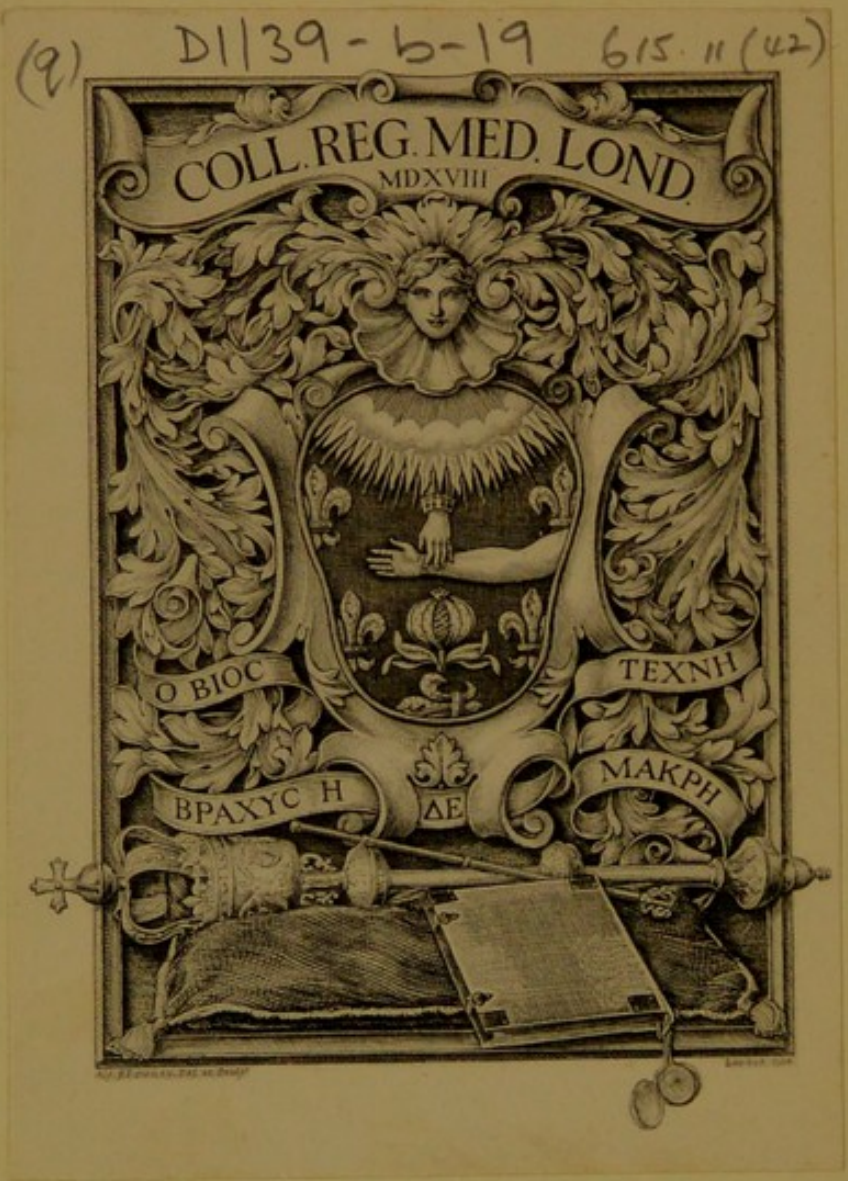
A translation of the new Pharmacopoeia of the Royal College of Physicians / with notes and criticisms by G. F. Collier.



College of Physicians will the Editor
deeply regret that they have placed themselves
A
& so humble an individual in
such an unmerited
position. —

TRANSLATION

OF THE

NEW PHARMACOPŒIA

OF THE

ROYAL COLLEGE OF PHYSICIANS OF LONDON:

WITH

NOTES AND CRITICISMS.

By G. F. COLLIER, M.D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON, AND TRANSLATOR OF THEIR PHARMACOPŒIA IN 1824, AND FOR TWENTY YEARS ENGAGED AS LECTURER, FIRST ON PHARMACEUTICAL CHEMISTRY AND MATERIA MEDICA, AND AFTERWARDS ON THE THEORY AND PRACTICE OF MEDICINE.

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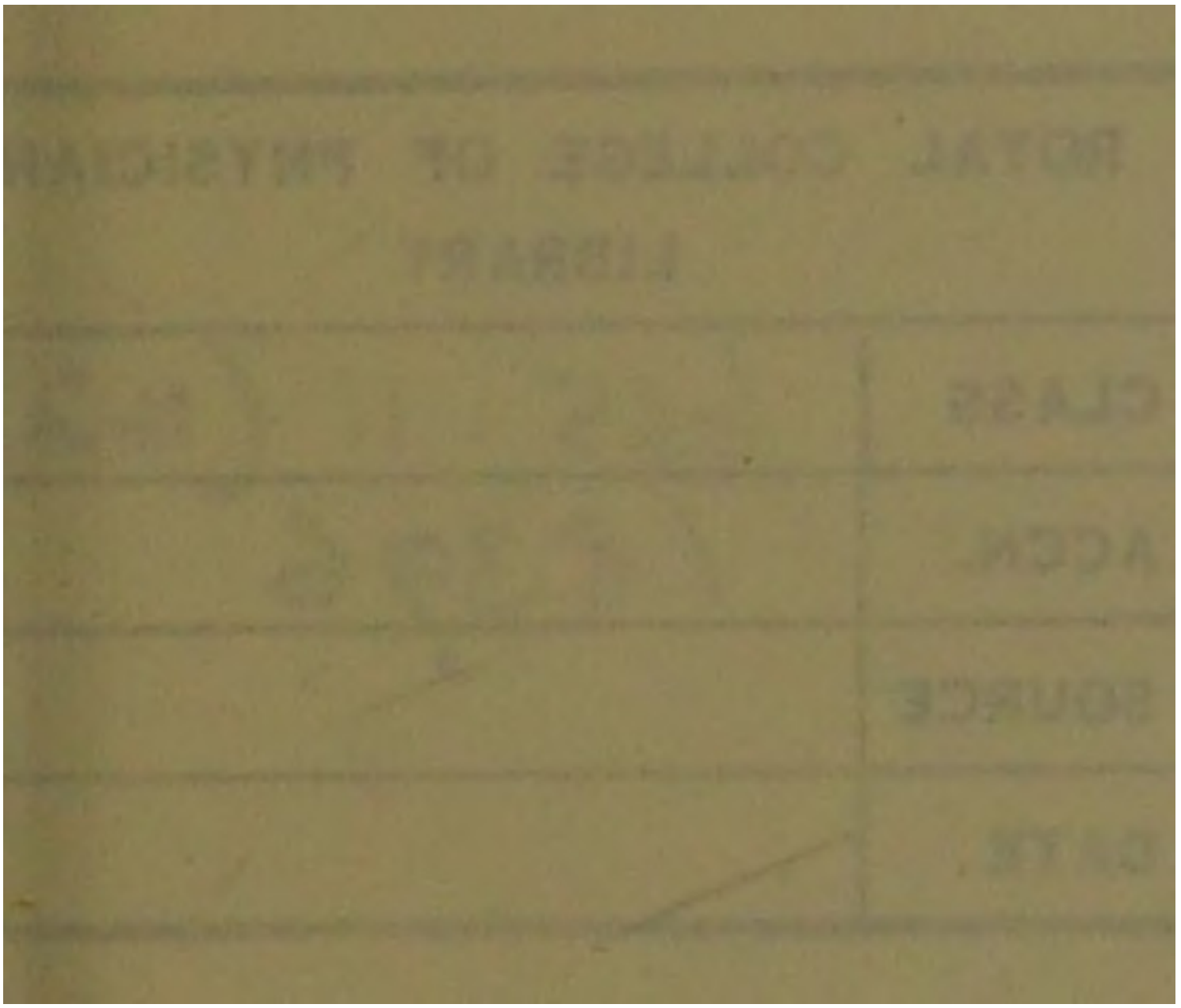

PREFACE OF THE TRANSLATOR.

The earliest records of Grecian history inform us, that the temples of the immortal gods were open to the public for the registration of all remedial inventions; and that, through the piety and wisdom of the then existing legislatures, a priest was appointed as the curator of such precious documents, whose duty it was not only to arrange them, but to answer the inquiries of all comers, and to be ready and willing, at all times, to unroll and expound these accumulated records of public experience, with a view to lessen the sum of human misery. Thus was established a sort of "Savings' Bank of Health," where the public might deposit the written treasures resulting from individual industry, to be gradually accumulated for the use and advantage of that same public from whence the information had emanated, and for the benefit of all posterity. The Father of History likewise informs us, that with certain nations it was the custom to expose their sick, or a written exposition of their cases, to public view in the fairs and market-places, in the hope that intelligent visitors coming from afar, who had seen or suffered under similar diseases, might afford them relief, by communicating the remedies through which they themselves had arrived at "the long wished-for light of health."

In our own times, we have a President instead of a priest, and a College for a market-place; with this signal improvement upon the internal policy of the Egyptians and Greeks, that our worthies not only collect recipes, but arrogate to themselves the exclusive sale of them.

> "De duro est ultima ferro.
> Protinus irrumpit venæ pejoris in ævum
> Omne nefas: fugere pudor, verumque, fidesque:
> In quorum subiere locum fraudesque, dolique,
> Insidiæque, et vis, et amor sceleratus habendi."

The Editor, however, persists in his claim, as one of the public, to translate and comment upon a public document; and, while he resents the injury the College have inflicted on one *who has certain claims on their consideration, which will be understood as well by their Fellows as by their Licentiates*, without further specification on his part, he submits this his performance to the Profession, asking at their hands all that can or ought to be expected by one issuing a Work of such vital importance to the public health,—a severe but just judgment.

To the Censors he has merely to say, "Gentlemen, behold the book!" now, therefore, "resist,"—or recant,—or retreat,—with what silent dignity you may!

PREFACE OF THE CENSORS' BOARD.

Since the present age has seen every art included in medicine extended, and all but entirely remodelled, it is not surprising that our Pharmacopœia, published twelve years ago, should have become in a measure imperfect and obsolete. The College of Physicians had long ago applied themselves to this task of revision and reform, but many circumstances prevented its completion. For not only is it an arduous undertaking to collect and to weigh well the opinions of a considerable body of men, but we had, moreover, to labour at trivial matters, and carefully to consider how much that was old required to be rejected or to be improved, and what new substances it might be expedient to introduce, and at the same time clearly to set forth the best mode of preparing each. To these points we have devoted much of our time. However, before we had made considerable progress, a new difficulty presented itself, for we were desirous of completing, not as before, a "London Pharmacopœia," but a National one, to include Scotland and Ireland with England. Hence it became necessary to consult the Academies of both the sister kingdoms; and as, on account of the great distance, this was extremely difficult, or altogether impracticable, we were at last obliged to abandon the affair, after having made a beginning. This is not the fit time to shew by what worthies, or by what scholarship, the empire of science has been extended; although there are those, also, among its promoters, who belong to the College of Physicians. But since our knowledge of universal nature has advanced with

such rapid strides, it would have been a disgrace to us, had we suffered the department of Pharmacology, as far as relates to our duties (*in hac parte*), to loiter, hobbling in the rear. But it will be proper to explain what we have at last accomplished. We have not contented ourselves with describing a series of medicines, without a thorough examination of the whole; and the chemical remedies which have yearly increased, both in number and importance, we have especially subjected to the rigid test of experiment. Although some of these appear to be barely confirmed by experience, nevertheless, we have included them here, that whoever may think fit to administer them may have each accurately prepared.

Furthermore; lest the work might be imperfect, or the safety of the sick endangered, we have now for the first time added short notes, by which the purity of the medicines we require may, for the most part, be easily ascertained; and, although they may not always suffice for the exact analysis of the chemists, they will be useful, both to the medical practitioners, and to the student. With regard to some remedies herein mentioned, since they can be easily procured sufficiently pure from the drug-traders, we have omitted the form for preparing them; although we prefer ordering some of these after a method of our own, rather than to trust to the attention, or inattention, of others. And even if more beautiful crystals, and brighter colours, are elsewhere produced from the more abundant material employed, these qualities contribute nothing to the relief of the afflicted.

The alphabetical arrangement is, also, another novelty which we have resolved upon in our Pharmacopœia. If any one think this less systematic, let him know we are working for the convenience of medical practitioners, and are not subservient either to the will and pleasure of philosophers, or to the gratification of the indolent. Notwithstanding this, some chemical substances are exempt from such arrangement, since they are so intimately connected that they could not properly be separated. To discuss the propriety of a change of nomenclature, would in the

present day be superfluous; for, though all admit that this ought not to be done inconsiderately, yet there was just reason to fear, lest, by avoiding the errors to which it was likely to give rise, we might cause mistakes still more extensive; since we are persuaded, that that name for any substance will be the most certain and permanent, which has been given to it by the professors who take the lead in their art. We, therefore, have determined to follow in their footsteps, and suffer inconveniences, if there be any, or to learn to speak barbarously, rather than incur the risk of obscurity by using terms doubtful, and imperfectly defined. If we have ourselves invented one or two names, we have done so in accordance with the same principles. These are our prefatory observations. We cannot hope to afford satisfaction to all; nor, indeed, have we done all we ourselves could wish. Some will think us too prolix in our work, some too brief. It has, in truth, been our earnest desire, if we could not please all, at least to benefit the many; and we shall feel gratified if the student, or the compounder of medicines, and the learned, or the unlearned, derive some benefit from our labours. But we have especially aimed at augmenting the healing resources of medical practitioners, and at consulting for the welfare of the sick; that the former may more certainly and safely combat with disease, and the latter may be sooner conducted out of the darkness of affliction to the long-hoped-for light of health.

THE LONDON PHARMACOPŒIA.

WEIGHTS, MEASURES, &c.

Since there are two kinds of Weights used in England, by one of which we weigh gold and silver, and by the other nearly every other description of merchandise, it is our custom to use the former, commonly called *Troy Weight*, and the following are our Divisions of the Pound:—

Table.

Gr. xx. Grains	make	One Scruple, ℈
℈iij Scruples		One Drachm, ʒ
ʒviij Drachms		One Ounce, ℥
℥xij Ounces		One Pound, lb.

We have annexed the characters by which each weight is ordinarily denoted.

Our Measures of Liquids are derived from the last statute gallon; and our divsions of it are the following:—

Table.

♏lx Minims	make	One Fluidrachm, fʒ
fʒviij Fluidrachms		One Fluidounce, f℥
f℥xx Fluidounces		One Pint, O
Oviij Pints		One Gallon, C

We have annexed the usual characters of each measure. Care must be taken that medicines be not contaminated with the material of the vessel in which they are either prepared or preserved.

All acid, alkaline, or metallic preparations, and salts of every kind, should be kept in stopped glass-bottles; and, for some of them, black or green glass is indispensable.

We wish the saturation of acids, or alkalies, to be determined by litmus and turmeric, in the usual mode. Filtering paper (unless otherwise ordered) should be employed both for straining liquors, and for drying crystals.

We measure degrees of heat by *Fahrenheit's* thermometer; and when we order a Boiling Heat we mean a temperature of two hundred and twelve. But, by a Gentle Heat we mean a temperature between ninety and a hundred.

Whenever we mention Specific Gravity, we suppose the substance treated of to be of the heat of sixty-two degrees.

We wish the Hessian or Cornish Crucibles to be employed, when these vessels are required.

When any substance contained in its proper vessel is exposed to boiling water, or to its steam, that it may be heated, we call this a Water Bath.

A Sand Bath is made of sand gradually heated, into which any substance is placed, contained in its proper vessel.

MATERIA MEDICA.

In the first column, the names are for the most part short, simple, and better suited for prescriptions; but in the other, the Vegetable Substances are named after Willdenow's edition of the "*Catalogus Specierum Plantarum*," of Linnæus, or De Candolle's edition of the "*Prodromus Systematis Naturalis;*" the Animal according to Cuvier's "*Règne Animal*," unless where otherwise stated; and the Chemical according to the modern nomenclature.

Abietis Resina.
Resin of the Spruce Fir.
Absinthium.
Wormwood.

Acacia.
Gum-Arabic.
Acetosella.
Wood-Sorrel, or Sour Trefoil.
Acetum.
Vinegar.
Acidum Arseniosum.
Arsenious Acid.
Acidum Sulphuricum.
Sulphuric Acid.
Aconiti folia.

Leaves of Aconite.

Pinus Abies.
The Resin.
Artemisia Absinthium.
[The herb is understood where the part is not specified].
Acacia vera.
The Gum.
Oxalis Acetosella.

Acetum.
Prepared by Fermentation.
Acidum Arseniosum.
Prepared by Sublimation.
Acidum Sulphuricum.
Specific Gravity, 1·845.
Aconitum paniculatum.
(De Candolle.)
The Leaves.

Aconiti Radix.	
Root of Monk's Hood.	*The Root.*
Acorus.	Acorus Calamus.
Sweet Flag.	*The Rootstock.*
Adeps.	Sus Scrofa.
Hog's Lard.	*The Prepared Lard.*
Ærugo	Diacetas Cupri impura.
Verdigris.	*Impure Diacetate of Copper.*
Allium.	Allium sativum.
Garlic.	*The Bulb.*
Aloë.	Aloë spicata.
Aloes.	*The inspissated Juice of the Leaves.*
Althææ Folia.	Althæa officinalis.
Leaves of Marshmallow.	*The Leaves.*
Althææ Radix.	
Root of Marshmallow.	*The Root.*
Alumen.	Sulphas Aluminæ et Potassæ.
Alum.	*Sulphate of Alumina and Potassa.*
Ammoniacum.	Dorema Ammoniacum. (Don, in *Act. Soc. Linn.*)
Ammoniacum.	*The Gum-resin.*
Ammoniæ Hydrochloras.	
Hydrochlorate of Ammonia.	
Ammoniæ Liquor Fortior.	Ammoniæ Liquor fortior.
Stronger Liquor of Ammonia.	*Specific Gravity,* ·882.
Amygdala amara.	Amygdalus communis. (De Candolle).
	Var. α.
Bitter Almond.	*The Kernels.*
	Var. β.
Amygdala dulcis.	
Sweet Almond.	*The Kernels.*

Amygdalæ Oleum.	
Oil of Almond.	*The Oil expressed from the Kernels of either variety.*
Amylum.	Triticum hybernum.
Starch.	*The Fœcula of the Seeds.*
Anethum.	Anethum graveolens.
Dill.	*The Fruit.*
Anisum.	Pimpinella Anisum.
Anise	*The Fruit.*
Anthemis.	Anthemis nobilis.
Chamomile.	*The single Flowers.*
Antimonii Sesquisulphuretum.	
Sesquisulphuret of Antimony.	
Argentum.	
Silver.	
Armoracia.	Cochlearia Armoracia.
Horseradish.	*The fresh Root.*
Asarum.	Asarum europæum.
Asarabecca.	*The Leaves.*
Aspidium.	Aspidium Filix mas. (Smith, *Flor. Brit.*)
Male Fern.	*The Root.*
Assafœtida.	Ferula Assafœtida.
Assafœtida.	*The Gum-resin.*
Avena.	Avena sativa.
Oat.	*The Seeds freed from their Husks.*
Aurantium.	Citrus Aurantium. (De Candolle.)
Orange.	*The Fruit.*
Aurantii Cortex.	Citrus vulgaris. (De Candolle.)
The Rind of the Orange.	*The outer Rind of the Fruit.*
Aurantii Flores.	Citrus Aurantium. (De Candolle.)
The Flowers of the Orange.	*The Flowers.*

Aurantii Oleum. *Oil of Orange.*	*The Oil distilled from the Flowers.*
Balsamum Peruvianum. *Peruvian Balsam.*	Myroxylon peruiferum. *The liquid Balsam.*
Balsamum Tolutanum. *Balsam of Tolu.*	*The concrete Balsam.*
Barytæ Carbonas. *Carbonate of Baryta.*	
Belladonna. *Deadly Nightshade.*	Atropa Belladonna. *The Leaves.*
Benzoïnum. *Benzoin.*	Styrax Benzoin. *The Balsam.*
Bergamii Oleum. *Oil of Bergamote.*	Citrus Limetta Bergamium. (De Candolle). *The Oil distilled from the Rind of the Fruit.*
Bismuthum. *Bismuth.*	
Borax. *Borax.*	Sodæ Biboras. *Biborate of Soda.*
Brominum. *Bromine.*	
Cajaputi. *Cajaput.*	Melaleuca minor. *The Oil distilled from the Leaves.*
Calamina. *Calamine.*	Carbonas Zinci impura. *Impure Carbonate of Zinc.*
Calcis Hydras. *Hydrate of Lime.*	*Fresh burnt Lime slaked with Water.*
Calx. *Lime.*	Calx recèns usta. *Lime recently burnt.*

Calumba.

Calumba.

Cambogia.

Camboge.

Camphora.

Camphor.

Canella.

Canella.

Cantharis.

Cantharis, or Spanish Fly.

Capsicum.

Capsicum, or Cayenne.

Carbo Animalis.

Carbo Ligni.

Cardamine.

Cuckoo Flower, or Lady's Smock.

Cardamomum.

Cardamom.

Carui.

Carraway.

Caryophillus.

Clove.

Caryophilli Oleum.

Oil of Cloves.

Cascarilla.

Cascarilla.

Cassia.

Cassia.

Cocculus palmatus.

(De Candolle.)

The Root.

Stalagmitis Cambogioïdes.

The Gum-Resin.

Laurus Camphora.

A peculiar concrete, purified by sublimation.

Canella alba.

The Bark.

Cantharis vesicatoria.

Capsicum annuum.

The Berries.

Carbo.

Prepared by heat from flesh and bones.

Carbo.

Prepared by heat from wood.

Cardamine pratensis.

The Flowers.

Alpinia Cardamomum.

(Roxburgh, *Plant. Corom.*)

The Seeds.

Carum Carui.

The Fruit.

Caryophillus aromaticus.

(De Candolle.)

The Dried Buds.

The Oil distilled from the Flowers.

Croton Cascarilla.

(Don, *Ed. Pharm. Journ.*)

The Bark.

Cassia Fistula.

The Pulp of the Pods.

Castoreum. *Castor.*	Castor fiber. *A Concrete found in the follicles of the prepuce.*
Catechu. *Catechu.*	Acacia Catechu. *The Extract from the Wood.*
Centaurium.	Erythræa Centaurium. (Persoon, *Syn. Plant.*)
Cera. *Wax.*	Apis mellifica. *A Concrete prepared by the Bee.*
Cera alba. *White Wax.*	*The same bleached.*
Cerevisiæ Fermentum. *Yest.*	
Cetaceum. *Spermaceti.*	Physeter macrocephalus. *A Concrete discovered in peculiar cells of the head.*
Cetraria.	Cetraria islandica. (Achar. *Lichenog. Univers.*)
Liverwort.	
Chimaphila.	Chimaphila corymbosa. (Pursh, *Flora Amer. Sept.*)
Winter Green, or Pyrola.	*The Leaves.*
Cinchona cordifolia.	Cinchona cordifolia. (Lambert, *Cinch.*)
Heart-leaved Cinchona. (*or Yellow Bark.*)	*The Bark.*
Cinchona lancifolia.	Cinchona lancifolia (Lambert. *Cinch.*)
Lance-leaved Cinchona. (*Pale or Quill Bark.*)	*The Bark.*
Cinchona oblongifolia.	Cinchona oblongifolia. (Lambert. *Cinch.*)
Oblong-leaved Cinchona. (*Red Bark.*)	*The Bark.*

Cinnamomi Oleum.
Oil of Cinnamom.
Cinnamomum.
Cinnamom.
Cocci.
Cochineal.
Colchici Cormus.
Cormus [vulgò Root] of Meadow Saffron.
Colchici Semina.
Seeds of Meadow Saffron.
Colocynthis.
Colocynth.

Conii Folia.
Hemlock-Leaves.
Conii Fructus.
Fruit of Hemlock [vulgò Seeds].
Contrajerva.
Contrayerva.
Copaiba.

Copaiva.
Coriandrum.
Coriander.
Cornu.
Horn.
Creasoton.
Creasote.

Creta.
Chalk.
Crocus.
Saffron.

Laurus Cinnamomum.
The Oil distilled from the Bark.

The Bark.
Coccus Cacti.

Colchicum autumnale.
The Cormus.

The Seeds.
Cucumis Colocynthis.
The Dried Pulp of the Pepones, or Gourds.
Conium maculatum.
The Leaves.

The Fruit.

Dorstenia Contrajerva.
The Root.
Copaifera Langsdorfii.
(De Candolle.)
The Liquid Resin.
Coriandrum sativum.
The Fruit [vulgò Seeds].
Cervus Elaphus.
The Horn.
Oxy-hydro-carburetum.
An Oxy-hydro-carburet prepared from Pyroxylic Oil.
Calcis Carbonas (*friabilis.*)
Friable Carbonate of Lime.
Crocus sativus.
The dried Stigmata.

Cupri Sulphas.	
Sulphate of Copper.	
Curcuma.	Circuma longa.
Turmeric.	*The Rootstock.*
Cusparia.	Galipea Cusparia. (De Candolle.)
Angustura, or Sword Bark.	*The Bark.*
Cydonia.	Cydonia vulgaris. (De Candolle).
Quince.	*The Seeds.*
Cyminum.	Cuminum Cyminum.
Cummin [*Seeds*].	*The Fruit.*
Dauci Fructus.	Daucus Carota.
Fruit of the Carrot [*vulgò Seeds*].	*The Fruit.*
Dauci Radix.	
Root of the Carrot.	*The fresh Root of the same.*
Digitalis Folia.	Digitalis purpurea.
Leaves of the Foxglove.	*The Leaves.*
Digitalis Semina.	
Seeds of Foxglove.	*The Seeds of the same.*
Diosma.	Diosma crenata.
Buchu.	*The Leaves.*
Dulcamara.	Solanum Dulcamara.
Woody Nightshade, or Bittersweet.	*The Stalk.*
Elaterium.	Momordica Elaterium.
Wild Cucumber.	*The Fresh Gourds* [*Pepones.*]
Elemi.	Amyris Elemifera.
Elemi.	*The Resin.*
Ergota	Acinula Clavus. (Fries, *System. Mycol.*)
Ergot of Rye.	
Euphorbium.	Euphorbia officinarum.
Euphorbium.	*The Gum-resin.*

Farina.	Triticum hybernum.
Flour.	*The Flour of the Seeds.*
Ferri Percyanidum.	
Percyanide of Iron, or Prussian Blue.	
Ferrum.	Ferrum.
Iron.	*The Filings.*
Fici.	Ficus Carica.
Figs.	*The Dry Fruit.*
Fœniculum.	Fœniculum vulgare.
Fennel.	*The Fruit Seeds.*
Galbanum.	Galbanum officinale. (Don, in *Act. Soc. Linn.*)
Galbanum.	*The Gum-resin.*
Gallæ.	Quercus infectoria.
Galls.	*The Diseased Buds.*
Gentiana.	Gentiana lutea.
Gentian.	*The Root.*
Glycyrrhiza.	Glycyrrhiza glabra.
Liquorice.	*The fresh Root.*
Granatum.	Punica Granatum.
Pomegranate.	*The Rind of the Fruit.* [Add also the Bark of the Root.]—Editor.
Guiaci Lignum.	Guiacum officinale.
Guiacum Wood.	*The Wood.*
Guiaci Resina.	
Resin of Guiacum.	*The Resin of the same.*
Hæmatoxylum.	Hæmatoxylon Campechianum.
Logwood.	*The Wood.*
Helleborus.	Helleborus officinalis. (Sibthorpe, *Flora Græca.*)
Hellebore (Black).	*The Root.*
Hirudo.	Hirudo medicinalis.
The Leech.	

Hordeum.	Hordeum distichon.
Barley.	*The Seeds deprived of their husks.*
Hydrargyrum.	
Quicksilver (*Mercury*).	
Hyoscyami Folia.	Hyoscyamus niger.
Leaves of Henbane.	*The Leaves.*
Hyoscyami Semina.	
Henbane Seeds.	*The Seeds of the same.*
Jalapa.	Ipomæa Jalapa. (Don, *MS.*)
Jalap.	*The Root.*
Inula.	Inula Helenium.
Elecampane.	*The Root.*
Iodinium.	
Iodine.	
Ipecacuanha.	Cephaelis Ipecacuanha. (De Candolle.)
Ipecacuanha.	*The Root.*
Juniperi Cacumina.	Juniperus communis.
Tops of the Juniper.	*The Tops.*
Juniperi Fructus.	
Juniper-Fruit [*vulgò, Berries*].	*The Fruit.*
Kino.	Pterocarpus erinaceus. (De Candolle.)
Kino.	*The Extract.*
Krameria.	Krameria triandra. (De Candolle.)
Rhatany.	*The Root.*
Lacmus.	Roccella tinctoria. (Achar. *Lichenog. Univers.*)
Litmus.	*The prepared Thallus.*
Lactucarium.	Lactuca sativa.
Lactucarium.	*The inspissated Juice.*

Lavandula.	Lavandula Spica.
Lavender.	*The Flowers.*
Lauri Baccæ.	Laurus nobilis.
Bay Berries.	*The Berries.*
Lauri Folia.	
Bay Leaves.	*The Leaves of the same.*
Limones.	Citrus Limonum. (De Candolle.)
Lemons.	*The Fruit.*
Limonum Cortex.	
Lemon Peel.	*The outer Rind of the Fruit.*
Limonum Oleum.	
Oil of Lemons.	*The Oil distilled from the outer Rind of the Fruit.*
Limonum Succus.	
Lemon-Juice.	*The Juice.*
Lini Oleum.	Linum usitatissimum.
Linseed Oil.	*The Oil expressed from the Seeds.*
Lini Semina.	
Linseed.	*The Seeds.*
Lobelia.	Lobelia inflata.
Indian Tobacco.	
Lupulus.	Humulus Lupulus.
Hop.	*The dried Strobiles.*
Magnesiæ Sulphas.	
Sulphate of Magnesia.	
Malva.	Malva sylvestris.
Mallow.	
Manganesii Binoxydum.	
Binoxide of Manganese.	
Manna.	Ornus europæa.
Manna.	*The concrete Juice.*
Maranta.	Maranta arundinacea.
Arrowroot.	*The Fæcula of the Rootstock.*

Marmor.	Carbonas Calcis (*dura*).
Marble.	*Hard Carbonate of Lime.*
Marrubium.	Marrubium vulgare.
Common white Horehound.	
Mastiche.	Pistacia Lentiscus.
Mastich.	*The Resin.*
Mel.	Apis mellifica.
Honey.	*A matter extracted from the flowers, and prepared by the Bee.*
Mentha piperita.	Mentha piperita. (Smith, *in Act. Soc. Linn.*)
Peppermint.	
Mentha Pulegium.	Mentha Pulegium.
Pennyroyal.	
Mentha viridis.	Mentha viridis.
Spearmint.	
Menyanthes.	Menyanthes trifoliata.
Buckbean, or Trefoil.	
Mezereum.	Daphne Mezereum.
Mezereon.	*The Bark of the Root.*
Mora.	Morus nigra.
Mulberries.	*The Fruit.*
Moschus.	Moschus moschiferus.
Musk.	*A matter secreted in the follicle of the prepuce.*
Mucuna.	Mucuna pruriens. (De Candolle.)
Cowhage.	*The Pubes of the Pods.*
Myristica.	Myristica moschata.
Nutmeg.	*The Nuts.*
Myristicæ Oleum.	
Oil of Nutmegs.	*The Oil distilled from the Nuts.*

Myrrha.	Balsamodendron Myrrha. (Ehrenberg.)
Myrrh.	*The Gum-resin.*
Nux vomica.	Strychnos Nux vomica.
Nux vomica, or Crow-fig.	*The Seeds.*
Olibanum.	Boswellia serrata. (Colebr. *in Act. Soc. As.*)
Olibanum.	*The Gum-resin.*
Olivæ Oleum.	Olea Europæa.
Olive Oil.	*The Oil expressed from the Fruit.*
Opium.	Papaver somniferum.
Opium.	*The concrete Juice of the unripe Capsules.*
Opopanax.	Opopanax Chironium. (De Candolle.)
Opopanax.	*The Gum-resin.*
Origanum.	Origanum vulgare.
Marjoram.	
Ovum.	Phasianus Gallus.
Egg.	*The Egg.*
Papaver.	Papaver somniferum.
Poppy.	*The ripe Capsules.*
Pareira.	Cissampelos Pareira. (De Candolle.)
Pareira.	*The Root.*
Petroleum.	Petroleum (*Barbadense*).
Petroleum.	
Phosphorus.	
Phosphorus.	
Pimenta.	Myrtus Pimenta.
Pimenta.	*The unripe Berries, dried.*
Piper Cubeba.	Piper Cubeba.
Cubebs.	*The Berries.*
Piper longum.	Piper longum.
Long Pepper.	*The unripe Fruit, dried.*

Piper nigrum. *Black Pepper.*	Piper nigrum. *The Berries.*
Pix Abietina. *Burgundy Pitch.*	Pinus Abies. *The prepared Resin.*
Pix liquida. *Tar.*	Pinus sylvestris. *The prepared liquid Resin.*
Pix nigra. *Black Pitch.*	*The prepared solid Resin.*
Plumbi Carbonas. *Carbonate of Lead.*	
Plumbi Oxydum. *Oxide of Lead.*	Plumbi Oxydum (*semivitreum*). *Semivitrified Oxide of Lead.*
Porrum. *The Leek.*	Allium Porrum. *The Bulb.*
Potassæ Bitartras. *Cream of Tartar, or Bitartrate of Potassa.*	
Potassæ Carbonas impura. *Impure Carbonate of Potassa.*	
Potassæ Chloras. *Chlorate of Potassa.*	
Potassæ Nitras. *Nitrate of Potassa.*	
Potassii Ferrocyanidum. *Ferrocyanide of Potassium.*	
Pruna. *Prunes.*	Prunus domestica. *The dried Fruit.*
Pterocarpus. *Red Saunders.*	Pterocarpus santalinus. *The Wood.*
Pyrethrum. *Pellitory of Spain.*	Anthemis Pyrethrum. *The Root.*
Quassia. *Quassia.*	Quassia excelsa. *The Wood.*
Quercus. *Oak.*	Quercus pedunculata. *The Bark.*

Quina.	Cinchona cordifolia.
Quina.	*The Alkali prepared from the Bark.*
Resina.	Pinus sylvestris.
Resin.	*The residue of the liquid Resin, after the distillation of the Oil.*
Rhamnus.	Rhamnus catharticus.
Buckthorn.	*The Berries.*
Rheum.	Rheum palmatum.
Rhubarb.	*The Root.*
Rhœas.	Papaver Rhœas.
Red Poppy.	*The Petals.*
Ricini Oleum.	Ricinus communis.
Castor Oil.	*The Oil expressed from the Seeds.*
Rosa canina.	Rosa canina.
Dog Rose.	*The Pulp of the Fruit.*
Rosa centifolia.	Rosa centifolia.
Damask Rose.	*The Petals.*
Rosa gallica.	Rosa gallica.
Red Rose.	*The Petals.*
Rosmarinus.	Rosmarinus officinalis.
Rosemary.	*The Tops.*
Rumex.	Rumex Acetosa.
Sorrel.	*The Leaves.*
Ruta.	Ruta graveolens.
Rue.	*The Leaves.*
Sabadilla.	Helonias officinalis. (Don, *Ed. Ph. Journ.*)
Sabadilla, or Cevadilla.	*The Seeds.*
Sabina.	Juniperus Sabina.
Savine.	*The Tops, both fresh and dried.*
Sacchari fæx.	Saccharum officinale.
Treacle.	

Saccharum.	Saccharum officinale.
Sugar.	*The prepared Juice.*
Sagapenum.	An uncertain species of Ferula.
Sagapenum.	*The Gum-resin.*
Sago.	Sagus Rumphii.
Sago.	*The Fœcula of the Pith.*
Sambucus.	Sambucus nigra.
Elder.	*The Flowers.*
Sapo.	Sapo, *ex Olivæ Oleo et Sodâ confectus.*
Soap.	*Soap, made of Olive Oil and Soda.*
Sapo mollis.	Sapo, *ex Olivæ Oleo et Potassâ confectus.*
Soft Soap.	*Soap, made of Olive Oil and Potassa.*
Sarza.	Smilax officinalis. (Humboldt et Bonpland. *Nov. Gen. Spec. Plant.*)
Sarsaparilla.	*The Root.*
Sassafras.	Laurus Sassafras.
Sassafras.	*The Root.*
Scammonium.	Convolvulus Scammonea.
Scammony.	*The Gum-resin.*
Scilla.	Scilla maritima.
Squill.	*The fresh Bulb.*
Scoparius.	Cytisus Scoparius. (De Candolle.)
Broom.	*The fresh Tops.*
Senega.	Polygala Senega.
Senega.	*The Root.*
Senna.	Cassia lanceolata. (De Candolle.)
East Indian Senna.	*The Leaves.*

Alexandrian Senna.	Cassia obovata. (De Candolle.) *The Leaves.*
Serpentaria. *Serpentary, or Virginian Snake-root.*	Aristolochia Serpentaria. *The Root.*
Sevum. *Suet.*	Ovis Aries. *The Suet.*
Simaruba.	Simaruba officinalis. (De Candolle.)
Simaruba.	*The Bark of the Root.*
Sinapis. *Mustard.*	Sinapis nigra. *The Seeds.*
Sodæ Acetas. *Acetate of Soda.*	
Sodæ Carbonas impura. *Impure Carbonate of Soda.*	
Sodæ Phosphas. *Phosphate of Soda.*	
Sodii Chloridum. *Chloride of Sodium.*	
Spigelia. *Indian Pink.*	Spigelia marilandica. *The Root.*
Spiritus rectificatus. *Rectified Spirit.*	Spiritus. *Specific Gravity* ·838.
Spiritus tenuior. *Proof Spirit.*	Spiritus. *Specific Gravity* ·920.
Spiritus Vini Gallici. *Spirit of French Wine.* (*French Brandy*).	Spiritus. *Distilled from French Wine.*
Stannum. *Tin.*	
Staphisagria. *Stavesacre.*	Delphinium Staphisagria. *The Seeds.*

Stramonii Folia.	Datura Stramonium.
Leaves of Stramonium.	*The Leaves.*
Stramonii Semina.	
Seeds of Stramonium.	*The Seeds of the same.*
Styrax.	Styrax officinale.
Storax.	*The Balsam.*
Succinum.	
Amber.	
Sulphur.	Sulphur (*sublimatum*).
Sulphur.	*Sulphur* (*sublimed*).
Tabacum.	Nicotiana Tabacum.
Tobacco.	*The dried Leaves.*
Tamarindus.	Tamarindus Indica.
Tamarind.	*The Pulp of the Pod.*
Taraxacum.	Leontodon Taraxacum.
Dandelion.	*The Root.*
Terebinthina Canadensis.	Pinus Balsamea.
Canada Turpentine.	*The liquid Resin.*
Terebinthina Chia.	Pisticia Terebinthus.
Chio Turpentine.	*The liquid Resin.*
Terebinthina vulgaris.	Pinus sylvestris.
Common Turpentine.	*The liquid Resin.*
Terebinthinæ Oleum.	
Oil of Turpentine.	*The Oil distilled from the Resin.*
Testæ.	Ostrea edulis.
Shells.	*The Shells.*
Tiglii Oleum.	Croton Tiglium.
Croton Oil.	*The Oil expressed from the Seeds.*
Tormentilla.	Potentilla Tormentilla. (De Candolle.)
Tormentil.	*The Root.*
Toxicodendron.	Rhus Toxicodendron.
Sumach, or Poison Oak.	*The Leaves.*

Tragacantha.	Astragalus verus. (Olivier, *Voy. dans l'Emp. Ottom.*)
Tragacanth.	
Tussilago.	Tussilago Farfara.
Coltsfoot.	
Valeriana.	Valeriana officinalis. (*sylvestris.*)
Valerian.	*The Root.*
Veratrum.	Veratrum album.
White Hellebore.	*The Root.*
Vinum Xericum.	
Sherry Wine.	
Ulmus.	Ulmus campestris.
Elm.	*The Bark.*
Uva (*passa.*)	Vitis vinifera.
Raisins.	*The dried Berries freed from the stones.*
Uva Ursi.	Arctostaphylos Uva ursi. (Sprengel, *Syst. Veget.*)
Whortle-Berry.	*The Leaves.*
Zincum.	
Zinc.	
Zingiber.	Zingiber officinalis. (Roscoe, *in Act. Soc. Linn.*)
Ginger.	*The Rootstock.*

NOTES.

We have thought fit to subjoin short notes, relating chiefly to the chemical preparations, by which their purity may, as far as possible, be ascertained. This, as regards vegetable and animal substances, is less necessary, and would be attended with many difficulties. For, although the specific character of each plant and animal is laid down sufficiently clear in botanical and zoological books, yet the extracts from them, and the weaker preparations, are so frequently changed in taste, colour, and smell, that they cannot be distinguished by any certain sign, and admit only of meagre description.

[N. B. UNLESS YOUR TESTS ARE PURE, THE RESULTS ARE NOT TO BE RELIED UPON.—*Editor.*]

Acetum.— *Vinegar.*— A yellowish liquor of a peculiar odour, one fluidounce of which is saturated by one drachm of the crystals of carbonate of soda. Solution of chloride of barium precipitates only 1·14 grain of sulphate of baryta. Its colour is not altered by hydrosulphuric acid.

Observations.—As specific gravity is no just criterion of the strength of the acid, it is therefore ascertained by its saturating power with respect to carbonate of soda, as above, or to carbonate of lime. By law, the manufacturer is allowed to employ 1-1000th of its weight of sulphuric acid in preparing it; and this, together with the sulphates of common water, will account for the precipitate of 1·14th grain of the sulphate of baryta. The hydrosulphuric acid is intended as a test of any metallic oxide, but more especially of lead, which, in reference to colica pictonum, particularly merits the notice of the medical practitioner. The best, or what used to be called proof vinegar, should contain 5 per cent of real acid. To detect copper in it, precipitate by hydrosulphuric acid, dissolve in nitric acid on a watch-glass, and strike the blue colour with liquor of ammonia.—Vide *Turner's Chemistry*, 5th edition, page 619. Lege *Taylor on the Acetometer. Quart. Journ.* vi.

Acetum Distillatum.— *Distilled Vinegar.* It is entirely evaporated by heat. It yields no precipitate on the addition of acetate of lead, or nitrate of silver, or iodide of potassium. Colour not changed by hydrosulphuric acid, nor by ammonia. A plate of silver being digested in it, hydrochloric acid causes no precipitation. Grs. 13 of the crystals of carbonate of soda are saturated by grs. 100 of distilled vinegar.

Observations.—Total evaporation shews the absence of solid impurities, as mucilage, extractive, colouring matter, &c. Acetate of lead to precipitate any sulphuric acid; nitrate of silver to detect hydrochloric [muriatic] acid; iodide of potassium to detect lead in the form of yellow iodide; hydrosulphuric acid and ammonia [liquor] are confirming tests of the presence of metallic oxide admixture. If nitric acid be present, it will form nitrate of silver, and that will be decomposed by the hydrochloric acid.

Acidum Aceticum.—*Acetic Acid.*—Its specific gravity is 1·048. Eighty-seven grains of the crystals of carbonate of soda are saturated by 100 grains of this acid. When it has been saturated with carbonate of soda and evaporated, it yields crystals of acetate of soda. The other tests correspond with the above.

Observations.—About seven times as strong as the strongest vinegar usually met with in commerce. Should it be found to contain sulphuric acid, it may be easily purified by re-distilling it with a little peroxide of manganese.

Acidum Arseniosum.—*Arsenious Acid.*—Entirely sublimed by heat. Mixed with charcoal, and exposed to heat, it gives off a garlick odour. It is soluble in boiling water, and the solution yields a yellow precipitate on the addition of hydrosulphuric acid, and a white matter when tested with lime-water.

Observations.—The materials with which this substance is adulterated are not volatilised by heat, and are insoluble, or sparingly soluble, in boiling water. The other tests are rather of the presence, than of the purity of this acid. One of the readiest is the taste, when the powder requires examination. The tongue may be besmeared with it, if promptly rejected, without any danger. Thrown upon wet litmus paper, it turns it red.

Acidum Benzoicum.—*Benzoic Acid.*—When carefully heated, it emits its peculiar odour, and entirely escapes. Sparingly soluble in water; more largely so in rectified spirit; entirely soluble in liquor of potassa, or in lime-water, from which it is precipitated by hydrochloric acid.

Observations.—It is soluble in 24 parts of boiling water; and nearly the whole of it is deposited on cooling in the form of minute acicular, silky crystals.

Acidum Citricum (*crystalli*).—*Citric acid* (*crystals*).—It is soluble in water; and what is precipitated from this aqueous solution by acetate of lead, is dissolved in diluted nitric acid. No potassa-salt, except the tartrate, yields a precipitate, [*i. e.* with the solution of citric acid.] It entirely perishes in the fire.

Observations.—Acetate of lead to detect sulphuric acid. Precipitation with a potassa-salt to detect tartaric acid. It will not keep in solution. Its saturating power is weakened if the crystals become moist. 15, 18, 25 grs. are severally the more convenient and palatable proportions for ℈j of bicarbonate of potassa [the old carbonate], or ℈j of carbonate of potassa [the old subcarbonate], the sesquicarbonate of ammonia [the old subcarbonate]; that is to say, in the order in which they are here mentioned.

Acidum Hydrochloricum.—*Hydrochloric* (*or Muriatic*) *Acid.*—It is colourless, and totally vaporisable by heat. When mixed with distilled water, it precipitates nothing from the chloride of barium, ammonia, or its sesquicarbonate. It does not act upon gold leaf, even when heat is employed. It does not bleach the solution of sulphate of indigo.—1·16 is its specific gravity. 132 grs. of the crystals of carbonate of soda are saturated by 100 grs. of this acid.

Observations.—Total evaporation by heat shews it is free from matter in solution. Chloride of barium to detect sulphuric acid. The two next to precipitate metallic or earthy matters. Gold, if dissolved, indicates the presence of chlorine, as likewise does sulphate of indigo, in reference to the bleaching power of chlorine. It is requisite to bear in mind that, unless your tests are themselves pure, the resulting phenomena are not to be relied on.

Acidum Hydrocyanicum Dilutum.—*Dilute Hydrocyanic Acid.* Colourless; totally dissipated by heat, exhaling its remarkable odour. It turns litmus of a slight red colour, which is evanescent; it is not discoloured by the addition of hydrosulphuric acid. On adding a solution of nitrate of silver, 10 grs. of cyanide of silver are precipitated from 100 grs. of this acid, and the precipitate is readily dissolved in boiling nitric acid. If a red colour be struck with the iodo-cyanide of potassium and mercury, it is mixed with some other acid. 100 grs. of this diluted acid contain 2 grs. of real hydrocyanic acid; and in whatever mode it is distilled, we wish the medicine uniformly to be reduced to this standard.

Observations.—Hydrosulphuric acid [sulphuretted hydrogen] would discolour it, if it contained any metallic salt. Nitrate of silver would throw down an insoluble chloride of silver, if containing hydrochloric acid; and, lastly, any adventitious acid would, if mixed with the hydrocyanic, decompose the iodo-cyanide of potassium and mercury, and form red biniodide of that metal.

Acidum Nitricum.—*Nitric Acid.*—Totally evaporated by heat. Mixed with distilled water, it produces no precipitate with nitrate of silver or chloride of barium. Specific gravity, 1·50. About 217 grs. of the crystals of carbonate of soda are saturated by 100 grs. of this acid.

Observations.—Precipitation with nitrate of silver would shew the presence of chloride in some form. Chloride of barium to detect sulphuric acid. The tests should be used in solution, by adding a few drops to separate portions of the acid diluted with three or four parts of water.

Acidum Phosphoricum Dilutum.—*Dilute Phosphoric Acid.*—Whatever precipitate is affected by the addition of chloride of barium or nitrate of silver, is readily dissolved in nitric acid. It does not at all affect strips of copper and silver, and is not coloured by passing into it hydrosulphuric acid. Specific gravity, 1·064. Without any precipitation, 42 grs. of carbonate of soda are saturated by 100 grs. of this acid.

Observations.—Chloride of barium to detect sulphuric acid; the absence of chlorine and its compounds proved by nitrate of silver yielding no precipitate which is insoluble in nitric acid. The medical practitioner must bear in mind, that where phosphoric acid is present in secretions, excretions, or food, the ammoniacal nitrate of silver throws down a yellow precipitate resembling that from arsenic in solution.

Acidum Sulphuricum.—*Sulphuric Acid.*—Colourless. Specific gravity, 1·845. When the acid is distilled to dryness, the residue does not exceed 1-400th part of its entire weight. Diluted sulphuric acid is scarcely coloured by hydrosulphuric acid.

Observations.—The very dust of a room will colour it, if not closely stopped. The residue, after distillation, is sulphate of lead (for it is made in chambers lined with that metal). Dilute sulphuric acid should always be poured off after the subsidence consequent upon mixing the acid with the water: the hydrosulphuric acid is only a test of the extent of the lead or other metallic impurity.

Acidum Tartaricum (*crystalli*). — *Tartaric Acid* (*crystals*). — Entirely soluble in water; and such solution from any neutral salt of potassa precipitates bitartrate of potassa. Furthermore, what is precipitated from the same solution by the acetate of lead is soluble in dilute nitric acid.

Observations.—These tests are intended to determine the presence of sulphuric acid or of a sulphate.

Aconitina. — An alkali prepared from the leaves and root of aconite; largely soluble in sulphuric æther, less so in alcohol, and nearly insoluble in water. It is totally destroyed by heat, leaving no salt of lime. N.B. This substance is extremely active, and TO BE EMPLOYED WITH GREAT CAUTION.

Observations.—All the vegetable alkalies which have been hitherto analysed, consist of carbon, hydrogen, nitrogen, and oxygen; are entirely destroyed by heat, and yield ammonia under a destructive distillation.

Adeps.—*Lard.*—It is not to be employed until carefully washed with water, [nor to be used at all, if it be rancid; since, in extreme hot weather, such a dressing is apt to disagree with irritable sores.]

Ærugo.—*Verdigris.*—It is partially soluble in water, and almost entirely so in ammonia, or in dilute sulphuric acid, with the assistance of heat.

Observations.—The green varieties are composed chiefly of the triacetate of copper; the blue of the diacetate.—Berzelius.

Æther Sulphuricus.—*Sulphuric Æther.*—Specific gravity, ·750; but that sold in the trade fluctuates between ·733 and ·765. It totally vaporises in the air. Slightly reddens litmus; sparingly combines with water; for example, in the proportion of a fluidounce with half a pint, and remains limpid.

Observations.—The lighter the more æthereal it is. If it strongly affects litmus, it contains sulphuric acid, and is objectionable. If, however, æther be kept, as with some medical practitioners, for a long time on the shelves, the fault is with them, and not with the manufacturer; for it then generates acetic acid.—Vide *Gay Lussac Annal. de Ch.*, vol. ii., pp. 98, 213.

Alcohol.—Its specific gravity, ·815; colourless; by heat it evaporates; it combines with water and with æther; taste and smell, vinous.—[Vide *Spiritus rectificatus.*]

Alumen (*crystallinum*).—*Alum* (*crystalline*).—Totally soluble in water. Solution of ammonia or potassa throws down a colourless pure alumina, which is redissolved by excess of the latter alkali.

Ammoniæ Liquor.—*Liquor of Ammonia.*—It entirely passes off in evanescent alkaline vapours by heat, as proved by turmeric. Lime-water produces no precipitate; neither, when saturated with nitric acid, does it yield a precipitate by means of sesquicarbonate of ammonia, or by nitrate of silver. Its specific gravity, ·960.

Observations.—The ammonia first entirely passes off, leaving pure water. Lime-water is a test for the presence of carbonic acid. The last conjoint test will throw down any earthy matter, or prove the presence of hydrochloric acid, or of any chloride. This solution

should be kept in accurately stopped vessels on account of its volatility, and strong affinity for carbonic acid.

Ammoniæ Liquor Fortior.—*Stronger Liquor of Ammonia.*—Specific gravity is ·882. This may be reduced to the same strength as that of the Liquor Ammoniæ, by adding to each fluidounce three fluidounces of distilled water. The tests are the same as in the last.

Observations.—The dispenser in reference to these proportions for dilution will bear in mind that the greater part of the stronger liquor of ammonia, as manufactured in this country, has a specific gravity of 0·936, and that, until the manufacturers adopt an uniform method, these proportions will not be correct.

Ammoniæ Acetatis Liquor.—*Liquor of Acetate of Ammonia.*—It is not tinged by the addition of hydrosulphuric acid, allows of no precipitation with nitrate of silver, or with chloride of barium. Any residue after evaporation gives out ammonia, and perishes by fire.

Observations.—The first test (hydrosulphuric acid) applies to the vinegar, and, as that is presumed to have been pure, it is here unnecessary. The same remark applies to the second. [Vide *Acetum distillatum*]. Any residue after exposure to heat is an impurity. Its perfect saturation should be determined by litmus.

Ammoniæ Hydrochloras (*crystallina*).—*Hydrochlorate of Ammonia* (*crystalline*).—It is transparent; sublimed by heat; and wholly soluble in water. It tinges litmus of a faint red colour. It throws down nothing with chloride of barium. When potassa or lime is added, ammonia is evolved.

Observations.—This salt [sal-ammoniac] is now usually prepared from the hydrosulphate and hydrocyanate of ammonia obtained from coal gas, or by lixiviating the soot of coal which contains sulphate of ammonia, or by the destructive distillation of bones, &c. Chloride of barium is used to detect any sulphuric acid, a material largely used in the manufacture of it.

Ammoniæ Sesquicarbonas (*crystallina*).—*Sesquicarbonate of Ammonia* (*crystalline*).—It is translucent, but in the air it falls to powder; entirely dissipated by heat. Completely dissolved in water; changes the colour of turmeric. Nitric acid having been added to saturation, nothing is thrown down either by chloride of barium, or by nitrate of silver.

Observations.—When it has effloresced by exposure to the air, it is converted into a bicarbonate of ammonia, in which state it is more eligible as a medicine in certain dyspeptic conditions of the stomach. All residue after exposure to heat is impurity. Nitric acid to test the presence of hydrochloric, and the chloride of barium, that of sulphuric acid.

Antimonii Oxysulphuretum.—*Oxysulphuret of Antimony.*—It is entirely dissolved in nitrico-hydrochloric acid, evolving hydrosulphuric acid.

Observations.—Gay Lussac was the first to observe the separation of oxide of antimony from this compound, by digestion with cream of tartar. Dr. Turner observes, "it either is, or, at least, contains oxysulphuret of antimony." Five long theories of the chemical reactions have been invented in our time; and the newest is still but conjectural.

Antimonii Potassio-Tartras (*crystalli.*)—*Potassio-Tartrate of Anti-*

mony (*crystals.*)—Entirely soluble in water, no bitartrate of potassa adhering to the vessel, and, on the addition of hydrosulphuric acid, it precipitates a reddish-coloured matter. The same solution yields no precipitate by the addition, either of chloride of barium, or nitrate of silver. With nitric acid it throws down a precipitate which is redissolved by an excess of the same.

Observations.—Its entire solubility in water shews the absence of uncombined bitartrate of potassa. Hydrosulphuric acid throws down the orange sesquisulphuret of antimony. Nitric acid precipitates a compound of oxide of antimony and bitartrate of potassa, soluble in excess of the same acid. N.B. It should always be dissolved in distilled water, as it is partially decomposed by common water.

Antimonii Sesquisulphuretum (*striatum*).—*Sesquisulphuret of Antimony* (*striated*).—It is entirely dissolved by heat in hydrochloric acid. From the acid with which it has been boiled, a white matter is precipitated by the addition of distilled water; from the strained solution a reddish-coloured precipitate is afterwards thrown down by hydrosulphuric acid.

Observations.—If any lead is present after the precipitation of the white matter, it is retained, and, after having strained, it is precipitated by hydrosulphuric acid. If in doubt, it may be further tested by nitric acid and iodide of potassium, after drying the precipitate on a watch-glass, and dissolving it in distilled water.

Argentum.—*Silver.*—It is entirely dissolved in diluted nitric acid. This same solution, on adding chloride of sodium, yields a precipitate which is dissolved by an excess of ammonia, and it should be free from colour. The chloride of silver being removed, no colour is struck by hydrosulphuric acid, and nothing is precipitated. Specific gravity, 10·4.

Observations.—The nitric acid should be diluted with three parts water. If such solution be turbid, if it deposit a white powder, it shews the presence of muriatic acid mixed with the nitric; if the silver contain copper it will give a permanent bluish hue to the liquor; or if gold, a black undissolved powder will remain. The hydrosulphuric acid is the best test for the lead after the removal of the chloride of silver.

Argenti Nitras.—*Nitrate of Silver.*—At first it is white, but blackens by exposure to the light. Totally soluble in water, and such solution, on the introduction of copper, throws down a precipitate of silver. The other tests correspond with those of silver as above.

Observations.—*Vide* the preceding. It should be perfectly clear and colourless. Such solution is a valuable test of the presence of chlorine, muriatic acid, and the soluble chlorides. When applied to the surface of a wound, the animal elements decompose it by attracting its oxygen. Common salt is the readiest antidote for it.

Argenti Cyanidum.—*Cyanide of Silver.*—It evolves cyanogen by the application of heat, and is reduced to silver.

Observations.—The residue should be pure silver.

Barytæ Carbonas.—*Carbonate of Baryta.*—It is entirely dissolved in diluted hydrochloric acid. This solution throws down nothing by the addition either of ammonia, or of hydrosulphuric acid, and is colourless; when it has been super-

saturated with sulphuric acid, nothing is precipitated from the supernatant liquor by the action of carbonate of soda.

Observations.—It is poisonous; and a solution of Epsom salt with excess of sulphuric acid is the best antidote against its effects. Its entire solubility in hydrochloric acid proves the absence of sulphate of baryta. Ammonia and hydrosulphuric acid throw down a precipitate, if alumina, or metallic oxides, are present. The last test is intended to detect lime.

Bismuthum.—*Bismuth.*—It is soluble in diluted nitric acid. When from such solution a subnitrate has been thrown down by ammonia, the liquor is free from colour. Its specific gravity is 9·8.

Observations.—It commonly contains small quantities of sulphur, iron, and copper.

Bismuthi Trisnitras.—*Trisnitrate of Bismuth.*—It is entirely dissolved in nitric acid without effervescence. Nothing is thrown down on adding diluted sulphuric acid.

Observations.—If no effervescence, all carbonates are absent. Non-precipitation with sulphuric acid proves the absence of oxide of lead. N.B. The chemical student may here notice that the Greek prefixes are used to express the equivalents of base; the Latin to express those of acid.—Vide *Turner's Chemistry*, page 193, edition 5th.

Borax (*Crystalli*).—Entirely soluble in water. Sulphuric acid from such solution precipitates crystalline scales. A solution of these in alcohol, when set on fire, burns with a green flame.

Observations.—Boracic acid precipitated, sulphate of soda in solution. Its crystals are hexaëdral; taste, alkaline styptic; imported under the name of tincal. It is variously considered as a borate, and as a biborate by different chemists.

Brominium.—*Bromine.*—It evaporates at a gentle heat with an acrid smell. Sparingly soluble in water, more soluble in rectified spirit, but most soluble in æther. Specific gravity, 3·0.

Observations.—Discovered in the uncrystallisable residue (bittern) of sea-water.

Calamina.—*Calamine.*—Almost entirely soluble in [diluted ?] sulphuric acid, evolving a few bubbles of carbonic acid, unless it has been previously burnt. Such a solution, on the addition of ammonia or potassa, throws down a precipitate which is redissolved by excess of either alkali.

Observations.—Solubility in sulphuric acid proves that it contains little, or no carbonate of lime. The solution will be bluish if copper be present; and if it contain iron, the precipitate induced by the alkalies will not be redissolved by excess of the same.

Calcii Chloridum.—*Chloride of Calcium.*—Colourless, scarcely translucent; hard, friable, and entirely soluble in water. This same solution yields no precipitate either with ammonia or chloride of barium, nor, if largely diluted with water, with ferrocyanide of potassium.

Calcis Hydras.—*Hydrate of Lime.*—It is dissolved in diluted hydrochloric acid without effervescence; and such solution yields no precipitate by the addition of ammonia.

Observations.—Thus proving the absence of carbonic acid, of silica; and, by the second test, the absence of alumina and oxide of iron.

Calx.—*Lime.*—When slaked with water it cracks and falls to powder. The other properties are as in the last.

Observations.—Any carbonate of lime not sufficiently burnt will not yield to the action of the water, in the process of slaking.

Calx Chlorinata.—*Chlorinated Lime.*—It is dissolved in diluted hydrochloric acid, evolving chlorine.

Observations.—In disinfecting extensive apartments, factories, &c., consider whether any machinery be present. It will surely be injured, if not spoiled.

Carbo Animalis (*purificatus*).—*Animal Charcoal* (*purified*).—It gives off no bubbles when tested with hydrochloric acid; nor is any thing precipitated from this acid by the addition either of ammonia, or of sesquicarbonate of ammonia.

Observations.—This substance is purified by hydrochloric acid (*Vide* the formula), and ought to contain no carbonate or phosphate of lime. The effervescence would shew the first; and precipitation by ammonia (liquor of), or its sesquicarbonate, would indicate the phosphate.

Cornu.—*Horn.*—After it has been thoroughly burnt, it is almost entirely dissolved in nitric acid, and from such solution lime is separated by oxalate of ammonia; but by nitrate of lead, phosphoric acid is detached.

Observations.—Thus proving that it consists chiefly of phosphate of lime. N.B. If other horns besides those of the Cervus Elaphas are used, the residue is not the same in the relative quantity.

Creasoton.—*Creasote.*—Oily, colourless, of a peculiar odour, translucent, and boils at 397°; it does not congeal at 50°. It is dissolved in acetic acid.

Observations.—Prepared from the heavier oil distilled from wood tar. Specific gravity, 1·037.

Creta.—*Chalk.*—In diluted hydrochloric acid it is entirely dissolved with effervescence. After this solution has been boiled, it yields no precipitate when ammonia is dropped in.

Observations.—Vide *Calcis Hydras.*

Cupri Sulphas (*crystalli*).—*Sulphate of Copper* (*crystals*).—Exposed to the air it becomes slightly pulverulent and of a greenish colour. Entirely soluble in water. The precipitate produced on this solution by the addition of ammonia, is redissolved by ammonia in excess.

Observations.—If the green colour be intense, it argues the presence of the sesquioxide of iron, which is precipitated by ammonia and not redissolved by excess of that alkali.

Cupri Ammonio-Sulphas.—*Ammonio-Sulphate of Copper.*—By heat it evolves ammonia, and is converted into oxide of copper. Its aqueous solution changes the colour of turmeric, and assumes a [pea or grass] green by adding a solution of arsenious acid.

Observations.—Its action on turmeric argues excess of alkali. With arsenious acid it precipitates arsenite of copper, and is, therefore, reciprocally a test for that acid.

Ferri Percyanidum.—*Percyanide of Iron.*—It is pure if, after being boiled with diluted hydrochloric acid, and strained, it yields no precipitate with ammonia.

Observations.—Such precipitate would argue the presence of uncombined sesquioxide of iron, or of alumina.

Ferri Ammonio-Chloridum.—*Ammonio-Chloride of Iron.*—It is totally soluble in proof spirit and in water. From this solution potassa throws down a sesquioxide of iron, and, if added to excess, it extricates ammonia.

Observations.—The potassa first precipitates sesquioxide of iron by decomposing the chloride, and afterwards extricates ammonia.

Ferri Iodidum.—*Iodide of Iron.*—It evolves violet-coloured vapours by heat, leaving a sesquioxide of iron. When newly prepared, it is perfectly soluble in water; but from this same solution, if kept in a vessel not accurately stopped, sesquioxide of iron is very soon precipitated, so that it cannot be preserved clear, unless in a well-stopped bottle having an iron wire immersed in it.

Observations.—In its degree of affinity for metallic substances, iodine is inferior to chlorine and oxygen. Hence the tendency to decompose.

Ferri Potassio-Tartras.—*Potassio-Tartrate of Iron.*—It is totally soluble in water. This solution does not affect the colour of litmus or of turmeric, nor is it rendered blue by the ferrocyanide of potassium, nor is any precipitation effected by any alkali or acid. The magnet does not act upon its powder.

Observations.—When pure it is soluble in water or alcohol; but if it contain metallic iron, this will, of course, subside. If any other ferruginous salt is present, it yields a blue colour with the ferro-cyanide of potassium. It is not decomposed by the alkalis. It is decomposed by hydrosulphuric acid.

Ferri Sesquioxydum.—*Sesquioxide of Iron.*—It is dissolved entirely in diluted hydrochloric acid with very slight effervescence, and it is precipitated by ammonia.

Observations.—One hundred parts of this medicine are said to contain eight of protocarbonate, and hence the effervescence under the action of hydrochloric acid.

Ferri Sulphas (*crystalli*).—*Sulphate of Iron* (*crystals*).—Colour, bluish-green; soluble in water. Iron immersed in the solution does not precipitate copper.

Observations.—Exposed to air and moisture this protosulphate of iron gradually absorbs oxygen, and is partly converted into a persulphate, and the crystals are then coated with a brownish yellow crust. Although composed of one equivalent of acid and base, the salt reddens vegetable blues.

Hydrargyrum (*purificatum*).—*Mercury* (*purified*).—Under a high temperature it entirely goes off in vapours. It is dissolved by diluted nitric acid; but it is insoluble in boiling hydrochloric acid. When this last has become cold, it yields no precipitate with hydrosulphuric acid, neither is it coloured by it. Specific gravity, 13·5.

Observations.—Any residue after the application of a heat considerably above 600° is impurity. Its solubility in diluted nitric acid shews the absence of tin. Hydrochloric acid does not act upon pure mercury, and, therefore, ought not to be coloured after being boiled with it, nor to yield a precipitate with hydrosulphuric acid.

HYDRARGYRUM CUM CRETA.—*Mercury with Chalk.*—By heat it partly passes off in vapour. What remains is colourless, and totally soluble in acetic acid with effervescence. This solution is not tinged by passing through it hydrosulphuric acid. It is scarcely possible to render the globules invisible by any trituration, however diligent.

Observations.—The mercury passes off in vapour. The residue, chalk, is soluble in acetic acid with effervescence. Any insoluble matter is impurity, and any metallic impurity which may chance to be dissolved, will be precipitated by the hydrosulphuric acid. The name (to be consistent) ought to have been, HYDRARGYRI PROTOXYDUM CUM CRETA. But while Brande says it contains the protoxide, metallic mercury, and chalk, Phillips, as confidently, asserts that it contains also the binoxide in a small proportion.

HYDRARGYRI OXYDUM (*cinereum*).—*Oxide of Mercury* (*gray*).—When digested a short time with hydrochloric acid, and strained, [from the calomel thus formed], no precipitate is thrown down either by liquor of potassa, or by oxalate of ammonia. It is totally soluble in acetic acid. By heat it is entirely volatilised.

Observations.—If Mr. Brande's statement be correct, " that this process is by no means a pure protoxide of mercury, and so uncertain in its composition, as to be entirely unfit for use," is it fair that the reputation of the manufacturing chemist should thus be leftat t he mercy of any analytical novice?—Vide BRANDE'S *Chemistry*, page 785, 4th edition.

HYDRARGYRI BINOXYDUM (*rubrum*).—*Binoxide of Mercury* (*red*).—On the application of heat it gives off oxygen, and the mercury either forms itself in globules, or is totally dissipated. It is entirely dissolved in hydrochloric acid.

Observations.—It should be entirely volatilised when placed upon a red-hot iron, but it is sometimes adulterated with red lead. Some chemists consider its perfect insolubility in water as the best test of the absence of pernitrate of mercury; but Guibourt asserts, that it is very sparingly soluble in water, even when pure.

HYDRARGYRI NITRICO-OXYDUM.—*Nitric-Oxide of Mercury.*—It evolves no nitric vapours under the application of heat. Neither lime-water, nor hydrosulphuric acid throws down any thing from the water in which it has been boiled, or washed. The other tests as in the last.

Observations.—Either this medicine contains nitric acid, or it does not. If it does, the tests here appear absurd. If it does not, the name itself appears absurd,—" Heat it in a test tube with a spirit-lamp, and a yellow ring of subnitrate collects within the tube just above the part heated."—Dr. CLARKE.

HYDRARGYRI AMMONIO-CHLORIDUM.—*Ammonio-Chloride of Mercury.*—It is entirely evaporated by heat. When digested with acetic acid, it yields no yellow or blue precipitate on the addition of iodide of potassium. Its powder when triturated with lime-water does not become black. It is entirely dissolved in hydrochloric acid without effervescence. When heated with the liquor of potassa, it exhales ammonia, and assumes a yellow colour.

Observations.—What remains after evaporation by heat is impurity. The iodide of potassium precipitates yellow iodide of lead, if that metal be present, or strikes a blue colour, if starch be the impurity. If blackened by lime-water, it indicates calomel. If it effervesces

with hydrochloric acid, carbonate of lime may be suspected; and, finally, the appearance produced by the last test is its proper characteristic.

HYDRARGYRI [PROTO-] CHLORIDUM.—[*Proto-*] *Chloride of Mercury.*—A whitish powder which is blackened by adding potassa, and forms into globules by the application of heat. Heat totally dissipates it. The distilled water in which it has been washed or boiled yields no precipitate by the addition either of nitrate of silver, or of lime-water, or of hydrosulphuric acid.

Observations.—With potassa it forms black oxide of mercury, which by heat is first reduced, and then totally volatilised, leaving no residue. Water would dissolve out any bichloride of mercury: and from this solution nitrate of silver would throw down a chloride of silver; lime-water, a yellowish red binoxide of mercury; and hydrosulphuric acid, a sulphuret. Liquor of ammonia was the test directed to be used in the last Pharmacopœia, to indicate the presence of corrosive sublimate, after edulcorating the calomel with solution of sal ammoniac.

HYDRARGYRI BICHLORIDUM (*crystallinum*)—*Bichloride of Mercury* (*crystalline*).—By heat it melts and sublimes. Totally dissolved in water, and in sulphuric æther. Whatever is thrown down from the aqueous solution [this is what is meant, but as the Latin stands "ex hoc liquore," it would be from the æthereal solution.—EDITOR], by adding potassa or lime-water is reddish, but if a sufficiency be added, it is yellow. This precipitate by heat emits oxygen, and forms globules.

Observations.—If pure it entirely sublimes. Any calomel present would not be soluble in the water. The alkalis precipitate a peroxide of mercury. By a drop or two of a solution of corrosive sublimate, gold becomes coated with metallic quicksilver, if the point of a knife, a key, or any piece of polished steel be held in contact with it. Diluted nitric acid removes this amalgam.

HYDRARGYRI BICYANIDUM (*crystalli*).—*Bicyanide of Mercury* (*crystals.*)—It is translucent, and entirely soluble in water. Such solution by dropping in hydrochloric acid emits hydrocyanic acid, recognised by its peculiar smell; and a glass moistened with a solution of nitrate of silver, and placed over it, affords a deposit which is dissolved in boiling nitric acid. By heat it gives off cyanogen, and is reduced to globules.

Observations.—With hydrochloric acid it forms bichloride of mercury, and emits hydrocyanic acid. In giving this same theory, Professor Brande (page 797, *Chemistry*, and elsewhere) calls the corrosive sublimate a chloride, which shews the danger of the College giving that name to calomel.

HYDRARGYRI IODIDUM.—*Iodide of Mercury.*—When recently prepared it is somewhat yellow: by heat cautiously applied, it is sublimed in red scales which presently become yellow, and afterwards by exposure to light, black. It is not soluble in chloride of sodium.

Observations.—If rapidly heated in a glass tube, it fuses and sublimes unaltered; but when gently heated, or when long exposed to light, it is resolved into mercury and periodide of that metal.

HYDRARGYRI BINIODIDUM.—*Biniodide of Mercury.*—By the cautious application of heat, it is sublimed in scales, which soon become yellow, and after-

wards red when cold. A portion of it is soluble in boiling rectified spirit, and crystallizes as the spirit cools. It is alternately dissolved and precipitated by iodide of potassium and bichloride of mercury. It is entirely soluble in chloride of sodium.

Observations.—It is soluble both in alcohol and acids by the aid of heat.

Hydrargyri Bisulphuretum (*rubrum.*)—*Bisulphuret of Mercury* (*red*).—Totally passes off in vapours by heat, and, by the addition of potassa, globules of mercury are formed. It is insoluble in nitric acid, insoluble in hydrochloric acid, but soluble in a mixture of the two. Rectified spirit in which it has been washed or boiled does not become tinged with it. When digested with acetic acid it yields no yellow precipitate by iodide of potassium.

Observations.—If adulterated with red lead, it is not entirely volatile. Nitro-hydrochloric acid decomposes it even in the cold. In the last test, iodide of potassium is intended to precipitate a yellow iodide of lead.

Hydrargyri Sulphuretum cum Sulphure (*nigrum*).—*Sulphuret of Mercury with Sulphur* (*black*).—By heat it is totally evaporated, leaving neither charcoal nor phosphate of lime.

Observations.—It is conjectured to be a bisulphuret of mercury with sulphur by Professor Brande, to whose opinion Mr. R. Phillips seems to have come round. The latter gentleman, a few years ago, represented it as consisting of protosulphuret of mercury with excess of sulphur.

Iodinium.—*Iodine.*—Under the application of heat it first fuses, then sublimes in violet-coloured vapour. It is very sparingly dissolved in water; more soluble in alcohol. It strikes a blue colour with starch.

Lacmus.—*Litmus.*—Soluble both in water and alcohol. Its blue colour is reddened by acids, and is restored by the addition of an alkali.

Observations.—In testing the human secretions with litmus, the young practitioner would do well first to familiarise himself with the shades of colour produced in health. It ought to be kept in every chemist's shop; but it is scarcely to be found with the majority.

Manganesii Binoxydum.—*Binoxide of Manganese.*—It is dissolved in hydrochloric acid, giving off chlorine. The precipitate produced from this solution produced by potassa (the college have it potassium) is first white, and soon becomes brown. It rarely also happens that ferrocyanide of potassium does not render it green. When first dried and then burnt in a white heat, out of 100 parts it loses 12.

Observations.—Common impurities are carbonaceous matter, carbonate of lime, sulphate of baryta, oxide of iron. Liquor ammoniæ added in slight excess to the solution in hydrochloric acid, will first precipitate oxide of iron, if this be present.

Magnesia.—It dissolves in hydrochloric acid without effervescence. From such solution no precipitation occurs on adding bicarbonate of potassa, or chloride of barium. It turns turmeric slightly brown.

Observations.—Residue after the action of hydrochloric acid is impurity. If it effervesces

it contains a carbonate. Bicarbonate of potassa to precipitate lime; chloride of barium to decompose any sulphate of soda. It slightly greens the blue of violets, and turns turmeric to a faint brownish red.

Magnesiæ Carbonas.—*Carbonate of Magnesia.*—The distilled water in which it has been boiled does not change the colour of turmeric. The addition of chloride of barium, or of nitrate of silver effects no precipitation. Dissolved in diluted sulphuric acid, one hundred parts lose 36·6 parts in weight. When the effervescence has ceased, nothing is thrown down from this solution by the bicarbonate of potassa.

Observations.—When carbonate of soda has been used in excess, and has not been washed out, the turmeric is strongly affected. The other tests may be understood by reference to the preceding.

Magnesiæ Sulphas (*crystalli*). *Sulphate of Magnesia* (*crystals*).—Readily dissolved in water. When sulphuric acid is dropped into this solution, no hydrochloric acid is evolved. A hundred grains dissolved in water, and thrown into a boiling solution of carbonate of soda, yield 34 grains of carbonate of magnesia when dried.

Observations.—Evolution of hydrochloric acid would argue the presence of a chloride. The quantity of carbonate of magnesia yielded would determine the absence of sulphate of soda. Occasionally we find in the market specimens of Epsom salts containing iron; this, when the salt is dissolved in warm water, presents a brownish muddy precipitate, and brings the retail chemist into much discredit.

Marmor.—*Marble.*—White, soluble in diluted hydrochloric acid with effervescence. Ammonia precipitates nothing from this solution, nor is it decomposed by a solution of sulphate of lime in water.

Observations.—Some varieties contain about three per cent of strontia, but in reference to the pharmacological use, this should seem to be of little importance.

Mel.—*Honey.*—It should not be employed unless clarified. It is dissolved in water. It does not strike a blue colour by the simultaneous addition of iodide of potassium and any acid.

Observations.—It is scarcely requisite to observe that iodine is an extremely delicate test for the presence of starch or flour, which are sometimes used to adulterate honey.

Morphia.—Very sparingly soluble in cold water; sparingly in boiling water; very readily in alcohol. This last solution, tested with turmeric, betrays alkaline properties; and when the spirit has been removed from it by distillation, it forms crystals which are totally destroyed by heat. On adding nitric acid, it first becomes red, and afterwards yellow. The tincture of sesquichloride of iron, gives it a blue colour. Chlorine, after ammonia has been added, turns its salts of a brown colour, which colour disappears if you add excess of chlorine. Moreover, morphia is precipitated from its salts by solution of potassa, which, added in excess, redissolves it.

Observations.—The salts of morphia are decomposed by a diluted solution of ammonia. Hence the narcotic effects are probably prevented or diminished by the common practice of combining opiate preparations with ammonia, or its sesquicarbonates, or with spt. ammon. aromatic.

Morphiæ Acetas (*crystalli*).—*Acetate of Morphia* (*crystals.*) — Very readily dissolved in water. The other tests correspond with those of morphia just mentioned.

Observations.—*Vide* Morphia.

Morphiæ Hydrochloras (*crystalli*).—*Hydrochlorate of Morphia* (*crystals*).—It is dissolved in water. The precipitate produced from this solution by nitrate of silver, is neither entirely soluble in ammonia, unless added to excess, nor by the hydrochloric or nitric acid.

Observations.—*Vide* Morphia. Lege *Edin. Med. and Surg. Journal*, Nos. cvii. and cxi. article on a Process for obtaining the Hydrochlorate, by Drs. Gregory and Robertson.

Oleum Æthereum.—*Æthereal Oil.*—Its odour is peculiar, and slightly acrid; totally soluble in sulphuric æther, and shews no acidity with litmus. Specific gravity, 1·05.

Observations.—The litmus will detect adhering sulphurous acid.

Phosphorus. — *Phosphorus.* — Nearly colourless, transparent like wax, emitting light in the dark. Sparingly soluble in most distilled oils, and in sulphuric æther. It ought always to be kept in water, excluded from the light.

Observations.—In dispensing or selling phosphorus, it should be cut in a convenient vessel under water; for, when divided on a slab, particles are apt to fly off, and these, as the heat of a room increases, may spontaneously catch fire near paper or other combustible materials.

Plumbi Acetas (*crystalli*).—*Acetate of Lead* (*crystals*).—It is soluble in distilled water. A white precipitate falls on adding carbonate of soda; a yellow precipitate on adding iodide of potassium. It is, moreover, blackened by hydrosulphuric acid. Sulphuric acid evolves from it acetic vapours. Exposed to the fire, it first fuses, and is then reduced to metallic lead.

Observations.—The white precipitate is carbonate of lead; the yellow, an iodide of the same metal. Hydrosulphuric acid forms a sulphuret of lead. Sulphuric acid detaches acetic vapours by its superior affinity for oxide of lead.

Plumbi Diacetatis Liquor.—*Liquor of Diacetate of Lead.*—Specific gravity, 1·260. In its other properties, it corresponds with the preceding.

Plumbi Carbonas.—*Carbonate of Lead.*—It is soluble in diluted nitric acid with effervescence. The matter which is thrown down from this solution by the liquor of potassa is white, and is re-dissolved by excess of it; it is blackened by hydrosulphuric acid. By heat it becomes yellow; and if at the same time charcoal is used, it is reduced to metallic lead.

Observations.—What remains insoluble in the diluted nitric acid is impurity, whether sulphate of lead or sulphate of baryta. The oxide of lead is first precipitated, then redissolved by the potassa, and forms a sulphuret with hydrosulphuric acid. Heat expels its carbonic acid and the charcoal attracts its oxygen.

Plumbi Chloridum (*crystallinum*).—*Chloride of Lead* (*crystalline*).—It is entirely dissolved in boiling distilled water. The greater part of this solution

(of chloride of lead), crystallizes as it cools. On adding hydrosulphuric acid, it becomes black. By heat it becomes yellow.

PLUMBI IODIDUM.—*Iodide of Lead.*—Totally soluble in boiling water; and it falls from the water as it cools in bright yellow scales. It melts by heat; and the greater part is dissipated, first in yellow, and afterwards in violet vapours.

PLUMBI OXYDUM (*semivitreum*). — *Oxide of Lead* (*semivitreous*).—Nearly all dissolved in diluted nitric acid. In its other properties, it corresponds with the preceding.

PLUMBI OXYDUM (*hydratum*).—*Oxide of Lead* (*hydrated*).—That which is employed in preparing disulphate of quina should be perfectly soluble in diluted nitric acid. In its other properties, it corresponds with the preceding.

POTASSÆ LIQUOR.—*Liquor of Potassa.*—Specific gravity, 1·063. It powerfully changes turmeric to a brown. It emits very few or no bubbles of carbonic acid on the addition of diluted nitric acid. From the saturated solution, scarcely any thing is precipitated either by carbonate of soda, or by chloride of barium, or by nitrate of silver. Chloride of platina throws down a yellowish precipitate from this liquor, as it does from any of the salts of potassa dissolved in water.

Observations.—The two first tests are self-evident. Carbonate of soda to indicate earthy or metallic impurity, chloride of barium to detect any sulphate, nitrate of silver to indicate any chloride; but it is the chloride of platina which, by producing a yellowish precipitate, enables us to distinguish the two alkalis, potassa and soda, and the salts of each.

POTASSÆ HYDRAS.—*Hydrate of Potassa.*—In an open vessel, it soon becomes deliquescent. Totally soluble in alcohol. In its other properties, it agrees with the above.

Observations.—*Vide* "Potassæ Liquor."

POTASSA CUM CALCE.—(*Potassa with Lime*).—When slaked with water, if any acid be added, it emits no bubbles of carbonic acid. It is not entirely soluble in alcohol.

POTASSÆ ACETAS.—*Acetate of Potassa.* — It is entirely dissolved both by water and by alcohol, and such solution neither tinges litmus nor turmeric. Nothing is precipitated from it (viz. the aqueous solution) either by chloride of barium, or by nitrate of silver; unless the solution be strong, in which case the precipitate is readily dissolved in nitric acid. Under a red heat, it is entirely converted into carbonate of potassa. Sulphuric acid when added, emits acetic vapours.

Observations.—The perfect saturation of the salt is tested by litmus and turmeric. This salt is soluble in its own weight of water at 60°. Boiling alcohol dissolves twice its weight. Chloride of barium will serve to detect sulphate of potassa; the nitrate is intended to precipitate any chloride of potassium. Sulphuric acid detaches acetic vapours by its superior affinity.

POTASSÆ CARBONAS.—*Carbonate of Potassa.*—It is almost entirely soluble

in water. It spontaneously deliquesces in an open vessel. It changes turmeric brown. When supersaturated with nitric acid, nothing is thrown down by carbonate of soda or by chloride of barium, and but little by the nitrate of silver. One hundred parts of it under a strong heat lose 16 of water; and the same quantity loses 28 parts of carbonic acid, on the addition of diluted sulphuric acid.

Observations.—Earthy impurity will remain insoluble, and will also be thrown down from the solution in nitric acid by carbonate of soda, or, if a sulphate, by chloride of barium. Nitrate of silver would precipitate any chloride.

Potassæ Carbonatis Liquor.—*Liquor of Carbonate of Potassa.*—Its specific gravity is 1·473. In its other properties it is like the preceding.

Potassæ Bicarbonas (*crystalli*).—*Bicarbonate of Potassa* (*crystals*).—Entirely soluble in water, and such solution slightly changes the colour of turmeric. Sulphate of magnesia throws down no precipitate from this solution, unless when heat is employed. From 100 parts, 30·7 are expelled by a red heat. Nitric acid being previously added in excess, nothing is precipitated from it by chloride of barium, and scarcely any thing by nitrate of silver.

Observations.—Even the bicarbonate, when pure, will slightly change the colour of turmeric. If the change is more decided, or if Epsom salt throws down any thing, the bicarbonate is imperfect. The 30·7 parts expelled are carbonic acid and water. For the explanation of the last two precipitants, refer to the preceding (Potassæ Carbonas).

Potassæ Chloras (*crystalli*).—*Chlorate of Potassa* (*crystals*).—Entirely soluble in distilled water. Such solution yields no precipitate on the addition of nitrate of silver. By heat it liquefies; and, if the heat be more strongly urged, it evolves oxygen, and is converted into chloride of potassium. A few minims of sulphuric acid being dropped on the crystals, the salt first becomes yellow, and afterwards red, and gives out peroxide of chlorine.

Observations.—Nitrate of silver to precipitate chloride of silver. Chlorate of potassa (oxymuriate) is prepared by passing chlorine gas through a concentrated solution of pure potassa; chloride of potassium and chlorate of potassa are the resulting compounds, and the latter is separated by crystallization.

Potassæ Nitras (*crystalli*).—*Nitrate of Potassa* (*crystals*).—Totally soluble in distilled water. From such solution, neither chloride of barium nor nitrate of silver causes precipitation. By heat it fuses, and under a strong fire it gives off oxygen. From the powdered salt sulphuric acid detaches nitric vapours.

Observations.—Chloride of barium to detect a sulphate; nitrate of silver to indicate any chloride. Under a strong heat it becomes hyponitrite, and thus gives off nitric vapours by the action of sulphuric acid. Soluble in seven parts of water at 60°, or in its own weight of boiling water.

Potassæ Sulphas (*crystalli*).—*Sulphate of Potassa* (*crystals*).—It is altogether insoluble in alcohol, sparingly soluble in distilled water. Chloride of platina throws down a yellow precipitate from this solution, and chloride of barium a white one, insoluble in nitric acid.

Observations.—*Vide* "Potassæ Liquor," where these tests are fully explained.

Potassæ Tartras (*crystalli*). — *Tartrate of Potassa* (*crystals*). — It is readily dissolved in water. With nearly every acid this solution yields crystals of bitartrate of potassa, which mostly adhere to the vessel. The precipitate thrown down from the same solution, either by chloride of barium or by acetate of lead, is soluble in diluted nitric acid.

Observations.—From its ready solubility it derived its old name of "soluble tartar." If the precipitate thrown down by the chloride, or by the acetate, is insoluble in nitric acid, the presence of a sulphate may be inferred.

Potassæ Bitartras (*crystalli*). — *Bitartrate of Potassa* (*crystals*). — Sparingly soluble in water. Stains litmus red. Is converted into carbonate of potassa by a red heat.

Observations.—Insoluble in alcohol, and hence deposited gradually during vinous fermentation. It requires 60 parts of cold, and 14 of boiling water, for its solution, and is deposited from the latter on cooling. Hence we may see how much too large is the proportion commonly used for making the imperial water. Heat decomposes the tartaric acid; its carbon and oxygen forming carbonic acid, which unites with the base.

Potassii Bromidum (*crystalli*).— *Bromide of Potassium* (*crystals*).—Entirely soluble in water. It does not change the colour of litmus, or turmeric. Chloride of barium does not precipitate any thing from the solution. When sulphuric acid and starch are both added together, it becomes yellow. It loses none of its weight when subjected to heat. Ten grains of this salt are capable of acting on 14·28 grains of nitrate of silver, producing a yellowish precipitate, which is bromide of silver, soluble in ammonia, though all but insoluble in nitric acid.

Observations.—It should not have an acid or alkaline reaction on the test-colours. Chloride of barium to precipitate a sulphate. Sulphuric acid sets free the bromine, as indicated by the starch. It loses no weight, for it contains no water. The action of bromine on a solution of potassa is similar to that of chlorine on the same alkali: thus a bromide of potassium and a bromate of potassa are generated. *Vide* "Potassæ Chloras." *It should always be purchased in crystals.*

Potassii Ferrocyanidum (*crystalli*).—*Ferrocyanide of Potassium* (*crystals*). — It is entirely dissolved in water. By a gentle heat it loses 12·6 parts out of 100. It slightly affects the colour of turmeric. The compounds of the sesquioxide of iron throw down a blue precipitate from it; and those of zinc, a white. What remains after it has been burnt is dissolved by hydrochloric acid, and afterwards precipitated by ammonia. One hundred parts yield 18·7 of sesquioxide of iron.

Observations.—The 12·6 parts loss are water. The blue precipitate thrown down by the sesquioxide is percyanide of iron, or Prussian blue; the white one is ferrocyanide of zinc. The 18·7 per cent of sesquioxide result from the oxidisation of the metallic iron, which previously existed in the ferrocyanide.

Potassii Iodidum (*crystalli*).—*Iodide of Potassium* (*crystals*).—It is entirely dissolved in water and alcohol. It scarcely, if at all, affects the colour of turmeric. It does not change the colour of litmus. Exposed to the fire, it loses no weight. It is rendered blue by the conjoint addition of sulphuric acid and starch.

Ten grains of this salt suffice for decomposing 10·24 grs. of nitrate of silver; and the precipitate thus obtained is partly dissolved by nitric acid, and partly changed in its appearance; which does not happen when ammonia is added.

Observations.—Entirely dissolved, therefore any residue must be impurity. If it intensely affects turmeric, it contains alkali; if litmus, an acid. It loses no weight by fire, if previously dry; for it contains no water of crystallization. Decomposed by sulphuric acid; and the presence of free iodine shewn by starch. As in testing the bromide of potassium also, if it decompose more than the stated quantity of nitrate of silver, we may suspect the presence of chloride of potassium.

Potassii Sulphuretum.—*Sulphuret of Potassium.*—When recently broken, it is of a brown-yellow colour: when dissolved in almost any acid, it gives off a smell of hydrosulphuric acid. Its aqueous solution is yellow. The precipitate produced therefrom by acetate of lead is first red, and then becomes black.

Observations.—It always contains sulphate of potassa, even when recently prepared; and is gradually converted into this salt by long keeping, in vessels inaccurately closed.

Quina.—An alkali prepared from the bark of the cinchona cordifolia. It is not soluble in water unless an acid be present, but very readily so in alcohol. It changes the colour of turmeric. Its taste is bitter. It is totally destroyed by heat.

Observations.—It does not, under ordinary circumstances, assume a crystalline appearance: its solution in alcohol has a distinct alkaline reaction. It is also soluble in æther.

Quinæ Disulphas (*crystalli*).—*Disulphate of Quina* (*crystals*).—It is entirely soluble in water, and more readily so when an acid is present. After precipitating the quina by ammonia, the residuary liquor after evaporation ought not to taste of sugar. Under a gentle heat, disulphate of quina, out of 100 parts, loses 8 or 10 parts of water. It is wholly consumed by fire. If chlorine be first added, and then ammonia, it becomes green.

Observations.—It crystallizes in delicate white needles. It is freely dissolved when an acid is present, but is *not* readily soluble in water. Its solution ought not to affect test-paper. Sugar is sometimes used in the adulteration; hence the saccharine taste, after precipitating the quina by liquor of ammonia.

Sodæ Acetas (*crystalli*).—*Acetate of Soda* (*crystals*).—It is totally soluble in water, but not entirely in alcohol. It does not change the colour of litmus and turmeric; is not precipitated by chloride of barium, nor by nitrate of silver. By a strong fire, it is converted into carbonate of soda. Sulphuric acid detaches acetic odours from it. Nothing is thrown down from an aqueous solution of this, or of any other sodaic salt, by the action of chloride of platina.

Observations.—Chloride of platina would precipitate any salt of potassa, as before repeatedly noticed. For explanations of the other tests, *vide* "Potassæ acetas."

Sodæ Carbonas (*crystalli*).—*Carbonate of Soda* (*crystals*).—When recently prepared it is translucent, but in an open vessel it soon effloresces. It is totally soluble in water, but not at all in alcohol. Like the alkalis, it changes the colour of turmeric.

Observations.—"It is difficult," says Dr. Turner, "to procure this salt quite free from sul-

phuric acid;" hence, chloride of barium will precipitate sulphate of baryta. The crystals are soluble in about two parts of cold, and in rather less than their own weight of boiling, water.

Sodæ Carbonas exsiccata.—*Dried Carbonate of Soda.*—In drying this salt in a strong heat, 100 parts by weight lose 62 parts of water [of crystallization], without further change.

Sodæ Sesquicarbonas.—*Sesquicarbonate of Soda.*—Totally soluble in water. Nothing is thrown down from such solution, either by chloride of platina or by sulphate of magnesia, unless by applying heat. By a strong fire, it is converted into dried carbonate of soda.

Observations.—Chloride of platina would precipitate any potassa-salt, if present; and a precipitate from sulphate of magnesia would argue a deficiency of carbonic acid, unless under the application of heat. Strong heat expels one-third of its carbonic acid and its water of crystallization.

Sodæ Carbonatis Liquor Effervescens.—*Effervescing Liquor of Carbonate of Soda.*—It first reddens the blue of litmus, and afterwards, when the effervescence has ceased, the blue colour is restored.

Observations.—Shewing that the colour has been changed by carbonic acid only.

Sodæ Chlorinatæ Liquor.—*Liquor (solution) of chlorinated Soda.*—The colour of turmeric is first turned brown in this solution, and afterwards entirely perishes. By the addition of diluted hydrochloric acid, it at once gives out carbonic acid and chlorine: the latter bleaches the solution of sulphate of indigo; the former precipitates lime from lime-water.

Observations.—First turned brown by the carbonate of soda, and then bleached by the chlorine. Hydrochloric acid forms a solution of chloride of sodium. Chlorine bleaches the solution of sulphate of indigo. Carbonic acid forms, with the lime, an insoluble carbonate.

Sodæ Phosphas (*crystalli*).—*Phosphate of Soda* (*crystals*).—Slightly efflorescent by exposure to the atmosphere; entirely soluble in water, but not in alcohol. Chloride of barium throws down from this solution a matter, which is white; and nitrate of silver, a yellow precipitate, unless the phosphate of soda has been previously burnt. Both precipitates are soluble in nitric acid.

Observations.—Any matter insoluble in nitric acid, thrown down by the chloride of barium, is a sulphate. The yellow triphosphate of oxide of silver falls by the action of the nitrate of silver; if the phosphate of soda [tri-phosphate] has been heated, it yields a pyrophosphate of silver.

Sodæ Sulphas (*crystalli*).—*Sulphate of Soda* (*crystals*).—Exposed to the air, it effloresces and falls to powder. It is totally dissolved in water, very sparingly so in alcohol. It does not affect litmus or turmeric. Nitrate of silver scarcely throws down any thing from a weak solution of it, but with nitrate of baryta it yields a copious precipitate, insoluble in nitric acid. 100 parts lose 55 of water (of crystallization) by a strong heat.

Observations.—It is neutral, and should not affect test-paper. Nitrate of silver might throw down some little chloride. With nitrate of baryta, it would copiously precipitate sulphate of baryta.

Sodæ Potassio-Tartras (*crystalli*).—*Potassio-Tartrate of Soda* (*crystals*). — Totally soluble in water. Such solution yields no precipitate with nitrate of silver, or with chloride of barium. It does not affect turmeric or litmus. It is partly converted into bitartrate of potassa by the addition of sulphuric acid.

Observations. — Rochelle salt. Nitrate of silver to indicate a chloride; chloride of barium to indicate a sulphate; test-paper for the usual objects.

Sodii Chloridum (*crystalli*).—*Chloride of Sodium* (*crystals*).—It is nearly in the same degree soluble in cold water as in hot. Does not change the colour of litmus or turmeric. With carbonate of soda, as also with nitrate of baryta, it yields scarcely any precipitate.

Observations.—Test-paper employed for the usual objects; carbonate of soda to determine the presence of earthy matter; nitrate of baryta to determine admixture with sulphate.

Spiritus Ætheris Nitrici.—*Spirit of Nitric Æther.*—Specific gravity is ·834. It slightly reddens litmus; gives off no bubbles of carbonic acid on the addition of carbonate of soda; and is recognised by its characteristic odour.

Observations.—If it strongly reddens litmus, it argues great excess of acid. A greater specific gravity indicates water, or excess of nitric acid; and the presence of the latter is proved by the effervescence.

Spiritus Ammoniæ.—*Spirit of Ammonia.*—Specific gravity, ·860.

Spiritus Ammoniæ aromaticus.—*Aromatic Spirit of Ammonia.*—Its specific gravity is ·914.

Spiritus Ammoniæ fœtidus. — *Fœtid Spirit of Ammonia.* — Its specific gravity is ·861.

Spiritus rectificatus.—*Rectified Spirit.*—Specific gravity, ·838. Colourless, and not rendered turbid by the addition of water. Odour and taste vinous. It may be reduced to proof-standard, by adding to five pints of it three pints of distilled water at the temperature of 62°.

Spiritus tenuior.—*Proof Spirit.*—Specific gravity, ·920, as defined by law. In its other properties it corresponds with the preceding.

Stannum.—*Tin.*—It is nearly altogether dissolved when boiled in hydrochloric acid. This solution is colourless; but, on the addition of chloride of gold, it becomes purple. What is precipitated from [the same solution] by potassa is white, but the same [alkali] being added to excess, it is redissolved. Specific gravity, ·729.

Observations.—Tin might well have been excluded from the Materia Medica. If introduced because one of its preparations is employed as a test, on the same principle might other substances have a place here. As a medicine, it ought not to be employed.

Strychnia (*crystalli*).—*Strychnia* (*crystals*).—It is readily dissolved in boiling alcohol, *but not in water.* It fuses by heat; and if a stronger heat is employed, it is entirely dissipated. As it possesses virulent properties, IT IS NEVER TO BE USED EXCEPT WITH CAUTION.

Observations.—It is soluble in common alcohol, but absolute alcohol and æther scarcely dissolve it when quite free from acid. The intensity of its bitterness is such, that *its cold aqueous solution*, which does not contain more than a six-thousandth of its weight of strychnia, may be diluted with 100 times its bulk of water, and yet remain sensibly bitter.—BRANDE'S *Chemistry*, p. 1033.

SULPHUR SUBLIMATUM.—*Sublimed Sulphur.*—With the heat of 600° it entirely passes off in vapour. When washed with water, it does not affect the colour of litmus.

VERATRIA.—Very sparingly soluble in water; more so in alcohol; but largely soluble in sulphuric æther. It has no smell, but its taste is bitter. NOT TO BE EMPLOYED WITHOUT GREAT CAUTION.

Observations.—It is not crystallizable: its taste is not bitter, but acrid.

ZINCI SULPHAS (*crystalli*).—*Sulphate of Zinc* (*crystals*).—Totally soluble in water. The precipitate produced from this solution by ammonia is white, and is redissolved by an excess of the same alkali. By the addition of chloride of barium, or acetate of lead, it is decomposed.

Observations.—Oxide of iron, if present, will be precipitated by ammonia, but not be redissolved by that alkali. If copper be present, the solution will be rendered blue by ammonia.

ZINCUM.—*Zinc.*—All but entirely dissolved in diluted sulphuric acid. Such solution is colourless. In its other properties, it resembles the preceding substance. Its specific gravity is 6·86.

OBSERVATIONS.

IT is evident that these Notes have been framed for the use of students, as chemical exercises, rather than for the practical chemist; and, while desirous of expressing himself with the greatest diffidence, the Editor cannot but observe, that it is not fair that the reputation of the manufacturing chemist should thus be left to the mercy of analytical novices, in matters which require the greatest delicacy and the most extensive experience.

The College Translator is frequently at variance with his text, but more generally his inflexions are an improvement. Where ammonia and potassa are mentioned, the usual solutions of these, as employed in testing, are to be understood. The studied avoidance of the use of the term gas, is calculated to create obscurity; as also is the change of the names from those employed in the last editions of elementary chemistry.

PRÆPARATA ET COMPOSITA.

Preparations and Compounds.

ACIDA.

Acids.

ACETUM DESTILLATUM.

Distilled Vinegar.

TAKE of Vinegar a gallon:

Let the Vinegar be distilled in a sand-bath, from a glass retort into a glass receiver. Keep for use the seven pints first distilled.

Chemical Observations.—*Vide* Supplement and Notes.

Medical Use.—1st. To relieve the stupor produced by narcotics or under inebriation, but of doubtful effect: the Editor has seen it produce dangerous symptoms of depression when it has been given as an antidote. 2d. To refrigerate in fevers, &c. 3d. To check internal hæmorrhage. 4th. To insure the solution of acetates of lead, thus preventing precipitation. 5th. As a discutient for swellings, contusions, &c.

Dose.—f℥ij to f℥jss.

College Preparations.—Acetum Colchici, Acetum Scillæ, Oxymel Scillæ, Liquor Ammoniæ Acetatis, Ceratum Saponis.

Cautions.

Distilled Vinegar, when pure, is not discoloured by the addition of sulphuretted hydrogen [A], and yields no precipitate when tested with acetate of baryta [B], or acetate of lead. Test [A] for any metal; test [B] for sulphuric acid.

For the rest see *Notes*.

The article is left of indefinite strength, neither is the exact source indicated. A mixture of pure acetic acid and water coloured with burnt sugar is a common substitute.

Cautions.

ACIDUM ACETICUM.

Acetic Acid.

The College state in their Notes that the specific gravity is 1·048, but S. G. is no criterion of its strength, which is to be determined by its saturating power.

N.B. A solution of real acid in water.

Note.— The distilled vinegar was called "acidum aceticum dilutum," in the last Pharmacopœia; but the present is about the strength of the "acidum aceticum fortius e ligno." Incompatible with alkalies, carbonates, &c.

Take of Acetate of Soda, two pounds;
Sulphuric Acid, nine ounces;
Distilled Water, nine fluidounces:

Put the Acetate of Soda into a glass retort, and add the Sulphuric Acid previously mixed with the water. Then let the Acid be distilled from a sand-bath. The heat must not be too much raised towards the last.

Chemical Observations.—This is a very old process; and, as thus obtained, was formerly called radical vinegar, as though distilled *a radice*. For comparison of the various processes, *see* Supplement. For tests, *see* Notes. Fifteen parts with eighty-five of water yield one hundred parts equal in strength to distilled vinegar.

College Preparations. — Acetum Cantharidis, Potassæ Acetas, Plumbi Acetas, Oxymel.

ACETUM CANTHARIDIS (Epispasticum).

(Blistering) Vinegar of Cantharides.

The quantity of cantharides employed here with respect to the menstruum, compared with the proportion used for the tincture is as 8 to 1.

Take of Cantharides powdered, two ounces;
Acetic Acid, a pint:

Macerate the Cantharides with the Acid for eight days, occasionally shaking. Lastly, press and strain.

Remedial Use.—A prompt form for counter-irritation, long anticipated by provincial and domestic recipes, as well as by the common practice of fomenting with hot vinegar before the application of a blister. Cantharides may produce simply erythematic irritation, serous deposit below cuticle, gelatinous deposit, purulent discharge, pustular irritation, or deep sloughing, according to the mode of application and the condition of the patient. *Vide* Emplastrum Lyttæ.

Cautions.

ACETUM COLCHICI.

Vinegar of Colchicum, or Meadow Saffron.

Take of fresh Colchicum Root (Cormus), an ounce;
Distilled Vinegar, sixteen fluidounces;
Proof Spirit, a fluidounce:

Macerate the Colchicum in the Vinegar in a covered glass vessel for three days; then press and set by that the dregs may subside; lastly, add the Spirit to the filtered liquor.

It may be dug up any time between May and July. This and the extract are the two preparations of the meadow saffron from the fresh cormus.

Incompatible with alkalies, and alkaline carbonates, &c.

Chemical.—Formerly said to contain veratria, now conjectured to contain a distinct alkali, termed colchicia.

Remedial Use.—Reported to act better as a diuretic than the other preparations of colchicum. For general remarks on the action of colchicum, *Vide* Vin. Colchici. Dose of the vinegar ʒss. to ʒij.

ACETUM SCILLÆ.

Vinegar of Squills.

Take of Squill-Root, recently dried, fifteen ounces;
Distilled Vinegar, six pints;
Proof Spirit, half a pint:

Incompatible with alkalies, alkaline carbonates, &c.

Macerate the Squills with the Vinegar in a gentle heat, in a covered glass vessel for twenty-four hours; then press, and set aside to clear; lastly, to the clear liquid add the Spirit.

Active principle, scillitine.

Remedial Action.—It is said to be the best form of squills as a diuretic. For the general operations of squill, *vide* Tinct. Scillæ. This preparation, when warmed, may be used as an external counter-irritant. If prepared with the acetic acid, it would be still more efficacious for this purpose. It was thus employed by the ancients to stop obstinate vomiting.

Dose.—ɱxx. to ʒij. in admixture.

Cautions.

ACIDUM BENZOICUM.

Benzoic Acid.

Incompatible with alkalies, alkaline carbonates, &c.

Take of Benzoin, a pound:

Put the Benzoin into a glass vessel placed on sand, and sublime with a heat gradually raised until nothing more ascends; compress the sublimate folded in blotting paper, and, having separated it from the oily part, repeat the sublimation.

Chemical.—*Vide* Notes and Supplement.

Remedial Action.—It is a proper stimulant to the respiratory organs, relieving the bronchial cells and tubes when these are overloaded with mucus. In this sense it is a lung-purge, just as certain cathartics purge the mucous membrane of the alimentary canal. It is the fashion to decry this and other less active remedies, without reflecting that moderate impressions frequently renewed, may be made to produce important changes.

Dose.—Gr. iij. to gr. v.

College Preparations.—Tinctura Camphoræ Composita, Tinct. Benzoini Composita.

ACIDUM CITRICUM.

Citric Acid.

The crystals must be kept dry, or the usual saturating proportions will not suffice.

One ounce and a half of the crystals dissolved in a pint of distilled water, will afford a substitute for lemon-juice of ordinary strength.

In making saline

Take of Lemon Juice, four pints;
Prepared Chalk, four ounces and a half;
Diluted Sulphuric Acid, twenty-seven fluid-ounces and a half;
Distilled Water, two pints:

Having heated the lemon-juice, add your Chalk, and mix. Set aside, and, after the precipitation, pour off the supernatant liquor. Wash the Citrate of Lime with tepid Water, repeatedly renewed. Then pour

thereon the diluted Sulphuric Acid and the distilled Water, and boil for a quarter of an hour. Strongly express the liquor through a linen strainer, and filter. Evaporate the filtered liquor with a gentle heat, and set it aside that it may crystallize.

Dissolve the crystals, that they may be pure, a second and a third time in water, and as repeatedly strain, boil down, and set aside.

Chemical.—*Vide* Notes and Supplement.

Remedial Action. — Exhibited in full doses, it is the grand remedy for checking the dissolute condition of the solids and fluids in sea and land scurvy. Combined with the alkalies, it forms the common saline draught for moderating febrile action, and for promoting diaphoresis. So, also, in the form of lemonade, it becomes an important adjuvant in our treatment of acute diseases.

Cautions.

draughts, you cannot determine the point of saturation by litmus (for, when the alkali is in excess, the free carbonic acid will give the red colour), unless by exposing the reddened paper to heat, as the colour produced by carbonic acid will evanesce.

Table of saturating and slightly supersaturating Proportions of this Acid with the common Alkalies.

A scruple of	Lemon Juice, or Solution of Citric Acid.	Citric Acid.
(crystals) Bicarbonate of Potassa, the old Carbonate of Potassa.	f3iijss to f3iv	gr. 14 to 15
(dry) Carbonate of Potassa, the old Subcarbonate, or Kali.	f3iv to f3v	gr. 17 to 20
(without efflorescence) Sesquicarbonate of Ammonia, the old Subcarbonate of Ammonia.	f3vj to f3vij	gr. 24 to 26
(crystals) Carbonate of Soda, the old Subcarbonate of Soda.	f3jss to f3iij	gr. x to xij

N.B. The larger proportions of acid are the more palatable. Haygarth, Brande, Paris, Phillips, have all given tables differing from each other, and the latter gentleman differs from himself in his new and old Pharmacopœia.

Cautions.

ACIDUM HYDROCHLORICUM.

Hydrochloric Acid.

The young dispenser should carefully distinguish this name in prescriptions.

Take of Chloride of Sodium dried, two pounds;
Sulphuric Acid, twenty ounces;
Distilled Water, twenty-four fluidounces:

Throw your Chloride of Sodium into a glass retort, and add your Acid previously mixed with twelve ounces of the water. Pour the remainder of the water into a receiver; then, having adapted the retort, let the Acid pass over into this water, distilled by means of a sand-bath, with a heat gradually raised.

Chemical.—A solution of real hydrochloric (muriatic acid) gas in water. 100 grs. saturate 132 grs. of crystals of carbonate of soda. Davy states, that water at 40° absorbs 480 times its volume of this gas. Hydrochloric acid (liquid) emits white fumes from its attracting the moisture of the atmosphere, and such fumes redden litmus previously moistened.

Remedial Use.—*Vide* the Diluted Acid.

ACIDUM HYDROCHLORICUM DILUTUM.

Dilute Hydrochloric Acid.

Diluted Muriatic Acid.

Incompatible with alkalies, with alkaline carbonates, earthy potassio-tartrates, nitrate of silver, &c., &c.

Recollect the case of inquest in Tottenham Court Road, from *not making out each syllable* of terms somewhat similar.

Take of Hydrochloric Acid, four fluidounces;
Distilled Water, twelve fluidounces:
Mix.

Remedial Use.—In irritable stomachs, combined with a bitter, it is frequently useful where other forms are rejected. It, also, when added to barley-water or other drinks, is useful in putrid fevers; and is advantageously added to gargles for foul sores of the throat.

Dose.—ɱ xx. to ʒj.

Cautions.

ACIDUM HYDROCYANICUM DILUTUM.

Diluted Hydrocyanic Acid.

Take of Ferrocyanide of Potassium, two ounces;
Sulphuric Acid, an ounce and a half;
Distilled Water, a pint and a half:

Mix the Acid with four fluidounces of the Water; and, having poured the mixed fluid, after it has grown cold, into a glass retort, add the Ferrocyanide of Potassium previously dissolved in half a pint of the Water. Pour eight fluidounces of the Water into a cooled receiver; then, having fitted on the retort, let six fluidounces of Acid pass into this Water, distilled by means of a sand-bath over a slow fire. Lastly, add six more fluidounces of the Distilled Water, or add the Water in such a proportion as that 12·7 grains of Nitrate of Silver dissolved in Distilled Water may be accurately saturated by 100 grains of this [diluted] Acid.

Diluted Hydrocyanic Acid may be otherwise prepared, when more immediately required, from forty-eight grains and a half of Cyanide of Silver, added to a fluidounce of Distilled Water, already mixed with thirty-nine grains and a half of Hydrochloric Acid. Shake all these in well-stopped vials, and, after a short time, pour off the clear liquor into another vessel. Preserve this for use, carefully excluding the light.

Chemical.—For theory of process and tests, *vide* Supplement and Notes. Hydrocyanic acid (liquid) is a solution of the real acid in water. It is impossible to keep it for any considerable time at a uniform strength. The above standard having been determined on, all others should be abolished for the sake of public safety, but more especially that made according to the formula of Gay Lussac; since, if used instead of the preceding, and in the same dose, it

Sp. G. no test of its strength.

Scheele's test for the presence of the poison in suspected liquids. 1. Add a solution of green vitriol. 2. Drop in liquor of potassa in excess. 3. Redissolve the precipitate in muriatic acid, and it will give the tint of Prussian blue.

N. B. Made after eight different formulæ hitherto, and these mostly varying in strength.

All mixtures containing it should be well shaken each time before use.

Is ferrocyanide of potassium soluble in the proportion of water named in this formula? In the Editor's experience, certainly not.

Cautions.

would, in all probability, prove destructive. Much of the ferrocyanide of potassium found in the shops of this metropolis is only partially soluble in water.

Remedial Use.—It is commonly used for suicide, and is fit for little else, with the exception of its use externally as a lotion in some cutaneous diseases, attended with intolerable pain and itching, and not extended over too large a surface. On good authority, however, it is recommended in pulmonary irritation (tubercular?), painful affections of the stomach, in neuralgia, hooping-cough, &c.

Dose.— Internally, from five minims upwards, in any bland vehicle; externally, as a lotion, a fluidrachm to half a pint of any bland liquid, gradually increasing the quantity of the acid.

ACIDUM NITRICUM.

Nitric Acid.

Take of Dried Nitrate of Potassa,
Sulphuric Acid, of each two pounds;
Mix in a glass retort, then let the Acid distil from a sand-bath.

Incompatible with salifiable bases, carbonates, &c., sulphate of iron, alcohol, acetates of lead, muriatic &c.

f℥ss. of the undiluted acid to a pint of water, forms a good lotion to alter the action of leprous and other scaly sores. The Editor has cured lepra of fourteen years standing by this remedy, using at the same time internally the solution of corrosive sublimate.

Chemical.—For theory of process, *vide* Supplement; and for tests, *see* Notes.

Remedial Use.—It is a powerful tonic, and so far influences the condition of the circulatory system, that, if its use is persisted in too long, it is said to excite fever, cough, hæmoptysis, &c. It has no specific power over syphilis, but is often useful in the debility attendant on the secondary symptoms. Externally, it is used as a caustic.—*Vide* Brodie on Diseases of the Urinary Organs, page 177.

Dose.—*Vide* the Diluted Acid.

ACIDUM NITRICUM DILUTUM.

Diluted Nitric Acid.

Take of Nitric Acid, a fluidounce;
Distilled Water, nine fluidounces:
Mix.

Remedial Use. — In addition to the above, it may be stated that the most elegant form of this medicine in typhoid fever is the nitric lemonade, in the proportion of half a fluidrachm to a pint of water. It is also an important means of arresting the deposit of the triple-phosphate of ammonia and magnesia; but in these latter cases, it is exhibited largely, even to the extent of from thirty to forty minims of the undiluted acid three times a day in syrup and water.—*Vide* BRODIE on "Diseases of the Urinary Organs," page 177.

Dose.—ɱxx. to fʒij.

A bath, acidulated with a mixture of nitric and muriatic acids, was recommended by Dr. Scott as a general substitute for mercurials in liver complaints, &c.

Cautions.

Ung. Acid. Nitric.
℞ Acid. Nitrici. fʒj.
Adipis,
Ung. Cetacei, āā ʒiv.
Ol. Olivæ, fʒj.
Ft. Ung.
In Tænia, Impetigo, &c., but it should be put by for a fortnight before it is used.

ACIDUM PHOSPHORICUM DILUTUM.

Diluted Phosphoric Acid.

Take of Phosphorus, an ounce;
Nitric Acid, four fluidounces;
Distilled Water, ten fluidounces:

Incompatible with alkalies, alkaline carbonates, &c.

Having poured your Nitric Acid mixed with the water, into a glass retort, and placed it in a sand-bath, add the Phosphorus; then apply heat until eight fluidounces have passed over. Let this portion again be returned to the retort, that eight fluidounces may distil, which are to be rejected. Evaporate the remaining liquor in a platinum-capsule, until only two ounces and six drachms remain. Lastly, to the Acid, when cold, add enough Distilled Water to make it accurately measure twenty-eight fluidounces.

Chemical.—*Vide* Notes and Supplement.

Remedial Use.—It has been introduced as an acid tonic, and is said to control the pathological condition which leads to morbid depositions of phosphate of lime. Professor Brande, who has paid much attention to these matters, prefers the vegetable acids; Dr. Prout and Sir B. Brodie advocate the use of the nitric and muriatic in preference.

Dose.—ɱxxv. to fʒj.

Cautions.

ACIDUM SULPHURICUM DILUTUM.

Diluted Sulphuric Acid.

Set by for a day or two, and pour off the clear liquor from the white powder (sulphate of lead, &c.), which subsides.

Incompatible with all the carbonates, nitrates, hydrochlorates, acetates of lead, &c.

Take of Sulphuric Acid, a fluidounce and a half;
Distilled Water, fourteen fluidounces and a half:

Gradually add the Acid to the Water, and mix.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Use.—As a tonic, it is useful in combination with bitters, for irritable conditions of stomach; and, as a refrigerant, in combination with Epsom Salts, to repress hæmorrhage, it is, perhaps, one of the most extensively used medicines we have.

Dose.—ɱxx. to fʒj.

ACIDUM TARTARICUM.

Tartaric Acid.

The sodaic draughts with this acid cannot be adequately substituted for soda water, where the object is to neutralise free acid in the stomach.

Take of Bitartrate of Potassa, four pounds;
Boiling Distilled Water, two gallons and a half;
Prepared Chalk, twenty-five ounces and six drachms;
Diluted Sulphuric Acid, seven pints and seventeen fluidounces;
Hydrochloric Acid, twenty-six fluidounces and a half, or as much as may be sufficient:

Boil the Bitartrate of Potassa with two gallons of the Distilled Water, and gradually add half of the Prepared Chalk; then, after the effervescence, add the remainder of the Chalk, previously dissolved in the Hydrochloric Acid, diluted with four pints of Distilled Water. Finally, set aside, that the Tartrate of Lime may subside; pour off the liquor, and frequently wash the Tartrate of Lime with Distilled Water until taste-

less; then pour thereon the diluted Sulphuric Acid, and boil for a quarter of an hour. Evaporate the strained liquor with a gentle heat, that it may crystallize. *Cautions.*

Dissolve the crystals, that they may be pure, a second and a third time in water, and as repeatedly strain, boil down, and set aside.

Chemical. — For the theory of the process, and the tests, *Vide* Notes and Supplement.

Remedial.—Like other acids, it is refrigerant, and most commonly used in the form usually denominated soda-effervescing powders, and in that of the Seidlitz powders. The former in the proportion of gr. xxxv. of acid, and ℈ij. of sesquicarbonate of soda. The latter are constituted of Rochelle salt, ʒij., tartaric acid, gr. xxxv., sesquicarbonate of soda (the old carbonate), ℈ij., to which some chemists add the $\frac{1}{12}$ of a grain of tartar emetic to render them more active.

ÆTHEREA.

Æthers.

ÆTHER SULPHURICUS.

Sulphuric Æther.

Take of Rectified Spirit, three pounds;
Sulphuric Acid, two pounds;
Carbonate of Potass, previously calcined, an ounce:

Pour two pounds of the Spirit into a glass retort, and, having added to it the Acid, mix. Then, place it in sand, and raise the heat, so that the liquor may boil as soon as possible, and the Æther may pass

It should not be ordered in large quantities, since, by keeping, it absorbs oxygen, and generates acetic acid.— *Vide* Notes.

Æther boils under a mean atmospheric pressure at 96°, hence, it is rapidly diffused in the alimentary canal, where it meets

Cautions.

with a temperature several degrees higher.

Synonyms.— Æther Vitriolicus, Hydratic Æther.

over into a receiver kept cool by means of ice or water. Let the liquor distil until some of the heavier portion begins to pass over. Now, having lowered the heat, pour the remainder of the Spirit to the Liquor which remains in the retort, that the Æther may distil as before. Having put the Distilled Liquors together, pour off the supernatant part, and add to it the Carbonate of Potassa, shaking occasionally for an hour. Finally, let the Æther be distilled from a large retort, and be kept in a closely stopped bottle.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—Æther may either excite, or tranquillise, the nervous system, according to the dose employed, and according to the previous condition of the patient. It is, however, in a state of diminished energy, that the most beneficial effects are obtained from it, whether in the hysteric paroxysm, or the spasm, subsultus, or hiccough attendant on fevers. In cramp of the stomach, and in vomiting from debility of this organ, it is highly serviceable. It is also called a narcotic, but so far from being analogous to narcotics strictly so called, it possesses considerable power of obviating these effects, and of relieving the stupor produced by intoxicating liquors. Externally, it is a chemical refrigerant; and it is also used for burns.

Dose.—ℳxx. to ʒj; but in gouty cramp, &c., it must be frequently repeated.

OLEUM ÆTHEREUM.

Æthereal Oil.

Insoluble in water. Soluble in alcohol, and in sulphuric æther. Composition conjectured, but not known.

Sulphate of Æther of SERULLAS.

Sulphatic Æther of DUMAS.

Take of Rectified Spirit, two pounds;
Sulphuric Acid, four pounds;
Liquor of Potassa,
Distilled Water, of each a fluidounce, or as much as may suffice:

Cautiously admix your Acid with the Spirit. Let the Liquor distil, until a black froth forms; then immediately remove the retort from the fire. Separate

the lighter supernatant Liquor from the heavier portion, and expose it [the lighter] to the air for one day. To this add the Liquor of Potassa previously mixed with the water, and shake them together. Finally, when well washed, separate the Æthereal Oil which subsides.

Cautions.

Chemical.—*Vide* Notes and Supplement.

Remedial Use.—To form Hoffman's anodyne Liquor, or Spt. Ætheris Sulphurici Compos.

SPIRITUS ÆTHERIS NITRICI.

Spirit of Nitric Æther.

Take of Rectified Spirit, three pounds;
Nitric Acid, four ounces:

Gradually add the Acid to the Spirit, and mix; then let two and thirty fluidounces be distilled.

Specific gravity should not exceed ·834. It coagulates Tinct. Guiac. Strikes an olive with sulphate of iron. Boils at 70°. Is partially decomposed by agitation with water, and nitrous acid is produced.

Chemical, &c.—The chemical constitution of this, and indeed of all the preparations of æther, is matter of conjecture.—*Vide* Notes and Supplement.

Remedial Use.—As a diuretic, it has long maintained its reputation; and it is supposed to act as a refrigerant exhibited in small doses in any grateful drink. Nitre, a medicine both chemically and medically allied to this spirit, has the power of diminishing the temperature of the body so as to produce shivering, and horripilation; but it is difficult to estimate the effects of other refrigerants.

Dose.—mxx. to fʒj.

SPIRITUS ÆTHERIS SULPHURICI COMPOSITUS.

Compound Spirit of Sulphuric Æther.

Take of Sulphuric Æther, eight fluidounces;
Rectified Spirit, sixteen fluidounces;
Æthereal Oil, three fluidrachms:

Mix.

Synonyms. — Hoffman's anodyne Liquor, Liquor Anodynus Mineralis.

Remedial Use.—Said to be more anodyne than the other preparations.

Dose.—fʒss. to fʒij.

Cautions.

ALKALINA.

Alkalies.

ACONITINA.

Aconite.

Mark! you have to be careful in selecting your species of aconite:—

"Aconitum paniculatum."

De Candolle.

The young dispenser will notice the difference of termination in "Aconitinæ" and "Aconiti," and reflect there is but that difference between the patient and eternity!

Take of the Root of Aconite, dried and bruised, two pounds;
Rectified Spirit, three gallons;
Diluted Sulphuric Acid,
Liquor of Ammonia,
Purified Animal Charcoal, of each a sufficiency:

Boil the Aconite with a gallon of the Spirit for an hour in a retort, with a receiver adapted to it. Pour off the liquor, and again boil the residue with another gallon of the Spirit, together with the Spirit recently distilled, and in like manner pour off the liquor. Let the same be done a third time. Then express the Aconite, and, all the liquors being mixed and strained, let the Spirit distil. Evaporate the residue to the usual consistence of an Extract. Dissolve this in water, and strain. Evaporate this liquor with a gentle heat, that it may thicken like syrup. To this add of the diluted Sulphuric Acid, mixed with distilled water, as much as may be sufficient to dissolve the Aconitina. Now, at length, drop in the Liquor of Ammonia, and dissolve the precipitated Aconitina in the diluted Sulphuric Acid and water, mixed as before. Then mix in the animal charcoal, frequently shaking during a quarter of an hour. Lastly, strain; and, having again dropped in the Liquor of Ammonia, to precipitate the Aconitina, wash and dry it.

℞ Aconitinæ (alkaloideæ, P.N.) gr. iv.
Alcohol, *q. s.* ad solv.
Adipis, ppt. ℥iv.
M. Ft. unguent.
Gradually increased to gr. ij. to the drachm of lard.

Embrocation.

℞ Aconitinæ (alkaloid. P.N.), gr. viij.
Sp. Rectif., f℥ij.
Ft. embr.

Remedial Action. — The Aconites, after having been highly commended by Baron Stoerck and his contemporaries, for obstinate intermittents, cancer, paralysis, amaurosis, &c., were at last driven from practice from the usual error of being overrated. Stoerck's opinion of their effect in gout and rheumatism, deserves to be noticed by the moderns who claim the credit of introducing the above alkali for the cure of those diseases. "Often, after a violent fit, long-continued debility accrues; the patient, not complaining of pain, but of inability to move, is left languid and emaciated. The pulse remains natural in the day-time, but, at night, febrile symptoms approach. In this case, the aconite effects a speedy cure." *Vide* STOERCK'S *Precepts*, vol. i. page 405.

The remedy is again launched into the world by the College in so concentrated a form, that they decline (through their Translator) to name any dose for internal use. They recommend it externally, but give us no formula even for that purpose.

Cautions.

Stoerck's dose of the simple extract of Aconite was, gr. ss. to gr. j., from which one may infer how dangerous the concentrated active principle of such a remedy must be.

Dr. Turnbull's Aconitina Pills.

℞ Aconitinæ (alkaloid. P.N.), gr. j.
Pulv. Glycyrrh. gr. xvj.
Syrup, *q. s.*
Ft. Pil. xvj.
One every three hours.

AMMONIÆ SESQUICARBONAS.

Sesquicarbonate of Ammonia.

Take of Hydrochlorate of Ammonia, a pound;
Chalk, a pound and a half:

Separately powder them; then mix, and sublime with a gradually increased heat.

Chemical, &c.—For tests and explanation of process, *vide* Notes and Supplement.

Remedial Action.—It neutralises acidity in the stomach, stimulates the nervous and vascular systems, and assists in controlling the lithic acid diathesis. It is a powerful remedy in *delirium tremens*. Locally, it is a stimulant. Hence its use as a smelling salt, and as an ingredient in liniments.

Dose.—gr. v. to gr. xv.

Old name, Ammoniæ Subcarbonas, Smelling Salts, Volatile Alkali.

Incompatible with acids, with the other alkalies or their carbonates, with the alkaline earths, with super-salts, with bichloride of mercury, &c. &c.

It diminishes the action of opium, and relieves the stupor produced by it.

LIQUOR AMMONIÆ SESQUICARBONATIS.

Liquor of Sesquicarbonate of Ammonia.

Take of Sesquicarbonate of Ammonia, four ounces;
Distilled Water, a pint:

Cautions.

Dissolve the Sesquicarbonate of Ammonia in the Water, and filter.

Remedial Action.—*Vide* "Ammoniæ Sesquicarbonas."

Dose.—mxx. to fʒj.

LIQUOR AMMONIÆ.

Liquor of Ammonia.

Incompatible with acids, acidulous and most earthy salts, &c.

Specific gravity, ·960. Was named in the last Pharmacopœia, but not in this. Thus (*Vide* Notes) they now give us a formula for a liquor of ammonia, the specific gravity of which they do *not* name, but they mention in their Notes a Liquor Ammoniæ Fortior without a formula, the specific gravity of which they *do* name, viz. ·882; Turner's process, ·936. As formerly recommended by Mr. R. Phillips ·954. The strongest, ·875.—Davy's *Elements*.

Take of Hydrochlorate of Ammonia, ten ounces;
Lime, eight ounces;
Water, two pints:

Throw the lime, previously slaked by a portion of the Water, into a retort; then add the Hydrochlorate of Ammonia bruised into small pieces, and the rest of the Water. Distil fifteen fluidounces of the Liquor of Ammonia.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—Stimulant in hysteria, in the stupor produced by narcotics, and in certain species of paralysis. As an antacid in the lithic diathesis of weak gouty subjects; and externally, as a rubefacient in sore throat, cold rheumatism verging on paralysis.

Dose.—mx. to mxl.

LIQUOR AMMONIÆ ACETATIS.

Liquor of Acetate of Ammonia.

Spiritus Mindereri. Do not rely on these proportions, but on the taste, or test with litmus after giving time for the escape of the carbonic acid.

Take of Sesquicarbonate of Ammonia, four ounces and a half, or a sufficiency;
Distilled Vinegar, four pints:

Add the Sesquicarbonate to the Acid, to perfect saturation.

Chemical, &c.—For tests and theory of process, *vide* Notes.

Remedial Action.—It is determined to the skin, or to the kidneys,

according to the warmer or colder state of the surface of the body; and thus increases the action of either of these organs. It is also refrigerant; and is externally applied for the same purpose in evaporating lotions.

Cautions.

Dose.—f℥ss. to f℥vj.

Morphia.

Take of Hydrochlorate of Morphia, an ounce;
Liquor of Ammonia, five fluidrachms;
Distilled Water, a pint:

To the Liquor of Ammonia mixed with one ounce of the Distilled Water, add the Hydrochlorate of Morphia, first dissolved in a pint of the Water, shaking them together. Wash your precipitate with Distilled Water, and dry it with a gentle heat.

Insoluble in cold water, sparingly soluble in hot, and, therefore, almost inactive in the stomach unless it meet with acetic or muriatic acid.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Use.—To make the Acetate of Morphia.

MORPHIÆ ACETAS.

Acetate of Morphia.

Take of Morphia, six drachms;
Acetic Acid, three fluidrachms;
Distilled Water, four fluidounces:

Mix the Acid with the Water, and pour it upon the Morphia to saturation. Let the Liquor be evaporated with a gentle heat, that it may crystallize.

Incompatible with alkalies, and alkaline earths; and, therefore, in severer chemistry, the well-known combination of opiates with acetate of lead would seem objectionable.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Use.—The superiority of acetate and muriate of morphia over the old preparations of opium has been explained by the supposition of its acting as an anodyne without producing the subsequent derangement of the brain attended with headach, vertigo, sickness, and febrile symptoms, of which patients so often complain, and these last effects (without much evidence) have been ascribed to the narcotin of the drug. For a fuller account of the effects of opium, *vide* Morphiæ Hydrochloras.

Dose.—Gr. $\frac{1}{10}$ to gr. j., and upwards.

Cautions.

Incompatible with astringents containing tannin and Gallic acid, which give precipitates with all the salts of morphia. — *Vide* Acetas Morphiæ.

This salt is uniform in its constitution; but the acetate of morphia varies. Besides it has another advantage over the acetate, in not being deliquescent; whereas the neutral acetate is decomposed by water.

Formula for Syrup.

℞ Morphiæ Hydrochloratis, gr. ij.
Syrupi, ℥iv.
M.

The dose,—a teaspoonful occasionally, when the cough is troublesome, or two teaspoonsful and upwards for an anodyne dose.

The sulphate of morphia was considered by the French physicians who used it as nearly equal in strength to that of the acetate, but the muriate is thought to be stronger.

N.B. Most of the patent preparations of opium are made with an excess of acid; and are therefore less liable to decomposition than the neutral acetate. This observation does not apply to Battley's solution (containing

MORPHIÆ HYDROCHLORAS.

Hydrochlorate of Morphia.

Take of Opium sliced, a pound,
Crystals of Chloride of Lead, two ounces, vel *q. s.*
Purified animal Charcoal, three ounces and a half;
Hydrochloric Acid,
Distilled Water,
Liquor of Ammonia, of each *q. s.*:

Macerate the Opium in four pints of Distilled Water for thirty hours, and bruise; then, having digested for twenty hours more, express. Macerate the residue that it may be devoid of taste, a second and a third time in Water, and so often bruise and express. Evaporate the mixed liquors with the heat of 140°, down to the consistence of Syrup. Then, add three pints of Distilled Water, and when all the dregs have subsided, pour off the supernatant liquor. To this gradually add two ounces of Chloride of Lead, previously dissolved in four pints of boiling Distilled Water, or persist in adding it until the precipitation is ended. Pour off the liquor, and repeatedly wash the residue with Distilled Water. Then, evaporate the mixed liquors with a gentle heat as before, and set aside that crystals may form. Compress these in a linen cloth, then dissolve in a pint of Distilled Water, and having digested them with an ounce and a half of animal Charcoal, with a heat of 120°, afterwards strain. Finally, having washed away the charcoal, carefully evaporate the liquors to crystallization. To the mother liquor from which the first crop of crystals has been separated, after adding a pint of Water, drop in by degrees (shaking occasionally), a sufficient quantity

of Liquor of Ammonia to precipitate all the Morphia. Having washed it with Distilled Water, add Hydrochloric Acid to saturation; then digest it with two ounces of animal Charcoal, and strain. Lastly, the Charcoal being washed, carefully evaporate the liquors, that pure crystals may be formed.

Chemical, &c.—For properties and theory of chemical process, *vide* Notes and Supplement.

Remedial Action.—Long before the discovery of morphia, it had been noticed, that certain acidulated preparations of opium produce the anodyne effects of that drug without the subsequent disturbance of the brain and stomach. Hence, the reputation of the Sunderland drop, the black drop of Braithwaite, and several preparations made with lemon-juice. Then came the discovery of the alkali; and we were told, that the stupifying power resides in the narcotine, and the sedative or anodyne power in the alkaline. Now, Bally asserts, that narcotine has little or no action on the human body. Orfila considers it stupifying and deleterious; while Magendie deems it a powerful excitant. Subsequent discoveries have shewed (whether as products or educts is a matter of doubt) that opium, besides meconic acid and morphia, contains five alkaloids, viz. codeia, narceia, meconia, thebaia, and narcotina. Their medicinal action, indeed, has not yet been determined, but the complexity of the constitution of the drug will perhaps account for the difference of opinion on the medicinal properties of the narcotine. The Editor has observed, that with opium-eaters the salts of morphia are not adequate substitutes, at least, as far as his observation has extended; and this renders it probable, that the stimulant properties reside either in the narcotine or in some other principle. As new wine will produce headach so will new opium; but age (if we may trust to the experience of the habitual consumers) equally improves the drug, and corrects that stupifying and pernicious quality, which so often embarrasses the head and stomach. If this view of the salts of morphia be correct, they must be inefficient for all stimulant indications; inefficient to support the powers of life in variola confluens, and in typhoid diseases; inefficient in the cold stages of ague to bring on the hot; and inefficient to support the vigour of the circulation in abscesses. On the other hand, they will be more applicable where anodyne effects are alone aimed at.

Dose.—Gr. $\frac{1}{6}$ to gr. ij. regulated by the preceding observations.

Cautions.

very little spirit) which has no more acid in it than the laudanum itself, as far as the Editor is able to judge from experiments frequently repeated, and he confidently adds, that if the dispenser be curious in selecting his opium, and giving it age before he use it, he will seldom want any chemical substitute for the common preparations. — *Vide* Tinct. Opii.

Liquor Morphii Citratis. (*Dr. Porter*).

℞ Opii crudi optimi, ʒiv.

Acidi Citrici (crystal.), ʒij.

These are bruised in a mortar; and a pint of boiling distilled water being poured on, they are intimately mixed, and macerated for twenty-four hours, after which the solution is strained.

Braithwaite's Black Drop.

Take Opium, lbss.

Verjuice, Oiij.

Nutmegs, ʒiss.

Saffron, ʒss.

Boil to proper thickness; then add sugar, ʒiv, and of yest two tablespoonsful. Macerate near the fire for six weeks, then expose to the air until it becomes a syrup; lastly, decant, filter, and bottle it. About thrice as strong as laudanum.

Cautions.

QUINÆ DISULPHAS.

Disulphate of Quina.

These are the common crystals of commerce, (formerly called sulphate of quina), and now called disulphate. When this is triturated with diluted sulphuric acid, it forms a white magma, and, by the addition of more acid, it dissolves. On evaporating the solution, it yields crystals of the true neutral sulphate.

Take of bruised heart-leaved Cinchona Bark, seven pounds;
Sulphuric Acid, nine ounces;
Purified Animal Charcoal, two ounces;
Hydrated Oxide of Lead,
Liquor of Ammonia,
Distilled Water, of each *q. s.*:

Incompatible with alkalies, alkaline carbonates, and with the usual precipitants of sulphuric acid, &c.

Mix four ounces and two drachms of the Sulphuric Acid with six gallons of distilled Water; and to these add the Bark: boil for an hour, and strain. In like manner, boil the residue in the same proportion of Acid and Water for an hour, and again strain. Finally, boil down the Cinchona in eight gallons of distilled Water for three hours, and strain. Wash the residue with boiling distilled Water frequently renewed. To the mixed liquors add Oxide of Lead, while moist, to the point of saturation. Pour off the supernatant liquor, and wash the precipitate with distilled Water. Boil down the liquors for a quarter of an hour, and strain; then gradually add Liquor of Ammonia to precipitate the Quina. Wash this until no Alkali be perceptible. Let the residue be saturated with the remaining diluted Sulphuric Acid. Afterwards digest with two ounces of Animal Charcoal, and strain. Finally, all the charcoal being washed, carefully evaporate the liquor, that crystals may be formed.

Crystals, — needle-like, pearly, flexible, silky, like asbestos, united in radiated flakes, and excessively bitter.

Be careful not to carry the desiccation too far, or the crystals will fall to powder.

Chemical, &c. — Quina, 2 equiv.; Sulph. Acid, 1; Water, 8. For tests and theory of process, *vide* Notes and Supplement.

Remedial Use.—In small doses this, like all the preparations of bark, acts directly as a stimulant on the tissue with which it comes in contact, as is evident from its effect in curing agues when used

externally over a considerable extent of abraded surface. In larger doses, it finds its way perceptibly over the whole system, permanently increasing the vigour and regular activity of the circulation. In over doses it will disorder the digestive organs somewhat like an excess of the common diffusible stimulants, inducing foul tongue, thirst, heat in the epigastric region, sickness, headach, and, in some cases, hæmorrhage, particularly in females. The intensity of the tonic action exerted by the species of Cinchona Bark varies with the quantity of Quina or of Cinchona contained in each; but their astringent property seems to depend on a red tannin, and very slightly, if at all, pervades the Alkali itself. Dumas tells us that 120,000 ounces of this salt are annually exported from Paris alone, from which fact we may judge how extensively it is employed. The chemical discovery of the alkali by affording its active principle in a very small volume detached from the lignin and other impurities, independent of the impetus which novelty always gives to the employment of remedies, has led to a greater consumption of the Bark in the process of manufacture, than was ever before known; but in those cases where disease depends on laxity of tissues, and surfaces require to be constringed by actual contact with the remedy, the Bark, or its vegetable preparations, are decidedly preferable to the salt. In limited doses it is a good stomachic, although not so generally employed as the more simple bitters in dyspeptic affections. In cases of obstinate and chronic diarrhœa the powdered red bark is to be preferred. In intermittent fevers the salt is most convenient, and most efficacious, and should be exhibited in full doses between the paroxysms, at intervals of two or three hours. There are cases, however, which require a maximum dose all at once, both on account of the shortness of the intermissions, and the difficulty of producing any impression by smaller doses.

Dose. — As a stomachic, gr. ¼ to gr. j.; as a powerful tonic, gr. ij. to ℈j.

Cautions.

Quina Draughts.

℞ Quinæ Disulphat. gr. ss.
Acid. Sulph. dil., ♏ij.
Aquæ destillat. f℥vj.
Syrup. Aurantii, f℥j.
M.

In dyspepsia as a stomachic.

℞ Quinæ Disulphatis, Zinci Sulphatis, ā ā gr. j.
Extract. Anthemidis, *q. s.* ft. Pil.
Every two or three hours in the intervals of agues.

Dr. Sadillot's Febrifuge Pills.

℞ Quinæ Disulphatis, gr. xij.
Opii pulv., gr. iij.
Confect. Op., gr. x. vel. *q.s.* for twelve pills: one every hour or two, in the intermission of ague.

STRYCHNIA.

Take of Nux-vomica, bruised, two pounds;
Rectified Spirit, three gallons;
Diluted Sulphuric Acid,
Magnesia,
[Liquor of Ammonia,] of each a sufficiency:

The liquor ammoniæ is omitted in the Latin text.

Boil the bruised Nux-vomica with a gallon of the Spirit for an hour, in a retort, with a receiver fitted to

it. Pour off the liquor, and again and a third time boil the residue with another gallon of Spirit, and the Spirit recently distilled, and [similarly] pour off the liquor. Press the Nux-vomica, and from the mixed and strained liquors let the Spirit distil. Evaporate what remains to the proper consistence of an extract. Dissolve this in cold water, and strain. Evaporate the strained liquor with a gentle heat to the consistence of a syrup. To this, while yet warm, gradually add the Magnesia, to saturation, shaking them together. Set aside for two days; then pour off the supernatant liquor. Press the residue, wrapped in cloth; boil it in Spirit; and, having strained, let the Spirit distil. To the residue add some small portion of diluted Sulphuric Acid, mixed with water, and macerate with a gentle heat. Set aside for twenty-four hours, that it may crystallize. Press and dissolve the crystals; then to these, dissolved in water, add Ammonia, occasionally shaking, that the Strychnia may be precipitated. Lastly, dissolve this in boiling Spirit, and set aside, that pure crystals may form.

Cautions.

A white powder, consisting of extremely minute crystals, prismatic, inodorous, excessively bitter, and unchanged by the air.

If it contain brucia, it will strike a deep red colour by the addition of nitric acid.—MAJENDIE.

Twelve times as strong as brucia, and twelve times as strong as the nux-vomica.

Formula.

℞ Strychniæ, gr. j.
Ext. Colocynth. c. gr. xij.
Ft. Pil. xij.
One pill every eight hours, duly watching its effects.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—Nux-vomica, and the two alkalies it contains, act powerfully on the living body. It has been asserted that it acts exclusively, like most of the acro-narcotics, on the nerves of motion; but its effects extend also to those of sensation. It induces spasm of the muscles, alternating at intervals with flaccidity. Limiting ourselves to the effects of the strychnia, it may be observed, that it more especially acts on the spinal marrow; for, as has been proved by experiments on animals, the division of this organ below the occipital bone, or even decapitation, does not prevent the effects from taking place, and continuing some time after. This discovery has been turned to some account in the treatment of paralysis without lesion of the brain. It has also been used in permanent contractions, and in certain species of amaurosis. It has been tried also in tic-doloreux; but, for the most part, with no satisfactory results.

It is said to be incompatible with acids and acidulous salts in the College (English) Pharmacopœia; but if so, it must be on the ground of their increasing its activity; for the sulphate of strychnia is declared by Majendie to be stronger than the alkali; and acidulated forms are used all over Europe.

Dose.—$\frac{1}{12}$ of a grain upwards.

Externally, small portions (gr. ss.) have been applied to a blistered surface in paralysis, tic-doloreux, &c.

Cautions.

VERATRIA.

Take of Sabadilla [Cevadilla] [seeds], bruised, two pounds;
Rectified Spirit, three gallons;
Diluted Sulphuric Acid,
Liquor of Ammonia,
Purified Animal Charcoal,
Magnesia, of each as much as may be sufficient:

This alkali was discovered by Pelletier and Caventou in 1819. It resides also in the root of the veratrum album, and in the colchicum autumnale, although later chemists assign another alkali (colchicia) to this last plant.

Boil the Sabadilla with one gallon of the Spirit for an hour in a retort, to which a receiver is fitted. Pour off the liquor, and again boil the residue with a second gallon of the Spirit, together with the Spirit recently distilled, in like manner pouring off the liquor; and let this be done a third time. Press the Sabadilla, and let the Spirit be distilled from the mixed and strained liquors. Evaporate the residue to the proper consistence of an extract. Boil this thrice or oftener in water, to which a little diluted Sulphuric Acid has been added, and evaporate the strained liquors with a gentle heat, to the consistence of a syrup. To this, when cold, throw in Magnesia [to saturation], occasionally shaking; then express, and wash. Let the same be done a second and a third time; then dry the residue, and digest it in Spirit with a gentle heat for two or three times, and as repeatedly strain. Afterwards let the Spirit distil. Boil what remains for a quarter of an hour, in water, to which a little Sulphuric Acid and Animal Charcoal have been added, and strain. Finally, the Charcoal being thoroughly washed, carefully evaporate the [mixed] liquors, until they acquire the consistence of a syrup, and drop in as much Ammonia as may suffice for throwing down the Veratria. Lastly, separate this and dry it.

N.B. In prescribing this or any of the other vegetable alkalies, the practitioner should add the word alkaloid, to prevent error, as thus:—

℞ Veratriæ (*alkaloideæ, P. Novæ.*)

Cautions.

Formulæ.

℞ Veratriæ (alkaloid.), gr. ss.
Pulv. Acaciæ,
Syrup. āā *q. s.*
Ft. Pil. vj.
Externally in frictions.

℞ Veratriæ (alkaloid.), gr. iv.
Alcoholis, f℥j.
M. for a Liniment.

N.B. The last formula would be prefervble internally in paralysis of the muscles of deglutition, in the dose of ♏vj. upwards.

Dr. Turnbull's alcoholic formula is twice the strength of Majendie's.

Dr. Turnbull's Ointment.

℞ Veratriæ (alkaloid.), ʒss.
Ol. Olivæ, f℥j.
Adipis, ℥j.
Ft. Ung.
Rubbed into the affected part for five minutes, or from that time to three quarters of an hour, in tic-doloreux, neuralgia, &c.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—Accustomed as the editor has been, from the nature of his pursuits, to the perusal of the medical literature of the ancients, he can discover little that is new in the explanations the moderns have attempted of the *modus operandi* of veratria. The album veratrum and certain other drastic purges, were called by the Greeks nervous purges; were recommended and used by them for nervous disorders, for mania, and for nervous torpor; and Juvenal, alluding to a dolt, speaks of "a head no hellebore can cure." In detail, the moderns have advanced; but in the principle, not one step: for electro-stimulation, and "searching out the pain," are expressions quite as obscure as nervous purgation. The ancients purged with plants containing this alkali; cured nervous diseases therewith; were acquainted with its peculiar effects on the nerves, and on nervous diseases; used it in amaurosis, in gouty paralysis, rheumatic paralysis, and in a long train of nervous diseases. They used squills, externally, for the same purpose, and with success; and the Editor ventures to affirm that he who will introduce scillitina externally, (although he will only be a humble follower of Hippocrates), will effect as many cures as are ordinarily effected by the other new active principles. We are not, however, to detract from the merit of individuals who have, in our time, directed the attention of the public to the effects of acro-narcotic erodents used internally and externally, among whom Majendie and Dr. Turnbull are conspicuous.

Dose.—gr. $\frac{1}{12}$ upwards, with great caution.

Cautions.

ANIMALIA.

Animal Preparations.

CARBO ANIMALIS PURIFICATUS.

Purified Animal Charcoal.

Take of Animal Charcoal, a pound;
Hydrochloric Acid,
Water, of each twelve fluidounces:

Mix the Hydrochloric Acid with the Water, and gradually pour it on the Charcoal; then digest for two days in a gentle heat, occasionally shaking. Set aside, and pour off the supernatant liquor. In the next place wash the Charcoal with water frequently renewed, until no acidity be perceptible; and lastly dry it.

It is commonly called ivory black, before it is purified by the acid, which dissolves out the carbonate and phosphate of lime.

Remedial Use.—For bleaching the vegetable alkalis. Its power of removing animal and vegetable colouring matter is well known in the arts.

CORNU USTUM.

Burnt Horn.

Burn pieces of Horn in an open vessel, until they become thoroughly white; then form a powder, and prepare in the manner directed for Chalk.

Residue, phosphate of lime, nearly pure.

Remedial Use.—*Vide* "Pulvis Antimonialis," and Remarks on James's Powder.

TESTÆ PREPARATÆ.

Prepared Shells.

Wash the Shells, first cleansed from impurities, with boiling water; then prepare a powder in the manner directed for Chalk.

Residue, carbonate of lime. Useless, because chalk has long been used as a substitute.

Cautions.

AQUÆ DESTILLATÆ.

Distilled Waters.

AQUA DESTILLATA.

Distilled Water.

Take of Water, ten gallons:

First, let two pints pass over, and this portion being thrown away, distil eight gallons. Keep your distilled water in a glass bottle.

Chemical.—It should always be distilled from rain-water.

It should be transparent, colourless, devoid of taste and smell. It yields no precipitate with lime-water (no precipitate of carbonate of lime), none with chloride of barium (no precipitate of sulphate of baryta), nor with nitrate of silver (no precipitate of chloride of silver); nor will it blacken the gall-nut after being steeped in it. All which same tests will answer for detecting the various impurities of common water.

Boiled water no adequate substitute.

AQUA ANETHI.

Water of Dillseed.

Take of Bruised Dillseed, a pound and a half;
Proof Spirit, seven fluidounces;
Water, two gallons:

Distil a gallon.

AQUA CARUI,

Water of Carraway,

AQUA FŒNICULI,

Water of Fennel,

are prepared in the same manner as Dillwater.

The oil is contained in the testa of the seed, [fruit].

Cautions.

In this water the part of the plant to be used is indicated in the name; but more usually this is purposely omitted by the College both in the name and the process.

AQUA FLORUM AURANTII.

Water of Orange Flower.

Take of Orange Flowers, ten pounds;
Proof Spirit, seven fluidounces;
Water, two gallons:
Distil a gallon.

AQUA CINNAMOMI.

Water of Cinnamon.

Take of Cinnamon [Bark] bruised, a pound and a half;
Or of Oil of Cinnamon, two drachms;
Proof Spirit, seven fluidounces;
Water, two gallons:
Distil a gallon.

If this or any other essential oil has been adulterated with fixed oil, it will leave a greasy stain when dropped on paper and heated. If it contains alcohol, it may be detected by letting a drop or two fall on the surface of water, upon which it will present a milky instead of the transparent film of the genuine oil. If, however, the adulteration has been effected by other volatile oils, it can only be detected by the odour, and the different shade of colour when dropped on paper.

AQUA MENTHÆ PIPERITÆ.

Water of Peppermint.

Take of Peppermint, dried, two pounds;
Or of Oil of Peppermint, two drachms;
Proof Spirit, seven fluidounces;
Water, two gallons:
Distil a gallon.

AQUA MENTHÆ PULEGII.

Water of Pennyroyal.

AQUA MENTHÆ VIRIDIS.

Water of Spearmint.

These are prepared like Peppermint Water; but

Cautions.

when, in distilling either of the three, the fresh herb is employed, double the weight will be required.

AQUA PIMENTÆ.

Water of Pimento.

Dutch Acid Drops.
℞ Pimentæ contusæ, ℥j.
Alcoholis,
Aquæ destillat.
Acid. Sulph.
āā ℥vj.
Macerate for a few days and strain.
Dose.— ♏x. to ♏xx.

Take of Bruised Pimento, a pound;
Or Oil of Pimento, two drachms;
Proof Spirit, seven fluidounces;
Water, two gallons:

Distil a gallon.

AQUA ROSÆ.

Water of Roses.

Take of Damask Roses, ten pounds;
Proof Spirit, seven fluidounces;
Water, two gallons:

Distil a gallon.

AQUA SAMBUCI.

Water of Elderflower.

Where is the oil to be obtained? They do not mean the green oil?

Take of Elder Flowers, ten pounds;
Or of Oil of Elder, two drachms;
Proof Spirit, seven fluidounces;
Water, two gallons:
Distil a gallon.

Most of these distilled waters may be readily prepared, when required for immediate use, by triturating one drachm of any distilled oil, first, with a drachm of

Carbonate of Magnesia, and then with four parts of distilled water. Finally, let the water be filtered.

Cautions.

No direction is given for the addition of a portion of spirit to these extemporaneous distilled waters prepared by trituration from the oils. They will not keep without it.

Remedial Use.—Most of these waters are employed as corrigent vehicles to cover the taste of more disagreeable remedies. They diffuse a temporary warmth over the stomach and upper part of the alimentary canal; but the impression is transitory, and requires to be frequently renewed. That they obviate griping, and relieve flatulency, is known to all; and this is no small benefit. If they are not so active as many other drugs, at least their remedial effect is less equivocal and more congenial to the human body. Some, however, are simply vehicles, without excitant power. Distilled water itself, is an important remedy, and much neglected.—*Vide* Dr. Lambe on Consitutional Diseases. 8vo. 1805.

CATAPLASMATA.

Poultices.

CATAPLASMA CONII.

Hemlock Poultice.

Take of Extract of Hemlock, two ounces;
Water, a pint:

Mix, and add a sufficient quantity of bruised linseed to insure a proper consistence.

Remedial Use.—In painful mammæ, in cancer, glandular tumours, irritable sores, &c.

How is a poor man to pay for such a poultice, requiring to be renewed twice a day? But he can get the leaves in the season, and make the following:

℞ Hemlock leaves, ℥iv.
Lard, ℔ss.

Boil the leaves in the lard over a gentle fire. Spread a portion of this over a common poultice when required.

CATAPLASMA FERMENTI.

Yest Poultice.

Take of Flour, a pound;
Yest of Beer, half a pint:

Mix, and apply a gentle heat until they begin to swell.

Cautions.

CATAPLASMA LINI.

Linseed Poultice.

Take of Boiling Water, a pint;
Linseed, coarsely powdered, a sufficient quantity to insure a proper consistence.

Mix.

CATAPLASMA SINAPIS.

Mustard Poultice.

Dr. A. T. Thompson says the epispastic effect of brown mustard is diminished by vinegar. There is an idiosyncrasy of skin, as of constitution.

Take of Linseed,
Mustard [Seed], of each, in powder, half a pound;
Boiling Vinegar, a sufficient quantity to insure a proper consistence:

Mix.

CERATA.

Cerates.

CERATUM.

Cerate [simple.]

Take of Olive Oil, four fluidounces;
Yellow wax. Wax, four ounces:

Add the Oil to the melted wax, and mix.

CERATUM CALAMINÆ.

Cautions.

Cerate of Calamine.

Take of Calamine,
Wax, of each half a pound;
Olive Oil, sixteen fluidounces:

Vulgò, Turner's Cerate.
Yellow wax.

Mix the Oil with the melted Wax; then remove them from the fire; and, when they first begin to thicken, add the Calamine, and constantly stir until the Cerate is cool.

Remedial Use.—Digestive, and promotes cicatrization.

CERATUM CANTHARIDIS.

Cerate of Cantharides.

Take of Cantharides, finely powdered, an ounce;
Spermaceti Cerate, six ounces:

Active Principle.
"Cantharidin."

Add the Cantharides to the Cerate, softened by heat, and mix.

Remedial Use.—To keep open ulcers already established by the Emp. Lyttæ, &c.

CERATUM CETACEI.

Cerate of Spermaceti.

Take of Spermaceti, two ounces;
White Wax, eight ounces;
Olive Oil, a pint:

In the College translation, Mr. Phillips has the proportion thus:
Spermaceti,
White Wax, of each two ounces;
Olive Oil, four fluidounces.
Which he has since corrected in his additional *Corrigenda*.

Having melted together the Spermaceti and the Wax, add the Oil, and stir with a spatula until it cools.

Remedial Use.—Simple dressing.

Cautions.

CERATUM HYDRARGYRI COMPOSITUM.

Compound Cerate of Mercury.

3j. of Mercury in 3vij. of this cerate.

Take of the stronger Mercurial Ointment,
Soap Cerate, of each four ounces;
Camphor, an ounce:

Rub together until they are incorporated.

Remedial Use.—To promote absorption, or to excite action in indolent tumours.

CERATUM PLUMBI ACETATIS.

Cerate of Acetate of Lead.

Take of Acetate of Lead, powdered, two drachms;
White Wax, two ounces;
Olive Oil, eight fluidounces:

Dissolve the Wax in seven fluidounces of the Oil; then to these gradually add the Acetate of Lead, separately rubbed up with the rest of the Oil, and stir them with a spatula until union be complete.

CERATUM PLUMBI COMPOSITUM.

Compound Cerate of Lead.

Keep out two fluidounces of the oil to dissolve your camphor, observing that your half pint is now ten fluidounces.

Take of The Liquor of Diacetate of Lead, three fluidounces;
Wax, four ounces;
Olive Oil, half a pint;
Camphor, half a drachm:

Yellow wax.

Mix the melted Wax with eight fluidounces of the Oil. Then remove them from the fire; and when they

first thicken, gradually add the Liquor of Diacetate of Lead, and constantly stir with a spatula until they cool; lastly, to these add the Camphor dissolved in the remaining Oil.

Cautions.

Remedial Action.—This and the last cerate are astringent and sedative. In excoriations, in affections of the tarsi, recent sores of mucous extremities, &c.

CERATUM RESINÆ.

Cerate of Resin.

Take of Resin,
Wax, of each a pound;
Olive Oil, sixteen fluidounces:

Yellow basilicon. Yellow wax is meant where the white is not specified.

Melt together the Resin and Wax with a slow fire; then add the Oil, and express the Cerate while hot through linen.

Remedial Action.—Stimulant dressing for indolent ulcers.

CERATUM SABINÆ.

Cerate of Savine.

Take of Bruised Savine, a pound;
Wax, half a pound;
Lard, two pounds:

In the old Pharmacopœia the fresh leaves were used. Now the fresh and dried tops are indicated. It should not be boiled.

The Lard and the Wax being melted together, mix in the Savine, then express through a linen cloth.

Remedial Action.—To promote discharge from issues and setons, and to keep open blisters.

CERATUM SAPONIS.

Cerate of Soap.

Often made from the dregs of Goulard's Extract, or "Liq. plumbi diacetatis dil."

Take of Soap, ten ounces;
Wax, twelve ounces and a half;

Yellow wax.

Cautions.

Hard soap is meant, but selection from a variety is left to the dispenser.

Oxide of Lead, powdered, fifteen ounces;
Olive Oil, a pint;
Vinegar, a gallon:

Boil the Vinegar with the Oxide of Lead over a gentle fire, constantly stirring until they are incorporated: then add the Soap, and again similarly boil, until the moisture be entirely expelled. Finally, with these mix the Wax previously melted in the Oil.

Remedial Use.—Most commonly employed as a cooling dressing and as a resolvent.

CONFECTIONES.

Confections.

CONFECTIO AMYGDALÆ.

Confection of Almonds.

Some of the first houses in London use hot water; and if not allowed to remain in too long, so as to disturb the oil, it is better than cold.

Take of Sweet Almonds, eight ounces;
Powdered Gum-Arabic, an ounce;
Sugar, four ounces:

Having macerated your Almonds in cold water and blanched them, pound all the ingredients together until incorporated.

This Confection may be preserved a considerable time, if the Almonds, the Gum, and the Sugar, having been powdered separately, are at last mixed. Then, when required for use, let them be pounded together till incorporated.

Cautions.

CONFECTIO AROMATICA.

Aromatic Confection.

Take of Cinnamon,
Nutmegs, of each, two ounces;
Cloves, an ounce;
Cardamoms, half an ounce;
Saffron, two ounces;
Prepared Chalk, sixteen ounces;
Sugar, two pounds:

Incompatible with acids, and liable to spontaneous fermentation when kept soft. Therefore, now judiciously ordered to be kept dry, and to be mixed when wanted.

Rub together the dry ingredients into a very fine powder, and keep them in a stopped vessel. When required for use as a Confection, gradually add water, and mix until thoroughly incorporated.

Remedial Action.—An elegant cordial adjunct to cretaceous mixtures; and useful in flatulency, in tympanitis, flatulent colic, &c.

Dose.—℥ss. to ℥ij.

CONFECTIO AURANTII.

Confection of Orange-Peel.

Take of fresh Orange-Peel, separated by a rasp, one pound;
Sugar, three pounds:

Bruise the Peel in a stone mortar with a wooden pestle; then, having added the Sugar, again pound, until they are completely incorporated.

Remedial Use.—Oftener employed as an intermediate aromatic for forming masses of pills.

CONFECTIO CASSIÆ.

Confection of Cassia.

Take of Cassia [Pulp], half a pound;
Manna, two ounces;

Cautions.

Tamarinds, [Pulp of] an ounce;
Syrup of Roses, eight fluidounces:

Bruise the Manna, and dissolve it in the Syrup; then admix the Cassia and Tamarinds, and evaporate down to a proper consistence.

Remedial Use.—Laxative, but liable to gripe.

Dose.—ʒij. to ℥j.

CONFECTIO OPII.

Confection of Opium.

If the dispenser can powder sixteen ounces of syrup, he must be much more clever than the Censors of the College. The formula ought to have been "Rub the dry ingredients, &c." — *Vide* Latin text, Small Edition, page 86.

Supposing the syrup to weigh twenty ounces, thirty-six grains of this confection will contain one grain of opium.

Take of hard Opium, powdered, six drachms;
Long Pepper, an ounce;
Ginger, two ounces;
Carraways, three ounces;
Powdered Tragacanth, two drachms;
Syrup, sixteen fluidounces:

Finely powder them together, and preserve in a close vessel. When required for use, add sixteen fluidounces of Syrup made hot, and mix.

Remedial Use.—Aromatic, anodyne. In diarrhœas, flatulent colic, &c.

Dose.—Gr. xv. to ʒij.

CONFECTIO PIPERIS NIGRI.

Confection of Black Pepper.

Imitation of Ward's paste for the piles.

Take of Black Pepper,
Elecampane [Root], of each, a pound;
Fennel [Seeds],
Honey,
Sugar, of each, two pounds:

Rub together the dry ingredients into a very fine powder, and preserve them in a covered vessel. When

the Confection is required for use, add the Honey, and pound them until incorporated.

Cautions.

Remedial Action.—In a lax state of mucous membrane with distended state of hæmorrhoidal veins.

Dose.—3j. to 3iij.

CONFECTIO ROSÆ CANINÆ.

Confection of Dog-Rose.

Take of the [Pulp of the] Dog-Rose, a pound;
Powdered Sugar, twenty ounces:

Expose the Rose-Pulp in an earthenware vessel to a gentle heat, then gradually add the Sugar, and rub together until incorporated.

Also called Confection of Hips. When you want to make a small pill this confection is preferable to that of the Confectio Rosæ Gallicæ.

Remedial Use.—Principally as an intermede to form pills.

CONFECTIO ROSÆ GALLICÆ.

Confection of the French Rose [Red].

Take of the French Rose [Petals], a pound;
Sugar, three pounds:

Bruise the Rose-Petals in a stone mortar; then, having added the Sugar, again bruise until incorporated.

Remedial Use.—As a repressing and cooling malagma in ophthalmia, and as an intermede for pills, &c.

CONFECTIO RUTÆ.

Confection of Rue.

Take of Dried Rue,
Carraways,
Laurel [Bay] Berries, of each, an ounce and a half;

Cautions.

The motions after the exhibition of this confection are always extremely fœtid.

Sagapenum, half an ounce;
Black Pepper, two drachms;
Honey, sixteen ounces:

Finely powder the dry ingredients together, and preserve them. Then when the Confection is required for use, add the Honey, and mix.

Remedial Use.—Internally, a most useful remedy in flatulent and hysteric colic; and for enemata in the same diseases.

Dose.—ʒj. to ʒiij.

CONFECTIO SCAMMONII.

Confection of Scammony.

It contains about gr. j. in gr. iij. of the mass.

Take of Powdered Scammony, an ounce and a half;
Bruised Cloves,
Powdered Ginger, of each, six drachms;
Oil of Carraway, half a fluidrachm;
Syrup of Roses, a sufficient quantity:

Finely powder the dry ingredients and preserve them; then, whenever the Confection is required for use, gradually mix in the Syrup by trituration. Finally, having added the Oil of Carraway, mix them all.

Remedial Action.—Purgative, anthelmintic.

Dose.—Gr. x. to ℈j.

CONFECTIO SENNÆ.

Confection of Senna.

Take of Senna, eight ounces;
Figs, a pound;
Tamarind (Pulp),
Cassia (Pulp),
Prunes, of each, half a pound;
Coriander Seeds, four ounces;
Liquorice Root, three ounces;

Fulgò, Lenitive Electuary. The dispenser will remark that, if he judge by the columns of the Materia Medica prefixed to the

Sugar, two pounds and a half;
Water, three pounds:

Rub the Senna with the Coriander Seeds; and, with a sieve, separate ten ounces of the mixed powder. Then boil down the water with the Figs and Liquorice to one half; express, and strain. Evaporate the strained liquor by a water bath until twenty-four fluidounces remain from the whole. Then, having added the Sugar, let a syrup be formed. Finally, gradually rub the Pulps with the Syrup; and, having thrown in the sifted powder, mix them all.

Remedial Action.—Laxative, and an elegant medicine when well prepared.

Dose.—ʒij. and upwards.

Cautions.

College Edition, he will have to use the pulp of tamarinds, the pulp of cassia, and the dried fruit of the prune. Their translator, however, says, that only the pulp of this last is to be weighed.

DECOCTA.

Decoctions.

The effect of boiling differs greatly from that of infusion. In the heat of boiling water, the essential oils of vegetables, in which their virtue frequently resides, are dissipated; and when we wish to retain these more volatile parts, infusion is decidedly preferable. Other substances sparingly dissolved by simple infusion, yield their virtues very readily to the process of coction. In compound decoctions, those ingredients should be boiled first which least readily impart their active principles; and those which more readily impart them, may be added afterwards. They should always be strained hot, and the purest water should be employed. As they deposit in cooling, much of the principles they may have dissolved while hot, clear decoctions are not always the most eligible, although most pleasing to the eye.

DECOCTUM ALOES COMPOSITUM.

Compound Decoction of Aloes.

Take of Extract of Liquorice, seven drachms;
Carbonate of Potassa, a drachm;

Baume de Vie is a name often given to this decoction, but the French *Baume de Vie* is a tincture.

Mark! do not put in the old carbonate of potassa by mistake.

Cautions.

Spiked aloes was specified in the last, but many dispensers prefer the Cape for this preparation. The College now restrict us to the extract of the aloes spicata; but both that called soccotrine and the common Cape are the products of the same species. *Vide* the columns of the Materia Medica.

Powdered Aloes,
Powdered Myrrh,
Saffron, of each, a drachm and a half;
Compound Tincture of Cardamoms, seven fluid-ounces;
Distilled Water, a pint and a half:

Boil down the Liquorice, the Carbonate of Potassa, the Aloes, the Myrrh, and the Saffron, from the Water to a pint, and strain; then add the Compound Tincture of Cardamoms.

Remedial Action.—A warm muscular purge, operating chiefly on the larger intestines; and, in smaller doses, a stomachic.

Dose.—f℥ss. to f℥ij.

DECOCTUM AMYLI.

Decoction of Starch.

This ought to have been located with the enemata, since it is rarely used as a demulcent in any other form.

Take of Starch, four drachms;
Water, a pint:

Rub the Starch with the Water, gradually poured in; then boil for a short time.

Remedial Use.—For clysters in dysentery, and as a demulcent.

DECOCTUM CETRARIÆ.

Decoction of Liverwort.

Vulgò, Iceland Moss. It contains a peculiar starch called Lichenin.

Take of Liverwort, five drachms;
Water, a pint and a half:

Boil down to a pint, and strain.

Remedial Use.—A demulcent tonic. When the demulcent operation is principally required, and the strong bitter is objectionable, it may be previously simmered with water, and the first liquor may be rejected.

Dose.—f℥ij. upwards.

Cautions.

DECOCTUM CHIMAPHILÆ.

Decoction of Winter Green, or Pyrola.

Take of Chimaphila (Pyrola), an ounce;
Distilled Water, a pint and a half:

Boil down to a pint, and strain.

Remedial Action.— Diuretic; slightly astringent. Prescribed, also, in infusion. Said to blacken the urine like Uva Ursi, and used in the like diseases.

Dose.—f℥j. to f℥ij.

An American plant — a panacea among the Indians.

Dose.—3ss. to 3ij. of the leaves.

Infusion.
℞ Fol. Pyrolæ, ℥j.
Aquæ Ferventis, Oj. M.

DECOCTUM CINCHONÆ CORDIFOLIÆ.

Decoction of Yellow Bark.

Take of the Heart-leaved (yellow) Cinchona, bruised, ten drachms;
Distilled Water, a pint:

Boil for ten minutes in a vessel lightly covered, and strain the liquor while yet hot.

Remedial Action.—Tonic, astringent, febrifuge. An antidote in cases of poison by Emetic Tartar. *Vide* Quinæ Disulphas.

Dose.—f℥j. to ℥ij.

It contains quina. Bark draughts of either of these three decoctions should, after the first straining, be exhibited without being decanted from the secondary precipitate.

DECOCTUM CINCHONÆ LANCIFOLIÆ.

This species also contains quina.

Decoction of Lance-leaved Cinchona.

DECOCTUM CINCHONÆ OBLONGIFOLIÆ.

Decoction of the Oblong-leaved Cinchona.

These two last are prepared in the same manner as that of the Yellow Bark.

This contains two alkalies, quina and cinchonia.

Cautions.

DECOCTUM CYDONIÆ.

Decoction of Quince-Seeds.

It ought not to be kept longer than 24 hours.

Take of Quince-Seeds, two drachms;
Distilled Water, a pint:

Boil with a gentle fire for ten minutes, and strain.

Remedial Action.—Demulcent, and externally emollient in erysipelas.

DECOCTUM DULCAMARÆ.

Decoction of Woody Nightshade.

Tincture of lavender will obviate the narcotic effect

Take of the Woody Nightshade, sliced, ten drachms;
Distilled Water, a pint and a half:

Boil down to a pint, and strain.

Remedial Action.—Diaphoretic and diuretic, but not much used. It is apt to exert vertiginous narcotic effects, and sudden fits. Sir A. Crichton says he cured many cases of leprosy by the use of this remedy.

Dose.—f℥j. to f℥iij.

DECOCTUM GRANATI.

Decoction of Pomegranate.

Take of Pomegranate (Rind), two ounces;
Distilled Water, a pint and a half:

℞ Bark of Pomegranate Root, ℥ij.
Water, a pint:

Boil down to half a pint; and give the whole at two doses, at the interval of two hours.

Boil down to a pint, and strain.

Remedial Use.—Astringent, vermifuge; but, for the latter purpose, the bark of the root is preferable. A decoction of this last, as in the annexed formula, has repeatedly expelled tænia, as the Editor can testify. The decoction of the root purges, and in about an hour brings away the worm.

Cautions.

DECOCTUM HORDEI.

Decoction of Barley.

Take of Pearl Barley, two ounces and a half;
Water, four pints and a half:

First wash away the impurities adhering to the Barley with [cold] water; then, having poured thereon half a pint of the Water, boil the seeds for a little while. Reject this liquor, and pour on the residue of the Water first heated; then boil down to two pints, and strain.

Remedial Action.— Demulcent. A valuable remedy. Such medicines are scarcely valued, till experience has shewn their utility.

DECOCTUM HORDEI COMPOSITUM.

Compound Decoction of Barley.

Take of Decoction of Barley, two pints;
Sliced Figs, two ounces and a half;
Liquorice (Root) sliced and bruised, five drachms;
Raisins, two ounces and a half;
Water, a pint:

Boil down to two pints, and strain.

The raisins are to be stoned before they are weighed. — *Vide* the columns of Materia Medica.

Remedial Action.— *Vide* "Decoctum Hordei."

DECOCTUM MALVÆ COMPOSITUM.

Compound Decoction of Mallows.

Take of the dried Mallow (Plant), an ounce;
Dried Chamomile (Flowers), half an ounce;
Water, a pint:

Boil for a quarter of an hour, and strain.

The Common Mallow, or Malva sylvestris.

Whether you are to use the herb of mallow, or the entire plant, is not indicated, and is, perhaps, unimportant.

Remedial Action.—Emollient; used for fomentation.

Cautions.

DECOCTUM PAPAVERIS.

Decoction of Poppies.

You may retain the seeds, perhaps, with some advantage; but not if you are about to make a syrup from the decoction, for it will be more liable to ferment.

Take of Sliced Poppies [the Capsules], four ounces;
Water, four pints:

Boil for a quarter of an hour, and strain.

Remedial Use.—As an anodyne fomentation in erysipelas, &c., Dr. A. T. Thompson recommends the seeds to be retained, and that accounts for the College having omitted to direct their removal.

DECOCTUM QUERCUS.

Decoction of Oak Bark.

The College translator has neglected to direct that the oak bark be bruised.

Oak bark contains tannin, and tannic acid as well as the gallic.

Take of Oak Bark, bruised, ten drachms;
Distilled Water, two pints:

Boil down to a pint, and strain.

Remedial Use.—Astringent in leucorrhœa, &c., as an injection.

DECOCTUM SARZÆ.

Decoction of Sarsaparilla.

Dr. Hancock objects to long boiling, and advocates the addition of an acid.

It contains a neutral principle called "Parillin."

Take of Sarsaparilla, sliced, five ounces;
Boiling Distilled Water, four pints:

Macerate for four hours near the fire in a vessel lightly covered; then take out the Sarsaparilla and bruise it. Return the bruised root to the liquor, and again macerate in like manner for two hours. Afterwards boil down to two pints, and strain.

Remedial Use.—As an alterative, diaphoretic. The result of experience has confirmed us in the belief of the restorative power of

this medicine in cases of syphilitic debility, although Dr. Pearson, one of the most accredited writers on syphilis, disputes its powers of curing this disease in any of its stages.

Cautions.

Dose.—f℥iv. to Oss.

DECOCTUM SARZÆ COMPOSITUM.

Compound Decoction of Sarsaparilla.

Take of Decoction of Sarsaparilla, boiling, four pints;
Sassafras Chips,
Guiacum [Wood] Shavings,
Liquorice Root, bruised, of each, ten drachms;
Mezereon, three drachms:

Boil down for a quarter of an hour, and strain.

When the old Pharmacopœia ordered the bark of the mezereon, the dispenser frequently substituted the root. They now are still more obscure, by way of increasing the difficulty. By reference to the columns, we see they indicate the bark of the root.

Remedial Action.—Mezereon contains an active principle called Daphnin.—For its medicinal use, *vide* "Decoct. Sarzæ."

Dose.—f℥iv. to f℥vj.

DECOCTUM SCOPARII COMPOSITUM.

Compound Decoction of Broom.

Take of Broom [tops],
Juniper Berries,
Dandelion [Root], of each, half an ounce;
Distilled Water, a pint and a half:

Boil down to a pint, and strain.

Use your broom fresh, and select the greener leaves.

The nearest habitat to London is Barnes Common, where it grows abundantly.

Remedial Use.—Diuretic in dropsies. A good vehicle for cream of tartar in the same disease.

Dose.—f℥ij. to f℥vj.

Cautions.

DECOCTUM SENEGÆ.

Decoction of Senega.

Take of Senega [Root], ten drachms;
Distilled Water, two pints:

Boil down to a pint, and strain.

Remedial Action.—It contains an active principle called Polygalin or Senegin; and is a diuretic, diaphoretic, expectorant, and mucous purge.

Dose.—f℥ss. to f℥ij. with mucilage.

DECOCTUM TORMENTILLÆ.

Decoction of Tormentil.

Take of Tormentil [Root], bruised, two ounces;
Distilled Water, a pint and a half:

Boil down to a pint, and strain.

Remedial Use.—Astringent in diarrhœa, chronic discharges of the urethra, mucous relaxation, &c.

Dose.—f℥ss. to f℥iss.

DECOCTUM ULMI.

Decoction of Elm.

The liber bark usually employed.

Take of fresh Elm [Bark], bruised, two ounces and a half;
Distilled Water, two pints:

Boil down to a pint, and strain.

Remedial Use.—It is conjectured to contain a peculiar principle, called Ulmin; also tannin, or tannic acid; but its effects in cutaneous diseases are scarcely to be explained by reference to these principles.

Dose.—f℥iv. to Oss.

Cautions.

DECOCTUM UVÆ URSI.

Decoction of Whortleberry Leaves.

Take of Whortleberry [Leaves], bruised, an ounce;
Distilled Water, a pint and a half:

Boil down to a pint, and strain.

When the leaves have assumed a yellow hue, they are unfit for use.

Remedial Use.—Astringent; it is also called diuretic, but this term has been introduced in reference to its power of allaying irritability of the urinary organs in calculus, and of diminishing purulent discharges of the urinary passages. Dr. Bourne recommended its use in phthisis, and in bronchial relaxation it certainly diminishes purulent secretion.

Dose.—f℥ss. to f℥ij.

DECOCTUM VERATRI.

Decoction of White Hellebore.

Take of White Hellebore, coarsely powdered, ten drachms;
Distilled Water, two pints;
Rectified Spirit, three fluidounces:

Active principle, Veratria. *Vide* Veratria.

Vide Ung. Sulphuris Compositum.

Boil down the White Hellebore in the Water to a pint, and when it has cooled add your Spirit; then express, and strain.

Remedial Action.—Used externally for psora, and for some scaly disorders. It sometimes violently purges and vomits, even when used externally.

Cautions.

EMPLASTRA.

Plasters.

EMPLASTRUM AMMONIACI.

Plaster of Ammoniacum.

Take of Ammoniacum, five ounces;
Distilled Vinegar, eight fluidounces:

Dissolve the Ammoniacum in the Vinegar; then evaporate the liquor over a slow fire, constantly stirring meanwhile, until it comes to a proper consistence.

Remedial Action.—An external stimulant, promoting action in indolent tumours, expecially those of glands.

EMPLASTRUM AMMONIACI CUM HYDRARGYRO.

Plaster of Ammoniacum with Mercury.

Take of Ammoniacum, a pound;
Mercury, three ounces;
Olive Oil, a fluidrachm;
Sulphur, eight grains:

Having heated your Oil, gradually add the Sulphur, constantly stirring with a spatula until incorporated; then with these rub the Mercury, until globules are no longer visible: finally, gradually add the melted Ammoniacum, and mix them all.

Medicinal Uses.—In glandular swellings, indolent buboes, and venereal nodes; but the discovery of iodine has, in a great measure, superseded the use of such plasters.

Cautions.

EMPLASTRUM BELLADONNÆ.

Plaster of Belladonna, or Deadly Nightshade.

Take of Plaster of Resin, three ounces;
Extract of Belladonna, an ounce and a half:

Having melted the Plaster in the heat of a water bath, add the Extract, and mix.

Gather your belladonna when in flower.

Remedial Use.—In painful exostosis, pains in the cardiac region, neuralgia, &c.

EMPLASTRUM CANTHARIDIS.

Plaster of Cantharides.

Take of Cantharides, finely powdered, a pound;
Plaster of Wax, a pound and a half;
Lard, half a pound:

Having melted together the Plaster and the Lard, remove from the fire; and, just before they thicken, sprinkle in the Cantharides, and thoroughly mix.

Be careful not to employ a higher temperature than is barely requisite for melting the lard.

Remedial Use.—*Vide* "Ceratum Cantharidis."

EMPLASTRUM CERÆ.

Plaster of Wax.

Take of Wax,
Suet, of each, three pounds;
Resin, a pound:

Melt them together, and strain.

Yellow wax is understood where the white is not specified.

Cautions.

EMPLASTRUM GALBANI.

Plaster of Galbanum.

Take of Galbanum, eight ounces;
Plaster of Lead, three pounds;
Common Turpentine, ten drachms;
Resin of the Spruce Fir, powdered, three ounces:

Having melted together the Galbanum and the Turpentine, first add the Resin of the Spruce Fir, then the Lead-Plaster, previously melted over a slow fire, and mix them all.

Remedial Use.—Stimulant, discutient. Strongly recommended by the ancients for furunculus (common boil), and useful in other indolent tumours.

EMPLASTRUM HYDRARGYRI.

Plaster of Mercury.

Take of Mercury, three ounces;
Plaster of Lead, a pound;
Olive Oil, a fluidrachm;
Sulphur, eight grains:

Having heated the Oil, gradually add the Sulphur, constantly stirring with a spatula until incorporated; then, with these, rub the Mercury until the globules entirely disappear. Afterwards, gradually add the Lead-Plaster, melted over a slow fire, and mix them all.

Remedial Use.—The chemical condition of mercury thus combined in plasters has never been indicated. The plaster has been used as a discutient, but with little show of reasoning.

Cautions.

EMPLASTRUM OPII.

Plaster of Opium.

Take of Hard Opium, powdered, half an ounce;
Resin of the Spruce Fir, powdered, three ounces;
Lead-Plaster, a pound;
Water, eight fluidounces:

Vide the columns of the Materia Medica, in which Burgundy pitch is indicated as the *prepared* resin of the spruce fir.

Having melted the Plaster, add the Resin of the Spruce Fir, the Opium, and the Water; and, with a slow fire, boil down until they all unite into a proper consistence.

Remedial Use.— As an anodyne in local pains.

EMPLASTRUM PICIS.

Plaster of Pitch.

Take of Burgundy Pitch, two pounds;
Resin of the Spruce Fir, a pound;
Resin,
Wax, of each, four ounces;
Expressed Oil of Nutmegs, an ounce;
Olive Oil,
Water, of each, two fluidounces:

Here you have the rough resin, and the prepared resin, ordered in the same plaster.

Having melted together the Pitch, the Resin, and the Wax, first add the Resin of the Spruce Fir, then the Oil of Nutmegs, the Olive Oil, and the Water. Lastly, mix all, and boil down to a proper consistence.

Remedial Use.—A counter-irritant, the action of which may be increased by the addition of gr. ij. or gr. iij. of emetic tartar. Two or three grains of emetic tartar will produce as much irritation as may be required; and, even in that proportion, the effects must be watched. However, many use as much as a scruple for a plaster.

Cautions.

EMPLASTRUM PLUMBI.

Plaster of Lead.

Vulgò, White diachylon plaster.

Take of Oxide of Lead, finely powdered, six pounds;
Olive Oil, a gallon;
Water, two pints:

Boil together with a gentle fire, constantly stirring until the Oil and the Oxide of Lead unite into the consistence of a plaster. It will be necessary to add a little boiling water, if nearly all that which was first employed shall have been consumed before the boiling is over.

Remedial Use. — In excoriations, tender feet, and to obviate bed-sores, &c.

EMPLASTRUM RESINÆ.

Plaster of Resin.

Vulgò, Baynton's bandage, when spread on linen.

Take of Resin, half a pound;
Plaster of Lead, three pounds:

Having melted the Lead-Plaster over a slow fire, add the powdered Resin, and mix.

Remedial Action. — Stimulant, and extensively employed in the cure of ulcers. *Vide* BAYNTON on Ulcers.

EMPLASTRUM SAPONIS.

Plaster of Soap.

Take of Soap, sliced, half a pound;
Lead-Plaster, three pounds:

Having melted the Plaster, mix in the Soap, and boil down to a fit consistence.

Remedial Action. — The best plaster for ulcers of an irritable character, which the plaster of resin frequently irritates. It is commonly said to be discutient.

Cautions.

ENEMATA.

Clysters.

ENEMA ALOËS.

Clyster of Aloes.

Take of Aloes, two scruples;
Carbonate of Potassa, fifteen grains;
Decoction of Barley, half a pint:

Mix by trituration.

Not to be employed in cases where irritation of the rectum, hæmorrhoids, irritable bladder, or irritable genitals, are known to be troublesome.

Remedial Use.—In ascarides, atonic amenorrhœa, &c. The Editor believes that the ascaris exists in the blood. He has repeatedly seen it in infants at the breast; and in such cases has uniformly found the mother to be infested with the same worm. He believes it, in that sense, to be hereditary.

ENEMA COLOCYNTHIDIS.

Clyster of Colocynth.

Take of Compound Extract of Colocynth, two scruples;
Soft Soap, an ounce;
Water, a pint:

Mix by trituration.

In the Latin you have "fluiduncias octarium," which has since been corrected.

Remedial Action.—Powerfully purgative, but not to be used where constipation depends on spasm.

Cautions.

ENEMA OPII.

Clyster of Opium.

Empty the bowels thoroughly before you use this enema, and take care your starch is free from acrid impurities. A fluidrachm of the tinct. of opium is the usual proportion in dysentery.

Take of Decoction of Starch, four fluidounces;
Tincture of Opium, thirty minims:
Mix.

Remedial Action.—Dr. Gooch, who frequently used enemata in dolor uteri, and other painful affections of females, was the first to recommend a diminished bulk of the fluid, and advised it to be limited to two ounces, that it might be retained for a sufficient time to allow the anodyne to produce its effects. In dysentery, and all inflammatory disorders, this enema ought not to be used for the first forty-eight hours.

ENEMA TABACI.

Clyster of Tobacco.

Liquor of ammonia, with brandy and water, is the best antidote if the enema produces dangerous depression. It contains nicotina and a volatile oil. The first acts chiefly on the brain, the second paralyses the heart.

Take of Tobacco, (Virginian?) a drachm;
Boiling Water, a pint:
Macerate for an hour, and strain.

Remedial Use.—Violently depressing and relaxing; hence its use in strangulated hernia, obstruction, &c. Davy has shewn, that one part by weight of Virginian tobacco is equal to $2\frac{1}{3}$ parts of other specimens which he analysed.

ENEMA TEREBINTHINÆ.

Clyster of Turpentine.

Enema Terebinthinæ Oleosum.

℞ Olei Terebinth., $f\bar{3}j$.
Ol. Olivæ, Oss.
ft. enema.
In Ascarides.

Take of Oil of Turpentine, a fluidounce;
Yolk of Egg, a sufficiency; rub together, and add
Decoction of [Pearl] Barley, nineteen fluidounces:
Mix.

Remedial Use.—In chorea, tetanus, puerperal fever, and in peritonitis. It may likewise be employed with advantage in ascarides, and in flatulent colic, or in ascarides, for which, however, the enema in the margin has been found by the Editor to be more efficacious.

Cautions.

EXTRACTA.

Extracts.

Extracts are preparations containing all, or the greater part of, the soluble principles of the substance out of which they are formed, and which have acquired, by evaporation, a consistence varying from that of honey to complete dryness, according as they may be intended for pills or for powders. They are obtained, 1st, by evaporating the expressed juice of green plants, after having been clarified; 2d, by dissolving in any menstruum, by maceration, digestion, or infusion, but never by decoction, the soluble parts of dry substances, and by submitting the product afterwards to evaporation, either in a warm bath, or by the assistance of steam. Water or alcohol is used as a vehicle; hence we have aqueous or alcoholic extracts. Those principles of vegetable bodies which are soluble in the former menstruum have received among chemists the name of extractive matter, but with little propriety, since they consist of numerous substances which, though analogous in being soluble in water, have few other corresponding properties, and, accordingly, among modern pharmaceutists, the term is rapidly going into disuse. Indeed, the term extract itself will scarcely admit of correct definition.

In the preparation of Extracts, unless where otherwise ordered, lose no time in expelling the moisture, by means of a dish and water-bath, stirring towards the conclusion with a spatula, until the consistence be fit for pills.

Upon all the softer Extracts, sprinkle in a little Rectified Spirit, to prevent mould.

EXTRACTUM ACONITI.

Extract of Aconite.

Take of the fresh leaves of Aconite, a pound:

Bruise in a stone mortar, sprinkling in a little water;

"Aconitum paniculatum." The aconites of our gardens are no adequate substitutes.

Cautions.

Tinct. Aconiti.

℞ Fol. Aconiti, ℥ij.
Alcoholis, f℥viij.
Macera per dies xiv. exprime et cola.

Dose.—♏x. to ♏xx.

then express the juice, and, without straining, evaporate it to a proper consistence.

Remedial Action.—Acro-narcotic. *Vide* Aconitina.

EXTRACTUM BELLADONNÆ.

Extract of Deadly-Nightshade.

Active principle, atropia, alkaloid, colourless, inodorous, crystallizing in long needles.

Ung. Belladonnæ.

℞ Ext. Belladonnæ,
Adipis, āā. *p. æq.*
M.

This is prepared in the same manner as the Extract of Aconite.

Remedial Action.—Acro-narcotic. It has been highly recommended in the treatment of pertussis, and other convulsive coughs, in tic-doloreux, and the like neuralgic affections. It is said to have been used successfully, as an external application, in certain acute and chronic affections of the skin, in white swellings, and in rheumatic affections. The ointment annexed smeared over the finger, and thus applied to the neck of the uterus, is a powerful means of obtaining relaxation of this organ when it is affected with spastic rigidity. A portion of the size of a horse-bean will suffice for this purpose: so likewise in chordée. With the oculists it is the usual remedy for dilating the pupil, either rubbed over the eye-lid, or applied as a poultice in iritis; or the liquid extract dropped into the eye after the operation for cataract. Supposed by certain German physicians to be a preservative against scarlatina.

Dose.—Gr. ss. to gr. ij.

EXTRACTUM COLCHICI CORMI.

Extract of the Cormus of Meadow-Saffron.

Introduced, it appears, on the authority of Dr. Hue, an experienced physician. But why should the Pharmacopœia be encumbered with the two extracts?

This is prepared in the same manner as the Extract of Aconite.

Remedial Action.—*Vide* "Vinum Colchici."

Dose.—Gr. j. to gr. iv. every four hours, until its effects are developed.

Cautions.

EXTRACTUM CONII.

Extract of Hemlock.

This Extract is prepared in the same manner as the Extract of Aconite.

Extractum Cicutæ, —*Pharm. Lond.* 1809 and 1824.

Active principle, an alkaloid called conia, formerly considered to be a resin.

Dr. Maton recommended that the plant should be collected when the seeds begin to form, and that these should be retained.

Remedial Use.—The effects are by no means uniform. It sometimes proves a valuable sedative; at other times, it induces cephalalgia, vertigo, agitation, delirium, somnolency, with cerebral congestion. Giddiness, slight nausea and tremors, with a heavy sensation over the eyes, and impaired vision, were enumerated by Stoërck as signs of its having been given to a proper extent for affording a fair trial to the remedy; and in addition to these effects it commonly relaxes the bowels. He employed it largely in glandular obstructions, in cancer, phthisis, &c. The old surgeons used it extensively in irritable buboes, both externally and internally. Dr. John Davy gave it in very large doses at the Chatham Military Hospital, and speaks of its efficacy when combined with emetic tartar in certain forms of pneumonia, in which venesection is contra-indicated by extreme debility, a combination closely allied to that of Laennec in the same forms of the disease.

Dose.—Gr. ij. to ʒss. or more, gradually increased. John Hunter gave ℥j. at a dose. The patient left off the remedy for a day or two, and reverted to the use. Although he recommenced with half the dose with which he had left off, it proved fatal. Dr. John Davy says, that in his cases of pneumonia, he commenced with the large dose of one drachm combined with one grain of emetic tartar, or, as the College will have it, "Potassio-tartrate of Antimony."

Stoerck's Formula.
℞ Extracti Conii, ʒj.
Pulv. Conii, *q. s.*
for two-grain pills.
Dose.—One to four twice a-day.

Hemlock Draught.
℞ Ext. Conii, gr. v.
Vin. Ant. Tart. fʒss.
Syrup. Rhœados, fʒj.
Aquæ Destillat. f℥j.
M. Ft. haustus.

EXTRACTUM DIGITALIS.

Extract of Fox-glove.

This Extract is prepared in the same manner as the Extract of Aconite.

This extract is deteriorated by keeping, and, therefore, its dose is uncertain.

Active principle, digitalia; said to be alkaloid, but at present imperfectly known.

Remedial Action.—Here is another instance in which the College introduce a new extract; and although they employ a translator they neither tell us on what grounds, nor in what cases, nor in what doses, it is more eligible than the other preparations of fox-glove. Nay, their Translator roundly condemns it as an uncertain preparation.—*Vide* Infusum and Tinct. Digitalis.

Dose.—Gr. ss. to gr. iij.

Cautions.

Active principle, hyoscyamia. Crystals silky; difficultly soluble in water; of an acrid and nauseous taste; highly poisonous; easily decomposed with the evolution of ammonia by the fixed alkalies; soluble in æther and alcohol.

A single dose of henbane will produce a furred tongue in the most healthy person.

EXTRACTUM HYOSCYAMI.

Extract of Henbane.

This Extract is prepared in the same manner as the Extract of Aconite.

Remedial Action.—While many are of opinion, that this plant is a powerful anodyne, some physicians assert that it does not induce sleep. The Editor is of opinion, that its hypnotic effects cannot be relied on. It has been recommended in the treatment of neuralgia, epilepsy, hypochondriasis, nervous coughs, and a whole train of diseases. It is combined with camphor in mania; and with compound extract of colocynth, it has been supposed to increase the purgative operation of this last medicine, and at the same time to obviate griping.

Dose.—Gr. v. to gr. xx.

EXTRACTUM LACTUCÆ.

Extract of Lettuce.

This Extract is prepared in the same manner as the Extract of Aconite.

The virtues of the lettuce are said to reside in an active principle called by Dr. Duncan, "Lactucarium;" and this principle is further said to contain morphia, but with no show of evidence.

Collect your juice by breaking off the heads of the plant when in flower. Each plant yields about a scruple of lactucarium. The lactuca virosa yields 75 grains.

Remedial Use.—Ranked by Celsus, upwards of 1800 years ago, next to opium (Book ii. cap. 32). Introduced in our time as a new anodyne. The French obtain their juice from the "Lactuca virosa," and this they call Thrydacè from the Greek θρίδαξ. This anodyne (according to Dr. Francois) seems to act by diminishing the frequency of the pulse and the animal heat. It possesses the property of producing sleep without ever causing narcotism, or acting as a stimulant, as opium does. In preparing the above extract the leaves only are used, but it is the stalk which chiefly contains the milk.

The *dose* of the extract is from gr. v. to ℈j.; of the lactucarium, or inspissated juice, gr. ij. to gr. iv. and upwards.

EXTRACTUM ALOES PURIFICATUM.

Purified Extract of Aloes.

Take of Powdered Aloes, fifteen ounces;
Boiling Water, a gallon:

Macerate for three days with a gentle heat, then strain and set aside that the dregs may subside. Decant the clear liquor, and evaporate to a due consistence.

Remedial Use.—In this form the resinous portion is separated from the bitter extractive, and is said to be less irritating: stomachic, muscular purgative, anthelmintic, and emmenagogue.

Dose.—Stomachic, gr. ss. to gr. j.; purgative, &c. gr. v. to gr. xv.

Cautions.

The extract of the spiked aloes. Both the commercial aloes denominated Soccotrine and Cape, are the products of the Aloes, spicata.

EXTRACTUM CINCHONÆ CORDIFOLIÆ.

Extract of Yellow [heart-leaved] Cinchona.

Take of Yellow Cinchona Bark, bruised, fifteen ounces;
Distilled Water, four gallons:

Boil down from a gallon of Water to six pints, and strain the liquor while hot. In the same way boil down the bark from the same quantity of water four times, and strain. Lastly, evaporate all the mixed liquors to a fit consistence.

Remedial Action.—*Vide* "Quinæ Disulphas." The extracts of the cinchonas are ineligible forms, because water is an imperfect menstruum of the principles of the bark.

Dose.—Gr. x. to ℈ij. or more.

EXTRACTUM CINCHONÆ LANCIFOLIÆ,

Extract of Lance-leaved [pale] Cinchona,

EXTRACTUM CINCHONÆ OBLONGIFOLIÆ,

Extract of Oblong-leaved [red] Cinchona,

are prepared like the Extract of the heart-leaved (yellow) Cinchona.

Remedial Action.—*Vide* "Ext. Cinchon. Cordifoliæ," above.

Cautions.

EXTRACTUM COLCHICI ACETICUM.

Acetic Extract of Colchicum [Meadow-Saffron].

The College having at last substituted the improved term of cormus for bulb, they lose no opportunity of employing it. But with respect to other plants the part is rarely indicated.

It should yield 20 per cent of extract.

Take of fresh Colchicum [Corm], a pound;
Acetic Acid, three fluidounces:

Bruise the Corms, gradually sprinkling in the Acetic Acid, then express the juice, and evaporate it in an earthenware vessel not glazed with lead, until the consistence be suitable.

Remedial Action.—Sedative, purgative, diuretic. In gout, acute rheumatism, or in chronic where the heat of the affected parts is above the natural standard. Also in hydrothorax, *vide* Acetum Colchici.

Dose.—Gr. j. to gr. ij. every six hours.

EXTRACTUM COLOCYNTHIDIS.

Extract of Colocynth.

Colocyntin or Colocynthidin is said to be the active principle.

It is obtained by digesting the colocynth in spirit, and evaporating it. It is allied to resin.

Take of Sliced Colocynth [the dried Pulp], a pound;
Distilled Water, two gallons:

Mix, and boil with a slow fire for six hours, occasionally adding Distilled Water, that it may uniformly fill the same measure. Strain the liquor while hot, and evaporate to a due consistence.

Remedial Use.—Powerfully purgative; irritating the fibre of the bowels, and particularly the rectum, and increasing serous deposition.

Dose.—Gr. x. to gr. xxx.

EXTRACTUM COLOCYNTHIDIS COMPOSITUM.

Compound Extract of Colocynth.

Take of Sliced Colocynth, six ounces;
Purified Extract of Aloes, twelve ounces;

Powdered Scammony, four ounces;
Cardamoms powdered, an ounce;
Soap, three ounces;
Proof Spirit, a gallon:

Macerate the Colocynth in the Spirit with a gentle heat, for four days. Strain the Spirit, and add to it the Aloes, the Scammony, and the Soap; then evaporate to a fit consistence, mixing in the Cardamoms towards the last.

Remedial Action.—An equable purgative, gr. v. to ʒss.

Cautions.

The College do not tell us which of the scammonies we are to employ, the Smyrna or the Aleppo. The last may be presumed. Usefully combined with calomel, although the latter remedy seems to be incompatible with soap.

EXTRACTUM ELATERII.

Extract of Elaterium (Wild Cucumber).

Slice the ripe fruit of the Elaterium; and strain the juice, very lightly expressed, through a fine hair sieve: set aside for some hours until the thicker part has subsided. The thinner supernatant part being rejected, dry the thicker portion with a gentle heat.

Remedial Use.—Hydragogue, cathartic, in dropsies; and as a counter-derivating purge in apoplexy. If used in dropsy with disease of the heart, beware of asphyxia from an over-dose. Cordial mixtures should be employed intermediately to guard against debility.

Dose.—Gr. $\frac{1}{6}$ to gr. ij.

Good elaterium should have but a very slight greenish hue, and should be light and pulverulent. Active principle, a green resin.

Formula.

℞ Elaterii, gr. j.
Extract. Glycyrrhizæ, ʒj.
Contere cum Aquæ destill. fʒvj. M.

Dose.—Two tablespoonsful every two hours.

EXTRACTUM GENTIANÆ.

Extract of Gentian.

Take of Sliced Gentian, two pounds and a half;
Boiling Distilled Water, two gallons:

Macerate for twenty-four hours, then boil down to a gallon, and strain the liquor while hot; finally, evaporate to a suitable consistence.

Active principle, gentianine. The addition of an acid deprives it of its fine yellow colour. It is a neutral principle, neither acid nor alkaline. It is not incom-

Cautions.

patible with the salts of iron. The Chirayita is a species of gentian.

Remedial Action.—Tonic, stomachic; in dyspepsia, atonic gout, &c.

Dose.—Gr. x. to ʒj.

EXTRACTUM GLYCYRRHIZÆ.

Extract of Liquorice.

Seven extracts prepared like gentian.

This Extract is prepared in the same manner as the Extract of Gentian.

Demulcent principle, glycyrrhizin, a peculiar sugar.

Remedial Use.—A well-known demulcent.

EXTRACTUM HÆMATOXYLI.

Extract of Logwood.

It ought not to be given in pills unless these are recently prepared.

This is prepared in the same manner as the Extract of Gentian.

Peculiar principle, "hæmatine."

Remedial Action.—Its astringency is denied by some authors. Its sweet taste is scarcely alloyed with any acerbity. There are, however, several substances which arrest diarrhœa in some other mode not understood, and this without exerting any astringing action. On the other hand, astringents themselves sometimes relax a constipated state of bowels. Pomegranate and kino are instances of this contrariety of action.

Dose.—Gr. x. to ʒj.

EXTRACTUM LUPULI.

Extract of Hops.

Active principle, lupuline.

Peculiar bitter extractive principle, in small shining, yellow grains.

This extract is incompatible with the

This is prepared in the same manner as the Extract of Gentian.

Remedial Use.—Tonic, stomachic. The hop itself has been recommended as an anodyne, but as this property seems to reside in the aroma, it is scarcely to be expected in the extract, in which the fine odour is not perceived. Pillows of hops are employed to produce

sleep, and poultices or fomentations externally for lulling pain. Dr. Freake recommends an ointment of lupuline (*vide* Formula annexed), for the relief of cancerous pains in the last stages.

Dose.—Gr. v. to ℈j.; or of the lupuline, gr. ij. to gr. v.

Cautions.

mineral acids, ferruginous and mercurial salts.

℞ Lupulini, ℥ss.
Axungiæ, ℥iss.
Ft. ung.

EXTRACTUM PAREIRÆ.

Extract of Pareira.

This Extract is prepared in the same manner as the Extract of Gentian.

In pills, combined with opium, henbane, or lettuce; and always washed down with some demulcent.

Remedial Action.—Powerfully diuretic, and employed in chronic catarrhs of the bladder. In phosphatic deposits (white sand) with the secretion of a pasty mucus, the common consequence of chronic inflammation of the bladder.

Dose.—Gr. x. to ʒss.

EXTRACTUM SARSÆ.

Extract of Sarsaparilla.

This Extract is prepared in the same manner as the Extract of Gentian.

℞ Hydrargyri Bichloridi (P.N.) gr. j.
Solve in Spiritus Vini, *q. s.* adde
Extracti Sarzæ, ʒiij.
Decoc. Sarzæ, f℥viij.
M.
Dose.—One large tablespoonful three times a-day.

Remedial Use.—It was extensively employed by Mr. Pearson in secondary syphilis, pharyngeal and tonsillar ulcerations, in habits impaired by mercury, &c.; but it is now believed to be the least efficient form of sarsaparilla. It is sometimes prescribed as in the annexed formula.

Dose.—Gr. x. to ʒss.

EXTRACTUM TARAXACI.

Extract of Dandelion.

This extract is prepared in the same manner as the Extract of Gentian.

The root has been analysed by several chemists without the slightest apparent analogy in the results.

Remedial Action.—This is one of the remedies the virtues of which are admitted more by courtesy, than on any show of evidence. It is said to mulge the liver; or, in other words, to relieve

Cautions.

a distended and torpid state of its vessels by promoting the secretion of bile. On authorities which may be traced to the astrological botanists, it is called a diuretic and an alterative. It is sensibly bitter, and so far it is a stomachic, and may be useful in cases of debility of the gastric organs. Like Succory or Chicory, the root is roasted as a substitute for coffee, and for improving its flavour.

Dose.—Gr. x. to ʒj. or more.

EXTRACTUM UVÆ URSI.

Extract of Whortle Berry [leaves].

This Extract is prepared in the same manner as the Extract of Gentian.

Formula.

℞ Extracti Uvæ Ursi,
Ext. Hyosciami, āā ʒss.
M.
Ft. pil. xij.
Two every six hours, washed down with a solution of gum arabic.

Remedial Use.—Vide "Decoctum Uvæ Ursi." In calculous deposit, with muco-purulent discharge of the bladder, particularly in the phosphatic pasty secretion, this form is useful; and the more so, because, in such cases, the daily and long-continued taking of remedies produces an utter abhorrence of all physic. The pills, in such cases, may be taken with less repugnance than the decoction. The Editor has repeatedly tried the uva ursi, pareira, and buchu, and has remarked that the patients themselves have always given evidence in favour of the two last.

Dose.—Gr. v. to ϑj. with an anodyne.

EXTRACTUM JALAPÆ.

Extract of Jalap.

The powder should yield 66 per cent of extract.

Take of Powdered Jalap, two pounds and a half;
Rectified Spirit, a gallon;
Distilled Water, two gallons:

N. B. The Root is often adulterated with bryony, which is of a looser fibre, and does not burn at the flame of a candle like the jalap-root. The worm-eaten roots are said to be the best.

Macerate the Jalap Root in the Spirit for four days, and decant the Tincture. Boil the residue in the Water down to half a gallon. Next, separately strain the Tincture and Decoction. Evaporate the former, and distil the latter, until both begin to thicken. Lastly, mix the Extract with the Resin, and evaporate to a fit consistence. Let this Extract be kept *soft*, so that it

may be suitable for pills; and *hard,* that it may be powdered when required.

Remedial Action.—Jalap has been ranked with the drastic purges; but, in moderate doses, and when exhibited in fine powder, it is an equable cathartic, operating on the alvine canal, with little or no griping; and still more effectually when combined with calomel, or with the neutral salts, as, for example, with the bitartrate of potassa [cream of tartar], according as we may wish it to act more on the liver, or on the serous exhalants. It operates on the nerves primarily, and even if applied externally, it will induce purging. The watery extract is preferable for children. Aromatic essential oil, or a little camphor, will prevent griping.

Dose of the extract, gr. viij. to ℈j.

Cautions.

The supposition of an active principle, "jalapine," has, we believe, turned out a fallacy.

We are indebted to Dr. J. R. Coxe for a correct description of the plant. He obtained it from Mexico, and cultivated it.

EXTRACTUM OPII PURIFICATUM.

Purified Extract of Opium.

Take of Sliced Opium, twenty ounces;
Distilled Water, a gallon:

Add a little of the Water to the Opium, and macerate for twelve hours, that it may soften; then the remaining Water having been gradually dropped in, rub until completely mixed, and set aside, that the dregs may subside; then strain the liquor, and evaporate to a fit consistence.

Remedial Action.—*Vide* "Morphiæ Hydrochloras," and "Tinctura Opii." While some are of opinion that this extract is stronger than crude opium, others prefer the latter as more certain.

Dose.—Gr. j. to gr. v.

The aqueous solution of opium reddens litmus.

Antidote:—

An emetic (or the stomach pump), and afterwards exhibit cordials with ammonia, and, intermediately, strong coffee. The Editor was the first person who recommended the cowhage externally as an excitant. Nettles, externally, and the occasional dashing of cold water, will be useful.

EXTRACTUM PAPAVERIS.

Extract of Poppy.

Take of the Poppy [heads], bruised, and freed from seeds, fifteen ounces;
Boiling Distilled Water, a gallon:

Cautions.

The seeds are directed to be removed here, but neither in the decoction nor in the syrup. They ought, however, to be removed in the syrup, or it will ferment in a few days.

Macerate for twenty-four hours; then boil down to four pints, and strain the liquor while hot; finally, evaporate to a due consistence.

Remedial Use.—As an anodyne.

Dose. — Gr. ij. to gr. x. Said to contain one grain of morphia in seven grains. In practice, however, five grains are not considered more than equal to one of opium.

EXTRACTUM RHEI.

Extract of Rhubarb.

The active principle volatilizes by long exposure to heat.

Rhubarb is incompatible with the strong acids, lime-water, sulphate of iron, and of zinc, nitrate of silver, emetic tartar, corrosive sublimate, &c.

Take of Rhubarb, in powder, fifteen ounces;
Proof Spirit, a pint;
Distilled Water, seven pints:

Macerate for four days in a gentle heat; then strain, and set aside to clear. Pour off the liquor, and evaporate it, freed from all dregs, down to a fit consistence.

Medicinal Use.—Astringent stomachic, in smaller doses. In larger doses, laxative. Rhubarb is more eligible where intestinal debility prevails, or where diarrhœa is dreaded, on account of its invigorating effect on intestinal fibre. This form, however, is objectionable.

Dose.—Gr. v. to ʒss.

EXTRACTUM STRAMONII.

Extract of Stramonium, or Thorn-Apple Seed.

In that excellent and generally correct work, the London Dispensatory, the dose of this drug is stated at gr. xx. which is a poisonous dose.

Take of Stramonium-Seed, fifteen ounces;
Boiling Distilled Water, a gallon:

Macerate for four hours near the fire in a vessel lightly closed; then take out the Seeds, and, having bruised them in a stone mortar, return them to the

liquor. Boil down to four pints; and, having strained the hot liquor, finally, evaporate to the due consistence.

Cautions

Remedial Action.—This extract was introduced by the late Dr. Marcet for the same affections (paralysis, &c.) for which the acrid vegetable alkalies are now so much employed.

Dose.—Gr. ¼ to gr. ij.

INFUSA.

Infusions.

Infusions are prepared by pouring a liquid, usually heated, but sometimes cold, on the substance from which we wish to extract the remedial principles. The temperature, and the duration of the process, vary according to the nature of the substances. The maceration ought sometimes to be employed at a mean temperature, previously to pouring on the boiling water. Most of the properties of vegetables, except the resinous, are partially soluble in water; but as they are susceptible of rapid decomposition, they cannot be preserved more than a short time, and ought to be made as occasion may require. Water, slightly charged with remedial principles, are called by our continental brethren, *Tisans*, and are of considerable utility as auxiliary drinks. When thus employed, as their use must be continued for a long time, they must be varied and rendered palatable, or as little disagreeable as possible. Solid substances should be coarsely powdered or sliced, as, if in fine particles, they cohere and prevent the action of the menstruum. Distilled, or at least the softest water should always be employed. Dried vegetables are preferable in the majority of instances.

INFUSUM ANTHEMIDIS.

Infusion of Chamomile.

Take of Chamomile, five drachms;
Boiling Distilled Water, a pint:

Incompatible with ferruginous salts, with the acetates of lead, &c.

Macerate for ten minutes in a vessel lightly covered, and strain.

Cautions.

Remedial Action. — Stomachic; tonic in dyspepsia. Dr. Heberden believed chamomile to possess emmenagogue virtues. Externally, as an anodyne in fomentations. The warm infusion is also employed to promote the operations of emetics.

Dose.—f℥j. upwards.

INFUSUM ARMORACIÆ COMPOSITUM.

Compound Infusion of Horse-Radish.

Incompatible with alkaline carbonates, salts of mercury, preparations of Peruvian bark, and galls.

Take of Horse-Radish, sliced,
Mustard-Seed, bruised, of each an ounce;
Compound Spirit of Horse-Radish, a fluid-ounce;
Boiling Distilled Water, a pint:

Macerate the Root and the Seeds in the Water for two hours in a vessel lightly covered, and strain; then add the Compound Spirit of Horse-Radish.

Remedial Use.—Stimulant, diuretic. Externally, rubefacient. The French use it largely as an antiscorbutic.

Dose.—f℥ss. to f℥ij.

INFUSUM AURANTII COMPOSITUM.

Compound Infusion of Orange-Peel.

The outer rind of the Seville orange.

Take of dried Orange-Peel, half an ounce;
Fresh Lemon-Peel, two drachms;
Bruised Cloves, a drachm;
Boiling Distilled Water, a pint:

Macerate for a quarter of an hour in a lightly covered vessel, and strain.

Remedial Use.—A warm stomachic.

Dose.—f℥j. to f℥iv.

Cautions.

INFUSUM CALUMBÆ.

Infusion of Calomba.

Take of sliced Calomba, five drachms;
Boiling Distilled Water, a pint:

Macerate for two hours in a vessel lightly covered, and strain.

Remedial Use.—A simple tonic, in a moderate dose strengthening the gastric organs, without irritating the stomachic. Supposed to be efficacious in allaying the vomiting attendant on pregnancy.

Dose.—f℥ss. to f℥iss.

The bark of true calomba is yellow; that of the false is a fallow gray. The true calomba is coloured blue by tincture of iodine. The false is not affected by it.

Compatible with ferruginous salts.

Incompatible with salts of lead, corrosive sublimate, &c.

INFUSUM CARYOPHILLI.

Infusion of Cloves.

Take of Cloves bruised, three drachms;
Boiling Distilled Water, a pint:

Macerate for two hours in a vessel lightly covered, and strain.

Remedial Use.—Aromatic, a cordial adjunct to other medicines.

Dose.—f℥ss. to ℥iss.

INFUSUM CASCARILLÆ.

Infusion of Cascarilla.

Take of bruised Cascarilla, an ounce and a half;
Boiling Distilled Water, a pint:

Macerate for two hours in a vessel lightly covered, and strain.

Formula.

℞ Cascarillæ Pulv. subtil. ℥ss.
Vini Xerici calidi, ℥ij. M.

Exhibited every four hours, in low fevers.

Cautions.

Cascarilla is incompatible with lime-water, infusion of gall-nuts, sulphate of iron, and sulphate of zinc.

Remedial Action.—In small doses cascarilla acts as a warm stomachic, increasing the energy of the gastric organs. In larger doses it sensibly increases the energy of the circulating system, promoting diaphoresis. Hence, its use in low fever, in confluent small-pox, diarrhœa, and the sequel of dysentery, and in obstinate intermittents, with a languid, atonic state of the skin.

Dose.—f℥ss. to f℥ij.

INFUSUM CATECHU COMPOSITUM.

Compound Infusion of Catechu.

Incompatible with alkalies, metallic salts, especially the ferruginous, and with gelatin.

Take of Extract of Catechu, coarsely powdered, six drachms;
Bruised Cinnamon, a drachm;
Boiling Distilled Water, a pint:

Macerate for an hour, in a vessel lightly covered, and strain.

Remedial Use.—Astringent in diarrhœas, chronic dysentery, atonic hæmorrhage; and locally to constringe mucous surfaces when morbidly relaxed.

Dose.—f℥ss. to f℥iss.

INFUSUM CINCHONÆ (LANCIFOLIÆ).

Infusion of Cinchona (lance-leaved).

When bark produces vomiting, it loses all its febrifuge properties.

An infusion of ℥j. of the bark with a pint of lime water is the formula of the United States.

Take of Lance-leaved Cinchona, bruised, an ounce;
Boiling Distilled Water, a pint:

Macerate for six hours, in a vessel lightly covered, and strain.

Remedial Use.—*Vide* Decoctum Cinchonæ, and Quinæ Disulphas.

Dose.—f℥ss. to f℥iss.

Cautions.

INFUSUM CUSPARIÆ.

Infusion of Cusparia.

Vulgò "Angustura Bark, Sword Bark."

Take of Cusparia, bruised, five drachms;
Boiling Distilled Water, a pint:

Incompatible with the sulphates of iron and copper, corrosive sublimate, &c. Said to contain a matter resembling cinchonia.

Macerate for two hours in a vessel lightly covered, and strain.

Remedial Action.—This somewhat acrid bitter has also a small degree of astringency, although it contains neither tannin nor gallic acid. It is a stimulating tonic, exciting the digestive organs, increasing appetite, and facilitating digestion. Alibert denies its febrifuge properties.

Dose.—f℥ss. to f℥iss.

INFUSUM DIGITALIS.

Infusion of Fox-Glove.

Take of the Leaves of Fox-Glove, dried, a drachm;
Spirit of Cinnamon, a fluidounce;
Boiling Distilled Water, a pint:

Mark! Whether by error or design, the College have ordered a drachm to a pint instead of a drachm to half a pint, the old standard. When the practitioner orders the infusion what are you to do? unless he annexes Pharm. Nova, or Ph. 1824.

Macerate the leaves in the water for four hours in a vessel lightly covered, and strain; then add the spirit.

Remedial Action.—*Vide* "Tinc. Digitalis."

Dose.—f℥ij. to f℥j.

INFUSUM DIOSMÆ.

Infusion of Diosma (Buchu.)

It contains a volatile oil and a resin, the odour of which resembles camphor and rue.

Take of Buchu Leaves, an ounce;
Boiling Distilled Water, a pint;

Cautions.

Macerate for four hours in a vessel lightly covered, and strain.

Remedial Use. — In vesical catarrh, in phosphatic gravel. An excellent tonic and diuretic; exerting, at the same time, the power of diminishing vesical irritations.

Dose.—f℥ss. to f℥iss.

INFUSUM GENTIANÆ COMPOSITUM.

Compound Infusion of Gentian.

It is said by most pharmaceutists to be incompatible with the salts of iron, but Dr. A. T. Thompson recommends such a combination. *Vide* his "Materia Medica." Edit. 2d. 498.

Take of Gentian, sliced,
Orange-Peel, dried, of each, two drachms;
Fresh Lemon-Peel, four drachms;
Boiling Distilled Water, a pint;

Macerate for an hour in a vessel lightly covered and strain.

Remedial Use.—Stomachic, tonic, not altogether unmixed with aromatic property.—*Vide* Extractum Gentianæ.

Dose.—f℥ss. to f℥iss.

INFUSUM KRAMERIÆ.

Rhatany Dentifrice.
℞ Rhatany, finely powdered, ℥j.
Cocoa-Nut Charcoal, ℥iij.
Mix.

Infusion of Rhatany.

Take of Rhatany, an ounce;
Boiling Distilled Water, a pint:

Macerate for four hours in a vessel lightly covered, and strain.

Remedial Use.—Astringent. The Peruvians employ it in dysentery; and form a tooth-brush of it to give firmness to the gums. The annexed powder is a good formula for a dentifrice.

Dose.—Of the infusion, f℥ss. to f℥ij.

Cautions.

INFUSUM LINI COMPOSITUM.

Compound Infusion of Linseed.

Take of Linseed bruised, six drachms;
Sliced Liquorice [Root], two drachms;
Boiling Distilled Water, a pint:

Macerate for four hours near the fire, in a vessel lightly covered, and strain.

Remedial Use.—Demulcent; emollient in phlegmasiæ of the urinary passages, chronic irritation of the bladder, vesical catarrh, &c.

Dose.—Ad libitum.

The Linseed meal obtained from the mills is an improper substitute for either of the preparations of linseed.

Coarsely powdered linseed, and Barley meal, āā. *p. æ.*

Mixed up with decoction of mallows, forms an excellent poultice.

INFUSUM LUPULI.

Infusion of Hops.

Take of Hops, six drachms;
Boiling Distilled Water, a pint:

Macerate for four hours in a vessel lightly covered, and strain.

Remedial Use.—Anodyne, stomachic. *Vide* "Extractum Lupuli."

Dose.—f℥j. to f℥ij.

In the last Pharmacopœia, the term Humulus was employed. It is now changed without being noticed in the List of New and Old Names.

Incompatible with the mineral acids, ferruginous salts, salts of lead, silver, and mercury.

INFUSUM PAREIRÆ (BRAVÆ).

Infusion of Pareira.

Take of Pareira Root, six drachms;
Boiling Distilled Water, a pint:

Macerate for two hours in a vessel lightly covered, and strain.

Remedial Use.—In vesical catarrh and obstructions of the urinary organs. *Vide* "Extractum Pareiræ." It diminishes the irritability of the bladder.

Dose.—f℥j. to f℥ij.

℞ Ext. Pareiræ, ʒij.
Infusi ejusdem, f℥vj.
M.
Dose.—f℥ss. to f℥j. three times a day.

Cautions.

INFUSUM QUASSIÆ.

Infusion of Quassia.

Take of Quassia, sliced, two scruples;
Boiling Distilled Water, a pint:
Macerate for two hours in a vessel lightly covered, and strain.

Incompatible with nitrate of silver, and the acetate of lead.

Compatible with salts of iron, &c.

"Bitter principle, Quassin."

It will not induce vomiting, or phlogistic action, or hæmorrhage, like the cinchonas and the sulphate of quina.

Remedial Use.—An energetic tonic, without acting as an excitant on the circulating system. Equal or superior to cinchona almost in every case, if we except intermittent fevers.

Dose.—f℥ss. to f℥ij.

INFUSUM RHEI.

Infusion of Rhubarb.

Take of Rhubarb, sliced, three drachms;
Boiling Distilled Water, a pint:
Macerate for two hours in a vessel lightly covered, and strain.

Incompatible with the strong acids, salts of iron, emetic tartar, infusion of catechu, bark, and cascarilla, &c.

Remedial Use.—Stomachic, astringent, or laxative, according to the dose employed. *Vide* "Extractum Rhei."

Dose.—f℥ss. to f℥iv.

INFUSUM ROSÆ COMPOSITUM.

Compound Infusion of Roses.

Formula.

Infuse two or three drachms of the leaves in half a pint of boiling water; add half a pint of port wine, flavoured with cinnamon.

Dose, in diarrhœa, a wine-glassful.

Take of the French Rose [Petals], dried, three drachms;
Diluted Sulphuric Acid, a fluidrachm and a half;
Sugar, six drachms;
Boiling distilled Water, a pint:
Pour the Water on the Rose Petals in a glass

vessel, and mix in the Acid. Macerate for six hours, and having strained the Liquor, add the Sugar.

Cautions.

Remedial Use.—It is exhibited with advantage in passive hæmorrhages; but is commonly employed as a vehicle for sulphate of magnesia, and the disulphate of quina. The red rose itself is an astringent and tonic, and in the formula annexed is useful in diarrhœa.

To macerate for six hours is surely longer than necessary.

Dose.—f℥j. to ℥ij.

INFUSUM SCOPARII.

Infusion of Broom.

The fresh tops.

Take of Broom, an ounce;
Boiling Distilled Water, a pint:

Macerate for four hours in a vessel lightly covered, and strain.

Remedial Use.—Diuretic. When it purges, it fails to act on the kidneys, and it arrests the urinary secretion.

Dose.—f℥j. to f℥iv.

INFUSUM SENNÆ COMPOSITUM.

Compound Infusion of Senna.

Take of Senna, fifteen drachms;
Ginger, sliced, four scruples;
Boiling Distilled Water, a pint:

Macerate for an hour in a vessel lightly covered, and strain.

Active principle, "Cathartine." It does not crystallize; it is neither acid nor alkaline; slightly deliquescent; of a reddish yellow colour; soluble in water and in alcohol.

Remedial Action.—Senna is a nauseating laxative purge, refrigerating the body, and lowering the circulation. Hence its fitness for febrile inflammatory diseases.

Dose.—f℥iss. to f℥ij. in combination.

Cautions.

INFUSUM SERPENTARIÆ.

Infusion of Serpentary.

The best mode of administering it is with warm wine, *in equal parts.*

Take of Serpentary, half an ounce;
Boiling Distilled Water, a pint:

Macerate for four hours in a vessel lightly covered, and strain.

Remedial Action. — Cordial tonic, quickening the circulation; and, if the body be kept warm, promoting diaphoresis. Hence its use in low fevers, to support action when languid.

Dose.—f℥ss. to f℥ij.

INFUSUM SIMAROUBÆ.

Infusion of Simarouba.

Incompatible with the alkaline carbonates, corrosive sublimate, salts of lead, infusion of catechu, galls, yellow bark, &c.

Take of Simarouba, bruised, three drachms;
Boiling Distilled Water, a pint:

Macerate for two hours in a vessel lightly covered, and strain.

Remedial Use. — Tonic, and slightly astringent in diarrhœa, chronic dysentery, dyspepsia, and in some few intermittents, when the cinchona bark, or its alkali, disagrees with the patient.

Dose.—f℥j. to f℥ij.

INFUSUM VALERIANÆ.

Infusion of Valerian.

One ounce of valerian in eight ounces of rectified æther, forms a powerful æthereal tincture.

Take of Valerian, half an ounce;
Boiling Distilled Water, a pint:

Macerate for half an hour in a vessel lightly covered, and strain.

Remedial Action.—Valerian is a powerful general excitant. Its

influence is principally felt in the brain. It causes dazzling, convulsive contractions, agitation, &c., when exhibited in full doses. In smaller doses, it is a tonic, antispasmodic, used advantageously in hysteric epilepsy, some kinds of headach, and other nervous diseases. So, also, in nervous fever, and in obstinate intermittents.

Dose.—Of the Infusion, f℥j. to f℥ij.

Cautions.

It yields a volatile oil, the dose of which is ♏ij. to ♏vj. which has been introduced into the Prussian Pharmacopœia.

LINIMENTA.

Liniments.

LINIMENTUM ÆRUGINIS.

Liniment of Verdigrise.

Take of Verdigrise powdered, an ounce;
Vinegar, seven fluidounces;
Honey, fourteen ounces:

Dissolve the Verdigrise in the Vinegar, and strain through linen; then having added the Honey, boil down to a proper consistence.

Be careful in the selection; for the English verdigrise consists of sulphate of copper mixed with acetate of lead.

Remedial Use.—Used as a detergent for foul ulcers in the throat; but it requires care, for if swallowed, it will induce vomiting and hypercatharsis.

In the Latin text you are directed to drop in or instil the honey, "instillato melle."

LINIMENTUM AMMONIÆ.

Liniment of Ammonia.

Take of Liquor of Ammonia, a fluidounce;
Olive Oil, two fluidounces:

Shake them together until mixed.

℞ Antim. Tart. ℥ss.
Liniment. Ammoniæ, ℥iss.
Commisce.
Ft. Liniment.

Remedial Use.—Externally as a counter-irritant in angina. It may be used also in chronic rheumatism, hooping cough, bronchitis, pneumonia, &c.

For counter-irritation in pneumonia, bronchitis, &c.

Cautions.

LINIMENTUM AMMONIÆ SESQUICARBONATIS.

Liniment of Sesquicarbonate of Ammonia.

Take of Liquor of Sesquicarbonate of Ammonia, a fluidounce;
Olive Oil, three fluidounces:
Shake them together until mixed.

Remedial Use.—Same as the last, but the union is less complete.

LINIMENTUM CAMPHORÆ.

Liniment of Camphor.

Take of Camphor, an ounce;
Olive Oil, four fluidounces:
Dissolve the Camphor in the Oil.

Remedial Use.—Slightly stimulating externally, and commonly employed in sprains, chronic rheumatism, gout, &c. It is, however, more efficacious in nervous affections, spasm of the bladder, hysteria, chorea (rubbed over the spine); and also rubbed over the abdomen in gripes, spasmodic colic, &c.

LINIMENTUM CAMPHORÆ COMPOSITUM.

Compound Liniment of Camphor.

Take of Camphor, two ounces and a half;
Liquor of Ammonia, seven fluidounces and a half:
Spirit of Lavender, a pint:

Mix the Liquor of Ammonia with the Spirit; then, from a glass retort, distil a pint with a slow fire. Lastly, in this dissolve the Camphor.

Remedial Use.— Powerfully stimulant. *Vide* "Liniment. Camphoræ."

Cautions.

LINIMENTUM HYDRARGYRI COMPOSITUM.

Compound Liniment of Mercury.

Take of Stronger mercurial Ointment,
Lard, of each four ounces;
Camphor, an ounce;
Rectified Spirit, a fluidrachm;
Liquor of Ammonia, four fluidounces:

It contains one drachm of mercury in about six drachms.

First rub the Camphor with the Spirit, then with the Lard and mercurial Ointment: lastly, having gradually dropped in the Liquor of Ammonia, mix all.

Remedial Action.—Excitant, both locally and generally, according to the extent of the friction. About a drachm may be rubbed in twice a day, when its specific effects are aimed at.

LINIMENTUM OPII.

Liniment of Opium.

Take of Liniment of Soap, six fluidounces;
Tincture of Opium, two fluidounces:

Mix.

Remedial Use.—Very useful, as an anodyne liniment, in local pains; but when the superficial soft parts acutely sympathise, friction is inconvenient, and fomentations or light poultices are preferable.

LINIMENTUM SAPONIS.

Liniment of Soap.

Take of Soap, three ounces;
Camphor, an ounce;
Spirit of Rosemary, sixteen fluidounces:

This ought to have been called Liniment. Saponis Compositum.

Cautions.

Dissolve the Camphor in the Spirit; then add the Soap; and macerate with a gentle heat, until it is dissolved.

Remedial Action.—Few persons regard with attention the medicinal action of soap. It is a powerful stimulant. Taken internally, it stimulates the digestive organs, promotes the urine, and, if long continued, it induces paleness, emaciation, and debility; and also as a lithontriptic it is useful in acid gravel. Externally (our more immediate consideration), it moderately stimulates the glandular system, in tumours and obstructions.

LINIMENTUM TEREBINTHINÆ.

Liniment of Turpentine.

℞ Cerati Resinæ, ℔ss.
Ol. Terebinthinæ, f℥iv.
Misce. Ft. Lin.

Take of Soft Soap, two ounces;
Camphor, an ounce;
Oil of Turpentine, sixteen fluidounces:
Shake them together until mixed.

Remedial Action.—A powerful stimulant in lumbago, and latterly much extolled as an embrocation in cholera. A liniment of turpentine prepared by the annexed formula is an excellent dressing for severe burns and atonic ulcers.

MELLITA.

Preparations of Honey.

MEL BORACIS.

Honey of Borax.

Incompatible with acids, and, therefore, incompatible with Inf. Rosæ C. with which, however, it is often prescribed.

Take of Borax, powdered, a drachm;
Honey, an ounce:
Mix.

Remedial Action.—Slightly astringent, detersive, and cooling.

Use.—Employed in aphthæ and excessive salivation.

Cautions.

MEL ROSÆ.

Honey of Roses.

Take of the dried [Petals of] the French (Red) Rose, four ounces:
Boiling Water, two pints and a half;
Honey, five pounds:

Macerate the Rose Petals in the Water for six hours; then add the Honey to the strained liquor, and boil down, in a water bath, to a due consistence.

Remedial Use.—An elegant ingredient in astringent gargles.—*Vide* the formula annexed.

Formula.
℞ Boracis Pulv. ʒij.
Aquæ Rosæ, fʒviij.
Mel Rosæ, ʒj.
Ft. Gargarizatio.

The College Translator orders distilled water, but it is not so in the Latin.

OXYMEL.

Take of Honey, ten pounds;
Acetic Acid, a pint and a half:

Mix the Acid with the Honey previously made hot.

Remedial Use.—For a detergent, but very powerful.

You ought not to use this in dispensing without a distinct understanding with the prescriber of it. The Editor has taken the trouble to prepare it, and finding that the College Translator prescribes the dose from a fluidrachm to a fluidounce, feels it his duty to remark, that it is not a fluid in such proportions, and that in such a dose it is so powerful, that it would induce spasmodic cough, gripes, &c.

The Censors ought to be indicted, under Lord Ellenborough's act, for cutting throats.

OXYMEL SCILLÆ.

Oxymel of Squills.

Take of Honey, three pounds;
Vinegar of Squills, a pint and a half:

Boil down in a glass vessel, with a slow fire, to a due consistence.

Cautions.

Remedial Action.—Stimulating; expectorant in bronchitis, and the sequel of pneumonia, &c. Oxymel of squills, like some other expectorants, produces more beneficial effects by being frequently smeared over the tongue and the back of the throat.

Dose.—fʒj. to fʒiij.

METALLICA.

Metallic Compounds.

The heat must be moderate, or a portion of sulphuric acid will be driven off.

Incompatible with alkalies, and their carbonates, lime, magnesia, mercurial salts, acetate of lead, infusion of cinchona, galls, &c.

℞ Aluminis Exsiccat. Pulv. ʒss.
Opii Pulv. ϑj.
Ung. Cetacei, ʒij.
Ol. Olivæ, fʒj.
Ft. Ung.

An excellent ointment in purulent ophthalmia, ophthalmia tarsi, &c.

Astringent Pills.

℞ Aluminis, gr. vj.
Ext. Opii, gr. j.
Catechu, ϑj.
Syrup, *q. s.*
Ft. Pil. vj.

One after each lax motion in serous diarrhœa.

PRÆPARATA EX ALUMINIO.

Preparations of Aluminium.

ALUMEN EXSICCATUM.

Dried Alum.

Melt your Alum in an earthenware vessel over the fire; then let the fire be raised until ebullition has ceased.

Chemical, &c.—It consists of one equivalent of sulphate of potassa and three of sulphate of alumina, according to Dr. Thompson, but variously estimated by other chemists.—*Vide* Notes and Supplement.

Remedial Action.—Alum is an energetic astringent; it often produces a painful sensation in the stomach; and in large doses causes colic, for which disease however it has been recommended. It is chiefly employed for uterine hæmorrhage, relaxed mucous membrane, and in an ointment for ophthalmia, as in the annexed formula.

Dose.—Gr. v. to ʒj.

Cautions.

LIQUOR ALUMINIS COMPOSITUS.

Compound Liquor of Alum.

Take of Alum,
Sulphate of Zinc, of each, an ounce;
Boiling Water, three pints:

Dissolve together the Alum and Sulphate of Zinc in the Water; afterwards strain.

Remedial Use.—It is commonly used as a collyrium, as an ingredient in gargles for apthæ, chronic ulcers of the fauces, and for chilblains; in which latter case, however, the formula annexed in page 128 is preferable. Both the dried powder blown into the nostrils, and the solution of alum thrown up by means of a syringe, are useful in diminishing the size of soft polypi; and the same effect is produced on spongy granulations, and other fungous excrescences.

PRÆPARATA EX ANTIMONIO.

Antimonials.

ANTIMONII OXYSULPHURETUM.

Oxysulphuret of Antimony.

Former Names.
Antimonii Sulphuretum Precipitatum. Sulphur Antimonii Precipitatum. Golden Sulphuret of Antimony. Sulphuretted Hydrosulphuret of Antimony.

Take of Sesquisulphuret of Antimony, powdered, seven ounces;
Liquor of Potassa, four pints;
Distilled Water, two gallons;
Diluted Sulphuric Acid, a sufficiency:

The Sesquisulphuret of Antimony is the Crude Antimony of commerce.

Intermix the Sesquisulphuret of Antimony, the Liquor of Potassa, and the Water, and boil over a slow fire for two hours, occasionally stirring, and frequently

Cautions.

adding more distilled Water, so that it may nearly fill the same measure. Strain the Liquor, and gradually drop into it as much [diluted] Sulphuric Acid as may suffice for throwing down the Oxysulphuret of Antimony; then wash away the Sulphate of Potassa with Water, and dry the residue with a gentle heat.

Chemical, &c.—For theories and conjectures, and for its characteristic property, *vide* Notes and Supplement.

Remedial Action.—It is commonly employed in old venereal affections, and in chronic diseases of the skin, as an alterative diaphoretic, and more especially in herpes.

College Preparation.—Pilulæ Hydrargyri [Proto] Chloridi compositæ; *vulgò*, Plummer's pills.

Dose.—Gr. j. to gr. v.

ANTIMONII POTASSIO-TARTRAS.

Potassio-Tartrate of Antimony.

Former Names.
Antimonium Tartarizatum.
Emetic Tartar.

In the Paris Pharmacopœia, Supertartrate of Antimony and Potassa.

Crystals, tetrahedral and octohedral; colourless; inodorous; taste, styptic, somewhat like cream of tartar, and afterwards nauseous.

Incompatible with the concentrated acids, alkalies and their carbonates; also with most vegetable astringents, and even with water unless distilled.

Take of Sesquisulphuret of Antimony, powdered,
Nitrate of Potassa, powdered, of each two pounds;
Bitartrate of Potassa, powdered, fourteen ounces;
Hydrochloric Acid, four fluidounces;
Distilled Water, a gallon:

Accurately mix the Sesquisulphuret of Antimony with the Nitrate of Potassa, adding the Hydrochloric Acid by little and little, and ignite the powder spread over on an iron plate. Rub the residue, when cool, into a very fine powder, and wash it with boiling water frequently poured thereon, until tasteless. Mix the powder thus prepared, with the Bitartrate of Potassa, and boil for half an hour in a gallon of distilled Water. Strain the liquor while hot, and set aside that crystals may form. Having removed these crystals and dried them, again let the

liquor be evaporated, that a second crop of crystals may be formed.

Chemical, &c.—Its composition is variously stated by different chemists. According to the most recent notion (which will probably give way to some other before the year is out), it consists of one equivalent of Bitartrate of Potassa and one of Ditartrate of Antimony.—*Vide* Notes and Supplement.

Remedial Action.—It is essentially an irritant on any part with which it comes in contact, whether externally or internally; and this impression leads to all the other well-known effects of the salt. It will inflame the skin; and so, in like manner, it will inflame the intestinal canal. In doses of a grain it will vomit and purge with extreme depression both of muscular powers and mental energy. In minute doses it will, for the most part, induce sweating; but, even if these be frequently repeated, the patients soon experience nausea and languor the most distressing, and often declare the condition to be so intolerable, that they would even renounce the cure rather than persist in it. Its vomiting effect does not depend on its coming in contact with the stomach, for, if introduced into a vein, or applied externally upon any absorbing surface, it will produce the same operation. Later observers have discovered, that, if a solution of from two to five grains be taken at a dose, it will vomit and purge severely for two or three times; but that, if the same quantity be repeated every two or three hours afterwards, neither the vomiting nor purging will be again induced. Furthermore, the dose may be augmented to half a drachm, and may be continued for a week or more, and yet no subsequent inconvenience, except thirst or, sometimes, a tormenting hunger, is experienced. Some patients, however, continue from the first to be much irritated by the remedy, and on them it produces hypercatharsis, or, if its use be persisted in, inflammation of the mucous lining of the alimentary canal. Laennec attributed to it a special property of rendering absorption more active. English practitioners have always used it to promote absorption; but this latter effect they have considered to be the result of the nausea, as with regard to other nauseating remedies and as in sea-sickness.

From the above it may be inferred, that this salt may be employed to fulfil very different indications. 1st. To relax the skin, the pulmonary exhalants, or the fibre of the body generally; to keep down vascular action, and to promote absorption. 2d. As a contra-stimulant; thus artificially producing a temporary disease in the alimentary tract, in order to suspend inflammation of parenchyma. To fulfil indications of the first class, it is employed in fevers and many inflammatory diseases, rheumatism, cynanche of various kinds, and in

Cautions.

Laennec's Contra-stimulant Draught.

℞ Ant. Potassio-tartratis, gr. ij.
Aquæ Aurantii, f℥iss.
Syrup. Papav. albi, f℥ij.
M. Ft. Haustus.
Every two hours in pneumonia, &c.

Emetic Tartar Ointment.

℞ Antim. Pot. Tart. ℥iss.
Adipis, ℥j. M.
And in plaster, 10 grs. upwards, but two or three grains will often suffice.

Cautions.

nearly all phlogistic diseases, if we except those which more immediately attack the stomach and bowels. To accomplish the second or counter-stimulating indication, it is employed in large doses chiefly in pneumony. It is also added to cathartic compounds to increase their operation, and is applied externally as a counter-irritant.

Dose.— Diaphoretic, expectorant, gr. $\frac{1}{8}$ to gr. $\frac{1}{4}$; emetic, gr. j. to gr. iv. in solution; contra-stimulant, gr. ij. to ℈j.

VINUM ANTIMONII POTASSIO-TARTRATIS.

Wine of Potassio-Tartrate of Antimony.

It contains gr. j. in f℥ss.

Take of Potassio-Tartrate of Antimony, two scruples;
Sherry Wine, a pint:

Decoction of yellow bark, or finely powdered galls, diffused in water, will be the best antidote for emetic tartar.

Dissolve the Potassio-Tartrate of Antimony in the Wine.

Remedial Use.— *Vide* "Antimonii Potassio-Tartras."

Dose.— ♏xx. to f℥j. or, as an emetic, f℥ss. to f℥iss.

PULVIS ANTIMONII COMPOSITUS.

Compound Powder of Antimony.

Vulgò, Pulvis Antimonialis.

Take of Sesquisulphuret of Antimony, powdered, a pound;
(Hart's) Horn Shavings, two pounds:

A dull red heat is preferable.

Mix, and throw them into a crucible at a white heat, and stir constantly, until a vapour no longer ascends. Rub the residue to a powder, and put it into a proper crucible. Then apply fire, and gradually increase it, that it may be at a white heat for two hours. Finally, powder the residue.

Chemical, &c.—Said to consist of variable proportions of Antimonious Acid and Phosphate of Lime.—*Vide* Notes and Supplement. James's powders contain a greater proportion of the acid.

Remedial Action.—Said to be diaphoretic, and purgative. This medicine affords a useful lesson, not only to the medical profession, but to mankind in general, instructing the first to be careful in appreciating the effects of remedial agents, and the second not necessarily to pin their faith to medical creeds, however respectably supported. Pulvis antimonialis, during the last century and a part of the present, was extolled in language as extravagant as that employed in the "Currus Triumphalis." It was pronounced adequate to shape the crisis of fever; to control phlogosis; to insure the separation of morbific humours, by inducing sweat, lax bowels, and a more equable action of heart and the arteries: and thousands are the physicians who have imagined they have seen the conflict between the remedy and the disease, and have watched the issue, first with anxiety, and then with triumph. History records the death of statesmen and philosophers from the unscientific and rash use of this mysterious panacea. Even the annals of parliament are not silent upon its merits. Now, however, we are told, that a physician has exhibited one hundred grains without the slightest effect; and, therefore, that it is little more active than powder of post. Thus, then, it is retained only in deference to the few who have not departed from the faith, and to the many who do to-day, and will continue to do to-morrow, that which they did yesterday, merely because they did it yesterday. Interposing our own opinion, we are equally disposed to deny its great activity, as we are indisposed to assert its entire inertness. In scruple doses it will usually excite one or two plentiful motions; and if its diaphoretic effects be uncertain, the same may be said of nearly every medicine appertaining to that class. In the Editor's time, at least a dozen different accounts have been given of the chemical analysis of this and of the true James's powder. Professor Brande confidently asserts, that in the specimens he analysed, he found varying proportions of the protoxide and deutoxide of antimony, together with phosphate of lime; while Mr. Phillips states, that both the College powder and that of Dr. James contain only antimonious acid (the deutoxide) and phosphate of lime.

Dose.—Gr. iij. to ℈j.

Cautions.

It is scarcely possible for the operative chemist to arrive at the same result twice together. At all events, out of half a dozen specimens procured from as many of the first houses, according to Professor Brande's experiments, no two were alike. It is therefore obvious, that the remedial effects must also vary.

Cautions.

PRÆPARATA EX ARGENTO.

Preparations of Silver.

ARGENTI CYANIDUM.

Cyanide of Silver.

Insoluble in water, but readily soluble in liquor of ammonia.

Take of Nitrate of Silver, two ounces and two drachms;
Diluted Hydrocyanic Acid,
Distilled Water, of each, a pint:

Dissolve the Nitrate of Silver in the Water; and, having added the diluted Hydrocyanic Acid, mix. Wash the precipitate with distilled Water, and dry it.

Chemical, &c.—For theory and tests, *see* Notes and Supplement.

Remedial Use.—For the more immediate preparation of Hydrocyanic Acid.

ARGENTI NITRAS.

Nitrate of Silver [Fused].

It fuses at 426°, and yields a crystalline mass on cooling; but if the temperature exceeds 600° or 700°, complete decomposition ensues, and the mass loses much of its transparency. Applied to a sore, the silver is reduced to the metallic state.

Take of Silver, an ounce and a half;
Nitric Acid, a fluidounce;
Distilled Water, two fluidounces:

Mix the Nitric Acid with the Water, and in these dissolve the Silver in a sand bath. Then gradually raise the heat, that the Nitrate of Silver may be dried. Melt this in a crucible over a slow fire until, the Water being driven off, ebullition shall have ceased; then immediately pour off into proper moulds.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—It is the best cleanser of sores, acting as an escharotic or stimulant, according to the extent of the application, and the condition of the sore. It acts slowly on the skin, and rapidly on granulations; but the irritation and pain, although severe, are of shorter duration than when produced by other caustics. The eschar is thin, dry, and silvery. It is employed to stop the growth of fungous flesh; to prevent or destroy strictures of the urethra; and, latterly, those of the nasal passages likewise; to induce cicatrization in ulcers of the cornea; also in old fistulous sores, obstinate ulcers; and to destroy indolent chancres. Its powder applied to hospital gangrene stops its progress; and in linear erysipelas, in which the disease commences and proceeds in lines somewhat resembling packthread loosely thrown down in a coil, if the head or more vivid rosy part of the line be included in a ring pencilled out by this caustic, the disease ceases. The disease of which the Editor speaks is endemic (chiefly to children) in damp, aguish districts. Internally, Nitrate of Silver is a powerful poison; but in small doses it acts as a stimulant tonic, occasionally removing epilepsy. For the last purpose, the pills, as annexed, have been used with advantage; but it should be recollected that the remedy, if long persisted in, may induce permanent discoloration of the skin. In functional angina pectoris, the same form may be used with advantage.

Dose.—Gr. $\frac{1}{16}$ to gr. ij.

Cautions.

℞ Argenti nitratis, gr. iij.
Extract. Opii, ʒss.
Moschi, ϑj.
Camphoræ, ϑij.
Formed into 48 pills with any convenient intermede.

Dose. — One pill three times a-day.

The Antidote for Nitrate of Silver.—Common Salt in solution, and afterwards solution of Gum Arabic.

LIQUOR ARGENTI NITRATIS.

Liquor of Nitrate of Silver.

Take of Nitrate of Silver, a drachm;
Distilled Water, a fluidounce:

Dissolve the Nitrate of Silver in the Water, and strain; then keep it in a well-closed vessel, excluded from light.

Remedial Use.—When further diluted with distilled water, it is an excellent collyrium for purulent ophthalmia; but as above prepared it is employed as a test.—*Vide* Notes.

The fused nitrate is unfit for solution as a test. The crystals ought to be employed. The Editor speaks of the lunar caustic as supplied by manufacturing chemists. The pure nitrate is an extremely delicate test of organic matter. It reddens vegetable matter even after fusion. In pharmacy it is employed to determine the presence of chlorides and hydro-sulphuric acid.

Cautions.

PRÆPARATUM EX ARSENICO.

Preparation of Arsenic.

LIQUOR POTASSÆ ARSENITIS.

Liquor of Arsenite of Potassa.

Vulgò, Fowler's solution.

Arsenious acid, commonly called sublimed white arsenic.

Lime-water, albumen, gelatine broths, and free dilution, are the measures for counteracting this poison.

Incompatible with lime-water, hydrosulphuric acid, and the hydrosulphates, salts earthy and metallic, and with decoction of barks generally.

Take of Arsenious Acid, broken into small pieces,
Carbonate of Potassa, of each, eighty grains;
Compound Tincture of Lavender, five fluid-drachms;
Distilled Water, a pint:

Boil the Arsenious Acid and Carbonate of Potassa with half a pint of the Water in a glass vessel until they are dissolved. To the Liquor, when cool, add the Compound Tincture of Lavender. Lastly, add thereto as much of the distilled Water as will accurately fill up the measure of a pint.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Use.—Applied externally in the solid state, arsenious acid is a powerful caustic, used in the treatment of cancerous ulcers, and formerly much extolled under the name of the "Plunket remedy." It is also now much recommended in cancerous affections of the face and nose, noli me tangere, &c.; but its application requires the greatest caution on account of the fatal consequences sometimes accruing even from its limited application. Internally, it is a powerful tonic, but not a safe one; for it often produces loss of appetite, gastric pains, stinging and shooting in the epigastrium, irritation of the mucous extremities, cold sweats, and, when exhibited in a poisonous dose, excruciating colics, bloody stools, tremblings, and hœmorrhagic vomiting. It has, however, been much used for the cure of agues, cutaneous affections, intermittent headachs, &c.

Dose.—Of the liquor, ♏v. gradually increased to ♏xx.

Cautions.

PRÆPARATA È BARIO.

Preparations of Barium.

BARII CHLORIDUM.

Chloride of Barium.

Antidote.
Solution of Epsom salts.

Incompatible with sulphate of magnesia, alkaline and metallic sulphates, nitrates, phosphates, and carbonates.

Take of Carbonate of Baryta, broken into small pieces, ten ounces;
Hydrochloric Acid, half a pint;
Distilled Water, two pints:

Mix the Acid with the Water, and to these gradually add the Carbonate of Baryta. Then, heat being applied, and the effervescence having subsided, strain the liquor, and boil down that crystals may form.

Chemical, &c.—For test and theory of process, *vide* Notes and Supplement.

Remedial Use.—It has been used by our continental neighbours (who try every thing) in scrofulous diseases, schirrous affections, and worms; but it is here introduced chiefly in regard to its powers as a test.

LIQUOR BARII CHLORIDI.

Liquor of Chloride of Barium.

Take of Chloride of Barium, a drachm;
Distilled Water a fluidounce:

Dissolve the Chloride of Barium and strain.

Remedial Use.—*Vide* "Barii Chloridum."

Cautions.

PRÆPARATUM È BISMUTHO.

Preparation of Bismuth.

BISMUTHI TRISNITRAS.

Trisnitrate of Bismuth.

Formerly called Subnitrate of Bismuth. According to Brande, it is a tetrakis—nitrate.

℞ Bismuthi Trisnitratis,
Pulv. Bac. Capsici, āā 3j.
Mucilaginis, *q. s.* ft. massa in pil. xxx.
Two for a dose.

Take of Bismuth, an ounce;
Nitric Acid, a fluidounce and a half;
Distilled Water, three pints:

Mix a fluidounce of the Distilled Water with the Nitric Acid, and in this dissolve the Bismuth: then pour off the liquor. Add to it the remainder of the Water, and set by that the powder may subside. Afterwards, the supernatant liquor being poured off, wash the Trisnitrate of Bismuth with Distilled Water, and dry it with a gentle heat.

Chemical, &c.—For the tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—This salt is tonic and antispasmodic, and has been used with advantage in dyspepsia with troublesome pyrosis. Also in lientery and partial paralysis. When taken in a full dose, it produces cordial effects, and some degree of hilarity bordering on intoxication. It is occasionally useful in chorea sancti viti.

Dose.—Gr. v. to gr. x.

Cautions.

PRÆPARATA È CALCIO.

Preparations of Calcium.

CALX.

Lime.

Take of Chalk, a pound:

Bruise it into pieces, and burn it in a very strong fire for one hour.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—Externally, it is used as a caustic to establish issues. For its internal use, *vide* "Liquor Calcis."

College Preparations.—Liquor Ammoniæ, Liquor Calcis, Liquor Potassæ, Potassa cum Calce, Calcis Chloridum, Liquor Calcis Chloridi, Calx Chlorinata.

Lime is constituted of
Calcium 20
Oxygen 8
28

It greens vegetable blues, and changes vegetable yellows to brown.

Incompatible with acids, alkaline carbonates, metallic salts, and astringent vegetable liquids.

Chalk is composed of
Carbonic Acid 22
Lime 28
Equivalent .. 50

LIQUOR CALCIS. [HYDRATIS?]

Liquor of Lime. [Hydrate of?]

Take of Lime, half a pound;
Distilled Water, twelve pints:

First slake the Lime with a small portion of the Water, then add the remainder, and shake them together. Immediately cover the vessel, and set aside for three hours; then keep the Liquor with the remaining Lime in stopped glass vessels, and when required for use, take from the clear Liquor.

Lime Water should be kept in a cellar, and large bottles containing it should not be frequently uncorked.

Lime water contains about ten grains of lime in the pint; varying, however, with the temperature of the fluid. Cold water is a better solvent than hot.

Cautions.

Chemical, &c.—*Vide* Notes and Supplement.

Formulæ.

℞ Hydrarg. Proto-Chloridi, ʒss.
Liquor. Calcis, fʒviij. M.
Ft. Lotio nigra.

Most practitioners, however, use a larger proportion of the calomel.

Remedial Action.—Powerfully antacid and astringent. It is useful in diarrhœa, chronic leucorrhœa, some cases of dyspepsia, and in ascarides. So, also, as a lithontriptic in calculous affections of the acid constitution. Externally, it is used in lotions, in order to diminish unhealthy discharges. Also, in burns, with an equal portion of linseed oil, it forms one of the oldest, and perhaps most useful liniments.

Dose.—fʒj. to fʒiv. or more, in milk.

℞ Ol. Lini,
Liq. Calcis, āā
p. æ. ft. Liniment.

In severe burns.

CALCII CHLORIDUM.

Chloride of Calcium.

Take of Chalk, five ounces;
Hydrochloric Acid,
Distilled Water, of each, half a pint:

Mix the Acid with the Water, and gradually add the Chalk to saturation. When the effervescence has ceased, strain, and evaporate the liquor until the salt is dried. Throw this into a crucible, and, when melted over the fire, pour it upon a flat clean stone. Lastly, when cool, bruise it into small pieces, and keep it in a vessel well closed.

Vulgò, Muriate of Lime.

Incompatible with sulphuric acid and the sulphates, with the alkalies and their carbonates; pure liquor of ammonia excepted.

Chemical, &c.—The carbonic acid, the water prescribed, and the water newly formed by the union of the oxygen of the lime with the hydrogen of the hydrochloric acid, are expelled by evaporation and fusion, leaving a chloride of calcium. For tests and diagram, *vide* Notes and Supplement.

Remedial Use.—*Vide* "Liquor Calcii Chloridi."

Cautions.

LIQUOR CALCII CHLORIDI.

Liquor of Chloride of Calcium.

Take of Chloride of Calcium, four ounces;
Distilled Water, twelve fluidounces:

Dissolve the Chloride of Calcium, and strain.

Even according to the new theory, this solution can contain nothing but muriate of lime.

Remedial Use.—It was much recommended some years ago for scrofulous tumours; has lately been said to have cured bronchocele where iodine has failed; and is supposed to be capable of removing certain obstruction of the glands, presumed to be the cause of such tumours. This itself, however, is mere conjecture, as the tumour seems to be in many instances the cause of the obstruction. It possesses some tonic power.

Dose.—ɱx. to fʒij., but enormous doses have been given.

℞ Liq. Calcii Chlor. ɱxx.
Infusi Gentian, C. fʒx.
ft. haustus. To be taken three times a day, *and give opium, if it vomit.*

Lisfranc used it in the form of ointment for chilblains.

CALX CHLORINATA.

Chlorinated Lime.

Take of Hydrate of Lime, a pound;
Chlorine, as much as may suffice:

Pass the Chlorine Gas through the Lime, scattered in a proper vessel, until the base is saturated.

Chlorine is readily evolved by the action of Binoxide of Manganese on Hydrochloric Acid, under a gentle heat.

Composition conjectured, but not known.

Vulgò, Bleaching powder, but hitherto more commonly called chloride of lime.

Remedial Use.—The substance itself, and a solution of it, varying in strength, is now used as a disinfecting medium, from its property of attracting carbonic acid, and of thus evolving chlorine. The mode, however, in which the chlorine disinfects the atmosphere, is not understood; although it is conjectured that it decomposes animal effluvia by attracting hydrogen.

Cautions.

CRETA PRÆPARATA.

Prepared Chalk.

Incompatible with acids, and acidulous salts.

Take of Chalk, a pound;
Water, a sufficiency:

Add a little of the Water to the Chalk, and rub to a fine powder. Throw this into a capacious vessel along with the remainder of the Water; then shake it, and, after a little while, pour off the supernatant water, still turbid, into another vessel, and set aside, that the powder may subside. Lastly, having poured off the Water, dry this powder, and let it be kept for use.

In the same manner Shells are prepared, after having been cleansed from their impurities, and washed with boiling water.

Chemical, &c.—For tests and impurities, *vide* Notes.

Remedial Use.—Antacid, slightly astringent, and usefully employed, after emptying the bowels in diarrhœa. It is also employed to repress the fungous growth of ulcers, and as a divisor in the exhibition of calomel, &c.

College Preparations.—Acidum Citricum, Acidum Tartaricum, Ammoniæ Sesquicarbonas, Calcii Chloridum, Hydrargyrum cum Creta, Mistura Cretæ, Confectio Aromatica, &c.

Dose.—Gr. x. to ʒj.

Cautions.

PRÆPARATA È CUPRO.

Preparations of Copper.

CUPRI AMMONIO-SULPHAS.

Ammonio-Sulphate of Copper.

Former Name.
Cuprum Ammoniatum.

Take of Sulphate of Copper, an ounce;
Sesquicarbonate of Ammonia, an ounce and a half:

Rub together until Carbonic Acid ceases to escape; then dry in the air the Ammonio-Sulphate of Copper, previously wrapped in bibulous paper.

Supposed to be constituted of ¾ carbonate of copper, sulphate of ammonia, and excess of sesquicarbonate of ammonia.

Incompatible with acids, with the other alkalies, and with lime, &c.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—A favourite tonic and antispasmodic with some practitioners; but if it be powerful, it is likewise hazardous, and to be used only with caution. Exhibited in chorea, epilepsy, &c., made into pills with crumb of bread.

Dose.—Gr. ¼ to gr. ij.

The sulphate of copper, in the dose of gr. ss., with a grain or two of opium, is a most efficacious remedy in obstinate diarrhœa and dysentery.

White of egg is the best antidote for all salts of copper.

It is decomposed after a few days, and yields a precipitate of oxide of copper.

LIQUOR CUPRI AMMONIO-SULPHATIS.

Liquor of Ammonio-Sulphate of Copper.

Old Name.
Liquor Cupri Ammoniati.

Take of Ammonio-Sulphate of Copper, a drachm;
Distilled Water, a pint:

Dissolve the Ammonio-Sulphate of Copper in the Water, and strain.

Remedial Use.—As a detergent and astringent to foul and atonic ulcers. Also employed by oculists as an ingredient in collyria.

Cautions.

PRÆPARATA È FERRO.

Preparations of Iron.

FERRI AMMONIO-CHLORIDUM.

Ammonio-Chloride of Iron.

Former Name.
Ferrum Ammoniatum.

Take of Sesquioxide of Iron, three ounces;
Hydrochloric Acid, half a pint;
Hydrochlorate of Ammonia, two pounds and a half;
Distilled Water, three pints:

Mix the Sesquioxide of Iron with the Hydrochloric Acid, in a proper vessel, and digest in a sand bath for two hours; then add the Hydrochlorate of Ammonia, previously dissolved in the Distilled Water; strain and evaporate all the liquor. Lastly, powder the residue.

According to the newest style of fashion among chemical conjecturers, it is said to consist of

Sesquichloride of Iron ..	15
Hydrochlorate of Ammonia ..	85
	100

Mechanically mixed.

Chemical, &c.—For theory of process, tests, and impurities, *vide* Notes and Supplement.

Remedial Action.—As the Editor believes that little attention has been paid to the medicinal power of this mixed substance, he considers it worth his while to investigate its operation. This task will be rendered easier by a distinct consideration, first, of the remedial properties of the sesquichloride of iron; secondly, of the hydrochlorate of ammonia (sal ammoniac); and, thirdly, of those of the two as combined in the above formula.

The *Sesquichloride of Iron* is a stimulant tonic; it is always the product of art; and seems to exert stronger stimulating powers than most of the martial preparations. Like the other chalybeates, its effects are more decided when exerted on relaxed and lymphatic temperaments, characterised by a slow circulation, pale face, and languid vital actions. For the general effects of the salts of iron, *vide* "Ferri Sulphas."

Hydrochlorate of Ammonia (sal ammoniac) is now little known in this country as an internal remedy; and it is on this account that the Editor is more anxious to direct the attention of his readers to its action and remedial effects: since those who have been in the habit of employing the ammoniated iron, now called ammonio-chloride of iron, must have continually used it without being aware that much of the effect of this last remedy is to be ascribed to the presence of the ammoniacal chlorate. Applied on the outer surface of the body in large quantities, and over a considerable surface, it produces at first a more or less lively irritation; it is then absorbed, and its action is felt by the stomach, which it irritates powerfully, and the impression is extended over the entire nervous system. Taken internally, its action is the same: it produces nausea, vomiting, and nervous symptoms, such as delirium, convulsive motions, &c. Administered in small doses, it acts as a stimulant upon the whole economy, and more especially upon the skin, of which it increases the secretions. The French writers tell us, that it may be advantageously employed in rheumatism; and there is a nostrum for gout in this country, consisting of this salt, oil of turpentine, and sal-volatile, so mixed, that the patient may take ten grains of the first with twenty-five minims of each of the last two. The Editor has had the opportunity of witnessing its effects, and considers its mode of action to be very similar to that of colchicum,—namely, by a powerful impression made on the mucous tract of the alimentary canal; and that, like this last remedy, when it vomits and purges, it suddenly suspends the gouty paroxysm, an extent of operation not unattended with danger. Its external use, as a refrigerant and discutient, is well known.

Cautions.

Incompatible with alkalies and their carbonates, astringent vegetable infusions, mucilage of gum arabic, &c.

The Ammonio-Chloride of Iron, being little more than a mixture of about six parts of sal ammoniac (hydrochlorate) and one of the sesquichloride of iron, must, therefore, be a stimulant tonic, and a powerful excitant on the alimentary canal; and may be used, in full doses, in hysteria with mucous collections and intestinal torpor, in epilepsy, and, perhaps, in atonic rheumatism, gout, and passive dropsies.

Dose.—Gr. v. to gr. xx.

TINCTURA FERRI AMMONIO-CHLORIDI.

Tincture of Ammonio-Chloride of Iron.

Former Name.

Tinct. Ferri Ammoniati.

Incompatible with the above-named. — *Vide* the salt.

Take of Ammonio-Chloride of Iron, four ounces;
Proof Spirit, a pint:

Cautions.

Dissolve the Ammonio-Chloride of Iron in the Spirit, and strain.

Chemical, &c.—For tests, *vide* Notes.

Remedial Action.— *Vide* the "Ammonio-Chloride of Iron."

Dose.— ♏xx. to ʒj.

TINCTURA FERRI SESQUICHLORIDI.

Tincture of Sesquichloride of Iron.

Former Name.
Tinct. Ferri Muriatis.

Incompatible with alkalies and their carbonates, astringent vegetable infusions, gum arabic, &c.

Take of Sesquioxide of Iron, six ounces;
Hydrochloric Acid, a pint;
Rectified Spirit, three pints:

Pour the Acid upon the Sesquioxide of Iron, in a glass vessel, and digest for three days, occasionally shaking. Then add the Spirit, and strain.

Chemical, &c.— *Vide* Notes and Supplement.

Remedial Action.—This, like the other preparations of iron, is endowed with stimulating properties, and is not liable to rapid decomposition. It has been long recommended for dysuria, spasmodic stricture, hæmorrhage from the urinary passage, local hæmorrhage; and is externally used for venereal and other warts.

In spasmodic dysuria, it should be exhibited in the dose of ♏xv. every ten minutes, until it excites nausea.

Dose.— ♏x. to ʒj.

FERRI IODIDUM.

Iodide of Iron.

Iodine	126
Iron	28
Water	45
Equiv.....	199

Take of Iodine, six ounces;
Iron filings, two ounces;
Distilled Water, four pints and a half:

Mix the Iodine with four pints of the Water, and to these add the Iron. Heat the mixture in a sand bath, and when it has assumed a greenish colour, pour off the liquor. Wash the residue with half a pint of boiling Water. Let the mixed and strained liquors evaporate at a temperature not exceeding 212°, in an iron vessel, that the salt may be dried. Keep it in a well-stopped vessel excluded from light.

Cautions.

This salt is of a green colour, very soluble both in water and alcohol, and soon becoming moist by exposure to the air. Its solution deposits sesquioxide of iron, unless an iron wire is kept constantly immersed in it.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—Iodide, otherwise called ioduret of iron, possesses tonic and emmenagogue properties, and is said to be highly stimulating. As an excitant tonic, it may be used in chlorosis, atonic amenorrhœa, some scrofulous affections, accompanied with decided atony; but, on the contrary, it will aggravate the disease in all cases attended with plethora, or in acute inflammatory affections. It has been lately recommended to the Editor as a substitute for the sulphate of iron, in the preparation of Griffith's mixture (Mistura Ferri Composita), for hysteria in the serous diathesis; but he has not yet had sufficient experience of its effects, although disposed, as far as his observation has extended, to give it his approval. It requires more than the ordinary proportion of myrrh to suspend it.

Dose.—Gr. j. to gr. iij.

FERRI POTASSIO-TARTRAS.

Potassio-Tartrate of Iron.

Take of Sesquioxide of Iron, three ounces;
Hydrochloric Acid, half a pint;
Liquor of Potassa, four pints and a half, or as much as may be sufficient:
Bitartrate of Potassa, eleven ounces and a half;
Liquor of Sesquicarbonate of Ammonia, a pint, or as much as may be sufficient;
Distilled Water, three gallons:

Former Name.

Ferrum Tartarizatum.

The most palatable of the preparations of iron. It should be kept excluded from the air, or it will become moist.

It consists of one equiv. of Tartrate of

Cautions.

Potassa, and one of Tartrate of Iron.
Equiv. 220.

Incompatible with the strong acids, lime-water, hydrosulphuric acid, astringent vegetable liquors, &c.

Tonic Pills.

℞ Ferri potassio-tartratis,
Ext. Gentianæ, āā 3j.
Ol. Cinnam. ℥ij.
Syrup, *q. s.*
Ft. Massa, in Pil. xxx.
Dose.—Four to six, three or four times a day.

Electuary.

℞ Ferri Potassio-tartratis, ℨss.
Confect. Ros. Gallicæ, 3j.
Syrup. Ros. Gallicæ, *q. s.*
Ft. Elect.
Dose.—A teaspoonful.

Mix the Sesquioxide of Iron with the Acid, and digest for two hours in a sand bath. Add to these, two gallons of the Water, and set by for an hour; then pour off the supernatant liquor. Wash the precipitate, after having added the Liquor of Potassa, with water frequently poured thereon, and, while it is yet moist, boil it down with the Bitartrate of Potassa, previously mixed with a gallon of the Water. If the liquor, when tried with Litmus, prove to be acid, drop into it Liquor of Sesquicarbonate of Ammonia to saturation. Finally strain; and let the liquor be evaporated by a gentle heat, that the salt may be dried.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—The Potassio-tartrate has been long ago recommended as the least nauseous of the iron-salts; but if it be more palatable, it is certainly less inviting in its appearance, and for the most part with difficulty exhibited to children, for whom otherwise it would seem more eligible on account of its possessing milder tonic properties. Loutherbourg, the celebrated painter, acquired some surgical fame for his treatment of sprains, contusions, &c. by a similar salt of iron formed into balls, the *Boules de Nancy* of the Paris Pharmacopœia. They consist of iron filings and red tartar made up into balls with alcohol, and dissolved in water when required.

Dose.—Of the Potassio-tartrate of Iron, gr. x. to ℈j. or more, either in solution or combined with Ext. of Gentian, as in the margin.

FERRI SESQUIOXYDUM.

Sesquioxide of Iron.

Former Names.
Rust of Iron.
Carbonate of Iron.
Subcarb. of Iron.

Take of Sulphate of Iron, four pounds;
Carbonate of Soda, four pounds and two ounces;
Boiling Water, six gallons:

Separately dissolve the Sulphate of Iron and the Carbonate of Soda in three gallons of the Water; then mix the liquors and set by, that a powder may subside. Afterwards, the supernatant liquor being poured off, wash the precipitate in water, and dry it.

Chemical, &c.—The constitution of this preparation, as it occurs in the market, has always been found to vary; and usually contains some portion of carbonate, as evidenced by its effervescing with acids. —*Vide* Notes and Supplement.

Remedial Action.—Among all the preparations of iron, none has been used more extensively, nor in larger doses, than the present. It is much relied upon to stop the periodical attacks of tic doloreux, and several other intermittent neuralgiæ, in which latter case one should begin at once with drachm doses.

Dose.—Gr. x. to ʒiij.

Cautions.

℞ Ferri sesquioxydi, ʒj.
Mellis, ʒij.
Syrup. Zingiberis, ℥ss.
Commisce.
Ft. Elect.
The size of a walnut thrice a day.

FERRI SULPHAS.

Sulphate of Iron.

Take of Iron Filings, eight ounces;
Sulphuric Acid, fourteen ounces;
Water, four pints:

Mix the Sulphuric Acid with the Water, and to this add the Iron; then apply heat; and, when bubbles have ceased to escape, strain the liquor, and set it aside that it may crystallize. Having poured off the water, again evaporate for a second crop of crystals, and dry them.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—The slow but uniform action of iron and its preparations on the animal economy are well worthy of our attentive consideration. "Shew me the man," said Dr. Heberden, "who will presume to explain the mode in which any remedy produces its

Formerly called
Ferrum Vitriolatum.
Sal Martis.
Green Copperas.
Green Vitriol.

Chemical Composition.
Sulphuric Acid 40
Protoxide of Iron 36
with 7 equivalents of water.

The crystals must not be exposed to the air, or they will become coated with a yellowish, pulverulent crust, by attracting more oxygen.

Incompatible with the alkalies and their carbonates; with all salts, the bases of which form insoluble compounds with sulphuric acid. Also decomposes by vegetable astringents.

Cautions.

Saline Aperient Chalybeate.

℞ Ferri Sulphatis, ℈j.
Magnesiæ Sulphatis, ℥j.
Aquæ Pulegii, Oj.
M.

Dose. — A wine-glassful twice a day in atonic amenorrhœa.

Chalybeate Vermifuge.

℞ Ferri Sulphatis, ℈j.
Infusi Quassiæ, f℥viij.
M.

Dose.—Two table-spoonsful every morning, fasting.

effects—his boldness will more than equal his knowledge." Still, however, there are observations which may be made with certainty on such subjects. No metal, as a remedy, seems to be more congenial to the human frame than iron. Wherever it produces its impression, internally or externally, it slowly but surely corroborates the tissues. First, it exerts its effects on the intestinal canal, increasing almost insensibly the powers of digestion, exciting appetite, and powerfully assisting in elaborating the alimentary substances. We see also its chemical effect of blackening the fæcal excretion. Part of the iron is absorbed with the chyle and passes into the blood, manifesting its influence, as modern physiology has proved, upon the circulation and constitution of the blood itself. Who has not watched with interest the increase of red particles, indicated by the improving complexion of serous atonic patients when under a course of this remedy? The pulse increases in size and energy; and the muscular,—indeed all the functions are performed with more vigour and regularity. As in the use of other stimuli, so with chalybeates, we find a limit beyond which we cannot pass with safety. This is indicated by colic pains, headach, congestion, bleeding at the nose; or, in females, by menorrhagia, &c.

The sulphate of iron is more astringent than the other preparations, and requires very great caution. It is commonly exhibited in the form of Griffith's Mixture; but it must be recollected, that in that admixture it is decomposed, and that the protocarbonate, not the sulphate, is the resulting compound. Dissolved in a large proportion of distilled water, it is a very old remedy for atonic amenorrhœa; and a chalybeate saline, as in the formula annexed in the margin, is a well known domestic recipe. A solution of the salt in infusion of quassia is an efficacious remedy for worms. Externally, it is employed by surgeons for arresting hæmorrhage, and for inveterate and bleeding ulcers; and, in the form of ointment and wash, for tinea capitis, &c.

Dose.—Gr. ij. to gr. v.

Cautions

PRÆPARATA EX HYDRARGYRO.

Preparations of Mercury.

HYDRARGYRUM CUM CRETA.

Mercury with Chalk.

Take of Mercury, three ounces;
Prepared Chalk, five ounces:

Rub together until globules are no longer visible.

Incompatible with acids.

A mixture of protoxide of mercury, metallic mercury minutely divided, and chalk.—BRANDE.

It contains also binoxide of mercury.—PHILLIPS.

Add a fluidrachm of water to accelerate the process.

It contains gr. j. of mercury in about gr. iv. of the powder.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement. In the Dublin Pharmacopœia the oxidation is promoted by the addition of manna.

Remedial Action.—One of the least active of the mercurials. Commonly exhibited as an alterative to children, for whose diseases it is given with but little discrimination. It may be received as a rule, that when, under its use, the motions acquire the appearance of chopped grass, this medicine ought to be suspended, and a dose or two of rhubarb with a few drops of sal volatile and aniseed-water should be employed.

Dose.—Gr. v. to gr. xv. for adults.

HYDRARGYRI OXYDUM.

Oxide of Mercury.

Take of Chloride of Mercury, an ounce;
Lime-Water, a gallon:

Mix, and frequently shake them. Set aside, and when the Oxide has subsided, pour off the liquor. Lastly, wash in distilled Water until alkalescence be no longer perceptible; and dry it, wrapped in bibulous paper, in the air.

Former Name.
Hydrarg. Oxydum Cinereum.

Cautions.

R Hydrarg. [Proto-] Chloridi, gr. xv.
Liquor. Calcis, ℥ij.
Ft. lotio nigra.

This quantity of calomel is commonly used, but it is considerably above the combining proportion.

Incompatible with acids, acidulous salts, hydrosulphuric acid, the hydrosulphates, &c.

Chemical, &c.—Professor Brande is of opinion, that the resulting compound is not uniformly a protoxide of mercury. For theory and tests, *vide* Notes and Supplement.

Remedial Action.—It acts like the other preparations of mercury, as a general stimulant, powerfully promoting glandular secretion, and irritating the salivary organs. Used as an alterative.

Dose.—Gr. iij. to gr. x.

HYDRARGYRI BINOXYDUM.

Binoxide of Mercury.

Former Names.
Calcined Mercury.
Hydrargyri Oxydum Rubrum.

Take of Bichloride of Mercury, four ounces;
Liquor of Potass, twenty-eight ounces;
Distilled Water, six pints:

Dissolve the Bichloride of Mercury in the Water; strain, and add the Liquor of Potass. Wash what is precipitated (after pouring away the liquor) in distilled Water, until alkalescence is no longer perceptible, and dry with a gentle heat.

Chemical, &c.—For theory of process and tests, *vide* Notes and Supplement.

Remedial, &c.—Formerly used internally to induce salivation. Now rarely employed, except to fumigate ulcers of the throat, or chancres.

Dose.—Gr. ss. to gr. ij. with opium.

HYDRARGYRI NITRICO-OXYDUM.

Nitric-Oxide of Mercury.

Old Name.
Hydrargyrus Nitratus Ruber, Red Precipitate.

Take of Mercury, three pounds;
Nitric Acid, a pound and a half;
Distilled Water, two pints:

Mix in a suitable vessel, and apply a gentle heat, until the Mercury is dissolved. Boil down the Liquor, and powder the residue. Throw this into another vessel, as shallow as possible; then apply a gentle heat, and raise it gradually until a red vapour has ceased to issue forth.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—This was formerly exhibited internally in venereal disease; but it is now almost exclusively employed as an escharotic and stimulant, to reduce fungous excrescence, to excite a new action in syphilitic and other ulcers, and in ulceration of the tarsi, &c.

Cautions.

This is a binoxide of mercury, with a small portion of adherent nitrate.

Dupuytren's Ointment

For ophthalmia tarsi in the chronic stage.

℞ Hydrarg. nitrico-oxydi, gr. x.
Zinci Sulphatis, gr. xx.
Axungiæ, ℥ij.
Ft. Ung.

HYDRARGYRI AMMONIO-CHLORIDUM.

Ammonio-Chloride of Mercury.

Take of Bichloride of Mercury, six ounces;
Distilled Water, six pints;
Liquor of Ammonia, eight ounces:

Heat being applied, dissolve the Bichloride of Mercury in the water. To this, when cool, add the Liquor of Ammonia, occasionally shaking. Wash the precipitated powder until free from taste; and, lastly, dry it.

Chemical Action, &c.—*Vide* Supplement and Notes.

Remedial Use.—To suspend chronic morbid action in the skin, as in tænia, impetigo, &c.; but where these diseases are attended with much inflammation, it usually aggravates the malady.

Mark! this is "White Precipitate," a deadly poison, and never to be used internally.

Older Name.

Hydrargyrum Precipitatum Album.

Its extensive use, even externally, is dangerous.

HYDRARGYRI CHLORIDUM.

Chloride of Mercury.

Take of Mercury, four pounds;
Sulphuric Acid, three pounds;
Chloride of Sodium, a pound and a half;
[Boiling] Distilled Water, a sufficiency:

Mark! this is the Protochloride (Calomel), and ought thus to be prescribed:—

Cautions.

℞ Hydrargyri (Proto-) Chloridi, P. N., &c.

Mr. R. Phillips says the prefix should always be used when "a pointed distinction is necessary." Is it not always necessary where life is in one scale, and death in the other? We may presume the omission was not his. The Editor will be agreeably surprised if this omission do not make work for the coroners. One man's life is worth a dozen chemical conjectures, and should not be risked for a capricious change of names.

N. B. When calomel is given in sago, or other nutriment containing lime, it turns black, which often alarms the friends of the patient.

Boil two pounds of the Mercury with the Sulphuric Acid in a suitable vessel, until a dry Bipersulphate of Mercury remains; rub this, when cool, with [the other] two pounds of Mercury in an earthenware mortar, that they may be thoroughly mixed. Then add the Chloride of Sodium, and rub together until globules are no longer visible, and sublime. Rub the Sublimate into a very fine powder, carefully wash it with the boiling distilled water, and dry it.

Chemical.—*Vide* Supplement and Notes.

Remedial Action.—It is an active purgative, quickening the secretions, but more especially those of the liver and pancreas: effectually searching and clearing the whole alimentary canal; it promotes the secretion of the kidneys; stimulates the lymphatics, causing absorption of serous fluid, or of coagulated lymph newly deposited; suspends syphilitic and certain inflammatory actions, when given long enough to produce a moderate degree of mercurial irritation; in maximum doses, it acts as a powerful sedative, and causes great depression; and, finally, it is capable of removing various chronic diseases, depending chiefly on sluggish secretion.

Dose.—As a purgative, from gr. iij. to gr. x. To promote absorption, half a grain twice or thrice a-day. To suspend inflammatory action, gr. ij. or more, every four or six hours. In secondary syphilis, with deep sores, gr. j. combined with opium, twice a-day. Alterative dose, in other cases, gr. ss. to gr. j. with chalk.

Officinal Preparations.—Hydrargyri Oxydum, Pilulæ Hydrargyri Chloridi Compositæ.

HYDRARGYRI BICHLORIDUM.

Bichloride of Mercury.

Formerly called Hydrargyri Oxymurias.—P. L. 1809 and 1824; also Hydrargyrus Muriatus.—P. L. 1788. *Vulgò*, Corrosive sublimate.

Take of Mercury, two pounds;
Sulphuric Acid, three pounds;
Chloride of Sodium, a pound and a half;
Distilled Water, a sufficiency:

Boil down the Mercury with the Sulphuric Acid, in

a proper vessel, until a dry Bipersulphate of Mercury remains; rub this, when cool, with the Chloride of Sodium, in an earthen mortar; then sublime with a heat gradually raised.

Chemical, &c.—Also in chemical works, called deutochloride of mercury, and sometimes (N.B.) chloride of mercury. For theory and tests, *vide* Notes and Supplement.

Remedial Action.—This salt, which in the dose of a few grains is a virulent poison, when administered in remedial doses, induces the usual effects of the other mercurials. It is extensively employed in the treatment of secondary syphilis, where the symptoms have been of long standing and are of an obstinate character. It has long been recommended as an alterative in scrofula, combined with tincture of cinchona; a combination, unchemical indeed, but nevertheless highly efficacious. As a diuretic, in combination with digitalis, it has been found efficacious in some forms of dropsy.

Dose.—Gr. $\frac{1}{8}$. to gr. $\frac{1}{2}$.

Cautions.

Chem. Comp.

Chlorine 2 equivs.
36 × 2.... 72
Mercury 1 equiv. 202

Equivs. 274

Antidote.

White of egg in solution, which instantly decomposes it.

Pills of Bichloride of Mercury.

℞ Hydrarg. Bichloridi, gr. v.
Ammoniæ Hydrochloratis, gr. v.
Aquæ ferventis, f℥ij.
Micæ panis, *q. s.*
Ft. Pil. xl.

One pill twice a day, to excite and stimulate the absorbent system.

Yellow Wash.

℞ Hydrarg. Bichloridi, gr. viij.
Liq. Calcis, f℥viij.
Ft. Lotio.

Incompatible with alkalies and their carbonates, tartar emetic, sulphuret of potassa, soap, iron, copper, and tanning vegetable substances.

Vulgò, Van Sweiten's drops: it contains gr. j. in f℥ij.

LIQUOR HYDRARGYRI BICHLORIDI.

Liquor of Bichloride of Mercury.

Take of Bichloride of Mercury,
Hydrochlorate of Ammonia, of each, ten grains;
Distilled Water, a pint:

Dissolve together the Bichloride of Mercury and the Hydrochlorate of Ammonia in the Water.

Remedial Action.—*Vide* the Bichloride above.

Dose.—f℥ij. to f℥ss.

HYDRARGYRI BICYANIDUM.

Bicyanide of Mercury.

Take of Percyanide of Iron, eight ounces;
Binoxide of Mercury, ten ounces;
Distilled Water, four pints:

Cautions.

Colourless; inodorous; taste, metallic and disagreeable; highly poisonous. It dissolves freely in hot water, and readily crystallizes as it cools. Sparingly dissolved in alcohol; decomposed by heat.

It is composed of
Cyanogen 2 equivs.
26 × 2 52
Mercury 1 equiv. 202
Equiv..... 254

Boil together for half an hour, and strain. Evaporate the liquor that crystals may form. Frequently wash what remains with boiling distilled Water, and again evaporate the mixed liquors that crystals may be formed.

Bicyanide of Mercury may be prepared in another way, by adding Binoxide of Mercury in a sufficient quantity, to accurately saturate Hydrocyanic Acid, distilled from Ferrocyanide of Potassium, with diluted Sulphuric Acid.

Chemical, &c.—For theory of process and tests, *vide* Notes and Supplement.

Remedial Use.—For the preparation of Hydrocyanic Acid.

HYDRARGYRI IODIDUM.

Iodide of Mercury.

It is decomposed by light.

Composed of
Iodine 1 equiv. 126
Mercury 202
Equiv. 328

Insoluble in alcohol and water; soluble in æther; colour, greenish yellow; taste, slightly metallic.

℞ Hydrargyri (Proto-) Iodidi, gr. j.
Ext. Glycyrrhiz. ℈j.
Ft. Massa, in Pil. viij.
Dose.—ij. to iv. twice or thrice a day.

Take of Mercury, an ounce;
Iodine, five drachms;
Alcohol, as much as may be sufficient:

Rub together the Mercury and the Iodine, adding the Alcohol gradually, until globules are no longer apparent. Immediately dry the powder in a gentle heat, the access of light being excluded, and keep it in a well-stopped vessel.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—First recommended by Coindet of Geneva, as an alterative in scrofulous tumours, and old syphilitic ulcers of scrofulous constitutions.

Dose.—Gr. $\frac{1}{8}$ to gr. $\frac{1}{2}$ in pills.

HYDRARGYRI BINIODIDUM.

Biniodide of Mercury.

Take of Mercury, an ounce;
Iodine, ten drachms;
Alcohol, as much as may be sufficient:

Rub together the Mercury and the Iodine, adding the Alcohol gradually, until globules are no longer visible. Dry the powder, excluded from the light, in a gentle heat, and preserve it in a well-stopped vessel.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—It is employed externally and internally in the same affections as the Iodide of Mercury, but it is more active.

Dose.—Gr. $\frac{1}{10}$ to gr. $\frac{1}{4}$ in pills.

Cautions.

Also called Deutiodide of Mercury.

Composed of
Iodine, 1 equiv. 252
Mercury, ... 202

Equiv. 454

A red powder, which turns yellow by the application of heat.

Decomposed by light.

Used in pills in one half the proportion used in the pills above; and in ointment, for ulcers, as follows.

℞ Hydrarg. Biniodidi, gr. xv.
Axungiæ, ℥ij.
Ol. Bergamii, ♏x.
Ft. Unguentum.

HYDRARGYRI BISULPHURETUM.

Bisulphuret of Mercury.

Take of Mercury, two pounds;
Sulphur, five ounces:

Mix the Mercury with the Sulphur previously melted over the fire; and directly the mass swells, withdraw the vessel from the fire, and cover it strongly lest it should flame; then powder it, and sublime.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Former Names.

Red Sulphuret of Mercury, Vermilion, and Factitious Cinnabar.

Sulphur, 2 equiv. 32
Mercury 202

Equiv. 234

Ointment of Bisulphuret of Mercury.

℞ Hydrarg. Sulph. ℥iss.
Ammoniæ Hydrochloratis, ℥ss.
Aquæ Rosæ, ƒ℥j.
Axungiæ, ℥ss.
Ft. Ung.

Cautions.

Remedial Action.—It was formerly employed internally; but is now employed in fumigation for obstinate ulcers, diseases of the skin, prurigo pedicularis, syphilitic exostosis.

℥ij. to ℥iv. in the usual apparatus for fumigation.

HYDRARGYRI SULPHURETUM CUM SULPHURE.

Former Names.
Hydrarg. Sulph. Nigrum.
Æthiop's Mineral.

Sulphuret of Mercury with Sulphur.

Take of Mercury,
Sulphur, of each, a pound:

Rub together until globules are no longer visible.

Chemical, &c.—*Vide* Notes and Supplement. Conjectured to be a Bisulphuret of Mercury with Sulphur; also a Protosulphuret of Mercury with Sulphur; and, by the French chemists, Bisulphuret of Mercury with metallic Mercury.

Vermifuge Powder.
℞ Pulv. Jalapæ,
Pulv. Scammonii, āā ℥j.
Potassæ Bitartratis, ij.
Hydrarg. Sulph. cum Sulph. ℥iij.
Ft. Pulvis.
Dose.—Gr. x. to ℈j. for children.

Remedial Action.—It is employed with advantage internally and externally in purulent psora; and internally as a vermifuge, in the formula annexed in the margin.

Dose.—Gr. v. to gr. xv.

Cautions.

PRÆPARATA EX MAGNESIO.

Preparations of Magnesium.

MAGNESIA.

Take of Carbonate of Magnesia, four ounces :

Burn it in a strong fire for two hours.

Remedial Action.—Antacid and, if it meets with acidity in the stomach, laxative. It is supposed to sooth the sentient extremities of the nerves of the stomach, particularly in the irritation of teething. When used largely as a lithontriptic, a brisk purge should be occasionally interposed.

Dose.—Gr. xv. to ʒij. for adults.

Composed of
Oxygen 8
Magnesium 12
Equiv. 20

Old Names.
Magnesia usta.
Calcined Magnesia.

Exposed to the air, it attracts carbonic acid, and again becomes a carbonate.

It requires 30,000 times its weight of boiling water for its solution, therefore all but insoluble.

MAGNESIÆ CARBONAS.

Carbonate of Magnesia.

Take of Sulphate of Magnesia, four pounds ;
Carbonate of Soda, four pounds and eight ounces ;
Distilled Water, four gallons :

Separately dissolve the Carbonate of Soda and the Sulphate of Magnesia, in two gallons of the Water, and strain ; then mix the liquors and boil, while constantly stirring with a spatula, for a quarter of an hour. Lastly, the liquor being poured off, wash the precipitate powder with boiling Distilled Water, and dry it.

Former Name.
Magnesiæ Subcarbonas.

We have now returned to the name it bore nearly a century back.

Composed of
Carbonic Acid
1 equiv. .. 22
Magnesia
1 equiv. .. 20
Equiv. 40
but it varies as it occurs in the market.

It is more soluble in cold than in hot water, but very sparingly in either.

Cautions.

Dalby's Carminative.
Formula.
Magnesiæ, ℈ij.
Ol. Menth. p. ♏j.
Ol. Myristic. ♏ij.
Ol. Anisi, ♏iij.
Tinct. Castor, ♏xxx.
Tinct. Assafœtid. ♏xv.
Tinct. Opii, ♏v.
Sp. Pulegii, ♏xv.
Tinct. Card. C. ♏xxx.
Aquæ Menthæ pip. fℨij. M.

Dose.—A small teaspoonful in flatulency, gripes, and irritation from teething, &c.

Incompatible with acids, acidulous and metallic salts, &c.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—The same as above; but its habitual ingestion into the stomach of weakly patients whose bowels are torpid, has been known to produce dangerous obstruction.

Dose.—℈j. to ℨj. or more.

PRÆPARATA È PLUMBO.

Preparations of Lead.

PLUMBI ACETAS.

Acetate of Lead (Neutral.)

Take of Oxide of Lead, in powder, four pounds and two ounces;
Acetic Acid,
Distilled Water, of each, four pints:

Having mixed the Acid with the Water, and to this having added the Oxide of Lead, dissolve under a gentle heat, and then strain. Finally, evaporate the liquor, that crystals may form.

Also called superacetate, saccharum saturni, cerussa acetata.

Incompatible with alkalies and their carbonates, with all the strong acids, neutral salts, hydrosulphates, astringent vegetable liquors, &c.

Its effects as a poison are over-rated. It is only in persons constitutionally susceptible to its effects, that it produces the worst symptoms even in the most minute portions.

Antidote.—Solution of Sulphate of Magnesia.

Chemical, &c.—A neutral acetate containing one equivalent of Acid and Base, and three equivalents of water of crystallisation. *Vide* Notes and Supplement.

Remedial Action.—Powerfully astringent. It promotes the healing process in excoriations of the skin and intestines; and is internally employed, in combination with acetate of morphia, in uterine and intestinal hæmorrhage, colliquative diarrhœa, and the profuse perspirations of phthisical patients. It is now said to be incompatible with Opium.

Dose.—Gr. ss. to gr. ij.

Cautions.

LIQUOR PLUMBI DIACETATIS.

Liquor of Diacetate of Lead.

Take of Acetate of Lead, two pounds and three ounces;
Oxide of Lead powdered, one pound and four ounces;
Water, six pints:

Boil for half an hour, occasionally shaking them; and, when the liquor is cool, add as much distilled Water as is sufficient to complete the six pints. Lastly, strain it.

Old Names.
Liquor Plumbi Subacetatis;
Goulard's Extract.

Chemical, &c.—Composed of one equivalent of Acetic Acid and two of Oxide of Lead.—*Vide* Notes and Supplement.

Remedial Use.—Externally, diluted in the form of lotion.—*Vide* the Diluted Liquor, &c.

LIQUOR PLUMBI DIACETATIS DILUTUS.

Diluted Liquor of Diacetate of Lead.

Take of Liquor of Diacetate of Lead, a fluidrachm and a half;
Distilled Water, a pint;
Proof Spirit, two fluidrachms:

Mix.

Vulgò, Goulard's Lotion.

The public being familiar with the milky opacity of this lotion, as prepared with common water, often return the purer lotion on the hands of the retail chemist.

Remedial Action.—This lotion is very commonly and indiscriminately employed in erysipelatous inflammations, burns, contusions, sprains, and excoriations. Employed in the latter cases for the abraded surfaces of infants, sore ears, &c. It often produces mischievous consequences; and, for the sudden suppression of discharge, is followed by Hydrocephalus, Convulsions, Pneumonia, &c.

Cautions.

It consists of
Chlorine 1 equiv. 36
Lead 1 equiv... 104

140

Mark! you are to dissolve the acetate in three pints of the distilled water, and the chloride in one pint of the distilled water, and yet you have but three pints ordered in all!!!

PLUMBI CHLORIDUM.

Chloride of Lead.

Take of Acetate of Lead, nineteen ounces;
Boiling Distilled Water, three pints;
Chloride of Sodium, six ounces:

Separately dissolve the Acetate of Lead and the Chloride of Sodium, the former in three pints, and the latter in one pint of the distilled Water. Then mix the liquors together, and wash the precipitate, when cold, with distilled Water, and dry it.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

PLUMBI IODIDUM.

Iodide of Lead.

Take of Acetate of Lead, nine ounces;
Iodide of Potassium, seven ounces;
Distilled Water, a gallon:

Dissolve the Acetate of Lead in six pints of the Water, and strain; to this add the Iodide of Potassium previously dissolved in two pints of the Water. Wash the precipitate, and dry it.

Iodine 1 equiv. 126
Lead 1 equiv. .. 104

Equiv 230

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Colour, rich yellow; soluble in boiling water, the solution depositing crystals as it cools, in brilliant yellow, minute scales. By heat it is decomposed, and passes off in vapours.

Remedial Use.—Iodide of lead has been repeatedly tried in scrofulous affections and scirrhous tumours, with a view of insuring the well-known resolvent effects of the metal with the excitant power of the iodine, and it appears to have answered in many cases which have been recorded. According to the testimony of M. Velpeau, it has effectually removed indolent tumours of a scrofulous character when iodine itself, and its other compounds, had completely failed. We think it should never be exhibited to persons to whom lead is known to be offensive.—*Vide* "Unguentum Plumbi Iodidi."

Dose.—Gr. ¼ to gr. ij., or more.

Cautions.

PLUMBI OXYDUM HYDRATUM.

Hydrated Oxide of Lead.

Take of the Liquor of Diacetate of Lead, six pints;
Distilled Water, three gallons;
Liquor of Potassa, six pints; or as much as is required for precipitating the Oxide:

Mix. Wash the precipitate with water until nothing Alkaline remains.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Use.—In preparing the disulphate of quina, *vide* "Quinæ Disulphas."

A white powder, soluble in excess of potassa and in nitric acid; it is blackened by hydro-sulphuric acid (sulphuretted hydrogen), which is the oldest and best test of all the compounds of lead.

It consists of oxide of lead and water: proportions not known.

PRÆPARATA È POTASSIO.

Preparations of Potassium.

LIQUOR POTASSÆ.

Liquor of Potassa.

Old Name.
Aqua Kali Puri.

Potassa is composed of

Potassium 1 equivalent	40
Oxygen 1 equiv.	8
Equivalent	48
Sp. gravity	1·063

Take of Carbonate of Potassa, fifteen ounces;
Lime, eight ounces;
Boiling Distilled Water, a gallon:

Dissolve the Carbonate of Potassa in half-a-gallon of the Water. Sprinkle a small portion of the water over the lime, in an earthen vessel; and, when the lime is slaked, add the rest of the Water. These liquors being immediately mixed together in a covered vessel, shake them from time to time until they are cold. Then set

If the stopper is left out, it attracts carbonic acid. It may be kept pure by throwing a small lump of lime into the bottle.

aside that the Carbonate of Lime may subside. Finally, preserve the supernatant liquor, when poured off, in a green glass bottle well stopped.

Cautions.

Incompatible with acids and acidulous salts, the medicinal salts of ammonia, metallic and earthy compounds, when dissolved in excess of acid, and with both the chlorides of mercury.

It is commonly exhibited in beer, the acid of which will form a neutral salt; and, therefore, if given in such a vehicle the dose should be much increased.

It acts upon flint glass; and, therefore, green bottles are suggested.

Chemical, &c.—Potassa deprived of its carbonic acid by the superior affinity of lime.—*Vide* Notes and Supplement.

College Preparations.—Potassæ hydras, Potassa cum calce, Antimonii oxysulphuretum.

Remedial Action.—When further diluted it is administered as an antacid, diuretic, and lithontriptic; and it powerfully irritates the mucous lining of the alimentary canal; thus, sometimes relieving irritation of the urinary mucous tracts and of the skin, by acting as a counter-stimulant. Hence, its use in some of the cutaneous diseases —such as leprosy: hence, too, its power of relieving irritation of the bladder in calculus, gonorrhœa, &c. Its utility in nephritic colic and gravel, may be ascribed to its antacid and counter-stimulant operation. If too long administered it induces anorexy.

Dose.—℥x. to f℥ss. in any bland liquid.

LIQUOR POTASSÆ CARBONATIS.

Liquor of Carbonate of Potassa.

Remark! This is the old liquor potassæ sub-carbonatis, or solution of salt of wormwood, or kali.

Take of Carbonate of Potassa, twenty ounces;
Distilled Water, a pint:

Dissolve the Carbonate of Potassa in the Water, and strain.

Poisonous in large doses.

Antidote, Lemon juice.

Haustus Salinus.

℞ Potassæ Carbon. (P. N.) ℈j.
Vin. Antim. Potassio-tartratis, ℥xx.
Syrup. Aurantii, f℥j.
Tinct. Aurantii, f℥ss.
Aquæ Destillatæ, f℥iss.
M.

Remedial Action.—It stimulates the mucous membranes, and not unfrequently produces a purgative effect as well as an increased secretion of urine, without accelerating the circulation or increasing the heat of the body. Vegetables abounding in this salt exert a similar action. In this country it is chiefly employed for the lithic acid diathesis, in disorders of the digestive system where acidity is a prevailing symptom, and in skin disorders connected with the same acid secretions. The salt itself is most commonly used for the well-known saline effervescing draughts in fevers, inflammations, and to allay vomiting. It is also used in hooping cough; and some practitioners rely upon its specific effects in controlling fevers.—*Vide* "Potassæ Carbonas."

Dose.—Of the Liquor, ℥x. to f℥j.

Cautions.

POTASSA CUM CALCE.

Potassa with Lime.

Take of Hydrate of Potassa,
Lime, of each, an ounce:

Old Name.
Calx cum Kali.

Rub them together, and keep them in a vessel well stopped.

Remedial Use. — The lime renders the hydrated potassa less deliquescent, and therefore more convenient as a caustic. It decomposes the flesh with which it comes in contact, leaving on the skin a soft eschar which is slowly detached. Used to establish issues, to open indolent abscesses, to cauterise poisoned wounds, &c.

POTASSÆ HYDRAS.

Hydrate of Potassa.

Take of Liquor of Potassa, a gallon:

Former Names.
Potassa Fusa;
Kali Purum;
Lapis Infernalis.

Composed of
1 equiv. of Potassa.....48
1 equiv. of Water 9
—
Equiv.....57

Evaporate the water in a clean iron vessel over the fire until the ebullition having ceased, the Hydrate of Potassa liquefies. Pour this into proper moulds.

Remedial Use.—Externally as a caustic.—*Vide* "Potassa cum Calce."

POTASSÆ ACETAS.

Acetate of Potassa.

Former Names.
Kali Acetatum;
Sal-diureticus.

Take of Carbonate of Potassa, a pound;
Acetic Acid, twenty-six fluidounces;
Distilled Water, twelve fluidounces:

It consists of
Acetic Acid
1 equiv. 51
Potassa 1 equiv. 48
—
Equiv.....99

Having first mixed the Acid with the Water, add the Carbonate of Potassa to saturation, and then strain.

Evaporate the liquor in a sand-bath, with a heat cautiously applied, until the salt is dried.

Chemical, &c. — Single elective affinity. — *Vide* Notes and Supplement.

Remedial Action. — In small doses, it exerts its effects on the kidneys, and is useful in dropsies; in larger quantities it is a laxative. A solution of it, in the compound infusion of broom, will form a good diuretic drink for the chamber of hydropics. Said to be rendered more active by being super-acetified with the addition of a little vinegar.

Dose.—℈j. to ʒj.; or, as a laxative, ʒiij. to ℥j.

Cautions.

This salt is commonly found in the sap of almost all vegetables.

It is extremely deliquescent; its odour, peculiar; taste, sharp; very soluble in water and in alcohol.

As thus prepared it is foliated; but it occurs also in small, white, brilliant scales.

Incompatible with nearly all the acids, and with great number of salts.

POTASSÆ CARBONAS.

Carbonate of Potassa.

Take of Impure Carbonate of Potassa, two pounds;
Distilled Water, a pint and a half:

Dissolve the impure Carbonate of Potassa in the Water, and strain; then pour off into a suitable vessel, and evaporate the water that the liquor may thicken; then stir it constantly with a spatula, until the salt concretes.

A purer Carbonate of Potassa may be prepared from the crystals of Bicarbonate of Potassa heated to redness.

College Preparations. — It is used in the preparation of various salts of potassa; also in forming the three spirits of ammonia, the simple, aromatic, and fœtid; in the Decoctum Aloës Compositum; Mistura Ferri Composita; and Pilula Ferri Composita.

Remedial Use. — Antacid, diuretic, purgative. — *Vide* Liquor of the same.

Dose.—Gr. x. to ʒss.

Mark! formerly, and now by many physicians, called Subcarbonate of Potassa. Formerly, also, called Kali, Sal Absinthii, Salt of Wormwood.

This salt consists of
Carbonic Acid
1 equiv. 22
Potassa 1 equiv. 48
Equiv.....70

It contains about 16 per cent of water.

In the impure state it is the pearl ash of the markets.

Incompatible with acids and acidulous salts, hydrochlorate of ammonia, and nearly all salts, earthy or metallic.

You must keep it dry, or your proportions for a saline draught will be quite uncertain.

Vide "Acidum Citricum."

POTASSÆ BICARBONAS.

Bicarbonate of Potassa.

Take of Carbonate of Potassa, six pounds;
Distilled Water, a gallon:

Dissolve the Carbonate of Potassa in the Water, and transmit Carbonic Acid Gas through the solution to complete saturation. Apply a gentle heat, so that such crystals as may have been formed may be redissolved. Then set aside, that the liquor may again crystallize. Having poured off the liquor, dry the crystals. Carbonic Acid is very easily obtained from Chalk powdered, and mixed with water to the consistence of a syrup, by pouring upon it Sulphuric Acid, diluted with an equal weight of Water.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Use.—As it possesses the same virtues as the carbonate, without its causticity, it should generally be employed as a substitute for this last. Where, however, as in hooping-cough, and in certain fevers, our object is to contra-stimulate the mucous membranes, the carbonate is preferable.

Dose.—Gr. x. to ʒss.—*Vide* "Citric Acid."

Cautions.

Mostly, even now, called Carbonate of Potassa. Thus it will be totally impossible for the dispenser to avoid errors, unless the caution of the prescriber lead him to affix N. P. (New Pharmacopœia), O.P. (Old Pharmacopœia).

It consists of
Carbonic Acid
2 equiv. 44
Potassa 1 equiv. 48
Water 1 equiv. 9

Equiv...101

For incompat. *vide* "Potassæ Carbonas."

Both the carbonate and bicarbonate are very active remedies in large doses, and may even produce poisonous effects.

LIQUOR POTASSÆ EFFERVESCENS.

Effervescing Liquor of Potassa.

Take of Bicarbonate of Potassa, a drachm;
Distilled Water, a pint:

Dissolve the Bicarbonate of Potassa in the Water, and pass through it an excess of Carbonic Acid by the force of pressure. Keep the liquor in a vessel well stopped.

There is no such thing as effervescing liquor of potassa. It is a solution of bicarbonate, surcharged with carbonic acid by the force of pressure.

Cautions.

Remedial Use.—As a more agreeable form of the bicarbonate; but that the plentiful exhibition of carbonic acid, both free and combined, is consistent with an antacid indication, may be fairly doubted. May carbonic acid be absorbed so as to affect the urine? The Editor would say it may.

POTASSÆ SULPHAS.

Sulphate of Potassa.

Old Names.
Kali Vitriolatum, and Sal Polychrest.
Composed of
Sulphuric Acid 1 equiv. 40
Potassa 1 equiv. 48
Equiv.....88
Without any water of crystallization.

Take of the Salt which remains after the distillation of Nitric Acid, two pounds;
Boiling Water, two gallons:

Burn the Salt in a crucible until the surplus of Sulphuric Acid be thoroughly expelled, then boil it in the two gallons of Water until a pellicle floats; and, having strained the liquor, set by that crystals may form. Dry these, after pouring away the liquor.

It is saline and bitter; crystallizes in six-sided prisms. It is not affected by exposure to the air. It requires 16 times its weight of cold water for solution, and five of hot.

Incompatible with the salts of baryta, of lead; also with tartaric acid, lime water, &c.

Chemical, &c.—The excess of acid expelled by heat, instead of being neutralised by the addition of potassa as heretofore.—*Vide* Notes and Supplement.

Remedial Action.—It was formerly employed in purgative draughts, from which, however, it is copiously precipitated by the addition of a tincture. It is now sometimes exhibited with rhubarb in visceral obstructions, and, as a refrigerant laxative, in fevers; but its comparative insolubility is an obstacle to its general use. It is said to act as an alterative in chronic enlargement of the liver. It is ordered in the composition of Dover's Powder, for the purpose, as modern pharmaceutists say, of insuring the minute division of the ipecacuanha and opium: but this does not coincide with the views of the physicians who originally planned or employed this combination, on a belief of its diaphoretic powers.

Dose.—Gr. x. to ʒj.; or, as a purgative, ʒj. to ʒiij.

POTASSÆ BISULPHAS.

Bisulphate of Potassa.

Old Name.
Potassæ Supersulphas.

Take of the Salt which remains after the distillation of Nitric Acid, two pounds;

Sulphuric Acid, one pound;
Boiling Water, six pints:

Dissolve the Salt in the Water; and, having added to it the Acid, mix them. Then boil down, and set aside that crystals may be formed.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Use.—It must be considered (remedially) as a mixture of sulphuric acid and bisulphate of potassa, more soluble than this last salt, and possessing the refrigerating power of the acid.

Dose.—Gr. x. to ʒij.

Cautions.

N.B. The College translator orders four pints of water, but six are ordered in the Latin text.

Composed of
Sulphuric Acid
2 equiv. 80
Potassa 1 equiv. 48
Water 2 equiv. 18

Equiv. .. 146

Incompatible with alkalies, earths, and the carbonates of both these, and with most metallic oxides, &c.

POTASSÆ TARTRAS.

Tartrate of Potassa [Neutral].

Take of Bitartrate of Potassa, powdered, three pounds;
Carbonate of Potassa, sixteen ounces, or *q. s.*;
Boiling Water, six pints:

Dissolve the Carbonate of Potassa in the boiling Water; then add the Bitartrate of Potassa, and boil. Strain the liquor; then boil it down until a pellicle floats, and set aside that crystals may be formed. Having poured off the liquor, dry these [crystals], and again evaporate the liquor for a second crystallization.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—It is a mild purgative, and is sometimes ordered in senna aperient draughts, or associated with the resinous purges. Of itself, it is scarcely active enough for persons of rigid fibre.

Dose.—ʒij. to ℥jss.

Older Names.

Kali Tartarizatum; Soluble Tartar.

It consists of
Tartaric Acid
1 equiv. 66
Potassa 1 equiv. 48

114

Soluble in little more than its weight of water. It should be quite neutral, exerting no power on test-paper. Its crystals are slightly deliquescent.

Incompatible with all the acids, and completely decomposed by lime-water, the hydrochlorate of baryta, the salts of lead, &c.

POTASSII BROMIDUM.

Bromide of Potassium.

Take of Bromine, two ounces;
Carbonate of Potassa, two ounces and one drachm;

Bromine (a term derived from the Greek βρωμος, or *fœtor*) is obtained from the uncrystallizable residue, or bittern, of sea-water; one hundred

Cautions.

pounds of the water yielding only three grains of it.

Bromide of potassium consists of
Bromine
1 equiv. 78
Potassium
1 equiv. 40
Equiv. .. 118

Incompatible with acids, salts acidulous and metallic, &c.

Iron Filings, an ounce;
Distilled Water, three pints:

To a pint and a half of the distilled Water add, first, the Iron, and afterwards the Bromine. Set aside for half an hour, occasionally stirring with a spatula. Apply a gentle heat; and, when it has acquired a greenish colour, pour in the Carbonate of Potassa, dissolved in the remainder of the Water. Strain; and having washed the residue in two pints of boiling distilled Water, again strain. Let the mixed liquors be evaporated, that crystals may be formed.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Use.—It has been employed by Magendie in France, and by Dr. Williams in this country, in enlargement of the spleen. Its effect can readily be watched and ascertained, for, by percussion, the extent of the organ may be determined, and, being indicated by an ink line, its daily diminution may be observed with interest.

Dose.—Gr. iij. to gr. x.

POTASSII IODIDUM.

Iodide of Potassium.

Generally called Hydriodate of Potassa.

Composed of
Potassium
1 equiv. .. 40
Iodine 1 equiv. 125
Equiv..... 165

100 parts of water at 65°, dissolve 143 of this iodide; and the aqueous solution dissolves a considerable portion of iodine, forming a solution of ioduretted iodide of potassium. Iodide of potassium is likewise

Take of Iodine, six ounces;
Carbonate of Potassa, four ounces;
Iron Filings, two ounces;
Distilled Water, six pints:

Mix the Iodine with four pints of the Water, and add the Iron, now and then stirring with a spatula for half an hour. Apply a gentle heat; and, when it has acquired a greenish colour, add your Carbonate of Potassa previously dissolved in two pints of the Water, and strain. Wash the residue in two pints of boiling distilled Water, and again strain. Let the mixed Liquors be evaporated that crystals may be formed.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—The first and most obvious effect of iodine and its preparations, exhibited internally, is its stimulating influence on the mucous surfaces; for when exhibited in over-doses it produces inflammation of the stomach and bowels. But, besides this action, it is a powerful excitant, or special stimulant, on the lymphatic and capillary systems. The fact of its being absorbed can be reduced to a certainty, for it may be detected in the blood, in the urine, and in the perspiration. By its first stimulating impression on the stomach and alimentary canal, it excites these surfaces to absorption, and thus increases appetite; and its subsequent action on the minute absorbents should seem to be merely an extension or spreading of that same impression. Again, there is something special in its action on secreting glands. It does not, like mercury, excite the salivary apparatus; but it eminently stimulates the kidneys, the thyroid and the genital glands. Iodine was first introduced by Dr. Coindet, of Geneva, in the treatment of goitre and tumours of the lymphatic ganglia, indolent buboes, &c. Since then its use has been greatly extended; and not only has it been confidently recommended for scirrhous tumours of the ovaries, &c., but also tubercles have been said to have been successfully treated with this remedy. In amenorrhœa, in enlargements of the liver (Parabysm), depending on a gorged state of its vessels, in secondary syphilis, and even in ovarian dropsy itself, its success has been recorded. Sudden emaciation, cough, pyrexial excitement, nausea, giddiness, or dysenteric pains, are signs requiring the immediate discontinuance of the medicine. The iodide of potassium is less active than the iodine itself, and has been exhibited in doses which the Editor will not take the responsibility of recording. We think it our duty to add, in reference to its use in mesenteric dropsy, that it has, in our hands, induced honey-comb ulceration of the integuments; and that its use, externally, over a distended abdomen is highly dangerous. An author, whose name stands deservedly high in this country, and who, perhaps, has worked harder for his medical brethren than any individual whom we can name, has, in a recent work, strongly recommended iodine in very large doses, increased to sixty minims of the tincture, for ovarian dropsy, immediately after tapping. That gentleman's faith in remedies generally far surpasses our own; and he will pardon our observing, that, while in page 259 of his Work, he records three cases treated successfully out of five, yet, in page 849, after instancing one case, he adds, it has never proved equally beneficial in his hands. When previously rubbed up with starch, its irritating effects on the mucous membranes are obviated, without diminishing its curative powers.

Dose.—Of iodide of potassium, gr. v. to ℈j. or more, three times a-day.

Cautions.

soluble in alcohol of the S. G. of ·815.

Incompatible with acids, and metallic salts.

If your patient's mucous membranes be irritable, beware of iodine.

Cautions.

LIQUOR POTASSII IODIDI COMPOSITUS.

Compound Liquor of Iodide of Potassium.

Solution of iodu-retted iodide of potas-sium.

Take of Iodide of Potassium, ten grains;
Iodine, five grains:
Distilled Water, a pint:
Mix, that they may be dissolved.

Remedial Use.—This is supposed to be the best form for the exhibition of iodine, containing what is called an iodurretted iodide of potassium.—*Vide* "Potassii Iodidum." We are aware that one of the Censors, in his Hospital Practice, has given as much of the Iodide as is here contained in the whole pint, but we will not "waste criticism on unresisting imbecility." We doubt not that the supposed error of the College translator in assigning the dose, virtually belongs to the Censor's board.

Dose.—f℥j. to f℥ss., or more.

Former Names. Potassæ Sulphuretum; Kali Sulphuratum; Hepar Sulphuris, or Liver of Sulphur.

POTASSII SULPHURETUM.

Sulphuret of Potassium.

Composed of three equiv. of sulphuret of potassium, and one of sulphate of potassa.

Take of Sulphur, an ounce;
Carbonate of Potassa, four ounces:
Rub them together, and place them in a close crucible over the fire, until they have united.

Colour, liver-brown; odour, when moistened, like that of rotten eggs; taste, acrid and bitter; readily soluble in water; decomposed by exposure to the air, and converted into sulphate of potassa.

Chemical, &c.—For tests and theory of process, *vide* Notes and Supplement.

Remedial Action.—This compound is a powerful stimulant and poisonous in large doses. In smaller doses, it stimulates the alimentary tract and the secretory organs, but chiefly acts on the skin and lungs. It has been employed internally in pertussis, and formerly in scrofula, impetigo, and other obstinate eruptions; but it is now chiefly used externally in psora, and herpetic eruptions, and generally in baths.

Incompatible with acids, and with solutions of most of the metallic compounds.

Dose.—Internally, gr. v. to ℈j. in a linctus with honey, or formed into pills with soap; externally, as a salve for scald-head in the proportion of ʒiij. with ℥iij. of lard.

Cautions.

PRÆPARATA È SODIO.

Preparations of Sodium.

Former Names.
Sodæ Subcarbonas; Natron preparatum.
Composed of
Carb. Acid 1 equiv. 22
Sodæ 1 equiv. 32
Water 10 equiv. 90
144

SODÆ CARBONAS.

Carbonate of Soda.

Take of Impure Carbonate of Soda, two pounds;
Distilled Water, four pints:

Boil the impure Carbonate of Soda in the Water, and strain while hot. Lastly, set it aside, that it may crystallize.

Chemical, &c.—For an account of the various kinds of market soda, barilla, kelp, soda from sulphate of soda, muriate of soda, &c., *vide* Supplement; and for tests, *vide* Notes.

Remedial Action.—Carbonate of Soda is an antacid. This effect it exerts chemically; and, meeting with acidity in the stomach, it commonly relaxes the bowels. Combined with tartaric acid, and taken into the stomach with free carbonic acid, it acts as a refrigerant and aperient. Given in solution, it has been much used in acid calculous affections. In moderate doses it relieves heartburn, and very much facilitates digestion when this process has been arrested by the formation of an excessive quantity of acid.

Dose.—Gr. x. to ʒss.

Soluble in two parts of cold, and in ½ less of boiling water. It greens the syrup of violets, undergoes the aqueous and igneous fusion without decomposition, and effervesces with acids.

Incompatibles same as in potassæ carbonas, which see.

Should any one go on the English 'Change, and ask for impure carbonate of soda, no one would know what he meant; neither, definitely, could he tell what he meant himself.

SODÆ CARBONAS EXSICCATA.

Dried Carbonate of Soda.

Take of Carbonate of Soda, a pound:

Apply heat to the Carbonate of Soda, in a suitable vessel, until it is dried; and afterwards burn it to redness. Finally, powder it.

Chemical, &c.—*Vide* Notes and Supplement.

This is the salt above mentioned, deprived of the whole of its water of crystallization.

Cautions.

Remedial Action.—The original object of this process of exsiccation was to obtain the carbonate in a more concentrated form, that it might be made into pills with sodaic soap. There is an opinion, originally expressed by Fourcroy, and quoted by more modern authors, "that soda is more eligible for medicinal purposes than potassa, on account of its analogy with animal substances, which always contain it; while, on the contrary, no portion of potassa is found in them:" but it is inaccurate, for the saliva alone contains six salts of potassa.

Dose.—Gr. x. to ʒj.

SODÆ SESQUICARBONAS.

Sesquicarbonate of Soda.

Former Name.

Sodæ Carbonas; and, in most elementary systems of chemistry, hitherto called Bicarbonate of Soda.

Composed, according to most chemists, of

Carbonic Acid 2 equiv.;
Soda 1 equiv.;
Water 2 equiv.

But Mr. Phillips states it to contain only one and a half of carbonic acid.

Incompatible, &c. *vide* the Carbonate.

The proportions used for the soda powders are by no means uniform. Some employ gr. xxv. of tartaric acid and ʒss. of this sesquicarbonate to the half-pint of water.

Take of Carbonate of Soda, seven pounds;
Distilled Water, a gallon:

Dissolve the Carbonate of Soda in the Water, and strain; then pass Carbonic Acid through the liquor to perfect saturation, that the Salt may subside. Dry this, folded and pressed in linen cloth, with a gentle heat.

Chemical, &c.—It is well that we substitute the term equivalent for atom, for to talk of the half of an "ultimum indivisum and indivisibile" is painful both to the teacher and to the pupils.—*Vide* Notes and Supplement.

Remedial Use.—It may be employed in the same diseases, and to fulfil the same objects, as have been mentioned under the head of Bicarbonate of Potassa. The personal experience of almost every dyspeptic patient is testimony of its power of promoting digestion, or of relieving heartburn; but it is chiefly employed in the effervescing soda powders.

Dose.—Gr. x. to ʒss.

SODÆ SULPHAS.

Sulphate of Soda.

Old Name.

Natron vitriolatum; Glauber's Salt.

Composed of

Sulph. Acid	40
Soda	32
	72

Take of the Salt which remains after the distillation of Hydrochloric Acid, two pounds;
Boiling Water, two pints;
Carbonate of Soda, as much as is required:

Dissolve the [first-mentioned] Salt in the Water; then gradually add a sufficient quantity of Carbonate of Soda to saturate the [surplus] Acid. Boil down until a pellicle appears; and, the liquor being strained, set aside, that crystals may form. Pour off the liquor, and dry them.

Cautions.

And in crystals, combined with 10 atoms of water.

Incompatible with the salts of baryta, lead, carbonate of potassa, &c.

Chemical, &c.—For theory and tests, *vide* Notes and Supplement.

Remedial Action.—A gentle serous laxative, refrigerating the system, and therefore formerly used in febrile affections. Neglected more as the effect of fashion than from any reasonable objection to its use.

Dose.—℥ss. to ℥iss.

SODÆ POTASSIO-TARTRAS.

Potassio-Tartrate of Soda.

Take of Bitartrate of Potassa, powdered, sixteen ounces;
Carbonate of Soda, twelve ounces;
Boiling Water, four pints:

Dissolve the Carbonate of Soda in the boiling Water, and gradually add the Bitartrate of Potassa. Strain the liquor; then apply a gentle heat until a pellicle floats, and set aside that crystals may form. Dry these, having first poured away the liquor. Again evaporate this liquor, that it may crystallize.

Former Names.

Soda Tartarizata;
Natron Tartarizatum;
Rochelle Salt.

Composed of

Tartrate of Potassa 1 equiv. ..	114
Tartr. of Soda 1 equiv. ...	98
Water 8 equiv.	72
	284

Incompatible with all the acids and acidulous salts, and completely decomposed by lime-water, hydrochlorate of baryta, the salts of lead, &c. Even the weakest acids convert the tartrate into cream of tartar.

℞ Sodæ Pot. Tart. ℥vj.
Antim. Pot. Tart. gr. j.
Syrup. Simp. ℥j.
Aquæ Aurantii, f℥ij.
Aquæ Destill. f℥iij.
Misce.

Dose.—A tablespoonful, or two, every two or three hours, in fevers, &c.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Use.—There is little or no difference between the action of this salt and that of the tartrate of potassa. The annexed is a good purgative formula. The $\frac{1}{12}$ of a grain of emetic tartar is often added to the Seidlitz powder, consisting of two drachms of this salt with ℈ij. of the sesquicarbonate in the blue paper, and gr. xxxv. of acid in the white.

Cautions.

LIQUOR SODÆ EFFERVESCENS.

Effervescing Liquor of Soda [Soda Water].

Here we have a striking instance of the difficulty of controlling nomenclature. Mr. Phillips calls this salt, in his translation of the formula, a carbonate of soda; and in the "Notæ," the College call it an effervescing solution of carbonate of soda. Nay, in this very formula, the College, after ordering the sesquicarbonate, direct you to dissolve the carbonate.

Take of Sesquicarbonate of Soda, a drachm;
Distilled Water, a pint:

Dissolve the [Sesqui] Carbonate of Soda in the Water, and, by the force of pressure, pass it into an excess of Carbonic Acid. Keep the liquor in a well-stopped vessel.

Remedial Action.—At once an excellent antacid and grateful stimulant. If it meets with acidity in the stomach, in persons who are not of rigid fibre, it usually induces a mild evacuation. It were well for the public if all soda water were made like this.

LIQUOR SODÆ CHLORINATÆ.

Liquor of Chlorinated Soda.

Commonly called Labarraque's Disinfecting Soda Liquid. Chemical constitution unknown.

Dr. Turner, in his Elements of Chemistry, conjectures that it is a solution of chloride of soda, combined with the carbonate.

Colour, straw-yellow; taste, sharp, brackish, rough; first reddens, then bleaches turmeric.

N.B. Beware of using it in an irritable state of the respiratory organs, or near bright machinery.

Take of Carbonate of Soda, a pound;
Distilled Water, forty-eight fluidounces;
Chloride of Sodium, four ounces;
Binoxide of Manganese, three ounces;
Sulphuric Acid, four ounces:

Dissolve the Carbonate of Soda in two pints of the Water; then put the Chloride of Sodium, and the Binoxide of Manganese previously powdered, into a retort, and add to them the Sulphuric Acid, previously mixed with three fluidounces of the Water, and cooled. Heat this mixture, and pass the Chlorine (thus evolved), first through five ounces of the Water, and then through the Liquor of Carbonate of Soda above prepared.

Remedial Use.—As a disinfectant; but, until the chemical composition of infecting effluvia is known, the mode of its action must remain as it is, a matter of conjecture.

Cautions.

PRÆPARATA È ZINCO.

Preparations of Zinc.

CALAMINA PRÆPARATA.

Prepared Calamine.

Burn the Calamine; then powder it. Afterwards let a very fine powder be formed in the same manner in which we have ordered Chalk to be prepared.

Chemical, &c. — For tests and chemical history, *vide* Notes and Supplement.

Remedial Use. — As a desiccative in ulcerations and excoriations, and as the basis of Turner's Cerate.

The variety found in Derbyshire is objectionable from its containing copper; but the calamines of Somersetshire and Flintshire, containing ferruginous impurities, are perfectly innocent.

ZINCI OXYDUM.

Oxide of Zinc.

Take of Sulphate of Zinc, a pound;
Sesquicarbonate of Ammonia, six ounces and a half;
Distilled Water, three gallons:

Separately dissolve the Sulphate of Zinc and the Sesquicarbonate of Ammonia in twelve pints of the distilled Water, and strain; then mix. Wash the precipitate, by frequently pouring water on it; and, lastly, burn it for two hours in a strong fire.

Chemical, &c. — For tests and theory of process, *vide* Notes and Supplement.

Old Names.
Zincum Calcinatum; Flowers of Zinc. Also the whiter part is called Pompholyx, and the gray, Tutty.

Composed of

Zinc	32
Oxygen	8
	40

Insoluble in water and alcohol; completely soluble in caustic alkalies, and in acids.

Cautions.

Remedial Action.—In over doses it induces colic, vomiting, and giddiness; and the same sense of inebriation which the Editor has noticed as one of the effects of the trisnitrate of bismuth, to which, in medicinal character, it is nearly allied. It has been used with benefit, as an astringent tonic, in partial paralysis, epilepsy, chorea, and other nervous disorders. Also in gastric or spasmodic cough, and in certain atonic conditions of mucous membranes. Externally, it is a favourite remedy with our oculists in chronic ophthalmia; and it is also commonly employed as a desiccative in the form of an ointment.

Dose.—Gr. iv. to ℈j.

ZINCI SULPHAS.

Sulphate of Zinc.

Old Names.

Zincum Vitriolatum; White Vitriol; White Copperas.

To distinguish the crystals.

N.B. That they are silky or oily when rubbed between the fingers; by which, and by the taste, you may distinguish them from Epsom salts.

Take of Zinc, in small pieces [granular], five ounces;
Diluted Sulphuric Acid, two pints:

Gradually pour the diluted Sulphuric Acid on the pieces of Zinc; and, after the effervescence has ceased, strain the liquor, then boil down until a pellicle begins to appear. Finally, set aside that crystals may be formed.

Chemical, &c.—*Vide* Notes and Supplement.

Incompatible with alkalies, hydro-sulphates, and vegetable astringent liquors.

Gr. ij. to gr. iv. in the ounce of rose-water, form the common zinc lotion.

Remedial Action.—In its internal use in small doses, and in its employment externally, it corresponds with the preceding. In large doses it for the most part promptly acts as an emetic; but it cannot always be relied upon for this purpose; although advantageously selected in certain cases of poisoning, because it produces less nausea than the common emetics.

Dose.—Gr. j. to gr. iv.

Cautions.

MISTURÆ.

Mixtures.

The dispenser will find, by reference to old prescriptions, that mixtures containing suspended oil, gum, resin, &c. were called emulsions: if also containing syrup, they were usually called juleps; and the term mixture was restricted to the mingling of two or more liquids. This division still prevails throughout the greater part of the Continent. The term mixture is now used generally, and will not admit of any definition.

MISTURA ACACIÆ.

Mixture of Acacia.

Take of Acacia (Gum Arabic), powdered, ten ounces;
Boiling Water, a pint:

Rub the Acacia with the Water poured on gradually, and dissolve it.

Remedial Action.—Demulcent. Simple as this medicine is (and the same may be said of tragacanth), there is none in the Materia Medica the effect of which in allaying irritation of the urinary passages is more certain. It has been contended that, as a nutrient material, it must be decomposed in the process of digestion, and that thus its remedial powers must be lost; but experience tells us otherwise.

Dose.—f℥j. to f℥iv., or more.

MISTURA AMMONIACI.

Mixture of Ammoniacum.

Take of Ammoniacum, five drachms;
Water, a pint:

Rub the Ammoniacum with the Water gradually dropped in, until they are thoroughly mixed.

Slightly curdled by vinegar, oxymel, oxymel scillæ, æther, and bichloride of mercury.

It is not entirely soluble in water.

The mixture is more equable with yolk of egg, but more

Cautions.

liable to decompose in that form.

The ammoniacum in drops is the purest.

Remedial Action.—It is commonly ranked as a stimulant, expectorant, and antispasmodic. It is, in fact, a raking stimulant on torpid mucous membranes, when loaded with viscid mucus, without the power of throwing it off. Thus it proves useful in humoral asthma, viscid catarrh, and mucous collections—with torpor of the bowels, in chlorotic and phlegmatic temperaments; but in the latter cases ammoniacum should be combined with a purgative.

Dose.—f℥j. to f℥ij.

MISTURA AMYGDALÆ.

Mixture of Almonds.

Both species of almonds are indicated in the columns; but the bitter does not enter into any formula.

The advocates for the use of Prussic acid might prefer the latter in phthisical cough.

Dr. Paris says the bitter almonds may be eaten without inconvenience. The Editor knows of a fatal case of poisoning by them.

Take of Confection of Almonds, two ounces and a half;
Distilled Water, a pint:

Gradually add the Water to the Confection of Almonds, triturating all the time until they are mixed; then strain through linen.

Remedial Action.—A palatable demulcent.

Dose.—*Ad libitum.*

MISTURA ASSAFŒTIDÆ.

Mixture of Assafœtida.

This mixture is much too offensive for general use.

Take of Assafœtida, five drachms;
Water, a pint:

Rub the Assafœtida with the Water gradually poured on, until they are intimately mixed.

Remedial Use.—Stimulant, expectorant, antispasmodic. The first two operations may be explained by what we have said of the mixture of ammoniacum; the last depends upon the remarkable power certain fœtids possess of controlling nervous susceptibility.

Dose.—f℥ss. to f℥iss.

Cautions.

MISTURA CAMPHORÆ.

Mixture of Camphor.

Take of Camphor, half a drachm;
Rectified Spirit, ten minims;
Water, a pint:

First rub the Camphor with the Spirit, then with the Water gradually dropped in, and strain through linen.

Alcohol dissolves three-fourths of its weight of camphor; it is also soluble in æther, in fixed and volatile oils, but water dissolves only a very small quantity.

Treated with nitric acid by frequent distillation, it yields camphoric acid.

Remedial Action.—It exerts its chief influence on the nervous system; and, while it acts as a cordial on persons of a highly susceptible habit, yet, exhibited in full doses, it exerts a sedative effect. It is used in hysteria, chorea, subsultus tendinum, and strangury; and in large doses it has been recommended as a sedative combined with hyoscyamus in mania. Externally it is employed in liniments, and in the well-known tepid lotion for gout, &c.

Dose.—f℥j. to f℥iij.

SCUDAMORE'S *Gout Lotion.*

℞ Mist. Camphoræ, f℥iij.
Alcoholis, f℥ix.
Ft. lotio: applied by means of linen rags, first made agreeably warm by the addition of a very small quantity of boiling water. Or it may be mixed with light poultices.

MISTURA CASCARILLÆ COMPOSITA.

Compound Mixture of Cascarilla.

Take of Infusion of Cascarilla, seventeen fluidounces;
Vinegar of Squills, a fluidounce;
Compound Tincture of Camphor, two fluidounces:
Mix.

Remedial Action.—*Vide* "Infusum Cascarillæ" and "Acetum Scillæ."

MISTURA CRETÆ.

Mixture of Chalk.

Take of prepared Chalk, half an ounce;
Sugar, three drachms;

Incompatible with acids and acidulous salts; and fit only for immediate use, as it ferments by keeping.

Cautions.

Mixture of Acacia, a fluidounce and a half;
Cinnamom Water, eighteen fluidounces:

Mix.

Remedial Action. — Antacid, demulcent. *Vide* "Creta Præparata."

MISTURA FERRI COMPOSITA.

Compound Mixture of Iron.

Vulgò, Griffith's mixture.

The elegance of the mixture mainly depends on the quality of the myrrh.

Some dispensers use a tincture of myrrh, and thus obtain a mixture more pleasing to the eye; but the increased proportion of spirit is objectionable.

Incompatible with acids and acidulous salts, and with the vegetable astringent liquids.

Where the patient has a dislike to the flavour of the nutmeg, spirit of lavender may be substituted.

Take of Myrrh, powdered, two drachms;
Carbonate of Potassa, a drachm;
Rose-water, eighteen fluidounces;
Sulphate of Iron, powdered, two scruples and a half;
Spirit of Nutmeg, a fluidounce;
Sugar, two drachms:

Rub together the Myrrh with the Spirit of Nutmeg and the Carbonate of Potassa; and to these, during trituration, first add the Rose-water with the Sugar, then the Sulphate of Iron. Immediately put your mixture into a proper glass vessel, and stop it.

Chemical, &c.—The resulting compounds are protocarbonate of iron and sulphate of potassa; but the protoxide readily passes into the state of sesquioxide, and thus alters the colour from green to a yellowish red.—*Vide* Notes and Supplement.

Remedial Action.—It was first introduced by Dr. Griffiths as a powerful anti-hectic, and has long maintained its reputation as a tonic and emmenagogue in chlorosis and amenorrhœa. It is much relied upon by some practitioners in incipient phthisis, and is just so far useful in preventing this malady, as it is effective in removing the chlorotic suppression which often leads to that complaint. The protiodide of iron has recently been suggested as a substitute for the sulphate of iron.

Dose.—f℥ss. to f℥iss.

Cautions.

MISTURA GENTIANÆ COMPOSITA.

Compound Mixture of Gentian.

Take of Compound Infusion of Gentian, twelve fluidounces;
Compound Infusion of Senna, six fluidounces;
Compound Tincture of Cardamoms, two fluidounces:
Mix.

Remedial Use.—Constipation frequently depends upon atony of the muscular fibre of the bowels and abdominal muscles: hence the utility of this combination. A solution of the sulphate of soda or of magnesia with sulphate of quina, or with any of the simple vegetable bitters, will be useful in similar cases. It may be rendered more palatable by syrup of orange-peel.

Dose.—f℥j. to f℥iij.

MISTURA GUIACI.

Old Name.
Lac Guiaci.

It was some years past said to contain a principle called Guiacine.

To make this mixture to the satisfaction of customers, it ought not to be bottled till, by exposure to the air, it has acquired its usual greenish-blue colour, which bad guiacum will not yield.

Mixture of Guiacum.

Take of Guiacum-resin, three drachms;
Sugar, half an ounce;
Mixture of Acacia, half a fluidounce;
Cinnamom-water, nineteen fluidounces:

Rub the Guiacum with the Sugar, then with the Mixture of Acacia; and to these, during trituration, gradually add the Cinnamom-water.

Remedial Action.—Guiacum is a stimulant, acting chiefly on the skin, the secretion of which it much increases. In full doses, the mixture will generally act as a purgative. It was formerly thought to be an effectual substitute for mercury in the cure of syphilis, but now ranks next to sarsaparilla as an auxiliary in the repair of constitutions disturbed or debilitated by that remedy. This mixture is also useful in atonic gout, and chronic rheumatism with a cold, languid state of skin.

Dose.—f℥ss. to f℥ij., three or four times a day.

Cautions.

MISTURA MOSCHI.

Mixture of Musk.

Take of Musk,
Acacia [Gum Arabic], powdered,
Sugar, of each, three drachms;
Rose-water, a pint:

Triturate the Musk first with the Sugar, then with the Gum, gradually pouring in the Rose-water.

Remedial Action.—This costly medicine exerts considerable power in allaying spasm. It is more diffusible than most of the fœtid antispasmodics; and is effective in diminishing subsultus tendinum, hooping-cough, and in relieving hysteria. It seldom has a fair trial, as it is usually given in too small doses, and is not often met with in the pure state.

Dose.—f℥i. to f℥iv.

MISTURA SPIRITUS VINI GALLICI.

Mixture of Spirit of French Wine [Brandy].

Take of French Brandy,
Cinnamom Water, of each, four fluidounces;
The yolks of two Eggs;
Purified Sugar [lump], half an ounce;
Oil of Cinnamom, two minims:

Mix.

The College translator orders two drops, but our readers well know that a drop is not necessarily a minim.

Remedial Use.—This is an imitation of the egg-flip used in low fever in the hospitals; and although our readers may smile to find it has a place here, it has ere now restored many upon whom the action of more mystic compounds had been tried in vain.

Cautions.

OLEA DESTILLATA.

Distilled Oils.

These oils, otherwise called volatile or essential, are uniformly characterised by well-known properties. They are but slightly soluble in water, but readily so in spirit of wine. Their odour and taste, although differing in various oils, is always more or less penetrating. When pure, they pass into vapour at a temperature somewhat above 212°; but when distilled from their proper herbs with water, they pass over with it at the boiling point. Most of them pass into the state of resin by age, and acquire a thick consistence. They are all instantly decomposed, and some of them, as the oil of turpentine, are inflamed, when mixed with nitric acid. Most of them are fluid; but some of them, and particularly the oil of anise, become solid by a slight reduction of temperature. This seems to have been forgotten in the planning of the tinctura camphoræ comp., which becomes, now transparent, now opaque, half a dozen times a day. Some, as the oil of lavender, &c., are lighter than water; others, as the oil of cloves, cinnamom, &c., are specifically heavier than that fluid.

OLEUM ANISI.

Oil of Anise.

The essential oil of anise is contained in the testa or shell. The cotyledonous portion contains fixed oil.

OLEUM ANTHEMIDIS.

Oil of Chamomile.

100 lbs. of the flowers yield only 2 lbs. 12 oz. of oil. It therefore cannot be sold pure at the common price.

OLEUM CARUI.

Oil of Carraway.

Cautions.

This oil should be obtained just when the berries are ripening, and not when they are quite ripe. 100 lbs. of the German berries yield from 9 to 10 oz. Same quantity of the Italian, only 7 oz.

OLEUM JUNIPERI.

Oil of Juniper.

There is no restriction to the use of English lavender, although the inferiority of the foreign is well known.

It contains a considerable per centage of camphor.

OLEUM LAVANDULÆ.

Oil of Lavender.

The essential oils of the mints all contain a considerable portion of camphor, and, if used largely, exert emmenagogue powers.

OLEUM MENTHÆ PIPERITÆ.

Oil of Peppermint.

OLEUM MENTHÆ PULEGII.

Oil of Pennyroyal.

OLEUM MENTHÆ VIRIDIS.

Oil of Spearmint.

OLEUM ORIGANI.

Oil of Marjoram.

Cautions.

Both the husks and the kernels contain the oil of pimenta.

OLEUM PIMENTÆ.

Oil of Pimenta.

OLEUM ROSMARINI.

Oil of Rosemary.

This is the leading ingredient of "the four thieves vinegar." It contains camphor, and its slight astringency is due to the tannin which exists in it.

OLEUM SAMBUCI.

Oil of Elder-Flowers.

This is described as "a buttery oil."

The Fruit of Anise, Carraway, and Juniper, the Flowers of Chamomile, Lavender, and Elder, the Berries of Pimenta, the Tops of Rosemary, and the entire and fresh Herbs of the rest, ought to be employed.

The leaves of the rosemary also contain the oil.

Put any one of these into an alembic, and add water enough to cover it, then let the oil distil into a large refrigeratory.

OLEUM SUCCINI.

Old Name.
Oleum Succini Rectificatum.

Oil of Amber.

The first portion of acid which passes over is acetic. 16 oz. of pure amber yield half an ounce of succinic acid, three of oil, and ten of torrefied resin.

Put Amber into an alembic, so that an acid liquor, an oil, and a salt, contaminated with the Oil, may distil in a sand bath with a heat gradually increased. Then again, and a third time, let the Oil be distilled.

Chemical, &c.—It is allied in its nature to resins; is supposed to be antediluvian; and is found in tertiary soils, and on the shores of the Baltic sea.

Remedial Action.—It has long been retained in the Pharmacopœia

Cautions.

on account of its antispasmodic and stimulant virtues. Hufeland, a great authority, has in our time relied on its curative powers in sphacelus. Externally it is used in frictions, and as an ingredient in stimulating liniments.

Dose.—♏iv. to ♏vi.

OLEUM TEREBINTHINÆ PURIFICATUM.

Purified Oil of Turpentine.

℞ Ole. Terebinth. f℥i.
Mel Rosæ, ℥iv.
M.

Dose.—A teaspoonful three times a day in gleet, leucorrhœa, &c.

The pure oil unmixed is most efficacious in tænia.

Take of Oil of Turpentine, a pint;
Water, four pints:
Let the Oil be carefully distilled.

Remedial Action.—In larger doses this oil operates as a purgative; but, exhibited in smaller quantities, it is absorbed, and diffuses itself over the whole system: its odour may be detected in the urine, the saliva, and the matter of perspiration. When largely absorbed it produces a sort of intoxication, with high fever, very like to that of phrenitis, with great heat and redness of the skin, and much irritation in the mucous membranes, though chiefly in that of the urinary passages. *Vide* "Enema Terebinthinæ."

Dose.—As a stimulant, ♏x. to ♏xx.; purgative, f℥iij. to ℥iss.

PILULÆ.

Pills.

Pills are, or ought to be, small round masses, usually not exceeding six grains, and of a fit consistence for preserving their globular form. In former and ruder times they were also made of larger size, and were thus denominated boluses, closely allied to the catapotia of the ancients. There are even yet a few Nestors in the profession who inflict this form of remedy upon their unwilling patients; and we remember to have seen these substantial masses sent out in separate

boxes, and of a size which would offend the modern delicacy of the Homœopathic Veterinarians. It cannot be that in the progress of civilisation the powers of deglutition diminish; but the aptitude for swallowing gross masses is certainly less. The form of pill is useful for disguising unpleasant qualities, and for insuring a more gradual action; but it is not applicable to substances which act only in large doses, or to those which become moist in the atmosphere (an inconvenience appertaining to Pil. Hydrargyri), or to substances of very slow solubility. *Cautions.*

PILULÆ ALOËS COMPOSITÆ.

Compound Pills of Aloes.

Take of Aloes, powdered, an ounce;
Extract of Gentian, half an ounce;
Oil of Carraway, forty minims;
Syrup, a sufficiency:

Bruise them together until they are incorporated.

Remedial Action.—Stomachic and muscular purgative. In atonic costiveness, amenorrhœa, &c. Large doses may relieve, but will never cure, habitual costiveness.

Dose.—Gr. v. to gr. xv.

PILULÆ ALOËS CUM MYRRHA.

Pills of Aloes with Myrrh.

Vulgò, Pil. Rufi.

Take of Aloes, two ounces;
Saffron,
Myrrh, of each, an ounce;
Syrup, a sufficiency:

Separately powder the Aloes and the Myrrh, then beat the whole together into a uniform mass.

Remedial Action.—When the Myrrh is good, there is no finer stomachic, purgative, and emmenagogue, than this mass. But it is mischievous in febrile habits.

Dose.—Gr. x. to ℈j.

Cautions.

N.B. This pill ought never to be prescribed in long numbers, unless the patient is near his medical attendant. In an irritable state of mucous membrane it may induce mucous enteritis and ulcerations.

PILULÆ CAMBOGIÆ COMPOSITÆ.

Compound Pills of Camboge.

Take of Camboge, powdered, a drachm;
Aloes, powdered, a drachm and a half;
Ginger, powdered, half a drachm;
Soap, two drachms:

Mix the powders together; then, having added the Soap, beat them all together until they are incorporated.

Remedial Use.—Powerfully cathartic; while the aloes stimulates the muscular fibre of the stomach and lower bowels, the camboge acts on the mucous glands and exhalants.

Dose.—Gr. x. to ℈j.

These are STOERK'S Pills, with the Ipec. instead of the Pulv. Conii.

PILULÆ CONII COMPOSITÆ.

Compound Pills of Hemlock.

Take of Extract of Hemlock, five drachms;
Ipecacuanha, powdered, a drachm;
Mixture of Acacia, a sufficiency:

Bruise together until incorporated.

Remedial Action.—*Vide* "Extractum Conii." The ipecacuanha is well calculated to keep down action and phthisical irritation, and also to promote absorption and to relax the pulmonary exhalants.

Dose.—Gr. iij. to gr. vj. and upwards.

PILULÆ FERRI COMPOSITÆ.

Compound Pills of Iron.

Take of Myrrh, powdered, two drachms;
Carbonate of Soda,
Sulphate of Iron,
Treacle, of each, a drachm:

Rub the Myrrh with the Carbonate of Soda; then, having added the Sulphate of Iron, again triturate them; then pound them [with the Treacle] in a vessel previously warmed, until they are incorporated.

Cautions.

Remedial Action.—*Vide* "Mistura Ferri Composita." The ingredients form a sort of cement. Obstruction of the bowels has been induced by a course of these pills; and the autopsy has brought into view a vast number accumulated in a rude mass. Tonic, emmenagogue. *Vide* "Mistura Ferri Composita."

Dose.—Gr. x. to ℈j.

PILULÆ GALBANI COMPOSITÆ.

Compound Pills of Galbanum.

Take of Galbanum, an ounce;
Myrrh,
Sagapenum, of each, an ounce and a half;
Assafœtida, half an ounce;
Syrup, a sufficiency:

Beat them together into a mass.

Remedial Action.—In this formula we have an antispasmodic base, and three auxiliary remedies of the same character. The pill is commonly used in amenorrhœa with a high state of nervous susceptibility. When employed in flatulent colic, with hysteria, it should be washed down with warm brandy and water.

Dose.—Gr. x. to ℈j.

PILULÆ HYDRARGYRI.

Pills of Mercury.

Gr. j. of mercury in gr. iij. of the mass.

Take of Mercury, two drachms;
Confection of the French Rose, three drachms;
Powdered Liquorice, a drachm:

℞ Pil. Hydrarg. ℈j.
Pulv. Opii, gr. iij.
Ft. massa in pil. xij.

Rub the Mercury with the Confection until globules can no longer be detected; then, having added the

Two at night and one in the morning to produce its specific effects in syphilis.

Cautions.

There are persons of a peculiar temperament who are soon irritated and distressed by mercury. In such cases it ought to be immediately withdrawn.

Liquorice, pound them all together into an uniform mass.

Chemical, &c.—*Vide* Notes and Supplement. It is only partially oxidized.

Remedial Action.—Specific alterative. The most approved form for the exhibition of mercury. *Vide* "Hydrargyri Oxydum."

Dose.—Gr. v. to gr. x.

PILULÆ HYDRARGYRI CHLORIDI COMPOSITÆ.

Compound Pills of Chloride of Mercury.

Vulgò, Plummer's Pills, Red Pills.

Chloride, *aliàs* protochloride, or calomel.

Gr. j. in about gr. iv.

Take of Chloride of Mercury (Calomel),
Oxysulphuret of Antimony, of each, two drachms;
Guiacum-Resin, powdered, half an ounce;
Treacle, two drachms:

Rub the Chloride of Mercury with the Oxysulphuret of Antimony, then with the Guiacum and the Treacle, that a uniform mass may be made.

Remedial Use.—In secondary syphilis, and as an alterative in cutaneous diseases.

Dose.—Gr. v. to gr. x.

PILULÆ HYDRARGYRI IODIDI.

Pills of Iodide of Mercury.

N.B. It is the protiodide which is here meant.

It contains gr. j. in gr. v. of the mass.

Take of Iodide of Mercury, a drachm;
Confection of the Dog-Rose, three drachms;
Ginger in powder, a drachm:

Pound together until incorporated.

Remedial Action.—*Vide* "Hydrargyri Iodidum."

Dose.—Gr. v. to gr. xv.

Cautions.

PILULÆ IPECACUANHÆ COMPOSITÆ.

Compound Pills of Ipecacuanha.

Take of the Compound Powder of Ipecacuanha, three drachms:
Squills, recently dried,
Ammoniacum, of each, a drachm;
Mixture of Acacia, *q. s.*:

Beat until incorporated.

Remedial Action.—Experience may have proved the utility of this mass; but it is not to be defended on any of the theories of the *modus operandi* of the three first remedies herein named.

PILULÆ RHEI COMPOSITÆ.

Compound Pills of Rhubarb.

Take of Rhubarb, in powder, a drachm;
Aloes, in powder, six drachms;
Myrrh, in powder, half an ounce;
Soap, a drachm;
Oil of Carraway, half a fluidrachm;
Syrup, *q. s.*:

Mix together the powders; then pound, and form your mass.

Remedial Use.—As a warm and easy purgative. It is introduced as a substitute for the Edinburgh pill, which contains oil of peppermint.

Dose.—Gr. x. to ℈j. or more.

Cautions.

PILULÆ SAGAPENI COMPOSITÆ.

Compound Pills of Sagapenum.

Take of Sagapenum, an ounce;
Aloes, half a drachm;
Syrup of Ginger, *q. s.*:

Bruise together until incoporated.

Remedial Action. — A warm antispasmodic aperient. Useful in colic, tympanitis.

Dose.—Gr. x. to ʒss.

Former Name.
Pil. Saponis cum Opio.

PILULÆ SAPONIS COMPOSITÆ.

Compound Pills of Soap.

Take of Hard Opium, in powder, half an ounce;
Soap, two ounces:

Pound them together until incorporated.

Gr j. of opium in gr. v. of the mass.

Remedial Use.—The soap prevents hardness, and obviates in some degree the constipating effects of the opium.

Dose.—Gr. v. to gr. x.

PILULÆ SCILLÆ COMPOSITÆ.

Compound Pills of Squills.

The ammoniacum, as the auxiliary expectorant, ought to have place before the ginger.

Take of Squills, recently dried and powdered, a drachm;
Ginger, powdered,
Ammoniacum, powdered, of each, two drachms;
Soap, three drachms;
Syrup, *q. s.*:

Mix together the powders; then beat them with the Soap, and add the Syrup, that the mass may be of a fit consistence.

Remedial Action.—A stimulating expectorant and diuretic. In chronic catarrh, humoral asthma, and catarrhus senilis.

Cautions.

Dose.—Gr. x. to gr. xx.

PILULÆ STYRACIS COMPOSITÆ.

Compound Pills of Storax.

Take of Storax, strained, three drachms;
Hard Opium, powdered,
Saffron, of each, a drachm:

Pound them until incorporated.

It contains gr. j. of opium in gr. v. of the mass.

This they take word for word from the Dublin, as they have, in the course of time, taken every other formula, bit by bit, at the expense of general industry, and then say they, "Behold our copy-right!"

Remedial Use.—This pill is borrowed from the Pharmacopœia of Dublin without alteration. It is a good form for the administration of opium in certain coughs; and may exert some expectorant operation in old viscid catarrh.—*Vide* YOUNG on Opium, a work every medical student should read, and which any bookseller would do well to reprint.

Dose.—Gr. iij. to gr. vj., or more, but always to be ordered with the limitation.

PULVERES.

Powders.

PULVIS ALOËS COMPOSITUS.

Compound Powder of Aloes.

Take of Aloes, an ounce and a half;
Guiacum-Resin, an ounce;
Compound Powder of Cinnamom, half an ounce:

Cautions.

Separately powder the Aloes and Guiacum-Resin; then mix them with the Compound Powder of Cinnamom.

Remedial Action.—This compound is a muscular purge rendered more stimulating by the guiacum; and may subsequently act as a diaphoretic, if the secondary operation be encouraged by warmth and the usual adjuvant drinks.

Dose.—Gr. viij. to ℈j.

PULVIS CINNAMOMI COMPOSITUS.

Compound Powder of Cinnamom.

Take of Cinnamom, two ounces;
Cardamom, an ounce and a half;
Ginger, an ounce;
Long Pepper, half an ounce:

Rub them together that a very fine Powder may be formed.

Remedial Use.—Warmly aromatic. Usefully employed in flatulence, and as a corrigent with other medicines.

Dose.—Gr. vj. to ℈j.

PULVIS CRETÆ COMPOSITUS.

Compound Powder of Chalk.

Tormentil contains a considerable portion of tannin, on which its astringency depends. This and the next powder are incompatible with acids and super-acidulated salts.

Take of Prepared Chalk, half a pound;
Cinnamom, four ounces;
Tormentil,
Acacia, of each, three ounces;
Long Pepper, half an ounce:

Separately powder them, and mix.

Remedial Use.—As an astringent and antacid, principally in infantile diarrhœa. *Cautions.*

Dose.—Gr. x. to ʒss.

PULVIS CRETÆ COMPOSITUS CUM OPIO.

Compound Powder of Chalk with Opium.

Take of Compound Powder of Chalk, six ounces and a half;
Hard Opium, in powder, four scruples:

Mix.

Gr. j. of opium in ℈ij. of the compound powder.

Remedial Use.—In colliquative diarrhœa.

Dose.—Gr. x. to ℈ij.

PULVIS JALAPÆ COMPOSITUS.

Compound Powder of Jalap.

Take of Jalap, three ounces;
Bitartrate of Potassa, six ounces;
Ginger, two drachms:

Powder separately, and mix them.

From the Edinburgh Pharmacopœia.

Remedial Use.—A very old and favourite formula for insuring the more hydragogue effects of jalap in dropsies, or other cases in which we are desirous of diminishing the quantity of the serous portion of the blood.

Dose.—℈j. to ℈ij., or more.

Cautions.

PULVIS IPECACUANHÆ COMPOSITUS.

Compound Powder of Ipecacuanha.

Dover's Powder.

Gr. j. of opium in gr. x. of the compound powder.

The quantity of ipecacuanha may be increased sometimes with advantage.

Some prefer the introduction of the nitrate of potassa instead of the sulphate.

Take of Ipecacuanha, powdered,
Hard Opium, in powder, of each, a drachm;
Sulphate of Potassa, powdered, an ounce:

Mix.

Remedial Action.—The former lecturers on Materia Medica used to say this was an instance of the threefold mode in which medicines produce sweating. Opium by increasing the vis a tergo,—ipecacuanha by relaxing the skin that it may more readily yield to this last,—and sulphate of potassa by being absorbed and by stimulating the cutaneous exhalants as it passes through them. The chief use of the sulphate of potassa is now said to be the more minute division it ensures; but we do not believe its power to be merely mechanical. It was first recommended for rheumatism, catarrh, &c.; but it may be usefully employed in any case where the twofold indication of allaying irritation, and of determining to the surface, are required to be fulfilled.

Dose.—Gr. v. to gr. xv.

PULVIS KINO COMPOSITUS.

Compound Powder of Kino.

It contains gr. j. of opium in gr. xx. of the compound powder.

Take of Kino, fifteen drachms;
Cinnamom, half an ounce;
Hard Opium, a drachm:

Separately rub them into a very fine Powder, and then mix.

Remedial Action.—Astringent, and anodyne, in chronic dysentery, diarrhœa, intestinal hæmorrhage, &c.

Dose.—Gr. x. to ℈j., or more.

Cautions.

PULVIS SCAMMONII COMPOSITUS.

Compound Powder of Scammony.

Take of Scammony,
Hard Extract of Jalap, of each, two ounces;
Ginger, half an ounce:

Separately rub them to a very fine Powder, and then mix.

The efficacy of this powder depends on the quality of the scammony. The practitioner ought to buy this in mass, and have it powdered in his own shop.

Remedial Use.—A good mucous purge, and, therefore, useful in viscid obstructions of the bowels and in worms.

Dose.—Gr. x. to ℈j.

PULVIS TRAGACANTHÆ COMPOSITUS.

Compound Powder of Tragacanth.

Take of Tragacanth, powdered,
Acacia, powdered,
Starch, of each, an ounce and a half;
Sugar, three ounces:

Powder the Starch and Sugar together; then, having added the Tragacanth and Acacia, mix them all.

See that your starch is free from acrid impurities.

Remedial Use.—As a demulcent, in irritation of the mucous membranes. Demulcents have been arranged hitherto in the class of mechanical remedies, but by what mechanical power they relieve a strangury, or ardor urinæ, or the torture of vesical irritation, has never been explained to us.

Dose.—℈j. to ʒij.

Cautions.

SPIRITUS.

Spirits.

S. G. of the purest absolute alcohol, ·791
Alcohol, of P. L. ·815
Rectified Spirit ·838
Vide Notes.

It is supposed to consist of

Hydrogen	3
Carbon	12
Oxygen	8
	23

Or of one atom of olefiant gas, and one of water.

Absolute alcohol is a rapid and violent poison.

Spirits, for the most part, are nearly allied to distilled waters, except that proof spirit is used, instead of water, as a solvent of the aromatic or volatile particles which we are desirous of obtaining. Concentrated pure spirit is called *absolute alcohol;* when diluted with a small portion of water, it is technically called *rectified spirit;* and when further diluted to a given standard, it is known by the name of *proof spirit.*

ALCOHOL.

Take of Rectified Spirit, a gallon;
Chloride of Calcium, a pound:

Throw the Chloride of Calcium into the Spirit, and, after it has been dissolved, let seven pints and five fluidounces be distilled.

Chemical, &c.—Vide Notes and Supplement.

Remedial Use. — Alcohol, properly diluted, is an universal excitant; and, independent of its stimulating effects, it is of great service as a solvent of other remedial principles. It is used externally as an ingredient for evaporating lotions, but, for the most part, it is far too largely diluted. Small quantities of alcoholic lotion of considerable strength are more effective, and quite as economical.

SPIRITUS AMMONIÆ.

Old Name.
Spiritus Salis Ammoniaci Dulcis.

Spirit of Ammonia.

Take of Hydrochlorate of Ammonia, ten ounces;
Carbonate of Potassa, sixteen ounces;

Rectified Spirit,
Water, of each, three pints:

Mix, and distil over three pints.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Use.—A powerful stimulant, *vide* "Liquor Ammoniæ."

Cautions.

It is a solution of carbonate of ammonia in spirit.

One fluidrachm of oil of lavender, added to four ounces of this spirit, will form the ammoniacal alcoholate of lavender of Paris.

SPIRITUS AMMONIÆ AROMATICUS.

Aromatic Spirit of Ammonia.

Old Name.
Spt. Ammon. Compos.
Vulgò, Sal-volatile.

Take of Hydrochlorate of Ammonia, five ounces;
Carbonate of Potassa, eight ounces;
Cinnamom, bruised,
Cloves, bruised, of each, two drachms;
Lemon Peel, four ounces;
Rectified Spirit,
Water, of each, four pints:

Mix, and distil over six pints.

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—Cordial, diaphoretic. Usefully combined with senna-saline draughts to prevent griping; and commonly employed as a cordial adjunct in the low stages of fevers, in hysteria, and in the languors produced by the necessary purgations for dropsies, &c.

Dose.—f℥ss. in composition, or diluted with water.

Incompatible with acids, and with salts acidulous, earthy, and metallic, &c.

A neutral carbonate in solution.

SPIRITUS AMMONIÆ FŒTIDUS.

A neutral carbonate in solution.

Fœtid Spirit of Ammonia.

Incompatible, as in the last.

Take of Hydrochlorate of Ammonia, ten ounces;
Carbonate of Potassa, sixteen ounces;
Rectified Spirit,

Cautions.

Water, of each, three pints;
Assafœtida, five ounces:

Mix; then, with a slow fire, distil three pints:

Chemical, &c.—*Vide* Notes and Supplement.

Remedial Action.—It chiefly corresponds with the last compound; but the Assafœtida it contains renders it more powerful in relieving the hysteric paroxysms, nervous tremblings, &c., arising from a morbid susceptibility of the nervous system.

Dose.—ɱxx. to ʒj. diluted.

SPIRITUS ANISI.

Spirit of Aniseed.

The star aniseed, as we believe, is often used as a substitute.

The pimpinella anisum is a native of the Levant.

Take of Aniseed, bruised, ten ounces;
Proof Spirit, a gallon;
Water, two pints:

Mix; then, with a slow fire, distil a gallon.

Remedial Use.—It is ranked with the aromatics or carminatives; but the experience of ages is good testimony of its possessing slight diuretic and anodyne power in allaying irritation, particularly in young children.

Dose.—(For adults), ʒij. to ʒiij. in some cordial drink.

SPIRITUS ARMORACIÆ COMPOSITUS.

Compound Spirit of Horseradish.

Diluted with four times its quantity of water, and mixed with two ounces of honey, it forms a good gargle for scurvy of the fauces and pharynx, vulgarly called "the inward scurvy."

Take of Horseradish, sliced,
Orange-Peel, dried, of each twenty ounces;
Nutmegs, bruised, five drachms;
Proof Spirit, a gallon;
Water, two pints:

Mix; then, with a slow fire, let a gallon be distilled.

Remedial Use.—This may be employed as a stimulant to promote the secretion of gastric juice, in certain kinds of dyspepsia, and as an auxiliary diuretic in dropsies. Horseradish is in high repute on the Continent as an antiscorbutic. It is also applied externally as a rubefacient.

Cautions.

Dose.—fʒij. to fʒss. externally, as a rubefacient.

SPIRITUS CARUI.

Spirit of Carraway.

Take of Bruised Carraways, twenty-two ounces;
Proof Spirit, a gallon;
Water, two pints:

Mix; then, with a slow fire, let a gallon be distilled.

Remedial Use.—A simple aromatic.

Dose.—fʒij. to fʒss.

SPIRITUS CINNAMOMI.

Spirit of Cinnamom.

Take of Oil of Cinnamom, two drachms;
Proof Spirit, a gallon;
Water, a pint:

Mix; then, with a slow fire, let a gallon be distilled.

In all specimens of old English literature, this word is written "Cinnamom," and rightly; for, like cardamom, it is a compound of the Latin word, "Amomum." We do not say cardamon: but we are the slaves of custom.

Remedial Use.—Aromatic, stimulant. It has not the astringent quality of the bark which resides in the tannin.

Dose.—fʒij. to fʒiv.

SPIRITUS JUNIPERI COMPOSITUS.

Compound Spirit of Juniper.

Take of Juniper Fruit, bruised, fifteen ounces;
Carraways, bruised,
Fennel [Seed], bruised, of each, two ounces;
Proof Spirit, a gallon;
Water, two pints:

They mention the fruit of juniper, but carraway simply, and fennel simply. A new idea is like a new toy.

Mix; then, with a slow fire, let a gallon distil.

Cautions.

Remedial Action.—It is a good auxiliary diuretic, and is used in dropsies, in combination with foxglove; but we are to bear in mind, that some great authorities tell us that the exhibition of the cordials, during the use of this last remedy, is fatal to its diuretic action.

SPIRITUS LAVANDULÆ.

Spirit of Lavender.

Although native of the south of France, it is cultivated with much greater success in this country. The French oil is distilled chiefly from the lavandula vera, or narrow-leaved lavender.

Take of fresh Lavender, two pounds and a half;
Rectified Spirit, a gallon;
Water, two pints:

Mix; then, with a slow fire, distil a gallon.

Remedial Use.—Cordial, internally; externally, as an ingredient in the Tinctura Lavandulæ Composita, and Linimentum Camphoræ Compos.

SPIRITUS MENTHÆ PIPERITÆ.

Spirit of Peppermint.

The common essence of peppermint is made by a simple admixture of the oil with the spirit.

Take of Oil of Peppermint, three drachms;
Proof Spirit, a gallon;
Water, a pint:

Mix; then, with a slow fire, distil a gallon.

Remedial Use.—*Vide* "Ol. Menthæ Piperitæ."

Dose.—f℥ij. to f℥ss.

SPIRITUS MENTHÆ VIRIDIS.

Spirit of Spearmint.

Cautions.

SPIRITUS MENTHÆ PULEGII.

Spirit of Pennyroyal.

These two last are prepared like the Spirit of Peppermint.

Remedial Use.—Vide "Ol. Menthæ Viridis," and "Ol. Menthæ Pulegii."

Dose.—f℥ij. to f℥ss.

SPIRITUS MYRISTICÆ.

Spirit of Nutmeg.

Take of Nutmegs, bruised, two ounces and a half;
Proof Spirit, a gallon;
Water, a pint:

Mix; then, with a slow fire, distil a gallon.

Remedial Use.—Chiefly as a corrigent. *Vide* "Ol. Myristicæ," and "Confectio Aromatica." It also enters into the Mistura Ferri Composita.

Dose.—f℥j. to f℥ij.

A fixed concrete oil is yielded by expression, the odour of which depends upon the small portion of essential oil contained in it; and it is sold in the shops under the name of oil of mace. It is of a yellowish-red colour.

SPIRITUS PIMENTÆ.

Spirit of Pimenta.

This is prepared in the same manner as the Spirit of Nutmeg.

Remedial Use.—Vide "Ol. Pimentæ."

Dose.—f℥ij. to f℥ss.

Cautions.

SPIRITUS ROSMARINI.

Spirit of Rosemary.

In the Pharmacopœia of 1824, the college ordered one ounce by weight of the oil to the gallon. They now order two drachms to the nine pints. Moreover, there are two oils of rosemary; the French is 4*s.* 8*d.* per pound, the English, 5*s.* an ounce! —which do they mean?

Take of Oil of Rosemary, two drachms;
Rectified Spirit, a gallon;
Water, a gallon:

Mix; then, with a slow fire, distil a gallon.

Remedial Use.—Vide "Ol. Rosmarini." It enters into the Tinct. Lavandulæ Composita, Linimentum Saponis Compositum.

SYRUPI.

Syrups.

Syrups should be kept in a place where the temperature never rises above 55°.

Syrup is a term given to viscid solutions of sugar, or matter of a saccharine nature, in water, charged with some remedial principle of plants or other substances. The quantity of sugar most conveniently applied is about two parts by weight to one of water. Some are best made with boiling water; others, with a gentle heat; and some, without any increase of temperature; but of these last, we have no specimens in our Pharmacopœia. They are prone to generate acetic acid if kept in a temperature beyond 55°.

SYRUPUS.

Syrup.

Old Name.
Syrupus Simplex.

Take of Sugar, ten pounds;
Water, three pints:

Dissolve the Sugar in the Water with a gentle heat.

Cautions.

SYRUPUS ALTHÆÆ.

Syrup of Marshmallow.

Althæa Officinalis.

Take of Marshmallow-root, bruised, eight ounces;
Sugar, two pounds and a half;
Water, four pints:

Boil the Water with the Root down to one half, and express the liquor when cold. Set by for four-and-twenty hours, that the dregs may subside; then pour off the liquor, and, having added the Sugar, boil down to a fit consistence.

Remedial Use.—Demulcent. Chiefly employed to improve the flavour of other medicines.

SYRUPUS AURANTII.

Syrup of Orange [Peel].

Take of fresh Orange-peel, two ounces and a half;
Boiling Water, a pint;
Sugar, three pounds:

Macerate the Peel in the Water for twelve hours in a vessel lightly covered; then pour off the liquor, and add to it the Sugar.

Remedial Action.—Slightly aromatic and stomachic; an elegant adjunct to the saline draught.

Dose.—ʒss. to ʒij.

SYRUPUS CROCI.

Syrup of Saffron.

Take of Saffron, ten drachms;
Boiling Water, a pint;
Sugar, three pounds:

Cautions.

Macerate the Saffron in the Water for twelve hours in a vessel lightly covered; then strain the liquor, and add the Sugar.

Remedial Use.—A colouring matter, and slightly cordial. This and all the more inactive syrups shonld be prescribed in small quantities, lest they should become acescent.

SYRUPUS LIMONUM.

Syrup of Lemons.

Take of Lemon-juice, strained, a pint;
Sugar, two pounds and a half:

Dissolve the Sugar in the Lemon-juice with a gentle heat, and set aside for twenty-four hours; then remove the scum, and decant the clear liquor from the dregs, if there be any.

One ounce and a half of the crystals of citric acid, dissolved in a pint of distilled water, will form a fluid equal in strength to a pint of the best lemon juice. Dr. Paris says one ounce is sufficient. *Vide* Pharmacologia, under "Citric Acid."

Remedial Use.—A corrigent of flavour; but its acidity should be taken into consideration.

SYRUPUS MORI.

Syrup of Mulberries.

Take of Juice of Mulberries, strained, a pint;
Sugar, two pounds and a half:

Dissolve the Sugar in the Juice with a gentle heat, and complete its preparation in the manner directed for Syrup of Lemons.

Remedial Use.—The mulberry itself is an excellent fruit for patients suffering under the phosphatic diathesis. The syrup, however, is a mere colouring matter.

Cautions.

SYRUPUS PAPAVERIS (ALBI).

Syrup of (White) Poppies.

The seeds ought to be removed, or the syrup will rapidly ferment.

Take of Poppy-Capsules, three pounds;
Sugar, five pounds;
Boiling Water, five gallons:

Boil the Capsules with the Water down to two gallons, and strongly express. Again boil the strained liquor down to four pints, and strain it while hot. Set aside for twelve hours that the dregs may settle; then boil the clear liquor down to two pints, add the Sugar, and dissolve it.

By bruising 3ij. of poppy-seeds, and adding half a pint of water during trituration, you form at once, without any auxiliary ingredient, an emulsion, bland, elegant, and highly palatable. It is a good vehicle for laudanum, or the syrupus papaveris, or for any anodyne; but it will not keep forty-eight hours in warm weather.

Remedial Use.—A soothing anodyne, for the most part producing less subsequent cerebral disturbance than opium; and, therefore, preferable for children. There is a bad practice in the retail trade (which is well worthy of the serious attention of the profession, and one which ought not to have been disregarded by the College) of selling various substitutes for this syrup. One is prepared with laudanum and treacle; another, with extract of poppies in syrup; and both made of inferior narcotic strength to the preceding. Now, let the dispensing chemist mark the consequence. Numerous fatal cases have occurred in which mothers, who had been in the habit of being supplied with the spurious syrup, have casually applied to houses where the syrup is prepared by the College formula; and, having administered a teaspoonful of this last to their fretful children, or, perhaps, a second, just as they were wont to do with the weaker remedy, it has induced narcosis, and death has ensued in a few hours. The Editor has himself attended inquests of this nature, and he appeals to the Coroners of London, whether a year elapses without similar occurrences. The intention of the dispensing chemist in making a weaker article is praiseworthy; for, knowing that mothers habitually exhibit it to their children, he is afraid to sell them the stronger syrup. Thus the parent is deceived in her estimation of dose, and the deception is fatal. These errors, too, are likely to occur among practitioners themselves; for, if they consult the popular works on pharmacy, they will meet with evidence the most discrepant. By one author an ounce of the syrup is stated to be equivalent to a grain of opium; by another, half an ounce; by another, three drachms; by another, two drachms.

Cautions.

Is this a subject unworthy of the Censors' attention? Their best friends will tell them that, go where they will, whenever and wherever their college is spoken of, every well-informed gentleman will express his surprise at their apathetic neglect of the public health. But let a question arise on the diversion of five farthings out of the exchequer of Pall Mall East, and who so active as the Censors' Board.

Dose.—f℥ij. to f℥j.; and for infants under three months, the third, or the half of a teaspoonful, is a full dose.

SYRUPUS RHAMNI.

Syrup of Buckthorn.

These berries are pea-shaped; when perfectly ripe they are black, shining with a bright central point, and they contain a greenish pulp, of a bitter disagreeable taste; the colouring matter of which, mixed with lime, forms the pigment commonly called sap-green.

Take of fresh Juice of Buckthorn, four pints;
Ginger, sliced,
Pimento, powdered, of each, six drachms;
Sugar, four pounds:

Set by the Buckthorn Juice for three days that the dregs may subside, and strain. Add the Ginger and Pimento to a pint of the clear juice; then macerate with a gentle heat for four hours, and strain. Boil the remainder of the juice down to a pint and a half; and, having mixed the two liquors, add the Sugar, and dissolve it.

Remedial Use.—Buckthorn is a drastic purgative. A fluid-drachm of the syrup is usefully added to our black draught (Senna-saline) when a more powerful operation is aimed at; but it cannot be employed in delicate temperaments. Sydenham used the syrup for dropsies.

Dose.—f℥ij. to f℥vj.

SYRUPUS RHŒADOS.

Syrup of Red Poppies.

Take of Red Poppy-petals, a pound;
Boiling Water, a pint;
Sugar, two pounds and a half:

Gradually add the Petals to the Water, heated in a sand bath, from time to time stirring them; then, the vessel being set aside, macerate for twelve hours: afterwards express the liquor; and, after the dregs have subsided, add the Sugar, and dissolve.

Cautions.

Remedial Use.—Chiefly as a colouring matter; but this syrup exerts anodyne properties also, and is quite strong enough for children under the age of three months.

Dose, for that age.—f℥ss. to f℥j.

SYRUPUS ROSÆ.

Syrup of Roses.

Take of the Damask-Rose Petals, dried, seven ounces; — Rosa Centifolia.
Sugar, six pounds;
Boiling Water, three pints:

Macerate the Rose-petals in the Water for twelve hours, and strain. Evaporate the strained liquor in a water bath to two pints, then add the Sugar, and dissolve it.

Remedial Use.—This also is an infantile remedy, and employed as a cooling laxative.

Dose, for infants.—f℥j. to f℥iij.

SYRUPUS SARZÆ.

Syrup of Sarsaparilla.

Take of Sarsaparilla, sliced, fifteen ounces;
Boiling Water, a gallon;
Sugar, fifteen ounces:

Macerate the Sarsaparilla in the Water for twenty-four hours; then boil down to four pints, and strain

Mr. Battley has stated, that all the remedial principles of the root are extracted by water at 180°; and that the long-continued boiling heretofore employed is unnecessary. So, also, Dr. Hancock.

Cautions.

the liquor while yet hot: afterwards add the Sugar, and evaporate to a suitable consistence.

Remedial Use.—*Vide* "Extractum Sarzæ," and "Decoctum Sarzæ." Tonic, alterative, or restorative. Diaphoretic action uncertain.

Dose.—f℥j. to f℥ss.

SYRUPUS SENNÆ.

Syrup of Senna.

In the true senna leaf the nerves are oblique, and the junction of the petiole with the expansion is unequal; and thus it may be distinguished from the argol.

Take of Senna, two ounces and a half;
Fennel [Seeds] bruised, ten drachms;
Manna, three ounces;
Sugar, fifteen ounces;
Boiling Water, a pint:

Macerate the Senna and the Fennel [Seeds] in the Water for an hour with a gentle heat. Mix the Manna and the Sugar with the strained liquor, and boil down to a proper consistence.

Remedial Use.—A palatable purgative for children, but it is prone to ferment.

Dose, for children.—Two teaspoonsful, or more.

SYRUPUS TOLUTANUS.

Syrup of Tolu.

It is now known to be the produce of the same tree which yields the Balsam of Peru.

Take of Balsam of Tolu, ten drachms;
Boiling Water, a pint;
Sugar, two pounds and a half:

Boil the Balsam in the Water for half an hour in a vessel lightly covered, now and then stirring it, and strain the liquor when cold. Then add the Sugar, and dissolve it.

Remedial Use.—Tolu is an energetic and agreeable stimulant, acting chiefly on the lungs. The syrup, however, is seldom used in doses sufficient to insure the remedial action of the balsam, being chiefly added to give flavour and odour. *Cautions.*

Dose.—f℥ij. to f℥j.

SYRUPUS ZINGIBERIS.

Syrup of Ginger.

Take of Ginger, sliced, two ounces and a half;
Boiling Water, a pint;
Sugar, two pounds and a half:

Macerate the Ginger in the Water for four hours, and strain; then add the Sugar, and dissolve it.

Remedial Use.—A warm corrigent and stomachic.

Dose.—f℥j. to f℥ss.

TINCTURÆ.

Tinctures.

The solutions of various remedial principles in alcohol or æther are denominated Tinctures, and divided into alcoholic and æthereal. In the London Pharmacopœia, however, none of the latter occur, although some of them are very generally employed. Again, they are divided into simple or compound, according as they contain one or more ingredients besides the menstruum. The substances contained in tinctures are generally vegetable; but mineral, and even animal, are occasionally employed. They are always prepared by digestion in close vessels; and rectified or proof spirit is employed according as the substance to be dissolved approximates more or less to the character of resin. Perhaps, it were better that alcohol and distilled water should be separately ordered for each tincture in such proportions as are best adapted to the substances to be dissolved.

Cautions.

All tinctures ought to be prepared in close glass vessels and to be shaken frequently during the process of maceration.

TINCTURA ALOËS.

Tincture of Aloes.

Take of Aloes, powdered, an ounce;
Extract of Liquorice, three ounces;
Distilled Water, a pint and a half;
Rectified Spirit, half a pint:

Macerate for fourteen days, and strain.

Remedial Use.—Stomachic and purgative in hypochondriacal habits and atonic conditions of the large intestines.

Dose.—f℥ij. to f℥j.

TINCTURA ALOËS COMPOSITA.

Compound Tincture of Aloes.

Take of Aloes, powdered, four ounces;
Saffron, two ounces;
Tincture of Myrrh, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—The compound tincture is rendered more stimulating by the addition of the myrrh.

Dose.—In composition, f℥j. to f℥ij.

TINCTURA AMMONIÆ COMPOSITA.

Compound Tincture of Ammonia.

Take of Mastich, two [drachms];
Rectified Spirit, nine fluidrachms;

Oil of Lavender, fourteen minims;
Oil of Amber, four minims;
Stronger Liquor of Ammonia, a pint:

Macerate your Mastich in the Spirit, that it may be dissolved, and pour off the clear Tincture; then add the other articles, and shake all together.

Remedial Action.—Diffusible, stimulant, and antispasmodic.

Dose.—mv. to mxv. properly diluted.

Cautions.

The College have two ounces of mastich in their text.

Vulgò, Eau de Luce.

Incompatible with acids; acidulous, metallic, and earthy salts.

The maximum dose contains about $\frac{1}{110}$ part of a drop of oil of amber.

TINCTURA ASSAFŒTIDÆ.

Tincture of Assafœtida.

Take of Assafœtida, five ounces;
Rectified Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Antispasmodic, diffusible stimulant. For further account, *vide* "Mistura Assafœtidæ."

Dose.—fʒss. to fʒiss.

TINCTURA AURANTII.

Tincture of Orange [Peel].

Take of Orange-Peel, dried, three ounces and a half;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Tonic, stomachic. A corrective ingredient for bitter infusions, decoctions, saline mixtures, &c.

Dose.—fʒj. to fℨss.

Cautions.

TINCTURA BALSAMI TOLUTANI.

Tincture of Balsam of Tolu.

Take of Balsam of Tolu, two ounces;
Rectified Spirit, two pints:

Macerate until the Balsam is dissolved, and strain.

Remedial Use.—Stimulant, expectorant. For further account, *vide* "Syrupus Tolutanus."

Dose.—f℥ss. to f℥ij.

TINCTURA BENZOINI COMPOSITA.

Compound Tincture of Benzoin.

Vulgò, Friar's Balsam, and by a corruption of the word, Tincture of Benjamin.

Take of Benzoin, three ounces and a half;
Storax (strained), two ounces and a half;
Balsam of Tolu, ten drachms;
Aloes, five drachms;
Rectified Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Stimulant, and formerly used in emulsions as an expectorant. Also a common remedy for green wounds.

Dose.—f℥ss. to f℥ij.

TINCTURA CALUMBÆ.

Tincture of Calumba.

For the character of good calumba, see "Infusum Calumbæ."

Formula.

℞ Elixir. Vitriol. f℥ij.
Tinct. Calumbæ, f℥vj. M.

A teaspoonful three times a-day in cold water.

Take of Calumba, sliced, three ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Action.—Tonic and stomachic; and for further account, *vide* "Infusum Calumbæ." This is the most eligible and efficacious form for the exhibition of Calumba.

Cautions.

TINCTURA CAMPHORÆ.

Tincture of Camphor.

Take of Camphor, five ounces;
Rectified Spirit, two pints:

Mix, that the Camphor may be dissolved.

Former Name. Spiritus Camphoræ.

Remedial Use.—As an external stimulant in embrocations, chilblains, &c.

TINCTURA CAMPHORÆ COMPOSITA.

Compound Tincture of Camphor.

Take of Camphor, two scruples and a half;
Hard Opium, powdered,
Benzoic Acid, of each, seventy-two grains;
Oil of Aniseed, a fluidrachm;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Anodyne, diaphoretic, and expectorant.

Dose.—f℥j. to f℥ij.

In 1809, the College rejected the anise oil as being unimportant, and because it rendered the tincture opaque in cold weather; and they now introduce it in just double the quantity to save the chemists, as we presume, the expense of a thermometer.

N.B. About gr. j. of opium in the fluid-ounce.

TINCTURA CANTHARIDIS.

Tincture of Cantharides (Spanish Fly).

Take of Cantharides, bruised, four drachms;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Action.—A specific stimulant on the urinary and genital organs; and, therefore, useful in incontinence of urine, vesical paralysis, and, occasionallly, in dropsies. Also externally as an adjunct to liniments.

Dose.—m x. to f℥j.

The College order acetic acid for forming their epispastic liquid. *Vide* "Acetum Cantharidis." When, however, we wish to use the active principle (Cantharidin) over a large surface, as in cholera, the oil of turpentine will be found to be a convenient solvent.

Cautions.

TINCTURA CAPSICI.

Tincture of Capsicums.

Take of Capsicums, bruised, ten drachms;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.— As a stimulant internally in atonic dyspepsia to excite the secretion of gastric juice; or, in a similar atonic condition of the intestines. Also in lienteria as an ingredient in stimulating gargles.

Dose.—ℳ xx. to fʒss.

TINCTURA CARDAMOMI.

Tincture of Cardamoms.

Take of Cardamoms, bruised, three ounces and a half;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use. — Aromatic. Said to produce its antiflatulent effects without exciting the circulation so much as other carminatives, so called.

Dose.—fʒj. to fʒiij.

TINCTURA CARDAMOMI COMPOSITA.

Compound Tincture of Cardamoms.

Take of Cardamoms,
Carraways, of each, coarsely powdered, two drachms and a half;
Cochineal, powdered, a drachm;
Cinnamom, bruised, five drachms;

Raisins, five ounces ;
Proof Spirit, two pints :

Cautions.

Macerate for fourteen days, and strain.

Remedial Action.—As in the preceding.

Dose.—f℥j. to f℥iij.

TINCTURA CASCARILLÆ.

Tincture of Cascarilla.

Take of Cascarilla, coarsely powdered, five ounces ;
Proof Spirit, two pints :

Macerate for fourteen days, and strain.

Remedial Action. — Aromatic tonic, diffusible stimulant, and diaphoretic.

Dose.—f℥j. to f℥ij.

The Editor has translated the word *contriti*, "coarsely powdered," which he believes is the most favourable condition for the action of spirits.

TINCTURA CASTOREI.

Tincture of Castor.

Take of Castor, powdered, two ounces and a half;
Rectified Spirit, two pints :

Macerate for fourteen days, and strain.

Remedial Use.—Antispasmodic, diffusible stimulant, exerting the power of allaying that species of irregular muscular action which depends chiefly on debility. In hysteria, subsultus tendinum, delirium tremens, &c.

Dose.—f℥ss. to f℥ij.

TINCTURA CÂTECHU.

Tincture of Catechu.

Take of Catechu, three ounces and a half;
Cinnamom, bruised, two ounces and a half;
Proof Spirit, two pints :

Cautions.

Macerate for fourteen days, and strain.

Remedial Use.—Astringent. *Vide* "Infusum Catechu."

Dose.—ʒj. to ʒiij.

TINCTURA CINCHONÆ.

Tincture of (Yellow) Cinchona.

Take of heart-leaved Cinchona, coarsely powdered, eight ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Specific, tonic, stomachic. *Vide* "Quinæ Disulphas."

Dose.—ʒj. to ʒiij.

TINCTURA CINCHONÆ COMPOSITA.

Compound Tincture of (Pale) Cinchona.

Vulgò, HUXHAM'S Tincture of Bark.

Half the strength of the preceding tincture.

Take of lance-leaved Cinchona, coarsely powdered, four ounces;
Orange-peel, dried, three ounces;
Serpentary, bruised, six drachms;
Saffron, two drachms;
Cochineal, powdered, a drachm;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Serpentary is used here as a diaphoretic adjuvant; it assists the operation of the bark in cases characterised by a weak non-secreting condition of skin.

Dose.—ʒij. to ℥ss.

Cautions.

TINCTURA CINNAMOMI.

Tincture of Cinnamom.

Take of Cinnamom, bruised, three ounces and a half;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Cordial astringent.

Dose.—f℥j. to f℥iij.

TINCTURA CINNAMOMI COMPOSITÆ.

Compound Tincture of Cinnamom.

Take of Cinnamom, bruised, an ounce;
Cardamoms, bruised, half an ounce;
Long Pepper, coarsely powdered,
Ginger, sliced, of each, two drachms and a half;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Stomachic and weakly astringent.

Dose.—f℥j. to f℥ij.

TINCTURA COLCHICI.

Tincture of Colchicum (Meadow Saffron).

Take of Colchicum Seeds, bruised, five ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Action.—The seeds of colchicum are more active than the corm. Like this last, they are purgative; and when combined with the aromatic spirit of ammonia, they act as a diaphoretic, and sedative; but given as in the annexed formula, after three or four doses,

Formula.

℞ Pulv. semin. Colchici, gr. ij.
Pulv. Rhei, gr. vj.
Magnesiæ, gr. x.
Ft. pulvis.

Every six hours in acute rheumatis, inflammatory gout, &c. washed down with a glass of Seltzer water, during high febrile action only.

Cautions.

they produce several slimy stools, and remarkably increase the secretion of urine. The benefit derived from them in early attacks of gout is principally owing to their drastic effect on the mucous membrane of the intestinal canal. *Vide* "Vinum Colchici."

Dose.—ℳxx. to ʒj.

TINCTURA COLCHICI COMPOSITA.

Compound Tincture of Colchicum.

Take of Colchicum-seeds, bruised, five ounces;
Aromatic Spirit of Ammonia, two pints:

Macerate for fourteen days, and strain.

Remedial Action.—As in the preceding. When, however, the object of the practitioner is to induce the soothing effects without the drastic action on the mucous membranes, as in protracted gout, long-continued paroxysms of acute rheumatism, &c., this formula is preferable.

Dose.—ℳxx. to ʒj.

TINCTURA CONII.

Tincture of Hemlock.

If it be worth while here (foliorum), why not in other instances, uniformly to designate the part to be used?

Take of Hemlock-leaves, dried, five ounces;
Cardamoms, bruised, an ounce;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Action.—Narcotic; and, according to some high authorities, exerting a deobstruent effect on the lymphatic and glandular system. *Vide* "Ext. Conii."

Dose.—ℳxx. to ʒj.

Cautions.

TINCTURA CUBEBÆ.

Tincture of Cubebs.

Take of Cubebs, coarsely powdered, five ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

The proportion (even if we presume it to take up the whole of the active principle), is only one drachm of cubebs to each fluid-ounce of the spirit.

Remedial Action.—Counter-stimulant; the berry itself commonly acts as a purgative. The proportion here seems far too small in reference to the dose of the powder.

Dose.—ʒij. to ʒj.

TINCTURA DIGITALIS.

Tincture of Foxglove.

Take of the leaves of Foxglove, dried, four ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Exclude it from the light. Observe that, it is not so strong as the old tincture, for you have now forty ounces of menstruum.

Remedial Action.—Sedative, diuretic. *Vide* "Infusum Digitalis." On calculating, you will find a grain to ten minims; but, recollect, a grain *to* ten minims is not necessarily a grain *in* ten minims.

Dose.—ɱx. to ʒj.

TINCTURA GALLÆ.

Tincture of Galls.

Take of Galls, coarsely powdered, five ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Astringent, but chiefly used as a test.

Dose.—ɱxx. to ʒij.

Cautions.

TINCTURA GENTIANÆ COMPOSITA.

Compound Tincture of Gentian.

Take of Gentian-root, sliced, two ounces and a half;
Orange-peel, dried, ten drachms;
Cardamoms, bruised, five drachms;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Aromatic, tonic, and stomachic. *Vide* "Infusum Gentianæ Compositum."

Dose.—ʒj. to ʒiij.

TINCTURA GUIACI.

Tincture of Guiacum.

This medicine is seldom given in doses sufficiently large.

Take of Guiacum-resin, coarsely powdered, seven ounces;
Rectified Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Powerfully stimulant, diaphoretic, and diuretic; and, in full doses, exciting purgative effects also. In chronic rheumatism, atonic gout, &c. *Vide* "Mistura Guiaci."

Dose.—ʒij. to ʒj.

TINCTURA GUIACI COMPOSITA.

Compound Tincture of Guiacum.

Take of Guiacum-resin, coarsely powdered, seven ounces;
Aromatic Spirit of Ammonia, two pints;

Macerate for fourteen days, and strain.

Remedial Use.—The action of guiacum is powerfully stimulant on the whole system. No idea of the power of this substance can be

formed from tasting the resin, since it is almost insoluble in the saliva, but the alcoholic solution is highly pungent. In moderate doses, frequently repeated, it promotes the secretion both of the skin and the kidneys, and suspends pains of the joints and periosteum. It is also restorative after the debility which ensues on the use of mercury.

Cautions.

Dose.—f℥j. to f℥ss.

TINCTURA HELLEBORI [NIGRI].

Tincture of [Black] Hellebore.

Take of Hellebore-root [black], bruised, five ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

The college do not mention which hellebore. They will pardon my indicating the black.

Remedial Use.—Black hellebore was used by the ancients for the same diseases for which we now use aloes, and as a counter-derivant or brain-purge in certain species of mania. In amenorrhœa, complicated with mania; in plethoric, torpid females, it is highly useful.

Dose.—f℥ss. to f℥iss.

TINCTURA HYOSCYAMI.

Tincture of Henbane.

Take of Henbane-leaves, dried, five ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Every body uses henbane, and few can say what good it does.

Remedial Action.—A doubtful anodyne and laxative.—*Vide* "Ext. Hyoscyami."

Dose.—f℥ss. to f℥ij.

Cautions.

TINTCTURA JALAPÆ.

Tincture of Jalap.

Take of Jalap, coarsely powdered, ten ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Cathartic. A useful adjuvant to cathartic draughts.—*Vide* "Ext. Jalapæ."

Dose.—fʒj. to fʒiij.

TINCTURA IODINII COMPOSITA.

Compound Tincture of Iodine.

It contains of iodine, gr. i., iodide of potassium, gr. ii. in ♏xl.

Take of Iodine, an ounce;
Iodide of Potassium, two ounces;
Rectified Spirit, two pints:

Macerate until the ingredients are dissolved, and strain.

Remedial Action—In small doses, a powerful tonic; in larger, an excitant, specifically stimulating the kidneys and genital glands, including the mamillary and thyroid.—*Vide* "Potassii Iodidum."

Dose.—♏x. to fʒj.

TINCTURA KINO.

Tincture of Kino.

Incompatible with gelatine, sulphate of iron, nitrate of silver, and the acetates of lead.

Take of Kino, coarsely powdered, three ounces and a half;
Rectified Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Astringent. The best form of administering kino, is in warm port wine; in diarrhœa, low fevers, with continued relaxation, &c.

Cautions.

Dose.—fʒss. to fʒij.

TINCTURA LAVANDULÆ COMPOSITA.

Compound Tincture of Lavender.

Take of Spirit of Lavender, a pint and a half;
Spirit of Rosemary, half a pint;
Cinnamom, bruised,
Nutmegs, bruised, of each, two drachms and a half;
Red Saunders, sliced, five drachms:

Macerate for fourteen days, and strain.

Remedial Use.—Cordial, diffusible stimulant in languors, and approaching syncope.

Dose.—fʒss. to fʒij.

TINCTURA LUPULI.

Tincture of Hop.

Old Name.
Tinct. Humuli.

Take of Hops, six ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Stomachic, anodyne.—*Vide* "Extract. Humuli."

Dose.—fʒss. to fʒij.

TINCTURA MYRRHÆ.

Tincture of Myrrh.

Take of Myrrh, coarsely powdered, three ounces;
Rectified Spirit, two pints:

Cautions.

Macerate for fourteen days, and strain.

Remedial Action.—Stomachic, and emmenagogue. Chiefly used as an antiseptic lotion for foul gums; but our first dentists object to it on account of its resin being precipitated between the teeth by admixture with water.

Dose.—f℥ss. to f℥ij.

TINCTURA OPII.

Tincture of Opium.

In the College text, they have "rectificati;" but when they commit an error, they follow it up with silent dignity.

Take of Hard Opium, coarsely powdered, three ounces;
[Proof] Spirit, two pints:
Macerate for fourteen days, and strain.

Gr. j. of opium in 19 minims of the tincture. Said to be incompatible with alkalies, metallic salts, and infusion of galls.

Chemical, &c.—This tincture reddens litmus paper; is of a deep brown colour, approaching to a black; and has the peculiar odour and taste of opium.

Remedial Use.—As an anodyne or antispasmodic, it is preferable to opium, where its effects are required to be exerted speedily, and to be diffused over the alimentary canal.—*Vide* "Morphiæ Hydrochloras." In gastric irritation, the solid opium will sometimes be preferable.

Dose.—♏v. to f℥j.

TINCTURA RHEI COMPOSITA.

Compound Tincture of Rhubarb.

In the list of new and old names, this is incorrectly styled "Tinct. Rhei," this being about the 150th error the correction of which by the Editor is to form the basis of the College threat of resisting a second translation.

Take of Rhubarb, sliced, two ounces and a half;
Fresh Liquorice-Root, bruised, six drachms;
Ginger, sliced,
Saffron, of each, three drachms;
Proof Spirit, two pints:
Macerate for fourteen days, and strain.

Remedial Use.—A warm purgative and stomachic. By a warm purgative, we mean one which will relax the bowels without refrigerating the stomach.

Dose.—f℥ij. to f℥iss.

Cautions.

TINCTURA SCILLÆ.

Tincture of Squills.

Take of Squill-Root, newly dried, five ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

In over doses, it excites bloody urine, and diminishes the renal secretion.

Remedial Use.—Stimulating, expectorant, and diuretic. Acting, also, as a general excitant.

Dose—ℳx. to ℳxl.

TINCTURA SENNÆ COMPOSITA.

Compound Tincture of Senna.

Take of Senna, three ounces and a half;
Carraways, bruised, three drachms and a half;
Cardamoms, bruised, one drachm;
Raisins, five ounces;
Proof Spirit, two pints:

Vulgò, Daffy's Elixir.

Your raisins must be stoned:

Macerate for fourteen days, and strain.

Remedial Use.—Stomachic, purgative.

Dose.—f℥j. to f℥ss.

TINCTURA SERPENTARIÆ.

Tincture of Serpentary.

Take of Serpentary, bruised, three ounces and a half;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Tonic, diaphoretic.—*Vide* "Infusum Serpentariæ."

Dose.—f℥j. to f℥iij.

Cautions.

TINCTURA VALERIANÆ.

Tincture of Valerian.

Valerian yields an extremely volatile oil, of a greenish colour, and a camphor-like smell. It is used on the Continent in the dose of from five to ten drops. One part of the root, to eight parts of rectified æther, forms a powerful antispasmodic tincture.

Take of Valerian Root, bruised, five ounces;
Proof Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Antispasmodic, tonic.—*Vide* "Infusum Valerianæ."

Dose.—ʒj. to ʒiij.

TINCTURA VALERIANÆ COMPOSITA.

Compound Tincture of Valerian.

Take of Valerian Root, bruised, five ounces;
Aromatic Spirit of Ammonia, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—More diffusible than the former.—*Vide* "Infusum Valerianæ."

Dose.—mxx. to ʒj.

TINCTURA ZINGIBERIS.

Tincture of Ginger.

Ginger yields a volatile oil of a greenish blue colour.

Take of Ginger, sliced, two ounces and a half;
Rectified Spirit, two pints:

Macerate for fourteen days, and strain.

Remedial Use.—Aromatic, stomachic. In spasmus ventriculi, flatulency, gripes, &c., and as a corrigent to other medicines.

Dose.—ʒj. to ʒss.

Cautions.

VEGETABILIA.

Vegetables.

VEGETABLES should be gathered at a dry season, when neither wet with rain nor dew; they are to be collected annually, and those which have been kept longer [than a year], are to be rejected.

This precaution of rejecting medicines deteriorated by age, admits of extension to many vegetable preparations.

MOST ROOTS are to be dug up before their stems or leaves shoot forth.

BARKS ought to be collected at that season at which they can most easily be separated from the wood.

LEAVES are to be plucked after the flowers have expanded, and before the seeds ripen.

FLOWERS are to be gathered when just unfolded.

SEEDS are to be collected when just ripe, and to be preserved in their own seed vessels.

VEGETABILIUM PRÆPARATIO.

Preparation of Vegetables.

Dry Vegetables as quickly as possible a short time after they have been gathered, except those which are to be kept in the fresh state, lightly spread, by a heat so gentle, that the colour may not be changed; then

Cautions.

preserve them in proper places or vessels, the access of light and moisture being excluded.

Bury those Roots which we have directed to be preserved fresh, in dry sand. Cut the Colchicum Corm and Squill Root, before drying them, transversely into thin slices, the dry coats having been previously removed.

Set aside Pulpy Fruits, if they be unripe, or ripe and dry, in a damp place, that they may become soft; then press out the pulp through a hair sieve; afterwards boil with a gentle heat, frequently stirring. Lastly, evaporate the water in a water bath, until the pulp attain a proper consistence.

Pour boiling water on the bruised Cassia Pods, that the pulp may be washed out, which first press through a sieve with large holes; then through a hair sieve. Then evaporate the water in a water bath, until the pulp acquires a convenient consistence.

Express the pulp or juice of the ripe and recent fruits through a sieve, without boiling them.

GUMMI-RESINÆ.

Gum-Resins.

Separate Opium very carefully from all extraneous matter, particularly that which is on its outside. Opium should be kept soft, which may be fit for forming pills, and hard, which shall have been so dried in a water bath, that it may be rubbed into powder.

Those Gum-Resins are to be esteemed as the best which occur so free from admixture as to require no more purification. But, if they appear less pure, boil them in water until they soften, and express them through a canvass cloth: then set them aside, that the

resinous part may subside. Evaporate the effused super-natant liquor in a water bath, adding towards the end the resinous part, and mixing them into one with the gummy part.

Cautions.

Those Gum-Resins which easily melt, may be purified by enclosing them in an ox's bladder, and holding them in boiling water, until they become so soft, that they may be separated from their impurities through a canvass cloth by means of a press.

Dissolve the Balsam of Styrax in rectified Spirit, and strain; then, with a gentle heat, distil the Spirit, until the Balsam attains a proper consistence.

VINA.

Wines.

Medicated Wines ought to be prepared in stopped glass vessels, and to be frequently shaken during maceration.

The action of wine upon remedial substances is analogous to that of a mixture of spirit and water. Vegetable matter ought to undergo the process of drying before it is submitted to the action of the menstruum. The neglect of this process in the old Vinum Colchici was one of the memorable errors of the last Pharmacopœia. Sherry wine is uniformly ordered by the College; but, in the preparing of wines medicated by admixture with tonic or astringent matter, sound old port is preferable.

VINUM ALOËS.

Wine of Aloes.

Take of Aloes, rubbed to powder, two ounces;
Canella, coarsely powdered, four drachms;
Sherry Wine, two pints:

Old Names.
Tinctura Sacra;
Tinctura Hieræ.

Cautions.

Macerate for fourteeen days, repeatedly shaking, and strain.

Remedial Use.—Warmly stomachic and purgative.

Dose.—f℥j. to f℥ij.; or, as a purge, f℥ss. to f℥j.

VINUM COLCHICI.

Wine of Colchicum (Meadow Saffron).

Mark!
In the wine commonly kept in the shops, and prepared after Dr. Thompson's formula, the proportion of the dried colchicum is 3j. to each fluidounce; but in this, the new wine, the proportion is one drachm of the corm to five fluidrachms of the wine, nearly twice the strength; or gr. xij. to the fluidrachm.

Take of dried Meadow Saffron (Cormus) sliced, eight ounces;
Sherry Wine, two pints:
Macerate for fourteen days, and strain.

Remedial Action.—In the autopsy of animals poisoned by colchicum, we have observed extensive inflammation of the stomach and bowels; and this leads us to infer, that its primary operation on the mucous membrane is that of an acrid stimulant. Every practitioner is aware, that certain gouty patients of a robust habit use this and other similar remedies in maximum doses so as to vomit and purge themselves, and thus suspend a painful paroxysm. The same effect is also produced by other violent remedies; by hydrochlorate of ammonia, by hedge hyssop, by veratria, &c. In the more scientific and cautious treatment of the disease, it is administered so as to produce mucous stools and a copious secretion of urine. That in smaller doses it soothes pain, occasions diaphoresis, and lowers vascular action, is equally evident, and, in this respect, it does not differ from some other acrid substances. As in the exhibition of foxglove, persons under the influence of colchicum should preserve the recumbent position.

Dose.—mxx. to f℥j.

VINUM IPECACUANHÆ.

Wine of Ipecacuanha.

The proportion is 15 grains to half a fluidounce. Active

Take of Ipecacuanha, bruised, two ounces and a half;
Sherry Wine, two pints:

Macerate for fourteen days, and strain.

Remedial Action. — Expectorant diaphoretic and emetic. If it pass the pylorus in any considerable quantity it usually acts powerfully on the bowels. The most simple and primary operation of this medicine is as an excitant on the mucous tract. Hence its stomachic power; and, in larger doses, hence the vomiting induced by it. Its power of relaxing the skin, and of diminishing febrile action, is secondary, just as the same effects produced by other powerful irritants are secondary.

Dose. — ♏xx. to ʒj.; or, as an emetic, ʒiij. to ℥j.; or, for infants, a teaspoonful.

Cautions.

principle, "Emetina." This substance is white, pulverulent, without smell, but of a bitter taste. It is incompatible with infusion of galls, gallic acid, &c., and it is used in France instead of the root. In over doses it produces inflammation of the stomach, bowels, and lungs.

VINUM OPII.

Wine of Opium.

Take of Purified extract of Opium, two ounces and a half;
Cinnamom, bruised,
Cloves, bruised, of each, two drachms and a half;
Sherry Wine, two pints:

Macerate for fourteen days, and strain.

Remedial Use. — *Vide* "Tinctura Opii;" from which, except in odour and flavour, it does not differ. It is often ordered in collyria.

Dose. — ♏x. to ʒj.

VINUM VERATRI.

Wine of White Hellebore.

Take of White Hellebore [Root] sliced, eight ounces;
Sherry Wine, two pints:

Macerate for fourteen days, and strain.

Active principle, "Veratria." The proportion of the root to the wine is gr. xij. to the fluidrachm.

Cautions.

Remedial Use.—Counter derivative, cathartic, and, by revulsion, suspending the gouty paroxysm, like colchicum, &c. Used in certain chronic affections of the head, mania, &c. For further account, *vide* "Veratria," page 69.

Dose.—♏x. to ʒss.

UNGUENTA.

Ointments.

UNGUENTUM ANTIMONII POTASSIO-TARTRATIS.

Ointment of Potassio-tartrate of Antimony.

Emetic tartar is absorbed if used over a large extent of surface.

Take of Potassio-tartrate of Antimony, powdered, an ounce;
Lard, four ounces:

Mix.

Remedial Use.—As a counter-irritant, applied to the chest in pneumonia, bronchitis, incipient phthisis, and local affections of joints. It requires caution. It is singular that a single grain diffused through a Burgundy pitch plaster will sometimes produce the usual effects of a much larger quantity.

UNGUENTUM CANTHARIDIS.

Ointment of Cantharides (Spanish Fly).

Active principle, "Cantharidine."

Take of Cantharides, rubbed into a very fine powder, an ounce;
Distilled Water, four fluidounces;
Cerate of Resin, four ounces:

Boil the Water with the Cantharides down to one half, and strain it. Mix the Cerate with the strained liquor, then evaporate it to a proper consistence.

Cautions.

Remedial Use. — Chiefly to promote discharge from surfaces already vesicated.

UNGUENTUM CETACEI.

Ointment of Spermaceti.

Take of Spermaceti, six drachms;
White Wax, two drachms;
Olive Oil, three fluidounces:

Having melted them together over a slow fire, constantly stir until they are cold.

Remedial Use.—*Vide* "Ceratum Cetacei."

UNGUENTUM CREASOTI.

Ointment of Creosote.

Take of Creosote, half a fluidrachm;
Lard, an ounce:

Rub and incorporate them.

The College translator has one fluidrachm, which he has since corrected.

Remedial Use.—It has been employed in tænia capitis, as a substitute for the old ointment of pitch.

UNGUENTUM ELEMI.

Ointment of Elemi.

Take of Elemi, a pound;
Common Turpentine, ten ounces;
Suet, two pounds;
Olive Oil, two fluidounces:

Cautions.

Melt the Elemi with the Suet, then remove from the fire, and with these immediately mix in the Turpentine and the Oil; then express them through a linen cloth.

Remedial Use.—A good stimulating dressing for indolent ulcers.

UNGUENTUM GALLÆ COMPOSITUM.

Compound Ointment of Galls.

Take of Galls, finely powdered, two drachms;
Lard, two ounces;
Hard Opium, finely powdered, half a drachm:
Mix.

Remedial Use.—Chiefly as an astringent for lax hæmorrhoids.

UNGUENTUM HYDRARGYRI FORTIUS.

Stronger Ointment of Mercury.

Take of Mercury, two pounds;
Lard, twenty-three ounces;
Suet, an ounce:

The practice of admixing a portion of old mercurial ointment seems to be the least objectionable mode of accelerating this process. This ointment contains 3j. of mercury in 3ij.

First rub the Mercury with the Suet and a little of the Lard, until globules are no longer to be seen; then add the remainder of the Lard, and mix.

Remedial Use.—The most usual external formula for introducing mercury into the system. When the surface of the body is much above the natural standard, this remedy is absorbed with great difficulty.—*Vide* the preparations of mercury, from page 151 to page 158.

Cautions.

UNGUENTUM HYDRARGYRI MITIUS.

Milder Ointment of Mercury.

Take of Stronger Ointment of Mercury, a pound;
Lard, two pounds:

Mix.

3j. of mercury is contained in 3vi. of the ointment.

Remedial Use.—Same as the preceding, and locally as a dressing.

UNGUENTUM HYDRARGYRI NITRATIS.

Ointment of Nitrate of Mercury.

Take of Mercury, an ounce;
Nitrate Acid, eleven fluidrachms;
Lard, six ounces;
Olive-oil, four fluidounces:

Mercury first oxidized and then dissolved by the nitric acid.

First dissolve the Mercury in the Acid; then mix the liquor while yet hot with the Lard and Oil previously melted together.

Nitric acid acts chemically on lard, and in the hottest weather will, in a few days, form a hard, inconvenient mass. Butter is the best substitute; and if purchased at proper seasons, it is equally cheap.

Remedial Use.—In scald head, impetigo, and other eruptions.

UNGUENTUM HYDRARGYRI NITRICO-OXYDI.

Ointment of Nitric-Oxide of Mercury.

Take of Nitric-oxide of Mercury, an ounce;
White Wax, two ounces;
Lard, six ounces:

Vulgò, Red Precipitate Ointment.

Having melted the Wax and the Lard together, add the Nitric-oxide of Mercury very finely powdered, and mix.

Remedial Use.—As a detergent and stimulant for foul ulcers.

Cautions.

UNGUENTUM HYDRARGYRI IODIDI.

Ointment of Iodide of Mercury.

This is prepared like the Nitric-oxide of Mercury.

UNGUENTUM HYDRARGYRI BINIODIDI.

Ointment of Biniodide of Mercury.

This is prepared similarly with the two last.

Remedial Use.—These ointments have been used chiefly in hospital practice for ill-conditioned sores which had long resisted the ordinary preparations of mercury, and also for scrofulous ulcers. Their employment requires the greatest caution.

UNGUENTUM HYDRARGYRI AMMONIO-CHLORIDI.

Ointment of Ammonio-Chloride of Mercury.

Vulgò, White Precipitate Ointment.

Take of Ammonio-chloride of Mercury, a drachm;
Lard, an ounce and a half:

Having melted the Lard over a slow fire, add Ammonio-chloride of Mercury, and mix.

Remedial Use.—Externally in certain cutaneous affections; but it should not be employed over any considerable extent of surface.

UNGUENTUM IODINII COMPOSITUM.

Compound Ointment of Iodine.

Formula.
℞ Ung. Hyd. fort.
Ung. Iodinii C.
āā. p. æq.
Mix.
This is the most effi-

Take of Iodine, half a drachm;
Iodide of Potassium, a drachm;
Rectified Spirit, a fluidrachm;
Lard, two ounces:

First rub the Iodine and the Iodide of Potassium with the Spirit, then with the Lard.

Cautions.

cacious form we are acquainted with for promoting the absorption of tumours.

Remedial Use.—In bronchocele, ovarian dropsy, ovarian enlargement, and other tumours.

UNGUENTUM PICIS LIQUIDÆ.

Ointment of liquid Pitch.

Take of liquid Pitch [Tar],
Suet, of each, a pound:

Mix them together, and express through a linen cloth.

Remedial Use.—Chiefly in scald-head.

UNGUENTUM PICIS NIGRÆ.

Ointment of Black Pitch.

Take of Black Pitch,
Wax,
Resin, of each, nine ounces:
Olive-oil, sixteen fluidounces:

Yellow wax.

Melt them together, and express through a linen cloth.

Remedial Use.—As a detergent and stimulant for indolent ulcers.

UNGUENTUM PLUMBI COMPOSITUM.

Compound Ointment of Lead.

Take of Prepared Chalk, eight ounces;
Distilled Vinegar, six fluidounces;
Plaster of Lead, three pounds;
Olive-oil, a pint:

Cautions.

Dissolve the Plaster in the Oil over a slow fire: then, having separately mixed the Chalk with the Vinegar, wait till the effervescence is finished, and add them to the former ingedients, stirring constantly until they are cool.

Remedial Use.—Said to be a good dressing for indolent ulcers.

UNGUENTUM PLUMBI IODIDI.

Ointment of Iodide of Lead.

It ought never to be used without inquiring, whether the patient is easily disturbed by lead.

Take of Iodide of Lead, an ounce;
Lard, eight ounces:
Rub them together, and mix.

Remedial Use.—As a discutient ointment for scrofulous tumours, bronchocele, &c.—*Vide* "Plumbi Iodidum."

UNGUENTUM SAMBUCI.

Ointment of Elder (Flowers).

Take of Elder [Flowers],
Lard, of each, two pounds:

Boil the Elder Flowers in the Lard until they become crisp, then press through a linen cloth.

Remedial Use.—An emollient dressing.

UNGUENTUM SULPHURIS.

Ointment of Sulphur.

This is the proper sulphur ointment for young children.

Take of Sulphur, three ounces;
Lard, half a pound;
Oil of Bergamot, twenty minims:
Mix.

Cautions.

Remedial Use.—In psora and many other cutaneous diseases, and especially in herpes. We are told, that it changes the mode of vitality of this membrane, a phrase too obscure for our comprehension. That sulphur is internally a peculiar stimulant we can readily see, and that it may be employed until the circulation becomes over excited we are assured by respectable authorities.

UNGUENTUM SULPHURIS COMPOSITUM.

Compound Sulphur-Ointment.

Take of Sulphur, half a pound;
White Hellebore, finely powdered, two ounces;
Nitrate of Potassa, a drachm;
Soft Soap, half a pound;
Lard, a pound and a half;
Oil of Bergamot, thirty minims:

Mix.

In infants and children this ointment often induces vomiting and purging to a serious degree.

Remedial Use.—Chiefly in psora, *vide* "Ung. Sulphuris."

UNGUENTUM VERATRI.

Ointment of (White) Hellebore.

Take of White Hellebore, finely powdered, two ounces;
Lard, eight ounces;
Oil of Lemons, twenty minims:

Mix.

Beware of using it for children.

Remedial Use.—Chiefly in psora, and occasionally in some other cutaneous affections.

Cautions.

UNGUENTUM ZINCI.

Ointment of Zinc.

Take of Oxide of Zinc, an ounce;
Lard, six ounces:

Mix.

Remedial Use.—Used as an astringent in ophthalmia tarsi, leucorrhœa with excoriations, also in chapped nipples, &c.

TABLE

OF

FORMER AND NEW NAMES.

FORMER NAMES.	NEW NAMES.
	A
Acidum aceticum dilutum.	Acetum destillatum.
——— muriaticum.	Acidum hydrochloricum.
Ammoniæ Murias.	Ammoniæ Hydrochloras.
——— Subcarbonas.	——— Sesquicarbonas.
Antimonii Sulphuretum.	Antimonii Sesquisulphuretum.
——— Sulphuretum præcipitatum.	——— Oxysulphuretum.
Antimonium tartarizatum.	——— Potassio-Tartras.
Arsenicum album.	Acidum Arseniosum.
	B
Bismuthi subnitras.	Bismuthi Trisnitras.
	C
Calcis Murias.	Calcii Chloridum.
Ceratum simplex.	Ceratum.
Confectio Amygdalarum.	Confectio Amygdalæ.
——— Aurantiorum.	——— Aurantii.
——— Scammoneæ.	——— Scammonii.
Cuprum ammoniatum.	Cupri Ammonio-Sulphas.
	D
Decoctum Cinchonæ.	Decoctum Cinchonæ Cordifoliæ.
——— Lichenis.	——— Cetrariæ.
——— Sarsaparillæ.	——— Sarzæ.
——— Sarsaparillæ compositum.	——— Sarzæ Compositum.

FORMER NAMES.	NEW NAMES.
E	
Emplastrum Picis compositum.	Emplastrum Picis.
Extractum Cinchonæ.	Extractum Cinchonæ cordifoliæ.
———— Opii.	———— Opii purificatum.
F	
Ferri Subcarbonas.	Ferri Sesquioxydum.
Ferrum ammoniatum.	—— Ammonio-Chloridum.
——— tartarizatum.	—— Potassio-Tartras.
H	
Hydrargyri Oxydum cinereum.	Hydrargyri Oxydum.
———— Oxydum rubrum.	———— Binoxydum.
———— Oxymurias.	———— Bichloridum.
———— Submurias.	———— Chloridum.
———— Sulphuretum nigrum.	———— Sulphuretum cum Sulphure.
———— Sulphuretum rubrum.	———— Bisulphuretum.
———— Præcipitatum album.	———— Ammonio-Chloridum.
I	
Infusum Caryophyllorum.	Infusum Caryophylli.
L	
Linimentum Ammoniæ fortius.	Linimentum Ammoniæ.
———— Ammoniæ Subcarbonatis.	———— Ammoniæ Sesquicarbonatis.
———— Hydrargyri.	———— Hydrargyri compositum.
———— Saponis compositum.	———— Saponis.
Liquor Ammoniæ Subcarbonatis.	Liquor Ammoniæ Sesquicarbonatis.
——— Arsenicalis.	——— Potassæ Arsenitis.
——— Calcis Muriatis.	——— Calcii Chloridi.
——— Cupri ammoniati.	——— Cupri Ammonio-sulphatis.
——— Hydrargyri Oxymuriatis.	——— Hydrargyri Bichloridi.
——— Plumbi Subacetatis.	——— Plumbi Diacetatis.
——— Potassæ Subcarbonatis.	——— Potassæ Carbonatis.

FORMER NAMES.	NEW NAMES.
M	
Magnesiæ Subcarbonas.	Magnesiæ Carbonas.
Mistura Amygdalarum.	Mistura Amygdalæ.
Mucilago Acaciæ.	——— Acaciæ.
——— Amyli.	Decoctum Amyli.
O	
Oleum Pulegii.	Oleum Menthæ Pulegii.
——— Terebinthinæ rectificatum.	——— Terebinthinæ purificatum.
Oxymel simplex.	Oxymel.
P	
Pilulæ Hydrargyri Submuriatis compositæ.	Pilulæ Hydrargyri Chloridi compositæ.
——— Saponis cum Opio.	——— Saponis compositæ.
Plumbi Oxydum semivitreum.	Plumbi Oxydum.
——— Subcarbonas.	——— Carbonas.
Potassa fusa.	Potassæ Hydras.
Potassæ Carbonas.	——— Bicarbonas.
——— Subcarbonas.	——— Carbonas.
——— Supertartras.	——— Bitartras.
——— Sulphuretum.	Potassii Sulphuretum,
Pulvis Antimonialis.	Pulvis Antimonii compositus.
S	
Sodæ Carbonas.	Sodæ Sesquicarbonas.
—— Murias.	Sodii Chloridum.
—— Subboras.	Sodæ Biboras.
—— Subcarbonas.	—— Carbonas.
Soda tartarizata.	—— Potassio-Tartras.
Spiritus Camphoræ.	Tinctura Camphoræ.
——— Lavandulæ compositus.	——— Lavandulæ composita.
——— Pulegii.	Spiritus Menthæ Pulegii.
Syrupus Aurantiorum.	Syrupus Aurantii.
——— Sarsaparillæ.	——— Sarzæ.
——— simplex.	Syrupus.

FORMER NAMES.	NEW NAMES.
T	
Tinctura Ferri ammoniati.	Tinctura Ferri Ammonio-Chloridi.
——— Ferri Muriatis.	——— Ferri Sesquichloridi.
——— Sennæ.	——— Sennæ composita.
V	
Vinum Antimonii tartarizati.	Vinum Antimonii Potassio-Tartratis.
U	
Unguentum Elemi compositum.	Unguentum Elemi.
——— Hydrargyri præcipitati albi	——— Hydrargyri Ammonio-Chloridi.

POSOLOGICAL TABLE.

Absinthium	℈j.	to	ʒj.
Acacia (Gummi)	ʒss.		ʒiij.
Acetum Colchici	fʒss.		fʒij.
——— Destillatum	fʒj.		fʒjss.
——— Scillæ	♏xx.		fʒij.
Acidum Benzoicum	gr. v.		℈j.
——— Citricum	gr. x.		ʒss.
——— Hydrochloricum	♏v.		♏xx.
——— dilutum	♏xx.		fʒj.
——— Hydrocyanicum dilutum	♏v.		upwards.
——— Nitricum dilutum	♏x.		♏xl.
——— Phosphoricum dilutum	♏xx.		fʒj.
——— Sulphuricum dilutum	♏x.		♏xl.
——— Tartaricum	gr. x.		ʒss.
Aconiti Folia	gr. j.		gr. v.
Æther Sulphuricus	♏xx.		fʒij.
Ærugo	gr. $\frac{1}{12}$		gr. j.
Aloës Extractum	gr. v.		gr. xv.
Alumen	gr. x.		℈j.
Ammoniacum	gr. x.		ʒss.
Ammoniæ Hydrochloras	gr. v.		℈j.
——— Sesquicarbonas	gr. v.		℈j.
Anethi Fructus (Semina)	gr. x.		ʒj.
Anisi Fructus (Semina)	gr. x.		ʒj.
Anthemidis Flores	gr. x.		ʒss.
Antimonii Oxysulphuretum	gr. j.		gr. v.
——— Potassio-tartras (Diaphoretic)	gr. $\frac{1}{4}$		gr. ss.
——— ——— (Emetic)	gr. j.		gr. v.

Antimonii Sesquisulphuretum	gr. x. to ʒss.	
Aqua Anethi	fʒj.	fʒiv.
—— Aurantii (Florum)		
—— Carui		
—— Cinnamomi		
—— Fœniculi		
—— Menthæ piperitæ		
—— pulegii		
—— viridis		
—— Pimentæ		
Argenti Nitras	gr. ½	gr. ij.
Armoraciæ Radix	℈j.	ʒj.
Assafœtida	gr. x.	ʒss.
Balsamum Peruvianum	gr. x.	ʒss.
—— Tolutanum	gr. x.	ʒss.
Belladonnæ Folia	gr. ss.	gr. v.
Benzoinum	gr. x.	ʒss.
Bismuthi trisnitras	gr. v.	gr. xv.
Cajuputi Oleum	ɱj.	ɱv.
Calumbæ Radix	gr. x.	ʒss.
Cambogia	gr. ij.	gr. x.
Camphora	gr. iij.	℈j.
Canellæ Cortex	gr. x.	ʒss.
Capsici Baccæ	gr. v.	gr. x.
Cardamines Flores	℈j.	ʒj.
Cardamomi Semina	gr. v.	ʒss.
Carui Fructus	gr. x.	ʒj.
Caryophylli	gr. v.	ʒss.
—— Oleum	ɱij.	ɱv.
Cascarillæ Cortex	gr. x.	ʒj.
Cassiæ Pulpa	℥ss.	℥j.
Castoreum	gr. v.	℈j.
Catechu	gr. x.	ʒss.
Centaurii Cacumina	gr. xv.	ʒj.
Cetaceum	℈j.	ʒij.
Cinchonæ cordifoliæ Cortex	gr. x.	ʒiss.
—— lancifoliæ Cortex	gr. x.	ʒiss.

Cinchonæ oblongifoliæ Cortex	gr. x. to	ʒiss.
——— (either species) as a febrifuge	ʒj.	ʒiij.
Cinnamomi Cortex	gr. v.	℈j.
——— Oleum	♏j.	♏iij.
Colchici Cormus	gr. ij.	gr. x.
——— Semina	gr. j.	gr. v.
Colocynthidis Pulpa	gr. j.	gr. v.
Confectio Amygdalæ	ʒj.	ʒij.
——— Aromatica	gr. xx.	ʒj.
——— Aurantii	ʒj.	℥j.
——— Cassiæ	ʒij.	℥j.
——— Opii	gr. x.	ʒss.
——— Piperis nigri	ʒj.	ʒij.
——— Rosæ caninæ	ʒj.	℥j.
——— Gallicæ	ʒj.	℥j.
——— Rutæ	ʒss.	ʒij.
——— Scammonii	℈j.	ʒj.
——— Sennæ	ʒij.	℥j.
Conii Folia	gr. v.	℈j.
Contrajervæ Radix	gr. x.	℈ij.
Copaiba	℈j.	ʒj.
Coriandri Fructus	℈j.	ʒj.
Creta præparata	gr. x.	℈ij.
Cubeba	ʒj.	ʒiij.
Cupri Ammonio-Sulphas	gr. ¼	gr. v.
Cupri Sulphas	gr. ss.	gr. ij.
——— (Emetic)	gr. ij.	gr. x.
Cuspariæ Cortex	gr. x.	ʒj.
Cymini Fructus	℈j.	ʒj.
Dauci Fructus	℈j.	ʒj.
Decoctum Aloës compositum	f℥ss.	f℥ij.
——— Cetrariæ	f℥j.	f℥iv.
——— Chimaphilæ	f℥j.	f℥ij.
——— Cinchonæ	f℥j.	f℥iij.
——— Dulcamaræ	f℥ss.	f℥ij.
——— Granati	f℥ss.	f℥ij.
——— Sarzæ	f℥iv.	f℥viij.
——— compositum	f℥iv.	f℥viij.

Decoctum Scoparii compositum	fℨj.	to fℨij.
——— Senegæ	fℨiss.	fℨiij.
——— Tormentillæ	fℨj.	fℨiss.
——— Ulmi	fℨiv.	fℨvj.
——— Uvæ Ursi	fℨj.	fℨij.
Digitalis Folia	gr. ss.	gr. iij.
Extractum Aconiti	gr. ss.	gr. v.
——— Aloës purificatum	gr. v.	℈j.
——— Belladonnæ	gr. ss.	gr. ij.
——— Cinchonæ	gr. x.	ʒss.
——— Colchici Aceticum	gr. j.	gr. iij.
——— Cormi	gr. j.	gr. iij.
——— Colocynthidis	gr. v.	℈j.
——— compositum	gr. v.	℈j.
——— Conii	gr. v.	℈j.
——— Digitalis	gr. ss.	gr. ij.
——— Elaterii	gr. ss.	gr. ij.
——— Gentianæ	gr. x.	ʒss.
——— Hæmatoxyli	gr. x.	ʒss.
——— Hyoscyami	gr. v.	℈j.
——— Jalapæ	gr. x.	℈j.
——— Lactucæ	gr. v.	gr. xx.
——— Lupuli	gr. v.	℈j.
——— Opii purificatum	gr. j.	gr. v.
——— Papaveris	gr. v.	gr. xx.
——— Pareiræ	gr. x.	ʒss.
——— Rhei	gr. x.	ʒss.
——— Sarzæ	gr. x.	ʒj.
——— Stramonii	gr. $\frac{1}{6}$	gr. ij.
——— Taraxaci	gr. x.	ʒj.
——— Uvæ Ursi	gr. x.	gr. xx.
Ferri Ammonio-chloridum	gr. iij.	gr. x.
—— Iodidum	gr. j.	gr. iij.
—— Potassio-tartras	gr. x.	ʒss.
—— Sesquioxydum	gr. v.	ʒj.
—— Sulphas	gr. j.	gr. v.
Fœniculi Fructus	℈j.	ʒj.

Galbani Gummi-resina	gr. x. to	ʒss.
Gentianæ Radix	gr. x.	ʒss.
Granati Cortex	℈j.	ʒj.
Guaiaci Resina	gr. x.	ʒss.
Hydrargyri Bichloridum	gr. ⅛	gr. ¼
——— Biniodidum	gr. ss.	gr. j.
——— Binoxydum	gr. ss.	gr. j.
——— Chloridum (Alterative)	gr. ss.	gr. j.
——— (Purgative)	gr. iij.	gr. x.
——— Iodidum	gr. j.	gr. iij.
——— Oxydum	gr. j.	gr. v.
——— Sulphuretum cum Sulphure	gr. v.	ʒss.
Hydrargyrum cum Creta	gr. v.	℈j.
Hyoscyami Folia	gr. v.	gr. x.
Jalapæ Radix	gr. x.	℈ij.
Infusum Anthemidis	fʒj.	fʒij.
——— Armoraciæ compositum	fʒj.	fʒiss.
——— Aurantii compositum	fʒj.	fʒij.
——— Calumbæ	fʒiss.	fʒij.
——— Caryophylli	fʒj.	fʒij.
——— Cascarillæ	fʒiss.	fʒij.
——— Catechu compositum	fʒj.	fʒiij.
——— Cinchonæ	fʒj.	fʒiij.
——— Cuspariæ	fʒiss.	fʒij.
——— Digitalis	fʒij.	fʒj.
——— Diosmæ	fʒij.	fʒiij.
——— Gentianæ compositum	fʒiss.	fʒij.
——— Krameriæ	fʒiss.	fʒij.
——— Lupuli	fʒj.	fʒiss.
——— Pareiræ	fʒj.	fʒiss.
——— Quassiæ	fʒiss.	fʒij.
——— Rhei	fʒj.	fʒiij.
——— Rosæ compositum	fʒj.	fʒiss.
——— Scoparii	fʒj.	fʒij.
——— Sennæ compositum	fʒiij.	fʒiv.
——— Serpentariæ	fʒj.	fʒij.
——— Simarubæ	fʒj.	fʒij.

Infusum Valerianæ	fℨiss.	to fℨij.
Iodinium	gr. $\frac{1}{8}$	gr. ij.
Ipecacuanha, as a Diaphoretic or Expectorant	gr. ss.	gr. ij.
——— as an Emetic	gr. x.	℈ij.
Kino	gr. x.	ʒss.
Krameria	gr. x.	ʒss.
Lavandulæ Flores	℈j.	ʒj.
Lauri Baccæ et Folia	gr. x.	ʒss.
Lichen	℈j.	ʒj.
Liquor Ammoniæ	ɱx.	ɱxxx.
——— Acetatis	fʒiv.	fʒvj.
——— Sesquicarbonatis	fʒss.	fʒj.
——— Calcis	fℨj.	fℨiv.
——— Calcii Chloridi	ɱxl.	fʒij.
——— Hydrargyri Bichloridi	fʒss.	fʒij.
——— Potassæ	ɱx.	fʒss.
——— Arsenitis	ɱv.	ɱxxx.
——— Carbonatis	ɱx.	fʒj.
——— Potassii Iodidi compositus	fʒss.	fℨss.
Magnesia	℈j.	ʒj.
Magnesiæ Carbonas	ʒss.	ʒj.
——— Sulphas	ℨss.	ℨiss.
Malva	℈j.	ʒj.
Manna	ℨss.	ℨij.
Mastiche	gr. x.	ʒss.
Marrubium	℈j.	ʒj.
Mentha piperita	gr. x.	ʒj.
——— viridis	gr. x,	ʒj.
Menyanthes	ʒss.	ʒj.
Mezerei Cortex	gr. j.	gr. x.
Mistura Acaciæ	fℨss.	fℨj.
——— Ammoniaci	fℨss.	fℨj.
——— Assafœtidæ	fℨss.	fℨj.
——— Camphoræ	fℨj.	fℨij.
——— Cascarillæ compositæ	fℨj.	fℨiss.
——— Cretæ	fℨj.	fℨij.

Mistura Ferri composita	fℨss.	to fℨij.
—— Gentianæ composita	fℨj.	fℨij.
—— Guaiaci	fℨss.	fℨij.
—— Moschi	fℨj.	fℨij.
—— Spiritûs Vini Gallici	fℨss.	fℨiss.
Morphiæ Acetas	gr. ⅛.	gr. j.
—— Hydrochloras	gr. ⅛.	gr. j.
Moschus	gr. iij.	℈j.
Myristicæ Nuclei	gr. v.	gr. x.
Myrrha	gr. x.	ʒj.
Oleum Anisi	♏j.	♏v.
—— Anthemidis	♏j.	♏v.
—— Carui	♏j.	♏v.
—— Caryophylli	♏j.	♏v.
—— Cinnamomi	♏j.	♏iij.
—— Crotonis Tiglii (not in the Pharm.)	♏j.	♏vj.
—— Juniperi	♏j.	♏v.
—— Lavandulæ	♏j.	♏v.
—— Menthæ piperitæ	♏j.	♏iij.
—— viridis	♏j.	♏v.
—— pulegii	♏j.	♏v.
—— Origani	♏j.	♏iij.
—— Pimentæ	♏j.	♏iij.
—— Ricini	fʒiv.	fℨiss.
—— Rosmarini	♏ij.	♏v.
—— Succini	♏v.	♏x.
—— Terebinthinæ purificatum (diuretic)	♏v.	fʒss.
—— (vermifuge)	fʒij.	fℨiss.
Olibanum	gr. x.	ʒss.
Opium	gr. ss.	gr. v.
Opoponax	gr. x.	ʒss.
Oxymel	fʒj.	fʒij.
—— Scillæ	fʒss.	fʒij.
Pilulæ Aloës compositæ	gr. x.	℈j.
—— cum Myrrhâ	gr. x.	℈j.
—— Cambogiæ compositæ	gr. x.	℈j.
—— Conii compositæ	gr. iij.	gr. x.

Pilulæ Ferri compositæ	gr. x. to	℈j.
—— Galbani compositæ	gr. x.	℈j.
—— Hydrargyri (alterative)	gr. iij.	gr. x.
—— Chloridi compositæ	gr. v.	gr. x.
—— Iodidi	gr. v.	gr. x.
—— Ipecacuanhæ compositæ	gr. v.	gr. xv.
—— Rhei compositæ	gr. x.	gr. xx.
—— Saponis compositæ	gr. iij.	gr. x.
—— Sagapeni compositæ	gr. v.	gr. x.
—— Scillæ compositæ	gr. x.	℈j.
—— Styracis compositæ	gr. iij.	gr. x.
Pimentæ Baccæ	gr. v.	℈j.
Piperis longi Fructus	gr. v.	℈j.
—— nigri Baccæ	gr. v.	℈j.
Plumbi Acetas	gr. ss.	gr. iij.
—— Iodidum	gr. ¼.	gr. ij.
Potassæ Acetas	℈j.	ʒj.
—— as an aperient	ʒj.	ʒ̄ss.
—— Bicarbonas	gr. x.	ʒss.
—— Bisulphas	gr. x.	ʒj.
—— Bitartras	ʒj.	ʒ̄ss.
—— Carbonas	gr. x.	ʒss.
—— Nitras	gr. x.	ʒss.
—— Sulphas	gr. x.	ʒij.
—— Tartras	ʒj.	ʒ̄j.
Potassii Bromidum	gr. iij.	gr. x.
Potassii Iodidum	gr. v.	gr. x.
Pulvis Aloës compositus	gr. x.	℈j.
—— Antimonii compositus	gr. v.	gr. x.
—— Cinnamomi compositus	gr. v.	gr. x.
—— Cretæ compositus	gr. v.	℈ij.
—— Cretæ compositus cum Opio	gr. x.	℈ij.
—— Jalapæ compositus	gr. xx.	℈ij.
—— Ipecacuanhæ compositus	gr. v.	℈j.
—— Kino compositus	gr. v.	℈j.
—— Scammonii compositus	gr. v.	℈j.
—— Tragacanthæ compositus	gr. x.	ʒj.
Quassiæ Lignum	gr. v.	ʒss.

Quercûs Cortex	gr. x. to ʒss.	
Quinæ Disulphas (tonic)	gr. ¼.	gr. ij.
——— (febrifuge)	gr. ij.	gr. x.
Rhamni Baccæ	ʒj.	ʒij.
Rhei Radix	gr. x.	ʒss.
Rosæ caninæ Pulpa	ʒj.	℥j.
Rosæ centifoliæ Petala	℈j.	ʒj.
—— Gallicæ Petala	℈j.	ʒj.
Rosmarini Cacumina	gr. x.	ʒss.
Rutæ Folia	gr. xv.	℈ij.
Sabinæ Folia	gr. v.	gr. x.
Sagapenum	gr. x.	ʒss.
Sapo durus	gr. v.	ʒss.
Sarzæ Radix	℈j.	ʒj.
Sassafras Lignum	℈j.	ʒj.
Scammonium	gr. v.	℈j.
Scillæ Radix recens	gr. v.	gr. xv.
——— exsiccata	gr. j.	gr. iij.
Senegæ Radix	℈j.	℈ij.
Sennæ Folia	℈j.	ʒj.
Serpentariæ Radix	gr. x.	ʒss.
Simarubæ Cortex	gr. x.	ʒss.
Sinapis Semina	gr. x.	ʒss.
——— in powder, as an emetic	ʒij.	℥ss.
Sodæ Biboras	gr. x.	ʒss.
—— Carbonas	gr. x.	ʒss.
——— exsiccata	gr. v.	gr. xv.
—— Potassio-tartras	ʒij.	℥j.
—— Sesquicarbonas	gr. x.	ʒss.
—— Sulphas	℥ss.	℥ij.
Spigeliæ Radix	gr. x.	℈ij.
Spiritus Ætheris nitrici	♏x.	♏xl.
——— sulphurici compositus	fʒss.	fʒij.
——— Ammoniæ aromaticus	fʒss.	fʒj.
——— fœtidus	♏xv.	♏xxx.
——— Anisi	fʒij.	f℥ss.
——— Armoraciæ compositus	fʒij.	f℥ss.

Spiritus Carui	fʒij.	to	fʒ̄ss.
—— Cinnamomi	fʒij.		fʒ̄ss.
—— Juniperi compositus	fʒiij.		fʒ̄j.
—— Menthæ piperitæ	fʒij.		fʒ̄ss.
—— pulegii	fʒij.		fʒ̄ss.
—— viridis	fʒij.		fʒ̄ss.
—— Myristicæ	fʒij.		fʒ̄ss.
—— Pimentæ	fʒij.		fʒ̄ss.
Strychnia	gr. $\frac{1}{12}$.		gr. $\frac{1}{8}$.
Sulphur	ʒj.		ʒij.
Syrupus Papaveris	fʒj.		fʒ̄j.
—— Rhamni	fʒ̄ss.		fʒ̄j.
—— Sarzæ	fʒj.		fʒ̄ss.
—— Sennæ	fʒij.		fʒiv.
Tabaci Folia	gr. ss.		gr. v.
Tamarindi Pulpa	ʒ̄ss.		ʒ̄j.
Terebinthina Canadensis	℈j.		ʒj.
—— Chia	℈j.		ʒj.
—— vulgaris	℈j.		ʒj.
Tiglii Oleum	ɱj.		ɱij.
Tinctura Aloës	fʒ̄ss.		fʒ̄iss.
—— composita (as a stomachic)	fʒj.		fʒij.
—— Ammoniæ composita	ɱv.		ɱxv.
—— Assafœtidæ	fʒss.		fʒij.
—— Aurantii	fʒij.		fʒiij.
—— Balsami Tolutani	fʒj.		fʒij.
—— Benzoini composita	fʒss.		fʒij.
—— Calumbæ	fʒj.		fʒiij.
—— Camphoræ composita	fʒj.		fʒiij.
—— Cantharidis	ɱx.		ɱxl.
—— Capsici	ɱx.		fʒj.
—— Cardamomi	fʒj.		fʒij.
—— composita	fʒj.		fʒij.
—— Cascarillæ	fʒj.		fʒij.
—— Castorei	ɱxx.		fʒij.
—— Catechu	fʒj.		fʒiij.
—— Cinchonæ	fʒj.		fʒiij.
—— composita	fʒj.		fʒiij.

Tinctura Cinnamomi	fʒj.	to	fʒij.
—— composita	fʒj.		fʒij.
—— Colchici	ɱxx.		ɱxl.
—— Colchici composita	fʒss.		fʒj.
—— Conii	fʒss.		fʒj.
—— Cubebæ	fʒss.		fʒj.
—— Digitalis	ɱx.		ɱxl.
—— Ferri ammonio-chloridi	fʒss.		fʒij.
—— sesquichloridi	ɱx.		fʒj.
—— Gentianæ composita	fʒj.		fʒij.
—— Guaiaci	fʒj.		fʒj.
—— composita	fʒss.		fʒj.
—— Hellebori	fʒss.		fʒj.
—— Hyoscyami	fʒss.		fʒij.
—— Jalapæ	fʒj.		fℨss.
—— Kino	fʒj.		fʒij.
—— Lavandulæ composita	fʒij.		fʒij.
—— Lupuli	fʒss.		fʒij.
—— Myrrhæ	fʒss.		fʒj.
—— Opii	ɱx.		fʒj.
—— Rhei composita	fʒij.		fℨiss.
—— Scillæ	ɱx.		fʒss.
—— Sennæ composita	fʒij.		fℨj.
—— Serpentariæ	fʒj.		fʒiij.
—— Valerianæ	fʒj.		fʒiij.
—— composita	fʒss.		fʒj.
—— Zingiberis	fʒi.		fʒij.
Tormentillæ Radix	gr. x.		ʒss.
Tragacantha	gr. x.		ʒj.
Valerianæ Radix	℈j.		ʒij.
Veratria	gr. ⅛.		gr. ¼.
Veratri Radix	gr. ij.		gr. v.
Vinum Aloës	fℨss.		fℨij.
—— Antimonii potassio-tartratis	ɱxv.		fʒj.
—— as an emetic	fℨss.		fℨiss.
—— Colchici	ɱxx.		fʒj.
—— Ipecacuanhæ (as a diaphoretic)	ɱxx.		ɱxl.
—— (as an emetic)	fʒij.		fℨss.

Vinum Opii	♏x. to	f℥j.
——— Veratri	♏v.	♏xv.
Uva Ursi	gr. x.	℥j.
Zinci Oxydum.....	gr. j.	gr. vi.
—— Sulphas	gr. j.	gr. v.
——————— as an emetic	gr. x.	℥ss.

The following table, drawn up by Gaubius, may be used as a guide by young practitioners, for the administration of active substances in different periods of life; however, it must not be considered as an invariable rule from which they cannot depart.

For an adult, the whole dose taken as unity, one.	
Under one year - -	one-fifteenth to one-twelfth.
—— two years - - - -	one-tenth.
—— three years - - - - -	one-sixth.
—— four years - - - -	one-fourth.
—— seven years - - - - -	one-third.
—— fourteen years - - - -	one-half.
—— twenty years - - - -	two-thirds.
From twenty to sixty - - - -	one.

Above this age, an inverse graduation must be followed; but this table cannot be uniformly relied upon.

TABULAR VIEW OF THE COMPOSITION OF MINERAL WATERS.*

One Pint (Wine Measure) contains the following Ingredients:

WATERS.	GASES.			CARBONATES.			SULPHATES.			MURIATES.			Oxide of Iron.	Silica.	Temperature.	Total of Saline Contents.	AUTHORITY.
	Nitrogen, C. I.	Carbonic Acid, C. I.	Sulphuretted Hydrogen, C. I.	Carbonate of Soda, grains.	Carbonate of Magnesia, grains.	Carbonate of Lime, grains.	Sulphate of Soda, grains.	Sulphate of Magnesia, grains.	Sulphate of Lime, grains.	Muriate of Soda, grains.	Muriate of Magnesia, grains.	Muriate of Lime.					
CARBONATED.																	
Seltzer	...	17·	...	4·	5·	3·	...	...	...	17·	...	...	...	...	Cold	29·	Bergman.
Pyrmont	...	26·	...	...	10·	4·5	...	5·5	8·5	1·5	...	...	0·6	...	do.	30·6	Ditto.
Spa	...	13·	...	1·5	4·5	1·5	...	...	...	0·2	...	...	0·6	...	do.	8·3	Ditto.
Carlsbad	...	5·	...	5·	...	1·5	8·5	...	...	4·5	...	...	a trace	0·3	165°	19·8	Klaproth.
Pouges	...	30·	...	10·	1·2	12·	...	...	...	2·2	...	...	2·5	0·5	Cold	28·4	Hassenfratz.
Saint Parize	...	22·	...	...	0·5	11·5	...	...	13·	...	...	...	...	...	do.	25·	Ditto.
SULPHUROUS.																	
Harrogate	0·8	1·	2·3	...	0·7	2·5	...	1·3	...	77·	11·	1·5	...	...	do.	94·	Garnet.
Moffat	0·5	0·6	1·2	...	...	...	...	...	...	4·5	...	...	...	...	do.	4·5	Ditto.
Aix-la-Chapelle	...	...	5·5	12·	...	4·2	...	...	...	5·	...	...	...	...	143°	21·2	Bergman.
Cheltenham Sulphur Spring	...	...	1·5	...	...	...	23·5	5·	1·2	35·	...	...	0·3	...	Cold	65·	Parkes & Brande.
SALINE.																	
Seidlitz	...	...	...	...	2·5	0·8	...	180·	5·	...	4·5	...	...	...	do.	192·8	Bergman.
Cheltenham Pure Saline	...	...	...	...	...	. .	15·	11·	4·5	50·	...	...	...	...	do.	80·5	Parkes & Brande.
Bristol	...	3·5	...	...	...	1·5	1·5	...	1·5	0·5	1·	...	...	...	74°	6·	Carrick.
Buxton	0·2	...	...	...	...	1·3	...	...	0·3	0·2	...	...	0·03	...	82°	1·83	Pearson.
Bath	...	1·2	...	...	...	0·8	1·5	...	9·	3·3	...	...	a trace	0·2	116°	14·6	Phillips.
Scarborough	...	...	...	...	...	a trace	20·	...	9·	...	...	...	ditto	...	Cold	2·9	Saunders.
Barège	...	...	uncertain	2·5	. .	ditto	...	...	a trace	0·5	...	...	...	...	120°	3·	Ditto.
Plombières	...	...	...	2·2	...	0·3	2·3	...	...	1·5	...	...	...	0·3	?	66·	Vauquelin.
Kilburn	...	3·5	8·5?	...	0·5	1·	12·	37·	5·5	2·5	5·5	0·2	a trace	...	Cold	64·2	Schmeisser.
Leamington New Bath	0·4	a trace	a trace	...	...	...	19·	...	14.	53·	1·5	...	0·8	...	do.	88·3	Lambe.
Leamington Old Bath	0·3	...	ditto	...	...	...	7·5	7·	18·	41·	...	...	...	...	do.	73·5	Ditto.
CHALYBEATE.																	
Tunbridge	0·59	1·	{a trace of oxygen}	...	...	0·03	...	...	0·17	0·30	0·03	0·05	0·28	...	do.	0·56	Scudamore.
Cheltenham Chalybeate	...	2·5	...	0·5	...	...	22·7	6·	2·5	41·3	...	...	0·8	...	do.	73·8	Parkes & Brande.
Brighton	...	2·2	...	...	...	...	...	...	4·	3·	0·75	...	1·4	0·14	do.	9·29	Marcet.

* This and the following table are extracted from Professor BRANDE's "Manual of Chemistry."

TABLE OF ANALYSES OF THE PRINCIPAL MINERAL WATERS OF GERMANY.

Ingredients found in 16 ounces of Water in a dry state, in Grains.	Carlsbad.	Ems.	Marienbad. Kreutzbr.	Auschowitz. Ferdinands-brunnen.	Eger. Franzensbr.	Pyrmont.	Spa.	Geilnau.	Selters.	Seidschuiz.	Pullna.
Carbonate of Soda	9·695	10·750	8·26	6·197	5·00	...	0·7375	6·6210	6·155	...	...
Sulphate of Soda	19·689	...	39·72	22·544	25·50	2·14566	0·0375	0·0420	...	23·4960	123·8
Muriate of Soda	7·975	7·634	12·45	8·996	7·96	...	0·44949	0·5430	17·292	...	...
Sulphate of Potash	...	0·540	0·93	...	0·93	0·04194	0·07909	0·2872	0·397	4·8940	4·8
Muriate of Potash	...	0·045	...	...	...	...	...	...	0·358	...	...
Carbonate of Lime	2·37	1·1407	4·1300	4·016	1·847	5·98824	0·9850	2·9705	2·1870	6·8060	0·77
Sulphate of Lime	...	...	...	...	...	7·22132	...	...	...	1·5050	2·6
Sub-phosphate of Lime	0·0017	...	...	...	0·014	...	0·01366	...	...	0·0156	0·0035
Fluate of Lime	0·024	0·00192	...	...	...	...	...	...	0·0018	...	...
Carbonate of Magnesia	1·369	0·7887	3·0560	2·4	0·600	0·32352	1·12278	2·1709	1·3780	1·0980	6·406
Sulphate of Magnesia	...	...	...	...	...	2·69752	...	...	...	33·1380	93·086
Muriate of Magnesia	...	...	...	...	...	1·12664	...	...	...	1·6300	19·666
Nitrate of Magnesia	...	...	...	...	...	...	...	...	...	7·9070	...
Alumina	...	...	0·0075	...	...	...	...	0·0247	...	...	...
Sub-phosphate of Alum	0·0024	0·0018	...	...	...	0·01478	0·00851	...	0·0027	0·0117	...
Carbonate of Strontian	0·007	0·0107	...	...	...	...	...	...	0·0192	...	...
Sulphate of Strontian	...	...	...	...	...	0·02063	...	...	...	0·0463	...
Carbonate of Barytes	...	0·0029	...	...	...	...	...	...	0·0019	...	...
Silica	0·577	0·4139	0·8800	0·669	0·568	0·49689	0·4985	0·2695	0·302	0·1200	0·176
Carbonate of Iron	0·0278	0·026	0·1760	0·4	0·350	0·42846	0·3751	...	...	0·0127	...
Carbonate of Manganese	0·006	0·0037	0·0065	0·092	0·006	0·04852	0·0519	...	...	0·0042	...
Total	41·9239	21·35932	69·616	45·314	42·775	20·55412	4·35903	12·9288	28·0946	130·6845	251·3075
Carbonic Acid Gas in 100 cubic inches	58	51	125	149·56	154	160	136	163·3	130	6·4	6·9
Temperature (F.)	Sprud. 165° Neub. 138° Mühl. 128° Ther. 122°	Kess. 117° Kran. 84°	53°	49°	53°	56°	50°	51°	58°	58°	58°
Analysed by	Berzelius.	Struve.	Struve.	Steinmann.	Struve.	Struve.	Struve.	Struve.	Struve.	Struve.	Struve.

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THE END.

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