

Use.—In obstinate constipation, worms, dropsy.

Dose.—Gr.iij. to gr.viij.

Off. Prep.—Ext. Colocynthidis Compositum. Mistura Scammonii.

SCAMMŌNĬUM. Scammony. (Gum-resin obtained from Convolvulus Scammonia. *Pentandria Monogynia.* N. O. *Convolvulaceæ.* Mexico. ♄) The best comes from Aleppo.

Prop.—Odour trifling, but unpleasant; taste bitter, acrid; in blackish-grey fragments, becoming whitish-yellow when touched with wet fingers; porous, fragile; fracture shining. No bubbles are given off when hydrochloric acid is dropped on it; nor does the watery solution at 170°, treated with iodide of potassium and nitric acid, become blue. 78 gr. per cent. ought to be dissolved in ether.
Comp.—Resin 11 parts, gummy extract 3½.
Oper.—Drastic, hydragogue, cathartic.
Use.—In obstinate costiveness, worms, dropsy.
Dose.—Gr.iij. to gr.xv. triturated with sugar, or with almonds.
Off. Prep.—*Confectio Scammonii. Pilula Calocynthidis Composita. Pulvis Scam. Comp. Resina Scammonii.*

SCILLA. The Bulb of the Squill sliced and dried. (Urginea Scilla. (Scilla Maritima.) *Hexand. Monogyn.* N. O. *Liliaceæ.* Mediterranean coasts. ♃)
Prop.—Inodorous; taste bitter, nauseous, extremely acrid; inflames the skin when rubbed on it; the bulb is pear-shaped, large and lamellated. The dried slices are white, or yellowish-white, slightly transparent when dry, brittle and easily pulverisable, but recovering moisture on exposure. The acrimony, on which its virtue depends, is destroyed by heat, drying, and keeping; extracted by vinegar, spirit, and water.
Oper.—Emetic in large doses and purgative; in small doses expectorant and diuretic. It owes its properties to a peculiar principle, which has been named *Scillitina.*
Use.—In pulmonary complaints, after the inflammatory action is reduced; humoral asthma; pertussis; in dropsy; and more useful if combined with a mercurial.
Dose.—Gr.j. to gr.v. of the dried root, powdered, and united with nitre or ipecacuanha; or in pills, to produce diuresis, united with the blue pill.
Incomp.—Gelatin, lime-water, alkaline carbonates, acetates of lead, nitrate of silver.
Off. Prep.—*Acetum Scillæ. Oxymel Scillæ. Pil. Ipecacuanha cum Scilla. Pilula Scillæ Comp. Syrupus Scillæ. Tinct. Scillæ.*
*** *To dry the squill it should be cut transversely, the rind taken off, and exposed to heat, gentle at first, but afterwards slowly increased to* 150°.

SCOPĀRĬI CACŪMĬNA. Scoparium. Broom tops, fresh and dried. (*Sarothamnus scoparius* (*Spartium scoparium*). *Monadelph. Decandria.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley.*) Indigenous. ♄) *Genistæ Cacumina.*
Prop.—Almost inodorous; taste bitter.
Comp.—Concrete volatile oil, salts of potash, lime, magnesia, and iron.
Oper.—Diuretic.
Use.—In dropsies.
Dose.—Gr.xx. to gr.lx. of the powder.
Off. Prep.—*Decoctum Scoparii. Succus Scoparii.*

SENĔGÆ RADIX. Senega Root Dried. (Polygala *Senega. Diadelph. Octand.* N. O. *Polygalaceæ.* North America. ♃) The bark is the active part of the root.
Comp.—Polygalic and virgineic acids; the former being the active principle, residing in the bark, and soluble to a great extent in hot water.
Prop.—A knotty root-stock, with a branched tap-root of about the thickness of a quill, twisted and keeled; bark yellowish-brown; inodorous; taste sweetish at first, then acrid, hot, and pungent.
Oper.—Stimulant expectorant, diaphoretic, diuretic.

Use.—In pneumonia, after the inflammatory action is reduced; humoral asthma, chronic rheumatism; dropsy; croup? The succus with carbonate of ammonia, has been found useful in lethargy.
Dose.—Gr.xxx. to gr.xl. of the powder; Madeira wine, if it can be ordered, covers the taste of the powder.
Off. Prep.—*Infusum Senegæ. Tinctura Senegæ.*

SENNA ALEXANDRĪNA, ET INDĬCA. Alexandrian and Tinnivelly. Senna. (α. *Cassia lanceolata et obovata.* β. *elongata. Decandria Monogynia.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley*). α. Alexandria. β. Southern India. ☉)
Prop.—α. Leaflets lanceolate or obovate, about an inch long, unequally oblique at the base, brittle, greyish-green; odour faint; taste mucilaginous and sweetish. The unequally oblique base and freedom from bitterness distinguish the senna from the arghel leaves, which moreover are thicker and stiffer. Active part extracted by alcohol, and by water. β. About 2 inches long, lanceolate, acute, unequally oblique at the base, flexible, entire, green, without any admixture; in odour and taste resembling the Alexandrian variety.
Comp.—Cathartin, extractive, volatile oil, and several salts.
Oper.—Hydragogue, cathartic. (It is apt to gripe.)
Use.—In habitual or occasional constipation and dropsy.
Dose.—Of the powder gr.xx. to gr.lx. rubbed with crystals of bitartrate of potassa, and united with ginger to prevent griping; but the best form is that of infusion.
Adulterations.—Leaves of Solenostemma or *arghel.* The leaves of Box and Colutea *arborescens* and Tephrosia *apollinea.*
Off. Prep.—*Confectio Sennæ. Infusum Sennæ. Mistura Sennæ Composita. Tinct. Sennæ. Syrupus Sennæ.*

SERPENTĀRĬÆ RADIX. Snake Root. (*Aristolochia Serpentaria. Gynand. Hexand.* N. O. *Aristolochiaceæ.* North America. ♃) *Serpentaria virginiana.* The dried root.
Prop.—A small roundish rhizome, with a tuft of numerous slender rootlets, about 3 inches long, yellowish; odour aromatic, similar to that of valerian; taste pungent, bitter; fibrous; its active part extracted partially only by water; altogether by proof spirit.
Oper.—Stimulant, diaphoretic, diuretic.
Use.—In typhoid fevers, and diseases of debility: to assist cinchona in the cure of intermittents; in the exanthemata, and dyspepsia; and externally as a gargle in cynanche maligna.
Dose.—Of the powder gr.x. to gr.xxx.; of the infusion fl.unc.j. every four hours.
Off. Prep.—*Tinctura Serpentariæ. Tinct. Cinchonæ C. Infusum Serpentariæ.*

SEVUM PRÆPĂRĀTUM. Prepared Suet. Adeps Ovillus. Mutton Suet. (Ovis *Aries*, the sheep; Cl. *Mammalia*, Ord. *Ruminantia.*) Adeps Ovillus Præparatus. Prepared Suet. (Cut the suet in pieces, melt it over a slow fire, and strain it through linen.)
Comp.—Stearine, oleine, and a small quantity of margarin and hircin.
Prop.—White, smooth, almost scentless, fusible at 103°.
Oper.—Emollient, nutritive.
Use.—It is sometimes boiled in milk, in the proportion of unc.j. to Oj. of milk; and a cupful given occasionally in chronic diarrhœa; but its principal use is to give consistence to ointments and plasters.
Off. Prep.—*Emplastrum Cantharidis. Unguentum Hydrargyri.*

SINĀPIS. Semina. Mustard Seed. Sinapis nigra et alba. Common

and White Mustard. (*Tetradynam. Siliquosa.* N.O. *Cruciferæ.* (*Brassicaceæ, Lindley.*) Europe. ☉)

Comp.—Sinapisin; volatile, crystallisable substance; a fixed oil; myrosine and myronic acid; the two latter under the influence of heat react on each other, producing a pungent volatile oil.

Prop.—Inodorous when entire, but when bruised and the oil pressed out, the odour developed by water is very pungent; taste bitterish, acrid; properties yielded to water; the seeds give out a bland oil by expression. There is no blue colour on the addition of tincture of iodine to the cooled decoction.

Oper.—Stimulant, diuretic, emetic, rubefacient.

Use.—In dyspepsia; a torpid state of the bowels; and chlorosis. The seed is swallowed entire, or only slightly crushed; a strong infusion of the flour is used to produce vomiting in paralysis; externally the flour is applied as a cataplasm to the chest in pulmonary affections, to the heart in painful palpitation, to the side in hysterical pain, to the legs and the soles of the feet in typhus, and comatose affections.

Dose.—Gr.xx. to gr.xxx.; or fl.unc.ij. of the following infusion:—℞ *Sinapis pulveris, Armoraciæ rad., sing.* unc.ij.; *Aq. ferventis* Oij. Infuse in a covered vessel for twelve hours; then strain and add Spir. Menthæ Piper. fl.unc.ij.

Off. Prep.—*Cataplasma Sinapis. Oleum Sinapis.*

SODA CAUSTĬCA. Caustic Soda. (Obtained by the evaporation of the Liquor Sodæ.)

Comp.—Hydrate of Soda. NaO,HO=40 or **NaHO.**

Prop.—Greyish-white fragments, alkaline and corrosive; burn with yellow flame; and nitrate of silver and chloride of barium throw down a scanty white precipitate from the aqueous solution acidulated with nitric acid. 900 grain-measures of the volumetric solution of oxalic acid will neutralise 40 grs. of caustic soda in solution.

Oper.—Escharotic.

Use.—For forming issues, and in cases where an escharotic may be required.

SODA TARTARĀTA. Tartarated Soda. Sodæ et Potassæ Tartras, 1864. Sodæ Potassio-Tartras. *Londin.* (*Sodæ Carbonatis* unc.xij. vel q.s.; *Potassæ Tartratis acidæ* unc.xvj. vel q.s.; *Aquæ destill. ferv.* Oiv. Add the tartrate gradually to the solution of the carbonate. When the solution is neutral, boil, filter, and crystallise. The basic equivalent of water is replaced by one of soda, and carbonic acid given off.)

Comp.—Tartrate of potassa 54, tartrate of soda 46 in 100 parts: or 1 eq. of tartrate of potassa=113+1 of tartrate of soda=97+8 water=72, equiv.=282. (KO,$\bar{T}$,NaO,$\bar{T}$,8HO.) or **$NaKC_4H_4O_6.4H_2O$.**

Prop.—Inodorous; taste bitter; crystals generally eight-sided prisms, the ends truncated at right angles; efflorescent; soluble in water; neutral; sulphuric acid precipitates bitartrate of potash. The precipitates with nitrate of silver and chloride of barium are soluble in water. Treated with sulphuric acid it blackens and evolves inflammable gas.

Oper.—Mild laxative.

Use.—In costiveness; well suited to cases of jaundice, calculus, and puerperal febrile conditions.

Dose.—Unc.½ to unc.j.

Incomp.—Mineral acids; acidulous salts except bitartrate of potassa; chloride of calcium; salts of lead.

SODÆ ACĒTAS. Acetate of Soda.

Comp.—Acetic acid 36·95, soda 22·94, water 40·11 in 100 parts; or 1 eq. acid=51+1 soda=31+6 water=54, equiv.=136. ($NaO,\bar{A}.6HO$) or $NaO,C_4H_3O_3+6HO$ or $\mathbf{NaC_2H_3O_2.3H_2O}$.

Prop.—Transparent colourless crystals; taste sharp, bitterish; soluble in 2·86 parts of water at 60°; neutral; the solution when diluted is not precipitated by chloride of barium or nitrate of silver; sp. gr. 2·1; effloresces in heat, but not in the air; melts in a high temperature; little soluble in alcohol.

Oper.—Purgative, diuretic, refrigerant.

Use.—In cases requiring a mild purgative; also in the same cases as acetate of potash.

Dose.—From gr.lx. to gr.ccxl. in any bland fluid, or as a diuretic, from gr.x. to gr.xx.

Incomp.—Carbonate of lime, sulphuric, nitric, and hydrochloric acids.

Off. Prep.—*Ferri Arsenias. Ferri Phosphas. Syrupus Ferri Phosphatis.*

SODÆ ARSĔNĬAS. Arseniate of Soda. (*Acidi Arseniosi* unc.x.; *Sodæ Nitratis* unc.viijss.; *Sodæ Carbonatis exsic.* unc.vss.; *Aquæ destillatæ ferventis* fl.unc.xxxv. Expose the dry ingredients finely powdered to a full red heat till fusion has taken place, and while still warm dissolve in the water and crystallise.)

Comp.—$2NaO,HO,AsO_5+14HO$ or $\mathbf{Na_2HAsO_4.7H_2O}$.

Prop.—Colourless transparent prisms, soluble in water. The chlorides of barium and calcium, and sulphate of zinc, throw down white, and the nitrate of silver a red, precipitates from the solution, soluble in nitric acid. The precipitate with silver is also soluble in excess of ammonia. It loses 40·38 per cent. of its weight at 300°.

Oper.—Similar to the Liquor Arsenicalis, but milder.

Use.—The same as the Liquor Arsenicalis, and for making the Liquor Sodæ Arseniatis.

Dose.—Gr.1-16th to gr.1-8th.

SODÆ BIBŌRAS. Biborate of Soda. See *Borax.*

SODÆ BICARBŌNAS. Bicarbonate of Soda. (Prepared from the carbonate, as the bicarbonate from the carbonate of potash.) *Sodæ Sesquicarbonas.*

Comp.—Soda 38·55, carbonic acid 39·76, water of crystallisation 21·69 parts; or 1 eq. of soda=31+2 acid=44+1 water=9, equiv.=84 ($NaO,2CO_2,HO$ or $\mathbf{NaHCO_3}$.)

Prop.—In minute crystals; less alkaline to the taste than the carbonate. Soluble in water, gives a slight brown to turmeric; neither chloride of platinum nor sulphate of magnesia, unless heat be applied, give any precipitate. The precipitate with chloride of barium is soluble in hydrochloric acid. The solution in cold water gives a white and not a coloured precipitate with perchloride of mercury. 100 gr. of this salt, when added to diluted sulphuric acid, give off 51·7 gr. of carbonic acid. It colours flame yellow. 84 gr. at a red heat leave 53 of alkaline residue, requiring for neutralisation 1000 measures of the volumetric solution of oxalic acid. 20 grs. of the bicarbonate will neutralise 16·7 grs. of citric acid, and 17·8 of tartaric acid.

Prop. and *Use.*—The same as those of the carbonate.

Dose.—Gr.x. to gr.lx.

Off. Prep.—*Liq. Sodæ Effervescens. Sodæ Citro-tartras Effervescens. Trochisci Sodæ Bicarbonatis.*

SODÆ CARBŎNAS. Carbonate of Soda. (Obtained from the ashes

of marine plants, or produced by chemical decomposition with chloride of sodium.)

Comp.—Soda 20·92, carbonic acid 14·38, water of crystallisation 64·7 parts; or 1 eq. of soda=31+1 acid=22+10 water=90, equiv. 143. ($NaO,CO_2.10HO$ or $\mathbf{Na_2CO_3.10H_2O}$.)

Prop.—Colourless, transparent laminar crystals, soluble in water; renders turmeric brown; it imparts a yellow colour to flame, and dissolves with effervescence in diluted hydrochloric acid, forming a solution which does not precipitate with perchloride of platinum. 100 gr. of carbonate of soda lose 62·5 gr. of water in a hot fire, and from the same quantity of the salt 15·28 gr. of carbonic acid are given off on the addition of dilute sulphuric acid. Inodorous; taste alkaline, but not acrid; crystals oblique octahedrons, efflorescent, requiring for their solution two parts of water at 60°; they undergo the watery fusion when exposed to heat. 143 grs. require for neutralisation at least 960 grain-measures of the volumetric solution of oxalic acid. 20 grs. of the carbonate will neutralise 9·7 grs. of citric, and 10·5 grs. of tartaric acid.

Oper.—Antacid, deobstruent.

Use.—In dyspepsia, and acidities of the stomach, united with bitters; and in scrofulous affections.

Dose.—Gr.v. to gr.xxx. twice or thrice a day.

Incomp.—Lime; acids, unless as an effervescing draught; hydrochlorate of ammonia, earthy and metallic salts.

Off. Prep.—*Liquor Sodæ. Liquor Sodæ Chloratæ. Soda Tartarata. Sodæ Arsenias. Sodæ Bicarbonas. Sodæ Carbonas exsiccata. Magnesiæ Carbonas. Magnesiæ Carbonas Levis. Sodæ Phosphas.*

SODÆ CARBŌNAS EXSICCĀTA. Sodæ Carbonas Siccatum. Dried Carbonate of Soda. (The carbonate made to undergo the watery fusion; and, when dry, reduced to powder.)

Comp.—Soda 59·86, carbonic acid 40·14 parts; or 1 eq. soda=31+1 acid =22, equiv.=53. (Chemical Symbol, NaO,CO_2 or $\mathbf{Na_2CO_3}$.)

Oper.—Antacid, lithontriptic.

Use.—In acidity of the stomach; but chiefly in calculus in the kidneys; and other affections of the urinary organs.

Dose.—Gr.iij. to gr.x. made into pills, with some aromatic powder and soap.

SODÆ CHLORĀTÆ LIQUOR. See *Liquor Sodæ Chloratæ.*

SODÆ CITRO-TARTRAS EFFERVESCENS. Effervescing Citro-Tartrate of Soda. (*Sodæ Bicarbonatis Contritæ* unc.xvij.; *Acidi Tartarici contrit.* unc.viij.; *Acidi Citrici* unc.vj. Heat the powders, thoroughly mixed, to between 200° and 220°, and when the particles begin to aggregate, stir them assiduously until they assume the granular form, and pass through suitable sieves.)

Oper.—Antacid, diuretic, refrigerant.

Use.—In pyrexia, and certain forms of dyspepsia.

Dose.—Gr.lx. to unc.$\frac{1}{2}$.

SODÆ HYPOPHOSPHIS. Hypophosphite of Soda.

Oper.—Stimulant, tonic, alterative.

Use.—In phthisis, recommended by Dr. Churchill; and also as a test for iodine.

Dose.—Gr.v. to gr.xv.

SODÆ NITRAS. Nitrate of Soda. A native salt, purified by crystallisation.

Comp.—1 eq. of soda and 1 eq. of nitric acid. (NaO,NO_5 or **$NaNO_3$.**)
Prop.—Colourless, obtuse, rhombohedral crystals, having a cooling saline taste; deflagrates; warmed in a test-tube with sulphuric acid and copper wire it evolves ruddy fumes; deliquescent, soluble in water; the nitrate of silver and chloride of barium do not, on being added to the solution, cause any precipitate.
Use.—For making the arseniate of soda.

SODÆ PHOSPHAS. Phosphate of Soda. See *Phosphas Sodæ.*

SODÆ SULPHĀS. Sulphate of Soda, or Glauber's Salts. (From the salt which remains after the distillation of hydrochloric acid, the superabundant acid being saturated with carbonate of soda.)
Comp.—Soda 19·75, sulphuric acid 24·69, water of crystallisation 55·56 parts: or 1 eq. soda = 31 + 1 acid = 40, and 10 eq. of water = 90, equiv. = 161. ($NaO,SO_3,10HO$ or **$Na_2SO_4.10H_2O$.**)
Prop.—Inodorous: taste strongly saline, and bitter, nauseous; crystals hexagonal channelled prisms, with dihedral summits; efflorescent; insoluble in spirit; soluble in three parts of water at 66°: undergoes the watery fusion. Neutral reaction. Nitrate of silver throws down scarcely any precipitate. 100 gr. lose 55·9 of water in a hot fire. Moreover, from 100 gr. dissolved in distilled water, and acidulated with hydrochloric acid, 72·2 gr. of sulphate of barytes are obtained upon the addition of chloride of barium, and the application of heat.
Oper.—Purgative; in small doses diuretic.
Use.—In costiveness, the most generally employed purgative in fevers and inflammatory affections; in bilious colics, largely diluted.
Dose.—Of the effloresced salt in powder gr.clxxx. to gr.cclx.; of the crystallised salt in solution fl.dr.vj. to fl.dr.xij.
Incomp.—Carbonas potassæ, chlorides of calcium and barium, salts of lead, of silver.

SODÆ VALERIĀNAS. Vide *Valerianas Sodæ.*

SODĬI CHLORĬDUM. Sodæ Murias purum. Chloride of Sodium. Muriate of Soda, Sea or Common Salt. (In an impure state this is one of the most abundant productions of nature.)
Comp.—Soda 54·96, hydrochloric acid 45·74 (*Berzelius*); or 1 eq. of sodium = 23 + 1 chlorine = 35·5, equiv. = 58·5. (NaCl or **NaCl.**)
Prop.—Inodorous; taste agreeable, salt; crystals cubes; soluble in three parts of water; permanent in the air; decrepitates when exposed to heat. Gives a yellow colour to flame; no precipitate with perchloride of platinum, but with nitrate of silver a white precipitate, soluble in ammonia, but insoluble in nitric acid.
Oper.—Tonic, emetic, purgative, anthelmintic, externally stimulant.
Use.—In some cases of dyspepsia and worms; in sea scurvy, and purpura; in large doses to check vomiting of blood; as an ingredient in clysters; a fomentation to bruises; and, added to water, to form a stimulant bath. In the preparation of acidum hydrochloricum, hydrargyri perchloridum, and hydrargyri subchloridum.
Dose.—Gr.x. to gr.xx. In clysters unc.ss. to unc.j.
*** *Sea water owes its laxative qualities to this salt.* 100 *parts of water taken from the ocean contain at an average* 1·24*th of salt; or common salt* 3·25*th, hydrochlorate of magnesia* 0·64, *sulphate of lime* 0·11.

SOLŪTIO ACĬDI BORĀCĬCI. Solution of Boracic Acid. (BO_3 + 3HO.)
Use.—As a test to detect the presence of turmeric in rhubarb.

SOLŪTIO ACĬDI TARTARĬCI. Solution of Tartaric Acid. (One

ounce of tartaric acid dissolved in eight ounces of distilled water, with two ounces of rectified spirit.)

Use.—As a test to detect the presence of potash; and as a means of preventing the precipitation of oxide of antimony when an acid solution of the metal is added to water.

SOLŪTIO ALBŪMĬNIS. Solution of Albumen. (White of egg triturated with water and filtered.) This solution must be recently prepared.

Use.—As a test for phosphoric acid and creosote, being coagulated by the latter, but not affected by the (tribasic) phosphoric acid.

SOLŪTIO AMMŌNIÆ CARBONĀTIS. Solution of Carbonate of Ammonia. (*Ammoniæ Carbonatis* unc.ss.; *Aquæ destillatæ* fl.unc x.)

Use.—As a test for the carbonate and oxide of zinc.

SOLŪTIO AMMŌNIÆ HYDROCHLORĀTIS. Solutio Ammonii Chloridi. Solution of the Hydrochlorate of Ammonia. (One ounce of the chloride of ammonium dissolved in ten ounces of distilled water.)

Use.—As a test for magnesia, the carbonate and sulphate of magnesia, and chloride of sodium.

SOLŪTIO AMMŌNIÆ OXALĀTIS. Solution of Oxalate of Ammonia. (NH_4O,C_2O_3+HO.) (Dissolve unc.ss. of the crystals of oxalate of ammonia (prepared by neutralising the solution of oxalic acid with carbonate of ammonia) in a pint of warm distilled water.)

Use.—As a test for the presence of lime.

SOLŪTIO AMMONĬI SULPHĬDIS. Solution of Sulphide of Ammonium. (NH_4S,SH.) (Prepared by saturating liquor ammoniæ with sulphuretted hydrogen.)

Use.—As a test to detect the presence of various metals, to distinguish the neutral salts of antimony from those of arsenic, giving rise with the former to an orange-red precipitate, soluble in excess, while there is no precipitate with the latter. Salts of mercury, silver, lead, copper, bismuth, tin, gold, and platinum, give rise to brown or black precipitates. Those from the protoxide of tin and peroxide of gold and platinum are soluble in excess of the reagent; that from tin requires a large excess.

SOLŪTIO ARGENTI AMMŌNĬO-NITRĀTIS. Solution of the Ammonio-Nitrate of Silver. (Prepared by adding liquor ammoniæ to a solution of nitrate of silver.)

Comp.—Ammonio-nitrate of silver (AgO,NO_5+2NH_3) and water.

Use.—As a test for arsenious and phosphoric acids, giving a yellow precipitate of arsenite and phosphite of silver, soluble in ammonia and nitric acid.

SOLUTIO AURI CHLORĬDI. Solution of Terchloride of Gold. (*Auri puri* gr.lx.; *Acidi Nitrici* fl.unc.jss.; *Acidi Hydrochlorici* fl.unc.vij.; *Aquæ destillatæ q.s.* The gold is dissolved in dilute nitro-hydrochloric acid; add more acid, evaporate at a heat not exceeding 212° until acid vapours cease to be given off, and dissolve the terchloride ($AuCl_3$) in fl.unc.v. of water.)

Use.—As a test of atropia, which forms with it a double salt, the chloride of gold and atropia.

SOLŪTIO BARĬI CHLORĬDI. See *Liquor Barii Chloridi.*

SOLŪTIO BROMINII. Solution of Bromine. (Ten min. of bromine dissolved in fl.unc.v. of distilled water.)

Use.—As a test to detect the presence of iodine in the bromide of potassium.

SOLŪTIO CALCĬI CHLORĬDI. Solution of Chloride of Calcium (*Calcii Chloridi* unc.j.; *Aquæ destillatæ* fl.unc.x.)

Use.—To detect the presence of citric acid in citrate of potash. The citrate of lime is insoluble in hot water, but soluble in cold. Used also as a test for arseniate of soda.

SOLŪTIO CALCII CHLORĬDI SATURĀTA. (336 gr. of chloride of calcium dissolved in unc.j. of distilled water.)

Use.—As a test for the purity of nitrous ether.

SOLŪTIO CALCIS SULPHĀTIS. Solution of Sulphate of Lime. (Put ½ ounce of sulphate with fl.unc.ij. of water in a mortar, then shake it up well with water added to make a pint. Allow the undissolved lime to settle, and pour off the clear solution.)

Use.—As a test to detect oxalic acid.

SOLŪTIO CUPRI ACĒTĀTIS. Solution of Acetate of Copper. (Prepared from the subacetate of copper by the means of diluted acetic acid.)

Comp.—CuO,Ā,+HO, dissolved in water.

Use.—For detecting the presence of butyric acid in Valerianate of Zinc; the suspected salt is first distilled with sulphuric acid; if butyric acid be present, the butyrate of copper, a bluish-white salt, is produced.

SOLŪTIO CUPRI AMMŌNĬO-SULPHĀTIS. Solution of Ammonio-Sulphate of Copper. (Prepared by adding liquor ammoniæ to a solution of sulphate of copper.)

Comp.—Ammonio-sulphate of copper (CuO,SO_3+2NH_3,HO) and water.

Use.—As a test for arsenious acid, giving a green precipitate (Scheele's green), soluble in excess of ammonia.

SOLŪTIO FERRI SULPHĀTIS. Solution of Sulphate of Iron. (Ten gr. of granulated sulphate of iron dissolved in fl.unc.j. of boiling distilled water.)

Use.—As a test to detect the presence of nitric acid.

SOLŪTIO HYDRARGŸRI PERCHLORIDI. Solution of Perchloride of Mercury. (*Hydrargyri Perchloridi* gr.c.; *Aquæ destillatæ* fl.unc.v.)

Use.—To coagulate albumen, and as a test for iodid : of potassium.

SOLŪTIO ICHTHŸOCOLLI. Solution of Gelatine. (50 gr. of isinglass dissolved in fl.unc.v. of warm distilled water and filtered.)

Use.—As a test to distinguish tannic from gallic acid, with the latter giving no precipitate, but with the former a yellowish-white one.

SOLUTIO INDĬGO SULPHĀTIS. Solution of Sulphate of Indigo. (*Indigo* gr.v.; *Acidi Sulphurici* fl.unc.x. Digest the indigo in a drachm of sulphuric acid in a water-bath, then pour the blue liquid into the remainder of the acid, shake the mixture, allow the sediment to settle, and decant the clear liquid.)

Comp.—Sulphate of indigo ($HO,C_{16}H_4NO,2SO_3$) and water.

Use.—As a test to detect the presence of chlorine.

SOLŪTIO MAGNĒSĬÆ AMMŌNĬO-SULPHĀTIS. Solution of Ammonio-Sulphate of Magnesia. (Prepared by adding ammonia to the sulphate of magnesia and chloride of ammonium in solution.)

Comp.—Ammonio-sulphate of magnesia and water. (MgO,SO_3+NH_4O,SO_3+6HO.)

Use.—As a test for the phosphate of ammonia, and also to determine the presence of phosphoric acid in the phosphate of iron.

SOLŪTIO PLATĬNI PERCHLORĬDI. Solution of Perchloride of

Platinum. (Prepared by adding water to a solution of platinum in nitro-hydrochloric acid.)

Use.—As a test to detect the presence of potash and ammonia, separating the soda. Also as a test for nicotine, forming a double chloride of platinum and nicotine of a yellow colour.

SOLŪTĬO POTASSÆ ACĒTĀTIS. Solution of Acetate of Potash.

Comp.—Acetate of Potash (KO,Ā) dissolved in water.

Use.—To distinguish tartaric from citric acid; forming, with the former, the bitartrate, but giving no precipitate with the latter.

SOLŪTIO POTASSÆ IODĀTIS. Solution of Iodate of Potash. (Place a mixture of 50 gr. each of iodine and chlorate of potash, rubbed to a fine powder, in a Florence flask, pour on it unc.ss. of water acidulated with min.v. of nitric acid, and digest at a gentle heat till the colour of the iodine disappears, boil for a minute, then evaporate to dryness in a capsule at 212°. Finally, dissolve the residue in unc.x. of water and filter.) (KO,IO_5.)

Use.—To test the purity of acetic acid, viz. its freedom from sulphurous acid.

SOLŪTIO POTASSĬI FERRIDYCANĬDI. Solution of Ferridcyanide of Potassium. Red Prussiate of Potash. (A quarter of an ounce of the crystals of the ferridcyanide in fl.unc.v. of distilled water.

Use.—As a test for the protoxide of iron, and as a means of distinguishing the proto- from the persalts of iron.

SOLŪTIO POTASSII FERROCYANĬDI. Solution of the Ferrocyanide of Potassium. Yellow Prussiate of Potash. (A quarter of an ounce dissolved in fl.unc.v. of distilled water.)

Use.—As a test to detect many metals in their salts, i.e. iron, copper, manganese, tin, bismuth, antimony, mercury, &c.

SOLŪTIO POTASSII IODĬDI. Solution of Iodide of Potassium. (One ounce of iodide of potassium dissolved in unc.x. of water.)

Use.—As a test for the presence of lead in the oxide, acetate, and carbonate.

SOLŪTĬO SODÆ ACĒTĀTIS. Solution of Acetate of Soda.

Comp.—Acetate of Soda ($NaO,Ā+6HO$) dissolved in water.

Use.—As a test for the precipitated phosphate of lime.

SOLŪTIO SODÆ PHOSPHĀTĬS. Solution of Phosphate of Soda. (One ounce of the crystals of phosphate of soda dissolved in ten ounces of water.)

Use.—As a test for magnesia and lithia.

SOLŪTIO STANNI CHLORĬDI. Solution of Chloride of Tin. (Prepared by the action of dilute hydrochloric acid on granulated tin, and the subsequent application of heat, and the addition of distilled water. It is a protochloride of tin.)

Use.—To precipitate mercury from its combinations.

*SOLŪTIO SULPHĀTIS ZINCI. E. Solution of Sulphate of Zinc. (*Sulphatis Zinci* gr.xvj.; *Aquæ* fl.unc.viij.; *Acidi Sulphurici diluti* gr.xvj. Dissolve the sulphate, then add the water, and filter through paper.)

Oper.—Astringent.

Use.—As a lotion in the latter stage of ophthalmia; and an injection in gonorrhœa.

SOLŪTIO VOLUMETRĬCA ACĬDI OXALĬCI. Volumetric Solution of Crystallised Oxalic Acid. ($2HO,C_4O_6+4HO=126$ or $H_2C_2O_4,2H_2O=126$.) Dissolve 630 grs. of oxalic acid in a 10,000 grain-flask, and

increase the water until it has the exact volume of 10,000 grain-measures. 1000 grain-measures of this solution contain half an equivalent in grains (63 grains) of the acid, and is therefore capable of neutralising an equivalent in grains of any alkali, or alkaline carbonate. 100 cubic centimetres contain 1-20th of an equivalent in grammes (6·3) of the acid, and will neutralise 1-10th of an equivalent in grammes of an alkali.

Use.—To determine the amount of an alkali in alkaline carbonates.

The following substances are tested with this solution :—

	British system			Metrical system		
	Grains weight of substance		Grain-measures of vol. sol.	Grammes weight of substance		c. c. of vol. sol.
Ammoniæ Carbonas	59·0	=	1000	or 5·90	=	100·0
Borax	191·0	=	1000	or 19·10	=	100·0
Liq. Ammoniæ	85·0	=	500	or 8·50	=	50·0
,, ,, Fort.	52·3	=	1000	or 5·23	=	100·0
,, Calcis	4380·0	=	200	or 438·00	=	20·0
,, ,, Sacchar.	460·2	=	254	or 46·02	=	25·4
,, Plumbi Subacet.	413·3	=	810	or 41·33	=	81·0
,, Potassæ	462·9	=	482	or 46·29	=	48·2
,, ,, Efferv.	4380·0	=	150	or 438·00	=	15·0
,, Sodæ	458·0	=	470	or 45·80	=	47·0
,, ,, Efferv.	4380·0	=	178	or 438·00	=	17·8
Plumbi Acetas	38·0	=	200	or 3·80	=	20·0
Potassa Caustica	56·0	=	900	or 5·60	=	90·0
Potassæ Bicarbonas	50·0	=	500	or 5·00	=	50·0
,, Carbonas	83·0	=	980	or 8·30	=	98·0
,, Citras	102·0	=	1000	or 10·20	=	100·0
,, Tartras	113·0	=	1000	or 11·30	=	100·0
,, ,, Acida	188·0	=	1000	or 18·80	=	100·6
Soda Caustica	40·0	=	900	or 4·00	=	90·0
,, Tartarata	141·0	=	1000	or 14·10	=	100·0
Sodæ Bicarbonas	84·0	=	1000	or 8·40	=	100·0
,, Carbonas	143·0	=	960	or 14·30	=	96·0

*** In the present Pharmacopœia the processes for volumetric estimations have been altered, so as to meet the requirements both of the British and metrical systems. 'According to the British system, the quantities of substances to be tested are expressed in grains by weight, whilst the quantities of the test solutions are expressed in grain-measures, the grain-measure being the volume of a grain of distilled water. According to the metrical system, the quantities of the substances to be tested are expressed in grammes by weight, and the quantities of the test solutions are expressed in cubic centimetres, the cubic centimetre being the volume of the gramme of distilled water.' The gramme is more than 15 times as great as the British grain, and in practice it will be found convenient in substituting the metrical for the British system to reduce the values of the number to 1-10th.

For the British system will be required—

1. A flask which, when filled to a certain mark, will contain 10,000 grain-measures.
2. A graduated cylindrical jar which, when filled to 0, holds 10,000 grains of distilled water, and is divided into 100 equal parts.

3. A burette,—a graduated glass tube, which, when filled to 0, holds 1000 grains of distilled water, and is divided into 100 equal parts. Each part therefore corresponds to 10 grain-measures.

For the metrical system are required—

1. A glass flask, which when filled up to a certain mark, contains one litre, or 1000 cubic centimetres.
2. A graduated cylindrical jar, which, filled to 0, contains one litre (1000 cubic centimetres), and is divided into 100 equal parts.
3. A burette,—a graduated tube, which, filled to 0, holds 100 cubic centimetres, and is divided into 100 equal parts.

One cubic centimetre is the volume of one gramme of distilled water at 4° C. 1000 cubic centimetres = one litre.

The Pharmacopœia orders that the volumetric solutions should be shaken, in order to secure uniform strength, and that they should be kept in stoppered bottles.

SOLŪTIO VOLUMETRĬCA ARGENTI NITRĀTIS. Volumetric Solution of Nitrate of Silver. (AgO,NO_5=170 or $AgNO_3$=170.) (Put 170 gr. of nitrate of silver in the 10,000 grain-flask, and dissolve in sufficient distilled water to make the exact bulk of 10,000 grain-measures. 1000 grains contain 17 gr. of the nitrate, or 1-10th of its equivalent in grains. 100 cubic centimetres contain 1-100th of an equivalent in grammes of the nitrate, or 1·7 grammes.)

Use.—As a test for the strength of hydrocyanic acid, bromide of potassium, and sodæ arsenias.

	British system			Metrical system			
	Grains weight of substance		Grain-measures of vol. sol.	Grammes weight of substance			c. c. of vol. sol.
Acidi Hydrocyanicum	270	=	1000	or 27·0	=		100·0
Potassæ Bromidum	10	=	840	or 1·0	=		84·0
Sodæ Arsenias (dry)	10	=	1613	or 1·0	=		161·3

SOLŪTIO VOLUMETRĬCA IŌDI. Volumetric Solution of Iodine. (Pure iodine in powder 127 gr.; iodide of potassium 180 gr.; distilled water a sufficiency. Dissolve the iodine and iodide with water, and when the solution is complete add distilled water until it has the exact volume of 10,000 grain-measures.

	British system			Metrical system			
	Grains weight of substance		Grain-measures of vol. sol.	Grammes weight of substance			c. c. of vol. sol.
Acidum Arseniosum	4·0	=	808	or ·4	=		80·8
,, Sulphurosum	34·7	=	1000	or 3·47	=		100·0
Liq. Arsenicalis	441·5	=	808	or 44·15	=		80·8
,, Arsen. Hydrochlo.	441·5	=	810	or 44·15	=		81·0

Use.—For determining the amount of sulphuretted hydrogen, or of a metallic sulphuret in a fluid, but chiefly for the estimation of sulphurous and arsenious acids. 1000 measures contain 12·7, or 1-10th of an equivalent of iodine, and therefore corresponds to 1·7 gr. of sulphuretted hydrogen, 3·2 gr. of sulphurous, and 4·95 gr. of arsenious acid.

SOLŪTIO VOLUMETRĬCA POTASSÆ BICHROMĀTIS. Volumetric Solution of Bichromate of Potash. ($KO,2CrO_3$=147·5 or $K_2Cr_2O_7$ =295.) (Dissolve 147·5 grains of the bichromate in distilled water,

and increase the dilution until it has the exact bulk of 10,000 grain-measures. 1000 grain-measures of this solution contains 14·75 grains of the bichromate; and this when added to a solution of a protosalt of iron, acidulated with hydrochloric acid, is capable of converting 16·8 grains of iron from the state of protosalt to that of persalt. This solution is used for determining the proportions of the protoxide of iron in the following preparations :—

	British system				Metrical system		
	Grains weight of substance		Grain-measures of vol. sol.		Grammes weight of substance		c. c. of vol. sol.
Ferri Arsenias	20	=	170	or	2·0	=	17·0
,, Carb. Sacchar.	20	=	330	or	2·0	=	33·0
,, Oxid. Magnet.	20	=	83	or	2·0	=	8·3
,, Phosphas	20	=	250	or	2·0	=	25·0

When the whole of the protosalt is converted into the persalt, a drop of the solution will give no reaction with the solution of the ferridcyanide of potassium.

SOLŪTIO VOLUMETRĬCA SODÆ. Volumetric Solution of Soda. (Hydrate of Soda. NaO,HO=40 or **NaHO**=40.) (Fill a burette with the solution of soda, and drop this into 63 gr. of purified oxalic acid dissolved in fl.unc.ij. of water until litmus gives no reaction. Note the number of measures (n) of the solution used, and having then taken 9000 grain-measures of the solution of soda, add distilled water till it becomes $\frac{9000 \times 1000}{n}$ grain-measures. If, for example, $n=930$, the 9000 grain measures shall be increased to $\frac{9000 \times 1000}{930} = 9677$ grain-measures. 1000 grain-measures of this solution contain one equivalent in grains (40 grains) of hydrate of soda, and will neutralise an equivalent in grains of any monobasic acid. 100 cubic centimetres contain 1-10th of an equivalent in grammes (4 grammes) of hydrate of soda, and will neutralise 1-10th of an equivalent in grammes of an acid.)

This solution is used for testing the following substances :—

	British system				Metrical system		
	Grains weight of substance		Grain-measures of vol. sol.		Grammes weight of substance		c. c. of vol. sol.
Acetum	445·4	=	402	or	44·54	=	40·2
Acid. Acet.	182·0	=	1000	or	18·20	=	100·0
,, ,, dil.	440·0	=	313	or	44·00	=	31·3
,, ,, Glac.	60·0	=	990	or	6·00	=	99·0
,, Citricum	70·0	=	1000	or	7·00	=	100·0
,, Hydrochlor.	114·8	=	1000	or	11·48	=	100·0
,, ,, dil.	345·0	=	1000	or	34·50	=	100·0
,, Nitric.	90·0	=	1000	or	9·00	=	100·0
,, ,, dil.	361·3	=	1000	or	36·13	=	100·0
,, Nitrohydr. dil.	352·4	=	920	or	35·24	=	92·0
,, Sulphuricum	50·6	=	1000	or	5·06	=	100·0
,, ,, arom.	304·2	=	830	or	30·42	=	83·0
,, ,, dil.	359·0	=	1000	or	35·90	=	100·0
,, Tartar. dil.	75·0	=	1000	or	7·50	=	100·0

SOLŬTIO VOLUMETRĬCA SODÆ HYPOSULPHITIS. Volumetric Solution of Hyposulphite of Soda. Dissolve 2·80 grs. of hyposulphite of soda ($NaOS_2O_2+5HO=124$ or $\mathbf{Na_2H_2S_2O_4.4H_2O=248}$) in 10,000 grain-measures of distilled water. Fill the burette with this solution, and drop it cautiously into 1000 grain-measures of the volumetric solution of iodine until the brown colour be just discharged. Note the number of measures (n) which have been used to produce this effect, and then put 8000 grain-measures of the same solution into a graduated jar, and augment this quantity by the addition of distilled water until it amounts to $\frac{8000\times1000}{n}$ grain-measures. If, for example, $n=950$, the 8000 grains of the solution of the hyposulphite should be diluted with distilled water so as to become $\frac{8000\times1000}{950}$ =8421 grain-measures. 1000 grain-measures of this solution contain 24·8 grs. of the hyposulphite, and therefore correspond to 12·7 grs. of iodine.

Use.—This solution is used for testing the following substances. In each case, except in that of iodum, a solution of iodide of potassium and hydrochloric acid are added to the substance, and the amount of iodine so liberated is indicated by this solution :—

	British system				Metrical system		
	Grains weight of substance		Grain-measures of vol. sol.		Grammes weight of substance		c. c. of vol. sol.
Calx Chlorata	10	=	850	or	1·00	=	85·0
Iodum	12·7	=	1000	or	1·27	=	100·0
Liq. Calcis Chloratæ	60·9	=	500	or	6·0	=	50·0
,, Chlori	439·0	=	750	or	43·9	=	75·0
,, Sodæ Chloratæ	70·0	=	500	or	7·0	=	50·0

SPIRĬTUS ÆTHĔRĬS. Spirit of Ether. (*Ætheris* fl.unc.x.; *Spiritus rectificati* Oj.) Sp. gr. 0·809.

Oper.—Stimulant, carminative, antispasmodic.

Use.—In hysteria, and in spasmodic asthma, angina pectoris, cases of nervous depression, and to allay irritation in painful diseases. In headache externally when the part to which it is applied is kept covered by the hand, in which case it acts as a rubefacient.

Dose.—Min.xx. to fl.dr.jss. in any convenient vehicle.

Off. Prep.—*Tinctura Lobeliæ Ætherea.*

SPIRĬTUS ÆTHĔRĬS NITRŌSI. Spirits of Nitrous Ether. Spiritus Ætheris Nitrici. (*Acidi Nitrici* fl.unc.iij.; *Acidi Sulphurici* fl.unc.ij.; *Cupri in fila tenuia tracti* (No. 25) unc.ij.; *Spiritus rectificati* q.s. Having mixed the acids separately with spirit, put them into a retort with the copper wire, and distil at a temperature commencing at 170° but not exceeding 180°. Preserve in well-closed vessels.)

Comp.—A spirituous solution containing nitrous ether. (C_4H_5O,NO_3 or $\mathbf{C_2H_5NO_2}$.)

Prop.—Odour fragrant; taste pungent; acidulous, reddening litmus; colourless; volatile, inflammable; soluble in alcohol and water; sp. grav. ·845. When agitated with twice its volume of concentrated solution of chloride of calcium, 2 per cent. by volume of æther separates. It effervesces feebly or not at all with bicarbonate of potash. Becomes deep olive-brown or black on being shaken with

the solution of sulphate of iron to which a few drops of sulphuric acid has been added.

Oper.—Stimulant, refrigerant, diuretic, antispasmodic, diaphoretic.

Use.—In febrile diseases; spasmodic asthma; and dropsies, as an assistant to more active remedies.

Dose.—Min.xx. to fl.dr.ij. in any convenient vehicle.

SPIRĬTUS AMMŌNIÆ AROMATĬCUS.* Aromatic Spirit of Ammonia. (*Ammoniæ Carbonatis* unc.viij.; *Liq. Ammoniæ fort.* fl.unc.iv.; *Olei Myristicæ* fl.dr.iv.; *Olei Limonis* fl.dr.vj.; *Spirit. rectific.* Ovj.; *Aquæ* Oiij. Mix and distil Ovij.) Sp. gr. 0·870.

Oper.—Stimulant, antispasmodic, diaphoretic.

Use.—In the same cases as ammonia; it is more grateful, and less acrimonious.

Dose.—Min.xx. to fl.dr.j. in any convenient vehicle.

Off. Prep.—*Tinct. Guaiaci Ammoniata. Tinct. Valerianæ Ammoniata.*

Incomp.—Acids, acidulous salts, metallic salts, lime-water.

SPIRĬTUS AMMŌNIÆ FŒTĬDUS. Fœtid Spirit of Ammonia. (*Assafœtidæ* unc.jss.; *Liq. Ammoniæ fort.* fl.unc.ij.; *Spir. rectificati* q.s. Break the assafœtida into small pieces, and macerate it in 15 ounces of spirit for twenty-four hours; then distil off the entire of the spirit, and mix the product with solution of ammonia and sufficient rectified spirit to make a pint.)

Prop.—Odour fœtid and ammoniacal. Sp. gr. ·849: taste alkalescent, acrid, and slightly alliaceous: pale when recent; coloured brown by age.

Oper.—Stimulant, antispasmodic.

Use.—In hysteria, atonic gout, and spasmodic asthma.

Dose.—Fl.dr.ss. to fl.dr.j. in water.

SPIRĬTUS ARMORĀCIÆ COMPŎSĬTUS. Compound Spirit of Horse Radish. (*Armoraciæ concisæ, Aurant. Cort. exsicc., sing.* unc.xx.; *Myristicæ contus.* unc.ss.; *Spirit. ten.* cong.j.; *Aquæ* Oij. Mix, and distil a gallon.)

Oper.—Stimulant, antiscorbutic.

Use.—Scarcely now used in scorbutus; but it is a useful adjunct to infusion of foxglove, in dropsies attended with much debility.

Dose.—Fl.dr.j. to fl.dr.iv.

SPIRĬTUS CAJUPŪTI. Spirit of Cajuput.† (*Olei Cajuputi* fl.unc.j.; *Spiritus rectificati* fl.unc.ix.)

Oper.—Stimulant, antispasmodic, diaphoretic, and rubefacient.

Use.—In hysteria, flatulent colic and cholera; externally in rheumatism, gout, sprains, &c.

Dose.—Min.xxx. to fl.dr.j.

SPIRĬTUS CAMPHŎRÆ. Tinctura Camphoræ. Spirit of Camphor. (*Camphoræ* unc.j.; *Spirit. rect.* unc.ix. Dissolve.)

Oper.—Stimulant, anodyne, discutient.

Use.—External, against rheumatic pains, paralytic numbness, chilblains, gangrene, and for discussing tumours; also, internally, as a sedative in mania and melancholia, hysteria, and spasmodic diseases.

Dose.—Min.x. to min.xxx.

Incomp.—Water, which precipitates the camphor.

---

* This preparation is stronger in spirit, and about half stronger in ammonia, than the Sp. Ammoniæ Arom. of the *Lond. Phar.*

† This is 1-5th the strength of the preparation in the *Brit. Pharm.* 1864.

SPIRĬTUS CHLOROFORMI. Spirit of Chloroform. (*Chloroformi* fl.unc.j.; *Spir. rectificati* fl.unc.xix.) Sp. gr. ·871.
Oper.—Narcotic, sedative, antispasmodic.
Use.—In hysteria, depressed conditions of the nervous and circulatory system, neuralgia, colic, &c.
Dose.—Min.x. to min.lx.

SPIRĬTUS JUNIPĔRI. Spirit of Juniper. (*Olei Juniperi* fl.unc.j.; *Spiritus rectificati* fl.unc.xlix.) This is 1-5th the strength of the preparation in the *Brit. Pharm.* 1864, and, consequently, 19 times stronger than the spirits in *London Pharmacopœia.*
Oper.—Stimulant, diuretic.
Use.—In dropsy, dysmenorrhœa, in which it seems to have a sedative action.
Dose.—Fl.dr.ss. to fl.dr.j.
Off. Prep.—*Mistura Creasoti.*

*SPIRĬTUS JUNIPĔRI COMPŎSĬTUS. L. Compound Spirit of Juniper. (*Juniperi Olei* fl.dr.jss.; *Carui Olei, Fœniculi Olei, sing.* min.xij.; *Spir. ten.* cong.j. Dissolve the oils. L.—*Baccarum Juniperi* lb.j.; *Seminum Carui, Fœniculi, sing.* gr.xc.; *Spiritus tenuioris* Ovij.; *Aquæ* Oij. Distil off seven pints. E.—*Baccarum Juniperi contusar.* unc.viij.; *Carui et Fœniculi seminum sing.* unc.j.; *Spiritus tenuioris* Oiv.; *Aquæ* Oj. Macerate the berries and the seeds in the spirit for twenty-four hours, then add the water, and distil off four pints. D.)
Oper.—Stimulant, diuretic.
Use.—As an adjunct to diuretic infusions in dropsies.
Dose.—Fl.dr.j. to fl.dr.iv.

SPIRĬTUS LAVANDŬLÆ. Spirit of Lavender.[1] (*Lavandulæ Olei* fl.unc.j.; *Spir. rect.* fl.unc.xlix.) A spirituous solution of the oil.
Oper.—Carminative, stimulant.
Use.—In flatulence, hysteria, hypochondriasis, and nervous affections.
Dose.—Min.xxx. to min.lx.

SPIRĬTUS MENTHÆ PIPERĪTÆ.[1] Essentia Menthæ Piperitæ. Spirit of Peppermint. (*Olei Menthæ Pip.* fl.unc.j.; *Spiritus rectific.* fl.unc.xlix.)
Oper.—Carminative, stimulant.
Use.—In nausea, flatulence, and faintings, and as an addition to stimulant, narcotic, and purgative draughts.
Dose.—Min.xxx. to min.lx.

*SPIRĬTUS MENTHÆ VIRĬDIS. Essentia Menthæ Viridis. Spirit of Spearmint.
Oper.—Carminative, stimulant.
Use.—In nausea, flatulence, and faintings.
Dose.—Fl.dr.ss. to fl.dr.ij. in any proper vehicle.

SPIRĬTUS MYRISTĬCÆ.[1] Essentia Myristicæ Moschatæ. Spirit of Nutmeg. (*Myristicæ Olei* fl.unc.j.; *Spir. rectificati* fl.unc.xlix.)
Oper.—Cordial, carminative.
Use.—In faintings; and as an adjunct to griping purgatives.
Dose.—Min.xxx. to min.lx.

*SPIRĬTUS PYROXŸLĬCUS RECTIFICĀTUS. (Br. Pharm. 1864.)

---

[1] This is 1-5th the strength of the preparation in the *Pharmacopœia* of 1864.

Rectified Pyroxylic Spirit. Medicinal Naphtha. Hydrated Oxide of Methyle. (A product from the destructive distillation of wood.)

Comp.—1 eq. of methyle=15+1 eq. of oxygen=8+1 eq. of water=9=32 $=C_2H_3+O+HO$ or MeO+HO.

Prop.—Colourless, transparent, limpid, with an agreeable, ethereal, alcoholic odour, and an aromatic taste; volatile, inflammable. Not rendered turbid by admixture with water. Sp. gr. 0·841 to 0·846.

Oper.—Sedative, expectorant.

Use.—In bronchitis, phthisis.

Dose.—Min.x. to min.xxx.

SPIRĬTUS RECTIFICĀTUS. Rectified Spirit. Sp. gr. 0·838. Obtained by the distillation of fermented saccharine fluids.

Prop.—Colourless; is not rendered opaque by the addition of water, nor reddened by sulphuric acid. Four ounces with 30 grain-measures of the volumetric solution of nitrate of silver exposed for 24 hours to bright light, and then decanted from the black powder which has formed, undergoes no further change from continued use of the test.

Comp.—Alcohol (C_4H_5O,HO or $\mathbf{C_2H_6O}$) 84, water 16.

Oper and *Use.*—The same as of Alcohol, and in the preparation of several tinctures.

SPIRĬTUS RŌSMARĪNI.* Essentia Rosmarini. Spirit of Rosemary. (*Olei Rosmarini* fl.unc.j.; *Spir. rectif.* fl.unc.xlix.

Oper.—Stimulant.

Use.—In langours; externally to pains and bruises; a fragrant perfume; and as a lotion to strengthen the hair.

Dose.—Min.x. to min.xl.

SPIRĬTUS TENUĬOR. Proof Spirit. (Sp. gr. ·920. *Spiritus rectificat.* Ov.; *Aquæ destillatæ* Oiij.)

Comp.—Alcohol 49, water 51 parts in 100.

Oper.—Stimulant.

Use.—In the same case internally, as those in which alcohol is used; externally, much diluted, in ophthalmia, superficial inflammation, and burns; chiefly employed as a solvent of vegetable matters in the formation of tinctures, &c.

Off. Prep.—*Tincturæ Variæ.*

SPIRĬTUS VINI GALLĬCI. Spirit of French Wine. Brandy. Spirit distilled from French Wine.

Prop.—Peculiar flavour; a light sherry colour, derived from the cask.

Use.—In typhoid condition, in atonic vomiting combined with soda-water.

Off. Prep.—*Mist. Vini Gallici.*

STANNI PROTO-CHLORĬDUM. Proto-chloride of Tin. A colourless solution obtained by digesting pure grain tin with heat in hydrochloric acid.

Use.—As a test of the presence of bichloride of mercury, with which it causes first a white, then a black precipitate.

STANNUM. (Appendix I.) Stannum, Limatura, Pulvis. Tin Filings and Powder.

Prop.—Odour peculiar, when rubbed; insipid; colour white, softish; sp. gr. 7·291.

---

* This is 1-5th the strength of the preparation in the *Pharmacopœia* of 1864.

Oper.—Mechanical?
Use.—For preparation of chloride of tin.

STRAMŌNII SEMĬNA, FOLĬA. Stramonium. The Leaves and Seeds of Thorn Apple. (*Datura Stramonium. Pentandria Monogynia.* N. O. *Solanaceæ.* Indigenous. ☉) Active principle, Datura.
Prop.—The leaves are large, ovate, sinuous, deeply cut, heavy odour, taste, mawkish and faintly bitter. The seeds are brownish-black, reniform, flat, with similar taste and odour.
Oper.—Narcotic, antispasmodic, acting on the respiratory organs, especially when the smoke of the burning leaf is inhaled.
Use.—In asthma, convulsive coughs, gastrodynia.
Dose.—Of powdered leaves unc.j. or more.
Off. Prep.—*Extractum Stramonii. Tinctura Stramonii.*
Incomp.—Caustic fixed alkalis, as soda and potash.

STRYCHNĬA. Strychnia. An alkali prepared from nux vomica.
Comp.—42 eq. of carbon=252, 22 eq. of hydrogen=22, 2 eq. of nitrogen =28, 4 eq. of oxygen=32=334. ($C_{42}H_{22}N_2O_4$ or $\mathbf{C_{21}H_{22}N_2O_2}$.)
Prop.—In right square octahedrons or prisms. Soluble in fixed and volatile oils, boiling rectified spirit; ether, chloroform, and in 2500 parts of boiling water; nearly insoluble in cold water. It melts in the fire; and, if the heat be increased, is consumed. Its flavour is intensely bitter. Pure sulphuric acid forms with it a colourless solution, which, on the addition of bichromate of potash, acquires an intensely violet hue, speedily passing through red to yellow. Not coloured by nitric or sulphuric acid. As it is possessed of violent properties, it must be used with the greatest caution.
Oper.—Stimulant of the anterior columns of the spinal chord. Tonic and antispasmodic.
Use.—As a tonic in pyrosis, passive diarrhœa, and leucorrhœa, chorea, neuralgia, incontinence of urine, in habitual constipation. In cases of partial paralysis not depending on organic disease, especially when caused by carbonate of lead.
Dose.—From gr.1-32nd to gr.¼.
Off. Prep.—*Liquor Strychniæ.*

STRYCHNOS NUX VOMĬCA. Nux Vomica. Ratsbane. (*Strychnos Nux Vomica. Pentand. Monogyn.* N. O. *Loganiaceæ.* India. ♄)
Prop.—Inodorous; taste intensely bitter; poisonous. Its efficacy as a remedy depends on a peculiar alkali, named strychnia, combined with igasuric acid.
Oper.—Tonic, stimulant; when taken in large doses, it produces tetanic spasms.
Use.—In dyspepsia; gout; rheumatism, atonic sickness and diarrhœa; and especially in paralysis of the lower extremities.
Dose.—From gr.j. to gr.iij.
For its poisonous properties, see Appendix No. II.

STYRAX PRÆPARĀTUS. Prepared Storax. (Liquid Balsam from the Liquidambar Orientale. *Decand. Monogyn.* N. O. *Liquidambaraceæ.* Syria. ♄)
Comp.—Oleo-resin, benzoic acid.
Prop.—Odour fragrant, agreeable; taste aromatic; in masses composed of distinct tears of a yellowish-red or brownish colour. Often adulterated with sawdust. Heated in a test-tube on the vapour-bath it becomes more liquid, but gives off no moisture; boiled with solution of bichromate of potash and sulphuric acid, it evolves the odour of hydride of benzoyle.

Oper.—Stimulant, expectorant.
Use.—Seldom used alone, but as an adjunct, chiefly on account of its fragrance and aromatic properties.
Dose.—Gr.v. to gr.xx.
Off. Prep.—*Tinct. Benzoini Comp.*

SUBLIMĀTUS CORRŌSĪVUS. Corrosive Sublimate. See *Hydrargyri Perchloridum.*

*SUBMURĬAS HYDRARGŸRI, *modo* CALOMĔLAS PRECIPITATUM. Precipitated Submuriate of Mercury. Vide *Hydrargyri Subchloridum.*
Comp.—2 eq. of mercury=200+1 of chlorine=35·5, equiv.=235·5. (HgCl.)
Prop.—Inodorous; insipid, in a fine white powder.
Oper.—Antisyphilitic, alterative.
Use and *Dose.*—The same as of Calomel, from which it differs only in being in a finer powder than the other can be reduced to; on which account it can be more advantageously combined with lard, for external use.

SUCCUS CONĬI. Juice of Hemlock. (The expressed juice of fresh leaves mixed with rectified spirit in the proportion of one measure of spirit to three of juice.)
Oper.—Direct sedative on the spinal chord.
Use.—To relieve cough and to allay pain.
Dose.—Min.x. to fl.dr.j.

SUCCUS SCOPĀRII. Juice of Broom. (Expressed juice of fresh broom tops, mixed with rectified spirit in proportion of one measure of spirit to three of juice.)
Oper.—Diuretic.
Use.—In dropsies and cardiac diseases.
Dose.—Fl.dr.j. to fl.dr.iv.

SUCCUS TARAXĂCI. Juice of Taraxacum. (Expressed juice of the dandelion root mixed with spirit in the proportion of one measure of rectified spirit to three of the juice.)
Oper.—Tonic, aperient, diuretic, resolvent.
Use.—In chronic inflammation and functional and organic disease of the liver; chronic derangements of the stomach; jaundice, dropsy.
Dose.—Fl.dr.ss. to fl.dr.ij.

SULPHAS BARŸTÆ. Sulphate of Baryta. (A natural production.)
Comp.—Baryta 66, sulphuric acid 34, in 100 parts. (*Berzelius.*) Or 1 eq. baryta=76+1 of acid=40, equiv.=116. (BaO,SO_3.)
Prop.—Foliated; spec. grav. 4·4; decrepitates when heated; insoluble in water; soluble in boiling concentrated sulphuric acid.
Use.—Not employed in medicine, but used in pharmacy for the preparation of the chloride of barium.

SULPHAS FERRI. See *Ferri Sulphas.*

SULPHAS HYDRARGŸRI. See *Hydrargyri Sulphas.*

SULPHAS POTASSÆ. See *Potassæ Sulphas.*

SULPHUR PRÆCĬPITĀTUM. Precipitated from Sulphuret of Lime by Hydrochloric Acid. Milk of Sulphur.
Prop.—A greyish-yellow soft powder, free from grittiness and the smell of sulphuretted hydrogen, burns with a blue flame and the evolution of sulphurous acid; volatilised by heat. The water in which it has

been boiled does not affect litmus paper. In other respects like sulphur.

Use.—Same as sublimed sulphur.

Dose.—Gr.xx. to gr.lx.

SULPHUR SUBLIMĀTUM. Sublimed Sulphur, commonly called Flowers of Sulphur. (The sulphur of commerce, which is obtained from pyrites, sublimed in close vessels. Chemical equivalent, 16 or 32. Symbol S or **S**.)

Prop.—Inodorous, unless rubbed between the fingers, or heated; slightly acidulous; a fine powder, of a bright yellow colour; very inflammable, sublimes at 60°; contains a small portion of sulphuric acid produced in the sublimation, from which it is freed by washing; soluble in linseed oil and in oil of turpentine by the aid of heat. Solution of ammonia, agitated with it and filtered, does not, on evaporation, leave any residue.

Oper.—Stimulant, laxative, diaphoretic, transpiring through the cutaneous exhalants.

Use.—As a laxative in chronic rheumatism, atonic gout, rachitis, asthma, and some pulmonary affections; in hæmorrhoidal affections it is the only laxative that should be employed, united with magnesia or bitartrate of potassa. A specific in itch, and several cutaneous diseases, when either internally or externally exhibited.

Dose.—Gr.xx. to gr.lx. taken night and morning.

Off. Prep.—*Confectio Sulphuris. Emplastrum Ammoniaci cum Hydrargyro. Emplastrum Hydrargyri. Sulphur Præcipitatum. Unguentum Sulphuris.*

*SULPHURĒTUM HYDRARGŸRI CUM SULPHURE. Black Sulphuret of Mercury. (*Hydrargyri Purif.*, *Sulphuris Sublimati*, *sing.* lb.j. Rub them together, until the globules disappear.) *Æthiops Mineral.*

Comp.—Sulphuret of mercury 58, sulphur 42, in 100 parts.

Prop.—Inodorous; nearly insipid; a very black powder, impalpable to the touch; completely volatilised by heat; should not give a white colour to gold when rubbed on it; soluble in solution of pure potassa.

Oper.—Anti-venereal, alterative, anthelmintic.

Use.—In syphilis, but it is the most inactive of the mercurial preparations; in glandular swellings; it is sometimes useful against ascarides.

Dose.—Gr.v. to gr.xxx.

SULPHŬRIS IODĬDUM. Iodide of Sulphur. Heat iodine 4 parts and sublimed sulphur 1 part, previously thoroughly mixed, and gradually increase the heat so as to produce liquefaction; when cool, remove by breaking the glass. Preserve in a well-stopped bottle.

Prop.—A greyish black solid substance, with a radiated crystalline appearance; smells and stains like iodine; soluble in about 60 parts of glycerine, insoluble in water, but decomposed when boiled with it. If 100 grains be thoroughly boiled with water, the iodine will pass off in vapour, and about 20 grains of sulphur will remain.

Oper.—Alterative and resolvent; only used externally.

Use.—In cutaneous diseases.

Off. Prep.—*Unguentum Sulphuris Iodidi.*

SUMBUL RADIX. Sumbul Root. Dried transverse sections of the root of a plant, the botanical history of which is unknown. Imported from Russia and India.

Prop.—Pieces nearly round, from 2½ to 5 inches in diameter, and from ¾ to 1½ inch in thickness; dusky brown rough bark, with short

bristly fibre. Interior porous, consisting of irregular, easily separated fibres; odour strong, like musk; taste at first sweetish, but afterwards bitterish and balsamic.

Oper.—Antispasmodic, stimulant.

Use.—In disease of nervous system.

Off. Prep.—*Tinctura Sumbul.*

SUPPŎSITŌRĬA ACĬDI TANNĬCI. Tannin Suppositories. (*Acidi Tannici* gr.xxxvj.; *Adeps Benzoati* gr.xliv.; *Ceræ Albæ* gr.x.; *Olei Theobromæ* gr.xc. Melt the wax and oil with a gentle heat, then add the tannic acid and the lard, previously mixed. Pour the mixture into suitable moulds of the capacity of 15 grains, or the fluid mass may be allowed to cool, and then be divided into 12 parts in a convenient shape.) Each suppository contains 3 grs. of tannic acid.

Oper.—Astringent.

Use.—In fulness of the hæmorrhoidal vessels and relaxation of the mucous membrane.

SUPPŎSĬTŌRĬA HYDRARGŸRI. Mercurial Suppositories. (Prepared much as the preceding, with the Unguentum Hydrargyri instead of the tannic acid.) Each suppository contains 5 grains of the unguentum hydrargyri.

Oper.—Alterative, resolvent.

Use.—In chronic ulceration of rectum, and in cases when it is necessary to produce mercurial action, and the stomach is too irritable to bear the medicine.

SUPPŎSITORĬA MORPHĬÆ. Morphia Suppositories. (*Morphiæ Hydrochloratis* gr.vj.; *Adipis Benzoati* gr.lxiv.; *Ceræ Albæ* gr.xx.; *Olei Theobromæ* gr.xc. Prepared as above.) Each suppository contains half a grain of the hydrochlorate of morphia.

Oper.— Sedative, narcotic.

Use.—In irritable conditions of the rectum, in painful affections of the urinary organs, in diarrhœa, and generally to obtain the action of morphia, when the stomach will not bear the medicine.

SUPPŎSĬTŌRĬA PLUMBI COMPŎSĬTA. Compound Lead Suppositories. (Prepared by mixing acetate of lead, opium, benzoated lard, and cacao butter, in the same manner as described above.) Each suppository will contain 3 grains of lead and 1 of opium.

Oper.— Astringent, sedative.

Use.—In diarrhœa, hæmorrhage from the rectum, uterus, or prostate, or when there is painful relaxation of mucous membrane of the rectum.

*** *Note.*—Many medicines may be administered in the form of suppository by the means of cacao butter (Oleum Theobromæ).

SYRŪPUS. Simple Syrup. (*Sacchari* lb.v.; *Aquæ Destill.* Oij.) Dissolve the sugar in the water with a gentle heat, and add, after cooling, sufficient distilled water to raise the weight to seven and a half pounds. Sp. gr. 1·330.

Prop.—Inodorous, sweet, thickish, transparent.

Use.—To cover nauseous tastes; but it seldom renders medicine more pleasant, and might well be altogether dispensed with. It is the base of most of the other syrups.

Off. Prep.—*Mistura Cretæ. Mist. Creasoti. Pilula Cambogiæ Comp. Syrupus Aurantii. Syrupus Zingiberis.*

SYRŪPUS AURANTII. Syrup of Orange Peel. (*Tincturæ Aurantii* fl.unc.j.; *Syrupi* fl.unc.vij.)

Oper.—Slightly tonic ; stomachic.
Use.—An elegant adjunct to stomachic draughts and mixtures.
Dose.—Fl.dr.ss. to fl.dr.j.
Off. Prep.—*Conf. Sulphuris.*

SYRŪPUS AURANTII FLORIS. Syrup of Orange Flower. (*Aquæ Aurantii Floris* fl.unc.viij. ; *Sacchari Albi* lb.iij. ; *Aquæ destillatæ* fl.unc.xvj. vel q.s.) The product must be lb.ivss., and the sp. gr. 1·330.
Use.—To flavour medicines. It covers the taste of chalybeate medicines.
Dose.—Fl.dr.ss. to fl.dr.j.

SYRŪPUS FERRI IODĬDI. Syrup of Iodide of Iron. (*Iodi* unc.ij.; *Ferri in fila tracti*, unc.j. ; *Aquæ destillatæ* fl.unc.xiij. ; *Sacchari* unc.xxviij.) Digest the iodine and iron in three ounces of water in a flask at a gentle heat till the froth becomes white ; then filter the liquid while still hot into the syrup, previously prepared. The product should weigh two pounds eleven ounces, and its sp. gr. should be 1·385.
Oper.—Tonic and alterative.
Use.—In scrofulous affections, anæmia, chlorosis, certain forms of secondary syphilis. Laryngeal phthysis.
Dose.—Min.x. to fl.dr.j. A fl.dr. contains 4·3 grs. of iodide of iron.

SYRŪPUS FERRI PHOSPHĀTIS. Syrup of Phosphate of Iron. (*Ferri Sulphatis granulatæ* gr.ccxxiv.; *Sodæ Phosphatis* gr.cc.; *Sodæ Acetatis* gr.lxxiv.; *Acidi Phosphorici dil.* fl.unc.vss.; *Sacchari albi* unc.viij.; *Aquæ destillatæ* fl.unc.viij. Dissolve the sulphate of iron in four ounces of water, and the phosphate and acetate of soda in the remainder ; and dissolve the precipitates in the phosphoric acid, filter the solution and add the sugar. The product should measure twelve ounces. A fl.dr.j. contains gr.j. of the phosphate.)
Oper.— Hæmatic, tonic.
Use.—In all requiring chalybeates.
Dose.—Fl.dr.j. to fl.dr.ij.

SYRŪPUS HEMIDESMI. Syrup of Hemidesmus. Indian Sarsaparilla. (*Hemidesmi contusi* unc.iv.; *Aquæ destillatæ ferventis* Oj.; *Sacchari* unc.xxviij. Infuse the hemidesmus in water for four hours in a covered vessel, and strain. Let the sediment subside, decant the clear liquor, and having added to it the sugar, dissolve with the aid of a gentle heat. The product should weigh two pounds ten ounces. Sp. gr. 1·335.)
Oper.—Demulcent, diaphoretic, tonic.
Use.—In the same cases as sarsaparilla.
Dose.—Fl.dr.j.

SYRŪPUS LIMŌNIS. Syrup of Lemons. (*Limonis Succi colati* Oj.; *Sacchari* lb.ij.½ ; *Corticis Limonis recentis* unc.ij. The product should weigh lb.iij.½, and its sp. gr. should be 1·340.)
Oper.—Cooling, antiseptic.
Use.—To sweeten and acidulate barley water, and other diluting fluids in inflammatory and bilious fever. A useful addition to detergent gargles.
Dose.—Fl.dr.j. to fl.dr.ij. or more.

SYRŪPUS MŌRI. Syrup of Mulberry. (*Mori Succi colati* Oj.; *Sacch. purif.* lb.ij.; *Spiritus rectificati* fl.unc.ijss. Heat the juice to the boiling point, and filter it when cool. Dissolve the sugar in the juice with a gentle heat. Lastly, add the spirit. The product should weigh lb.iij.unc.vj., and its sp. gr. should be 1·330.)

Oper.—Cooling.
Use.—For acidulating and sweetening diluting fluids in febrile diseases; and as an adjunct to gargles.
Dose.—Fl.dr.j. to fl.dr.iij. or more.

*SYRŪPUS MORPHĬÆ ACETĀTIS. Syrup of Acetate of Morphia. (*Morphiæ Acetatis Liquoris* fl.unc.j.; *Syrupi simplicis* fl.unc.xv. Mix with agitation. Fl.unc.j. contain gr.¼ of acetate of morphia.)
Use.—In the same cases as Acetate of Morphia.

*SYRŪPUS MORPHĬÆ MURIĀTIS. Syrup of Muriate of Morphia. (*Morphiæ Muriatis Liquoris* fl.unc.j.; *Syrupi simplicis* fl.unc.xv. Mix with agitation. Fl.unc.j. contains gr.¼ of Muriate of Morphia.)
Use.—In the same cases as Muriate of Morphia.

SYRŪPUS PAPAVĔRIS. Syrup of Poppies. (*Papaveris Capsul. seminibus demptis* unc.xxxvj.; *Sacch.* lb.iv.; *Aquæ destillatæ ferv.* q. s.; *Spiritus rectificati* fl.unc.xvj. Macerate the capsules in the water in a water-bath for twenty-four hours, and percolate. Evaporate, press, and strain; reduce to Oiij., and when cold, add the spirit. Distil off the spirit, evaporate the remaining liquor to two pints, then add the sugar. The product should weigh six pounds and a half, and its sp. gr. should be 1·320.) Fl.unc.j. contains about gr.j. of opium.
Oper.—Anodyne, narcotic.
Use.—In catarrh, to abate coughing; and in the diseases of children to allay pain and procure sleep. The degree of strength of the preparation is very uncertain. ℞ *Mucilaginis Acaciæ*, *Oxymellis Scillæ*, *Syr. Papav. sing.* fl.unc.j. in doses of a teaspoonful, in obstinate coughs and in pertussis.
Dose.—Fl.dr.j. to fl.dr.iv. for an adult; min.xx. to min.xxx. for an infant.

SYRŪPUS RHAMNI. Syrup of Buckthorn. (*Succi Rhamni* Oiv.; *Zingiberis concisi*, *Pimentæ contusæ*, *sing.* unc.¾; *Sacchari purificati* lb.v. vel q.s.; *Spir. rectificati* unc.vj. Evaporate the juice to Oijss., add the ginger and pimento, digest at a gentle heat for 4 hours and strain. When cold, add the spirit, let the mixture stand for 2 days, then decant the clear liquor and in this dissolve the sugar, so that the sp. gr. may be 1·32.
Oper.—Drastic purgative, but attended with griping and dryness of mouth and fauces.
Use.—To open the bowels; but, owing to its very unpleasant taste, it is seldom employed except in clysters.
Dose.—Fl.dr.j.

SYRŪPUS RHEI. Syrup of Rhubarb. (*Rhei radicis*, *Coriandri fructus*, *sing.* unc.ij.; *Spir. rectificati* fl.unc.viij.; *Sacchari purificati* unc.xxiv.; *Aquæ destillatæ ferventis* fl.unc.xxiv. Evaporate the liquid obtained by percolation to 13 ounces, then filter and dissolve the sugar in it with a gentle heat.)
Oper.—Aperient and stomachic.
Use.—In constipation, in relaxed habits, especially among children.
Dose.—Fl.dr.j. to fl.dr.iv., for an adult.

SYRŪPUS RHŒĂDOS. Syrup of Red Poppy. (*Rhœados Petalor.* unc.xiij.; *Aquæ destillatæ* Oj.; *Sacch.* lb.ij.¼; *Spiritus rectificati* fl.unc.ijss. To the water, heated in a water-bath, add the petals gradually, stirring occasionally; next remove the vessel, and macerate for twelve hours; then express the liquor, defecate, and add the sugar so as to form a

syrup, and, when cool, the spirit. The product should weigh lb.iij. unc.x., and its sp. gr. should be 1·330.)

Use.—As a colouring matter.

*SYRŪPUS ROSÆ. Syrupus Rosæ Centifoliæ. Syrup of the Rose. (*Rosæ Centifoliæ* unc.viij. (lb.j. E.); *Sacch.* lb.vj. (lb.ijss. E.); *Aquæ destillatæ ferv.* Oiij.; *Spiritus rectificati* fl.unc.vss. (*Omissi*, E.) Macerate the petals in the water for twelve hours; evaporate the strained liquor to Oij., and add the sugar so as to form a syrup. Lastly, add the spirit.)

Oper.—Gently laxative.

Use.—In costiveness of weak habits, and of children.

Dose.—Fl.dr.j. to fl.unc.j. or more.

SYRŪPUS ROSÆ GALLĬCÆ. Syrup of Red Roses. (*Petal. siccat. Rosæ Gallicæ* unc.ij.; *Aq. Bull.* lb.j.; *Sacch. pur.* unc.xxx. The product should weigh lb.ij.unc.xiv., and its sp. gr. should be 1·335.)

Oper.—Mildly astringent.

Use.—As an adjunct to stomachic infusions, and to gargles; but it is on account of its colour chiefly that it is valued.

Dose.—Fl.dr.j. to fl.dr.iv. or more.

SYRŪPUS SCILLÆ. Syrup of Squill. (*Aceti Scillæ* Oj.; *Sacchari albi* lb.ijss. Dissolve with the aid of heat.)

Oper.—Diuretic, expectorant.

Use.—In the same cases as those for which the squill is employed.

Dose.—Fl.dr.ss. to fl.dr.jss. for adults, min.x. to min.xxx. for children.

SYRŪPUS SENNÆ. Syrup of Senna. (*Sennæ contritæ* unc.xvj.; *Olei Coriandri* min.iij.; *Sacchari albi* unc.xxiv.; *Aquæ destillatæ* Ov. vel q.s.; *Spir. rectificati* fl.unc.ij. The weight of the product should be lb.ij. unc.x., and its sp. gr. 1·310.)

Oper.—Purgative.

Use.—For the costiveness of children, and persons of a delicate habit of body.

Dose.—Fl.dr.j. or more.

SYRŪPUS TOLUTĀNUS. Syrup of Tolu. (*Balsami Tolutani* unc.j.¼; *Aq. destillatæ ferv.* Oj. vel q.s.; *Sacch.* lb.ij. Boil the balsam for half an hour in a covered vessel, occasionally stirring; strain when cold, and add sugar to the liquor, so as to form a syrup. The weight of the product should be lb.iij., and its sp. gr. 1·330.)

Oper.—A mild stimulant expectorant.

Use.—Simply to give its agreeable flavour to draughts, mixtures, and emulsions, especially in thoracic affections, if not acute.

Dose.—Fl.dr.j. to fl.dr.iv.

SYRŪPUS ZINGIBĔRIS. Syrup of Ginger. (*Tincturæ Zingiberis fort.* fl.dr.vj.; *Syrupi simplicis* fl.unc.xix. Mix.)

Oper.—Cordial, stomachic, carminative.

Use.—As an adjunct to bitter and tonic infusions.

Dose.—Fl.dr.j.

TABĂCI FOLĬA. Nicotiana Tabacum. The dried Leaves of Virginian Tobacco. (*Pentand. Monogynia.* N. O. *Solanaceæ.* America. ☉)

Prop.—Large, mottled-brown, ovate or lanceolate acuminate leaves, bearing numerous short glandular hairs. Odour of the dried leaves strong, fœtid, narcotic; taste bitter, extremely acrid; burns with a sparkling light, owing to the nitrate of potassa which it contains. Active principles, a volatile oil, which is soluble both in water and

alcohol, and *nicotia*, an alkaloid on which its virtues are supposed to depend.

Oper.—Narcotic, sedative, inducing intense muscular and vascular depression, diuretic, emetic, cathartic, errhine, a violent poison, whether externally applied, or taken into the stomach.

Use.—In ileus, and incarcerated hernia, in the form of clyster of the infusion, or the smoke; in spasmodic asthma, dropsy, and dysuria; chewing it relieves the pain of toothache; and, as an errhine, it forms the basis of all the snuffs in common use. The infusion has been used as a lotion in scabies, tinea capitis, and other eruptions; but it is apt to induce sickness.

Off. Prep.—*Enema Tabaci.*

TAMĂRINDUS. Tamarindus; Leguminis Pulpa. The Pulp of the fruit of the Tamarind. (Tamarindus *Indica*, the Tamarind Tree. *Monadelph. Decand.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley.*) West Indies. ♄)

Prop.—Inodorous; taste acid, sweet; juicy, when fresh and good; the seeds are hard; and the blade of a knife thrust into the pulp should not become coated with copper. The pulp contains citric acid 9·40, tartaric acid 1·55, malic acid 0·45, bitartrate of potassa 3·25, gelatine, mucilage, pectin, fecula, and sugar.

Oper.—Laxative, refrigerant.

Use.—In dysentery and fevers, particularly those attended with an increased secretion of bile, and putrid symptoms. Tamarind whey, made by boiling unc.ij. of the fruit with Ojss. of milk, and straining, is an excellent diluent in fevers.

Dose.—Gr.lx. to gr.cxx., often added to senna and to manna.

Off. Prep.—*Confectio Sennæ.*

Incomp.—Carbonates, and acetates of potassa, and soda; the resinous cathartics; infusum sennæ.

*TAPIŌCA. Janipha Manihot. Tapioca. (Fecula of the rhizomes of Janipha *Manihot.*) A modification of starch.

Use.—As nutritious and unstimulating articles of diet in fevers, pyrexiæ, and irritable conditions of stomach and bowels.

TARAXĂCI RADIX. Taraxacum Dens Leonis. Taraxacum. (Dens Leonis.) The fresh and dried Root of Dandelion. (*Syngen. Polygam. Æqual.* N. O. *Compositæ.* (*Asteraceæ, Lindley.*) Indigenous. ♃)

Comp.—Caoutchouc, mannite, resin, bitter extractive, from which has been obtained a crystalline matter (*Taraxacin*), sugar, gum, salts of potash and lime.

Prop.—Tap-shaped root, smooth and dark brown externally, white within, easily broken, yielding an inodorous bitter milky juice, becoming pale brown by exposure. Not wrinkled or pale-coloured externally, juice not watery, any adherent leaves runcinate and quite smooth. Inodorous; taste at first slightly sweetish and acidulous, then bitter.

Oper.—Tonic, aperient, diuretic, resolvent.

Use.—In chronic inflammation, and functional and organic disease of the liver; chronic derangements of the stomach; dropsy; pulmonary tubercles; and jaundice.

Dose.—Fl.unc.ij. of the following decoction three or four times a day: ℞ the full grown roots sliced unc.iv., water Oij. Boil gently to a pint, strain, and add bitartrate of potassa gr.clxxx.

Incomp.—Infusion of galls, nitrate of silver, bichloride of mercury, acetates of lead, sulphate of iron.

Off. Prep.—*Decoctum Taraxaci. Extractum Taraxaci. Succus Taraxaci.*

TEREBINTHĬNA CANĂDENSIS. Balsamum Canadense. Canada Balsam. An oleo-resin, obtained from the trunk after the removal of the bark. (Abies *Balsamea*. Balm of Gilead Fir. *Monœcia Monadelphia*. N. O. *Coniferæ*. (*Pinaceæ, Lindley.*) Canada. ♄)

Comp.—Resin, volatile oil. The rectified oil is the *Camphine* of chemists.

Prop.—Odour penetrating; taste warm, pungent, bitterish; colour pale yellow. The Canadian and Chian turpentines are thin, limpid, transparent; the Venetian and common, thicker, viscid, and less transparent; soluble in æther and alcohol: combine with fixed oil; insoluble in water, but impart to it their flavour; drying by exposure very slowly into a transparent adhesive varnish; solidifying when mixed with 1-6th of its weight of magnesia.

Oper.—Stimulant, diuretic, cathartic, astringent, rubefacient.

Use.—In chronic rheumatism, gleet, leucorrhœa, nephritic affections, and mucous obstructions of the urinary organs, also in hæmoptysis. United with water by means of yolk of egg, they are given clysterways in colic, obstinate costiveness, and to destroy ascarides. The latter kinds enter into the composition of plasters, and are especially useful in treatment of chronic indolent ulcers.

Dose.—Gr.xx. to gr.lx. in pills or bolus, united with powder of liquorice root; or emulsion, with mucilage or yolk of egg.

Off. Prep.—Charta Epispastica. Collodium Flexile.

TEREBINTHĬNÆ OLĔUM. Oil of Turpentine. The volatile oil. Vide *Oleum Terebinthinæ.*

THERIĂCA. Treacle. (*Sacchari Fæx.* The uncrystallised residue of the refining of sugar.)

Prep.—Thick, brown, fermentable syrup; nearly free from empyreumatic odour or flavour. Spec. gr. 1·40.

Oper.—Laxative, preservative, nutritive.

Use.—In combination with sulphur as an aperient; as a diet for children; to preserve meat in long voyages; to make pills.

Off. Prep.—Pil. Assafœtidæ Comp. Pil. Conii Comp. Pil. Ipecac. c. Scilla. Pil. Rhei Comp. Pil. Scillæ Comp.

THUS AMERICĀNUM. Common Frankincense. Concrete resinous exudation from Pinus Palustris and Pinus Tæda.

Prop.—Yellow colour, agreeable odour, brittle, but, on pressure, yielding to the finger. It generally contains fragments of wood.

Use.—External as an ingredient of counter-irritant plaster in coughs, in lumbar pains and weakness, and in some diseases of joints.

Off. Prep.—Emplastrum Picis.

TIGLĬI OLĔUM. Crotonis Olei. Crotonis Tiglii Oleum. Oil of Croton. Vide *Oleum Crotonis.*

TINCTŪRA ACONĪTI. Tincture of Aconite. (*Aconitæ Radicis crasse contritæ* unc.ijss.; *Spiritus rectificati* Oj. Prepared by maceration and percolation.)

Oper. and *Use.*—Sedative and anodyne; in neuralgia and articular rheumatism.

Dose.—Min.iij. to min.xv.

*** *This tincture has one-fourth the strength of the Tinctura Aconiti (Dub.), and one-third the strength of the London preparation.*

TINCTŪRA ALOËS. Tincture of Aloes. (*Aloes Socotrinæ crasse cont.* unc.ss.; *Ext. Glycyrrhizæ* unc.jss.; *Spir. ten.* q.s. Macerate for seven days: then add sufficient proof spirit to make one pint.)

Oper. and *Use.*—The same as of the extract of aloes.

Dose.—Fl.dr.j. to fl.dr.iij.

TINCTŪRA ARNĬCÆ. Tincture of Arnica. (*Arnicæ radicis pulverisatæ* unc.j.; *Spiritus rectificati* Oj. Prepared by maceration and percolation.)

Oper.—Stimulant, narcotic, diaphoretic; externally discutient.

Use.—In adynamic febrile affections, chronic rheumatism, paralysis, amaurosis, nervous headache, epilepsy; externally in sprains and bruises.

Dose.—Min.xxx. to fl.dr.ij.; externally fl.unc.j. to Oj. of fluid.

TINCTŪRA ASSAFŒTĬDÆ. Tincture of Assafœtida. (*Assafœtidæ in frustula contusæ* unc.ijss.; *Spir. rectif. quant. suff.* Macerate for seven days, and filter, and add sufficient spirit to make a pint.)

Oper and *Use.*—The same as of Assafœtida.

Dose.—Min.x. to fl.dr.j. (It becomes turbid when mixed with water.)

TINCTŪRA AURANTĬI. Tincture of Orange Peel. (*Aurantii Cort.* unc.ij.; *tenuioris* Oj. Prepared by maceration and percolation.)

Oper.—Stomachic, aromatic, tonic.

Use.—As an adjunct to bitter stomachic draughts.

Dose.—Fl.dr.ss. to fl.dr.ij.

Off. Prep.—*Mistura Ferri Aromatica. Syrupus Aurantii. Tinctura Quiniæ.*

TINCTŪRA BELLĂDONNÆ. Tincture of Belladonna. (*Belladonnæ foliorum crasse contritorum* unc.j; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.)

Oper.—Anodyne and sedative.

Use.—Seldom used internally, except in pertussis; externally in neuralgia, rheumatic pains, &c.

Dose.—Min.v. to min.xx. For a lotion fl.dr.j. to fl.unc.j. of water or any liniment.

*** *This tincture is about half the strength of the London and Dublin preparations.*

TINCTŪRA BENZOĪNI COMPOSĬTA. Compound Tincture of Benzoin. (*Benzoini crasse contriti* unc.ij.; *Styracis præparati* unc.jss.; *Balsami Tolutani* unc.ss.; *Aloes Socotrinæ* gr.clx.; *Spiritus rect.* Oj. Macerate for seven days, filter, and add sufficient spirit to make a pint.)

Oper.—Stimulant, expectorant, antispasmodic.

Use.—In old asthmatic cases; chronic catarrh; phthisis with a languid circulation. It is applied to wounds and languid ulcers, which it stimulates gently, and protects from the action of the air.

Dose.—Fl.dr.ss. to fl.dr.jss. rubbed up with yolk of egg, and any fluid.

TINCTŪRA BUCHU. Tincture of Buchu. (*Buchu foliorum contus.* unc.ijss.; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.)

Use.—The same as that of the leaves.

Dose.—From min.xxx. to fl.dr.ij.

TINCTŪRA CALUMBÆ. Tincture of Calumba. (*Calumbæ tenuiter concisæ* unc.ijss.; *Spir. tenuior.* Oj. Prepared by maceration and percolation.)

Oper. and *Use.*—Aromatic, tonic, stimulant. The same as of the root; but more easily borne on the stomach than either the powder or the infusion. It may be prescribed with iron.

Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA CAMPHŎRÆ COMPŎSĬTA. Tinctura Camphoræ Cum Opio. Tinct. Opii Camphorata. Camphorated Tincture of Opium.

(*Camphoræ* gr.xxx.; *Opii cont.*, *Acidi Benzoici*, *sing.* gr.xl.; *Anisi Olei* fl.dr.ss.; *Spir. ten.* Oj. Macerate for seven days, and strain.) Fl.unc.j. contains nearly gr.ij. of opium.

Oper.—Anodyne, narcotic, diaphoretic.

Use.—In catarrh, after the inflammatory symptoms are abated, to allay the tickling cough; chronic asthma; pertussis; and in cases where quiet, rather than sleep, is required.

Dose.—Min.xx. to min.lx. at bed-time; to children min.v. to min.xx. in almond mixture.

TINCTŪRA CANNĂBIS INDĬCÆ. Tincture of Indian Hemp. (*Ext. Cannabis Indicæ purificati* unc.j.; *Spiritus Rectif.* Oj. Dissolve the extract in the spirit.) There is a separation on mixing with other ingredients, which may be prevented by the addition of a little ammonia.

Oper.—Narcotic, anodyne. In small doses it exalts the mental powers, in larger doses it causes delirium; it does not dilate the pupil.

Use.—In neuralgia, dysmenorrhœa, chorea, tetanus, hydrophobia.

Dose.—Min.v. to min.xx.

TINCTŪRA CANTHĂRĬDIS. Tincture of the Spanish Fly. (*Cantharidis contus.* unc.¼; *Spir. ten.* Oj. Macerate for seven days in a closed vessel, with occasional agitation; strain, press, filter, and add sufficient proof spirit to make one pint.)

Oper.—Diuretic, stimulant, narcotic.

Use.—In gleet, hydrops ovarii, incontinence of urine, and leucorrhœa; but it is chiefly used as an external application, united with *Soap* or *Camphor Liniment*, against rheumatic and other pains. We have found it a useful application in that peculiar species of mortification of the extremities which sometimes takes place without any apparent cause; and to frost-bitten parts.

Dose.—Min.v. to min.xxx.

TINCTŪRA CAPSĬCI. Tincture of Capsicum. (*Capsici contusi* unc.¾; *Spir. rect.* Oj. Prepared by maceration and percolation.)

Oper.—Stimulant.

Use.—In the low stage of typhus, cynanche maligna, and other diseases of debility. In gargles in malignant cynanche.

Dose.—Min.v. to fl.dr.ss. Min.xxx. to fl.dr.ij. in a gargle of fl.unc.viij.

TINCTŪRA CARDAMŌMI COMPŎSĬTA. Compound Tincture of Cardamoms. (*Cardam. contusi*, *Carui contusi sing.* unc.¼; *Cocci contusi* gr.lx.; *Cinnam. cont.* unc.ss.; *Uvæ enucleatæ* unc.ij.; *Spir. ten.* Oj. Prepared by maceration and percolation.)

Oper.—Stomachic, carminative.

Use.—An elegant adjunct to stomachic infusions, and to juleps, a good corrective to griping, or cold purgatives.

Dose.—Min.xxx. to fl.dr.ij.

Off. Prep.—*Decoctum Aloes Compositum. Mistura Ferri Aromatica. Mistura Sennæ Composita. Tinctura Chloroformi Composita.*

TINCTŪRA CASCĀRILLÆ. Tincture of Cascarilla. (*Cascarillæ contusæ* unc.ijss.; *Spir. ten.* Oj. Prepared by maceration and percolation.)

Oper. and *Use.*—The same as of the bark.

Dose.—Fl.dr.ss. to fl.dr.ij. in any convenient vehicle.

TINCTŪRA CASTŌREI. Tincture of Castor. (*Castorei cont.* unc.j.; *Spir. rectificati* Oj. Macerate for seven days, express, and strain, and add sufficient rectified spirit to make up a pint.)

Oper.—Tonic, antispasmodic.
Use.—In the neuroses, hysteria, and spasmodic affections.
Dose.—Min.xx. to fl.dr.ij. or more.

TINCTŪRA CATĔCHU. Tincture of Catechu. (*Catechu pallidi contriti* unc.ijss.; *Cin. contusi* unc.j.; *Spir. ten.* Oj. Macerate for seven days, strain, press, filter, and add sufficient proof spirit to make one pint.)
Oper.—Astringent.
Use.—In chronic dysentery and diarrhœa; leucorrhœa, and debilities.
Dose.—Fl.dr.j. to fl.dr.ij. in wine, or some bitter infusion.

TINCTŪRA CHIRĀTÆ. Tincture of Chiretta. (*Chiratæ contusæ* unc.ijss.; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.)
Oper.—Tonic, laxative.
Use.—In atonic dyspepsia.
Dose.—Min.xxx. to fl.dr.ij.

TINCTŪRA CHLORŎFORMI COMPŎSĬTA. Compound Tincture of Chloroform. (*Chloroformi* fl.unc.ij.; *Spir. Rectificati* fl.unc.viij.; *Tincturæ Cardamomi Compositæ* fl.unc.x. Mix.)
Oper.—Anodyne, stimulant, antispasmodic.
Use.—In hysteria, in depressed conditions of the nervous and circulatory systems, neuralgia, colic, &c.
Dose.—Min.x. to min.lx.

TINCTŪRA CINCHŌNÆ COMPŎSĬTA. Compound Tincture of Cinchona. (*Cinchonæ pallidæ cont.* unc. ij.; *Aurantii corticis concisi et contusi* unc.j.; *Serpentariæ radicis* unc.ss.; *Croci* gr.lx.; *Cocci contriti* gr.xxx.; *Spir. ten.* Oj. Prepared by maceration and percolation.)
Oper.—Tonic, antiperiodic, diaphoretic.
Use.—The same as the next; but it is more grateful, and therefore more frequently used in dyspepsia; and as an adjunct to sulphate of quinia in agues.
Dose.—Min.xxx. to fl.dr.ij.

TINCTŪRA CINCHŌNÆ FLAVÆ. Tincture of Yellow Cinchona. (*Cinchonæ flavæ cont.* unc.iv.; *Spir. ten.* Oj. Prepared by maceration and percolation.)
Oper. and *Use.*—The same as of the bark; but owing to the quantity required to be exhibited to produce the effect of cinchona, the infusion or decoction is preferred.
Dose.—Min.xxx. to fl.dr.jss.

*TINCTŪRA CINCHŌNÆ PALLĬDÆ. Tincture of Pale Bark. (*Cinchonæ Pallidæ cont.* unc.viij.; *Spiritus ten.* Oj. Macerate for seven days, express, and strain.)
Oper., *Use*, and *Dose.*—Same as Tinct. Cinchonæ Flavæ.

TINCTŪRA CINNAMŌMI. Tincture of Cinnamon. (*Cinnamomi contusi* unc.ijss.; *Spirit. tenuioris* Oj. Prepared by maceration and percolation.)
Oper.—Astringent, stomachic.
Use.—As an adjunct to astringent infusions; in chronic diarrhœa and dysentery; in dyspepsia, added to bitter infusions.
Dose.—Fl.dr.j. to fl.dr.ij.

TINCTŪRA COCCI. Tincture of Cochineal. (*Cocci in pulverem subtilissimum redacti* unc.ijss.; *Spiritus tenuioris* Oj. Macerate for seven days, strain, express, and filter.)

Use.—In pertussis and neuralgia on the Continent, but chiefly as a colouring agent.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA COLCHĬCI SEMĬNUM. Tincture of Colchicum Seed. (*Seminis Colchici contusi* unc.ijss.; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.)
Oper. and *Use.*—The same as those of the dried bulb.
Dose.—From min.x. to fl.dr.ss.

TINCTŪRA CONĪI. Tincture of Hemlock Fruit. Tinctura Conii Fructus, 1864. (*Conii Fructus exsiccati* unc.ijss.; *Spir. ten.* Oj. Prepared by maceration and percolation.)
Use.—The same as that of the leaves and extract.
Dose.—Min.x. to min.lx.

TINCTŪRA CROCI. Tincture of Saffron. (*Croci con.* unc.j.; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.
Oper.—Stimulant, diaphoretic.
Use.—As an adjunct to mixtures in typhoid fevers, and to camphor mixture in nervous langours.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA CUBĒBÆ. Tincture of Cubebs. (*Cubebæ contritæ* unc.ijss.; *Spiritus rectificati* Oj. Prepared by maceration and percolation.)
Oper.—Stimulant to mucous membrane; especially that of the genito-urinous system.
Use.—In gonorrhœa, dysmenorrhœa.
Dose.—Fl.dr.½ to fl.dr.j.

TINCTŪRA CURCŬMÆ. Tincture of Turmeric. Appendix I. (*Curcumæ contusæ* unc.j.; *Spiritus tenuioris* fl.unc.vj. Macerate for seven days and strain.)
Use.—As a test for alkalies, by which, when in solution, it is changed to yellow brown.

TINCTŪRA DIGITĀLIS. Tincture of Digitalis. (*Digitalis contusæ* unc.ijss.; *Spir. ten.* Oj. Prepared by maceration and percolation.
Oper. and *Use.*—The same as of the leaves. It is, perhaps, the best form under which this powerful remedy can be used, and its virtues longest preserved; but it should be made with recently dried leaves.
Dose.—Min.x. gradually increased to min.xl.

TINCTŪRA ERGŎTÆ. Tincture of Ergot. (*Ergotæ contusæ* unc.v.; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.)
Oper.—Stimulant, especially acting on the muscular system of the uterus.
Use.—In parturition when the pains languish, and the uterine action becomes torpid, provided the os be fully dilated, and the membranes ruptured. In leucorrhœa and passive hæmorrhages.
Dose.—Min.xv. every three or four hours to suppress hæmorrhage. Min.xx. to fl.dr.j. every half-hour to promote uterine contraction.

TINCTŪRA FERRI ACETĀTIS. Tincture of Acetate of Iron. (*Liquoris Ferri Persulphatis* unc.ijss.; *Potassæ Acetatis* unc.ij.; *Spiritus rectificati* quant.suff. Dissolve the acetate in ten ounces, and add the persulphate to eight ounces of spirit, then agitate the mixed solutions, filter and add spirit to make up one pint.
Prop.—Reddish-brown colour, transparent, ethereal odour, chalybeate taste.

Comp.—Solution of the acetate of the sesquioxide (or peroxide) in rectified spirit.
Oper.—Tonic, astringent.
Use.—In dyspepsia, chlorosis, hysteria, cardiac disease.
Dose.—Min.v. to fl.dr.j. in water or asses' milk.

TINCTŪRA FERRI PERCHLORIDI. Tincture Muriatis Ferri. Tincture of Perchloride of Iron. Tinctura Ferri Sesquichloridi, *Lond.* (*Liquoris Ferri Perchloridi* fl.unc.v.; *Spiritus rectificati* fl.unc.xv. Mix and preserve in a stoppered bottle. Sp. gr. 0·992. One-third the strength of the Dublin preparation.)
Prop.—Taste very austere, styptic ; colour brownish-yellow. The specific gravity is ·992. When a solution of potash is added to an ounce of the tincture, nearly 31·24 gr. of the peroxide of iron are precipitated.
Oper.—Tonic, antispasmodic, emmenagogue, diuretic, styptic.
Use.—Besides the cases for which salts of iron are usually employed, this tincture has been found serviceable in dysury, depending on spasmodic stricture of the urethra, in small doses repeated every fifteen minutes, till nausea be induced. It is also applied as a styptic to bleeding vessels in cancerous and loose fungous sores.
Dose.—Min.x. gradually increased to min.xxx.
Incomp.—Alkalies, lime-water, magnesia, and their carbonates ; astringent vegetable infusions and decoctions ; muc. of acacia.

TINCTŪRA GALLÆ. Tinctura Gallarum. Tincture of Galls. (*Gallæ contrit.* unc.ijss.; *Spir. ten.* Oj. Prepared by maceration and percolation.)
Oper.—Astringent.
Use.—In intestinal hæmorrhages, and those of the prostate gland, obstinate protracted diarrhœa, and dysentery ; also in testing for the salts of iron.
Dose.—Fl.dr.ss. to dr.ij.

TINCTŪRA GENTIĀNÆ COMPŎSĬTA. Compound Tincture of Gentian. (*Gentianæ contusæ* unc.jss.; *Aurant. Cort. contusæ* unc.¾ ; *Cardam. contusi* unc.¼ ; *Spir. ten.* Oj. Prepared by maceration and percolation.)
Oper.—Tonic, stomachic.
Use.—An elegant adjunct to stomachic infusions.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA GUĀIĂCI AMMONIĀTA. Ammoniated Tincture of Guaiacum. Compound Tincture of Guaiacum. (*Guaiaci Resinæ cont.* unc.iv.; *Spir. Ammoniæ aromat.* Oj. Macerate for seven days, and strain.)
Oper.—Stimulant, sudorific, antispasmodic.
Use.—In chronic rheumatism, for which it is more particularly adapted than the former preparation.
Dose.—Fl.dr.½ to fl.dr.j. in milk, or any viscid fluid.
Incomp.—Nitrous acid, sweet spirit of nitre, solution of chlorine.

TINCTŪRA HYOSCYĂMI. Tincture of Henbane. (*Hyoscyami foliorum* unc.ijss.; *Spir. ten.* Oj. Prepared by maceration and percolation.)
Oper.—Narcotic, anodyne.
Use.—To produce sleep and quiet in those cases for which laudanum is used ; it does not affect the head, nor occasion costiveness.
Dose.—Min.xv. to fl.dr.j.

TINCTŪRA IODI. Tincture of Iodine. (*Iodi* unc.ss.; *Potassii Iodidi*

unc.¼; *Spiritus rectificati* Oj. Dissolve the iodine and iodide in the spirit. Preserve the mixture in a closely stoppered vessel.)
Use.—In scrofula, bronchochele, and chlorosis.
Dose.—From min.v. to min.xxx. in a little syrup and water three times a day.
Off. Prep.—*Vapor Iodi.*

TINCTURA JALĂPÆ. Tincture of Jalap. (*Jalapæ crasse contritæ* unc.ijss.; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.
Oper.—Cathartic.
Use.—As an adjunct to purgative draughts.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA KINO. Tincture of Kino. (*Kino contriti* unc.ij.; *Spir. rect.* Oj. Macerate for seven days and strain.)
Oper.—Astringent.
Use.—In chronic diarrhœa, dysentery, leucorrhœa, and lientery.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA KRAMĒRĬÆ. Tincture of Rhatany Root. (*Krameriæ Radicis contritæ* unc.ijss.; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.)
Prop.—Astringent.
Use.—In diarrhœa, leucorrhœa, passive hæmorrhages, incontinence of urine.
Dose.—Min.xxx. to fl.dr.j.

TINCTŪRA LAVANDŬLÆ COMPŎSĬTA. Spiritus Lavandulæ Compositus. Compound Tincture of Lavender. (*Lavandulæ Olei* fl.dr.jss.; *Rosmarini Olei* min.x.; *Cinnamomi cont., Myristicæ cont. sing.* gr.cl.; *Pterocarpi concisi* gr.ccc.; *Spiritus rectificati* Oij. Macerate the cinnamon, nutmeg, and red sandal wood in spirit for seven days, then express and strain, and dissolve the oils in the strained tincture.
Use.—In fainting, hysteria, and in depression of the nervous system.
Dose.—Min.xxx. to fl.dr.ij.
Off. Prep.—*Liquor Arsenicalis.*

TINCTŪRA LIMŌNIS. Tincture of Lemon Peel. (*Limonis corticis recentis* unc.ijss.; *Spiritus tenuioris* Oj. Macerate and strain.
Prop.—Aromatic, stimulant.
Use.—To flavour medicines.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA LOBĒLIÆ. Tincture of Lobelia. (*Lobeliæ contusæ* unc.ijss.; *Spiritus ten.* Oj. Prepared by maceration and percolation.)
Use.—For the administration of the Lobelia in minute doses in spasmodic asthma.
Dose.—Min.x. to fl.dr.ss.

TINCTŪRA LOBĒLIÆ ÆTHĔRĔA. Ethereal Tincture of Lobelia. (*Lobeliæ contusæ* unc.ijss.; *Spir. Ætheris* Oj. Prepared by maceration.)
Use.—In asthma, chronic bronchitis, and the bronchitis of infants after the acute stage.
Dose.—For an adult min.x. to min.xxx., for an infant min.j. gradually increased till vomiting occurs.

TINCTŪRA LŬPŬLI. Tinctura Lupulinæ. Tincture of Hops. (*Lupuli* unc.ijss.; *Spir. ten.* Oj. Prepared by maceration and percolation.)

Oper.—Tonic, sedative.
Use.—In gout and rheumatism.
Dose.—Fl.dr.ss. to fl.dr.iij.

TINCTŪRA MYRRHÆ. Tincture of Myrrh. (*Myrrhæ contritæ* unc.ijss.; *Spir. rect.* Oj. Prepared by maceration and percolation.)
Oper.—Tonic, expectorant, deobstruent, antiseptic, detergent, emmenagogue.
Use.—In the same cases as the powder; but it is chiefly used externally, united to infusion of roses and acids, in gargles; applied to foul ulcers, and exfoliating bones; and as a wash for the mouth when the gums are spongy.
Dose.—Fl.dr.ss. to fl.dr.j.

TINCTŪRA NUCIS VOMĬCÆ. Tincture of Nux Vomica. (*Nucis Vomicæ* unc.ij.; *Spiritus rectificati* Oj. Having softened the nux vomica by steam, dry rapidly and powder, then proceed by maceration and percolation.) Each fluid ounce contains 44 grains.
Oper. and *Use.*—The same as Nux Vomica. (See *Extractum Nucis Vomicæ.*) A convenient way for administering the drug in draughts.
Dose.—From min.v. to min.xxx.

TINCTŪRA OPĬI. Tincture of Opium. (*Opii contriti* unc.jss.; *Spir. ten.* Oj. Macerate for seven days and strain. This tincture is not easily obtained by percolation. It contains the soluble matter of thirty-three grains of opium, nearly, in an ounce, and in one drachm 4⅛ grs.)
Oper.—Anodyne, narcotic.
Use.—To allay pains, relax spasms, and procure sleep. Externally this tincture has a considerable effect when it is rubbed upon the skin, as we have seen in a case of repeated temporary lockjaw, which always yielded to it. In fever it should be given when moisture begins to appear on the skin.
Dose.—Min.ij. to min.xxx. or more.
Incomp.—Liq. ammoniæ,—potassæ, carbonas potassæ,—sodæ; metallic salts, astringent vegetable infusions and decoctions, and perhaps belladonna, and hyoscyamus.
*** In tetanus and other violent affections, the quantity of laudanum that can be borne by the constitution is almost incredible. Currie gave fl.unc.vss. in twenty-six hours; see *Reports on Cold Water, &c.*
Off. Prep.—*Enema Opii. Linimentum Opii.*

TINCTŪRA OPĬI AMMONIĀTA. Ammoniated Tincture of Opium. Scotch Paregoric. (*Opii crasse contriti* gr.c.; *Croci minutim concisi, Acidi Benzoici, sing.* gr.clxxx.; *Olei Anisi* fl.dr.j.; *Liquoris Ammoniæ Fortioris* fl.unc.iv.; *Spiritus rectificati* fl.unc.xvj. Prepare by maceration.)
Oper.—Anodyne, antispasmodic.
Use.—In pertussis, and to allay the tickling cough in catarrh; flatulence, colic, &c.
Dose.—Fl.dr.ss. to fl.dr.j.

TINCTŪRA PYRĒTHRI. Tincture of Pellitory. (*Pyrethri radicis* unc.iv.; *Spiritus rectificati* Oj. Prepare by maceration and percolation.)
Oper.—Stimulant and sialagogue.
Use.—Rarely if ever internally; as a local application in strumous affections of tonsils, odontalgia, &c.

TINCTŪRA QUASSĬÆ. Tincture of Quassia (*Scob. Ligni Quassiæ* unc.ʒj; *Spiritus tenuioris* Oj. Prepare by maceration.)

Oper.—Tonic, stomachic.
Use.—As an adjunct to stomachic infusions, or diluted with water in dyspepsia and other cases of debility.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA QUINĬÆ. Tincture of Quinia. (*Quiniæ Sulphatis* gr.clx.; *Tincturæ Aurantii* Oj. Digest for seven days, and strain.) To secure the solution of the whole quantity of quinine fl.dr.ij. of sulphuric acid ought to be added. Fl.dr.j. contains gr.j. of quinine.
Oper.—Tonic, aromatic, antiperiodic.
Use.—In intermittent fever, debility, and every case in which cinchona or quinine has been employed.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA RHĔI. Tincture of Rhubarb. (*Rhei contusi* unc.ij.; *Cardamomi contusi, Coriandri contusi, Croci, sing.* unc.¼; *Spir. ten.* Oj. Prepared by maceration and percolation.)
Dose.—Fl.dr.j. to fl.dr.ij. as a stomachic; fl.dr.iv. to fl.unc.j. as a purgative.

TINCTŪRA SABĪNÆ. Tincture of Savin. (*Sabinæ cacuminum exsiccatorum et contusorum* unc.ijss.; *Spir. ten.* Oj. Prepared by maceration and percolation.)
Oper.—Stimulant; emmenagogue; in large doses causes abortion; anthelmintic, escharotic.
Use.—Amenorrhœa, worms, gout? Externally to promote discharge from blistered surfaces.
Dose.—Min.xx. to fl.dr.j.

TINCTŪRA SCILLÆ. Tincture of Squill. (*Scillæ contusæ* unc.ijss.; *Spir. ten.* Oj. Macerate and percolate.)
Oper. and *Use.*—The same as of the bulb in substance.
Dose.—Min.x. to fl.dr.j. in almond mixture, or mucilage.

TINCTŪRA SENĔGÆ. Tincture of Senega. (*Senegæ contusæ* unc.ijss.; *Spir. ten.* Oj. Macerate and percolate.)
Oper.—Stimulant, expectorant, diaphoretic, diuretic.
Use.—In chronic bronchitis of weak persons, dysmenorrhœa, albuminuria.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA SENNÆ COMPŎSĬTA. Compound Tincture of Senna. (*Sennæ* unc.ijss.; *Carui con.* unc.ss.; *Coriandri* unc.ss.; *Uvæ enucleatæ* unc.ij.; *Spirit. ten.* Oj. Macerate and percolate.)
Oper.—Stomachic, carminative, cathartic.
Use.—In flatulent colic; and to open the bowels in those who labour under atonic gout, and whose bowels have been weakened by hard drinking. It is a useful adjunct to the infusion of sennæ.
Dose.—Fl.dr.j. to fl.dr.iv.
Off. Prep.—*Mistura Sennæ Composita.*

TINCTŪRA SERPENTARĬÆ. Tincture of Serpentary. (*Serpentariæ cont.* unc.ijss.; *Spir. ten.* Oj. Macerate and percolate.)
Oper.—Tonic, stimulant, sudorific.
Use.—United with infusion of cinchona in typhoid and putrid fevers; in gout; and periodic headache.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA STRAMŌNĬI. Tincture of Stramonium (*Stramonii Seminum contus.* unc.ijss.; *Spiritus tenuioris* Oj. Macerate and percolate.) Each fluid ounce contains 54½ grains.
Prop.—Sedative, antispasmodic, narcotic.

Use.—In neuralgia, tic-douloureux, asthma, and spasmodic affections generally, excepting where symptoms of cerebral congestion or inflammation are present.
Dose.—Min.x. to min.xxx.

TINTŪRA SUMBUL. Tincture of Sumbul. (*Sumbul radicis* unc.ijss.; *Spiritus tenuioris* Oj. Prepared by maceration and percolation.)
Oper.—Antispasmodic, stimulant.
Use.—In disease of the nervous system.
Dose.—Min.x. to min.xxx.

TINCTŪRA TOLUTĀNA. Tincture of Tolu. (*Balsami Tolutani* unc.ijss.; *Spiritus rectificati* Oj. Macerate until the balsam is dissolved, and strain.)
Oper.—Supposed to be expectorant; corroborant.
Use.—Scarcely ever used except on account of its pleasant flavour. The following is an elegant form of giving the medicine in obstinate coughs devoid of inflammatory symptoms:—℞ *Tincturæ Tolutanæ* fl.dr.ij.; *Mucilag. Acaciæ* fl.unc.j.; *Aq. destillatæ* fl.unc.ivss.; *Tinct. Camp. Comp.* fl.dr.iij.; *Syr. Tolutani* fl.dr.iij. Take two table-spoonfuls occasionally when the cough is troublesome.
Dose.—Min.xx. to min.xl., or more.
Off. Prep.—*Trochisci Acidi Tannici. Trochisci Morphiæ. Trochisci Morphiæ et Ipecacuanhæ. Trochisci Opii.*

TINCTŪRA VALERIĀNÆ. Tincture of Valerian. (*Valerianæ cont.* unc.ijss.; *Spir. ten.* Oj. Macerate and percolate.)
Oper.—Stimulant, antispasmodic.
Use.—In nervous and spasmodic affections; but it has less efficacy than the powder.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA VALERIĀNÆ AMMONIĀTA. Tinctura Valerianæ Ammoniata. Ammoniated Tincture of Valerian. (*Valerianæ* unc.ijss.; *Spir. Ammoniæ Aromat.* Oj. Macerate for seven days and strain.)
Oper. and *Use.*—The same as of the former; but, on account of the ammonia, this is more useful in hysteria.
Dose.—Fl.dr.½ to fl.dr.j. in milk, or some bland fluid.

TINCTŪRA VERĀTRI VĬRĬDIS. Tincture of Green Hellebore. (*Veratri Viridis radicis* unc.iv.; *Spiritus rectificati* Oj. Prepare by maceration and percolation.)
Oper.—Purgative, sedative to the arterial system.
Use.—In some affections of liver, gout, &c.
Dose.—Min.v. to min.xx.

TINCTŪRA ZINGIBĔRIS. Tincture of Ginger. (*Zingiberis contusi* unc.ijss.; *Spir. rectificati* Oj. Maceration and percolation.)
Oper.—Stimulant, carminative.
Use.—In atonic gout, when it attacks the stomach; flatulencies; and as a corrigent to griping purgatives.
Dose.—Min.xv. to fl.dr.j.

TINCTŪRA ZINGIBĔRIS FORTĬOR. Strong Tincture of Ginger. Essence of Ginger. (*Zingiberis in pulverem subtilissimum redacti* unc.x.; *Spiritus rectificati* quant.suff. Percolate and add sufficient spirit to the percolation to make one pint.)
Oper. and *Use.*—The same as the former.
Dose.—Min.v. to min.xx.
Off. Prep.—*Syrupus Zingiberis.*

TRAGACANTHA. Astragalus gummifer. Tragacanth. Exudation from the bark, hardened in the air. (*Astralagus verus. Diadelphia Decand.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley.*) Asia Minor. ♄)

Prop.—Inodorous; nearly insipid, imparting only a very slight bitter taste as it dissolves; colour whitish; semitransparent, striated; in thin vermiform pieces; completely pulverulent in frosty weather only; does not form a smooth uniform mucilage with water.

Comp.—Arabine 53 per cent. soluble in water, bassorine 47 per cent. insoluble in water.

Oper.—Demulcent.

Use.—Small quantities held in the mouth, and swallowed very slowly, sheath the fauces and allay tickling cough. Given in gonorrhœa, irritable bladder, strangury; but it is chiefly used for pharmaceutical purposes.

Dose.—Gr.x. to gr.lx.

Incomp.—Cupri sulphas, plumbi acetas, and sulphas ferri precipitate its mucilage.

Off Prep.—Confectio Opii. Mucilago Tragacanthæ. Pulvis Opii Compositus. Pulvis Tragacanthæ Comp.

TROCHĪSCI ACĬDI TANNĬCI. Tannin Lozenges. (*Acidi Tannici* gr.ccclx.; *Tincturæ Tolutanæ* fl.unc.ss.; *Sacchari* unc.xxv.; *Acaciæ contritæ* unc.j.; *Mucilaginis Acaciæ* fl.unc.ij.; *Aquæ destillatæ* fl.unc.j. To be made into lozenges containing gr.ss. of tannic acid in each lozenge.)

Oper.—Astringent.

Use.—In all cases in which tannic acid is indicated, especially in relaxed throat.

Dose.—One, two, or more, occasionally.

TROCHĪSCI BISMŪTHI. Bismuth Lozenges. (*Bismuthi albi* gr.mccccxl.; *Magnesiæ Carbonatis* unc.iv.; *Calcis Carbonatis præcipitatæ* unc.vj.; *Sacchari albi* unc.xxix.; *Acaciæ contritæ* unc.j.; *Mucilaginis Acaciæ* fl.unc.ij.; *Aquæ rosæ quant. suff.* Mix the dry ingredients, then add the mucilage, and form the whole into a proper mass with rose-water. Divide into 720 lozenges, each containing gr.ij. of bismuth.)

Oper. and *Use.*—Sedative in pyrosis and cases of irritable stomach.

Dose.—Two or more, four or five times a day.

TROCHĪSCI CATĔCHU. Catechu Lozenges. (*Catechu pallidi contriti* gr.dccxx.; *Sacchari albi* unc.xxv.; *Acaciæ contritæ* unc.j.; *Mucilaginis Acaciæ* fl.unc.ij.; *Aquæ destillatæ quant. suff.* Make into 720 lozenges. Each lozenge contains 1 grain of catechu.

Oper.—Astringent.

Use.—In relaxation of throat, pyrexia, diarrhœa, &c.

Dose.—One, two, three, or more.

TROCHĪSCI FERRI REDACTI. Reduced Iron Lozenges. (*Ferri Redacti* gr.dccxx.; *Sacchari albi* unc.xxv.; *Acaciæ contritæ* unc.j.; *Mucilaginis Acaciæ* fl.unc.ij.; *Aquæ destillatæ* fl.unc.j. vel q.s. Make and divide into 720 lozenges.) Each lozenge contains 1 grain of reduced iron.

Oper.—Chalybeate, tonic, emmenagogue.

Use.—In anæmia and chlorosis.

Dose.—One to six.

TROCHĪSCI IPĔCACŬANHÆ. Ipecacuanha Lozenges. (*Ipecacuanhæ contritæ* gr.clxxx.; *Sacchari albi* unc.xxv.; *Acaciæ contritæ* unc.j.; *Mucilaginis Acaciæ* fl.unc.ij.; *Aquæ destillatæ* fl.unc.j. vel q.s. Make

and divide into 720 lozenges.) Each lozenge contains gr.¼ of ipecacuanha.

Oper.—Expectorant, diaphoretic.

Use.—In catarrhal cough.

Dose.—One to three.

TROCHĪSCI MORPHĬÆ. Morphia Lozenges. (*Morphiæ Hydrochloratis* gr.xx.; *Tincturæ Tolutanæ* fl.unc.ss.; *Sacchari albi contriti* unc.xxiv.; *Acaciæ contritæ* unc.j.; *Mucilaginis Acaciæ* q. s.; *Aquæ destillatæ ferventis* fl.unc.ss. Dissolve the hydrochlorate in a little hot water, mix it and the tincture of tolu with the sugar, and form into 720 lozenges with mucilage.) Each lozenge contains gr.1-36th of hydrochlorate of morphia.

Oper.—Anodyne, soporific.

Dose.—One to six.

TROCHĪSCI MORPHĬÆ ET IPECACUANHÆ. Morphia and Ipecacuanha Lozenges. (*Morphiæ Hydrochloratis* gr.xx.; *Ipecac. pulv.* gr.lx.; *Tincturæ Tolutanæ* fl.unc.ss.; *Sacchari albi contriti* unc.xxiv.; *Acaciæ contritæ* unc.j.; *Mucilaginis Acaciæ* q.s.; *Aquæ destillatæ ferventis* fl.unc.ss. Make into 720 lozenges, each containing gr.1-36th of hydrochlorate of morphia, and gr.1-12th of ipecacuanha each.)

Use.—A substitute for Dover's powder.

Dose.—One, three or four times a day.

TROCHĪSCI OPĬI. Opium Lozenges. (*Ext. Opii* gr.lxxij.; *Tinct. Tolutanæ* fl.unc.ss.; *Sacchari albi contriti* unc.xvj.; *Acaciæ contritæ* unc.j.; *Ext. Glycyrrhizæ* unc.vj.; *Aquæ destillatæ* q. s. Divide into 720 lozenges, each containing extract of opium gr.1-10th.)

Oper.—Demulcent, anodyne.

Use.—For allaying the irritation of the fauces producing cough, in protracted catarrhs.

Dose.—One, allowed to dissolve slowly in the mouth, now and then.

TROCHĪSCI POTASSÆ CHLORĀTIS. Chlorate of Potash Lozenges. (*Potassæ Chloratis contritæ* unc.viij.gr.c.; *Sacchari albi* unc.xxv.; *Acaciæ contritæ* unc.j.; *Mucilaginis Acaciæ* fl.unc.ij.; *Aquæ destillatæ* fl.unc.j. vel q.s. Make and divide into 720.) Each lozenge contains 5 grains chlorate of potash.

Oper.—Detergent, stimulant.

Use.—In affections of mouth and throat, especially when of follicular character.

Dose.—One to six.

TROCHĪSCI SODÆ BICARBONĀTIS. Bicarbonate of Soda Lozenges. (*Sodæ Bicarbonatis contritæ* unc.viij.gr.c.; *Sacchari albi* unc.xxv.; *Acaciæ contritæ* unc.j.; *Mucilag. Acaciæ* fl.unc.ij.; *Aquæ destillatæ* fl.unc.j. Make into 720 lozenges.) Each lozenge contains 5 grains of bicarbonate of soda.

Oper.—Antacid.

Use.—In acidity of stomach, dyspepsia.

Dose.—One to six.

ULMI CORTEX. The inner bark of Elm. (*Ulmus campestris. Pentand. Digynia.* N. O. *Ulmaceæ.* Indigenous. ♄)

Comp.—Tannic acid in small proportions, ulmic acid, and mucus.

Prop.—Tough brownish yellow bark, about half a line thick; inodorous; taste bitter, austere, mucilaginous. Its decoction is turned green by perchloride of iron, and precipitated with a solution of gelatine.

Oper.—Tonic, alterative, diuretic.

Use.—In lepra, and other cutaneous affections; it is generally combined with mercurials, as Pilula Hydrarg. Subchlor. comp.
Dose.—See *Decoction.*
Off. Prep.—*Decoctum Ulmi.*

UNGUENTUM ACONĪTĬÆ. Ointment of Aconitia. (*Aconitiæ* gr.viij.; *Spir. rectificati* fl.dr.ss.; *Adipis præparati* unc.j.)
Oper.—Sedative, anodyne.
Use.—In neuralgia, chronic rheumatism.

UNGUENTUM ANTIMŌNĬI TARTARĀTI. Unguentum Antimoniale. Unguentum Antimonii Tartarizati. Ointment of Tartarated Antimony. (*Antimonii tartarati in pulv. subtilissimum triti* unc.¼; *Unguenti simplicis* unc.j. Mix.)
Oper.—As a topical stimulant to cause a pustular eruption on the skin, and produce counter-irritation.
Use.—In internal inflammations, especially of the chest, and rheumatism and chronic inflammation of the joints.

*UNGUENTUM ATRŎPĬÆ. Ointment of Atropia. (*Atropiæ* gr.viij.; *Spir. rectificati* fl.dr.ss.; *Adipis præparati* unc.j. Dissolve the Atropia in the spirit and add the lard.)
Oper.—Anodyne, causing dilatation of the pupils.
Use.—In neuralgia, and in ophthalmic cases, to dilate the pupil.

UNGUENTUM BELLADONNÆ. Ointment of Belladonna. (*Ext. Belladonnæ* gr.lxxx.; *Adipis præparati* unc.j. Rub them together.)
Oper.—Anodyne; relaxing muscular fibre.
Use.—In painful ulcers, hæmorrhoidal affections, chordee, ascites, rheumatism, and applied round the eye to cause dilatation of the pupil.

UNGUENTUM CADMĬI IODĬDI. Ointment of Iodide of Cadmium. (*Cadmii Iodidi pulverisati* gr.lxij.; *Unguentum simplicis* unc.j. Mix.)
Oper.—Alterative, resolvent, having the same action as iodide of lead, but without its injurious effects on absorption.
Use.—In cases of enlarged scrophulous joints, in some cutaneous affections and chilblains.

UNGUENTUM CANTHĂRĬDIS. Ointment of Cantharides. (*Cantharidis in pulverem subtilissimum* unc.j.; *Ceræ flavæ* unc.j.; *Olei Olivæ* fl.unc.vj. Digest the cantharides in the oil, then heat by means of a water-bath, strain, and mix well with previously melted wax.)
Oper.—Irritant.
Use.—To keep open issues and blisters.

UNGUENTUM CETĀCEI. Ointment of Spermaceti. (*Cetacei* unc.v.; *Ceræ albæ* unc.ij.; *Amygdalæ Olei* Oj., vel quantum satis sit. Stir them when melted with a slow fire till cold.)
Use.—The ordinary dressing for blistered parts and excoriations.

*UNGUENTUM COCCŬLI. Ointment of Cocculus Indicus. (*Cocculi seminum* gr.lxx.; *Adipis præparati* unc.j.)
Use.—A stimulant in obstinate porrigo, and to kill lice.

*UNGUENTUM CONĬI. Ointment of Hemlock. (*Conii recentis, Adipis, sing.* lb.j. Boil the leaves of the conium in the fat until they are crisp; then express through cloth.)
Use.—As an application to cancerous and irritable or painful sores.

UNGUENTUM CREASŌTI. Ointment of Creasote. (*Creasoti* fl.dr.j.; *Unguenti simplicis* unc.j. Rub and mix.)
Oper.—Stimulant.
Use.—As a counter-irritant, and as an application in porrigo scutulata.

UNGUENTUM ELĔMI. Ointment of Elemi. (*Elemi* unc.½; *Unguenti simplicis* unc.j. Melt, strain through flannel, and stir till cold.)
Oper.—Stimulant, digestive.
Use.—To keep open issues and setons: and as a dressing to ulcers which do not admit of the application of adhesive straps.

UNGUENTUM GALLÆ. Ointment of Galls. (*Gallæ subtilissime contritæ* gr.lxxx.; *Adipis Benzoati* unc.j. Mix.)
Oper.—Astringent.
Use.—Hæmorrhoids.

UNGUENTUM GALLÆ CUM OPĬO. Unguentum Gallæ et Opii. Ointment of Galls and Opium. (*Unguenti Gallæ* unc.j.; *Opii contriti* gr.xxxij. Mix.)
Oper.—Astringent and sedative.
Use.—As an application in piles.

UNGUENTUM HYDRARGŸRI. Ointment of Mercury. (*Hydrargyri* lb.j.; *Sevi præparati* unc.j.; *Adipis præparati* lb.j. Rub together till the globules disappear.)
Comp.—This ointment consists of protoxide of mercury, metallic mercury, and fat; and perhaps, in old ointments, some sebate of mercury. Mr. Donovan has proved that the efficacy depends on the oxide which it contains, yet the preparation with the oxide instead of metallic mercury is not approved. By this mode of preparation, each ounce of ointment contains about gr.21 of oxide.
Oper.—Antisyphilitic, alterative, discutient.
Use.—In venereal affections, when it is wished to get a large portion of mercury speedily into the system without affecting the bowels; and where there are local affections, as bubo. In some forms of fever, pneumonia, inflammation within the abdomen, when mercury internally cannot be borne. The diluted ointment is used as a topical dressing to venereal ulcers, erysipelas of the face, &c.
Dose.—Gr.lx. is introduced by friction upon the inside of the thigh, or the fore-arm, every night, till the system is affected; living upon a milk and gruel diet.
Off. Prep.—*Linimentum Hydrargyri. Suppositoria Hydrargyri. Unguentum Hydrargyri Compositum.*

UNGUENTUM HYDRARGŸRI AMMŌNIĀTI. Unguentum Hydrargyri Ammonio-chloridi. Unguentum Precipitati Albi. Ointment of Ammoniated Mercury. (*Hydrargyri ammoniati* gr.lxij.; *Unguenti simplicis* unc.j.)
Oper.—Stimulant and detergent.
Use.—In porrigo and impetigo of the scalp, lippitudo, scabies.

UNGUENTUM HYDRARGŸRI COMPŎSĬTUM. Compound Ointment of Mercury. (*Unguenti Hydrargyri* unc.vj.; *Ceræ Flavæ, Olei Olivæ, sing.* unc.iij.; *Camphoræ* unc.jss. Melt the wax with a gentle heat, and add the oil, and when nearly cold, add the camphor in powder, and the mercurial ointment, and mix thoroughly.)
Oper.—Antisyphilitic, alterative, discutient, but more stimulating than the previous preparation; the camphor aids the action of the mercury.
Use.—In internal inflammation, where mercurial action is required, and the constitution is feeble.

UNGUENTUM HYDRARGŸRI IODĬDI RUBRI. Ointment of Red Iodide of Mercury. (*Hydrargyri Iodidi Rubri in pulverem subtilissimum redacti* gr.xvj.; *Unguenti simplicis* unc.j.)
Oper. and *Use.*—Stimulant, as a dressing in scrofulous and flabby sores.

UNGUENTUM HYDRARGŸRI NITRĀTIS. Unguentum Citrinum. Ointment of Nitrate of Mercury. (*Hydrargyri* (*pondere*) unc.iv.; *Acidi Nitrici* fl.unc.xij.; *Adipis præparati* unc.xv.; *Olei Olivæ* fl.unc.xxxij. Dissolve the mercury in the acid with the aid of a gentle heat. Melt the lard with the oil, and while the mixture is hot, add to it the solution of mercury, also hot. Let the temperature of the mixture next be raised so as to cause effervescence, and then, withdrawing the heat, stir the mixture with a porcelain spoon until it concretes on cooling.

*UNGUENTUM HYDRARGŸRI NITRĀTIS MĪTĬUS. Milder Ointment of Nitrate of Mercury. (*Unguentum Hydrargyri Nitratis* unc.j.; *Adipis* unc.vij. Mix.)

Prop.—These two ointments are the same, except in point of strength; they are of a greenish-golden colour; and when old, become hard and short.

Oper.—Stimulant, detergent.

Use.—The stronger ointment is used as an application to herpes, porrigo larvalis, and other cutaneous eruptions. The weaker is applied, by means of a hair pencil, to the edges of the eyelids, in psorophthalmia, and ulcerations of the tarsi.

UNGUENTUM HYDRARGŸRI OXĬDI RUBRI. Unguentum Hydrargyri Nitrico-oxidi. Ung. Oxidi Hydrargyri. Ointment of Red Oxide of Mercury. (*Hydrargyri Oxidi rubri in pulverem subtilissimum redacti* gr.lxij.; *Ceræ Flavæ* unc.$\frac{1}{4}$; *Olei Amygdalæ* unc.$\frac{3}{4}$. Melt the wax at a gentle heat, mix the oil, and lastly, when nearly cold, the red oxide.)

Oper.—Stimulant, escharotic.

Use.—To indolent foul ulcers, especially to those remaining after the removal of the scab of rupia; to inflammation of the tunica conjunctiva, with a thickening of the inner membrane of the palpebræ; and to specks of the cornea.

UNGUENTUM HYDRARGŸRI SUBCHLORĬDI. Ointment of Calomel. (*Hydrargyri Subchloridi* gr.lxxx.; *Adipis præparati* unc.j.)

Oper.—Antisyphilitic, alterative, discutient.

Use.—In venereal affections, when it is desired to get a large portion of mercury rapidly into the system, in hepatic enlargement, &c.

UNGUENTUM IŌDI. Unguentum Iodinii. Unguentum Iodi Compositum, 1864. Ointment of Iodine. (*Iodi* gr.xxxij.; *Potassii Iodidi* gr.xxxij.; *Spir. ten.* fl.dr.j.; *Adipis præparati* unc.ij. Add the lard gradually to the iodide in fine powder and the iodine dissolved in spirit, and rub them together.)

Use.—As an application to scrofulous tumours and bronchocele.

UNGUENTUM PĬCIS LĬQUĬDÆ. Ointment of Tar. (*Picis liquidæ* unc.v.; *Ceræ Flavæ*, unc.ij. Melt the wax, add the tar, and mix.)

Oper.—Stimulant, detergent.

Use.—In lepra and scaly eruptions, in foul ulcers.

UNGUENTUM PLUMBI ACETĀTIS. Ointment of Acetate of Lead. (*Plumbi Acetatis in pulverem subtilissimum redactæ* gr.xij.; *Adipis Benzoati* unc.j.)

Oper.—Astringent, cooling, sedative.

Use.—In irritable, inflamed sores.

UNGUENTUM PLUMBI CARBONĀTIS. Ointment of Carbonate of Lead. (*Plumbi Carbonatis in pulverem subtilissimum redactæ* gr.lxij.; *Unguenti simplicis* unc.j. Make into an ointment.)

Use.—In burns and irritable sores.

UNGUENTUM PLUMBI IODĬDI. Ointment of Iodide of Lead. (*Plumbi Iodidi in pulverem subtilissimum redacti* gr.lxij.; *Unguenti simplicis* unc.j. Mix.)
Oper.—Alterative, stimulant.
Use.—In glandular affections and enlargement of the joints.

UNGUENTUM PLUMBI SUBACĒTĀTIS COMPŎSĬTUM. Compound Ointment of Subacetate of Lead. (*Liquoris Plumbi Subacetatis* fl.unc.vj.; *Camphoræ* gr.lx.; *Ceræ Albæ* unc.viij.; *Olei Amygdalæ* Oj. Melt the wax in 16 ounces of the oil, and stir in the liquor plumbi as the mixture thickens, and lastly add the camphor dissolved in the rest of the oil.)
Oper.—Astringent, cooling, sedative.
Use.—In irritable, inflamed sores.

UNGUENTUM POTASSÆ SULPHŬRĀTÆ. Ointment of Sulphurated Potash. (*Potassæ Sulphuratæ* gr.xxx.; *Adipis præparati* unc.j. Triturate the sulphurated potash and add the lard. It should always be recently prepared.)
Oper.—Detergent.
Use.—In chronic cutaneous diseases, as scabies and psoriasis.

UNGUENTUM POTASSĬI IODĬDI. Ointment of Iodide of Potassium. (*Potassii Iodidi* gr.lxiv.; *Adipis præparati* unc.j.; *Potassæ Carb.* gr.iv.; *Aquæ destillatæ* fl.dr.j. Dissolve the iodide and carbonate in the water, and mix it with the lard.)
Use.—As an application to scrofulous tumours and bronchocele.

*UNGUENTUM PRÆCIPITĀTI ALBI. See *Unguentum Hydrargyri Ammoniati.*

UNGUENTUM RESĪNÆ. Unguentum Resinosum. Ceratum Resinæ, *Lond.* Resin Ointment. (*Resinæ* unc.viij.; *Ceræ flavæ* unc.iv.; *Unguenti simplicis* unc.xvj. Melt them together, strain, while hot, through flannel, and stir till they concrete.)
Oper.– Digestive, detergent.
Use.—For cleansing and incarnating old, foul, and indolent ulcers.

UNGUENTUM SABĪNÆ. Savine Ointment. (*Sabinæ recentis cacuminum contusorum* unc.viij.; *Ceræ albæ* unc.iij.; *Adipis præparati* unc.xvj. Mix the savine with the lard and wax, melted together, then strain through calico.)
Oper.—Irritative, drawing.
Use.—To keep up a discharge from a blistered surface. It is much preferable to the Ceratum Cantharidis of the London pharmacopœia (Unguentum Cantharidis), occasioning less pain, and preserving a sufficient discharge.

UNGUENTUM SIMPLEX. Simple Ointment. (*Olei Amygdalæ* fl.unc.iij.; *Adipis præparati* unc.iij.; *Ceræ albæ* unc.ij. Melt together.)
Oper.—Emollient.
Use.—For softening the skin, and healing chaps.
Off. Prep.—*Unguentum Antimonii Tartarati. Unguentum Cadmii Iodidi. Unguentum Creasoti. Unguentum Elemi. Unguentum Hydrargyri Ammoniati. Unguentum Hydrargyri Iodidi Rubri. Unguentum Plumbi Carbonatis. Unguentum Plumbi Iodidi.*

UNGUENTUM SULPHŬRIS. (*Sulphuris sublimati* unc.j.; *Adipis Benzoatis* unc.iv. Mix.)
Oper.—Stimulant, alterative.
Use.—In itch; the fourth part of the body should be well rubbed with

the ointment every night, till the symptoms disappear. Sulphur should be taken internally at the same time. When the smell is objected to, the following may be used: *Potassæ Subcarb.* gr.ccxl.; *Aq. Rosæ* fl.unc.j.; *Hydrar. Bisulphureti* gr.lx.; *Ol. Lavand.* fl.dr.ss.; *Sulph. sublimati* unc.xj.; *Adipis* lb.jss. *Misce.*

UNGUENTUM SULPHŬRIS IODĬDI. Ointment of Iodide of Sulphur. (*Sulphuris Iodidi* gr.xxx.; *Adipis præparati* unc.j. Triturate the iodide and gradually add the lard.)

Oper.—Alterative and resolvent.

Use.—In chronic cutaneous diseases, as lepra, porrigo, acne indurata.

UNGUENTUM TĔRĔBINTHĬNÆ. Ointment of Turpentine. (*Olei Terebinthinæ* fl.unc.j.; *Resinæ crasse contritæ* gr.lx.; *Ceræ Flavæ* unc.ss.; *Adipis præparati* unc.ss. Melt by the aid of a steam or water-bath.)

Oper.—Stimulant.

Use.—In cases of chronic ulcers, burns, &c.

UNGUENTUM VERĀTRĬÆ. Ointment of Veratria. (*Veratriæ* gr.viij.; *Adipis præparati* unc.j.; *Olei Olivæ* fl.dr.ss.)

Oper.—Stimulant.

Use.—In neuralgia, scabies, and other cutaneous affections.

UNGUENTUM ZINCI. Unguentum Zinci Oxidi, 1864. Ointment of Zinc. (*Zinci Oxidi Pulv.* gr.lxxx.; *Adipis Benzoati* unc.j. Add the oxide to the benzoated lard, previously melted. Mix.)

Oper.—Astringent, stimulant.

Use.—In ophthalmia, acrid scabby eruptions, and excoriated nipples.

UVÆ. Uvæ Passæ. Vitis viniferæ fructus recens siccatus. Grapes and Raisins. (Vitis *vinifera.* The Vine. *Pentand. Monogyn.* N.O. *Vitaceæ.* Imported from Spain. ♄)

Prop.—Inodorous; taste subacidulous, sweet, mucilaginous.

Oper.—Demulcent, nutritive.

Use.—As the food of the phthisical, and as an acidulous adjunct to the beverages of the sick.

Off. Prep.—Tinctura Cardamomi comp. Tinctura Sennæ.

UVÆ URSI FOLIA. Arctostaphylos Uva Ursi, folia. Leaf of Bear's Wortleberry. (Arctostaphylos *Uvæ Ursi*, Red berried Trailing Wortleberry. *Decand. Monogyn.* N.O. *Ericaceæ.* Indigenous. ♄)

Prop.—Obovate entire coriaceous shining leaves, about ¾ inch in length, reticulated, not dotted beneath, nor toothed on margin; feeble hay-like odour when powdered; taste styptic, bitterish; colour of the powder brownish, yellowish green; yields its virtues to alcohol.

Comp.—Tannic and gallic acids; mucilage, resin, extractive, traces of soda and lime.

Oper.—Tonic, astringent, and slightly diuretic.

Use.—In chronic diarrhœa and dysentery; catarrh of bladder; leucorrhœa and diabetes. It has been celebrated in calculous and nephritic complaints; but it appears to act in the same manner as other astringents, by merely allaying the pain and irritability of the bladder? In phthisis?

Dose.—Of the powder gr.xv. to gr.xxx.

Incomp.—Salts of iron, tartar emetic, nitrate of silver, salts of lead, infusion of red cinchona bark.

Off. Prep.—Infusum Uvæ Ursi.

VALERIĀNÆ RADIX. Valeriana Officinalis Radix. Valerian Root Dried. Indigenous and cultivated. (*Triand. Monogyn.* N.O. *Valerianaceæ.* ♃)

Comp.—A volatile oil, valerianic acid, extractive, resin, starch, mucus.
Prop.—Odour strong, fœtid; taste bitterish, subacrid, warm; consists of slender brownish fibres, matted together, and attached to one head; virtues extracted by water, alcohol, pure alkalies.
Oper.—Antispasmodic, tonic, emmenagogue.
Use.—Hysteria, epilepsy, hemicrania, chlorosis.
Dose.—Of the powder gr.x. to gr.xl., three or four times a day, increasing it as far as the stomach can bear it.
Incomp.—Salt of iron.
Off. Prep.—*Infusum Valerianæ. Tinctura Valerianæ. Tinctura Valerianæ Ammoniata.*

*VALĒRIĀNAS FERRI. Valerianate of Iron, Dublin. (*Sodæ Valerianatis* fl.unc.v., fl.dr.iij.; *Ferri sulphatis* fl.unc.iv.; *Aquæ destillatæ* Oj. Let the sulphate of iron be converted into the persulphate, as directed in the formula for Ferri Peroxidum Hydratum, and, by the addition of distilled water, let the solution of the persulphate be augmented to the bulk of fl.unc.viij. Dissolve the valerianate of soda in fl.unc.x. of the water, then mix the two solutions cold, and having placed the precipitate which forms upon a filter, and washed it with the remainder of the water, let it be dried by placing it for some days, rolled up in bibulous paper, on a porous brick. This preparation should be kept in a well-stopped bottle.)
Comp.—A ter-valerianate of the peroxide of iron.
Prop.—A reddish-brown dull powder, accreted into small porous masses, nearly tasteless, but with a very strong disagreeable valerianic odour. Insoluble in water, soluble in alcohol; by heat the acid flies off, and the peroxide is left. It is decomposed also by exposure to the air.
Oper.—Tonic and antispasmodic.
Use.—In hysteria, chlorosis, chorea, epilepsy. But in consequence of the odour and rapid decomposition, it is not much used.
Dose.—Gr.ss. to gr.ij. thrice a day.
Incomp.—All acids and astringent vegetable extracts.

*VALERIĀNAS QUĪNĬÆ. Valerianate of Quinine, Dublin. (*Quiniæ Muriatis* dr.vij.; *Sodæ Valerianatis* gr.cxxiv.; *Aquæ destillatæ* Oj. Dissolve the valerianate of soda in fl.unc.ij., and the muriate of quinia in the remainder of the water, and the temperature of each solution being raised to 120°, but not higher, let them be mixed, and set by for twenty-four hours, when the valerianate of quinia will become a mass of silky acicular crystals. Let these be pressed between folds of blotting-paper, and dried without artificial heat. Instead of weighing out dr.vij. of muriate of quinia, and dissolving it in water, as is above prescribed, we may employ the solution of the muriate prepared from an ounce of the sulphate, as directed in the formula for Quiniæ Murias, such solution having been first evaporated to fl.unc.xiv. It may be here observed, that should it become necessary to evaporate a liquid containing valerianate of quinia, care must be taken that its temperature does not rise higher than 120°.)
Comp.—1 eq. of valerianic acid, 1 eq. of quinia, and 2 eq. of water of crystallisation.
Prop.—Satiny crystalline masses of snowy whiteness in octahedrons or hexagonal prisms; taste bitter, but not disagreeable; odour slight of valerianic acid; soluble in water, in rectified and proof spirit, and in oils. By heat it loses 1 eq. of water, and is converted into a resinous mass, no longer soluble in water. It is precipitated by nitrate of barytes, a valerianate of barytes being formed, which is redissolved when gently heated with nitric acid.

Oper.—Tonic, antispasmodic, antiperiodic.
Use.—In chorea, hysteria, epilepsy, neuralgia.
Dose.—Gr.ss. to gr.ij.
Incomp.—Acids, soluble carbonates, most metallic salts, and astringent vegetable infusions and decoctions.

VALERIĀNAS SODÆ. Valerianate of Soda. (*Liquoris Sodæ* q.s.s.; *Alcoholis Amylici* fl.unc.iv.; *Potassæ Bichrom.* unc.ix.; *Acidi Sulphurici* fl.unc.vjss.; *Aquæ dest.* cong.ss. Dilute the oil of vitriol with fl.unc.x., and dissolve with the aid of heat the bichromate of potash in the remainder of the water. Place the solutions, when cooled to nearly the temperature of the atmosphere, in a matrass; add the fousel oil; mix well by repeated shaking, until the temperature of the mixture, which first rises to about 150°, has fallen to 80° or 90°. The matrass being now connected with a condenser, heat is to be applied, so as to distil over about half a gallon of liquid. Saturate with the solution of caustic soda, remove the oil on the surface, and evaporate until the residual salt is partially liquefied, the escape of aqueous vapour having entirely ceased. The heat should now be withdrawn, and when the valerianate of soda has concreted, it is, while still warm, to be divided into fragments, and preserved in a well-stopped bottle.)
Comp.—1 equiv. of valerianic acid and 1 equiv. of soda.
Prop.—Generally obtained in white fragments, soluble in rectified spirit and water, with a feeble odour of valerian, and a mawkish taste, becoming pasty on exposure to the air. It has no alkaline reaction. When dissolved in water there is no film of oil on the surface. It gives out a powerful odour of valerian on the addition of diluted sulphuric acid.
Oper.—Stimulant and antispasmodic. The salts of valerianic acid are more certain in their operation than the preparations of the herb itself.
Use.—In cases requiring valerian, but principally used in the preparation of valerianate of zinc.
Dose.—Gr.ss. to gr.v.
Incomp.—Alkalies, earthy and metallic oxide, and salts of iron.
Off. Prep.—*Zinci Valerianis.*

VALERIĀNAS ZINCI. Valerianate of Zinc. (*Valerianatis Sodæ* unc.v.; *Zinci Sulphatis* unc.v.¾; *Aquæ destillatæ* q.s.s. Dissolve the valerianate of soda in one half, and the sulphate of zinc in the remaining half of the water; and having raised both solutions to 200°, mix them, and skim off the crystals which are produced. Let the solution be now evaporated at a temperature not exceeding 200°, until it is reduced to the bulk of fl.unc.iv., removing, as before, the crystals from the surface; the salt thus procured is to be steeped for an hour in as much cold distilled water as is just sufficient to cover it, and then transferred to a paper filter, on which it is to be first drained, and then dried at a heat not exceeding 100°.)
Comp.—1 equiv. of valerianic acid and 1 equiv. of oxide of zinc. ($ZnO,C_{10}H_9O_3$), or $\mathbf{Zn(C_5H_9O_2)_2}$.
Prop.—Minute white crystals, when pure; brilliant and tabular. Soluble in hot water, less so in cold, in alcohol, ether, and oils. Decomposed at 300°, and above that burns with a strong empyreumatic odour, and the residue is a carbonaceous oxide of zinc. Readily decomposed by other acids.
Oper.—Nervine tonic, antispasmodic.
Use.—In hysteria, chorea, epilepsy, neuralgia.
Dose.—Gr.¼ to gr.iij. thrice a day.

Incomp.—Acids, soluble carbonates; most metallic salts and astringent vegetable infusions and decoctions.

VAPOR ACĬDI HYDROCYANĬCI. Inhalation of Hydrocyanic Acid. (*Acidi Hydrocyanici dil.* min.x. ad min.xv.; *Aquæ* (*frigidæ*) fl.dr.j. Mix in a suitable apparatus, and let the vapour that arises be inhaled.)
Oper.—Sedative.
Use.—In irritable states of the laryngeal mucous membrane.

VAPOR CHLORI. Inhalation of Chlorine. (*Calcis Chloratæ* unc.ij.; *Aquæ frigidæ* quantum satis sit. Put the powder into a suitable apparatus, moisten it with water, and let the vapour that arises be inhaled.)
Oper.—Stimulant, antiseptic.
Use.—In fœtid ulceration about the glottis, in bronchitis with fœtid expectoration.

VAPOR CONĪÆ. Inhalation of Conia. (*Extract. Conii* gr.lx.; *Liquoris Potassæ* fl.dr.j.; *Aquæ destillatæ* fl.dr.x. Mix. Put 20 minims on a sponge, in a suitable apparatus, so that the vapour of hot water passing over it may be inhaled.)
Oper.—Sedative.
Use.—To allay cough, &c.

VAPOR CREASŌTI. Inhalation of Creasote. (*Creasoti* min.xij.; *Aquæ ferventis* fl.unc.viij. Mix the creasote and water in an apparatus so arranged that air may be made to pass through the solution, and may afterwards be inhaled.)
Oper.—Astringent, sedative.
Use.—To allay hysterical cough, dyspnœa, sickness arising from pregnancy, hysteria, or other disease of nervous system.

VAPOR IŌDI. Inhalation of Iodine. (*Tincturæ Iodi* fl.dr.j.; *Aquæ* fl.unc.j. Mix in a suitable apparatus, and having applied a gentle heat, let the vapour that arises be inhaled.)
Oper.—Stimulant, alterative.
Use.—In chronic phthisis, or bronchitis with excessive secretion.

VERĀTRIA. Veratria. (An alkali prepared from Cevadilla.)
Comp.—64 eq. carbon = 384; 52 eq. hydrogen = 52; 2 eq. nitrogen = 28; 16 eq. oxygen = 128, eq. = 592 ($C_{64}H_{52}N_2O_{16}$.)
Prop.—An acrid, whitish, inodorous powder, having an alkaline reaction; very slightly soluble in water, more so in ether, but most of all in rectified spirit; irritates the nose.
Oper.—A powerful topical excitant.
Use.—Externally applied as an ointment in neuralgia, and in gouty and rheumatic paralysis.
Dose.—Not more than one-twelfth of a grain.
Off. Prep.—*Unguentum Veratriæ.*

VERĀTRI VĬRĬDIS RADIX. Green Hellebore Root. (*Veratrum Viride. Polygam. Monœcia.* N. O. *Melanthaceæ.* United States and Canada. ♄)
Comp.—Veratria; fecula; wax.
Prop.—Inodorous, but irritating; taste bitterish, acrid, nauseous; the powder is of a greyish-brown colour; slightly soluble in water, more so in ether, but most of all in rectified spirit.
Oper.—Violently emetic; purgative, even when applied externally to an issue: errhine; externally stimulant.
Use.—It is never given internally, unless in maniacal cases, in which it

is not more useful than other strong purges; and even its use to promote a discharge from the nose in apoplexy and lethargy requires great caution. For its external use, see *Unguentum.*

Dose.—As an errhine, gr.iij. or gr.iv. snuffed at bed-time.

Off. Prep.—*Tinctura Veratri Viridis.*

VINUM ALOËS. Wine of Aloes. (*Aloes Socotrinæ* unc.jss.; *Cardamomi contusi, Zingiberis, sing.* gr.lxxx.; *Vini Xerici* Oij. Macerate seven days and strain.)

Oper.—Purgative, stomachic, according to the dose.

Use.—In cold phlegmatic habits, in paralysis, and gout, to clear the bowels; in dyspepsia, and chlorosis.

Dose.—Fl.unc.j. to fl.unc.ij. to produce purging; fl.dr.j. to fl.dr.ij. as a stomachic. Fl.unc. contains gr.xvjss.

VINUM ANTIMONĬĀLE. Antimonii Tartarizati Liquor. Antimonial Wine. (*Antimonii tartarati* gr.xl.; *Vini Xerici* Oj. Dissolve.) Fl.unc.j. contains gr.ij. of Tartarated Antimony.

Oper.—Emetic in large doses; diaphoretic.

Use.—To produce vomiting in children; in febrile and inflammatory diseases after purging, as a diaphoretic; contra-indicated in low fevers.

Dose.—Fl.dr.iij. to fl.unc.j. or a teaspoonful every five minutes, produce full vomiting; min.v. to fl.dr.j. every two or three hours, in any proper vehicle, excite diaphoresis.

Incomp.—Preparations of cinchona, and bitter astringent vegetables, &c. Vide *Antimonium Tartaratum.*

VINUM AURANTĬI. Orange Wine. Made in Britain by the fermentation of a saccharine solution to which the fresh peel of the bitter orange has been added.

Prop.—Golden sherry colour, aroma and taste of the bitter orange peel. It contains about 12 per cent. of alcohol, and is slightly acid.

Oper.—Stimulant and stomachic.

Use.—A good vehicle for cod-liver oil, and to make the Vinum Ferri Citratis and Vinum Quiniæ.

VINUM COLCHĬCI. Wine of Colchicum. (℞ *Colchici cormi exsiccati* unc.iv.: *Vini Xerici* Oj. Macerate for seven days, and strain.)

Comp.—Gallate of colchicia and wine.

Oper.—Diuretic; sedative; purgative.

Use.—In gout, rheumatism, and all inflammatory affections.

Dose.—From min.x. to fl.dr.j. in any mild fluid.

VINUM FERRI. Wine of Iron. (*Ferri in fila* (No. 35) *tracti* unc.j.; *Vini Xerici* Oj. Macerate for thirty days, and then filter.) Fl.dr.j. contains about gr.iij. of oxide of iron.

Oper.—Hæmatic, tonic.

Use.—In anæmia and especially in children.

Dose.—Fl.dr.j. to fl.dr.iv.

VINUM FERRI CITRĀTIS. Wine of Citrate of Iron. (*Ferri et Ammoniæ Citratis* gr.clx.; *Vini Aurantii* Oj. Dissolve, and after three days filter.)

Oper.—Tonic, chalybeate.

Use.—In anæmia and debility; well adapted for children.

Dose.—Fl.dr.j. to fl.dr.iv.

VINUM IPECACUANHÆ. Wine of Ipecacuanha. (*Ipecacuanhæ contusæ* unc.j.; *Vini Xerici* Oj. Macerate for seven days, and strain.)

Oper.—Emetic, diaphoretic.

Use.—A good emetic for infants, as it operates more mildly than the antimonial wine; in coughs, diarrhœa, and dysentery; and hæmorrhages.

Dose.—For the former intention fl.dr.iv. to fl.dr.x. in divided doses: for the latter min.x. to min.xxx. in some proper vehicle every two or three hours.

VINUM OPĬI. Wine of Opium. (*Opii contusi* unc.j.; *Cinnamomi, Caryophyllorum, sing.* gr.lxxv.; *Vini Xerici* Oj. Macerate, strain, express, and filter. Fl.dr.j. contains about gr.2·75.*

Oper.—Narcotic, anodyne, stimulant.

Use.—In the same cases in which tincture of opium is used; but it occasions less disturbance of the brain and nervous system, and is therefore better suited for very young patients, nervous habits, and where the head is much affected. Much used as a collyrium in the chronic stage of ophthalmia. (*Vin. Opii* dr.j.; *Liq. Am. acet.* Ph. Lond. dr.iij.)

Dose.—Min.iv. to min.xl.

VINUM QUINĬÆ. Wine of Quinia. Quinine Wine. (*Quiniæ Sulphatis* gr.xx.; *Acidi Citrici* gr.xxx.; *Vini Aurantii* Oj. Dissolve first the citric acid, and then the quinine; let the solution stand for three days, and filter.)

Oper.—Tonic and antiperiodic.

Use.—In debility, neuralgia.

Dose.—Fl.unc.½ to fl.unc.j.

VINUM RHĔI. Wine of Rhubarb. (*Rhei radicis contritæ* unc.jss.; *Canellæ Albæ Corticis contritæ* gr.lx.; *Vini Xerici* Oj. Macerate for seven days, strain, and filter.)

Oper.—Laxative, stomachic, stimulant.

Use.—In weakness of stomach and bowels, and in diarrhœa from viscid mucus.

Dose.—Fl.dr.j. to fl.dr.ij.

*VINUM VERATRI. Wine of Hellebore. (*Veratri con.* unc.viij.; *Vini Xerici* Oij. Macerate for fourteen days and strain.)

Oper.—Emetic, cathartic, and in small doses increasing the secretions.

Use.—In cutaneous affections; and in gout, combined with opium.

Dose.—Min.x. to min.xx.

VINUM XERĬCUM. Vinum Album. Vinum Album Hispanicum. Spanish White Wine, or Sherry.

Comp.—All wines contain nearly the same components; and one wine differs from another only in the relative quantities. These are alcohol; water; extractive matter, which precipitates with the tartar in old wines; bitartrate of potassa; malic and tartaric acids; a volatile oil, on which the flavour depends, and colouring matter, derived from the husk. Sherry contains 17 or 18 per cent. of alcohol.

Prop.—The odour of sherry is pleasant and aromatic; taste slightly acidulous and warm, with the agreeable bitter of the peach kernel. The taste of port is austere and strong; claret is less austere, thinner, and higher flavoured, but free from sugar; of the white wines Madeira is the strongest, Malaga the sweetest, and Hock the most acid, but the

---

* This is about 1-4th stronger than the Vinum Opii of the *Pharmacopœia*, 1864, and also of the *Edinburgh* and *Dublin*; about 1-5th weaker than Vinum Opii, *London*, and corresponds in strength with Extractum Opii Liquidum.

least fermentable; while Champagne contains a large quantity of loosely combined carbonic acid gas.

Oper.—When good, and of proper age, wine is tonic, antispasmodic, and nutritive; when new, flatulent and purgative, sooner intoxicating and, instead of strengthening, producing debility.

Use.—In the low and sinking stage of typhus fever the judicious exhibition of it fills the pulse, and restores its firmness, without increasing delirium; but it is hurtful if given when the skin is very hot and dry. It is useful also in tetanus, chorea, and some other convulsive affections; and in most cases in which tonics are indicated. In the convalescences from all severe diseases it is the best remedy on which we have most dependence. Hock is the best wine for dyspeptics.

Dose.—Fl.unc.ij. to Oiij. in twenty-four hours, according to the nature of the disease, the age, and the previous habits of the patient.

Off. Prep.—*Vinum Aloes. Vinum Antimoniale. Vinum Colchici. Vinum Ferri. Vinum Ipecacuanhæ. Vinum Opii. Vinum Rhei.*

*VIŎLA ODORĀTA. Flowers of the Sweet Violet. (*Pentand. Monogyn.* N. O. *Violaceæ.* Europe. ♃)

Prop.—Odour, pleasant, peculiar; have scarcely any taste; impart their colour to water.

Oper.—Slightly laxative.

Use.—In syrup, united with castor oil or olive oil, to clear the bowels of infants when the meconium is retained. The infusion is a delicate test of uncombined acids and alkalies.

Dose.—Fl.dr.j. to fl.dr.ij. of the syrup for infants.

ZINCI ACĒTAS. Acetate of Zinc. (Prepared by dissolving the carbonate of zinc in acetic acid, and evaporation and crystallisation.)

Prop.—Thin translucent, colourless crystalline plates of pearly lustre, and sharp unpleasant taste; soluble in water, not affecting turmeric paper, giving a white precipitate with prussiate of potash, and a white one also with hydrosulphuric acid; and evolving acetic acid when decomposed by sulphuric acid. A dilute aqueous solution is not affected by chloride of barium or nitrate of silver. ($ZnO,C_4H_3O_3+2HO$) or $\mathbf{Zn(C_2H_3O_2)_2.2H_2O}$.

Oper.—Local astringent.

Use.—Externally in eczema, lupus, impetigo, after the acute stage; also in ophthalmic cases. Seldom used internally.

Dose.—For lotion or injection gr.ij. to gr.x. in fl.unc.j.; for an ointment gr.iv. to gr.x. in fl.unc.j. Internally: gr.j. to gr.ij. as a tonic; gr.x. to gr.xx. as an emetic.

ZINCI CARBŌNAS. Calamina præparata. Carbonate of Zinc. Prepared by washing and drying the precipitate obtained by adding carbonate of soda to a solution of sulphate of zinc.)

Comp.—1 eq. of oxide of zinc 40·5+1 eq. of carbonic acid=22+3 water =27=89·5. ($ZnO,CO_2.3HO$, or $\mathbf{ZnCO_3(ZnO)_2.3H_2O}$.)

Prop.—White, tasteless, inodorous, insoluble in water, soluble with effervescence and without residue in dilute nitric acid. With carbonate of ammonia gives a white precipitate, soluble in excess of reagent; from the resulting solution sulphide of ammonium throws down a white precipitate. It is not affected by chloride of barium or nitrate of silver.

Oper.—Absorbent, tonic.

Use.—In powder for the cure of intertrigo, excoriations, and superficial ulcerations; also in form of ointment for similar conditions.

Off. Prep.—*Zinci Acetas. Zinci Oxidum.*

ZINCI CHLORĬDUM. Chloride of Zinc. (Prepared by the action of hydrochloric acid on granulated zinc ; after heating and filtering, pour in the solution of chlorine, and afterwards add the carbonate of zinc. Separate the sediment, evaporate, and pour into moulds.)

Comp.—Zinc 1 eq. = 32·5 + chlorine 1 eq. = 35·5 = 68. (Zn + Cl) or $\mathbf{ZnCl_2}$.

Prop.—Colourless, deliquescent, soluble in rectified spirit and water; hydrosulphuric acid or ferrocyanide of potassium throws down a white precipitate ; the white precipitate with ammonia or potash is redissolved by the addition of either in excess ; the white precipitates with carbonate of ammonia or potash are not redissolved by excess.

Oper.—Escharotic.

Use.—In carcinomatous ulceration ; in nævi materni ; to destroy the nerve in carious teeth ; to form issues.

Off. Prep.—*Liquor Zinci Chloridi.*

ZINCI CHLORĪDI LIQUOR. Solution of Chloride of Zinc. (*Zinci granulati* lb.j.; *Acidi Hydrochlorici* fl.unc.xliv. ; *Liquoris Chlori* quant. suff. ; *Zinci Carbonatis* unc.ss. vel q.s.s. ; *Aquæ destillatæ* Oj. Add the zinc to the acid, applying heat till gas is no longer evolved ; boil for half an hour, supplying the water lost by evaporation ; filter and add the solution of chlorine until the fluid smells of chlorine. Add the carbonate until a brown sediment appears. Filter and evaporate to two pints.) Sp. gr. 1·523.

Use.—As a deodorising agent. It is the basis of Burnett's Disinfecting Fluid.

ZINCI OXĬDUM. Oxide of Zinc. (Prepared by the reduction of the carbonate to the state of oxide with the aid of heat.)

Comp.—Zinc 80, oxygen 20 parts, in 100 of oxide. (*Prout.*) Or 1 eq. zinc = 32·5 + 1 of oxygen = 8, equiv. = 40·5. (ZnO) or **ZnO**.

Prop.—In powder ; yellowish-white ; inodorous ; insipid ; insoluble in alcohol or water ; entirely soluble in acids ; in the pure alkalies. Dissolves without effervescence in diluted nitric acid, giving a solution from which chloride of barium and nitrate of silver throw down no precipitate. It gives with carbonate of ammonia a white precipitate, soluble in an excess of reagent, forming a solution precipitated white by sulphide of ammonium.

Oper.—Tonic, antispasmodic, externally detergent, exsiccative.

Use.—In epilepsy, chorea, and other spasmodic affections, and to check colliquative sweats ; for its external use, see *Ung. Zinci.*

Dose.—Gr.j. to gr.x. twice a day.

Off. Prep.—*Unguentum Zinci.*

ZINCI SULPHAS. Sulphate of Zinc. (Prepared by the action of sulphuric acid on granulated zinc.) A plate of zinc put into the solution purifies it from any iron, copper, or lead it may contain. *Zincum Vitriolatum.*

Comp.—Oxide of zinc 28·2, acid 27·8, water of crystallisation 43·89 parts in 100 of the sulphate : or 1 eq. of protoxide of zinc = 40·5 + 1 eq. of acid = 40 + 7 water = 63, equiv. = 143·5. (ZnO + SO_3 + 7HO) or $\mathbf{ZnSO_4.7H_2O}$.

Prop.—Inodorous ; taste styptic ; in white, semi-transparent, efflorescent crystals, which are right rhombic prisms ; soluble in three parts of water at 60° ; in less than its own weight of boiling water ; insoluble in alcohol ; ammonia throws down a white precipitate, which is redissolved by an excess. Its solution in water gives a white precipitate with chloride of barium and sulphide of ammonium ; it is not tinged

purple by tincture of galls, and when acidulated with sulphuric or hydrochloric acid, gives no precipitate with sulphuretted hydrogen. After it has been boiled for a few minutes with a little nitric acid, it yields, with ammonia, a white precipitate, soluble without colour in excess of reagent. 27·9 gr. are obtained by heat from the precipitate thrown down in a solution of 100 gr. of the salts by sesquicarbonate of ammonia.

Oper.—Emetic, tonic, antispasmodic, externally astringent.

Use.—As it operates very quickly, it is used, combined with infusion of ipecacuanha, to empty the stomach in the commencement of the cold stage of the intermittent paroxysm, and in other cases where immediate vomiting is required. As a tonic it is useful in phthisis, dyspepsia, and nervous affections. Externally in collyria, in ophthalmia, after the inflammatory action has subsided; in injections, in gonorrhœa; and as a lotion in external inflammations, and to stop inordinate discharges.

Dose.—Gr.x. to gr.xxx. to produce vomiting; as a tonic gr.j. to gr.iij. twice or thrice a day.

Incomp.—Alkalies, earths, sesquicarb. ammoniæ, hydrosulphurets, lime-water, astringent vegetable infusions, milk.

Off. Prep.—*Zinci Carbonas. Zinci Valerianas.*

ZINCI VALERIĀNAS. See *Valerianas Zinci.*

ZINCUM. Zinc. (A metal obtained from calamine and blende; its ores are found in England and other parts.) Symbol Zn. Equiv. 32·5.

Prop.—Colour bluish white; lustre of a fresh surface considerable, but it is soon dulled by the facility of its oxidation; hard; texture striated; spec. grav. 7·190; melts at 700° of Fah.; burns with a bright flame in a higher temperature, and is volatilised in the form of a white flocculent oxide. Soluble by nitric acid; ammonia throws down a precipitate, but redissolves it when added in excess.

Use.—In pharmacy to form *Zincum Granulatum.*

ZINCUM GRANŬLĀTUM. Granulated Zinc. (Prepared from the zinc of commerce by pouring the fused metal in a thin stream into cold water.)

Use.—For pharmaceutical purposes only.

Off. Prep.—*Liquor Zinci Chloridi. Zinci Chloridum. Zinci Sulphas.*

ZINGĬBER. Ginger Root. (Zingiber *Officinale. Roscoe, Trans. Linn. Soc. Amomum Zingiber. Monand. Monogyn.* N. O. *Zingiberaceæ.* East and West Indies. ♃)

Prop.—Odour aromatic; taste warm, aromatic, acrid; in wrinkled, greyish-white pieces, giving a pale-yellowish feculent powder when pulverised; yields its virtues to alcohol, and in a great degree to water.

Oper.—Carminative, stimulant, sialagogue.

Use.—In gout, flatulent colic, dyspepsia, and tympanitis; as an adjunct to griping purgatives; less heating than pepper.

Dose.—Gr.x. to gr.xx.; an overdose is apt to induce spasmodic strictnre.

Off. Prep.—*Confectio Opii. Confectio Scammonii. Infusum Sennæ. Pulvis Cinnamomi Compositus. Pil. Scillæ Comp. Pulvis Jalapæ Compositus. Pulvis Opii Compositus. Pulvis Rhei Comp. Pulv. Scammonii Comp. Syrupus Rhamni. Syrupus Zingiberis. Tinct. Zingiberis. Tinct. Zingiberis Fortior. Vinum Aloes.*

SUPPLEMENT.

ÆTHER ACETICUS. Acetic Ether. (Prepared by distilling alcohol with sulphuric acid and a dry acetate.)

Comp.—$C_4H_5O_1C_4H_3O_3$ or $C_2H_5C_2H_3O_2$.

Prop.—A colourless liquid, with a fruity odour resembling that of ripe apples. Sp. grav. 0·910; boiling point 166°; less volatile than ordinary ethylic ether. One part requires for solution 11 or 12 parts of water at 60°.

Oper.—Antispasmodic; anæsthetic.

Use.—In the place of other ethers, being more palatable. It has been recommended for inhalation. It is a good solvent of cantharidin.

Dose.—From min.xx. to min.lx.

AMMONIÆ NITRAS. Nitrate of Ammonia; a Nitrate of the Oxide of Ammonium. (Prepared by neutralising nitric acid with solution of ammonia or carbonate of ammonia, obtaining the crystals by evaporation, and keeping them fused at a temperature not exceeding 320° until the vapour of water is no longer emitted.)

Comp.—NH_3NO_5HO or NH_4NO_3.

Prop.—A white deliquescent salt, in confused crystalline masses, with a bitter acrid taste; soluble in less than its own weight of water, and sparingly soluble in rectified spirit. A solution of one part in eight of distilled water, gives no precipitate with nitrate of silver or chloride of barium. Heated with caustic potash it emits ammonia, and with sulphuric acid nitric acid vapour. It fuses at 320°, and is entirely reduced into nitrous oxide gas and aqueous vapour at a temperature from 350° to 450°.

Use.—To obtain nitrous oxide, or laughing gas, which is used in dentistry.

AMYL NITRIS. Nitrite of Amyl. (Produced by the action of nitric or nitrous acid on amylic alcohol.)

Comp.—$C_{10}H_{11}O_1NO_3$ or $C_5H_{11}NO_2$.

Prop.—Colour yellow; odour peculiar, and not disagreeable; sp. grav. 0·877; boiling point 205°. Insoluble in water, soluble in rectified spirit. If it be added drop by drop to caustic potash, while fused by the application of heat, valerianate of potash will be formed.

Oper.—Stimulant; antispasmodic; sedative. It first causes violent action of the heart, with dilatation of the capillaries, and afterwards diminished power of the heart and contraction of the extreme vessels. It is not an anæsthetic, and does not destroy consciousness except as a prelude to death.*

Use.—In tetanus, angina pectoris, asthma. A patient has been restored from a state of almost hopeless syncope by its application to the nose.

Dose.—By inhalation; 2 to 5 minims of the vapour. To be used with caution.

---

* Dr. Richardson, Med. Tim. & Gaz., 1864, ii. p. 334.

AQUA CHLOROFORMI. Chloroform Water. (℞ *Chloriformi* fl.dr.j.; *Aquæ destillatæ* fl.unc.xxv., in a stoppered bottle capable of holding two pints. Shake them together until the chloroform is entirely dissolved in the water.)

Comp.—Chloroform dissolved in water.

Prop.—Stimulant; antispasmodic; sedative.

Use.—As a vehicle for other medicines, in cases in which there is spasm either affecting lungs or bowels, or failure of heart's action.

Dose.—Fl.unc.ss. to fl.unc.ij.

ARĒCA. Areca Catechu, *Linn.* (Betel-Nut Tree. Imported from the East Indies. N. O. *Arecaceæ.*)

Prop.—The fruit is of the size of a hen's egg, consisting of a fleshy-looking drupe, fibrous on section, and containing a seed as large as a nutmeg, and similarly marked.*

Oper.—Anthelmintic; astringent.

Use.—To remove tænia, and also round worms, and to check diarrhœa.

Dose.—In coarse powder; unc.ss. to unc.$\frac{3}{4}$.

AURANTĬI FRUCTUS. Bitter Orange. (Ripe fruit of Citrus Bigaradia. *Polyadelphia, Polyandria.* N. O. *Aurantiaceæ.* South of Europe.)

Prop.—In rugged, uneven slices, of a dark orange-yellow colour, peculiar fragrant odour, and warm bitter taste, dependant on the volatile oil which exists in the concave minute vesicles. It yields its aroma and taste to both water and alcohol. It is fit for use in February, March, and April.

Oper.—Tonic; carminative; astringent.

Use.—In dyspepsia.

Off. Prep.—*Tinctura Aurantii Recentis.*

BISMUTHI OXĬDUM. Oxide of Bismuth. (*Bismuthi Subnitratis* lb.j.; *Sodæ solutionis* Oiv. Boil the mixture for 5 minutes, then wash thoroughly the oxide, which subsides on cooling, with distilled water, and finally dry it by the heat of a water bath.)

Comp.—Two equiv. of bismuth = 210 × 2 = 420 + 3 equiv. of oxygen = 24 equiv. 444 (Bi_2O_3 or Bi_2O_3).

Prop.—Dull yellow colour; insoluble in water, but soluble in nitric acid mixed with half its volume of water; and if it be thus dissolved to saturation, the solution, mixed with 10 or 20 times its volume of water, yields a white precipitate. Neither dilute sulphuric acid nor solution of nitrate of silver gives any precipitate when dropped into the nitric acid solution. Chloride of ammonium gives a white precipitate, which, being treated with solution of ammonia in excess and then filtered and the clear filtrate neutralised with hydrochloric acid, will not become turbid.

Oper.—Tonic; astringent; and a stomachic sedative.

Use.—In dyspepsia; pyrosis; phthisical diarrhœa.

Dose.—Gr.v. to gr.xv.

CALCIS HYPOPHOSPHIS. Hypophosphite of Lime. (Obtained by heating phosphorus with hydrate of lime and water, until phosphuretted hydrogen gas ceases to be evolved, then filtering the liquid, separating uncombined lime with carbonic acid gas, and evaporating the remaining solution until the salt separates in a crystalline condition.)

Comp.—CaO_1PO_12HO or $Ca2PH_2O_2$.

---

* Pharmaceutical Journal.

Prop.—A white crystalline salt, with a pearly lustre and a bitter, nauseous taste. Insoluble in rectified spirit; soluble in six parts of cold water, and only slightly more soluble in hot. The crystals do not lose water when heated to 300°; at a red heat they ignite and evolve spontaneously phosphuretted hydrogen, and leave a reddish-coloured residue, amounting to about 80 per cent. of the salt.

Oper.—Tonic, refrigerant and alterative.

Use.—In phthisis, to supply the want of phosphorus in the system; but never to be used in the acute stage of any inflammatory disease of the lungs. Opposite opinions are held as to its value as a medicine in phthisis.

Dose.—Gr.v. to gr.x. to be given in half a tumbler of milk or water at breakfast time.*

CHARTA SINAPIS. Mustard Paper. (*Sinapis Nigri Seminum contrit.* unc.j.; *Liquoris Gutta Percha* unc.ij. *vel satis suff.* It is recommended that strips of cartridge paper should be passed over the surface of the solution, so as to receive a thin coating.)

Oper.—Rubefacient, stimulant.

Use.—Applied to the soles of the feet or calves of the legs in states of prostration; in headache, to the back of the neck; to the chest, in pulmonary and cardiac affections not requiring more active treatment, and generally in neuralgic and hysterical pains. The mustard paper ought to be immersed for a few seconds in tepid water before being applied.

CHLORAL HYDRAS. Hydrate of Chloral. (Produced by the action of dry chlorine gas on anhydrous alcohol.)

Comp.—$C_2HCl_3O_2,2HO$ or C_2HCl_3O,H_2O.

Prop.—Crystals colourless, do not deliquesce on exposure to the air. They have a pungent but not an acrid odour, a pungent and rather bitter taste. They are soluble in less than their own weight of distilled water, rectified spirit, or ether, and in four times their weight of chloroform. 100 grains of hydrate of chloral, dissolved in an ounce of distilled water and mixed with 30 grains of slaked lime, carefully distilled, should yield not less than 70 grains of chloroform.

Oper.—Hypnotic; a sedative of the motor and sensory nervous system.

Use.—To procure sleep, which it does without the bad effects of morphia; to allay pain in gout, in nephritic calculus, or dental caries; to subdue choreic movements and maniacal excitement.

Dose.—Gr.v. to gr.xxx.

Off. Prep.—*Syrupus Chloral.*

EXTRACTUM GLYCYRRHĪZÆ LIQUĬDUM. Liquid Extract of Liquorice. (*Radicis Glycyrrhizæ crasse contritæ* lb.j.; *Aquæ destillatæ* Oiv. Macerate, strain, and evaporate by water-bath until the extract has acquired, when cold, a specific gravity of 1·160, then add one-eighth of its volume of rectified spirit, and filter after 12 hours.

Prop.—Almost inodorous; taste sweet and mucilaginous.

Oper.—Demulcent.

Use.—In the tickling cough of catarrh it is, perhaps, one of the most useful of the demulcents, as it hangs about and sheaths the fauces.

Dose.—Fl.dr.j.

GUTTA PERCHA. The concrete juice of the Isonandra Gutta.

Prop.—In tough, flexible pieces, of a light-brown or chocolate colour;

---

* Dr. J. F. Churchill.

soluble, or nearly soluble, in chloroform, yielding a more or less turbid solution.

Use & Off. Prep.—To make the Liquor Gutta-Percha.

HYDRARGŸRI OXĬDUM FLĀVUM. Yellow Oxide of Mercury. (*Hydrargyri Perchloridi* unc.iv.; *Sodæ Liquoris* Oij.; *Aquæ destillatæ q.s.s.* Dissolve the perchloride in 4 pints of the water by the aid of heat, and add the solution of soda; wash the precipitated oxide on a calico filter, and dry it by the heat of a water bath.)

Prop.—A yellow powder, soluble in hydrochloric acid, yielding a solution which with liquor ammoniæ gives a white precipitate. It is entirely volatilised when heated to incipient redness, being resolved into oxygen gas and the vapour of mercury.

Comp.—HgO or **HgO**.

Use.—For external application in the form of ointment.

INJECTĬO MORPHĬÆ HYPODERMĬCA. Hypodermic Injection of Morphia. (*Morphiæ Hydrochloratis* gr.lxxxviij.; *Liquoris Ammoniæ, Acidi Acetici, Aquæ destillatæ* āā *q.s.s.* Precipitate the morphia by the liquor ammoniæ, and redissolve the precipitate in the acetic acid, so that a solution of the acetate of morphiæ is obtained, containing one grain of the acetate in twelve minims of the injection.)

Prop.—A clear, slightly acid solution; a fluid drachm rendered slightly alkaline by liquor ammoniæ yields a precipitate of morphia, which, after being washed and dried, should weigh 4·3 grains, corresponding to 5 grains of the acetate.

Oper.—The same as morphia administered by mouth.

Use.—In all cases in which the administration of morphia by the mouth is not advisable; as, for instance, when nausea is present.

Dose.—By subcutaneous injection, min.j. to min.vj.

LARĬCIS CORTEX. Larch Bark. The bark, deprived of its outer layer, of Laryx Europæa. DC. Abies Laryx; the common Larch. (*Monœcia Monadelphia.* N. O. *Coniferæ* [Pinaceæ Linn].)

Comp.—Tannin.

Off. Prep.—*Tinctura Laricis.*

LIQUOR GUTTA-PERCHA. Solution of Gutta Percha. (Dissolve one ounce of gutta percha in six ounces of chloroform, then add an ounce of carbonate of lead—merely a mechanical purifier—previously mixed with two ounces of chloroform, and, having shaken the whole together, let it remain at rest till the insoluble matter has subsided; lastly, decant the clear liquid and keep it in a well-stoppered bottle.)

Use.—For making the *Charta Sinapis.*

LIQUOR MAGNESIA CITRĀTIS. Solution of Citrate of Magnesia. (*Magnesiæ Carbonatis* gr.c.; *Acidi Citrici* gr.cc.; *Syrupi Limonis* fl.unc.ss.; *Potassæ Bicarbonatis crystallorum* gr.xl.; *Aquæ destillatæ q.s.s.* Dissolve the acid in two ounces of water, and, having added the carbonate of magnesia, stir until it is dissolved. Filter the solution into a strong half-pint bottle; then, having introduced the bicarbonate, immediately close the bottle with a wired cork; after, shake the bottle till the bicarbonate has been dissolved.)

Oper.—An acid and aperient.

Use.—In all cases requiring a mild saline aperient.

Dose.—Fl.unc.v. to fl.unc.x.

OLĔUM PHOSPHORĀTUM. Phosphorated Oil. (Phosphorus dissolved in oil of almonds at a temperature of 180°.)

Prop.—A clear and colourless, or but slightly coloured oil; phosphorescent in the dark.
Oper.—Tonic; aphrodisiac.
Use.—In neuralgia, and generally in neurotic debility, especially in such cases as have resulted from cerebral or spinal exhaustion.
Dose.—Min.v. to min.x. (From gr.$\frac{1}{24}$ to gr.$\frac{1}{10}$.)

PEPSIN. Pepsin. (A preparation of the mucous lining of a fresh and healthy stomach of the pig, sheep, or calf.)
Prop.—A light, yellowish-brown powder, having a faint but not disagreeable odour, and a slightly saline taste, without any indication of putrescence; only slightly soluble in water or spirit. Two grains with an ounce of distilled water and 5 minims of hydrochloric acid will dissolve 100 grains of hard-boiled white of egg, at a temperature of 98°, in about four hours *
Oper.—It has the power of aiding digestion by artificially supplying the food in the stomach with a digestive agent in the place of the gastric juice which is supposed to be deficient.
Use.—In cases of apepsia, especially those which supervene on a long illness, in which the power of digestion seems to fail from mere weakness. In cases of dysphagia or severe vomiting it may be added to enemata with the view of supplying to the mucous membrane of the large bowels a nutriment as nearly as possible in the state in which it leaves the stomach.
Dose.—Gr.ij. to gr.v.

PILŬLA PHOSPHŎRI. Phosphorus Pill. Phosphorus, balsam of tolu, and yellow wax are so prepared as to make a pill; the mass containing 1 per cent. of phosphorus.†
Oper.—Tonic; aphrodisiac.
Use.—In cachexia, neuralgia, or general debility, especially after nervous exhaustion.
Dose.—Gr.iij. to gr.vj. in form of pills.

PILŬLA SCAMMŌNĬI COMPŎSĬTA. Compound Scammony Pill. (*Scammonii resinæ* unc.j.; *Jalapæ resinæ* unc.j.; *Saponis animalis contriti* unc.j. *Tincturæ Zingiberis fortioris* fl.unc.j. *Spiritus rectificatus* fl.unc.ij.) Dissolve the mixed ingredients by a gentle heat, and by means of a water-bath evaporate the spirit until the mass has acquired a suitable consistence for forming pills.
Oper.—Purgative.
Use.—In constipation, especially when there is any objection to the use of aloes.
Dose.—Gr.v. to gr.xv.

PULVIS ELATĒRĬI COMPŎSĬTUS. Compound Powder of Elaterium. Ten grains of elaterium rubbed up with 90 grains of sugar of milk.
Comp.—Elaterin.
Oper.—Hydragogue, cathartic.
Use.—In dropsies.
Dose.—Gr.½ to gr.v.

PULVIS GLYCYRRHĪZÆ COMPŎSĬTUS. Compound Powder of Liquorice. Composed of two ounces each of senna and liquorice root and six ounces of refined sugar.
Oper.—Aperient.

---

* A Pepsin wine, which can be trusted, is prepared by many chemists.
† Pharmaceutical Journal, April 4, 1874, p. 792.

Use.—In all cases requiring a mild aperient.
Dose.—Gr.xxx. to gr.lx.

SAPO ANĬMĀLIS. Curd soap. Made of soda and purified animal fat, principally of stearin.
Prop.—White or very light greyish tint, dry, nearly inodorous, pulverisable when kept in a warm dry air, easily moulded when warm. Soluble in rectified spirit and in hot water. The solution is neutral or slightly alkaline. It does not impart a greasy stain to paper.
Use and Off. Prep.—To aid in the preparation of *Pilula Scammonii Composita; Suppositoria Acidi Carbolici cum Sapone; Suppositoria Morphiæ cum Sapone; Suppositoria Acidi Tannici cum Sapone.* It is only recommended in the preparation of the *Linimentum Potassii Iodidi cum Sapone* in the place of the *Sapo Durus* of the Pharmacopœia of 1867.

SODÆ HYPOPHOSPHIS. Hypophosphite of Soda. (Obtained by adding carbonate of soda to a solution of hypophosphite of lime as long as a precipitate of carbonate of lime is formed and then filtering and evaporating.)
Comp.—NaO,PO,2HO or $NaPH_2O_2$.
Prop.—White, granular, taste bitter, deliquescent, soluble in water and spirit, but insoluble in ether. At a red heat it ignites, emitting spontaneously inflammable phosphuretted hydrogen.
Oper.—Tonic, refrigerant, and alterative.
Use.—In Phthisis, to supply the waste of phosphorus in the system; but never to be used in the acute or any inflammatory disease of the lungs. Opposite opinions as to its efficacy in phthisis.
Dose.—Gr.v. to gr.x.: to be given in half a tumbler of milk or water at breakfast time.

SUCCUS BELLĂDONNÆ. Juice of Belladonna (The expressed juice of the fresh leaves and the young branches of belladonna, and mixed with rectified spirit in the proportion of three measures of juice to one of spirit. To be kept in a cool place.)
Oper.—Direct sedative on the spinal cord.
Use.—To relieve cough, to allay pain, and in constipation to stimulate the longitudinal fibres of the muscles of the intestines.
Dose.—M.v. to m.xv.

SUCCUS HYOSCYĂMI. Juice of Hyoscyamus. (The expressed juice of the fresh leaves and young branches of hyoscyamus, mixed with rectified spirit in the proportion of three measures of juice to one of spirit. To be kept in a cool place.)
Oper.—Narcotic, anodyne.
Use.—To relieve pain, to ease cough, and to induce rest and sleep for those cases in which opium cannot be used. It neither affects the head as opium nor occasions constipation.
Dose.—Fl.dr.ss. to dr.j.

SUPPŎSĬTŌRĬA ACĬDI CARBŎLĬCI CUM SAPŌNE. Carbolic Acid Suppositories. (Made with carbolic acid, curd soap in powder, and starch, in the proportion of one grain of carbolic acid to fifteen of soap, with sufficient starch to make a paste.)
Oper.—Antiseptic.
Use.—In ulcers and fissures of the rectum.

SUPPŎSĬTŌRĬA MORPHĬÆ CUM SAPŌNE. Morphia Suppositories with Soap. (Mix ½ a grain of hydrochlorate of morphia with 4½ grains of glycerine of starch, and 8½ grains of curd soap in powder, and sufficient starch to obtain a suitable consistence.)

Oper.—Sedative and narcotic.
Use.—In irritable conditions of the rectum, in painful affections of the urinary organs, in diarrhœa, and in cases in which morphia is indicated but cannot be taken into the stomach.

SUPPŌSĬTŌRĬA ACĬDI TANNĬCI CUM SAPŌNE. Tannic Acid Suppositories with Soap. (Prepared by mixing 3 grains of tannic acid with 4¼ grains of glycerine of starch, 8½ grains of curd soap in powder, and sufficient starch to obtain a suitable consistence.)
Oper.—Astringent.
Use.—In fulness of the hæmorrhoidal vessels and relaxation of the mucous membrane. These suppositories are ordered to be made with soap, as when made with butter they are apt to be greasy and soil the linen. It is a question whether the soap may not be irritating to a mucous membrane in many cases already too sensitive.

SYRŪPUS CHLORAL. Syrup of Chloral. (Dissolve 8 grains of hydrate of chloral in 4 fluid drachms of distilled water. Add sufficient simple syrup to complete the ounce, so that one drachm should contain ten grains.)
Oper.—Sedative, narcotic, anodyne.
Use.—To procure sleep, to allay pain in gout, nephritic calculus, dental caries, to ease cough and asthmatic paroxysms, and to subdue choreic movements and maniacal excitement.
Dose.—Fl.dr.ss. to fl.dr.ij.

TINCTŪRA AURANTII RECENTIS. Tincture of Fresh Orange Peel. (Macerate 6 ounces of thin slices of peel carefully cut in 18 * ounces of rectified spirit for a week; then, having poured off the liquor, pressed the dregs, and filtered, add sufficient spirit to complete the pint.)
Oper.—Tonic, carminative, astringent.
Use.—In dyspepsia, &c.
Dose.—Fl.dr.j. to fl.dr.ij.

TINCTŪRA LARĬCIS. Tincture of Larch. (Macerate 2½ ounces of coarsely powdered larch-bark in a pint of rectified spirit, and proceed by percolation).
Oper.—Tonic and astringent.
Use.—In colliquative sweats, and as a tonic in relaxed habits.
Dose.—Min.xx. to min. xxx.

TINCTŪRA QUINĬÆ AMMONIĀTÆ. Ammoniated Tincture of Quinia. (Dissolve 160 grains in 17½ ounces of proof spirit and add 2½ ounces of solution of ammonia.)
Oper.—Tonic, antiperiodic.
Use.—In all cases requiring the use of quinine, but when there is some objection to an acid mixture.
Dose.—Fl.dr.ss. to fl.dr.ij.

---

* The Pharmacopœia orders a pint, which is probably a typographical error.

APPENDIX.

No. I.

CONTAINING SOME USEFUL REMEDIES EMPLOYED ON THE CONTINENT, AND IN THE UNITED STATES OF AMERICA.

ABSINTHĬI TINCTŪRA. Amst. Tincture of Wormwood. (*Dry wormwood cut fine one part; proof spirit six parts.* Macerate for six days, express and filter.)

Oper.—Anthelmintic.

Dose.—Fl.dr.ij. to fl.unc.ss.

ACETUM OPĬI. U. S. Vinegar of Opium. (*Opii* lb.ss.; *Aceti* Oiij.; *Myristicæ contusæ* unc.jss.; *Croci* unc.ss.; *Sacchari* unc.iv.; *Cerevisiæ fermenti* fl.unc.j Boil the first four-mentioned articles to a proper consistence; then add the sugar and yeast. Digest for seven weeks, and then decant; filter, and bottle up, adding a little sugar to each bottle.)

Oper.—Anodyne, narcotic.

Dose.—From min.v. to min.xx.

ACHILLĔA MILLIFOLĬUM. *Russian P.* Millfoil. (N. O. *Asteraceæ.*)

Comp.—Volatile oil, bitter extractive.

Prop.—Taste subastringent, bitterish.

Oper.—Astringent, antispasmodic, antiperiodic.

Use.—In hysteria, hæmorrhages, and periodic affections.

Dose.—Fl.unc.jss. of infusion made with fl.unc.ij. of flowers, in Oss. of water.

AMŸLI IODĬDUM. Iodide of Starch. (Triturate gr.xxiv. of iodine with a small quantity of water, gradually adding unc.j. of finely powdered starch. Continue the trituration, until the compound assume a uniform blue colour; then dry the substance by a very gentle heat, and keep it in a well-stopped bottle.)

Oper.—Stimulant, alterative, deobstruent, emmenagogue.

Use.—As a substitute for iodine, or iodide of potassium, when these disagree with the stomach, or when it is desirable to introduce a large quantity of iodine into the system.

Dose.—Gr.lx. to oz.ss. thrice a day in gruel.

BERBEERĪNA. Berbeerine. (Boil Berbeera Bark in water acidulated with sulphuric acid, and strain; then add ammonia till a precipitate

ceases to fall, wash the precipitate, and triturate it with an equal weight of freshly precipitated and moist hydrated oxide of lead. Dry the mass over a water-bath, and separate the alkali by alcohol, distil the spirit, and then repeatedly dissolve in successive portions of æther.

Comp.—35 equiv. of carbon=210+40 equiv. of hydrogen=40+5 eq. of oxygen=40+2 equiv. of nitrogen=28, equiv.=318. ($C_{35}H_{40}O_5N_2$.)

Prop.—Translucent; amorphous; homogeneous; resin-like scales of a brown-yellow colour; bitter taste; inodorous.

Oper.—Tonic, spasmodic, antispasmodic, febrifuge.

Use.—Neuralgic affections, ague, remittent fever.

Dose.—Gr.j. to gr.iij. thrice a day; or gr.iij. vel gr.iv. Every hour until a scruple shall have been administered before a paroxysm.

CAMPHŎRÆ AQUA. U. S. Camphor Water. (*Camphoræ* gr.cxx.; *Alcoholis* min.xl.; *Magnesiæ Carbonatis* dr.j.; *Aquæ destillatæ* Oij.) A fl.unc. contains fl.iij. of Camphor.

Dose.—Fl.unc.ss. to fl.unc.j.

CANNĂBIS SATĪVA. *Russian P.* Hemp. (N. O. *Urticaceæ*.)

Comp.—Oil, mucilage, acrid principle.

Oper.—Narcotic.

Use.—In rheumatism, tetanus. The herb smoked relieves spasmodic asthma.

CORNUS FLORĬDA. *Cortex.* U. S. Dogwood. (*Tetrand. Monogyn.* N. O. *Stellatæ.* ♃) North America.

Comp.—Cinchonia and quinia? gum.

Oper.—Astringent, tonic.

Use.—In cases in which cinchona is indicated.

Dose.—Gr.xx. to gr.xl. of the powder.

CINCHŌNIA. Cinchonia* or cinchonine, F. (Take any quantity of powder of pale cinchona, boil it in alcohol until it lose all bitterness, and distil the tincture to dryness. Dissolve the residue in boiling water acidulated with hydrochloric acid, then add an excess of magnesia, and boil for some minutes. Filter when cold; wash the magnesian residue with cold water, and dry it in a stove; then digest repeatedly in boiling alcohol, and mix the alcoholic liquors, which, cooling, will yield crystals of cinchonia.)

Prop.—Inodorous; bitter; in white, translucent acicular crystals, scarcely soluble in cold water; soluble in 2500 parts of water at 212°: very soluble in alcohol, but in small quantity only in æther and volatile oils.

Comp.—Carbon 77·91, nitrogen 9·09, hydrogen 7·78, oxygen 5·01, in 99·79 parts: or 20 eq. of carbon=120+12 of hydrogen=12+1 of nitrogen =14+1 of oxygen=8, equiv.=154. ($C_{20}H_{12}ON$.)

Oper.—Tonic.

Use.—In all cases in which bark is useful.

Dose.—From gr.ij. to gr.x.

Off. Prep.—*Syrupus Cinchoniæ. Tinctura Cinchoniæ. Vinum Cinchoniæ.*

DECOCTUM CALUMBÆ COMPŎSĬTUM. U. S. Compound Decoction of Calumba. (*Calumbæ contusæ, Quassiæ in scobes rasæ* ā ā gr.cxx. *Aurantii corticis* unc.j.; *Rhei in pulv.* gr.xx.; *Potassæ carbonatis* gr.xc.; *Aquæ* Oj. Boil to a pint, and add T. Lavand. fl.unc.ss.)

---

* In translating the French names for the alkaloids and their salts, I have employed the termination in *ia*, to make them conform with the names of the other alkalies, and with the London Pharmacopœia.

Oper.—Tonic.
Use.—In convalescence from fever.
Dose.—Fl.unc.ij. thrice a day.

DECOCTUM SCILLÆ. U. S. Decoction of squill. (*Scillæ* gr.clxxx.; *Juniperi* unc.ss.; *Senegæ* unc.iij.; *Aquæ* Oiv. Boil to one-half, then strain, and add *Spiritus Ætheris Nitrici* fl.unc.iv.)
Oper.—Diuretic.
Use.—Dropsy.
Dose.—From fl.unc.j. to fl.unc.ij. frequently repeated.

DRACONTĬUM. U. S. Skunk Cabbage. (Dracontium *fœtidum*. *Tetrand. Monogyn.* N. O. *Aroideæ*. United States. ♃) The root.
Prop.—Taste acrid and biting; odour rank and disagreeable.
Oper.—Antispasmodic, expectorant.
Use.—It has been highly commended in asthma; and in hysteria, epilepsy, hooping cough, and chronic rheumatism.
Dose.—Of the powder of the dried root gr.x. to gr.xxx. thrice a day.

EMETĬA. Emeta. F. (Take of powdered root of ipecacuanha, any quantity; digest it several times in æther, at 60° Fahr.; and then in alcohol. Evaporate the alcoholic tincture in a water-bath, and dissolve the residue in cold water; then add magnesia, and macerate; and, after drying the magnesian precipitate, digest it in pure alcohol, and evaporate the solution to dryness.)
Prop.—Nearly inodorous; taste slightly bitter; white; pulverulent when pure; permanent in the air; scarcely soluble in water; soluble in æther and alcohol.
Comp.—Carbon 64·37, nitrogen 4·86, hydrogen 7·77, oxygen 23 in 100 parts.
Oper.—Emetic, narcotic, purgative.
Use.—In all cases in which ipecacuanha may be used.
Dose.—From gr. one-third to gr.iij. in any bland fluid.
Incomp.—Preparations of nut-galls, and all vegetable astringent infusions or decoctions.
Prep.—*Syrupus Emetiæ.*

EUPATŌRIUM PERFOLIĀTUM. U. S. Thoroughwort. (*Syngen. Polygam.* N. O. *Compositæ*. North America. ♃) The herb.
Prop.—Intensely bitter, with a slight astringency, but no acrimony.
Oper.—Tonic, sudorific, cathartic; according to the dose and mode of exhibiting it.
Use.—In intermittents, continued fevers, and inflammatory diseases, given in cold infusion; to produce vomiting or purging, in hot infusion; as a tonic in substance.
Dose.—As a tonic gr.xx. to gr.lx. of the powdered leaves, three or four times a day; as a sudorific, fl.unc.j. to fl.unc.ij. of the warm infusion every two hours; as an emetic and cathartic, fl.unc.ij. to fl.unc.iv. of the warm infusion at short intervals.
Prep.—*Infusum Eupatorii*, U. S.

EUPHORBĬA IPECACUANHA. U. S. Ipecacuanha Spurge. (*Dodecandria Trigyn.* N. O. *Euphorbiaceæ*. United States. ♃) The root.
Comp.—Caoutchouc, resin, mucus, and probably fæcula.
Prop.—Taste sweetish.
Oper.—Emetic, cathartic.
Dose.—Gr.x. to gr.xv. produces full vomiting.

FERRI ET MAGNESIÆ CITRAS. Citrate of Iron and Magnesia. (*Ferri Sesquioxidi hydrati recens precipitati partes* ij. (*pondere*); *Acidi*

Citrici partes iij. Add water to the citric acid, and in the solution dissolve the sesquioxide, saturate with carbonate of magnesia, and evaporate to dryness.)

Prop.—Shiny brown scales.

Use.—In the same cases as the ammonio-citrate, over which it has the advantage of not being deliquescent.

Dose.—Gr.ij. to gr.x.

FERRI LACTAS. F. Lactate of Iron. (Evaporate any quantity of sour whey to a third or fourth of its volume; decant, filter, and saturate with milk of lime. Separate the precipitated lactate of lime in a filter. Add oxalic acid to precipitate the oxalate of lime. Add to the filtered liquor (now a solution of lactic acid) clear iron filings, boil, for a short time, filter, evaporate to the consistence of a syrup, and crystallise by cooling. *Louradoun.*)

Comp.—1 eq. of protoxide of iron, 1 of lactic acid, and 3 of water.

Prop.—Small greenish, acicular crystals, in powder of a dull pale-green colour; inodorous; taste feebly chalybeate, but not disagreeable Slightly soluble in water, when pure. The solution in distilled water is not affected by a solution of nitrate of baryta, nor of oxalate of ammonia. It has an acid reaction on vegetable colours.

Oper.—Tonic, emmenagogue.

Use.—Chlorosis and atonic amenorrhœa.

Dose.—Gr.vj. to gr.xij. in twenty-four hours.

FERRI PRUSSIAS. U. S. Prussiate of Iron. Prussian Blue.

Comp.—Prussic acid 35·1, red oxide of iron 53, water 11·9, in 100 parts.

Prop.—Inodorous; insipid; of a deep blue colour; insoluble in water and alcohol, and not decomposed by hydrochloric and sulphuric acids.

Oper.—Tonic.

Use.—In intermittents, scrophula, chorea, epilepsy.

Dose.—Gr.iij. to gr.viij. in syrup thrice a day.

Incomp.—Solutions of potassa and soda; lime, baryta.

FRASERA. U. S. American Calumba. (Frasera Walteri, *Tetrand. Monogyn.* N. O. *Gentianaceæ.* United States. ♂) The root.

Prop.—Bitter without aroma.

Oper.—Tonic.

Dose.—Gr.x. to gr.xx. twice or thrice a day.

GERANIUM. U. S. Crane's Bill. (Geranium Maculatum. *Monadelph. Decand.* N. O. *Geranianaceæ.* N. America. ♃) The root.

Comp.—Tannic and gallic acids.

Prop.—Astringent (one of the most powerful of the vegetable kind).

Use.—In the second stage of dysentery and diarrhœa, after evacuants; in hæmorrhages of the alimentary canal; and as a styptic in external bleedings.

Dose.—From gr.x. to gr.xxx. of the powder: fl.unc.ss. to fl.unc.j. of a decoction made with *Rad. Geranii* unc.j., *Aquæ ferventis* Oss.

HEUCHERA. U. S. Alum Root. (Heuchera *Cortusa. Pentand. Digyn.* N. O. North America. ♃) The root.

Prop.—Intensely astringent.

Oper.—Styptic.

Use.—In external hæmorrhages, and in cancerous sores.

INDĬGO. A peculiar colouring matter obtained from the leaves of several species of Indigofera. (*Diadelphia, Decandria.* N. O. *Leguminosæ.* (*Fabaceæ, Lindley.*))

Comp.—A glutinous matter, indigo blue (indigotin), indigo brown, and indigo red.

Prop.—Colour deep blue, shaded with violet; inodorous, taste somewhat metallic. Insoluble in water, cold alcohol, and in ether; partially soluble in boiling alcohol.
Oper.—Tonic, antispasmodic.
Use.—Idiopathic epilepsy, chorea, hysteria, convulsions.
Dose.—Gr.v. three times a day, increased cautiously but rapidly until unc.j. or more be taken in the day. (Compound indigo pills, indigo gr.xv., opium powdered gr.ij., extract of valerian, and extract of cinchonia, of each gr.xxij.; mix, and divide into twenty-four pills. Dose, four daily.)

INFŪSUM CINCHŌNÆ CUM SUCCO LIMŌNUM. U. S. Infusion of Cinchona with Lemon Juice. (*Cinchonæ in pulvere* unc.j., *Succi Limonum* fl.unc.ij., *Tinct. Camph. Comp.* fl.dr.iij., *Aquæ frigidæ* Oj. Macerate for twelve hours in a covered vessel, and strain.)
Use.—In cases requiring bark, attended with great irritability of stomach.
Dose.—From fl.unc.j. to fl.unc.iij.

INFŪSUM EUPATŌRII. U. S. Infusion of Thoroughwort. (*Eupatorii* unc.j., *Aquæ ferventis* Oj. Infuse for two hours in a covered vessel and strain.)
Oper.—Emetic, diaphoretic, tonic, when given cold.
Use.—In fevers and inflammatory diseases.
Dose.—From fl.unc.j. to fl.unc.viij.

LINIMENTUM TABĂCI. U. S. Liniment of Tobacco. (*Tabaci concisi* unc.j.; *Adipis* lb.j. Simmer the tobacco in the lard over a gentle fire until it become crisp, and strain.)
Oper.—Stimulant, narcotic.
Use.—In tinea capitis, scabies, hæmorrhoids.

LIQUOR LABARRAQUII CHLORO-SODAICUS. F. Chloro-Sodaic Solution of Labarraque. (Dissolve gr.2187·5 of pure crystallised carbonate of soda in fl.unc.xx. of distilled water., and saturate the solution with chlorine gas.)
Prop.—Colour pale yellow, transparent; odour that of chlorine gas; taste pungent; sp. gr. 1·064.
Comp.—Chloride of soda 73·53; chlorate of soda 36·46, with an excess of chlorine.
Oper.—Antiseptic; astringent, tonic.
Use.—For disinfecting foul air, destroying animal putrefaction; an excellent lotion for chilblains, fœtid ulcers, and gangrenous sores; and the best lotion in ptyalism yet discovered. Internally, in dysentery.
Dose.—From min.xx. to fl.dr.j. in a cupful of water: for a lotion or a gargle fl.dr.xij. in fl.unc.vj. of distilled water.

LIQUOR MORPHĬÆ ACETĀTIS. Solution of Acetate of Morphia. F. (Take of acetate of morphia gr.xvj.; distilled water fl.dr.vj.; dilute acetic acid fl.dr.ij.; mix.)
Use.—The same as that of the solid acetate.
Dose.—From min.vj. to min.xxxvj. in any bland vehicle.
*** *The addition of the acid prevents the decomposition of the acetate, which always occurs when the solid acetate is dissolved in water.*

LIQUOR MORPHĬÆ CITRĀTIS. Solution of Citrate of Morphia. (Dissolve gr.xvj. of morphia and gr.iij. of citric acid in fl.unc.j. of distilled water, and add fl.dr.ij. of tincture of cochineal.)

Oper.—Anodyne, sedative, narcotic.
Use.—In the same cases as opium or morphia, but in many instances preferred in consequence of its quicker operation, and because it neither irritates the stomach, nor causes headache, vertigo, or nausea.
Dose.—Min.vj. to fl.dr.ss. during the day.
Incomp.—Earths, alkalies, and their carbonates.

LIRIODENDRON. U. S. Tulip Tree. (Liriodendron *tulipifera. Monœc. Polyand.* N. O. United States.) The bark.
Comp.—Contains resin, gum, fecula, and mucus.
Prop.—Bitter, aromatic, slightly astringent.
Oper.—Stimulant, tonic.
Use.—In intermittents; chronic rheumatism.
Dose.—Of the powder gr.xx. to gr.cxx.

MORPHĬÆ SULPHAS. Sulphate of Morphia, F. (Take of morphia 6 parts, distilled water 12 parts; sulphuric acid diluted with twice its bulk of water, a quantity sufficient to saturate the morphia. Evaporate slowly, and crystallise.* To be kept in a stoppered phial.)
Prop.—Inodorous; taste bitter; crystals silky tufts, soluble in two parts of water at 60°.
Oper.—Powerfully narcotic and sedative.
Use.—In all cases requiring the use of opium.
Dose.—From gr.j. to gr.iij.
*** *It is distinguished from disulphate of quina, which it resembles, by becoming red when treated with concentrated nitric acid.*

NICCŎLI SULPHAS. Sulphate of Nickel. (Prepared by dissolving carbonate of nickel in dilute sulphuric acid, concentrating the solution and setting aside to crystallise.)
Comp.—1 eq. of sulphuric acid=40, 1 eq. of protoxide of nickel=37·5, 7 eq. of water=63=140·5. (NiO,SO_3+7HO.)
Prop.—Emerald green crystals, efflorescent, soluble in two parts of cold water; insoluble in alcohol and ether; taste sweet and astringent.
Oper.—Tonic, antiperiodic.
Use.—In severe and obstinate periodic headache.
Dose.—Gr.½ to gr.j. In large doses it causes nausea, especially on an empty stomach.

OLEUM CHENOPODII. U. S. Oil of Wormseed. (By distillation from the seed.)
Prop.—Odour strong, taste bitter, with considerable aromatic acrimony.
Oper.—Anthelmintic.
Dose.—From min.v. to min.x.

OLEUM SUCCINI OXIDĀTUM. U. S. Oxidated Oil of Amber. (*Olei Succini* fl.dr.j.; *Acidi Nitrici* fl.dr.iijss. Put the oil of amber in a glass vessel, and gradually drop the acid into it, at the same time stirring the mixture with a glass rod. Let it stand for thirty-six hours, then separate the supernatant resinous matter from the acid fluid beneath, and wash it repeatedly, first with cold, and lastly, with hot water, till the acid taste be removed.)
Use.—Recommended as a substitute for musk, to which it is analogous in its properties.

OPII EXTRACTUM NARCOTĪNA PRIVĀTUM. F. Extract of Opium freed from Narcotina. (Macerate coarsely powdered opium in

---

* *Codex Medicamentarius.*

cold water, filter, and evaporate to the consistence of syrup; then digest in rectified æther, and repeat this as long as any crystals of narcotine appear in the residue of the distilled æther. Lastly, evaporate the solution which has been thus treated to an extract.)

Comp.—Bimeconate of morphia, gum, and extractive.

Use.—In all cases requiring a narcotic, in which stimulants are injurious.

Dose.—From gr.j. to gr.vj.

POLYCHLORĬDUM AURI ET SODĬI. (*Pharn. Cast. Ruthenica.* Polychloride of Gold and Sodium. (*Auri puri* part 64, *Sodii Chlor. sic.* part 84, *Acidi Hyponitrici Chlorati* part 250, *Aquæ q. s.* Dissolve the gold in the acid, add the salt in solution, and evaporate to crystallisation.)

Prop.—Crystals tetrahedral prisms, yellow, very soluble in water.

Oper.—Corrosive, alterative.

Use.—In syphilis, scrofula, dropsy.

Dose.—1-16th to 1-8th of a grain.

POTASSĬI CYANURĒTUM. U. S. Cyanide of Potassium. (Expose ferrocyanate of potassa in a porcelain crucible to a long-continued red heat, and during the cooling cover the crucible so as to exclude the air. Dissolve out, with distilled water, the cyanide, and crystallise.)

Comp.—1 eq. potassium = 39 + 1 of cyanogen = 26, equiv. = 65.

Prop.—Small colourless cubes, with a pungent, alkaline taste, and alkaline reaction; very soluble both in water and alcohol.

Use.—Instead of hydrocyanic acid.

Dose.—Gr.¼ to gr.j.

QUINĬÆ ARSENIAS. F. Arseniate of Quinia. (*Quiniæ* unc.iv.; *Acidi Arsenici* gr.lx.; *Aquæ destillatæ* fl.unc.v. Boil for a short time, separate by filtration the crystals deposited on cooling, dissolve again and crystallise.)

Prop.—Feathery white crystals, soluble in boiling water; from which the greater portion is deposited on cooling. Soluble in proof spirit, sparingly in alcohol, insoluble in æther.

Use.—In intermittent fevers.

Dose.—Gr.1-10th to gr.¼ dissolved in a large quantity of water.

SABBATIA. U. S. American Centaury. (Sabbatia *angularis. Pentandria Monogynia.* N. O. *Gentianaceæ.* United States. ☉) The plant.

Prop.—Bitter; both water and alcohol extract its properties.

Oper.—Tonic.

Dose.—Of the powder from gr.xx. to gr.lx.

SANGUINARIA. U. S. Blood Root. (Sanguinaria *Canadensis. Polyandria Monogynia.* N. O. *Papaveraceæ.* North America. ♃) The Root.

Comp.—Contains gum, resin, and a saponaceous extractive matter.

Prop.—Acrid, bitter, slightly escharotic.

Oper.—In small doses tonic, stimulant, and expectorant: in larger doses, an acrid narcotic, diminishing the pulse in a manner similar to digitalis; and emetic when pushed to the extent of twenty grains.

Use.—Highly recommended in the stage of congestion of pneumonia typhoides, in the commencement of phthisis pulmonalis, in hepatitis, cynanche trachealis, icterus, and pertussis.

Dose.—As a tonic, stimulant, and expectorant, gr.j. to gr.ij. of the powder, every six hours; as an emetic, from gr.viij. to gr.xx., infused in warm water.

Off. Prep.—*Tinctura Sanguinariæ*, U. S.

STATICE. U. S. Marsh Rosemary. (Statice *Caroliniana. Pentand Pentagyn.* United States. ♃) The Root.
Comp.—Tannic and gallic acids.
Prop.—Taste austere, bitter, intensely astringent.
Oper.—Astringent, antiseptic.
Use.—In gargles in aphthous and malignant sore throat; and, internally, in chronic dysentery.

STRYCHNĬÆ ACETĀTIS SOLUTIO. Solution of Acetate of Strychnia. (*Strychniæ* gr.j.; *Aceti dest.* fl.dr.j.)
Oper.—The same as strychnia, but a more certain mode of insuring its influence.
Use.—In paralysis, and atonic diarrhœa.
Dose.—Min.ij. to min.v.

STRYCHNĬÆ NITRAS. F. Nitrate of Strychnia. (*Strychniæ* quantum vis; *Acidi Nitrici diluti* quantum opus sit.)
Prop.—Crystals white, acicular, very soluble in water.
Use.—The same as the acetate.
Dose.—1-16th to 1-10th of a grain.

SYRUPUS CINCHŌNIÆ. F. Syrup of Cinchonia. (Take of sulphate of cinchonia gr.xxxix., simple syrup fl.dr.xvj.)
Dose.—From fl.dr.j. to fl.unc.j.

SYRUPUS EMETIÆ. F. Syrup of Emetina. (Take of pure emetina gr.iv., simple syrup lb.j.; mix.)
Use.—In catarrh, hooping cough, and all cases in which ipecacuanha is useful.
Dose.—Fl.dr.j. to fl.dr.iij.

SYRŪPUS GUAIACI. A. Syrup of Guaiacum. (*Tinct. Guaiaci Ammon.* fl.dr.ij.; *Mucilagin. Acaciæ* fl.unc.j.; *Syrupi Amygdalæ* fl.unc.j.)
Use.—In chronic rheumatism and some of the secondary forms of syphilis.
Dose.—Fl.dr.j. to fl.dr.ij.
Incomp.—Mineral acids and the spirit of nitrous ether.

SYRUPUS MORPHIÆ ACETĀTIS. F. Syrup of Acetate of Morphia. (Clarified syrup lb.j., acetate of morphia gr.iv. Make into a syrup.)
Use.—The same as that of syrup of poppies.
Dose.—From fl.dr.j. to fl.dr.iv.

SYRUPUS MORPHĬÆ SULPHĀTIS. F. Syrup of Sulphate of Morphia. (Take of clarified syrup lb.j., sulphate of morphia gr.iv. Make into a syrup.)
Use.—For varying the narcotic when patients have become accustomed to the action of the acetate.
Dose.—From fl.dr.j. to fl.dr.iv.

SYRUPUS QUINĬÆ. F. Syrup of Quinia. (Take disulphate of quina gr.lxiv., simple syrup lb.ij.; mix.)
Use.—In all cases in which the disulphate of quina is useful.
Dose.—From fl.dr.ij. to fl.dr.iv.

SYRUPUS SCILLÆ COMPŎSĬTUS. U. S. Compound Syrup of Squills. (*Scillæ contusæ, Senegæ contusæ sing.* unc.iv.; *Antimonii Pot.-tartratis* gr.xlviij.; *Aquæ* Oiv.; *Sacchari* lb.iijss. Pour the water on the squill and senega. Boil to one half, and strain; then add the sugar. Evaporate the whole to Oiij.; and lastly, while it is hot, add the tartar emetic.)
Use.—In croup and chronic bronchitis, especially of children.
Dose.—For adults, fl.dr.j. to fl.dr.ij.; for children min.v. to min.xv.

TINCTŪRA CAPSĬCI ET CANTHĂRĬDUM. U. S. Tincture of Cayenne Pepper and Blistering Flies. (*Cantharidum contusarum* unc.1¼; *Capsici* gr.lx.; *Alcoholis diluti*, Oj. Digest for ten days and filter.)

Oper.—Stimulant and rubefacient.

Use.—As a counter-irritant in deep-seated painful affections.

TINCTŪRA CINCHŌNIÆ. F. Tincture of Cinchonia. Take of sulphate of cinchonia gr.viij.; alcohol fl.unc.j.)

Dose.—From fl.dr.j. to fl.dr.iv.

TINCTŪRA FERRI AURANTIACA. Wirtemburg. (*Iron filings* unc.iv.; *Seville Oranges* 4. *Remove the peel, white, and seeds.* Beat the pulp with the filings in a stone mortar, and let the paste remain at least for two days; then pour on it *Madeira wine* fl.unc.x., *and Tincture of Orange Peel* fl.unc.ij. Digest for seven days, express, and filter.)

Use.—A very agreeable preparation in cases requiring the use of iron.

Dose.—Fl.dr.j. to fl.dr.iv.

TINCTŪRA LOBĒLIA. U. S. Tincture of Indian Tobacco. (*Lobeliæ* unc.ij.; *Alcoholis diluti* Oj. Digest for ten days and filter.)

Oper.—Emetic, diuretic, expectorant.

Use.—In asthma, croup, pertussis.

Dose.—Fl.dr.j. to fl.dr.ij. as an emetic for an adult.

TINCTŪRA NUCIS VŎMĬCÆ COMPŌSĬTA. Compound Tincture of Nux Vomica. (*Extracti Nucis Vomicæ* gr.iv.; *Solutionis Ammoniæ* fl.dr.ij.; *Spiritus rectificati* fl.unc.j. Mix.)

Oper.—Stimulant.

Use.—In same cases as nux vomica; also as a liniment to paralysed and atrophied parts.

Dose.—Min.x. to min.xxx.

TINCTŪRA QUINĬÆ. F. Tincture of Quinia. (Take of disulphate of quinia gr.vj.; alcohol (·847) fl.unc.j.)

Dose.—Fl.dr.j. to fl.dr.iij.

TINCTŪRA SANGUINĀRIÆ. U. S. Tincture of Blood Root. (*Sanguinariæ contusæ* unc.ij.; *Alcoholis diluti* Oj. Digest for ten days, and filter.)

Use.—In the same cases as the powder.

Dose.—From min.x. to fl.dr.jss.

TINCTŪRA STRYCHNĬÆ. F. Tincture of Strychnia. (Take of strychnia gr.iij.; alcohol (sp. gr. ·837) fl.unc.j.; dissolve.)

Use.—In the same cases as those for which strychnia is used.

Dose.—From min.vj. to min.xxiv.

TINCTŪRA SUMBŪLI. Tincture of Sumbul. (*Sumbuli contusi* unc.v.; *Spiritus tenuioris* Oij. Macerate, express, and strain.)

TINCTŪRA SUMBŪLI ÆTHEREA. Æthereal Tincture of Sumbul. (*Sumbuli contusi* unc.v.; *Ætheris* fl.unc.xiv.; *Spiritus rectificati* fl.unc. xxvj. Macerate, express, and strain.)

Oper.—Both of these tinctures are stimulant, antispasmodic.

Use.—In debility, and enervation from long-continued illness, hysteria, epilepsy, chorea, effects of sexual abuse.

Dose.—Of the first fl.dr.½ to fl.dr.ij. on a lump of sugar, or in any suitable vehicle. Of the second, min.x. to min.xx. similarly administered.

TINCTŪRA VERĀTRIÆ. Tincture of Veratria. (Dissolve gr.iv. of veratria in fl.unc.j. of alcohol.)

Oper.—Emetic, diuretic, purgative.

Use.—Internally in gout, instead of colchicum, dropsy, anasarca; also in small doses externally by friction.
Dose.—Min.x. to min.xxv.

UNGUENTUM ARSĔNĬCI IODĬDI. Ointment of Iodide of Arsenic. (Rub gr.iij. of iodide of arsenic with unc.j. of lard.)
Prop.—Stimulant, alterative, detergent.
Use.—In tubercular cutaneous affections, carcinoma.

UNGUENTUM POTASSĬI BROMĬDI. Ointment of Bromide of Potassium. (Mix gr.xxiv. of bromide of potassium, and from min.vj. to min.xij. of bromine, with unc.j. of lard.)
Oper.—Stimulant, deobstruent.
Use.—In scrofulous swellings.
Dose—Gr.xxx. to gr.lx. by friction.

UNGUENTUM ZINCI IODĬDI. Ointment of Iodide of Zinc. (Mix unc.j. of iodide of zinc with unc.j. of lard.)
Oper.—Stimulant, deobstruent.
Use.—In scrofulous swellings, bronchocele, enlargement of joints.

VINUM CINCHŌNIÆ. F. Wine of Cinchonia. (Take of cinchonia gr.xiv.; Madeira wine fl.unc.xxxj.)
Use.—In intermittents.
Dose.—From fl.dr.j. to fl.unc.iij.

VINUM QUINĬÆ. F. Wine of Quinia. (Take of sulphate of quinia gr.ix.; Madeira wine lb.ij.)
Dose.—From fl.dr.iv. to fl.unc.iv.

XANTHORRHIZA. U. S. Yellow Root. (Xanthorrhiza *Apiifolia. Pentandria Polygynia.* N. O. *Ranunculaceæ.* North America. ♃) The Root.
Comp.—Resin, gum.
Prop.—Taste intensely bitter.
Oper.—An excellent tonic.
Dose.—Gr.xl. of the powdered root.

XANTHOXYLUM. U. S. Prickly Ash. (Xanthoxylum *Fraxineum. Pentandria Pentagynia.* United States. ♄) The Bark.
Prop.—Acrid; bitter taste, with a slightly aromatic flavour.
Oper.—Stimulant, diaphoretic.
Use.—In chronic rheumatism.
Dose.—From gr.x. to gr.xx. of the powder; of a decoction made by boiling unc.j. of the bark in Oij. of water, for fifteen minutes; fl.unc.iv. to fl.unc.viij. every three or four hours.

ZINCI CYANĬDUM. Cyanide of Zinc. (Add gradually a filtered and recent solution of cyanide of potassium to a solution of sulphate of zinc, so long as there is any precipitate; wash, and carefully dry the precipitate.)
Oper.—Tonic, sedative, antispasmodic, vermifuge.
Use.—In dyspeptic irritability of stomach, in spasmodic cough, asthma, pertussis, neuralgic affections of stomach, worms, and diseases of dentition.
Dose.—Gr.$\frac{1}{4}$ gradually increased to gr.jss.

ZINCI IODĬDUM. Iodide of Zinc. (Heat 20 parts of zinc with 170 parts of iodine in a glass vessel to sublimation.)
Prop.—White, deliquescent needles, very soluble in water; taste styptic and disagreeable.
Oper.—Stimulant, deobstruent, discutient.
Use.—As a substitute for iodide of potassium.
Off. Prep.—*Unguentum Zinci Iodidi.*

APPENDIX.

No. II.

ON POISONS.

Poisons are substances of an animal, a vegetable, or a mineral nature, which produce effects deleterious to the animal economy when they are taken into the stomach in certain doses; and, in some instances, even when they are applied to the surface of the body. Many poisonous substances, however, are daily employed as medicines; and with the best results, when they are administered in proper doses, and with due precaution.

Writers who professedly treat of poisons have arranged the substances which they regard as such, according to their effects on the animal economy; but as the following memoranda are intended merely as references from which the practitioner may refresh his memory when his assistance is suddenly required in cases of poisoning, the author conceives the alphabetical arrangement will be the most useful, and he has consequently adopted it. A similar reason has also induced him to place the English name as the title of each article.*

ACETIC ACID. (*Strong.*)

Symptoms.—Great heat, and a sensation of burning pain in the stomach; convulsions; death.

Morbid Appearances.—The mouth and fauces brownish,—excoriated, and the lingual papillæ enlarged. The œsophagus also lined with a brown adventitious membrane. The stomach of a livid hue towards the pylorus and black at the fundus. The vessels large and much injected.

Antidotes.—Magnesia; soap in water; after which the stomach should be emptied by the stomach-pump or an emetic.

ACETATE OF LEAD. See under *Carbonate of Lead.*

ACONITUM. See *Monkshood.*

AGARIC. See *Fungi.*

AMMONIA. (*Liquor Ammoniæ.*) A corrosive mineral poison.

Symptoms.—Excoriations of the mouth and fauces; sensation of burning in the throat, chest, and stomach; followed by vomiting and purging, the ejected matter being mixed with blood. When the dose is large, the immediate feeling is that of strangulation, attended with convulsions and high delirium. If the result be fatal, it very quickly follows the administration of the poison. The inhalation of the ammonia by applying the solution to the nostrils is equally hazardous, and causes the same symptoms as when it is taken into the stomach.

---

* Many poisonous substances are purposely not noticed, because they are not likely to be employed as such; and, consequently, they do not demand general attention.

Morbid Appearances.—Marks of strong inflammatory action in the œsophagus and cardiac portion of the stomach; and in the bronchial tubes when the poison has been inhaled.

Tests.—The aqueous solution of ammonia is readily recognised by its pungent odour; by changing the vegetable reds to green; by changing the infusion or tincture of turmeric to reddish-brown; by not altering the transparency of a solution of nitrate of silver; and by a blue colour being produced when a piece of copper is immersed in it, or on the addition of a dilute solution of any of the salts of copper; or by white fumes with chlorine.

Treatment.—The immediate exhibition of vinegar, lemon juice, or solution of citric acid; and afterwards of milk, mucilages, and demulcent fluids; bleeding, if symptoms of intestinal inflammation supervene.

*** These instructions apply equally to cases of poisoning by *Carbonate of Ammonia* and by *Hartshorn*.

AMMONIATED COPPER. (*Cuprum Ammoniatum.*) A corrosive metallic poison.

Symptoms and Morbid Appearances nearly the same as those produced by the other salts of copper. (See *Verdigris.*)

Test.—This poison is readily known by its beautiful blue colour, and ammoniacal odour. When mixed in fluids which partially decompose it, as, for instance, coffee, port wine, or malt liquors, it may be detected by adding to the suspected fluid a few drops of a spirituous solution of guaiac. If the vehicle be coffee, and a salt of copper be present, it will instantly produce a beautiful deep greenish-blue precipitate. If the vehicle be port wine, it gives a green colour to the wine, and the colour evolved by the tincture of guaiac will be nearly an indigo blue, with a slight shade of green; and if beer, that of verditer. It changes solution of arsenious acid to green.

Treatment.—The use of the stomach-pump, and oily clysters. Albumen in solution (in coffee, if it can be obtained*) should then be freely exhibited; and vomiting again excited by drinking large quantities of mucilaginous fluids, if the poison had been very recently taken; but if it have already passed into the bowels, give castor oil in coffee, combined with opiates and other narcotics; bleed both generally and locally; and employ warm baths and fomentations with emollient clysters.

ANTIMONIUM TARTARATUM. See *Tartar-Emetic.*

ARGENTI NITRAS. See *Nitrate of Silver.*

ARSENIC—ARSENIOUS ACID. A corrosive mineral poison.

Symptoms.—Metallic austere taste; constant spitting of saliva devoid of the mercurial fœtor; constriction of the pharynx and œsophagus; nausea and vomiting, sometimes of a brown mucous matter, which is occasionally mixed with blood; fainting, with excessive thirst; a sensation of great heat at the throat and the præcordia; heat and severe pain in the stomach, which is generally so irritable as to reject the mildest fluids; severe gripings, purging, and tenesmus, the stools being deep green or black, and horribly offensive; the urine scanty, red, and often bloody; the pulse small, frequent, and often intermitting, accompanied with palpitation of the heart and syncope, difficult respiration and cold sweats; swelling and itching of the whole body, which occasionally becomes covered with livid blotches; great prostration of strength, and paralysis of the feet and hands; delirium;

---

* Coffee instantly decomposes the salts of copper.

convulsions; urine highly coloured, often bloody; strenuous priapism; and death.

Morbid Appearances.—The mouth and œsophagus are seldom inflamed; but the stomach most commonly, although not always, presents appearances of intense inflammation, but not amounting to erosion or abrasion of the villous coat; and it is on the surface of such inflamed spots that grains of the acid are generally found, when the poison has been swallowed in powder. The inflammation is evident also in the duodenum, jejunum, and ileum; but it almost disappears in the colon, although the mucous membrane of the rectum is often found not only highly inflamed, but ulcerated. The lungs are sometimes black and turgid with blood; the mitral and tricuspid valves of the heart are covered with red patches, and these extend to the fleshy columns; but the chief morbid appearances are to be looked for in the stomach and intestines. The contents of the former of these, and of portions of the latter, ought in every case to be carefully preserved, and washed in tepid *distilled* water. Cases have proved fatal in which no morbid changes have been detected.

Tests.—If any solid particles be found in the stomach, throw a few of them upon red hot coals, they will be decomposed and exhale alliaceous vapour; or, mix one part of them with three parts of a mixture, consisting of one part of finely powdered charcoal, and two parts of *very dry* carbonate of potassa; put this into a small glass tube, the upper inner surface or empty part of which is kept clean, whilst the powder is introduced, by being previously lined with paper. Having withdrawn the paper, stop the open end loosely with a little tow, or a piece of soft paper; then place the closed end for a few minutes in the flame of a spirit lamp until it becomes incandescent; when, if arsenious acid be present, a brilliant metallic crust will be found lining the upper part of the tube. This crust, placed on hot coals, will exhale dense white fumes and a strong smell of garlic.

If no solid particles be found, boil the contents of the stomach with liquor potassæ, and strain through a piece of linen rag; divide the fluid into different portions, test each portion separately by the following reagents:—

1. Put one portion into Marsh's apparatus for the formation of arseniuretted hydrogen gas, with some diluted sulphuric acid and a piece of pure zinc, and inflame the gas evolved at the jet. If arsenious acid be present, a piece of glass held over the flame will display a spot of metallic arsenic, surrounded by a circle of black oxide of arsenic, which is surrounded by a second circle of arsenious acid; or pass the arseniuretted hydrogen gas through a bent tube, and heat it, at a point a few inches from the jet, in the flame of a spirit lamp; a crust of metallic arsenic will line the tube on the farther side of the heated point. A modification of Marsh's apparatus has been recommended by a commission lately appointed by the Prussian government, the object of which is to ascertain the weight of the arsenic present.

Or, acidulate the fluid to be tested with hydrochloric acid, and boil strips of clean metallic copper in it; if arsenious acid be present, a coating of metallic arsenic will cover the copper. (*Reinsch.*)

The grains picked out of the stomach may be tested in the same manner. This test is decisive, but it requires to be used in the following manner, if the contents of the stomach contain much fatty matter. Take a bell glass, open at the top, and furnished with a stop-cock and glass jet; fill it with hydrogen gas; place it in a jar containing the contents of the stomach strained, and the washing of the stomach, and some diluted sulphuric acid and pure zinc. Open the stop-cock until the

fluid rises considerably into the bell glass; then close the stop-cock; but, after the gas has been extricated and the fluid has descended, open it again, inflame the gas at the jet and use it in the same manner as Mr. Marsh's instrument. A better mode is the modification of Marsh's apparatus proposed by the Author. (See *Pharmaceutical Trans. by T. Bell*, p. 92.)

2. Drop, into the second portion, a solution of nitrate of silver to excess, in order to precipitate all the hydrochlorates it may contain; then, after the fluid has become clear, touch the surface with a glass rod dipped in liquid ammonia. If arsenious acid be present, a yellow arsenite of silver will fall from the point of the rod.
3. Drop into a third portion some ammoniated sulphate of copper: if arsenious acid be present, Scheele's green will be formed. The accordance of these tests affords sufficient evidence. The tubes, and the glass coated with the metallic arsenic, should be taken into court, as well as comparative tubes and glasses coated by treating the simple acid and its solution. All these tubes should be previously rolled up in paper, and sealed in the presence of the persons who assist in the testing.

Treatment.—Evacuate the stomach by the stomach-pump, using lime-water instead of distilled water; administer large draughts of tepid, mucilaginous fluids, or sugar and water, or chalk and water, or lime-water; avoid the use of alkalies; but administer charcoal and hydrated peroxide of iron. (*Ferrugo*, E.) Afterwards combat the inflammatory symptoms by bleeding freely, both generally and locally; by tepid baths, emollient enemas, and narcotics. If the immediate fatal symptoms be averted, let the patient for a long time subsist wholly on farinaceous food, milk, and demulcents.

*** All arsenical poisons operate nearly in the same manner as the arsenious acid; and consequently similar means are required for detecting their presence and counteracting their influence.

ATROPA BELLADONNA. See *Deadly Nightshade.*

BELLADONNA. See *Deadly Nightshade.*

BICYANIDE OF MERCURY. (*Hydrargyri Bicyanidum.*) An acrid mineral poison.

Symptoms.—They closely resemble those of poisoning by corrosive sublimate, accompanied with severe vomiting, mercurial ulceration of the mouth, salivation, powerful action of the heart, diarrhœa, suppression of urine, demi-erection, and an ecchymosed appearance of the penis and scrotum, convulsions, and death.

Tests.—When any of the poison remains, it is recognised by its quadrangular prismatic crystals, with oblique summits, and its styptic taste. When heated in a small tube closed at one end, and drawn out to a point at the other, it is decomposed, mercury sublimes, and cyanogen gas is given off, and burns with a violet flame. Its solution is decomposed by a stream of sulphuretted hydrogen gas, and sulphuret of mercury and hydrocyanic acid are formed.

Treatment.—The same as in cases of poisoning by bichloride of mercury.

BLISTERING FLIES. (*Cantharis Vesicatoria.*) An acrid animal poison.

Symptoms.—Nausea; vomiting and purging, the matter ejected in either case being frequently bloody and purulent; acute epigastralgia; writhing colic; great heat and irritation of the bladder and urinary organs, accompanied with the most painful priapism; the pulse is

quick and hard; and, although thirst is often great, yet there is, occasionally, a horror of liquids. If these symptoms be not soon relieved, they are followed by convulsions, tetanus, delirium, syncope, and death. Throughout the attack, the breath of the patient has a very peculiar, faint, sickly odour.

Morbid Appearances.—Inflammation and erosion of the stomach; the green shining particles of the powdered flies' being sometimes seen adhering to the inner coat of the viscus, or mixed with its contents. The intestines also and the kidneys exhibit marks of inflammation; and these are still more evident in the bladder, particularly when the fatal result does not immediately supervene.

Tests.—The poisonous properties of the blistering fly depend on a peculiar principle, which has been named *cantharidin*; but the poison can be recognised by the appearance of the green shining particles, which are visible in the finest powder, and by the symptoms. The alcoholic solution is precipitated white by water, but the precipitate is again dissolved by an excess of water.

Treatment.—Copious dilution with milk and demulcent fluids, bleeding, the warm bath, opiate frictions, and clysters of mutton broth and opium. The free use of demulcents, followed by camphor and opium, to allay irritation.

BROMIDE OF POTASSIUM. (*Potassii Bromidum.*) An acrid mineral poison.

Symptoms.—Nausea, vomiting, quickened respiration and pulse, great prostration of strength, death.

Morbid Appearances.—Congested state of the mucous membrane; spots of ulcerations, softenings.

Tests.—If any of the poison remain, dissolve it and drop into the solution sulphuric acid, when the colour and odour of free bromine will be perceived. Add mucilage of starch, it will be coloured yellow. Take up the bromine with æther, and drop into the æthereal solution a solution of nitrate of silver: a whitish-yellow bromide of silver, insoluble in nitric acid, and in ammonia, will fall.

Bromide of potassium does not alter the colour of tea, or coffee, or milk, or wine. To detect it in these fluids, evaporate to dryness, decompose the vegetable matter by heat, and act on the residue in the same manner as on the pure bromide.

Treatment.—Empty the stomach with the stomach-pump and tepid water. Treat the nervous symptoms by stimulants.

BRUCIA. (*Brucia.*)

Symptoms.—The same as those caused by strychnia.

Tests.—Brucia has a bitter taste. It is scarcely soluble in water at 60°, and it requires 500 parts of boiling water for its solution. It is dissolved and coloured blood-red by nitric acid; and on the addition of a solution of protochloride of tin, the red is changed to a beautiful deep violet.

Treatment.—The same as for poisoning by strychnia.

BRYONY ROOT. (*Bryoniæ Dioicæ Radix.*) An acrid vegetable poison.

Symptoms.—Violent vomitings, with severe colic pains and purging, great thirst; difficulty of breathing; and sometimes convulsions.

Morbid Appearances.—Evidences of inflammation of the mucous membrane of the stomach and rectum, and congestion of blood in the lungs.

Test.—This poison can only be recognised when the root itself, or a portion of it, can be obtained. It is large, fleshy, fusiform, marked

externally with circles of a yellowish-white colour, and has a sweetish, yet acrid and bitter, disagreeable taste.

Treatment.—Excite vomiting by copious draughts of tepid demulcent fluids, and by irritation of the fauces; then administer milk and mucilaginous diluents, with opiates and emollient enemas. The lancet may be sometimes requisite.

CAMPHOR. (*Camphora.*) A narcotic vegetable poison.

Symptoms.—Violent excitement of the brain and nervous system; vomiting; vertigo, preceded by pallid countenance; great anxiety; small pulse; difficult respiration, syncope, cold sweats, and convulsions. In some instances it has occasioned death.

Morbid Appearances.—Too few opportunities have occurred for ascertaining these with any degree of accuracy.

Test.—Camphor is always readily discovered by its peculiar odour.

Treatment.—Wine and opium, exhibited at short intervals until the symptoms abate.

CANTHARIDES. See *Blistering Flies.*

CARBONATE OF BARYTA. (*Carbonas Barytæ.*) See *Muriate or Hydrochlorate of Baryta.*

CARBONATE OF LEAD. (*Plumbi Carbonas.*) A sedative metallic poison. (All the salts of lead are resolvable into the carbonate, which is the only direct poison of lead.)*

Symptoms.—Obstinate costiveness; violent colic, with retraction of the abdomen; vomiting; the pulse small and hard; laborious breathing and tremors, terminating in paralysis of the extremities, and occasionally in death. The gums assume a blue tinge.

Morbid Appearances.—An ex-sanguine appearance of the intestines; but occasionally there is inflammation of the mucous membrane of the intestines, sometimes attended with blotches of extravasated blood. When the death of the patient is not sudden, the mesenteric and lymphatic glands are inflamed and obstructed; and all the viscera bear more or less evidence of having suffered from increased vascular action; and lead has been found in the muscles of the part previously paralysed.

Test.—When the poison has been swallowed in the solid form, and any of it can be obtained, it may be known in some degree by its colour and weight, or by rubbing it in a mortar with a little spirituous solution of guaiac, and a few drops of liquid ammonia, which produce a beautiful grass green, passing to glaucous when lead is present; it is tinged brown when it is exposed to sulphuretted hydrogen gas; or it may be dissolved in weak nitric acid, and the solution precipitated by iodide of potassium; if lead be present, the yellow iodide of that metal will be formed: but it is still more certainly detected by reducing it to a metallic state upon charcoal, by means of the blowpipe.

When it has been taken in syrup, or in wine, or in hollands, to improve which it is often ignorantly and improperly used, first render the coloured fluids colourless by chlorine, and then add to different portions the following reagents:—Sulphate of potassa, which will produce a white; sulphuretted hydrogen, which will throw down a black; and chromate of potassa, which will exhibit a canary yellow precipitate, if any salt of lead be present; or dissolve in acetic acid,

---

* The acetate and diacetate are certainly poisonous in large doses, even when free acid is present. (*Taylor's Med. Jur.*)

and add to the solution a solution of iodide of potassium; if the poison be carbonate of lead, a yellow iodide of lead will be precipitated.

Treatment.—Bleed, if the pulse be hard; then freely exhibit cathartics, particularly castor oil, and sulphate of magnesia combined with opium or extract of hyoscyamus; use the warm bath, and throw up repeatedly injections of mutton broth and demulcents. The patient should drink very freely mucilaginous liquids. When convalescent, he should live almost entirely on a milk diet. If paralysis of the limbs continue, it should be treated with strychnia, and iodide of potassium.

*** The action of acetate of lead, and of red oxide of lead or litharge, on the animal economy, is nearly the same as that of the carbonate of lead; consequently the above observations apply to all the salts of lead.

CARBONIC ACID GAS. This gas is often extricated very largely in various processes of art, and in burning charcoal in close rooms, so as to produce suspended animation and death. As it is also very heavy, it remains in fermenting vats and beer cellars long after the liquor has been drawn off or removed, so as to destroy individuals who incautiously enter them.

Symptoms.—Great drowsiness, difficulty of respiration, and suffocation. The features appear swelled and the face bluish, as in cases of strangulation; but the eyes remain as brilliant as in health, even after death.

Test.—Invert immediately, before the air of the place has been disturbed, a bottle filled with lime-water in the atmosphere which has occasioned the suspended animation or the death of the person immersed in it, until one half of the fluid runs out; and at the same time introduce a lighted taper into the same atmosphere. If the taper be extinguished, and lime-water, on being shaken in the bottle, becomes milky, the deleterious gas is carbonic acid gas.

Treatment.—Remove the body into the open air; apply friction, particularly over the thorax and on the soles of the feet; then endeavour to stimulate the organs of respiration to a renewed action by inflating the lungs with common air, or, if it can be procured, oxygen gas, by means of the double bellows, and a flexible tube introduced into the trachea through the nostrils. Stimulate, cautiously, the nostrils with ammonia, and dash cold water on the face and chest.

CHLORIDE OF BARIUM. (*Barii Chloridum.*) An acrid poison.

Symptoms.—Sensation of burning in the stomach, vomitings, headache, deafness, convulsions, death.

Tests.—Soluble in water; the solution precipitates nitrate of silver white, sulphuric acid and the sulphates also white; the precipitates are insoluble in water and nitric acid.

If it be contained in wine, test as for the aqueous solution; and, also if the stomach is to be examined.

Treatment.—Sulphate of soda, or of magnesia, in solution, freely administered; then empty the stomach by an emetic, and afterwards administer opium.

CHLORINE GAS. An acrid poison.

Symptoms.—Severe constriction of the glottis, cough, sensation of suffocation alternating with asphyxia; afterwards, if death do not ensue, inflammation of the larynx, and pneumonic inflammation.

Treatment.—Inhalation of the vapour of hot water containing carbonate of ammonia. Bleeding, the antiphlogistic treatment, especially by mercurials.

CHLOROFORM. (CHLOROFORMUM.) *Chloroform.* Narcotic Poison.

Symptoms.—Chloroform gives rise to vomiting, headache, convulsions, anæsthesia, unconsciousness, and, at times, fatal depression and prostration. It has been attempted to apply it to passengers in the street; but if the person be sober and compos mentis, the danger is slight. The deaths which have occurred, have been in cases where it has been used as a remedy.

Morbid Appearances.—Congestion of lungs and large vessels of the heart.

Treatment.—Death has been in most cases so sudden as to preclude the possibility of using any remedies. The best restorative is atmospheric air. Ammonia may be applied to the nostrils, the cold douche to the head, and even artificial respiration may be had recourse to; but no stimulants should be given.

COCCULUS INDICUS. (*Anamictæ Cocculi fructus.*) An acro-narcotic vegetable poison, deriving its poisoning powers from *picrotoxin.*

Symptoms.—These closely resemble those of intoxication from ardent spirits.

Morbid Appearances.—There is no instance of the examination of a human body destroyed by this poison on record.

Test.—That this poison has been the cause of death, or of powerfully deleterious effects on the human body, cannot be ascertained by any test. The fruit is externally blackish, about the size of a pea, whitish within, and has a very bitter taste, not easily removed from the palate.

Treatment.—Encourage vomiting, and purge freely; bleed if the pulse indicate it, or if symptoms resembling apoplexy supervene.

COLCHICUM. See *Meadow Saffron.*

COLOQUINTIDA. (*Fructus Cucumeris Colocynthidis.*) An acrid vegetable poison.

Symptoms.—Violent pains in the epigastrium, with vomiting and purging, the stools being mixed with blood. The sight soon becomes obscured, and this state is succeeded by vertigo and delirium.

Morbid Appearances.—When death has occurred from this poison, the stomach and bowels have been found inflamed, particularly the rectum.

Test.—A strong infusion of coloquintida gelatinises as it cools, resembling in appearance mucilage of quince seed; but it has a very bitter, nauseous taste. Solution of potassa renders it greenish, and throws down a precipitate; ammonia dissolves the mucilage. But no test can be relied on; the only certainty that this poison has been taken is the seeing the substance itself.

Treatment.—Emetics to evacuate the whole of the deleterious substance; local blood-letting on the abdomen; afterwards opiates, and copious dilution with milk and oily demulcents.

CONGER.

Symptoms.—This fish, although it is frequently eaten with impunity, yet has, in some instances, produced all the symptoms of cholera morbus, succeeded by paralysis of the lower extremities.

Treatment.—Evacuate the contents of the stomach and bowels, after having allayed their irritability by opium. Dilute freely with saccharine and acidulous liquids; and bleed, if symptoms of inflammation of the lower bowels supervene.

COPPER, POISONOUS SALTS OF. See *Verdigris.*

CORROSIVE SUBLIMATE. (*Hydrargyri Perchloridum.*) A corrosive metallic poison.

Symptoms.—An acrid, styptic, metallic taste, with the sensation of fulness and burning in the throat; copious salivation, but not always; great anxiety; tearing pains of the stomach and intestines; nausea; frequent vomiting of a fluid occasionally mixed with blood; diarrhœa, tenesmus; the pulse small, quick, and hard; frequent faintings; universal debility; difficult respiration; cold sweats; cramps of all the members; convulsions; and death.

Morbid Appearances.— General inflammation of the intestinal passages; swelling and a livid colour of the palate and fauces; epiglottis, trachea, and bronchial tubes injected; œsophagus of a white colour. In some cases red and black spots have been found in the cavities of the heart; constriction of the intestinal canal, with marks of gangrene, sometimes with perforation of the viscus: and in general the mucous membrane of the stomach is detached.

Tests.—1. If the poison be found in the solid state, its nature may be suspected by its sensible qualities; but to ascertain the truth, mix the suspected substance with an equal weight of very dry carbonate of potassa; then put the mixture into a small glass tube, and heat it gradually to redness; if it be corrosive sublimate, mercury will be obtained in metallic globules.

2. If the suspected poison be a fluid and a colourless liquid, place in it a wire of clean polished copper twisted round a sovereign, and allow it to remain for a short time, when the gold will be covered with a white coating that will acquire a metallic lustre when rubbed, if corrosive sublimate be the poison; or pour into it lime-water, or liquor potassæ, which will produce an orange-yellow precipitate, if the salt be present. The solution of iodide of potassium will precipitate scarlet biniodide of mercury.

3. Drop a little of the solution on the back of a gold watch, and whilst holding the watch in one hand, touch it with a knife or a key held in the other; an amalgam will be instantly formed on the gold if the poison be corrosive sublimate.

4. If the solvent be wine, coffee, or any coloured liquid, agitate it slowly for ten minutes in a phial, with two or three drachms of æther; then, after the fluids have separated by rest, pour off the æther, and evaporate it in a small porcelain capsule. If corrosive sublimate be present, it will remain in a crystallised form in the capsule; and that it is that salt may be proved by dissolving these crystals in water, and precipitating the solution, as already described, with lime-water, or solution of potassa, or iodide of potassium.

5. If we have only the contents of the stomach to act upon, coil a copper wire round a sovereign or a piece of gold, and, having acidulated with nitric acid, drop this pile in the fluid. If corrosive sublimate be the poison, a precipitate of metallic mercury will be formed on the gold.

6. To the suspected solution, add a solution of protochloride of tin; then, after a short time, add more, and leave the precipitate to subside. Pour off the fluid, and wash repeatedly the precipitate; a globule of mercury will remain.

Treatment.—Give large quantities of white of egg diluted in water in repeated doses. The albumen decomposes the corrosive sublimate, and reduces it to a state of calomel, and the protoxide, which, acting on the bowels, carries itself off by purging. The poison is also reduced to calomel by a mixture of soap and the gluten of wheat flour. Bleeding is requisite if the pulse be quick and hard. The warm bath

may also be employed; and during convalescence the patient should subsist altogether on broths, milk, and demulcent fluids.

CREASOTE. An acrid poison.

Symptoms.—It operates as a powerful topical excitant, causing inflammation of the tissue with which it comes in contact, and destroying life by the sympathetic depression of the nervous system it induces.

Tests.—Distinguished by its odour, that of smoked meat and tar. It instantly coagulates albumen.

Treatment.—Administer freely white of eggs, then give direct emetics; and treat the inflammatory symptoms as in a case of gastritis.

CUSPARIA, FALSE. Supposed to be the bark of Strychnos nux vomica. The symptoms it causes are similar to those from nux vomica.

Test.—Pieces rough, covered with a whitish dust: they have no odour, are intensely bitter, heavy, resinous in the fracture, inner surface reddened to blood colour by nitric acid; the infusion reddens litmus; perchloride of iron changes it to green.

Treatment.—See *Nux Vomica.*

CYCLAMEN. See *Sow Bread.*

DEADLY NIGHTSHADE or DWALE. (*Atropa Belladonna.*) An acro-narcotic vegetable poison.

Symptoms.—A sense of great dryness and constriction of the pharynx and œsophagus: sickness, vertigo, dilated pupils and dimness of sight; laughter, delirium, redness and tumefaction of the face; convulsions. The stomach and bowels become sometimes so paralysed, that vomiting can scarcely be produced by the most powerful emetics; and death follows.

Morbid Appearances.—The body swells greatly after death, whilst blood flows from the nose, mouth, and ears, and rapid putrefaction ensues. The stomach and intestines display marks of high inflammatory action, and the vessels of the brain are generally found turgid with blood.

Test.—There is no chemical test for ascertaining the presence of this poison in food; but the botanical characters both of the leaves and the fruit should be familiar to every practitioner. The berries, which are most likely to be eaten by children, are large, roundish, with a longitudinal furrow on each side, of a very deep purple colour, smooth, shining, and seated within a permanent green flower-cup or calyx. Their taste is sweet and agreeable.

Treatment.—Give emetics of sulphate of zinc or of copper; then evacuate the bowels by active purgatives and clysters; and follow these by large doses of vinegar and water, or other vegetable acids. The previous use of vinegar has been recommended, and it is said the emetics act with more certainty after its use; after the vomiting strong coffee proves very efficacious.

DIGITALIS. See *Foxglove.*

ELATERIUM. (*Momordicæ Elaterii, fructus et fecula.*) An acro-narcotic poison.

Symptoms.—Violent sickness, vomiting, and hypercatharsis; the stools being of the most watery consistence; and followed by sudden and excessive debility, cold clammy sweats, and death.

Morbid Appearances.—When the dose has been very large, the whole mucous membrane of the stomach and intestines appears in some degree inflamed; but when the fruit has been eaten, or the dose of the

elaterium which has been taken is small, the rectum only presents marks of inflammatory action.

Test.—No tests are known for detecting this poison; the elaterium can be recognised by its physical qualities; the fruit is a hairy small pepo.

Treatment.—Little is to be done except supporting the habit by cordials and opium, and the exhibition of enemas of starch, opium, and camphor.

EUPHORBIUM. See *Spurge.*

FOXGLOVE. (*Digitalis Purpureæ folia.*) An acro-narcotic vegetable poison.

Symptoms.—Intermitting pulse, vertigo, indistinct vision, nausea, hiccough, cold sweats, delirium, syncope, convulsions, and death.

Morbid Appearances.—The stomach and intestinal canal display scarcely any morbid alteration; but the lungs are crepitant, and the blood contained in the ventricles is generally in a fluid state.

Test.—Unless the plant or the entire leaves be found in the recent or properly dried state, or the powder be procured, it is impossible to determine that this poison has been employed, except from the symptoms.

Treatment.—Exhibit cordials, as, for example, brandy, aromatic confection, and opium; and apply a blister to the pit of the stomach.

FOOL'S PARSLEY. (*Æthusa Cynapium.*) An acro-narcotic vegetable poison.

Symptoms.—Heat of throat, thirst, vomiting, and occasionally diarrhœa; difficult respiration; a small, frequent pulse; cephalalgia, vertigo, and delirium.

Morbid Appearances.—Marks of inflammation in the œsophagus and stomach, the spleen livid, and the ventricles of the heart filled with black fluid blood.

Test.—This plant is distinguished from parsley by the involucels, which consist of three long linear leaflets, pendant on one side of each umbel; by its nauseous odour, when the leaves are rubbed between the fingers, and the very dark green colour of the upper disc of its leaves.

Treatment.—Give emetics and demulcent fluids in sufficient quantity to excite vomiting; bleeding and aperients.

FUNGUSES, comprehending AGARICS and POISONOUS MUSHROOMS. (*Fungi.*) Acro-narcotic vegetable poisons.

The poisonous fungi belong chiefly to the genus AMANITA: namely, A. *bulbosa alba*, A. *citrina*, A. *viridis;* to AGARICUS—Ag. *acris*, Ag. *piperatus*, Ag. *pyrogalus*, Ag. *stypticus*, Ag. *urens*, and Ag. *annularius:* the eatable are Boletus *edulis*, Amanita *aurantiaca*, Morchella *esculenta*, Merulius *cantharillus*, Clavaria *ecralloides*, Agaricus *esculentus*, and A. *tortilis.*

Symptoms.—Different funguses produce different effects on the animal system. The more general symptoms, which usually occur from six to twenty hours after eating them, are pains of the stomach, nausea, vomiting, and purging; colic; cramp of the lower extremities; convulsions, both general and partial; an unquenchable thirst, vertigo, delirium, coma, and death. The intellect remains entire to the last moment of life.

Morbid Appearances.—Numerous black blotches on the skin over the whole surface of the body; the abdomen much blown up; the pupils contracted; the stomach and intestines inflamed, gangrenous, and

strongly contracted in many places; the lungs inflamed, and gorged with black blood; the liver and spleen in the same state; the membranes of the brain, also, present marks of inflammation: and sphacelated spots are seen on almost every viscus. The blood is always found coagulated; and, in every instance, there is a remarkable flexibility of the members.

Test.—There are no means of ascertaining that a person has been poisoned by these vegetables, unless some of the plants be found; in which case their deleterious properties are known by their botanical characters. As a general rule, those which have an acrid juice, a leathery dull coloured flesh, which grow in obscure, shady places, or on the trunks of decayed trees, or on rocks which have a glary or very shining surface, or an offensive odour, or become brown when cut, are to be rejected.

They may be tested by cutting them, and applying a piece of silver to the cut surface; if it be blackened, the mushroom is bad. Cooking fungi with vinegar or lemon juice aids greatly in destroying their poisonous properties.

Treatment.—First evacuate the poisonous substances by emetics and purgatives, or by combinations of these; for example, three or four grains of tartar emetic, or twenty-four of ipecacuanha powder, in solution with two ounces of sulphate of soda. Castor oil is a valuable purgative in these cases. The lancet is sometimes necessary. After the stomach and bowels have been emptied, give small but repeated doses of æther in mucilage, and dilute with vinegar or other acidulated liquids. The debility subsequent to the effects of these poisons, when the fatal issue is averted, must be treated with cinchona, and other tonics.

GAMBOGE. (*Cambogia.*) An acrid vegetable poison.

Symptoms.—Violent vomitings, colic, and hypercatharsis, followed by great prostration of strength, and death.

Morbid Appearances.—Slight inflammation of the mucous membrane of the stomach and intestines, and marks of strong vascular action in the rectum.

Test.—This poison is easily detected by its beautiful yellow colour, and the tinge it communicates to the whole mucous membrane of the intestines.

Treatment.—Carbonate of potassa in demulcent and mucilaginous liquids and milk should be freely administered; and after the poison is supposed to be wholly evacuated, small doses of opium at short intervals.

HELLEBORE ROOT—BLACK. (*Hellebori Nigri Radix.*) An acrid vegetable poison.

Symptoms.—Severe pain of the stomach and intestines, violent vomiting, vertigo, excessive debility, salivation, convulsions sometimes opisthotonos, sometimes emprosthotonos, and death. It produces the same effects when it is applied to a wound.

Morbid Appearances.—Evident signs of inflammation in the alimentary canal, but more particularly in the larger intestines. The limbs remain remarkably flexible after death.

Test.—None.

Treatment.—The poison is generally thrown out of the stomach by the vomiting it occasions. This should be assisted, however, by copious dilution with mild mucilaginous fluids; and be followed by bleeding, and other antiphlogistic measures.

HELLEBORE ROOT—WHITE. (*Veratri Albi Radix.*) An acrid vegetable poison, deriving its poisonous properties from a salt of veratria.

Symptoms.—Vomiting and hypercatharsis, with bloody stools; great anxiety, tremors, vertigo, syncope, sinking of the pulse, cold sweats, convulsions, and death. Nearly the same symptoms are produced by the application of the root to an ulcerated surface.

Morbid Appearances.—Slight inflammation of the stomach and bowels Considerable inflammation of the rectum, which often presents sphacelated spots. The lungs are generally gorged with blood.

Test.—None.

Treatment.—Evacuate the stomach by copious draughts of oily and mucilaginous liquids, and exhibit emollient enemas to sheath and soothe the rectum. Then administer acidulous fluids, coffee, and camphor, and bleed, in conjunction with other antiphlogistic measures. Allay the action of the poison on the rectum by emollient clysters. Hahnemann asserts that coffee is the antidote of this poison.

*** The same instructions will serve in cases of poisoning by *Fœtid Hellebore, Bryony, Sabadilla, Ranunculus, Arum, &c.*

HEMLOCK. (*Conii Maculati folia et radix.*) A narcotic vegetable poison, deriving its deleterious properties from an alkaline principle called Conia.

Symptoms.—Sickness, difficulty of respiration, great anxiety, vertigo; delirium, which often rises to maniacal phrensy; dilatation of the pupils, stupor, trismus, convulsions, and death.

Morbid Appearances.—Scarcely any marks of inflammation are perceptible in the stomach or the intestines, except in the rectum, in which red blotches are observed. The vessels of the brain are gorged with very fluid blood; evidences of strong inflammation having existed in that organ also present themselves.

Test.—None. The plant has a biennial root, with circular marks; the stem is annual, herbaceous, striated, and maculated with dark purple blotches; the leaves are large, alternate, supradecompound, and, when rubbed, evolve an offensive odour of the urine of the cat.

Treatment.—Evacuate the stomach by a scruple of sulphate of zinc, dissolved in an ounce of water, or by some other powerful emetic; the affusion of cold water on the head; and, having reduced the cerebral excitement by bleeding and purging, administer freely vinegar and water, or any other acidulous liquid.

HENBANE. (*Hyoscyami folia et semina.*) A narcotic vegetable poison, deriving its poisonous properties from Hyoscyamia.

Symptoms.—Sickness, stupor, dimness of sight, and delirium, followed by coma, and great dilatation of the pupils; the pulse is at first hard, but becomes gradually weaker and tremulous; petechiæ often make their appearance as the forerunners of death.

Morbid Appearances.—Inflammation of the stomach, the intestines, and the membranes of the brain.

Test.—None. The plant is recognised by its pale green, angular, viscid, or clammy leaves; its disagreeable odour, its flowers and seedvessels being on one side of the flowering spike with leaves on the other; its capsular fruit, furnished with a persistent calyx, bilocular, and opening with a lid.

Treatment.—If the poison have been recently taken, evacuate the stomach by a powerful emetic, and afterwards administer vinegar and acidulous drinks; but if the poison have already entered the

system, bleed and purge freely to reduce the inflammatory symptoms, exhibiting, at the same time, acidulous liquids.

HYDROCYANIC ACID. See *Prussic Acid.*

IODINE. An acrid mineral poison.

Symptoms.—In doses of gr. 10 to 30, iodine causes heat and constriction of the fauces, nausea, offensive eructations, epigastralgia, vain efforts at vomiting, colic, quickening of the pulse, diarrhœa, tremblings, great thirst, satyriasis, slight convulsions, death. When poisoning occurs from small doses long continued, emaciation and debility are extreme.

Morbid Appearances.—Distension and inflammation of the stomach and intestines; sphacelation in some parts; pale, voluminous liver.

Tests.—Iodine in the solid form is in bluish-grey scales, having the odour of chlorine; heated in a tube, it affords violet vapour; added to cold mucilage of starch it gives it a deep blue colour. If the poison be contained in animal fluids, pass through them a stream of sulphuretted hydrogen, then boil, saturate with potassa, and having added cold mucilage of starch, pour on the filtered solution some chlorine gas, the blue colour will indicate the poison. The same process will detect it in the stomach.

Treatment.—Administer mucilage of starch freely, then empty the stomach by direct emetics; and treat the inflammatory symptoms as a case of simple gastritis.

IODIDE OF POTASSIUM. (*Potassii Iodidum.*)

Symptoms.—Uneasiness of stomach, followed by nausea and a burning pain in that organ; vomitings, cephalalgia, vertigo, tremors.

Morbid Appearances.—The stomach contracted; ecchymosed spots on its lining membrane; slight ulcerations; some traces of inflammation in the intestinal tube.

Tests.—The crystals of the salts are cubes, of an acrid, sharp taste, slightly deliquescent; its solution, mixed with starch and treated with chlorine or with nitrous acid, forms the blue Iodide of Amidin; the perchloride of mercury forms a beautiful scarlet precipitate of the biniodide of mercury. Test the urine, after mixing it with starch, with gaseous chlorine. This gas will detect 1 part in 1,500,000 of urine, which should be cold before it is tested.

Treatment.—The same as in cases of poisoning by iodine.

IODIDES OF MERCURY. (*Hydrargyri Protiodidum et Biniodidum.*)

Symptoms.—Nearly the same as those caused by corrosive sublimate.

Tests.—When the protiodide is heated in a glass tube, it evolves vapour of iodine; if previously mixed with potassa, the heating sublimes metallic mercury, and leaves iodide of potassium. The biniodide sublimes yellow when heated, and changes to red as it cools; in other respects it may be tested in the same manner as the protiodide.

Treatment.—The same as in cases of poisoning by corrosive sublimate.

LAUDANUM. See *Opium.*

LAUREL WATER. (*Aqua Destillata Cerasi Lauro-cerasi.*) A narcotic vegetable poison, deriving its poisonous powers from hydrocyanic acid.

Symptoms.—Sudden death, without vomiting, convulsions, or any of the other symptoms which usually precede it in cases of poisoning. Insensibility when the death is not very sudden. In some instances, violent pain of the stomach has been complained of immediately before the fatal event.

Morbid Appearances.—Very slight appearances of redness in the stomach; but all the other organs are in a natural state.

Test.—Strong smell of bitter almonds. The hydrocyanic acid which it contains is readily rendered obvious, which, added to its odour, enables the poison to be satisfactorily detected. See *Prussic Acid.*

Treatment.—The fatal effect of this poison is so quickly produced, that little opportunity is afforded for the trial of antidotes. Brandy, ammonia, and other cordials may prove useful. Chlorine has been proposed.

LIME. (*Calx.*) A corrosive mineral poison.

Symptoms.—Great heat of the throat, nausea, vomiting, epigastralgia, and insupportable colic, with all the symptoms which characterise inflammation of the stomach and intestines.

Morbid Appearances.—Intense inflammation of all the membranes with which the poison has come in contact.

Test.—If any of the poison be found, pour over it distilled water; then stop the vessel closely from the atmospherical air, and after some time filter the supernatant fluid. If this have a strong, acrid, styptic taste, if it change to green the vegetable blues, and be precipitated by oxalic acid, and if, on exposure to the air, a pellicle be formed which is soluble with effervescence in vinegar or any acid, we may pronounce the poison to be lime. If none of the poison be found, and nevertheless it is suspected to be lime, calcine the contents of the stomach and bowels, and treat the residue as above directed.

Treatment.—Vinegar, lemon juice, or any vegetable acid, should be freely administered, and then demulcents; employing bleeding, and every means that can reduce the inflammatory action excited in the abdominal viscera.

MEADOW SAFFRON. (*Colchici Autumnalis, semina et cormus.*) An acro-narcotic vegetable poison, deriving its powers from colchicia.

Symptoms.—Nausea and vomiting, violent griping and hypercatharsis, rapid sinking of the pulse, and cold sweats.

Morbid Appearances.—Slight inflammation of the stomach and intestines; but the effect is chiefly produced by the action of the poison on the nervous system.

Test.—None.

Treatment.—Evacuate the stomach by bland demulcent fluids taken in large doses; then exhibit opium in small doses, with cordials.

MONKSHOOD. (*Aconiti, folia, flores, et semina.*) An acro-narcotic poison, deriving its poisonous properties from the alkaloid Aconitia.

Symptoms.—Vomiting, or attempts to vomit, heat in the throat, and frequent attempts to swallow, the patient frequently putting his hands to his throat; perfect consciousness and intelligence until just before death; diminution of muscular power, but still ability to walk about until within a few minutes of death; disordered vision, and contracted pupil; hypercatharsis; bloody stools; collapse; generally no convulsions.

Morbid Appearances.—Intense congestion of brain; very slight appearances of inflammation in the stomach, livid blotches appear on the body; the mind suffers; indeed, its effects appear to depend altogether on its action on the nervous system.

Test.—None.

Treatment.—Evacuate the substance from the stomach, and then administer freely acidulous fluids and cordials. External warmth, sinapisms.

MORPHIA—ACETATE OF—HYDROCHLORATE OF. (*Morphiæ Acetas et Hydrochloras.*)

Symptoms.—Morphia in poisonous doses causes nearly the same symptoms as opium; the acetate and hydrochlorate, in doses of three to six grains, cause headache, vertigo, dimness of sight, contraction of the pupils, vomiting, colic, diarrhœa succeeded by obstinate costiveness, retention of urine, great itching of the skin, sometimes accompanied with a papular eruption and profuse sweats, convulsions, sometimes of a tetanic, sometimes of an epileptic character. The acetate, in particular, causes tetanic twitching resembling electric shocks, not of itself a fatal symptom. In these large doses the symptoms of this poison terminate in death.

Morbid Appearances.—An injected state of the mucous membrane, and of the membranes of the brain, especially in the anterior part of the head.

Tests.—Nitric acid tinges morphia and its salts red; to iodate of potassa, dissolved in water, add a drop of sulphuric acid and then some starch, and, when the mixture is cold, sprinkle the suspected morphia or its salt in it; if morphia be present blue iodide of amidin will be formed. Iodic acid is said to discover morphia by the power which the latter has of decomposing it and setting the iodine free: but Mr. Davidson has discovered that albuminous fluids are equally capable of decomposing the iodic acid—thence it cannot be regarded as a test of morphia.

Treatment.—The same as in poisoning by opium.

MURIATIC (HYDROCHLORIC) ACID. (*Acidum Hydrochloricum.*) A corrosive mineral poison.

Symptoms.—Sensation of burning in the throat, the œsophagus, and the stomach; styptic taste in the mouth; great thirst; the eyes red and sparkling; the pulse very frequent and tense; and the skin hot and dry; the tongue red and glazed; the lips black; vomiting of blood and yellow matter, having the pungent odour of the acid; cold sweats, delirium and death. These are also the symptoms attending poisoning by any of the mineral acids, but it is said by *Orfila*, that when hydrochloric acid is the poison, a thick white fume, of a sharp penetrating odour, similar to that exhaled by the acid, issues from the mouth.

Morbid Appearances.—The mouth, œsophagus, and stomach are of a deep red colour, and partially covered with extravasated blood; they are also often perforated in many places.

Test.—When any of the acid which has been used as the poison remains, it is readily detected by its sensible qualities, and by the white dense fumes of hydrochlorate of ammonia, which are formed when a glass rod dipped in ammonia is approached to it. If mixed with wine, or other coloured fluids, it may be detected by distilling the suspected fluid from a small retort over a candle, into a phial containing a solution of nitrate of silver; the chloride of silver will be thus formed, which is known by its solubility in ammonia, and its insolubility in nitric acid. If the contents of the stomach or the vomited matter only can be procured, boil these for three-quarters of an hour in combination with a dilute solution of pure potassa, and precipitate the filtered fluid with nitrate of silver, which will form the chloride of silver, if the poison be hydrochloric acid.

Treatment.—Administer immediately soap and calcined magnesia, mixed in bland demulcent fluids. Give, freely, emollient diluents, and employ antiphlogistic means to overcome the inflammatory symptoms that supervene, when the poison does not prove very soon fatal.

MURIATE or HYDROCHLORATE OF BARYTA, or CHLORIDE OF BARIUM. (*Barii Chloridum.*) A corrosive mineral poison.

Symptoms.—Violent vomiting, accompanied with excruciating, burning pains of the stomach and bowels; vertigo, stupor, paralysis of the lower extremities, convulsions, and death. Independent of its corrosive property, it acts on the brain and nervous system; the action of the heart is rapid and intermitting; respiration is momentarily suspended; the pupils dilate, and insensibility supervenes.

Morbid Appearances.—Evidences of inflammation of the mucous membrane of the stomach throughout its whole extent.

Tests.—If any of the poison be found, chloride of barium may be detected in it by dropping into it a little sulphuric acid, when a white precipitate will be formed, which is insoluble in nitric acid, or by the suspected fluid yielding with nitrate of silver a white curdled or clotted precipitate, insoluble in water and in nitric acid, but soluble in pure liquid ammonia. If the menstruum be red wine or coffee, the mixture is turbid; it should be filtered, and its colour destroyed by chlorine before testing it. The excess of chlorine, however, must be previously dissipated by heat, when the nitrate of silver is employed as a test.

Treatment.—As soon as possible, dilute largely with bland fluids holding in solution sulphate of soda or of magnesia: for these salts decompose the chloride of barium, and form an inert insoluble sulphate in the stomach; then excite vomiting by irritating the fauces; afterwards treat the case as one of gastric inflammation.

*** The other barytic salts produce nearly the same effects on the animal economy as the chloride; and therefore these instructions refer equally to cases of poisoning by the *nitrate* and the *carbonate* of baryta, or by pure baryta.

MURIATE or HYDROCHLORATE OF ANTIMONY—BUTTER OF ANTIMONY. (*Hydrochloras Antimonii.*) A corrosive mineral poison.

Symptoms.—Excruciating pains of the stomach, violent vomiting, hypercatharsis, convulsions, syncope, and death.

Morbid Appearances.—The mucous membrane of the stomach and intestines is inflamed throughout, and in some places eroded and gangrenous. The brain also presents evidences of having suffered from strong inflammatory excitement.

Test.—Mix the suspected substance with carbonate of potassa and charcoal, and calcine the mixture; the result should be chloride of potassium, metallic antimony, and carbonic acid gas. The butter of antimony is decomposed by water, which forms a white precipitate; and by the hydrosulphurets, which precipitate it of an orange colour.

Treatment.—See *Tartar Emetic.*

MURIATE or CHLORIDE OF TIN. (*Chloras Stanni.*) A corrosive metallic poison.

Symptoms.—An austere metallic taste; constriction of the œsophagus; impeded respiration; violent vomiting, with cramp of the stomach and excruciating colic pains, purging, the pulse small, but sharp and quick; convulsions, sometimes paralysis, asphyxia, and death.

Morbid Appearances.—Inflammation and erosion of the stomach and intestines.

Test.—This salt, in the solid state, is in small acicular crystals, of a yellowish-white colour; deliquescent in the air, and reddening the vegetable blues. Mix the solid salt in a crucible, with charcoal and

caustic potassa (*potassa fusa*), and, covering the crucible with charcoal, expose it to a strong heat for twenty minutes. The result should be metallic tin and chloride of potassium. If the poison be in solution, precipitate separate portions of it by the following reagents: solution of potassa, or of ferrocyanide of potassium, which throw down white precipitates; and the hydro-sulphurets, which form yellow precipitates; perchloride of mercury, which forms a grey precipitate composed of grains of metallic mercury; and nitrate of silver, which precipitates clots of hydrochlorate of silver. If the solvents be wine or coffee, the solution must be freed from colour by chlorine before being tested.

Treatment.—Dilute copiously with milk, which appears to decompose the chloride; then excite vomiting by large draughts of tepid water and irritating the fauces. Bleed, and employ the warm bath, fomentations, and emollient enemas, to combat the inflammatory symptoms; administering, at the same time, opiates and antispasmodics to soothe the nervous irritation.

THE MUSSEL. (*Mytilis edulis.*) A septic animal poison.

Symptoms.—Sensation of weight at the stomach, nausea, constriction of the throat, immoderate thirst, vomiting, stertorous breathing, vertigo, itching, and sometimes an eruption all over the skin; low tremulous pulse, subsultus, and coldness of the extremities, occasionally terminating in death.

Morbid Appearances.—Slight evidences of inflammation of the mucous membrane of the stomach. A dark fœtid fluid is present in the stomach; and the whole body rapidly undergoes putrefaction.

Test.—None.

Treatment.—Evacuate the stomach by a powerful emetic, and by irritating the fauces with the finger or a feather, until full vomiting be excited: purge with castor oil; and, at the same time, dilute freely with acidulous liquids, giving, at short intervals, from twenty to sixty drops of æther in half an ounce of simple syrup.

*** These remarks apply generally to all cases of poisoning by fish. (For a list of the fish most to be dreaded, see *London Medical Repository*, vol. iii. p. 451.) But it is probable, as suggested by Dr. Burrows in the paper referred to, that the poisonous properties of fish depend chiefly on an unhealthy state of the fish itself.

NITRATE OF COPPER. See under *Sulphate of Copper.*

NITRE—NITRATE OF POTASSA. (*Nitras Potassæ.*) An acrid mineral poison.

Symptoms.—When taken in doses of half an ounce to an ounce, which has too frequently happened from the salt being sold by mistake for sulphate of soda, it excites nausea, vomiting, and hypercatharsis; bloody stools, excruciating tormina of the lower bowels, the sensation of fire in the stomach, laborious respiration, cold extremities, syncope, convulsions, and sometimes death. If the patient live, he may remain paralytic.

Morbid Appearances.—Inflammation and sphacelation of the mucous membrane of the stomach, which has been occasionally found perforated. The evidences of inflammation extend throughout the intestinal canal.

Test.—The form of its crystals, if any of the salt remain, instantly distinguishes nitre from sulphate of soda; but if it be in powder, it may by known by deflagrating when it is thrown upon hot coals, and by giving out nitrous acid fumes when hot sulphuric acid is poured on it.

If the salt be in solution, throw upon the surface some crystals of morphia, and pour into the fluid a little sulphuric acid; if nitre be present, the morphia will be reddened by the nitrous acid disengaged. Or add to the solution protosulphate of iron and sulphuric acid, the nitric acid extricated acting on the salt of iron will darken the colour of the solution.

Treatment.—Empty the stomach, and dilute freely with milk and bland demulcents; exhibit emollient enemas; and, after bleeding when the pulse is hard and quick, administer opium and aromatics.

NITRATE OF SILVER, or LUNAR CAUSTIC. (*Argenti Nitras.*) A corrosive metallic poison.

Symptoms.—Nearly the same as those produced by corrosive sublimate; in general the pain of the stomach is more severe: greatly embarrassed respiration.

Morbid Appearances.—The organs of deglutition and the stomach present evident marks of inflammation and erosion. The mucous membrane of the stomach presents a black colour; the lips, the interior of the mouth, the œsophagus, are also black. The fingers are sometimes tinged with the same colour.

Tests.—If the poison have been taken in solution in water, it is detected by the arsenious acid mixed with ammonia precipitating a yellow arsenite of silver. Ammonia does not render the solution turbid, but it is precipitated olive colour by all the other alkalies. A stick of phosphorus placed in it precipitates the silver in a metallic state. All the hydrochlorates decompose it, and throw down a white precipitate, which is changed to black by the light; put these precipitates into a tube open at both ends and heated, pass through it a stream of hydrogen gas; the chloride first becomes yellow, then fuses and changes to red, which gradually weakens in depth, and leaves a coating of metallic silver on the tube.

Treatment.—Administer, instantly, a strong solution of common salt, to form an insoluble chloride of silver in the stomach. Then evacuate the stomach by an emetic; and, if symptoms of inflammation nevertheless supervene, employ local and general bleeding, tepid baths, and emollient fomentations and clysters.

NITRATE OF BISMUTH. (*Nitras Bismuthi, Bismuthum Album.*) A corrosive metallic poison.

Symptoms.—Nearly the same as those of corrosive sublimate, with a sensation of great heat in the chest, and difficulty of breathing.

Morbid Appearances.—Inflammation and erosion of the mucous membrane of the stomach, which is almost reduced to a state of pulp, and separates by the slightest friction. The inflammation extends throughout the intestines, and the lungs also display traces of it.

Tests.—The best test is chromate of potassa, which precipitates it from its aqueous solution of a beautiful orange-yellow colour. It may be detected in the solid contents of the stomach by calcination; in the fluid contents by passing through them a stream of sulphuretted hydrogen gas, dissolving the precipitate in hydrochloric acid, filtering the solution and testing with ferrocyanide of potassium, which forms a yellowish-white precipitate.

Treatment.—Exhibit large draughts of milk, which is firmly coagulated into clots by the nitrate of bismuth, and involving the poison, affords time and opportunity to expel it from the stomach. If symptoms of inflammation show themselves, combat them by bleeding, and other antiphlogistic measures.

NITRIC ACID, NITROUS ACID—AQUAFORTIS. (*Acidum Nitricum, Nitrosum.*) Corrosive mineral poison.

Symptoms.—Sensation of burning in the throat, œsophagus, and stomach: excessive vomiting, and almost immediate death, if the acid be strong, and the dose large; but if it be weak, the patient may linger for a considerable time, in which case he vomits at intervals shreds of membrane, which have an insupportable fœtor; the constipation of the bowels is the most obstinate; and when dejections are obtained, they are attended with excruciating torture.

Morbid Appearances.—When death has quickly taken place, the most characteristic feature displayed on dissection is a layer of yellow matter, which covers the mucous membrane of the œsophagus, the stomach, and every part over which the poison has passed. This membrane is also converted into a fatty substance, and the stomach is often found perforated. The lips, the chin, and the hands of the patient are also stained with orange-coloured spots.

Tests.—Boil the fluid, if any remain unswallowed, over copper-filings, when orange-coloured fumes will be extricated if nitric acid be present. Add morphia, which will be reddened, or add carbonate of potassa, which will form a deflagrating salt, if the acid is the nitric. In a diluted state this acid blackens the solution of protosulphate of iron. When none of the poison remains, and death has taken place, saturate the contents of the stomach with bicarbonate of potassa; evaporate the filtered solution to dryness, add to the residue copper-filings and sulphuric acid, and receive the fumes on morphia, or a solution of protosulphate of iron; redness in the former and dark olive in the latter prove the presence of nitric acid.

Treatment.—Give large doses of a solution of soap, or a mixture of calcined magnesia in water or any bland fluid. Then evacuate the stomach by large draughts of demulcent fluids; and bleed, purge, and employ other antiphlogistic measures, if the symptoms indicate inflammation.

NUX VOMICA. (*Strychnos nux vomica, fructus.*) An acro-narcotic vegetable poison.

Symptoms.—Sensations of inebriety; vertigo; tetanic twitchings, and rigidity of the limbs and arms, alternating with subsultus tendinum; extreme difficulty of respiration, with excruciating pain under the xiphoid cartilage; asphyxia; and death.

Morbid Appearances.—Scarcely any evidences of membraneous inflammation in the stomach or intestines: the lungs appear natural; but the left ventricle of the heart is generally gorged with blood, and the whole of the arteries contracted. It is supposed that this poison acts chiefly on the medulla spinalis.

Test.—Powder grey, inodorous, very bitter; gives an orange-yellow colour to nitric acid. Digest in alcohol and evaporate; take up the extract with water acidulated with sulphuric acid; then boil with a slight excess of lime; wash the precipitate and act upon it with boiling alcohol, leave to spontaneous evaporation, and test the residue as for strychnia.

Treatment.—Evacuate the stomach and bowels, and then dilute freely with vinegar and water, and other acidulous drinks.

OPIUM. (*Opium.*) A narcotic vegetable poison.

Symptoms.—Drowsiness and stupor, which are followed by delirium, pallid countenance, contraction of pupil, sighing, deep and stertorous breathing, cold sweats, coma, and death.

Morbid Appearances.—Slight redness of the stomach and intestines; but there are no evidences of an inflammatory state of the brain or its membranes.

Test.—Wash the contents of the stomach and intestines in distilled vinegar, and strain; then test a portion with acidulated persulphate of iron to detect meconic acid, which gives it a cherry-red colour. To another portion add solution of acetate of lead, and separate the precipitate by filtration; wash it well, then extend it in water, and pass through it a stream of sulphuretted hydrogen; heat it to drive off any excess of the gas, and test the fluid with acidulated persulphate of iron. Evaporate the fluid separated by the filter to an extract, act upon this by alcohol, leave the tincture to spontaneous evaporation, and test the residue for morphia.

Treatment.—The stomach-pump should be instantly used, or an emetic consisting of gr.xxx. of sulphate of zinc, or from gr.v. to gr.x. of sulphate of copper dissolved in an ounce of water, should be exhibited as soon as possible, and the vomiting kept up by irritating the fauces. It is advisable to use an astringent infusion instead of water with the stomach-pump. After the stomach is emptied, if the whole of the narcotic be removed, give large draughts of vinegar and water, and other acidulous fluids; with coffee, brandy, and cordials; keeping awake and constantly rousing the attention of the sufferer, until the effects of the poison subside. Immersion in the tepid bath is a useful means of subduing the drowsiness. Dashing cold water on the head and chest is also useful in rousing the sensibility.

OXALIC ACID. (*Acidum Oxalicum.*) A corrosive poison.

Symptoms.—Burning pain of the stomach; nausea, and severe but ineffectual efforts to vomit; great dilatation of pupils; vertigo, convulsions, and death.

Morbid Appearances.—The tongue and fauces are covered with a viscid, white mucus; the stomach is partially inflamed, and exhibits in some places, those to which the acid has been more immediately applied, a pulpy character. Evidences of inflammation in the lungs.

Test.—Its small, needle-form, lamellar crystals have occasioned it to be mistaken for Epsom salts; but it is easily distinguished from these by its strong acid taste, by its volatilising when heated in a phial, and subliming in small crystals, and by lime-water throwing down, in its solution, a copious precipitate of oxalate of lime, which is insoluble in an excess of the acid, but soluble in nitric acid. Precipitate by nitrate of silver: the precipitate, when well washed and dried, slightly detonates.

Treatment.—Administer, as soon as possible after the poison has been taken, a mixture of chalk and water, and then evacuate the oxalate of lime thus formed, by exciting vomiting, by copious dilution and irritating the fauces.

OXIDE OF COPPER. See under *Verdigris.*

PHOSPHORUS. (*Phosphorus.*) A corrosive poison.

Symptoms.—Phosphorus taken even in moderate quantities produces immediate death; and as it has been exhibited as a remedy, in this manner it may prove poisonous. The symptoms are violent pain of the stomach, with a hot alliaceous taste in the mouth; great excitement of the arterial system, and horrible convulsions, which are the forerunners of death.

Morbid Appearances.—A general inflammatory aspect of the stomach and intestines, with sphacelated spots in various parts.

Test.—Phosphorus is readily known by its alliaceous smell and combustible properties.

Treatment.—Dilute largely so as to fill the stomach with liquid, by which the combustion of the phosphorus in it is impeded and vomiting induced, without increasing the irritation of the viscus. Magnesia, mixed with the fluid exhibited, is useful by neutralising phosphoric acid, which is formed in these cases.

POTASSA — SOLUTION OF POTASSA. (*Potassa fusa. Liquor Potassæ.*) Corrosive mineral poisons.

Symptoms.—Acrid urinous taste in the mouth; great heat of the throat; nausea, and vomiting of bloody alkaline matter; acute epigastralgia and insupportable colic; hypercatharsis, convulsions and death.

Morbid Appearances.—Evidences of inflammation the most extensive of the whole alimentary canal, and perforations of the stomach.

Test.—If any of the poison remain, it is known by feeling soapy to the touch, changing to green the vegetable reds, restoring reddened blues, and precipitating nitrate of silver in the form of a dark-coloured oxide, which is soluble in nitric acid. Water impregnated with carbonic acid produces no precipitate nor causes opacity, which distinguishes it from the caustic earths. Potassa is distinguished from soda by evaporating the solution in a silver spoon, and when it is concentrated, testing with hydrochlorate of platinum, or with tartaric acid; the former causes a yellow precipitate, the latter a precipitation of bitartrate of potassa. If none of the poison remain, the vomited matter must be tested in the above manner.

Treatment.—Vinegar and the vegetable acids should be instantly and freely administered. Dilute with demulcents, and employ bleeding and other antiphlogistic means to reduce the inflammatory symptoms.

*** Cases of poisoning by soda and the alkaline carbonates require the same treatment.

PRUSSIC ACID. (*Acidum Hydrocyanicum.*) A sedative poison.

Symptoms.—When the dose is large, death is the immediate result; but if the dose do not exceed 10 to 20 minims, it is succeeded by stupor and weight in the head; nausea, faintness, and vertigo, with loss of sight; followed by difficulty of respiration, dilated pupils, a small vibrating pulse, and syncope, which terminate insensibly in death, if no curative means be employed.

Morbid Appearances.—No change of structure nor any trace of inflammatory action is evident; but a strong odour of the acid exhales from the stomach.

Tests.—The odour; but the only certain test is to add to the liquid a few drops of liquor potassæ, and afterwards a mixture of a solution of proto and persulphate of iron. If prussic acid be present, a precipitate of a burnt brown colour will fall, which, on adding a little sulphuric acid, instantly changes to a bluish-green, and gradually deepens to a beautiful full blue. If only the contents of the stomach be obtained, add some sulphuric acid, distil from a vapour bath, and test the product as above.

Treatment.—Administer as quickly as possible chlorine water, in doses of fl.dr.ij. in fl.unc.j. of water; chlorine, also, largely diluted with air, may be inhaled. Administer hot brandy and water, or camphor mixture, combined with liquid ammonia, or the aromatic spirit of ammonia. Oil of turpentine, also, and the whole range of diffusible stimuli, will prove useful. The hydrated protoxide and peroxide of iron. The cold affusion should be immediately employed. Artificial respiration.

RATTLE SNAKE POISON. (*Crotalus horridus.*)

Symptoms.—Quick pulse, impeded respiration, sudden depression of strength in the wounded limb, extending over the whole body; convulsions; death. The wound becomes quickly gangrenous.

Treatment.—A ligature above the bitten part; suction of the wound; the application of cupping-glasses; cauterisation by hot irons or caustics. Administer internally eau de luce, ammonia, olive oil.

RUE, and OIL OF RUE. (*Rutæ Graveolentis folia et Oleum Volatile.*) Acro-narcotic vegetable poisons.

Symptoms.—Great dryness of the mouth and throat, accompanied with a sensation of heat and pain of the stomach and bowels; vomiting; uncontrollable motion of head and limbs, with muttering and symptoms of intoxication; contracted pupil, swollen tongue; copious salivation; slow and feeble pulse.

Morbid Appearances.—We know of no recorded instance of death in the human species from the administration of rue or its oil; but in dogs, which have been killed by it, the stomach affords evidences of considerable inflammation. It is generally taken for the purpose of inducing abortion.

Test.—None; but the odour of the oil, which resembles that of the plant, leads to its detection.

Treatment.—Emetics, and afterwards dilution with acidulous drinks and demulcents.

SABINE or SAVINE, and OIL OF SAVINE. (*Sabinæ folia et oleum.*) An acro-narcotic vegetable poison.

Symptoms.—All those of high excitement, with very acute pain of the stomach and bowels, nausea, vomiting, hypercatharsis, and convulsions. Abortion in pregnant women.

Morbid Appearances.—Inflammation of the mucous membrane of the stomach and rectum; but the symptoms depend chiefly on the action which the poison exerts on the nervous system.

Test.—None. The microscope has detected the small glands on the leaf of the plant, among the contents of the stomach.

Treatment.—Evacuate the stomach by copious dilution with mucilaginous fluids, and keep down the inflammatory symptoms by the use of the lancet, and other antiphlogistic measures.

SAINT IGNATIUS' BEAN. (*Strychnos Sancti Ignatii.*) An acro-narcotic poison.

Symptoms.—See *Strychnia.*

Tests.—This seed is about the size of a small olive, convex on one side and angular on the other, and covered with a grey powder; the internal substance is horny, hard, brown, inodorous, and very bitter to the taste.

Treatment.—See *Strychnia.*

SOW BREAD. (*Cyclamen Europeum.*) An acrid vegetable poison.

Symptoms.—Violent tormina and purging; bloody stools, accompanied with cold sweats and convulsions, frequently terminating in death.

Test.—None.

Morbid Appearances.—Inflammation of the mucous membrane of the stomach and bowels.

Treatment.—Induce vomiting by large draughts of demulcent fluids; and combat the secondary symptoms by antiphlogistic or other means, as may be required.

SPURGE—EUPHORBIUM. (*Euphorbiarum Succus proprius, et fructus.*) Acrid vegetable poisons.

Symptoms.—A burning sensation in the mouth, throat, and stomach; vomiting, hypercatharsis, producing bloody stools, convulsions, and death.

Test.—The euphorbium of the shops is readily recognised by the irregular triangular form of its tears, and their enclosed seeds. When boiled in alcohol, the greater part is taken up, but an insipid wax separates as the solution cools, whilst a hot acrid oil remains in solution.

Morbid Appearances.—Evidences of violent inflammation of the stomach and the bowels; but more particularly of the rectum, which is always ulcerated, the surface of the abraded spots being covered with a brown or blackish fluid, which is probably extravasated blood.

Treatment.—Excite vomiting by large draughts of tepid water, and then exhibit, alternately and repeatedly, a few table-spoonfuls of olive oil, and a cupful of milk. Soothe the rectum with mutton broth and starch clysters, and bleed, if the excitement run high, after the stomach and bowels are evacuated.

STRAMONIUM, or THORN APPLE. (*Daturæ Stramonii Herba, fructus et semina.*) A narcotic vegetable poison, deriving its power from an alkaloid, named *Daturia.*

Symptoms.—Vomiting, vertigo, dilatation of pupil, delirium, sometimes furious madness, stupor, convulsions, paralysis, cold sweats, and death.

Test.—None.

Morbid Appearances.—Evidences of inflammation in the mucous membrane of the stomach and the meninges of the brain. The lungs are generally gorged with very dark-coloured blood, and blotches of extravasated blood are seen in various parts of the alimentary canal.

Treatment.—The same as in cases of poisoning by opium.

STRONG-SCENTED LETTUCE. (*Lactucæ Virosæ Herba.*) A narcotic vegetable poison.

Symptoms.—Inebriety, followed by the other symptoms that characterise poisoning by opium.

Test.—None.

Morbid Appearances and Treatment.—The same as in cases of poisoning by opium.

STRYCHNIA. (An alkaloid, obtained from *Nux Vomica*, the fruit of the *Strychnos Nux Vomica.*) An acro-narcotic vegetable poison.

Symptoms.—Hurried breathing, vertigo, trembling, quivering, twitching, and finally tetanic convulsion of all the muscles of the body; those of the extremities being first affected, afterwards those of the trunk and jaws (opisthotonos and trismus). Occasionally there is a slight remission of the symptoms, but on the slightest noise or touch the paroxysms recur; a shriek, as if from pain, follows, then violent palpitation, rapid succession of paroxysms, relaxation of convulsion, and quiet death. The symptoms are to be distinguished from those of epilepsy by the absence of unconsciousness—and from those of true tetanus by their quick accession, rapid course, and order of succession. In tetanus the symptoms occur gradually, and trismus is among the first—and the disease runs its course in a *few days.* In cases of poisoning by strychnia, trismus is not an *early* symptom, and death takes place within an *hour or two.*

Morbid Appearances.—Scarcely any evidences of membranous inflammation in the stomach or intestines; the lungs appear natural; the left ventricle of the heart is generally gorged with blood, and the whole of the arteries contracted, though in some cases the ventricle has been empty and contracted.

Tests.—Chlorate of potash in powder; bichromate of potash in powder; peroxide of lead; peroxide of manganese; nitric acid; red prussiate of potash in solution; and chloride of gold. Pure strychnia is white, solution in boiling rectified spirit, melts, and is finally decomposed by heat, and is bitter to the taste. Previously to applying the foregoing tests, dissolve the strychnia in dilute sulphuric acid of specific gravity 1·54. The chloride of gold is the most delicate test, and will cause a decided yellow cloudiness in a solution holding 1 gr. of strychnia in 70,000, or 1 grain in a gallon.*

SULPHATE OF COPPER. See under *Verdigris.*

SULPHATE OF ZINC. See *White Vitriol.*

SULPHURIC ACID. (*Acidum Sulphuricum.*) A corrosive mineral poison.

Symptoms.—Austere styptic taste in the mouth; a sensation of burning, pain in the throat, gullet, and stomach; nausea, vomiting, and a horrible fœtor of the breath. The matter vomited is tinged both by arterial and by venous blood, and air-bubbles form upon the spot if it fall either upon chalk or upon marble. Symptoms of general inflammation of the abdominal viscera soon supervene, with difficult respiration, and a cough resembling croup; a frequent, small, concentrated irregular pulse; constant horripilatio; extreme anxiety and restlessness; convulsions of the face and lips; and sometimes a papulous eruption precedes death. The intellect remains entire until the last.

Morbid Appearances.—The stomach contains a large quantity of dark grumous matter, and is much distended with fœtid gas; its coats are ulcerated, black, and covered with deep corroded spots, an appearance that extends almost through the whole of the alimentary canal, which in many places also is, as it were, dissolved, and in many instances perforations take place, and the contents of the stomach are found in the abdominal sac. The mouth and œsophagus present evidences of the highly corrosive properties of the poison.

Test.—If any of the poison remain, it can be readily recognised by its saponaceous feeling when rubbed between the fingers; its great specific weight, its property of evolving heat when mixed with water, and by its decomposition and the evolution of sulphurous acid gas on boiling it over mercury. If it be combined with wine or with vinegar, add a solution of nitrate of baryta, when a sulphate of baryta, insoluble in nitric acid, will be formed; the existence of which, however, must be demonstrated by adding to it an equal weight of charcoal, exposing the mixture, wrapped up in platinum foil, to the heat of a spirit-lamp for ten minutes, then introducing it into a glass tube, and adding a few drops of diluted hydrochloric acid. Sulphuretted hydrogen gas will be evolved, and easily recognised both by the odour of the vapour, and by introducing into the tube a slip of paper rubbed over with carbonate of lead. The contents of the stomach may be tested by boiling them with metallic mercury, which will produce sulphurous acid gas, if sulphuric acid have been the poison.

Treatment.—Having ascertained the nature of the poison, dilute instantly and largely with milk mixed with calcined magnesia, or with soap, or the fixed alkalies; and treat the secondary symptoms by the means usually employed in the inflammation of the intestines.

TARTARIC ACID. (*Acidum Tartaricum.*) A corrosive poison.

---

* Med. Times and Gazette, June 17, 1856, p. 594. A paper by Mr. Watson on the tests for Strychnia and Brucia.

Symptoms.—Nearly the same as those from poisoning by the oxalic acid, but less severe.

Morbid Appearances.—Similar to those produced by the oxalic acid.

Tests.—When heated in a phial, instead of subliming like oxalic acid, it is decomposed, blackens, swells, smokes, and exhales an acrid vapour. It burns with a blue flame, and leaves a spongy charcoal. When its solution is treated with lime-water, the white precipitate is soluble in an excess of the acid; with potash, the precipitated crystals are bi-tartrate of potassa.

Treatment.—Solutions of the alkalies, or chalk and water, should be instantly administered, and the secondary symptoms treated by bleeding and other antiphlogistic measures.

TARTAR EMETIC — POTASSIO-TARTRATE OF ANTIMONY. (*Antimonium Tartaratum, Antimonii Potassio-Tartras.*) A corrosive metallic poison.

Symptoms.—Nausea and severe vomiting, hiccough, cardialgia, a sensation of burning heat at the epigastrium; twisting colic and hypercatharsis; small frequent, hard pulse; syncope, difficult respiration, vertigo, insensibility to external stimulants, most painful cramps in the lower limbs, great prostration of strength, and death.

Morbid Appearances.—The stomach and intestines much inflated with gas; and the mucous membrane of the stomach and intestines red, tumefied, and covered with a viscid layer easily separated; the peritoneum is generally of a dark brick-red hue; and the membranes of the brain display marks of having been the seat of great inflammatory excitement; the lungs are not altered.

Tests.—If the poison be found in its solid form, add charcoal, and reduce it by heating it in a coated tube. The odour of burnt vegetable matter will be exhaled; the powder will first blacken, then resume its white colour, and finally display metallic antimony. If the poison be found in a state of solution: 1. Pour into the fluid a few drops of alcoholic infusion of galls, which will produce an instantaneous, copious, clotted, whitish-yellow precipitate. 2. Pass through the solution a stream of sulphuretted hydrogen gas; collect and wash the orange-coloured precipitate, put it in a glass tube open at both ends, and fitted to a proper apparatus for passing over the sulphuret of antimony a stream of hydrogen gas, whilst the tube is heated by a spirit-lamp. The sulphuret is thus reduced, the sulphur carried off, and metallic antimony procured. If the poison be a vinous solution of tartar emetic, the precipitate formed by the tincture of galls is a bright violet.

Treatment.—Dilute freely with tepid infusion of galls to decompose the poison and form an insoluble tannate, and evacuate by the stomach-pump; but if the whole of the poison be not evacuated, large doses of the decoction of yellow cinchona bark should be administered. It would perhaps be well to give this decoction, in the first instance, in doses sufficient to excite vomiting by their bulk.

TOBACCO. (*Nicotianæ Tabaci folia.*) A narcotic vegetable poison, deriving its power from an alkali named *Nicotina*, and a volatile oil.

Symptoms.—Severe nausea, vomiting, headache, and other sensations of inebriety; sudden sinking of the strength, cold sweats, tremors, convulsions, and death. It operates very powerfully when introduced into the anus; the external application of a strong infusion is attended with similar symptoms, and proves nearly as virulent.

Morbid Appearances.—The mucous membrane of the stomach presents very slight evidences of inflammation; but no alteration is perceptible

in the intestines. The lungs are generally found gorged with blood; but the morbid appearances are altogether obscure; the poison producing its deleterious effects evidently by its action both on the heart, which it paralyses, and on the nervous system.

Tests.—None.

Treatment.—If the practitioner be called immediately after the poison has been swallowed, evacuate the stomach by two or three grains of tartar emetic, assist its action by irritating the fauces, and encourage the vomiting by very copious draughts of astringent infusions; and full doses of tincture of yellow cinchona bark or of tincture of galls. If, however, some time have elapsed, administer castor oil and purgatives, and immediately afterwards lemon juice, or vinegar and water; but if the sedative effects be already produced, nothing can be done until the habit be roused, by brandy, camphor, and cordials.

VERATRUM. See *Hellebore Root—White.*

VERATRIA. An acro-narcotic poison.

Symptoms.—In even small doses it excites nausea, vomitings, hypercatharsis, embarrassed respiration, tetanic spasms, which generally terminate in death.

Morbid Appearances.—Indication of severe inflammation of the mucous membrane, ulcerations of the stomach and duodenum.

Tests.—A white, inodorous, uncrystallisable powder, which excites violent sneezing when applied to the nostrils; it is scarcely soluble in water, very soluble in alcohol and æther; sulphuric acid first colours it yellow, then red, and lastly violet.

Treatment.—Copious dilution with demulcents; bleeding, and other antiphlogistic means.

VERDIGRIS. (*Ærugo, subacetas Cupri.*) A corrosive metallic poison.

Symptoms.—Dry, parched tongue, accompanied with a sensation of strangulation in the throat; nausea, and constant spitting, with coppery eructations; vomiting, or fruitless effort to vomit, with a feeling of dragging at the stomach; dreadful colic, and tenesmus; black and, occasionally, bloody stools; the pulse small, hard, quick, and irregular; ardent thirst, difficult respiration, precordial anxiety, cold sweats, vertigo, great prostration of strength, cramps, convulsions, and death. The more prominent and most frequent symptoms are the spitting, colic, and vomitings.

Morbid Appearances.—Stomach inflamed, and its coats much thickened, so as almost to obliterate the pyloric orifice, and tinged green; intestines inflamed, and in many places gangrenous, and even pierced so as to allow the poison to escape into the abdominal cavity. The rectum is generally found ulcerated.

Tests.—It is readily recognised when any of the poison remains unswallowed. If in solution in wine or any coloured fluid, discharge the colour by chlorine, and precipitate the filtered fluid by ferrocyanide of potassium, which throws down a chestnut-brown precipitation, if any salt of copper be present; or decompose the verdigris in the solution by placing in it a clean knife, or a stick of phosphorus, which will appear after some minutes coated with metallic copper.

Treatment.—Administer large doses of syrup, or copious draughts of sugar, albumen ovi, and water, until the stomach is evacuated by the bulk of the liquid; and, afterwards, continue the exhibition of albumen in more moderate doses, combating any inflammatory symptoms that may supervene, by bleeding, and other antiphlogistic measures.

VIPER POISON.

Symptoms.—Lancinating pain in the bitten part, increased on pressure, and extending to the whole limb; the part swells, is at first pale, then red, livid, gangrenous, and excessively hard. Vomiting, convulsions, jaundice; pulse small, frequent, concentrated, irregular, embarrassed breathing, cold sweats, delirium.

Treatment.—Apply a ligature above the wounded part, cauterise the wound with a hot iron, or any active caustic: administer eau de luce, ammonia, olive oil.

WHITE LEAD. See under *Carbonate of Lead.*

WHITE VITRIOL. (*Sulphas Zinci.*) A corrosive metallic poison.

Symptoms.—An acerb taste in the mouth, with a sensation of choking; nausea and severe vomiting, frequent stools, pains of the epigastrium and lower belly, difficult respiration, quickened pulse, paleness and shrinking of the features, and coldness of the extremities. Death but rarely follows, owing to the vomiting excited in the first instance by the poison.

Morbid Appearances.—Evidence of intense inflammation of the mucous membrane of the stomach and bowels, and occasionally patches of black extravasated blood on the muscular coats of these viscera.

Test.—Chromate of potassa, which throws down in the solution an orange-yellow chromate of zinc.

Treatment.—Let the patient drink freely of milk, which, besides acting as an emollient, partially decomposes the poison, rendering it more inert. Exhibit emollient clysters, if the poison be not ejected from the stomach, and have passed the pylorus; and treat the secondary symptoms by antiphlogistic measures.

Method of distinguishing the following vegetable Alkaloids—Atropia, Brucia, Delphia, Emetina, Morphia, Solania, Strychnia, Veratria—when they are in powder.

Treat the powder, first with nitric acid, which is coloured red by *Brucia*, *Delphia*, *Morphia*, and the *Strychnia* of commerce, but not by pure strychnia. If the reddened acid become of a violet hue on the addition of protochloride of tin, after the nitric solution has cooled, the alkaline powder is *Brucia*: if the reddened acid gradually become black and carbonaceous, it is *Delphia*. If the powder be soluble without decomposition, and decompose iodic acid, evolving free iodine, it is *Morphia*: if it is not fusible, and does not decompose iodic acid, it is *Strychnia*. If the powder greens, instead of reddening nitric acid, it is *Solania*: if it is insoluble in æther, and does not redden nitric acid, it is *Emetina*: if it be soluble in æther and does not redden nitric acid, but melts when heated and volatilises, it is *Atropia*: if it is thus affected by æther and nitric acid, but is not volatilised, it is *Veratria*.

APPENDIX.

No. III.

ART OF PRESCRIBING MEDICINES.

In prescribing a medicine, the following circumstances should always be kept in view:—AGE, SEX, TEMPERAMENT, HABIT, CLIMATE. the CONDITION OF THE STOMACH, and IDIOSYNCRASY.

AGE.

For an Adult, suppose the dose to be one or		60	grains.
Under 1 year, will require only....	1-12th	5	grains.
2	1-8th	7½	grains.
3	1-6th	10	grains.
4	1-4th	15	grains.
7	1-3rd	20	grains.
14	half	30	grains.
20	2-3rds	40	grains.
Above 21 The full dose	one	60	grains.

65 The inverse gradation of the above.

Opiates affect children more powerfully than adults; but children bear larger doses of calomel than adults.

SEX.—Women require smaller doses than men; they are more rapidly affected by purgatives than men; and the condition of the uterine system must never be overlooked.

TEMPERAMENT.—Stimulants and purgatives more readily affect the sanguine than the phlegmatic; and consequently the former require smaller doses. They require also more caution in the quantity of blood to be abstracted.

HABITS.—The knowledge of habits is essential; for persons in the habitual use of stimulants and narcotics require larger doses to affect them when labouring under disease, whilst those who have habituated themselves to the use of saline purgatives are more easily affected by these remedies. Persons, however, who have habituated themselves to the use of opium do not require larger doses than usual of other narcotics.

CLIMATE.—Medicines act differently on the same individual in summer and in winter, and in different climates. Narcotics act more powerfully in hot than in cold climates; hence smaller doses are required in the former; but the reverse is the case with respect to calomel.

CONDITION OF THE STOMACH, AND IDIOSYNCRASY.—The least active remedies operate very violently on some individuals, owing to a peculiarity of stomach, or rather habit of body, unconnected with temperament. This state can be discovered only by accident or time; but when it is known, it should always be attended to by the practitioner.

In prescribing, the practitioner should always so regulate the intervals between the doses, that the next dose may be taken before the effect produced by the first is altogether effaced; for, by not attending to

this circumstance, the cure is always commencing, but never proceeding. It should, however, also be kept in mind, that some medicines, such as the mercurial salts, arsenic, &c., are apt to accumulate in the system; and danger may thence arise if the doses too rapidly succeed to one another. The action also of some remedies, elaterium and digitalis for example, continues long after the remedy is left off; and therefore much caution is requisite in avoiding too powerful an effect, by a repetition of them even in diminished doses. Aloes and castor oil acquire greater activity by continued use, so that the dose requires to be diminished.

CLASSIFICATION OF REMEDIES.

1. ALTERATIVES are remedies which tend to improve the general health, without necessarily producing any visible effect on the secretions or excretions of the body. They are sometimes called Special Stimulants, and include Specifics as well as those medicines usually termed Alteratives.
2. ANTACIDS are remedies prescribed to neutralise the excess of acid in the stomach or urine.
3. ANTHELMINTICS (ἀντί, against, ἕλμινς, a worm) destroy and dispel intestinal worms.
4. ANTIPERIODICS remove the diseases that occur at stated periods, as ague, and the several forms of neuralgia.
5. ANTISCORBUTICS prevent or cure scurvy.
6. ANTISPASMODICS counteract irregular and inordinate muscular action.
7. ASTRINGENTS check bleeding or excessive secretions, or contract relaxed organs.
8. CARMINATIVES relieve griping (carmen, a charm).
9. CAUSTICS and COUNTER-IRRITANTS destroy or burn the animal tissues, and, when locally applied, excite heat, redness, and inflammation.
10. DEMULCENTS allay irritation by their local soothing properties.
11. DIAPHORETICS cause and encourage cutaneous exhalation.
12. DIURETICS augment the secretion and promote the discharge of urine.
13. EMETICS induce vomiting.
14. EMMENAGOGUES promote the flow of the catamenia.
15. EXPECTORANTS promote the secretion from the bronchial tubes and air passages, and facilitate the discharge.
16. NARCOTICS (νάρκη, stupor), ANODYNES (α, privative, ὀδύνη, pain), HYPNOTICS (ὕπνος, sleep), and SEDATIVES promote sleep, allay pain or irritability, and (in the instance of the last) reduce the action of the heart.
17. PURGATIVES quicken intestinal action and increase the alvine evacuations.
18. REFRIGERANTS are cooling remedies, which abate thirst or unnatural heat.
19. SIALAGOGUES promote the flow of saliva.
20. STIMULANTS temporarily increase the frequency of the pulse and the heat of the body.
21. TONICS increase the tone and vigour of the body.

*** *This classification is principally taken from Dr. Nevins' Translation of the Pharmacopœia.*

Examples of some useful Forms of Extemporaneous Prescriptions. (*The doses are for Adults.*)

POWDERS.

ALTERATIVE.

℞ Hydrargyri cum Creta gr.v.
Sacchari purissimi gr.v.
Fiat pulvis, octava quaque hora sumendus.
In pyrexiæ.

NARCOTIC.

℞ Pulveris conii gr.v.
——— glycyrrhizæ gr.vj.
Sit pulvis, ter quotidie sumendus.
In scirrhous affections, scrofula, painful old ulcers, &c.

℞ Pulveris Belladonnæ gr.vj.
——— potassæ nitratis gr.xvj.
——— sacchari gr.ix.
Fiat pulvis, hora, somni quotidie sumendus.
In chronic rheumatism, extensive ulcerations, mania and epilepsy.

ANTISPASMODIC.

℞ Pulveris valerianæ gr.xx.
——— cinnamomi comp. gr.x.
Fiat pulvis, ter quaterve quotidie sumendus.
In hysteria, hemicrania, chlorosis.

℞ Pulveris ipecacuanhæ gr.j.
——— sodæ bicarbonatis gr.xij.
——— opii gr.j.
Fiat pulvis, octava quaque hora sumendus.
Spasmodic asthma, hooping-cough of adults.

℞ Zinci oxidi gr.iij.
Saccharı albi gr.v.
Sit pulvis quarta quaque hora sumendus.
In gastric or spasmodic cough.

TONIC.

℞ Pulveris cinchonæ gr.xxx.
——— cinnamomi comp. gr.x.
Sit pulvis, in cyatho lactis, tertia quaque hora sumendus.
In convalescence from fevers.

℞ Ferri tartarati gr.viij.
Pulveris calumbæ gr.xx.
Fiat pulvis, quarta quaque hora sumendus.
After diarrhœa, in scrofulous tumours and dyspepsia.

ANTIPERIODIC.

℞ Quiniæ sulphatis gr.iij.
Sacchari albi gr.v.
Sit pulvis secunda quaque hora, absente paroxysmo, sumendus.
In the intermissions in ague.

ASTRINGENT.

℞ Pulveris catechu gr.xv.
——— gallarum gr.ij.
Sit pulvis, post dejectiones singulas liquidas sumendus.

In diarrhœa, from a weakened state of the bowels.

℞ Pulveris kino compositi gr.xv.
Pulvis ex cyatho aquæ menthæ viridis sexta quaque hora sumatur.

In chronic diarrhœa and intestinal hæmorrhages.

EMETIC.

℞ Pulveris ipecacuanhæ gr.xx.
Antimonii tartarati gr.j.
Fiat pulvis emeticus.

CATHARTIC.

℞ Jalapæ pulveris gr.xij.
Hydrargyri subchloridi gr.iij.
Sulphatis potassæ gr.vij.
Fiat pulvis, hora somni, pro re nata, sumendus.

A useful purgative in diminished action of the liver.

℞ Hydrargyri subchloridi gr.iij.
Pulveris jalapæ,
Sacchari, sing. gr.x.
Sit pulvis, vespere vel primo mane sumendus.

In bilious fevers, and slimy and obstructed bowels.

℞ Hydrargyri subchloridi gr.iij.
Pulveris scammonii compositi gr.xij.
Sit pulvis quamprimum sumendus.

In worm cases.

DIURETIC.

℞ Potassæ tartratis acidæ gr.xxx.
Pulveris scillæ siccatæ gr.ij.
——— zingiberis gr.iv.
Sit pulvis, octava quaque hora sumendus.

In ascites.

DIAPHORETIC.

℞ Pulveris ipecacuanhæ comp. gr.v.
——— tragacanthæ comp. gr.x.
Sit pulvis, quarta vel sexta quaque hora sumendus.

In the commencement of febrile diseases, after emptying the stomach and bowels.

℞ Antimonii tartarati gr.xx.
Sacchari albi gr.xxx.
Intime misceantur, et divide in doses æquales decem, quarum sumatur una tertia quaque hora.

In the pyrexiæ, after bleeding and the exhibition of a clyster.

EXPECTORANT.

℞ Pulveris ipecacuanhæ gr.vj.
——— potassæ nitratis gr.xxx.
——— myrrhæ gr.xij.
Misce, et distribue in doses æquales quatuor, quarum sumatur una quartis horis.

In asthma and the earlier stages of phthisis pulmonalis.

PILLS.

NARCOTIC.

℞ Opii gr.j.
Fiat pilula, hora somni sumenda.
To procure sleep in ordinary cases.

℞ Pulveris digitalis gr.iv.
Camphoræ gr.xij.
Extracti hyoscyami gr.xviij.
Fiant pilulæ sex. Sumantur ij. hora somni quotidie.
In maniacal and spasmodic affections.

℞ Morphiæ hydrochloratis gr.¼.
Extracti papaveris gr.ij.
Misce et fiat pilula; hora somni sumenda.
To procure sleep in nervous, irritable constitutions.

℞ Pulveris ipecacuanhæ comp. gr.v.
Extracti papaveris gr.iij.
Misce et fiant pilulæ ij. hora somni sumendæ.
To procure sleep in ordinary cases, especially if the skin be hot and dry.

℞ Pulveris ipecacuanhæ comp. gr.ix.
Extracti colchici acetici gr.j.
Misce et fiat pilulæ ij. hora somni sumendæ.
To procure rest and sleep in cases of rheumatism, and in affections of the neck of the bladder and testicles.

℞ Extracti stramonii gr.¼.
Pilulæ ipecacuanhæ cum scilla gr.x.
Misce et fiat pilula ij. hora somni sumendæ.
To produce rest in cases of asthma, &c.

SEDATIVE.

℞ Plumbi acetatis gr.xxx.
Pulveris colchici gr.xx.
——— opii gr.iij.
Misturæ acaciæ q.s.
Misce optime, et divide in pilulas æquales decem, quarum sumat unam sexta quaque hora.
In active hæmorrhages, washed down with fl.dr.j. of distilled vinegar in fl.oz.j. of water. They may also be given in phthisis: one pill twice a day, after bleeding.

℞ Aconiti extracti gr.j.
Anthemidis extracti gr.xvj.
Fiant pilulæ quatuor æquales. Sumatur una sexta quaque hora.
In enlargement of the joints in chronic rheumatism.

℞ Zinci sulphatis gr.j.
Pulveris scillæ gr.ss.
Pilulæ assafœtidæ comp. gr.iij.
Misce et fiat pilula ter die sumenda.

ANTISPASMODIC.

℞ Opii gr.ss.
Castorei gr.vjss.
Pulveris digitalis gr.j.
Syrupi q.s.
Fiant pilulæ duæ, bis vel ter die sumendæ.
In spasmodic asthma, and dyspnœa.

℞ Cerii oxalatis gr.ij.
Extracti lupuli gr.ij.
Misce et fiat pilula die sumenda.
In irritability of stomach, and to mitigate the sickness of pregnancy.

℞ Cupri ammonio-sulphatis gr.ij.
Micæ panis q.s.
Fiant pilulæ quatuor. Sumatur una bis quotidie.
In epilepsy, gradually increasing the dose.

℞ Argenti nitratis gr.ij.
Micæ panis q.s.
Fiant pilulæ æquales quatuor. Sumatur una sexta quaque hora.
In chorea, and other spasmodic affections.
*** These pills should be washed down with min.viij. of diluted nitric acid in fl.oz.jss. of water, in order to prevent the blue colour of the skin which the nitrate is apt to cause.

STIMULANT.

℞ Assafœtidæ gr.xc.
Pulveris zingiberis gr.xxx.
Syrupi q.s.
Ut fiant pilulæ triginta, quarum tres tertia quaque hora sumendus.
In palsy.

℞ Strychniæ gr.j.
Acidi acetici min.j.
Micæ panis gr.xx.
Fiant pilulæ æquales duodecim. Sumatur una sexta quaque hora.
In paralysis from poisoning by carbonate of lead.

TONIC.

℞ Pulveris rhei,
——— zingiberis, āā gr.xxx.
Extracti anthemidis gr.lx.
Fiat massa, in pilulas æquales triginta dividenda, quarum capiat tres ante prandium quotidie.
In dyspepsia and chlorosis.

℞ Ferri peroxidi,
Extracti conii, āā gr.lx.
Distribue in pilulas æquales viginti-quatuor. Sumantur duæ bis quotidie.
In leucorrhœa and scrofula

℞ Acidi arseniosi gr.ij.
Opii in pulverem triti gr.viij.
Saponis gr.xx.
Fiat massa, in pilulas xxiv. æquales dividenda, quarum sumat unam ter quotidie.
In intermittents, periodical headache, neuralgia, and lepra vulgaris.

ASTRINGENT.

℞ Extracti cinchonæ gr.cxx.
Aluminis gr.lx.
Syrupi q.s.
Ut fiant pilulæ triginta-sex. Sumantur quatuor quarta vel sexta quaque hora.
In passive hæmorrhages.

CATHARTIC.

℞ Scammonii pulv. gr.iv.
Extracti taraxaci gr.xiv.
Fiant pilulæ sex, quarum sumat tres bis quotidie.
In hypochondriasis and chronic hepatitis.

℞ Hydrargyri subchloridi gr.iij.
Pulveris jalapæ gr.ix.
Mucilaginis acaciæ q.s.
Fiant pilulæ tres hora somni sumendæ.
To empty the bowels in bilious affections.

℞ Hydrargyri subchloridi gr.vj.
Elaterii gr.j.
Micæ panis q.s.
Fiant pilulæ sex. Sumatur una sexta quaque hora.
In ascites and simple hypertrophy of the heart.

℞ Ipecacuanhæ gr.x.
Conii extracti gr.xx.
Aloes Soc. extracti gr.xxx.
Mucilag. acaciæ q.s.
Ut fiat massa in pilulas decem dividenda. Sumatur una hora somni quotidie.
In habitual costiveness.

EMMENAGOGUE.

℞ Ferri sulphatis gr.lx.
Potassæ carbonatis gr.vj.
Myrrhæ gr.lx.
Pulveris aloes compositi (Ph. Lond.) gr.xxx.
Contunde simul, et dividitur massa in pilulas æquales triginta. Sumat tres bis quotidie.
In amenorrhœa with a languid pulse.

℞ Pilulæ hydrargyri gr.lx.
Divide in pilulas æquales quindecem. Sumatur una mane nocteque quotidie.
In suppression of the menstrual discharge.

DIURETIC.

℞ Pulveris digitalis gr.xij.
Hydrargyri subchloridi gr.iv.
Opii gr.iv.
Confectionis rosæ q.s.
Fiant pilulæ duodecim. Sumatur una octava quaque hora.

In hydrothorax, and ascites depending upon visceral obstruction.

℞ Pilulæ hydrargyri gr.lx.
Pulveris scillæ gr.lx.
Confectionis rosæ caninæ q.s.
Fiant pilulæ viginti. Sumatur una octava quaque hora.

In ascites and anasarca.

℞ Pulveris scillæ gr.xx.
——— digitalis gr.xx.
Pilulæ hydrargyri gr.xx.
Extracti hyoscyami gr.xx.
Misce et fiant pilulæ xx. quarum dosis sit j. ter die sumenda.

In ascites and anasarca connected with hepatic affections.

DIAPHORETIC.

℞ Antimonii tartarati gr.j.
Opii,
Hydrargyri subchloridi, ā ā gr.j.
Confectionis rosæ caninæ q.s.
Fiant pilula, octava quaque hora sumenda.

In acute rheumatism: the first dose usually causes sickness and vomiting; but not the subsequent doses.

℞ Antimonii tartarati gr.ij.
Opii gr.vj.
Camphoræ gr.xxxvj.
Spiritus rectificati min.iij.
Confectionis rosæ caninæ q.s.
Fiant pilulæ æquales duodecim, quarum sumatur una quarta quaque hora.

In symptomatic fevers.

EXPECTORANT.

℞ Pulveris scillæ gr.xxx.
Ammoniaci gr.xc.
Extract. conii gr.xxx.
Contunde simul, et divide massam in pilulas æquales triginta quarum sumat duas sexta quaque hora.

In asthma and chronic catarrh.

ANTISYPHILITIC.

℞ Pilulæ hydrargyri gr.lx.
Divide in pilulas æquales duodecim. Sumatur una mane nocteque quotidie.

In syphilis, leprous eruptions, and chronic hepatitis.

℞ Hydrargyri subchloridi gr.xx.
Opii gr.v.
Confectionis rosæ caninæ q.s.
Fiant pilulæ viginti. Sumatur una mane nocteque quotidie.

In syphilitic cases.

ANTILITHIC.

℞ Sodæ carbonatis exsiccatæ gr.xc.
Pulveris aromatici gr.xxx.
Saponis gr.xxx.
Balsami Peruviani q.s.
Fiant pilulæ æquales triginta. Sumatur tres ter quotidie.
In calculous affections.

TONIC AND PURGATIVE COMBINED.

℞ Ferri sulphatis exsiccatæ gr.lx.
Extracti aloes Soc.
——— gentianæ, āā dr.ss.
Contunduntur simul, et dividitur moles in pilulas triginta, quarum sumantur duæ ter quotidie.
In dyspepsia, hysteria, scrofula, and mesenteric obstructions.

ALTERATIVE.

℞ Hydrargyri iodidi rubri gr.iv.
Serpentariæ in pulv. gr.lx.
Syrupi aurantii q.s.
Misce, et divide in pilulas viginti-quatuor, quarum sumantur duæ ter quotidie.
In herpetic and other obstinate cutaneous affections.

℞ Hydrargyri iodidi viridis gr.iij.
Micæ panis gr.iij.
Fiant pilulæ sex æquales. Sumatur j. ter quotidie.
In secondary syphilis.

DRAUGHTS.

NARCOTIC.

Aquæ camphoræ fl.unc.jss.
Tincturæ opii min.xxxv.
Spiritus ætheris fl.dr.ss.
Syrupi rhœados fl.dr.ss.
Fiat haustus in promptu habendus, et urgente febris paroxysmo sumendus.
In intermittent headache.

℞ Ammoniæ carbonatis gr.xv.
Succi limonum recentium fl.dr.iv.
Aquæ destillatæ fl.unc.j.
Spiritus myristicæ fl.dr.j.
Syrupi aurantii fl.dr.ss.
Tincturæ conii min.xx.
Fiat haustus ter die sumendus, addendo de die in diem tincturæ conii min.v.; donec dosis ad min.lxxx. in singulis haustibus pervenerit.
In diseases of increased irritability.

ANTISPASMODIC.

Moschi gr.v.
Liquoris ammoniæ min.xvj.
Tincturæ castorei fl.dr.j.
Syrupi papaveris fl.dr.ss.
Aquæ cinnamomi fl.unc.jss.
Fiat haustus, quarta quaque hora sumendus.

In hysteria and convulsive affections, after the bowels have been effectually cleared.

℞ Olei anisi min.v.
Magnesiæ gr.xx.
Tincturæ sennæ fl.dr.ij.
Aquæ menthæ piperitæ fl.dr.x.
Fiat haustus, urgente flatu sumendus.

In spasms of the stomach arising from flatulence.

TONIC.

℞ Infusi cinchonæ flavæ fl.unc.jss.
Tincturæ cinchonæ compositæ fl.dr.j.
Pulveris cinchonæ flavæ gr.xx.
Syrupi aurantii fl.dr.ss.
Fiat haustus, secunda quaque hora sumendus.

In intermittents and acute rheumatism, after purging.

℞ Infusi aurantii fl.unc.jss.
Quiniæ sulphatis gr.ij.
Acidi sulphurici dil. min.ij.
Syrupi aurantii fl.dr.ss.
Fiat haustus bis terve quotidie sumendus.

In debility, intermittents, neuralgia, &c.

℞ Infusi cascarillæ fl.unc.jss.
Quiniæ sulphatis gr.ij.
Tincturæ cascarillæ,
——— zingiberis, ā ā fl.dr.j.
Acidi nitrici diluti min.vij.
Fiat haustus bis quotidie sumendus.

In dyspepsia arising from intemperance.

ASTRINGENT.

℞ Extracti hæmatoxyli gr.xij.
Aquæ cinnamomi fl.dr.xv.
Tincturæ catechu fl.dr.j.
Fiat haustus, quarta quaque hora vel post dejectiones singulas liquidas sumendus.

In diarrhœas, and protracted dysentery.

EMETIC.

℞ Pulveris ipecacuanhæ gr.xx.
Vini ipecacuanhæ fl.dr.ij.
Aquæ fontanæ fl.dr.vj.
Fiat haustus emeticus, quamprimum vel vespere sumendus.

For unloading the stomach in ordinary cases.

℞ Zinci sulphatis gr.xxx.
Aquæ destillatæ fl.unc.jss.
Fiat haustus, quamprimum sumendus.

In the commencement of the paroxysm of intermittent fever, or in cases of poisons having been taken into the stomach.

℞ Cupri sulphatis gr.xv.
Acidi sulphurici diluti min.ij.
Aquæ destillatæ fl.unc.j.
Fiat haustus quamprimum sumendus.
In cases of poisoning.

CATHARTIC.

℞ Potassæ tartratis gr.lx.
Tincturæ sennæ fl.dr.j.
Infusi sennæ fl.dr.xvjss.
Syrupi zingiberis fl.dr.ss.
Fiat haustus, quamprimum vel primo mane sumendus.
In acute diseases.

℞ Magnesiæ sulphatis gr.cxx.
Infusi rosæ acidi fl.dr.xiv.
Acidi sulphurici diluti min.x.
Mannæ gr.cxx.
Fiat haustus quarta quaque hora sumendus.
In inflammatory affections.

℞ Sennæ infusi fl.unc.j.
Magnesiæ sulphatis gr.clxxx.
Aquæ camphoræ fl.dr.v.
Tincturæ cardamomi comp. fl.dr.j.
Fiat haustus mane sumendus.
In acute diseases.

DIURETIC.

℞ Tincturæ jalapæ fl.dr.ij.
Syrupi scillæ fl.dr.ss.
Aquæ menthæ piperitæ fl.dr.ixss.
Fiat haustus ter in die sumendus.

℞ Potassæ nitratis gr.viij.
Tincturæ digitalis min.x.
Infusi rosæ acidi fl.dr.xiij.
Syrupi rosæ gallicæ fl.dr.j.
Fiat haustus ter in die sumendus.
In dropsy.

DIAPHORETIC.

℞ Potassæ carbonatis gr.xx.
Succi limonum recentium fl.dr.iv.
Antimonii tartarati gr.$\frac{1}{8}$.
Aquæ destillatæ fl.dr.xj.
Syrupi papaveris fl.dr.j.
Fiat haustus, quarta vel sexta quaque hora sumendus.

℞ Liquoris ammoniæ acetatis fl.dr.ij.
Aquæ camphoræ fl.dr.x.
Vini ipecacuanhæ min.x.
Syrupi tolutani fl.dr.ss.
Fiat haustus sexta quaque hora sumendus.
In fevers and inflammatory diseases.

REFRIGERANT.

℞ Potassæ nitratis gr.xij.
Misturæ amygdalæ fl.unc.jss.
Syrupi tolutani fl.dr.j.
Fiat haustus quarta quaque hora sumendus.

℞ Potassæ carbonatis gr.xx.
Syrupi min.xxx.
Spiritus myristicæ min.xxx.
Aquæ destillatæ fl.dr.xj.
Fiat haustus, in effervescentiæ impetu ipso cum succi limonum cochleari magno, secunda quaque hora sumendus.

In fevers and inflammatory diseases.

ANTACID.

℞ Magnesiæ gr.lx.
Aquæ menthæ piperitæ fl.unc.jss.
Tincturæ aurantii fl.dr.j.
Fiat haustus pro re nata sumendus.

In heartburn and other cases of acidity of the stomach.

℞ Liquoris ammoniæ min.xvj.
Misturæ amygdalæ fl.unc.ij.
Tincturæ opii min.x.
Acidi hydrocyanici dil. min.ij.
Fiat haustus ter die sumendus.

In acidities of the primæ viæ.

SEDATIVE.

℞ Hydrocyanici acidi diluti min.iij.
Tincturæ calumbæ fl.dr.j.
Aquæ destillatæ fl.dr.xj.
Fiat haustus bis terve quotidie sumendus.

In irritable gastric dyspepsia.

℞ Tincturæ ferri perchloridi min.xv.
Aquæ destillatæ fl.unc.jss.
Olei carui min.jss.
Sacchari albi gr.xv.
Fiat haustus, ter quotidie sumendus.

In general debility.

MIXTURES.

TONIC.

℞ Infusi calumbæ fl.unc.vss.
Tincturæ cardamomi comp. fl.dr.iv.
Syrupi aurantii fl.dr.ij.
Fiat mistura, cujus cochlearia duo majora quarta quaque hora sumantur.

In debility of the digestive organs, and to check the severe vomiting which often occurs during pregnancy.

ASTRINGENT.

℞ Catechu extracti gr.cxx.
Aquæ cinnamomi fl.unc.viij.
Tincturæ opii min.lx.
Fiat mistura, cujus sumantur cochlearia tria magna post singulas dejectiones liquidas.
In the last stage of diarrhœa or of dysentery.

EMETIC.

℞ Antimonii tartarati gr.viij.
Aquæ destillatæ fl.unc.vj.
Syrupi mori fl.dr.j.
Fiat mistura, cujus cochlearia magna duo, quamprimum, et octavis minutis nonec evomuerit, sumenda.

℞ Pulveris ipecacuanhæ gr.xxx.
Antimonii tartarati gr.ij.
Tincturæ scillæ fl.dr.j.
Aquæ destillatæ fl.unc.vijss.
Fiat mistura, cujus sumat quamprimum cochlearia majora quatuor, et cochlearia duo sexta quaque parte horæ, donec supervenerit vomitus.
In dropsies, before exhibiting the foxglove.

CATHARTIC.

℞ Potassæ sulphatis gr.cxx.
Aquæ puræ fl.unc.vss.
Tincturæ jalapæ fl.dr.iv.
Sit mistura, cujus sumat cochlearia duo magna omni bihorio.

℞ Rosæ confectionis unc.j.
Aquæ ferventis fl.unc.viij.
Tere optime et post horam cola.

℞ Magnesiæ sulphatis unc.vj.
Infusi rosæ colati fl.unc.vjss.
Sulphurici acidi diluti fl.dr.j.
Tincturæ cardamomi comp. fl.dr.iij.
Fiat mistura. Sumantur cochlearia tria majora ter quotidie.
In a bilious state of habit.

EXPECTORANT.

℞ Misturæ amygdalæ fl.unc.v.
Vini ipecacuanhæ,
Tincturæ scillæ, ā ā fl.dr.j.
Syrupi tolutani fl.dr.vj.
Acidi hydrocyanici dil. min.xxiv. Misce.
Sumat cochleare magnum urgente tussi.
In humoral asthma, and the latter stage of catarrh.

℞ Misturæ ammoniaci fl.unc.iv.
Vini ipecacuanhæ fl.dr.iv.
Tincturæ camphoræ comp. fl.unc.ss.
Syrupi tolutani fl.unc.j. Misce.
Cochleare modicum urgente tussi sumendum.
In chronic or old asthmas.

DEMULCENTS.

℞ Decocti althææ fl.unc.vj.
Syrupi fl.unc.j.
Fiat mistura, cujus sumatur tertia pars, sexta quaque hora.
In calculous cases, and inflammation of the kidneys.

DETERGENT GARGLE.

℞ Potassæ nitratis gr.cxx.
Mellis rosæ fl.dr.iv.
Infusi rosæ fl.dr.vss. Misce.
Fiat gargarisma sæpe utendum.
In inflammatory sore throat.

ASTRINGENT GARGLE.

℞ Infusi rosæ fl.unc.vij.
Tincturæ catechu fl.dr.vj.
Acidi sulphurici diluti fl.dr.j.
Sit gargarisma sæpe utendum.
In relaxations of the uvula.

STIMULANT GARGLE.

℞ Capsici tincturæ fl.dr.jss.
Rosæ infusi fl.unc.vss.
Hydrochlorici acidi diluti fl.dr.ss.
Syrupi rosæ gallicæ fl.dr.ij.
Fiat gargarisma subinde utendum.
In cynanche maligna.

EXTERNAL APPLICATIONS.

LOTIONS.

℞ Ammoniæ hydrochloratis gr.lx.
Aquæ puræ fl.unc.v.
Spiritus rectificati fl.unc.j.
Misce, ut fiat lotio tumori applicanda.
In swelled testicle, and other inflammatory tumors.

℞ Opii gr.cxx.
Acidi acetici dil. fl.unc.vj.
Tere ut fiat lotio, parti dolenti applicanda.
To painful affections of the joints, and in colic.

STIMULANT EMBROCATION.

℞ Linimenti ammoniæ fl.dr.vj.
Olivæ olei fl.dr.ij.
Fiat embrocatio, cum panno laneo faucibus externis applicanda.
In cynanche tonsillaris.

STIMULANT AND ANODYNE EMBROCATION.

℞ Linimenti camphoræ compositi fl.dr.ix.
Tincturæ cantharidis fl.dr.j.
——— opii fl.dr.ij.
Fiat linimentum parti dolenti applicandum.
To be rubbed over the bowels in colic and cramp; and to be used in painful affections of the joints.

POWDERS.

℞ Acaciæ contritæ unc.ss.
Aluminis gr.v.
Misce diligenter ut fiat pulvis, cujus inspergatur pauxillum super mamillas pro re nata.
In sore nipples, to be applied after suckling.

℞ Acetatis plumbi gr.lx.
Pulveris cinchonæ unc.j.
Tere, ut fiat pulvis, cujus pauxillum super ulcera omni mane supergatur.
For scrofulous ulcers.

OINTMENTS.

Hydrargyri oxidi rubri gr.lx.
Adipis præparati unc.j.
Tere diligenter in mortario donec bene misceantur.
In ulcerations of the eyelids.

℞ Zinci oxidi gr.xx.
Adipis præparati unc.j.
Tere optime in mortario, ut fiat unguentum.
In porrigo scutulata.

℞ Creasoti fl.dr.j.
Unguenti cetacei unc.j.
Tere ut fiat unguentum.
In porrigo scutulata.

℞ Iodi gr.lx.
Adipis præparati unc.j.
Tere optime ut fiat unguentum cujus pauxillum tumori maneque nocte applicandum.
In glandular swellings and incipient bronchocele.

℞ Antimonii tartarati gr.lx.
Sacchari albi pulveris gr.lx.
Adipis præparati unc.j.
Tere ut fiat unguentum. Magnitudo glandis, parti dolenti omni mane et nocte, ope fricationis donec pustulæ adfuerint, applicanda.
As a counter-irritant in the inflammation of internal organs.

Examples of this nature may be extended indefinitely; but as the requirements of each case ought to determine the form of medicine to be prescribed, the practitioner will do well not to depend too much on particular formulæ.

APPENDIX.

No. IV.

Comparative View of the Chemical Affinity between the Principal Acids and six of the Alkaline and Earthy Bases: that between Sulphuric Acid and Baryta being taken at 1000 *as a standard.—Compiled from* Ure's Chemical Dictionary.

ACIDS.	BASES.					
	Baryta.	Lime.	Potassa.	Soda.	Magnesia.	Ammonia.
Sulphuric	1000	868	894	885	810	808
Nitric	849	741	812	804	732	731
Hydrochloric	840	736	804	797	728	729
Phosphoric	906	865	801	796	736	628
Oxalic	930	960	650	645	820	611
Tartaric	760	867	616	611	618	609
Arsenious	733	733	614	609	733	609
Citric	730	731	610	605	615	603
Sulphurous	592	516	488	484	439	433
Acetic	594	470	486	482	430	432
Boracic	515	537	482	479	459	430
Nitrous	450	425	440	437	410	400
Carbonic	420	423	306	304	366	339
Hydrocyanic	400	290	298	280	279	270

No. V.

Quantity of certain important Drugs contained in different Preparations.

Acidum Arseniosum.

Liquor Arsenicalis	gr.ss.	in fl.dr.j.
Liquor Arsenici Hydrochloricus	gr.ss.	in fl.dr.j.
Liquor Sodæ Arseniatis	gr.ss. arseniate of soda	in fl.dr.j.

Acidum Tannicum.

Glycerinum Acidi Tannici	unc.j.	in unc.iv.
Suppositoria Acidi Tannici	gr.iij.	in each.
Trochisci Acidi Tannici	gr.ss.	in each.

Aconiti Radix.		
Linimentum Aconiti	unc.j.	in fl.unc.j.
Tinctura Aconiti	gr.livss.	in fl.unc.j.
Unguentum Aconitiæ	gr.viij.	in unc.j.
Antimonium.		
Pilula Hydrargyri Subchloridi Comp.	gr.j. of Sulphurated Antimony	in gr.v.
Pulvis Antimonialis	gr.j. of the oxide	in gr.iij.
Unguentum Antimonii Tartarati	gr.j. of Tartarated Antimony	in gr.v.
Vinum Antimoniale	gr.ij. ,,	in fl.unc.j.
Atropia.		
Liquor Atropiæ	gr.ss.	in fl.dr.j.
,, ,, Sulphatis	gr.ss. of Sulphate of Atropia	in fl.dr.j.
Unguentum Atropiæ	gr.viij.	in fl.unc.j.
Cannabis Indica.		
Tinctura Cannabis Indicæ	gr.xxij. (extract)	in fl.unc.j.
Cantharidis.		
Acetum Cantharidis	unc.ij.	in Oj.
Charta Epispastica	about unc.j.	in unc.x.
Emplastrum Calefaciens	j.part.	in xxiv. part.
,, Cantharidis	j.part.	in iij. part.
Liquor Epispasticus	gr.xxiv.	in fl.dr.j.
Tinctura Cantharidis	gr.vss.	in fl.unc.j.
Unguentum Cantharidis	unc.j.	in unc.vij.
Chloroformum.		
Linimentum Chloroformi	fl.unc.j.	in fl.unc.ij.
Spiritus Chloroformi	min.j.	in min.xx.
Tinctura Chloroformi	min.j.	in min.x.
Digitalis.		
Infusum Digitalis	gr.iij.	in fl.unc.j.
Tinctura Digitalis	gr.vj.$\frac{3}{4}$	in fl.dr.j.
Hydrargyrum.		
Emplastrum Ammoniaci cum Hydrargyro	gr.j.	in gr.v.
Emplastrum Hydrargyri	gr.j.	in gr.iij.
Hydrargyrum cum Creta	gr.j.	in gr.iij.
Linimentum Hydrargyri	gr.j.	in gr.iij.
Liquor Hydrargyri Perchloridi	gr.$\frac{1}{2}$ (perchloride)	in fl.unc.j.
Lotio Hydrargyri Flava	gr.xviij.	in fl.unc.x.
,, ,, Nigra	gr.iij.	in fl.unc.j.
Pilula Hydrargyri	gr.j.	in fl.gr.iij.
,, Hydrargyri Subchloridi composita	gr.j. (subchloride)	in gr.v.
Suppositoria Hydrargyri	gr.v. (Ung. Hydrargyri)	in each.
Unguentum Hydrargyri	gr.j.	in gr.ij.
,, ,, Ammoniati	gr.j. (Hydr. Ammon.)	in gr.viij.
,, ,, Iodidi Rubri	gr.j. (Hydr. Iod. Rubr.)	in gr.viij.
,, ,, Oxidi Rubri	gr.j. (Hydr. Ox. Rubr.)	in gr.viij.
,, ,, Compositum	gr.j.	in gr.ivss.

Hydrargyrum.

Unguentum Hydrargyri Subchloridi	gr.lxxx. (Subchloride)	in unc.j.

Iodum.

Linimentum Iodi	about gr.liv.*	in fl.unc.j.
,, Potassii Iodidi cum Sapone	gr.l. (iodide)	in fl.unc.j.
Liquor Iodi	gr.xx.†	in fl.unc.j.
Tinctura Iodi	gr.xj. nearly‡	in fl.unc.j.
Unguentum Iodi	gr.xvj.§	in unc.j.
Vapor Iodi	fl.dr.j. (tincture)	to fl.unc.j.

Morphia.

Liquor Morphiæ Acetatis	gr.ss.	in fl.dr.j.
,, ,, Hydrochloratis	gr.ss.	in fl.dr.j.
Suppositoria Morphiæ	gr.ss. (hydrochlorate)	in each.
Trochisci Morphiæ	gr.$\frac{1}{36}$	in each.
,, ,, et Ipecacuanhæ	gr.$\frac{1}{36}$ (and gr.$\frac{1}{12}$ Ipecac.)	in each.

Nux Vomica.

Tinctura Nucis Vomicæ	gr.vss.	in fl.dr.j.

Oleum Crotonis.

Linimentum Crotonis	fl.dr.j.	in fl.unc.j.

Opium.

Confectio Opii	gr.j.	in gr.xl.
Emplastrum Opii	gr.j.	in gr.x.
Enema Opii	fl.dr.ss. (tincture)	in fl.unc.ij.
Extractum Opii	gr.j. equals about	gr.ij.
,, ,, Liquidum	gr.xxij. nearly	in fl.unc.j.
Linimentum Opii	fl.unc.j. (tincture)	in fl.unc.ij.
Pilula Ipecacuanhæ cum Scilla	gr.j.	in gr.xvjss.
,, Plumbi cum Opio	gr.j.	in gr.viij.
,, Saponis composita	gr.j. nearly	in gr.v.
Pulvis Cretæ Aromaticus cum Opio	gr.j.	in gr.xl.
,, Ipecacuanhæ compositus	gr.j.	in gr.x.
,, Kino compositus	gr.j.	in gr.xx.
,, Opii compositus	gr.j.	in gr.x.
Tinctura Camphoræ composita	gr.$\frac{1}{2}$	in fl.dr.j.
,, Opii	about gr.j.	in min.xv.
,, ,, Ammoniata	gr.v.	in fl.unc.j.
Trochisci Opii	gr.$\frac{1}{10}$	in each.
Unguentum Gallæ cum Opio	about gr.j.	in gr.xv.
Vinum Opii	nearly gr.xxij.	in fl.unc.j.

Strychnia.

Liquor Strychniæ	gr.ss.	in fl.dr.j.

---

* With about 22 grs. of the Iodide of Potassium.
† With gr.xxx. of the Iodide of Potassium.
‡ With half the quantity of the Iodide.
§ With an equal portion of the Iodide.

APPENDIX.

No. VI.

Symbols and Equivalent Weights of the Elementary Bodies mentioned in the British Pharmacopœia.

Elementary Bodies.	Symbols and Equivalents.	
	Old System.	New System.
Aluminium	Al = 13·75	**Al = 27·5**
Antimony (Stibium)	Sb = 122	**Sb = 122**
Arsenic	As = 75	**As = 75**
Barium	Ba = 68·5	**Ba = 137**
Bismuth	Bi = 210	**Bi = 210**
Boron	B = 11	**B = 11**
Bromine	Br = 80	**Br = 80**
Cadmium	Cd = 56	**Cd = 112**
Calcium	Ca = 20	**Ca = 40**
Carbon	C = 6	**C = 12**
Cerium	Ce = 46	**Ce = 92**
Chlorine	Cl = 35·5	**Cl = 35·5**
Chromium	Cr = 26·25	**Cr = 52·5**
Copper (Cuprum)	Cu = 31·75	**Cu = 63·5**
Gold (Aurum)	Au = 196·5	**Au = 196·5**
Hydrogen	H = 1	**H = 1**
Iodine	I = 127	**I = 127**
Iron (Ferrum)	Fe = 28	**Fe = 56**
Lead (Plumbum)	Pb = 103·5	**Pb = 207**
Lithium	L = 7	**L = 7**
Magnesium	Mg = 12	**Mg = 24**
Manganese	Mn = 27·5	**Mn = 55**
Mercury (Hydrargyrum)	Hg = 100	**Hg = 200**
Nitrogen	N = 14	**N = 14**
Oxygen	O = 8	**O = 16**
Phosphorus	P = 31	**P = 31**
Platinum	Pt = 98·5	**Pt = 197**
Potassium (Kalium)	K = 39	**K = 39**
Silver (Argentum)	Ag = 108	**Ag = 108**
Sodium (Natrium)	Na = 23	**Na = 23**
Sulphur	S = 16	**S = 32**
Tin (Stannum)	Sn = 59	**Sn = 118**
Zinc	Zn = 32·5	**Zn = 65**

APPENDIX.

No. VII.

WEIGHTS AND MEASURES.

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	Oviij.
1 Pint	O.	=	20 fluid ounces .	fl.unc.xx.
1 Fluid Ounce	fl.unc.	=	8 fluid drachms .	fl.dr.viij.
1 Fluid Drachm	fl.dr.	=	60 minims . . .	min.lx.
Minim	min.	=	1 minim . . .	min.j.

PROPORTION OF THE IMPERIAL GALLON.

Gallon.		Pints.		Fluid Ounces.		Fluid Drachms.		Minims.
1	=	8	=	160	=	1280	=	76,800
		1	=	20	=	160	=	9,600
				1	=	8	=	480
						1	=	60

MEASURES OF LENGTH.

1 Line = $\frac{1}{12}$ inch.

1 Inch = $\frac{1}{39{\cdot}1393}$ seconds pendulum.

12 Inches = 1 foot.

36 Inches = 3 feet = 1 yard.

Length of pendulum vibrating seconds of mean time in the latitude of London, in a vacuum at the level of the sea . . . . . = 39·1393 inches.

RELATION OF MEASURES TO WEIGHTS.

1 Minim is the measure of			.	0·91 grs. of water
1 Fluid Drachm	,,		.	54·68 ,,
1 Fluid Ounce	,,	1 ounce, or	.	437·5 ,,
1 Pint	,,	1·25 pounds, or	.	8750·0 ,,
1 Gallon	,,	10 pounds, or	.	70,000·0 ,,

WEIGHTS AND MEASURES ON THE METRICAL SYSTEM.

WEIGHTS.

1 Milligramme	=	the thousandth part of 1 grm.	or	0·001 grm.
1 Centigramme	=	the hundredth ,, ,,		0·01 ,,
1 Decigramme	=	the tenth ,, ,,		0·1 ,,
1 Gramme	=	weight of a cubic centimetre of water at 4° C.	or	1·0 ,,
1 Decagramme	=	ten grammes	,,	10·0 ,,
1 Hectogramme	=	one hundred grammes	,,	100·0 ,,
1 Kilogramme	=	one thousand grammes	,,	1000·0 ,,

MEASURES OF CAPACITY.

1 Millilitre	=	1 cubic centim.	or	the mea. of	1 grm.	of water
1 Centilitre	=	10 ,,		10 ,,		,,
1 Decilitre	=	100 ,,		100 ,,		,,
1 Litre	=	1000 ,,		1000 ,,		(1 kilo.)

MEASURES OF LENGTH.

1 Millimetre	=	the thousandth part of one metre, or	0·001 metre
1 Centimetre	=	the hundredth ,,	0·01 ,,
1 Decimetre	=	the tenth part ,,	0·1 ,,
1 Metre	=	the ten-millionth part of a quarter of the meridian of the earth.	

RELATION OF THE WEIGHTS OF THE BRITISH PHARMACOPŒIA TO THE METRICAL WEIGHTS.

1 Pound	=	453·5925 grammes
1 Ounce	=	28·3495 ,,
1 Grain	=	0·0648 ,,

RELATION OF MEASURES OF CAPACITY OF THE BRITISH PHARMACOPŒIA TO THE METRICAL MEASURES.

1 Gallon	=	4·543487	litres	
1 Pint	=	0·567936 ,,	or 567·936	cubic centimetres
1 Fluid Ounce	=	0·028396 ,,	28·396	,,
1 Fluid Drachm	=	0·003549 ,,	3·549	,,
1 Minim	=	0·000059 ,,	0·059	,,

RELATION OF THE METRICAL WEIGHTS TO THE WEIGHTS OF THE BRITISH PHARMACOPŒIA.

1 Milligramme	=	0·015432 grs.
1 Centigramme	=	0·15432 ,,
1 Decigramme	=	1·5432 ,,
1 Gramme	=	15·432 ,,
1 Kilogramme = 2 lbs. 3 oz. 119·8 grs. or	=	15432·348 ,,

RELATION OF THE METRICAL MEASURES TO THE MEASURES OF THE BRITISH PHARMACOPŒIA.

1 Millimetre	=	0·03937 inches	
1 Centimetre	=	0·39371 „	
1 Decimetre	=	3·93708 „	
1 Metre	=	39·37079 „	or 1 yard 3·7 inches
1 Cubic Centimetre		=	15·432 grain measures
1 Litre = 1 pint 15 oz. 2 drs. 11 m.		or 15432·348	„

The TEMPERATURE is in all cases to be determined by Fahrenheit's thermometer, 212° on the scale of which marks the boiling point of water, and 32° the freezing point; between 90° and 100° denote the gentle heat (*calor lenis*) of the Pharmacopœia.

TEMPERATURE OF BATHS.

The hot bath (*balneum fervidum*) from 98° to 106°.
The warm bath (*balneum calidum*) from 96° to 98°.
The tepid bath (*balneum terpidum*) from 85° to 96°.
The vapour bath (*balneum vaporis*) from 100° to 130°.

1 centim = 0·39371
2 — = 0·78742
3 — = 1·18113

No. VII.

Table of the more celebrated Mineral Waters, showing the Ingredients contained in each Water.

	Names of the Springs.	Quantity of Water.	Gases.				Carbonates of				Sulphates of				Chlorides of				Silica.	Ammonia.	Resin.	Temperature.
			Oxygen.	Carb. Acid.	Sulph. Hydr.	Nitrogen.	Soda.	Lime.	Magnesia.	Iron.	Soda.	Lime.	Magnesia.	Iron.	Soda.	Lime.	Magnesia.	Potash.				
		Grs.	*Cub. In.*	*Cub. In.*	*Cub. In.*	*Cub. In.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	
Acidulous.	Seltzir	8949	·435	13·068	..	..	5·22	78·3	6·32	..	..	..	..	..	13·74	..	..	..	..	..	..	cold.
	Pyrmont	8950	..	19·6	..	..	..	4·3	9·8	0·70	..	8·38	5·44	..	1·7	..	..	..	..	..	..	cold.
	Spa	8933	..	9·8	..	..	1·85	1·85	4·35	0·70	..	..	..	..	0·21	..	..	..	..	..	..	cold.
	Carlsbad	25320	..	50·	..	..	38·5	12·5	..	0·125	66·75	..	..	..	32·5	..	..	..	2·25	..	..	165°
	Kilburn	138240	..	84·	36·	..	..	2·4	1·25	0·3	18·2	13·0	91·0	..	6·0	0·6	2·8	..	..	..	6·	cold.
	Ponges	7291	..	50·	..	..	10·	12·	1·2	2·5	..	..	..	..	2·5	..	..	..	0·5	..	..	cold.
	St. Parize	7291	..	22·	..	..	..	11·5	0·5	..	..	13·	..	..	..	..	..	..	..	..	..	cold.
	Ems	7291	..	51·	..	.	10·75	1·14	0·8	0·026	6·	..	..	..	7·634	..	..	0·04	60·4	..	..	117°
	Marienbad	7291	..	125·	..	..	8·26	4·13	3·05	0·176	39·72	..	..	..	12·45	..	..	..	0·88	0·75	..	cold.
	Anschowitz	7291	..	149·56	..	..	6·197	4·016	2·4	0·4	22·54	4·	..	..	8·996	..	..	..	0·66	9·	..	cold.
	Eger	7291	..	154·	..	..	5·00	..	0·600	0·350	25·50	..	..	..	7·96	..	..	..	0·55	8·	..	cold.
	Geilnau	7291	..	163·3	..	..	6·62	2·97	2·170	..	0·042	..	..	..	0·543	..	..	..	0·26	0·247	..	cold.
Sulphureous.	Harrowgate	103643	..	8·	19·	7·	..	18·5	5·5	..	..	..	0·5	..	615·5	3·	9·1	..	..	..	.	cold.
	Moffat	103643	..	1·	10·	4·	..	..	..	..	..	..	..	..	3·6	..	..	..	..	..	..	cold.
	Aix-la-Chapelle	8940	..	..	13·06	..	..	15·25	5·69	..	..	..	..	..	6·21	..	..	..	..	..	..	143°
	Enghien	92160	..	18·5	70·	..	..	21·4	1·35	..	..	33·3	5·8	..	2·4	..	8·0	..	..	..	..	cold.
	Cheltenham Sulphur Spring	7291	..	..	1·5	..	..	..	..	0·3	23·5	1·2	5·	..	35·	..	..	..	..	..	..	cold

TABLE of the more celebrated Mineral Waters, showing the Ingredients contained in each Wafer—*continued.*

	NAMES OF THE SPRINGS.	Quantity of Water.	GASES.				CARBONATES OF				SULPHATES OF				CHLORIDES OF				Silica.	Ammonia.	Resin.	Temperature.
			Oxygen.	Carb. Acid.	Sulph. Hydr.	Nitrogen.	Soda.	Lime.	Magnesia.	Iron.	Soda.	Lime.	Magnesia.	Iron.	Soda.	Lime.	Magnesia.	Potash.				
		Grs.	*Cub. In.*	*Cub. In.*	*Cub. In.*	*Cub. In.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	*Grs.*	
Saline.	Seidlitz	58309	..	8·	..	..	..	6·7	21·	..	..	41·1	14·44	..	..	..	36 5	..	..	..	..	cold.
	Cheltenham..	105843	..	30·3	3·	12·	..	..	12·5	5·	48·0	40·	..	..	5·	..	12·5	..	..	..	..	cold.
	Plombières ..	..	..	..	..	..	4·4	1·	..	..	4·7	..	..	..	0·5	..	..	..	2·6	..	..	cold.
	Leamington..	5760	..	..	..	..	..	..	..	..	7·85	..	..	..	55·75	28·64	20·16	..	..	..	..	cold.
	Bristol	7291	..	3·5	..	..	..	1·5	..	..	..	1·5	1·5	..	0·5	..	1·	..	..	..	..	74°
	Scarborough.	7291	..	..	..	..	..	..	..	..	..	20·	9·	..	..	..	..	..	..	..	..	cold.
	Banege	7291	..	..	..	..	2·5	..	..	..	..	..	..	..	0·5	..	..	..	..	..	..	120°
Chalybeate.	Tunbridge...	103643	1·4	10·6	..	4·	..	..	..	1·	..	1·25	..	..	0·5	..	2·25	..	..	..	..	cold.
	Toplitz	22516	..	..	..	..	13·5	16·5	..	32·5	..	..	..	..	61·5	28·5	..	..	..	15·1	..	cold.
	Brighton	7291	..	2·2	..	..	..	..	..	1·4	..	4·	..	..	5·	..	0·75	0·14	..	..	..	cold.
Calcareous, nearly pure.	Bath	15360	..	2·4	..	..	..	1·6	..	·004	5·	18·	..	..	6·6	..	..	..	0·4	..	..	114°
	Buxton	58309	..	..	..	2·	..	10·5	..	..	..	2·5	..	..	1·5	..	..	..	..	..	..	82°
	Matlock	58309	..	..	..	..	..	..	..	..	..	min. por.	..	..	..	..	..	..	..	..	..	96°
	Malvern	58309	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	cold.

WORKS

ON

MEDICINE, SURGERY, AND THE ALLIED SCIENCES.

Dr. GARROD'S ESSENTIALS of MATERIA MEDICA and THERAPEUTICS.

Fourth Edition, revised and edited, under the Supervision of the Author, by E. BUCHANAN BAXTER, M.D. Lond. M.R.C.P., Hon. Fellow of King's Coll. Lond., Med. Tutor in King's Coll., and Physician to the Evelina Hospital for Sick Children. Crown 8vo. price 12*s.* 6*d.*

Dr. PEREIRA'S ELEMENTS of MATERIA MEDICA and THERAPEUTICS.

Abridged and adapted for the use of Medical and Pharmaceutical Practitioners and Students. Edited by Professor BENTLEY, F.L.S. &c. and by Dr. REDWOOD, F.C.S. &c. With an Appendix containing the New Medicines included in the additions to the British Pharmacopœia of 1867, published by the Medical Council in 1874, and Commentaries thereon by the Editors. With 126 Woodcut Illustrations. 8vo. 25*s.*

COPLAND'S DICTIONARY of PRACTICAL MEDICINE,

Abridged from the larger work, and throughout brought down to the present state of Medical Science. 8vo. 36*s.*

A DICTIONARY of MEDICINE.

Edited by RICHARD QUAIN, M.D. Fellow of the Royal College of Physicians, and Physician to the Hospital for Diseases of the Chest at Brompton; assisted by numerous Eminent Writers. In One Volume, 8vo.

[*Preparing for publication.*

London, LONGMANS & CO.

A COMPLETE ENCYCLOPÆDIA of the PRACTICE of MEDICINE;

Consisting of a Series of Independent Treatises, by the most eminent Clinical Instructors of Germany, embracing the entire range of Special Pathology and Therapeutics. in Fifteen Volumes, large octavo, of from 500 to 700 pages each. Edited by Dr. H. VON ZIEMSSEN, Professor of Clinical Medicine at Erlangen. [*In the press.*

A MANUAL of CHEMICAL PHYSIOLOGY,

Including its Points of Contact with Pathology. By F. L. W. THUDICHUM, M.D. 8vo. with Woodcuts, 7*s.* 6*d.*

MILLER'S ELEMENTS of CHEMISTRY, THEORETICAL and PRACTICAL.

Re-edited, with Additions, by H. MACLEOD, F.C.S. 3 vols. 8vo. £3.

PART I. CHEMICAL PHYSICS, 15*s.*
PART II. INORGANIC CHEMISTRY, 21*s.*
PART III. ORGANIC CHEMISTRY, 24*s.*

A COURSE of PRACTICAL CHEMISTRY, for the USE of MEDICAL STUDENTS.

By W. ODLING, F.R.S. New Edition, with 70 new Woodcuts. Crown 8vo. price 7*s.* 6*d.*

SELECT METHODS in CHEMICAL ANALYSIS, CHIEFLY INORGANIC.

By WM. CROOKES, F.R.S. With 22 Woodcuts. Crown 8vo. 12*s.* 6*d.*

LECTURES on the PRINCIPLES and PRACTICE of PHYSIC.

By Sir THOMAS WATSON, Bart. M.D. Physician-in-Ordinary to the Queen. Fifth Edition, thoroughly revised. 2 vols. 8vo. 36*s.*

London, LONGMANS & CO.

LECTURES on SURGICAL PATHOLOGY.

By Sir JAMES PAGET, Bart. F.R.S. Third Edition, revised and re-edited by the Author and Professor W. TURNER, M.B. 8vo. with 131 Woodcuts, 21*s.*

On the SURGICAL TREATMENT of CHILDREN'S DISEASES.

By T. HOLMES, M.A. &c. late Surgeon to the Hospital for Sick Children. Second Edition, with 9 Plates and 112 Woodcuts. 8vo. 21*s.*

ANATOMY, DESCRIPTIVE and SURGICAL.

By HENRY GRAY, F.R.S. With about 410 Woodcuts from Dissections. Sixth Edition, by T. HOLMES, M.A. With a New Introduction by the Editor. Royal 8vo. 28*s.*

QUAIN'S ELEMENTS of ANATOMY.

Seventh Edition [1867]. Edited by W. SHARPEY, M.D. F.R.S., ALLEN THOMSON, M.D. F.R.S., and J. CLELAND, M.D. With upwards of 800 Engravings on Wood. 2 vols. 8vo. 31*s.* 6*d.*

A SYSTEM of SURGERY, THEORETICAL and PRACTICAL,

In Treatises by Various Authors. Edited by T. HOLMES, M.A. &c. Surgeon and Lecturer on Surgery at St. George's Hospital. Second Edition, with numerous Illustrations. 5 vols. 8vo. £5. 5*s.*

The SCIENCE and ART of SURGERY;

Being a Treatise on Surgical Injuries, Diseases, and Operations. By JOHN ERIC ERICHSEN, Senior Surgeon to University College Hospital. Sixth Edition, revised and enlarged, with 712 Woodcuts. 2 vols. 8vo. 32*s.*

London, LONGMANS & CO.

A TREATISE on the CONTINUED FEVERS GREAT BRITAIN.

By CHARLES MURCHISON, M.D. LL.D. F.R.S. F.R.C.P. &c. Second Edit with numerous Illustrations, 8vo. 24*s.*

TODD and BOWMAN'S PHYSIOLOGICA ANATOMY and PHYSIOLOGY of MAN.

With numerous Illustrations. VOL. II. 8vo. 25*s.*

VOL. I. New Edition by Dr. LIONEL S. BEALE, F.R.S. in course of publicati with numerous Illustrations. PARTS I. and II. 7*s.* 6*d.* each.

OUTLINES of PHYSIOLOGY, HUMAN and COM PARATIVE.

By J. MARSHALL, F.R.C.S. Surgeon to the University College Hospit 2 vols. crown 8vo. with 122 Woodcuts, 32*s.*

LECTURES on DISEASES of INFANCY an CHILDHOOD.

By CHARLES WEST, M.D. &c. Sixth Edition. 8vo. 18*s.*

A TREATISE on MEDICAL ELECTRICITY, THEO RETICAL and PRACTICAL;

And its uses in the Treatment of Paralysis, Neuralgia, and other Disease By JULIUS ALTHAUS, M.D. M.R.C.P. &c. Third Edition, for the most pa re-written. With Plate and Woodcuts. Post 8vo. 18*s.*

LECTURES on FEVER

Delivered in the Theatre of the Meath Hospital and County of Dubli Infirmary. By W. STOKES, M.D. D.C.L. Oxon, F.R.S. Physician to th Queen in Ireland. Edited by J. W. MOORE, M.D. F.K.Q.C.P. 8vo. 15*s.*

London, LONGMANS & CO.

I. decalvens.

Bronchophony
Pectoriloquy

T. decalvens. entirely removes the hair from the head, eyebrows &c & is eradicated by Iod: Tinct:

℥ i

ʒ i

O.