

The medical formulary : being a collection of prescriptions derived from the writings and practice of many of the most eminent physicians in America and Europe : to which is added an appendix, containing the usual dietetic preparations and antidotes for poisons : the whole accompanied with a few brief pharmaceutic and medical observations / by Benjamin Ellis.

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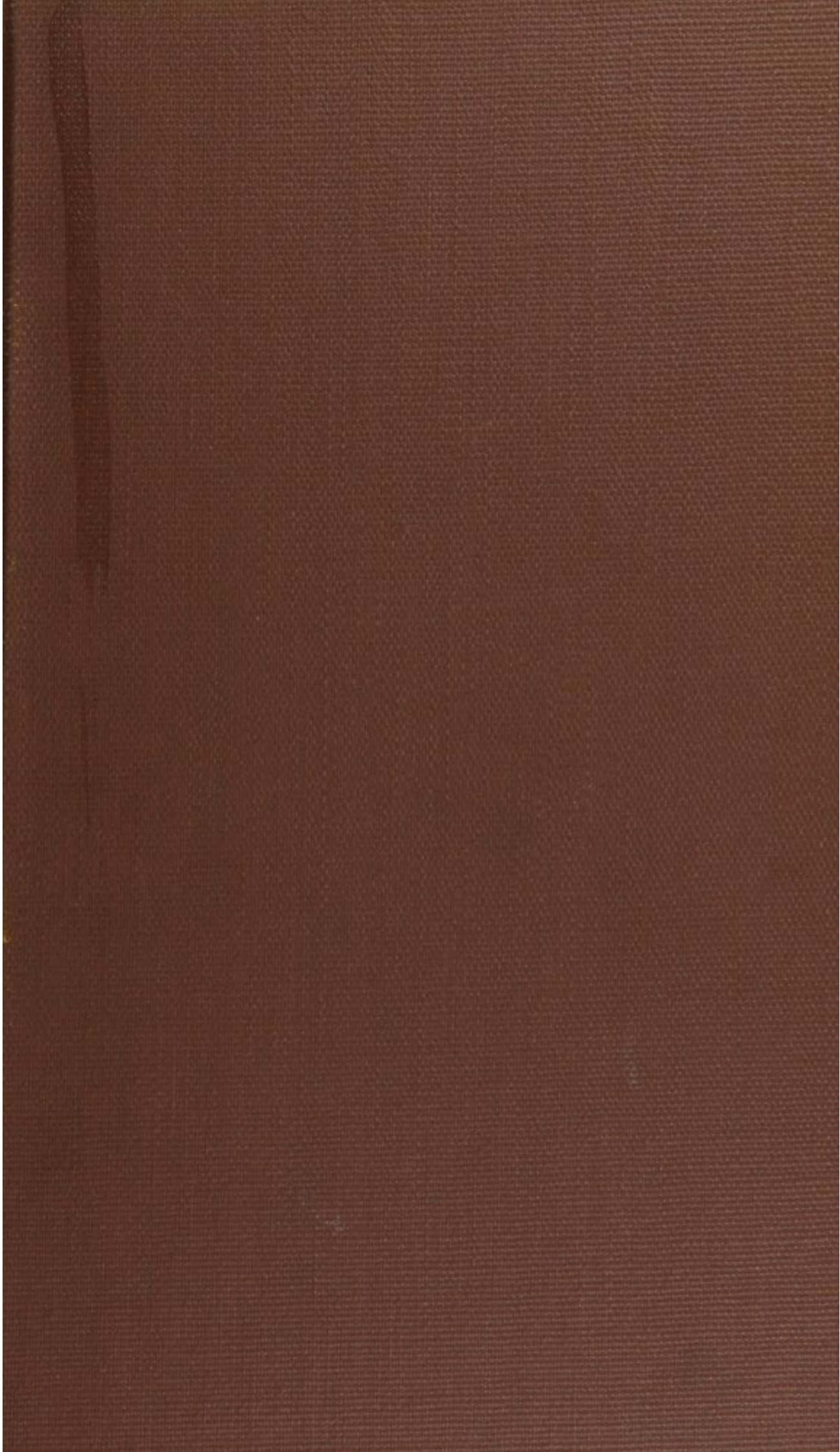
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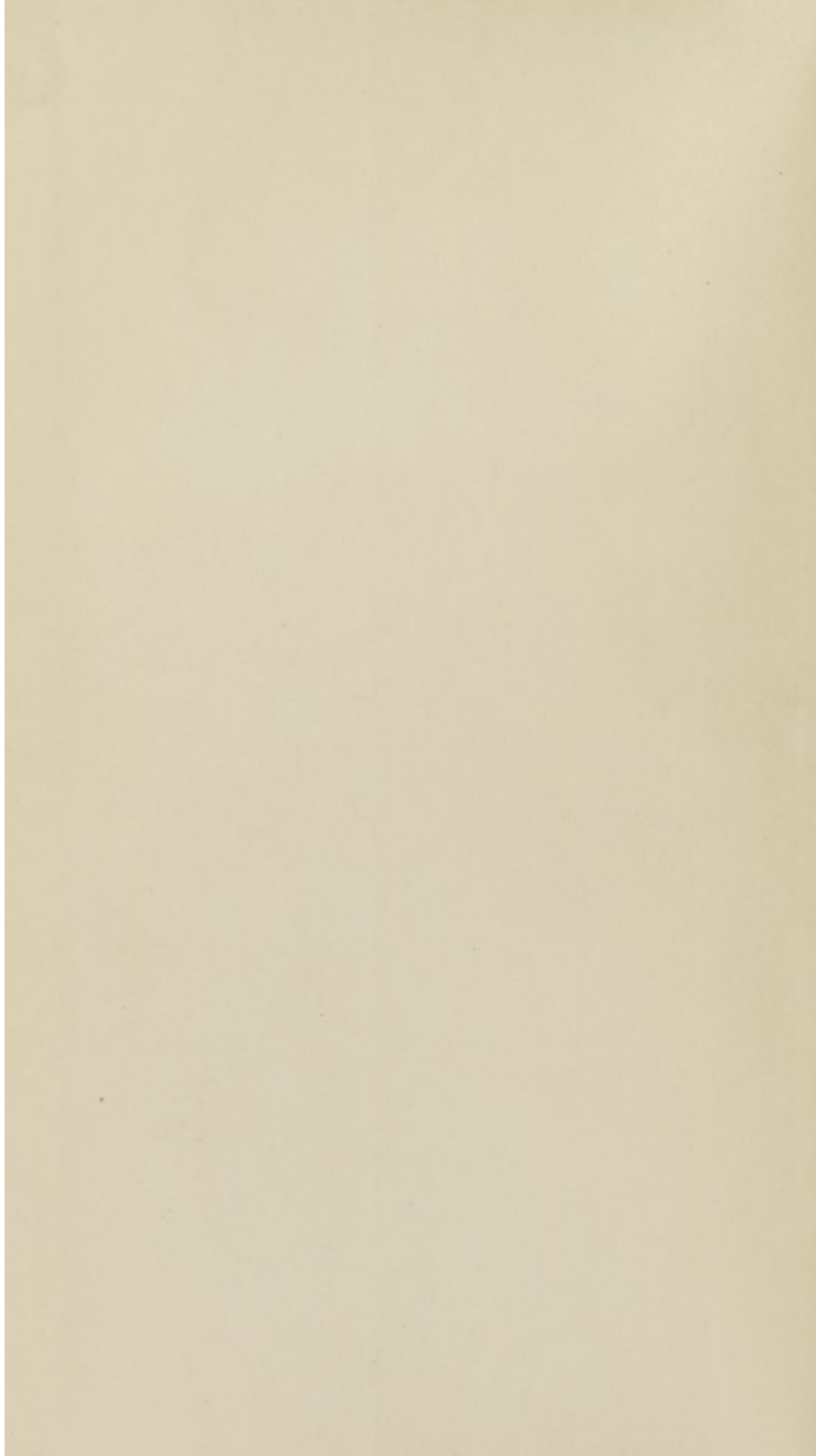


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MUCH IMPROVED AND EXTENDED.

THE
MEDICAL FORMULARY:

BEING
A COLLECTION OF PRESCRIPTIONS,

DERIVED FROM
THE WRITINGS AND PRACTICE

OF
MANY OF THE MOST EMINENT PHYSICIANS
IN AMERICA AND EUROPE.

TO WHICH IS ADDED

AN APPENDIX,

CONTAINING
THE USUAL DIETETIC PREPARATIONS AND ANTIDOTES FOR POISONS.
THE WHOLE ACCOMPANIED WITH A FEW BRIEF
PHARMACEUTIC AND MEDICAL OBSERVATIONS.

BY BENJAMIN ELLIS, M. D.

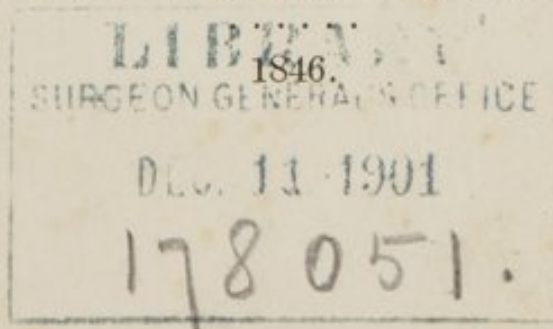
LATE PROFESSOR OF MATERIA MEDICA AND PHARMACY IN THE PHILADELPHIA COLLEGE
OF PHARMACY.

"Morbos autem, non eloquentiâ sed remediis curari."—*Cels. De Med. Lib. I.*

EIGHTH EDITION, WITH NUMEROUS ADDITIONS.

BY SAMUEL GEORGE MORTON, M. D.

PHILADELPHIA:
LEA & BLANCHARD.



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TO
N. CHAPMAN, M. D.

PROFESSOR OF THE INSTITUTES AND PRACTICE OF MEDICINE AND
CLINICAL PRACTICE,

IN THE
UNIVERSITY OF PENNSYLVANIA,
ETC., ETC.

WHOSE TALENTS AND URBANITY
HAVE RAISED HIM TO THE FIRST RANK IN THE PROFESSION, AND HAVE ACQUIRED FOR HIM
THE CONFIDENCE AND ESTEEM
OF A LARGE AND ENLIGHTENED COMMUNITY.

THIS WORK
IS VERY RESPECTFULLY DEDICATED

BY HIS OBLIGED FRIEND,

THE AUTHOR.

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THE EDITOR'S ADVERTISEMENT

TO THE EIGHTH EDITION.

IN preparing the Medical Formulary for an eighth edition, many new and important additions have been made to it, derived from recent discoveries in chemistry, and from the observation and experience of professional men in various parts of the world. Every section of the work has been scrupulously examined and extended, and the nomenclature revised in accordance with that of the United States Dispensatory. Obsolete formulæ have been replaced by newer and more approved combinations; and a Posological Table has been appended, not only for the obvious purpose of stating the doses of medicines in their simple or unmixed form, but also to introduce some others for which prescriptions were thought unnecessary. In fact, no pains have been spared, to impart to this work the comprehensiveness and accuracy which are due to the nature of the undertaking, and the importance of the subject.

S. G. MORTON.

Philadelphia, August, 1846.

P R E F A C E.

THE elegant and judicious formation of prescriptions is one of the difficulties which the young practitioner in medicine is obliged to encounter. While a student, he is compelled from the circumstances under which he is placed, to confine his attention to the leading principles of the science. Consequently the minor points, (and the art of directing medicines is considered one of them,) are postponed to that period when he shall have undertaken the practical duties of his profession.

To obviate, in some measure, the inconvenience which the graduate at first experiences, the volume now offered to the public was undertaken and executed. It contains, in a condensed form, and we think advantageously arranged, many of the most important prescriptions employed in modern practice, and which, though most of them may be already recorded, are scattered through various medical works.

The arrangement framed by Professor Chapman for his *Therapeutics*, appearing to combine greater advantages than any other, we have taken the liberty of adopting it as the basis of this *Formulary*.

Each class has been subdivided into Powders, Pills, and Liquids; without any attempt to preserve the different preparations of the same article together, but only with a view to convenience. A few concise rules will be found prefixed to each class, and observations have been attached to those prescriptions which possess peculiarities either in their composition or effects.

The application of the remedies to diseases has been generally left to the judgment of the practitioner, and Therapeutical detail as much as possible avoided, as it would have been inconsistent with the nature and design of the work.

The object is to furnish models for extemporaneous formulæ, the proportions of which may be either increased or diminished, according to the age, sex, constitution or idiosyncrasy of the patient, all of which are to be taken into consideration when a prescription is directed, as well as the climate and peculiar epidemic which may be prevailing.

The prescriptions have been couched in the Latin language, and the names of the several articles will be found regularly terminated. The design was to furnish something like a Medical Grammar, to those unacquainted with the dead language; and even those versed in the classics, may occasionally find words used in prescriptions which are new to them.

A class of Dietetic preparations has been placed in the Appendix, No. I. They are written in the English language, and it is hoped that they may be found

useful in furnishing directions necessary to be given to the nurse.

In the Appendix, No. II. we have arranged those Poisons which are usually taken by accident or design, with their appropriate antidotes and some practical observations.

Appendix No. III. contains some concise remarks on the mode of using remedies on the "*Endermic plan*," as well as the quantities employed, and the effects produced by several of the most potent remedial agents.

The materials for the work have been collected from various sources, the writings of different authors, periodical journals, manuscripts and the contributions of our friends. It is hoped, therefore, that the difficulties which have attended its progress will form some apology for the errors which it may possibly be found to contain. As a reason for not more frequently attaching the names of authors to the prescriptions, it may be observed, that they are a kind of common medical property which every physician feels himself privileged not only to employ, but modify as may best correspond with his own views. It is, therefore, difficult to say to whom many of them belong; they have been touched, and retouched, till they have lost their identity.

In conclusion, we beg leave to present our acknowledgments to some of our friends for the encouragement they have given to the undertaking. To Dr. Chapman we are particularly indebted for the kindness and

interest he has manifested in its publication, and offer to him, (the only return we can make,) our warmest thanks. It is with particular pleasure we embrace this opportunity of expressing our obligations to our friend Dr. S. G. Morton, whose intimate acquaintance with the subject, and classical knowledge, are only equalled by the kindness and industry he has displayed in facilitating the work.

There are others whose names it would gratify us to mention, but who, we know, will be more pleased by our silence. The countenance they gave us on the present occasion has only increased the debt previously incurred.

B. E.

INTRODUCTION.

BEFORE entering upon the main object of this work, it is necessary to notice a few circumstances which pertain more especially to Pharmaceutic Chemistry, yet appear to be called for in this place; and though they are familiar to every educated physician, may be useful to the student who has not yet turned his attention to prescriptions.

In the first place it is requisite to be well acquainted with the *signs of quantity*, or those symbolic characters which are used in writing prescriptions. In the ancient practice of medicine there were very many of these symbols, not only for the purpose of denoting the quantity of the ingredient, but the ingredient itself. Most of these, however, have become obsolete; and a few only are retained as indispensable to the convenience of the practitioner. These will be found in the following *Table*, which is adopted in the Pharmacopœias for the regulation of *weights*.

<i>English Name.</i>	<i>Latin Name.</i>	<i>Symbol.</i>	<i>Contains.</i>
A pound,	Libra,	℔,	12 ounces.
An ounce,	Uncia,	ʒ,	8 drachms.
A drachm,	Drachma,	ʒ,	3 scruples.
A scruple,	Scrupulus,	℥,	20 grains.

In the manipulation of *liquid substances*, *measures* have in most countries superseded the use of *weights*:

the *Table of measures* recommended by the London College, gives particular names and symbols to the parts forming a gallon, in order to prevent their being confounded with those denoting weights; as in the following *Table*:—

<i>English Name.</i>	<i>Latin Name.</i>	<i>Symbol.</i>	<i>Contains.</i>
A gallon,	Congius,	none,	8 pints.
A pint,	Octarius,	o,	16 fluidounces.
A fluidounce,	Fluiduncia,	f℥,	8 fluidrachms.
A fluidrachm,	Fluidrachma,	fʒ,	60 minims.

The *minims* used in the table, have been adopted in the United States Pharmacopœia in place of *drops*; and although we have not employed this measure in our prescriptions, yet we can readily perceive it to possess some important advantages over the ancient practice. The symbol (m,) is sometimes used by medical writers, though very improperly, to denote both minims and drops.* The size of a drop varies according to the greater or less fluidity and gravity of the liquid, and the shape of the vessel from which it is dropped; but as a general rule, we cannot do better on these occasions than use a small phial with a thin edge. Dr. Dorsey observes, that whenever great precision is necessary, it is easy to dilute the active medicine, and give it in form of a mixture. If sixty grains be diffused in six ounces of water, for instance, each half ounce will contain five.

Mr. Durand of this city, has made careful experiments to ascertain *the number of drops of different*

* Ten minims of any fluid, if measured by the graduated minim measure, are equal to about fifteen drops.

liquids equivalent to a fluid drachm, and his results, which are of practical importance, are given in the following table :

	drops.
Acid acetic, (crystallizable,)	120
Acid hydrocyanic, (medicinal,)	45
Acid muriatic,	54
Acid nitric,	84
Acid nitric diluted, (1 to 7,)	51
Acid sulphuric,	90
Acid sulphuric aromatic,	120
Acid sulphuric diluted, (1 to 7,)	54
Alcohol, rectified spirit,	138
Alcohol diluted, proof spirit,	120
Arsenite of potassa, solution of,	57
Ether sulphuric,	150
Oil of anniseed, of cinnamon, of cloves, of peppermint, of sweet almonds, of olives,	} 120
Tincture of assafœtida, of foxglove, of guaiac, of opium,	120
Tincture of muriate of iron,	132
Vinegar distilled,	78
Vinegar of colchicum,	78
Vinegar of opium, (black drop,)	78
Vinegar of squills,	78
Water distilled,	45
Water of ammonia, (strong,)	54
Water of ammonia, (weak,)	45
Wine Teneriffe,	78
Wine antimonial,	72
Wine of colchicum,	75
Wine of opium,	78

Now it is evident from the preceding facts, that in giving 150 drops of sulphuric ether (and proximately of any ethereal tincture) we give but a fluid drachm; whereas the same number of drops of medicinal hydrocyanic acid (one of the most poisonous preparations of

the *materia medica*) would be equal to something more than three fluid drachms. The same remark, it will be observed, is applicable to various other preparations; which suggests a caution in rapidly increasing the dose of such medicines by drops.

Whenever a *table-spoonful* of any liquid is ordered, it is considered to be equal to *half an ounce* by measure; and in the same way a *tea-spoonful* is used for a *drachm*: these measures are sufficiently accurate where no great precision is requisite.

The prescriptions contained in this work are given in the Latin language, without other abbreviations than those in common use to denote the *quantity* of an ingredient. The directions for the administration of medicines are expressed in English.

Prescriptions, as usually sent to the Apothecaries, are much abbreviated, and the same course may be pursued with regard to those contained in this collection. For the information of students who have not been in the practice of writing prescriptions, a *Table of Abbreviations* is subjoined:

TABULAR VIEW OF THE DOSES OF THE PRINCIPAL ARTICLES
OF THE MATERIA MEDICA.

Acetate of mercury, gr. j.	Ammonia, Muriate of, gr. j to v.
— of lead, gr. 1 to iij.	—, Phosphate of, gr. x to ʒj.
— of potash, ʒj to ʒj.	—, Hydrosulphuret of, (Liquor)
— of ammonia, f ʒij to f ʒss.	gtt. iij to vj.
— of iron, gtt. x to xx.	Ammoniac, Gum, gr. x to ʒj.
— of iron, tincture, f ʒss to f ʒj.	—, Tincture of, f ʒss to f ʒj.
— of morphia, gr. $\frac{1}{8}$ to $\frac{1}{4}$.	—, Lac, f ʒss.
— of soda, ʒj to ʒss.	Ammoniated alcohol, gtt. v to xx.
Acetous tinct. of opium, gtt. x to xv.	Ammoniated iron, gr. v to x.
Acid, aromatic sulph., gtt. v to x.	— copper, gr. $\frac{1}{4}$ to $\frac{1}{2}$.
—, Arsenious, $\frac{1}{16}$ to $\frac{1}{8}$.	— tinct. of guaiac, f ʒj.
—, Diluted muriatic, gtt. ij to v.	— tinct. of opium, f ʒj.
—, Diluted nitric, gtt. 1 to iij.	— tinct. of bark, f ʒj.
—, Diluted sulph., gr. v to x.	— valerian, f ʒss to f ʒj.
—, Medicinal hydrocyanic, gtt.	— colchicum, f ʒss.
i to ij.	Augustura bark, gr. x to ʒj.
—, Tannic, gr. j to iij.	—, Tinct. of, f ʒj.
Aconite, Powder of, gr. j to ij.	Anodyne, Hoffman's, f ʒss.
—, Tincture of, gtt. v to x.	Antimony and potass., Tart. gr. j to iij.
—, Extract of, gr. $\frac{1}{8}$ to $\frac{1}{4}$.	—, Sulphuret of, gr. v to x.
Æther, Acetic, gtt. xv to xxv.	—, Precip. gr. j to iij.
—, Muriatic, gtt. v to xx.	Antimonial powder, gr. iij to x.
—, Sulphuric, gtt. xx to f ʒj.	— wine, f ʒss to f ʒj.
Ærugo, gr. j.	Arbutus uva ursi, ʒj to ʒss.
Aloes, Powder of, gr. v to x.	—, Tinct. of, f ʒj.
—, Tincture of, f ʒj.	—, Syrup of, f ʒj.
— with canella, gr. v to ʒj	—, Infusion of, f ʒij.
Alum, gr. v to x.	Aristolochia serpentaria, Tinct. f ʒj.
Ammonia, aromatic gtt. x to xv.	—, Infusion of, f ʒj.

- Arnica montana, gr. v to x.
 Aromatic sulph. acid, gtt. v to x.
 — hartshorn, gtt. x to xv.
 Arsenious acid, gr. $\frac{1}{2}$ to $\frac{1}{8}$.
 Arsenite of potassa, solution, gtt. x.
 Arsenical solution, Fowler's gtt. x.
 Assafoetida, Gum, gr. v to x.
 —, Tincture of, f 3j.
 —, Lac, f 3ss to f 3j.
 Azederach decoction, f 3ss.

 Balsam copaibæ, gtt. x to f 3ss.
 — of gilead, 3ss.
 — of Peru, f 3ss.
 — of tolu, gr. x to ʒj.
 Baryta, Solution of muriate of, gtt. v.
 Barium, Iodide of, gr. $\frac{1}{8}$ to $\frac{1}{4}$.
 Bateman's drops, f 3j to 3ij.
 Belladonna, Extr. gr. $\frac{1}{4}$ to $\frac{1}{2}$.
 —, Powder of, gr. j to ij.
 Benzoic acid, gr. x to xx.
 Bicarbonate of potassæ, gr. x to ʒj.
 — of soda, gr. xv to 3ss.
 — of ammonia, gr. v to xv.
 Bicyanuret of mercury, gr. $\frac{1}{4}$.
 Biniodide of mercury, gr. $\frac{1}{6}$ to $\frac{1}{8}$.
 Bismuth, Subnitrate of, gr. ij to x.
 Bitartrate of potassa, 3ss to 3j.
 Blacksnake root, gr. x to ʒj.
 —, Decoction of, f 3j.
 Bloodroot, Powder of, gr. x to ʒj.
 —, Tinct. f 3j to f 3ss.
 Blue pill, gr. j to viij.
 Brucine, gr. $\frac{1}{8}$ to gr. $\frac{1}{4}$.
 Bromide of iron, gr. ss to j.
 Butternut, Extr. of, ʒj to 3ss.
 Blackberry root, Infus., f 3j to f 3ij.
 Black drop, gtt. vij to x.
 Boneset, Infusion of, f 3j.
 Buchu, Powder of, gr. xx to 3j.
 —, Infusion of, f 3j.
 Burnt sponge, 3j to 3ij.

 Cajeput, Oil of, gtt. ij to v.
 Calcined magnesia, 3j.
 Callisaya bark, gr. x to ʒj.
 —, Tincture of, f 3j.
 Calomel, gr. iij to x.
 Camphor, Gum, gr. v to x.
 —, Spirits of, gtt. v to xx.
 — water, f 3ss to f 3j.
 Cantharides, gr. ss to gr. j.
 —, Tincture of, gtt. x.
 Canella, Tincture of, f 3j.

 Capsicum, gr. iij to x.
 —, Tincture of, f 3ss to f 3j.
 Carbonate of ammonia, gr. v to x.
 — of iron, gr. x to ʒj.
 — of lime, Prep'd, gr. x to ʒj.
 — of magnesia, 3ss.
 — of potassa, gr. x to ʒj.
 — of soda, gr. x to ʒj.
 — of soda, Dried, gr. x to xv.
 Cascarella in powder, gr. x to ʒj.
 —, Infusion of, f 3j.
 —, Tinct. of, f 3j.
 Cassia, Purging, 3ij to 3ss.
 Castor oil, f 3ij to f 3j.
 Castor, gr. v to ʒj.
 Catechu, Gum, gr. x to ʒj.
 Catechu, Tincture of, f 3ss to f 3j.
 Carburet of iron, gr. v to x.
 Cannabis. See Gunjah.
 Caustic, Lunar, gr. $\frac{1}{8}$ to $\frac{1}{4}$.
 Centuary, Infusion of, f 3j to f 3ij.
 Chalk, Prepared, gr. x to ʒj.
 Chloride of gold, gr. $\frac{1}{6}$ to $\frac{1}{2}$.
 Chlorine water, f 3ss to f 3j.
 Chamomile infusion, f 3j.
 Charcoal, 3ss to 3j.
 Cicuta. See Conium.
 Cinchona, Infusion of, f 3j.
 —, Decoction of, f 3j.
 —, Powder of, 3ss to 3j.
 —, Extract of, gr. ij to iij.
 —, Tincture of, f 3j to 3ij.
 Cinchonia, Sulphate of, gr. j to ij.
 Citrate of quinia and iron, gr. ij to v.
 Cobweb, gr. v to x.
 Codliver oil, f 3ss to f 3ij.
 Colchicum, Powdered root, gr. ij to v.
 —, Wine of, gtt. x to xx.
 Colocynth, Extr. of, gr. v to x.
 Colombo, Powder of, gr. x to ʒj.
 —, Tinct. of, f 3ss to f 3j.
 —, Extr. of, gr. j to v.
 Codeine, gr. ss to j.
 —, Syrup of, f 3j.
 Confection of opium, gr. x to 3ss.
 — of scammony, 3ss to 3j.
 — of senna, 3j.
 Conium, Powder of, gr. iij to iv.
 —, Extract, gr. ij to iij.
 —, Tincture, gtt. xxx to f 3j.
 Copaiva, Balsam of, gtt. xx to f 3ss.
 —, Oil of, gtt. x.
 —, Soluble, gr. v.
 Corrosive sublimate, gr. $\frac{1}{8}$ to $\frac{1}{4}$.

- Copper, Ammoniated, gr. $\frac{1}{4}$ to gr. $\frac{1}{2}$.
 —, Sulphate of, (Emetic,) gr. j to iij.
 Cranesbill, Powder of, \mathfrak{Dj} to \mathfrak{Zss} .
 —, Decoction of, f \mathfrak{Zj} .
 Croton oil, gtt. j.
 Crocus, common saffron, gr. x to xx.
 Cowhage, Electuary of, f \mathfrak{Zj} to f \mathfrak{Zss} .
 Cream of tartar, \mathfrak{Zss} to \mathfrak{Zj} .
 Creasote, Oil of, gtt. j.
 Cubebs, Powder of, \mathfrak{Zss} to \mathfrak{Zj} .
 —, Oil of gtt. v to x.
 Cyanuret of iron, gr. iij to v.
 — of mercury, gr. $\frac{1}{16}$ to $\frac{1}{8}$.
 — of potassium, gr. $\frac{1}{4}$ to $\frac{1}{2}$.
 — of zinc, gr. $\frac{1}{4}$.
 Dalby's carminative, f \mathfrak{Zss} to f \mathfrak{Zj} .
 Dandelion, Extr. of, gr. iij to x.
 —, Infusion of, f \mathfrak{Zj} to f \mathfrak{Ziv} .
 Digitalis, Powder of, gr. $\frac{1}{2}$ gr. j.
 —, Tincture of, gtt. x.
 —, Infusion of, f \mathfrak{Zss} .
 Dogwood, Decoction of, f \mathfrak{Zj} to f \mathfrak{Zij} .
 Dover's powder, gr. v to x.
 Dulcamara, Extr. of, gr. iij to vj.
 —, Infusion of, f \mathfrak{Zj} .
 Elaterium, Extr. of gr. $\frac{1}{8}$ to $\frac{1}{4}$.
 Elixir of vitriol, gtt. v to x.
 — of opium, M'Munn, gtt xxv.
 —, proprietatis, f \mathfrak{Zj} .
 Emetic tartar, gr. j to ij.
 Epsom salts, \mathfrak{Zj} .
 Erigeron, Infusion of, f \mathfrak{Zij} .
 Ergot, Powder of, gr. x to xx.
 —, Tincture of, f \mathfrak{Zj} to f \mathfrak{Zij} .
 Essence of peppermint, gtt. v to x.
 Ethiops mineral, gr. v to xx.
 Ether, Spts of nitric, f \mathfrak{Zss} .
 —, Sulphuric, f \mathfrak{Zss} to f \mathfrak{Zj} .
 Extract of aconite, gr. $\frac{1}{8}$ to $\frac{1}{4}$.
 — of aloes, gr. v to xx.
 — of hellebore, gr. v to x.
 — of butternut, gr. x to \mathfrak{Zss} .
 — of chamomile, gr. v to x.
 — of colocynth, gr. iij to x.
 — of dandelion, gr. iij to x.
 — of nightshade, gr. $\frac{1}{4}$ to $\frac{1}{2}$.
 — of elaterium, gr. $\frac{1}{8}$ to $\frac{1}{4}$.
 — of gentian, gr. j to v.
 — of hemlock, gr. ij to iij.
 — of henbane, gr. j to ij.
 — of hops, gr. v to x.
 Extract of jalap, gr. v to \mathfrak{Dj} .
 — of lettuce, gr. iij.
 — of logwood, gr. v to xx.
 — of nux vomica, gr. $\frac{1}{2}$ to gr. j.
 — of Peruvian bark, gr. j to v.
 — of poppy, gr. v to x.
 — of quassia, gr. ij to v.
 — of taraxacum, gr. v to x.
 — of male fern, gr. x to \mathfrak{Dj} .
 Fern, Male, \mathfrak{Zj} to \mathfrak{Zij} .
 Ferrocyanate of iron, gr. iij to v.
 — of potassa, gr. v to x.
 Foxglove. See Digitalis.
 Fowler's solution, gtt. x.
 Fleabane, Infusion of, f \mathfrak{Zij} .
 Garlic, Syrup of, f \mathfrak{Zj} .
 Galls, Powder of, gr. v to x.
 —, Tincture of, f \mathfrak{Zj} to f \mathfrak{Zij} .
 —, Syrup of, f \mathfrak{Zj} .
 —, Infusion of, f \mathfrak{Zj} to f \mathfrak{Zij} .
 Gamboge, Gum, gr. iij to vj.
 Gentian, Powder of, gr. x to \mathfrak{Dj} .
 —, Extract of, gr. j to v.
 —, Tincture of, f \mathfrak{Zj} .
 Ginger, Powder of, gr. x to \mathfrak{Dj} .
 —, Infusion of, f \mathfrak{Zj} to f \mathfrak{Zij} .
 Gout cordial, Warner's, f \mathfrak{Zss} to f \mathfrak{Zj} .
 Godfrey's cordial, f \mathfrak{Zss} to f \mathfrak{Zj} .
 Glauber's salt, \mathfrak{Zj} .
 Guaiac, Gum, gr. v to \mathfrak{Dj} .
 —, Tinct. of, f \mathfrak{Zj} .
 —, Ammoniated tinct. of, f \mathfrak{Zj} .
 Gunja, Extr. of, gr. j to gr. iij.
 —, Tincture of, gtt v to x.
 Gum ammoniac, gr. v to x.
 Hartshorn, Aromatic, gtt. x to xv.
 Hellebore, Black, gr. x to \mathfrak{Dj} .
 —, Extr. of, gr. v to x.
 —, Tinct. of, f \mathfrak{Zj} .
 —, White, gr. j to ij.
 —, Tinct. of, gtt. iij to vj.
 —, American, gr. j to ij.
 Hemp, Indian. See Gunja.
 Henry's Magnesia \mathfrak{Zj} .
 Henbane, Extr. of, gr. j to ij.
 —, Tinct. of, gtt. xx to f \mathfrak{Zss} .
 Hive syrup, f \mathfrak{Zss} to f \mathfrak{Zj} .
 Hiera picra, gr. x to \mathfrak{Dj} .
 Hoffman's anodyne f \mathfrak{Zss} .
 Hops, Tincture of, f \mathfrak{Zj} to f \mathfrak{Zij} .
 —, Infusion of, f \mathfrak{Zj} to f \mathfrak{Zij} .

Huxham's tinct. of bark, f 3j.
 Hyoscyamus, Extr. of, gr. j to ij.
 Hyoscyamus, Tinct. gtt. xx to f 3ss.
 Hydrocyanic acid, (Medicinal,) gtt.
 j to ij.

Iodide of iron, gr. ij to iij.
 —, Solution of, gtt. v to x.
 — of potassium, gr. j to v.
 — of arsenic gr. $\frac{1}{8}$ to $\frac{1}{2}$.
 — of barium, gr. $\frac{1}{8}$ to $\frac{1}{4}$.

Iodine, Tinct. of, gtt. v to xx.

Iodo-hydrargyrate of potassium,
 Channing's solution, gtt. ij to v.

Indigo, Powdered, ʒj to 3j.

Ipecacuanha, gr. xv to 3ss.

—, American, gr. x to ʒj.

—, Wine of, f 3ss to f 3j.

Ipecacuanha, Syrup of, f 3ss to f 3ij.

Iron, Acetate of, gtt. x to xx.

—, Ammoniated, gr. iv to x.

—, Black oxide of, gr. v to xx.

—, Bromide of, gr. ss to gr. j.

—, Citrate of quinia &, gr. v to x.

—, Ferrocyanate of, gr. iij to v.

—, Iodide of, gr. ij to iij.

—, Iodide of iron, solution, gtt. xxx
 to f 3j.

—, Lactate of, gr. iij to v.

—, Muriated tinct. of, gtt. x.

—, Phosphate of, gr. v to x.

—, Subcarbonate of, gr. x to 3ss.

—, Prototartarate of, gr. v to x.

—, Sulphate of, gr. ij to v.

—, Dried sulphate of, gr. j to iij.

—, Wine of, gtt. xx to f 3j.

Jalap, Powder of, gr. x to xx.

—, Compound powder of, 3ss to 3j.

—, Extract of, gr. v to x.

—, Tincture of, f 3j to f 3ij.

James's powder, gr. iij to x.

Juglans, Extr. of, ʒj to 3ss.

Juniper, oil of, gtt. iij to vj.

Krameria. See Rhatany.

Kino, Gum, gr. x to ʒj.

—, Tincture of, f 3ss to f 3j.

Lathyrus. See Spurge.

Lac ammoniac, f 3j to f 3ss.

— assafœtidæ, f 3j to 3ss.

— sulphuris, ʒj to 3ss.

* Laudanum, gtt. xxv.

Lactucarium, gr. iij.

Lead, Acetate of, gr. j to gr. iij.

Leopard's bane, Powder of, gr. j to v.

Limewater, f 3ss to f 3ij.

Lobelia, Powder of, gr. v to x.

—, Tinct. of, f 3ss to f 3j.

Logwood, Extract of, gr. v to ʒj.

—, Decoction of, f 3j to f 3ij.

Lupulin, gr. v to x.

—, Tinct. of, f 3j.

Magnesia, Calcined, 3j.

—, Carbonate of, ʒj to 3j.

—, Sulphate of, 3j.

Male fern, gr. 3j to 3ij.

—, oil of, gtt. xx to xxx.

May-apple, Extr. of, gr. x to ʒj.

Manna, 3j to 3ij.

Meadow Saffron. See Colchicum.

M'Munn's elixir of opium, gtt. xxv.

Medicinal hydrocyanic acid, gtt. j to ij.

Mercury, Acetate of, gr. j.

—, Yellow sulphate of, gr. $\frac{1}{4}$ to $\frac{1}{2}$.

—, Black sulphuret of, gr. v to xx.

—, Protiodide of, gr. $\frac{1}{4}$ to $\frac{1}{2}$.

—, Biniodide of, gr. $\frac{1}{8}$ to $\frac{1}{4}$.

—, with chalk, gr. v to ʒj.

—, Black oxide of, gr. j to ij.

—, Corrosive chloride of, gr. $\frac{1}{8}$ to $\frac{1}{4}$.

—, Cyanuret of, gr. $\frac{1}{8}$ to $\frac{1}{4}$.

—, Mild chloride of, gr. ij to x.

Mindereri, Spts. of, f 3ij to f 3j.

Monesia, Extr. of, gr. x to xv.

Morphia, Acetate of, gr. $\frac{1}{6}$ to $\frac{1}{4}$.

—, Muriate of, gr. $\frac{1}{6}$ to $\frac{1}{4}$.

—, Sulphate of, gr. $\frac{1}{6}$ to $\frac{1}{4}$.

Muriate of iron, Tinct., gtt. v to x.

— of baryta, Solution of, gtt. v.

— of ammonia, gr. j to v.

— of morphia, gr. $\frac{1}{6}$ to $\frac{1}{4}$.

Muriatic ether, gtt. v to xx.

Muriatic acid, gtt. ij to v.

Musk, gr. v to x.

—, Tincture of, f 3j.

Mustard, Powder of, 3j.

Mugwort, Powder of, ʒj to 3j.

Naptha, Wood, gtt. x to xv.

* The doses of Laudanum for the different periods of life are given under the head of Narcotics.

Nightshade, Extr. of, gr. $\frac{1}{4}$ to $\frac{1}{2}$.
 —, Powder of, gr. j to ij.
 Nitrate of potassa, gr. v to x.
 — of silver, gr. $\frac{1}{8}$ to $\frac{1}{2}$.
 Nitre, Sweet spirits of, f 3ss.
 Nitric acid, gtt. j to iij.
 Nitro-muriatic acid, gtt. ij to iij.
 Nitrous powder, gr. v to vij.
 Nux vomica, Extr. of, gr. $\frac{1}{2}$ to j.
 —, Tinct. of, gtt. v to xx.
 —, Powder of, gr. iij to v.

Oil of cajeput, gtt. ij to v.
 —, Castor, f 3ss to f 3j.
 —, Croton, gtt. ss to j.
 — of amber, gtt. ij to v.
 — of cubebs, gtt. x to xx.
 — of juniper, gtt. iij to vj.
 — of turpentine, gtt. v to xx.
 — of wormseed, gtt. iij to vj.
 — of valerian, gtt. ij to v.
 — of sassafras, gtt. ij to v.
 — of male fern, gtt. xx to f 3ss.
 — of cod-liver, f 3ss to f 3ij.
 Opium Gum, gr. j.
 —, Tincture of, gtt. xxv.
 —, Vinegar of, gtt. vii to x.
 —, Camphorated tinct. of, f 3j.
 —, Wine of, gtt. xxv.
 —, Elixir of, gtt. xxv.
 Oxymel of squills, f 3j.

Parsley, Infusion of, O ss.
 Paregoric elixir, f 3j.
 Peruvian bark, ʒj to 3j.
 —, Tinct. of, f 3j.
 —, Decoction of, f 3j.
 —, Extract of, gr. j to v.
 Phosphate of soda, 3j.
 — of iron, gr. v to x.
 — of ammonia, gr. x to ʒj.
 Phosphorus, gr. $\frac{1}{16}$.
 Pill, Blue, gr. j to viij.
 Pink-root, Powder of, gr. x to ʒj.
 —, Infusion of, f 3ss to f 3j.
 Pipsissewa, Decoc. of, f 3ij to f 3iij.
 Pomegranate, Powder of, ʒj to 3ss.
 —, Decoction of, f 3j.
 Potassa, Acetate of, ʒj to 3j.
 — Solution of arsenite, gtt. x.
 —, Bicarbonate of, gr. x to ʒj.
 —, Bitartrate of, 3ss to 3j.
 —, Carbonate of, gr. x to 3ss.

Potassa, Ferrocyanate of, (prep'd) gtt. xx to f 3ss.
 —, Nitrate of, gr. v to x.
 —, Sulphate of, 3ss.
 —, Tartrate of, 3ss to 3j.
 Potassa and soda, Tartrate of, 3j.
 Potassium, Iodide of, gr. j to v.
 —, Cyanuret of, gr. $\frac{1}{8}$ to $\frac{1}{4}$.
 —, Iodo-hydrargyrate of, (Channing's,) gtt. ij to v.
 Prussiate of iron, gr. iij to v.
 Prussic acid, Medicinal, gtt. j to ij.
 Protiodide of mercury, gr. ss to ij.
 Protocarb. of iron, gr. v to x.
 Pulvis Doveri, gr. v to x.
 — antimonialis, gr. iij to x.

Quassia, Extract of, gr. j to iij.
 —, Infusion of, f 3j.
 —, Tincture of, f 3j.
 Quinia, Sulphate of, gr. j to iij.
 Quinia and iron, Citrate of, gr. iij to x.

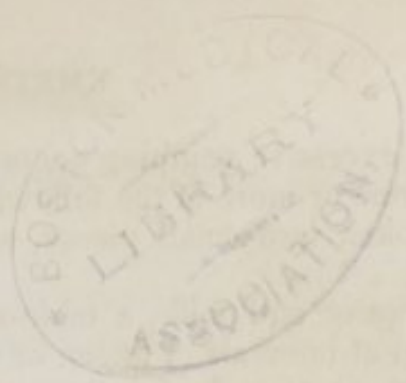
Rhubarb, Powder of, gr. x to 3ss.
 —, Tincture of, f 3ij to f 3ss.
 —, Syrup of, f 3j to f 3ss.
 Rhatany, Extract of, gr. x to xv.
 —, Tincture of, f 3j to f 3ij.
 Rochelle, Salts, 3j to 3iss.

Sage, Infusion of, f 3j to f 3ij.
 Sanguinaria. See Bloodroot.
 Sassafras, Oil of gtt. ij to v.
 Savin, Powder of, gr. v to x.
 —, Oil of, gtt. ij. to v.
 Saffron, Meadow. See Colchicum.
 —. See Crocus.
 Sarsaparilla, Decoction of, f 3iv.
 —, Syrup of, f 3ss to f 3j.
 —, Fluid extr. of, f 3j.
 —, Powder of, ʒj to 3j.
 Scabious, Infusion of, f 3ij.
 Scammony, gr. v to x.
 Secale, Powder of, gr. x to xx.
 —, Tincture of, f 3j to f 3ij.
 Seneka, Infusion of, f 3j to f 3ij.
 —, Powder of, ʒj to 3j.
 —, Syrup of, f 3j to f 3ss.
 Senna, Infusion of, f 3j to f 3iv.
 —, Confection of, 3ij.
 —, Fluid extract of, f 3j to f 3ss.
 Simarouba, Extract of, gr. j to iij.
 —, Tinct. of, f 3j.

- Simarouba, Infusion of, f 3j.
 Silver, Nitrate of, gr. $\frac{1}{2}$ to gr. $\frac{1}{2}$.
 Soda, Bicarbonate of, gr. xv to 3ss.
 —, Phosphate of, 3j.
 —, Sulphate of, 3j.
 Spirits of nitre, Sweet. f 3ss to f 3j.
 Spider's web, gr. v.
 Spigelia, Infusion of, f 3ss to f 3j.
 Spurge, Powder of, gr. iij to x.
 Sponge, Burnt, 3j to 3ij.
 Squill, Powder of, gr. v to x.
 —, Syrup of, f 3ss to f 3j.
 —, Oxymel of, f 3ss to f 3j.
 Strychnia, gr. $\frac{1}{16}$ to $\frac{1}{8}$.
 Stramonium, Powder of seeds of, gr. j.
 —, Extr. of, gr. $\frac{1}{2}$ to $\frac{1}{2}$.
 —, Leaves of, gr. i. to iij.
 Sulphate of copper, (emetic,) gr. j to iij.
 — of iron, gr. iij to v.
 — dried sulph. of, gr. j to iij.
 — of magnesia, 3j.
 — of morphia, $\frac{1}{2}$ to $\frac{1}{2}$.
 — of potassa, 3ss.
 — of quinia, gr. j to iij.
 — of soda, 3j.
 — of zinc, gr. x to 3j.
 Sulphur, Prepared 3ss to 3ij.
 —, milk of, 3j to 3j.
 Syrup of garlic, f 3j.
 — of ginger, f 3j to f 3ss.
 — of poppies, f 3j to f 3ss.
 — of rhatany, f 3j to f 3ij.
 — of rhubarb, f 3j to f 3ss.
 — of sarsaparilla, f 3ss to f 3j.
 — of seneka, f 3ss to f 3j.
 — of senna, f 3ij to f 3ss.
 — of squill, f 3ss to f 3j.
 — of tolu, f 3j to f 3ss.
 Tannin, gr. ij to iv.
 Tar in substance, gr. v to 3j.
 — water, f 3ij to f 3ij.
 Taraxacum, Extr. of, gr. v to x.
 —, Decoction of, f 3j.
 Tartar, Cream of, 3ss to 3j.
 — emetic, gr. j to iij.
 Tartrate of potassa and iron, gr. x to xx.
 — of potassa and soda, 3j.
 — of potassa, 3j to 3ss.
 Tin powder, 3j to 3ij.
 — electuary, 3ss to 3j.
 Tincture of aloes, f 3j.
 Tincture of aconite, gtt. ij to v.
 — of aloes and myrrh, f 3j.
 — of augustura, f 3j.
 — of assafoetida, f 3ss to f 3j.
 — of benzoin, f 3ss to f 3j.
 — of black hellebore, f 3j.
 — of buchu, f 3j.
 — of cantharides, gtt. x to xx.
 — of capsicum, f 3j.
 — of cinchona, f 3j.
 — of cascarilla, f 3j.
 — of castor, f 3ss to f 3j.
 — of catechu, f 3ss to f 3j.
 — of columbo, f 3ss to f 3j.
 — of colchicum, gtt. x to xx.
 — of cubebs, f 3j.
 — of digitalis, gtt. v to x.
 — of opium, gtt. xxv.
 — of opium, acetated, gtt. vij to x.
 — of opium, camphorated, f 3j.
 — of opium, ammoniated, f 3j.
 — of galls, f 3ss to f 3j.
 — of gentian, f 3ss to f 3j.
 — of guaiac, f 3j.
 — of guaiac, Ammon., f 3j.
 — of hemlock, gtt. xxx to f 3j.
 — of henbane, gtt. xx to f 3ss.
 — of hellebore, gtt. xx to f 3ss.
 — of hops, f 3j to f 3ij.
 — of iodine, gtt. v to xx.
 — of iodine, Comp. gtt. x to xl.
 — of jalap, f 3j to f 3ij.
 — of kino, f 3ss to f 3j.
 — of lupulin, f 3j.
 — of lobelia, f 3j.
 — of muriate of iron, gtt. x.
 — of musk, f 3j.
 — of nux vomica, gtt. v to xx.
 — of quassia, f 3ss to f 3j.
 — of rhatany, f 3j.
 — of rhubarb, f 3ss to f 3j.
 — of rhubarb and aloes, f 3ss.
 — of rhubarb and gentian, f 3j.
 — of rhubarb and senna, f 3j.
 — of senna, f 3j to f 3ij.
 — of squill, gtt. xx to xl.
 — of tolu, f 3j.
 — of valerian, f 3j.
 — of Virginia snake-root, f 3j.
 — of veratrum, gtt. iij to vj.
 Tolu, Tincture of, f 3j.
 —, Syrup of, f 3j to f 3ss.
 Turlington's balsam, f 3ss to f 3j.
 Turpentine, Spirits of, gtt. v to xx.

Turpeth mineral, (emetic,) gr. v.	Virginia snake-root, Tincture of, f ʒj.
Uva ursi, Powder of, ʒj to ʒj.	—, Infusion of, f ʒj.
—, Infusion of, f ʒj to f ʒij.	
—, Syrup of, f ʒj to f ʒij.	Warner's cordial, f ʒss to f ʒj.
Valerian, Tincture of, f ʒj.	Wormseed oil, gtt. ij to vj.
—, Oil of, gtt. ij to v.	White-oak bark, Powder of, ʒj.
—, Infusion of, f ʒj.	—, Decoction of, f ʒj to f ʒij.
—, Extract of, gr. j to v.	—, Extract, gr. v to x.
Vallet's carb. of iron, gr. v to x.	Wild-cherry, Infusion of, f ʒj.
Veratria, gr. $\frac{1}{8}$ to $\frac{1}{4}$.	—, Syrup of, f ʒj to f ʒij.
Vinegar of colchicum, gtt. xx.	Wine of iron, gtt. xx to f ʒj.
Veratrum album, gr. iij to vj.	— of ipecacuanha, f ʒss to f ʒij.
—, Tincture of, gtt. iij to vj.	—, Antimonial, f ʒss to f ʒj.
Vinegar of opium, gtt. vii to x.	— of colchicum, gtt. x to xx.
— of squill, gtt. xx to f ʒj.	— of opium, gtt. xxv.
Virginia snake-root, Powder of, gr. x.	Zinc, Sulphate of, gr. ss to gr. ij.
	—, Oxide of, gr. ij to v.

NOTE.—We have not the means of reference at hand, but believe the Liquor of Van Swieten (page 180) requires an ounce of alcohol. This preparation is only remarkable for its strength, which has justly prevented its adoption, in this country, in the dose proposed by its author.



CLASS I.

E M E T I C S.

IN the administration of Emetics, a few simple rules are worthy of attention. Whatever may be the apparent necessity for emptying the stomach, we must take into consideration all the circumstances of the case, and more particularly if there exist much arterial excitement, with determination to the head; for where these symptoms are present, blood-letting should be sometimes premised.

Where *poisons* have been taken, our object is to evacuate the stomach as speedily as possible, and for this purpose we select an emetic which is prompt in its action. But where the excitability of the stomach is greatly diminished by a *Narcotic*, it is necessary to assist the emetic by the addition of some excitant. Where such an effect is caused by opium, the system may be generally rendered susceptible by the use of vinegar, mustard, or ammonia. In these cases, however, the stomach-tube is our best resource.

Where free vomiting is desirable, it is effectually solicited by plentiful draughts of tepid water or camomile tea.

The evacuation of the stomach may be greatly facilitated by tickling the fauces with a feather, or introducing the point of the finger as far back as possible, and titillating the parts.

There are a few cases in which emetics are obviously inadmissible, as in apoplexy, or where there is great determination of blood to the head, depending upon constitutional causes; pregnancy; hernia; prolapsus uteri; active hemorrhage from the lungs and uterus; acute gastritis, &c. If emetic medicines are ever allowable in these diseases, it is for the most part in nauseating doses only.

By the frequent use of emetics, the stomach acquires an increased susceptibility to their action; hence persons of delicate habits should use them cautiously.

When excessive vomiting occurs, it may be checked by resort to some one or more of the following resources:

Ice broken into small pieces, and allowed to dissolve in the mouth.

Lime water and milk, a table-spoonful of each, mixed cold, and given at intervals of fifteen or twenty minutes.

A drop, or even half a drop of oil of Creosote, mixed in a wine-glass of cold water, of which give a tea-spoonful every 15 or 20 minutes.

The infusion of camphor, made with boiling water, and given cold, a tea-spoonful frequently repeated.

Brandy and water, and clove, and green tea, conduce to the same end; and where other internal means fail in irritable constitutions, an anodyne injection will sometimes accomplish the object.

Among external appliances, mustard to the epigastrium is one of the best: also, spice-plasters, and hot fomentations of brandy and cloves.

POWDERS.

Powder of Ipecacuanha.

R. Pulveris ipecacuanhæ, ℥ij.

Divide it into two doses.—Signa.—One to be taken in a little molasses, or sugar and water, and followed by a draught of tepid water. If one powder does not produce the desired effect, the second to be taken in like manner.

Powder of Ipecacuanha with Tartarized Antimony.

R. Pulveris ipecacuanhæ, ℥j.

Antimonii et potassæ tartratis, gr. j.

Misce.—To be taken in the same manner as the former.

Ipecacuanha is supposed by some to counteract the effects of opium by a *specific principle*, and hence the above prescription is often used where that drug has been taken. A more prompt emetic, however, will in such cases, be preferable.

Powder of Ipecacuanha with Rhubarb.

R. Pulveris ipecacuanhæ,

——— rhei, āā. ℥j.

Misce, et signa.—To be taken in sirup.

More or less purging will generally follow the emetic operation of this dose.

The above are the principal combinations of ipecacuanha for the purpose of *vomiting*. It fulfils several other indications, which will be noticed under their appropriate heads.

Powder of Sulphate of Copper.

R. Cupri sulphatis, gr. ij.

Signa.—To be given in a little sirup of water.

This medicine is seldom employed as an emetic except in those cases of poisoning where other articles have failed, or are not at hand. It should be followed by a large draught of warm water. All vegetable astringent infusions are incompatible substances.

Powder of Sulphate of Zinc.

R. Zinci sulphatis, gr. x, vel ʒss.

Signa.—To be taken in molasses, and followed by a draught of warm water.

This medicine is very prompt in its operation, and is most generally employed in cases of poisoning. It is also used as a nauseating remedy in phthisis; and both as an emetic and tonic in dyspepsia. The stomach is said to be invigorated, rather than exhausted by its operation.

WINES, MIXTURES, &c.

Wine of Ipecacuanha with Antimony.

R. Vini ipecacuanha, fʒj.

Antimonii et potassæ tartratis, gr. j.

Fiat solutio.—Signa. A tea-spoonful to be taken every ten or fifteen minutes until vomiting is induced, which may be assisted with tepid drinks.

Antimonial Wine.

R. Vini antimonii, fʒj.

Signa.—A tea-spoonful to be taken every ten or fifteen minutes until free emesis is effected.

If antimonial wine is given for the purpose of producing speedy vomiting, we may safely give half an ounce of it at once; and in

the croup of infants, twenty drops every fifteen minutes, until the medicine operates, is a safe dose.

Solution of Tartrate of Antimony.

R. Antimonii et potassæ tartratis, gr. iv.

Sacchari albi, ℥j.

Aquæ destillatæ, f℥iv.

Misce.—Fiat solutio.—A table-spoonful to be given every ten or fifteen minutes, until it operates freely.

The *wine of antimony* possesses no advantage over this extemporaneous prescription; and unless we know the proportion of antimony contained in each ounce of the former, and know also that it has been recently made, the latter is decidedly preferable.

Tartar Emetic and Quinine.

R. Antimonii et potassæ tartratis, gr. iij.

Quiniæ sulphatis, gr. x.

Misce et divide in partes vj. equales.—This preparation is commended by Dr. Gola as successful in intermittent fever, when quinine alone produced no favourable result. He directs a powder to be given every two hours during the apyrexia. It causes both emesis and alvine evacuations, and prevents the recurrence of the paroxysm.

Solution of Sulphate of Zinc, &c.

R. Zinci sulphatis, ℥iss.

Aluminis, ℥ss.

Aquæ ferventis, Oss.

Misce.—Let the solution be filtered through blotting paper.—A table-spoonful for adults, and a tea-spoonful for a child of six months old, (and so on in proportion to the strength and age of the patient,) every morning upon an empty stomach.

This is the celebrated *solutio vitriolica* of Dr. Mosely, who principally employed it in dysentery and phthisis pulmonalis.

Mustard Draught.

R. Pulveris sinapis, ℥j.

Aquæ tepidæ, Oss.

To be mixed and swallowed at once.

This is a very prompt emetic, and one that is always at hand.

Emetic Lozenges of Emetina.

R. Sacchari albi, \mathfrak{z} ij.

Emetinæ impuræ, gr. xxxij.

Misce, et fiant trochisci singuli, gr. xvij.

One of these Lozenges taken fasting will generally produce vomiting in children. Three or four will speedily excite it in adults.

Magendie.

Solution of Emetina.

R. Emetinæ fuscæ, gr. iv.

Aquæ destillatæ, f \mathfrak{z} ij.

Syrupi, \mathfrak{z} ss.

Fiat solutio.—Signa.—Give two tea-spoonsful every half hour.

Emetina is destitute of the peculiar odour and nauseous taste of Ipecacuanha, and may therefore be preferable in some cases.

It will be observed that we have introduced the impure or coloured Emetina, which is much less energetic than the perfectly white alkali. The best antidote for an over-dose, is a strong infusion of nut-galls.

One grain of Emetina will generally produce as much effect as sixteen grains of Ipecacuanha. Even this quantity of *pure* Emetina would be an unnecessary large dose; and the emetic property will be readily obtained by dissolving a grain in an ounce of water, and giving it in three or four doses at the usual intervals.

Mixture of Ipecacuanha, &c.

R. Pulveris ipecacuanhæ, \mathfrak{z} ss.

Antimonii et potassæ tartratis, gr. j.

Tincturæ scillæ, f \mathfrak{z} j.

Aquæ destillatæ, f \mathfrak{z} vijss.

Fiat mistura.—Signa.—Four table-spoonsful at first; afterwards two table spoonsful every ten minutes, until vomiting is induced.

This mixture is recommended in dropsies previously to giving digitalis.

Infusion of Ipecacuanha.

R. Pulveris ipecacuanhæ, \mathfrak{z} ij.

Aquæ bullientis, f \mathfrak{z} vj.

Macerate for one hour and filter.—Of this from one to two table-spoonsful, may be given every half hour, until it excites vomiting.

Infusion of Lobelia inflata.

R. Lobelæ inflatæ, ℥j.

Aquæ bullientis, Oj.

Fiat infusio.—Signa.—A small wine-glassful may be taken every half hour, until vomiting succeeds.

This native remedy, called also Indian Tobacco, is frequently exhibited in the form of saturated tincture, of which the dose is a tea-spoonful every half hour until emesis is excited. It has gained considerable celebrity in the treatment of Asthma, and is now employed by the "Steam Doctors" of the western country, as part of their treatment of all diseases. Its action is so violent that it should be administered with extreme caution.

Sirup of Seneca and Squills.

R. Syrupi scillæ compositi, f ℥j.

Signa.—Give from ten drops to a tea-spoonful, every quarter or half hour, or hour, according to the age of the patient and violence of the disease.

This is the *Hive Sirup* of Dr. Coxe: it has acquired much confidence from its efficacy in croup; and should it not be sufficiently active in this violent disease, a grain of tartrate of antimony may be added to each ounce.

Tobacco Poultice.

R. Foliorum tabaci, ℥j.

To be beat up with sufficient water to form a cataplasm.—To be applied to the region of the stomach, when emetics cannot be administered by the mouth. The utmost care should be taken to guard against the violent effects of tobacco, even when thus externally applied.

CLASS II.

CATHARTICS.

As a general rule, it may be observed of cathartics, that they are capable of fulfilling three different indications:—1st. Simply to evacuate the bowels; 2d. To excite an increased discharge from the mucous coat of the intestines; and 3d. To stimulate the neighbouring viscera, and cause them to secrete a greater quantity of their peculiar fluids. It seldom, or perhaps never, happens, that the same article will produce these three different effects; in order to do this, we must combine different substances in one formula.

There are some, as magnesia, that produce their effect by absorbing the acid generated in the alimentary canal, and thus become converted into a purgative salt. There are others, as aloes, that expend their principal force upon the rectum and great intestines, and for this reason are very advantageously employed in diseases of the lower bowels, as also in those of the uterus and its appendages.

These remedies should always be given on an empty stomach: if administered immediately after a full meal, they arrest the digestive process, are liable to produce nausea, if not vomiting, and do not open the bowels with the same certainty or effect. When simple costiveness is to be removed, the evening may be selected for the exhibition of a cathartic.

If this should not prove sufficient, we can repeat the dose in the morning and at regular intervals through the day, until the effect is produced. The principle, says Dr. Paris, which should govern our conduct in the administration of purgatives, may be briefly stated.—*The excitement is to be repeated till the requisite action is induced, yet no single excitement being such as may prove an irritant to the organ.*

But in the treatment of many diseases it is preferable to purge

through the day, in order that the sleep of the patient may not be disturbed at night.

The operation of these remedies may be very much accelerated by the free exhibition of diluent drinks, such as gruel, barley water, &c., &c.

By combination we are enabled to modify and control the action of many remedies, and some of the most drastic purgatives may be made to operate mildly, and yet certainly, by uniting several of them in the same dose.

Finally, the operation of a cathartic may often be promoted by judicious venesection; and if spasm of the intestines be present, opium may be advantageously joined with the purgative.

POWDERS.

Powder with Calomel and Jalap.

R. Hydrargyri chloridi mitis, gr. v.

Pulveris jalapæ, gr. x.

Misce, et signa.—To be given in molasses or sirup.

Powder with Calomel, Jalap and Rhubarb.

R. Hydrargyri chloridi mitis, gr. v.

Pulveris jalapæ,

—— rhei, āā, gr. v.

Olei cinnamomi, gtt. j.

Misce, et signa.—To be given as the former.

Powder with Magnesia and Rhubarb.

R. Pulveris rhei, ℥j.

Magnesia, ℥ss.

Olei cinnamomi, gtt. j.

Misce, et signa.—To be given in sirup, or sugar and water.

The operation of magnesia may be effectually obtained by giving the patient lemonade, or a solution of super-tartrate of potassa, as a drink.

Powder with Calomel and Rhubarb.

R. Hydrargyri chloridi mitis,

Pulveris rhei, āā, gr. v.

Olei cinnamomi, gtt. j.

Misce, et signa.—To be given in molasses.

Powder with Jalap and Bitartrate of Potassa.

R. Potassæ bitartratis, ℥ij.

Pulveris jalapæ, ℥j.

Misce.—Divide in chartulas vj.—Of these, give one every two hours in molasses or sirup.

Compound Powder of Jalap and Gamboge.

R. Potassæ bitartratis, ℥ij.

Pulveris jalapæ, ℥j.

—— gambogiæ, gr. vj.

Misce.—Divide in chartulas vj.—Signa.—To be given as directed in the preceding prescription.

The compound powder of jalap has long been celebrated in dropsical affections; but it also forms a very convenient purge in many inflammatory cases. In order to increase its certainty and activity, we may conveniently add the Gamboge, as in the above formula.

Powder of Aloes, Canella Alba, &c.

R. Pulveris aloes, ℥jss.

—— canellæ albæ, gr. xvij.

—— serpentariæ virginianæ, gr. vj.

Misce, et divide in pulveres vj.—Signa.—One every three or four hours in sirup.

This compound, the *hiera picra* of the shops, forms a very good purgative, and is usually employed as an emmenagogue.

Powder with Sulphate of Potassa, &c.

R. Potassæ sulphatis, ℥j.

Pulveris rhei, ℥iss.

—— anthemidis, ℥j.

Tere in pulverem, et divide in doses equales vj.

Signa.—Take one twice a-day in sugar and water.

In dyspepsia and torper of the bowels.

Powder of Sulphur and Bi-tartrate of Potassa.

R. Sulphuris sublimati, $\overline{\text{z}}$ ss.

Potassæ bitartratis, $\overline{\text{z}}$ j.

Misce, et signa.—Mix in a sufficient quantity of molasses, and give a tea-spoonful four or five times a-day to children. In some diseases of the skin.

It should be always recollected that sulphur promotes insensible perspiration in a very marked degree, and hence renders the patient more liable to be affected by vicissitudes of climate.

Powder with Milk of Sulphur and Calcined Magnesia.

R. Sulphuris præcipitati, vel lactis sulphuris,

Magnesiæ, āā. $\overline{\text{z}}$ ss.

Misce, et signa.—A tea spoonful to be taken four or five times a-day.

This preparation is better adapted to delicate stomachs than the former. Either of them forms a good aperient during an alterative course of medicine.

Sulphate of Magnesia and Tartrate of Antimony.

R. Magnesiæ sulphatis, $\overline{\text{z}}$ j.

Antimonii et potassæ tartratis, gr. ss.

Misce, et signa.—To be dissolved in six ounces of water, and taken for a dose.

By combining tartar emetic with this and other purgative salts, we promote at the same time a gentle diaphoresis; which, in many inflammatory affections, is very desirable.

Powder with Tartrate of Soda, Tartaric Acid, &c, vulgo, Seidlitz Powders.

R. Sodæ et potassæ tartratis, $\overline{\text{z}}$ ij.

Sodæ bicarbonatis, $\overline{\text{z}}$ ij.

Fiat pulvis.—Signa. To be dissolved in half a tumbler of cold water.

R. Acidi tartarici pulverizati, gr. xxv.

Signa.—Dissolve in an equal quantity of water with the above, and mix them both together. To be taken while in a state of effervescence.

This is a very popular medicine, and justly so; it is a gentle aperient, and may be taken by persons whose stomachs would reject any of the ordinary saline preparations.

Phosphate of Soda.

R. Sodæ phosphatis, $\mathfrak{z}\text{j}$.

This salt so much resembles in taste the common table salt, that it may be conveniently taken in a bowl of broth. It is a mild purgative.

PILLS.

Pills of Calomel, Jalap, &c., known as Griffiths' Cathartic Pills.

R. Pulveris jalapæ,
 —— rhei,
 Saponis, āā. $\mathfrak{z}\text{ss}$.
 Hydrargyri chloridi mitis, gr. xxv.
 Antimonii et potassæ tartratis, gr. iss.
 Aquæ destillatæ, quantum sufficit ut fiat massa. Divide in pilulas xxv.

Signa.—Two of these pills may be taken at once, and repeated in two hours, if not sufficient.

This combination of purgatives with the tartrate of antimony, forms an excellent anti-bilious remedy; and, in cases of fever, prepares the alimentary canal for the reception of other remedies.

Pills of Blue Mass, Aloes, &c.

R. Pilulæ hydrargyri,
 Pulveris jalapæ,
 —— aloes, āā. gr. xv.
 Syrupi, q. s. ut fiat massa, et divide in pilulas, xij.

Signa.—Three may be taken at night, and the same dose repeated in the morning, if the first is ineffectual.

Pills of Blue Mass, Soda, &c.

R. Pilulæ hydrargyri, gr. ix.

Pulveris rhei,

Sodæ bicarbonatis, āā. gr. xij.

Syrupi rhei aromatici, q. s. ut fiat massa, et divide in pilulas, xij.

Signa —One, twice or three times a-day, as an alterative in derangement of the liver.

Dr. Hartshorne.

Powdered Charcoal.

R. Pulveris carbonis, ʒj.

Of this a tea-spoonful may be given in milk, molasses, or sugar and water; and repeated as often as may be necessary to keep the bowels in a soluble state.

Charcoal occasionally accumulates in the bowels, and occasions the most distressing constipation. When it fails, therefore, to operate promptly, some other purgative should be given. It may be observed that charcoal is exceedingly well adapted to many cases of dyspepsia, enabling the patient to digest more, and a greater variety of food, than he can without it. The safest and most effectual mode of using it is to dust it over the aliments in the same way as pepper.

Pills of Rhubarb and Soap.

R. Pulveris rhei, ʒj.

Saponis albi, gr. x.

Aquæ destillatæ, q. s.—ut fiant pilulæ xv.

Signa.—Three for a dose.

To remove costiveness, or produce a gentle evacuation in debilitated habits.

Pills of Aloes and Rhubarb.

R. Pulveris rhei,

—— aloes, āā. ʒss.

Saponis albi, quantum sufficit—ut fiant pilulæ xxv.

Signa.—Three or four of these may be taken occasionally, in habitual costiveness and in dyspepsia.

Pills of Rhubarb, with Sulphate of Iron, &c.

- R. Pulveris rhei, ℥iss. 90
 Ferri sulphatis, ℥ss. 30
 Saponis albi, ℥ij. 21
 Aquæ destillatæ, q. s. ut fiat massa in pilulis xl dividenda. 40

The intention of these pills is obviously to remove costiveness, and impart tone to the bowels. They were a favourite medicine with Dr. Griffiths, late of this city. Three or four may be taken for a dose at bed-time.

Pills with Aloes, Gentian, &c.

- R. Pulveris aloes, ℥j.
 Extracti gentianæ, ℥ss.
 Olei carui, gtt. x.
 Syrupi simplicis, quantum sufficit.

The mass to be divided into pills, each one weighing gr. iv.—Signa.
 Two or three for a dose.

Pills of Croton Oil.

- R. Olei tigllii, gtt. j.
 Micæ panis, q. s. ut fiant pilulæ iv.
 Signa.—One every hour until they operate.

This powerful remedy has lately been restored to the materia medica. One drop is a full dose, and frequently less will answer every purpose.

Pill with Aloes, Ipecacuanha, &c.

- R. Pulveris aloes, ℥ss.
 ——— ipecacuanhæ, gr. iv.
 Saponis, ℥ij.
 Syrupi, q. s.—ut fiant pilulæ xx.
 Signa.—Two or three for a dose; and to be repeated when necessary.

These pills, with almost any other of the aloetic preparations, from their specific action on the rectum, will sometimes restore suppressed hæmorrhoids.

Aperient Pills.

R. Aloes,
 Pulveris rhei, āā. ʒj.
 ——— ipecacuanhæ, gr. vj.
 Saponis venetæ, ʒj.

To be divided into sixty-four pills.—As a simple aperient, one may be taken every night at bed-time; but where a full purgative effect is desirable, the dose is two or three.

Pills with Asafætida and Aloes.

R. Asafætidæ,
 Pulveris aloes,
 Saponis albi, āā, ʒss.
 Aquæ destillatæ, quantum sufficit ut fiat massa in pilulas xxv dividenda.

These pills are usually kept made by the apothecaries, but the physician may prefer them recent, and we therefore insert the formula. If preferred, the prescription may be altered by substituting rhubarb for aloes. Three or four pills are sufficient for a dose.

Pills with Extract of Butternut, Jalap, &c.

R. Extracti juglandis, ʒss.
 Pulveris jalapæ, ʒj.
 Saponis, gr. x.

Misce.—Fiant pilulæ xv.

Signa.—Three or four of these may be taken for a dose, and if they do not operate, two or more may be safely administered.

The extract of Butternut, either alone or in combination, is highly recommended as a cathartic in fevers, dysentery, &c.

Pills of Blue Mass, and Colocynth.

R. Pilulæ hydrargyri, extracti colocynthidis, āā. gr. v.
 Olei carui, gtt. ij.
 Fiant pilulæ ij.

These constitute an active cathartic.

52
 10.4
 20.8

fr. xx
 8 pin

Confection of Sulphur.

R. Sulphuris sublimati et loti, \mathfrak{z} iss.

Confectionis sennæ, \mathfrak{z} ij.

Potassæ nitratis, \mathfrak{z} j.

Syrupi aurantii, q. s. ut fiat confectio.

Signa.—From one or two drachms may be taken once or twice a-day.

In hæmorrhoidal affections.

Pills of Compound Extract of Colocynth and Calomel.

R. Extracti colocynthidis compositi, gr. xlvij.

Hydrargyri chloridi mitis \mathfrak{z} j.

Misce, et divide in pilulas xx.

Signa.—Two or three of these pills will generally act as a cathartic.

Pills of Compound Extract of Colocynth, &c.

R. Extracti colocynthidis compositi, \mathfrak{z} j.

—— jalapæ alcoholici, gr. vj.

Pulveris scammoniæ compositi, gr. x.

Hydrargyri chloridi mitis, gr. x.

Antimonii et potassæ tartratis, gr. j.

Saponis veneti, gr. v.

Olei cassiæ, gtt. iv.

Misce et divide in pilulas xv.

Signa.—One, two, or three to be taken at bed-time.

Dr. Meigs.

Pills with Aloes and Blue Mass.

R. Pilulæ hydrargyri, \mathfrak{z} j.

Pulveris aloes, gr. xxv.

Misce et divide in pilulas xv et signa. One every two hours until they operate.

In cases of constipation depending upon deficiency of bile.

16
2
—
32

Pills of Compound Extract of Colocynth, &c., &c., commonly called Fothergill's Pills.

R. Extracti colocynthidis compositi, ℥iss.

* Antimonii oxidi illoti, ℥ss.

Misce et divide in pilulas xxx.—One of these pills will generally produce a free evacuation; but two or more may be taken when required.

Pills with Aloes, Guaiacum, &c.

R. Pulveris guaiaci, ℥j.

—— aloes, gr. xxxvj.

—— rhei, ℥ij.

Balsami canadensis, quantum sufficit ut fiat massa in pilulas xlvij dividenda.

Signa.—One to be taken every three hours.

This combination forms a highly stimulating cathartic.

Electuary of Senna and Figs.

R. Pulveris sennæ, ℥ss.

Pulpæ ficus, quantum sufficit ut fiat electuarium.

Signa.—A piece the size of a marble, night and morning, in costiveness.

MIXTURES, INFUSIONS, &c.

Oleaginous Mixture.

R. Olei ricini, ℥j.

Pulveris acaciæ, ℥ij.

Sacchari albi, ℥j.

Misce secundum artem, et tunc adde gradatim—

Aquæ menthæ, ℥iv.

Signa.—A table-spoonful every hour and a half or two hours, until it purges.

It is of some consequence in preparing this mixture, to shake the oil and powders well together before adding the water, which

* This preparation of antimony was formerly known by the name of Calx antimonii illota.

should be poured in gradually, agitating it after each addition ; or, combine the whole in a mortar.

Mixture of Oil of Turpentine, &c.

R, Olei terebinthinæ, f ʒj.

Pulveris acaciæ,

———— sacchari albi, āā. ʒij.

Aquæ menthæ, f ʒiv.

Misce, et signa.—A table-spoonful every two hours until it operates.

This preparation must be made in the same manner as the oleaginous mixture.

Mixture with Magnesia, Asafœtida, &c.

R. Magnesiæ carbonatis, ʒss.

Tincturæ asafœtidæ, gtt. lx.

———— opii, gtt. xx.

Sacchari albi, ʒj.

Aquæ destillatæ, f ʒj.

Misce.—Fiat mistura et signa.—Twenty-five drops may be given to an infant of two or four weeks old ; in flatulent colic, diarrhœa, &c.

This preparation was strongly recommended and much employed by the late Dr. Dewees of this city.

If the *calcined* magnesia be used, it unites with the resin of the asafœtida, forms an almost solid mass at the bottom of the vessel, and defeats the object of the prescription.

Mixture of Carbonate of Magnesia, &c.

R. Magnesiæ carbonatis, ʒss.

———— sulphatis, ʒiij.

Spiritus ammoniæ aromatici, f ʒj.

Tincturæ rhei, f ʒss.

———— hyoscyami, f ʒss.

Aquæ menthæ, f ʒiv.

Fiat mistura et signa.—A large table-spoonful to be taken two or three times a-day.

Dr. Meigs.

Oleaginous Mixture with Oil of Turpentine.

- R. Olei ricini, f $\overline{3}$ iss.
 Vitellum ovi j.
 Sacchari albi, $\overline{3}$ ij.
 Olei terebinthinæ rectificati, f $\overline{3}$ ss.
 Aquæ menthæ, f $\overline{3}$ iv.

Misce optime et signa.—A large table-spoonful may be taken every hour or two, according to circumstances.

This preparation is much used by some of our best practitioners, in cases requiring a brisk and stimulating cathartic. It has also been recommended as a purgative, after the effects of an over-dose of opium have been partially subdued by preliminary remedies.

Mixture of Oil of Spurge.

- R. Olei euphorbiæ lathyrus, gtt. viij.
 Acaciæ,
 Sacchari albi, āā. $\overline{3}$ j.
 Aquæ menthæ, f $\overline{3}$ j.

Fiat mistura et signa.—One half of this mixture may be given at once, and repeated in two hours if the bowels are not moved.

The oil of Spurge is an old remedy, lately revived and introduced to notice by the Italians. The European oil is stated to be as mild as castor oil, and as prompt and efficacious as the croton oil, in the above doses. The oil prepared from the beans grown in this country is said to be much more acrid, occasioning both nausea and griping.

Mixture of Croton Oil.

- R. Olei tigllii, gtt. j vel ij.
 Mucilaginis acaciæ,
 Aquæ destillatæ, āā. f $\overline{3}$ j.

Misce et signa.—To take a tea-spoonful every two hours until it operates.

Saponaceous Solution of Croton Oil.

- R. Olei tigllii, gtt. viij.
 Potassæ, gr. vj.
 Aquæ destillatæ, f $\overline{3}$ ij.

Fiat solutio.—Signa.—From three to six drops may be given for a dose.

This is a substitute for the soap of the croton oil proposed by the French, which is more troublesome to make.

Mr. Conwel states, that four drops of this oil rubbed on and round the umbilicus, will produce a cathartic effect; even the odour of it has been known to excite the alimentary canal, either as an emetic or purgative.

Solution of Epsom Salts with Nitric Acid.

R. Magnesiae sulphatis, $\overline{3}$ ss.

Tincturæ jalapæ, f $\overline{3}$ j.

Acidi nitrici, gtt. ij.

Aquæ menthæ, f $\overline{3}$ ij.

Misce et signa.—To be taken for a draught. The nitric acid is said to destroy in great measure the bitter taste of the salt.

Infusion and Tincture of Senna, &c.

R. Infusionis sennæ, f $\overline{3}$ vj.

Tincturæ sennæ, f $\overline{3}$ ij.

Mannæ, $\overline{3}$ ij.

Magnesiae sulphatis, $\overline{3}$ ss.

Aquæ menthæ,

— destillatæ, āā. f $\overline{3}$ iss.

Misce et signa. One half to be taken for a dose, and repeated if it does not operate. This was a very common prescription of the late Mr. Abernethy, of London.

Purgative Draught of Buckthorn, &c.

R. Foliorum sennæ, $\overline{3}$ ij.

Sulphatis sodæ, $\overline{3}$ ss.

Aquæ, f $\overline{3}$ iv.

Syrupi rhamni, f $\overline{3}$ j.

The water should be added boiling hot, and the infusion then cooled and strained. A few grains of Jalap may be substituted for the Sirup of Buckthorn.

Mixture of Magnesia, Rhubarb, &c.

R. Magnesiae, $\overline{3}$ ss.

Pulveris rhei, gr. ij.

— sacchari albi, $\overline{3}$ j.

Essentiæ menthæ piperitæ, gtt. vj.

Aquæ destillatæ, f $\overline{3}$ iss.

Fiat mistura et signa. A tea-spoonful to be given every two hours to children, until it operates.

This preparation is designed for the bowel complaints of children, in which it is very serviceable. Laudanum can be added according to the age and condition of the patient.

Magnesia and Blue Pill.

R. Magnesiae, ℥iss.

Acaciae,

Sacchari albi, āā. q. s.

Aquæ, f ℥iv.

Pilulæ hydrargyri, gr. iv vel viij.

Olei anisi, gtt. iv.

Misce et signa.—To take a table-spoonful every two hours until it operates freely. An alterative cathartic.

Solution of Sulphate of Magnesia, &c.

R. Magnesiae sulphatis, ℥j.

Antimonii et potassæ tartratis, gr. ss.

Succi Limonis recentis, f ℥j.

Aquæ destillatæ, f ℥iij.

Misce et fiat solutio.—A table-spoonful to be given every two hours until it operates.

Infusion of Senna, Sulphate of Magnesia, &c.

R. Foliorum sennæ, ℥vj.

Mannæ optimæ,

Magnesiae sulphatis, āā. ℥j.

Seminum cardamomi, ℥ij.

Misce et signa.—To be infused in a pint of boiling water until cold, and half a tea-cupful given every hour until it operates.

Infusion of Senna.

R. Foliorum sennæ, ℥vj.

Mannæ, ℥j.

Seminum cardamomi, ℥ij.

Misce et signa.—To be infused in a pint of boiling water until cold; one-half to be taken at once; and if insufficient, the remainder in two or three hours.

This infusion may be longer kept if a little tincture of senna be added to it.

Decoction of Prunes.

R. Fructûs pruni, ℥iij.

Aquæ, Oij.

Decoque ad libras duas.—Used as a mild laxative.

Infusion of Senna with Rhubarb, &c.

R. Foliorum sennæ, ℥vj.

Mannæ, ℥j.

Radicis rhei contusæ, ℥ij.

Seminum cardamomi, ℥ij.

Misce et signa.—To be infused in a pint of boiling water for one hour. Half a tea-cupful given every hour till it operates.

Compound Tincture of Senna; vulgo, Warner's Cordial.

R. Tincturæ sennæ compositæ, f ℥j.

Direct a table-spoonful, mixed with double the quantity of water, as hot as it can be drunk, to be taken for a dose, in cases of violent pain of the stomach, where a cordial purgative is required; to be repeated according to circumstances.

Decoction of Aloes, &c.

R. Extracti glycyrrhizæ, ℥ss.

Potassæ carbonatis, ℥ij.

Aloes spicatæ extracti,

Myrrhæ contritæ,

Croci stigmatum, āā. ℥j.

Tincturæ cardamomi compositæ, f ℥iv.

Aquæ destillatæ, Oj.

Boil down all the ingredients, except the last, with the water, to twelve fluid ounces, and strain; then add the compound Tincture of Cardamom. The dose of this decoction is from half an ounce to an ounce and a half, and is of service whenever a mild, warm cathartic is required.

Wine of Colchicum.

R. Vini colchici saturati, f ℥ss.

Signa.—Ten or twenty drops of this may be taken in sugar and water, morning, noon, and night. The preparations of colchicum not unfrequently produce violent vomiting, and require to be continued with great caution. In rheumatism and gout.

The above preparation of the Colchicum or meadow saffron is made both of the bulb and seeds, but is most powerful when the bulb is used. The ordinary dose is twenty drops three times a-day, which may be repeated until it affects the *stomach, pulse,* or *bowels*, when it should be immediately discontinued, and its use resumed with caution.

Colchicum and Magnesia.

R. Magnesiae, ℥j.

Sacchari albi,

Acaciae, āā. q. s.

Aquæ destillatæ, f ℥iv.

Vini colchici, gtt. xl.

Fiat mistura et signa.—To take a table-spoonful every two hours until it operates.

This preparation is much used in gouty and rheumatic affections. Laudanum can be added if requisite.

Scudamore's Mixture of Colchicum and Epsom Salts.

R. Magnesiae sulphatis, ℥j ad ℥ij.

Aquæ menthæ, f ℥x.

Aceti colchici, f ℥j.

Syrupi croci, f ℥j.

Magnesiae, ℥viiij.

Fiat mistura.—Dose, one, two or three table-spoonsful, repeated every two hours, until four or six evacuations are produced in twenty-four hours. Chiefly used in gouty paroxysms.

Pills of Veratria.

R. Veratriæ, gr. ss.

Mucilaginis acaciæ, q. s.—ut fiat pilulæ vi.

Signa.—One of these may be given, and if purgative effects do not follow, three may be given in one day.

The active principle of Veratrum album has been separated, and the name of Veratria bestowed upon it. It is extremely poisonous, and therefore to be taken with great caution. Its only recommendation is, that it is more certain in its operation than the preparations noticed above. Great caution is necessary in continuing its use.

Tincture of Veratria.

R. Veratriæ, gr. iv.

Alcohol, f $\bar{\zeta}$ j.

Fiat tinctura et signa.—This may be given in doses of ten, fifteen, or twenty drops, in a wine-glass of water. It is designed as a substitute for the Vinous Tincture of Colchicum, in dropsies, gout, rheumatism, &c.

The Tincture of Veratria is recommended as an external application in the diseases above mentioned. For this purpose also the ointment is proposed.

Solution of Sulphate of Veratria.

R. Veratriæ sulphatis, gr. j.

Aquæ destillatæ, f $\bar{\zeta}$ ij.

Fiat solutio. Dose, a dessert-spoonful. This solution is said to be a good substitute for the Eau Medicinale of Husson, in gouty affections.

Magendie.

Tincture of Aloes, &c.

R. Pulveris Aloes socotrinæ,

—— anisi, āā. $\bar{\zeta}$ ij.

Spiritus vini gallici, Oij.

Fiat tinctura.—Dose, from one-third to half a wine-glassful, three times a-day.

The above is highly spoken of by Dr. R. Pindall in hemorrhoidal affections. He considers it almost a specific, notwithstanding the prejudice against aloes, in these affections of the rectum.

Mixture of Elaterium.

R. Elaterii, gr. j.

Spiritus ætheris nitrici, f $\bar{\zeta}$ ij.

Tinturæ scillæ,

Oxymellis colchici, āā. f $\bar{\zeta}$ ss.

Syrupi, f $\bar{\zeta}$ j.

Fiat mistura et signa.—To take a tea-spoonful three or four times a-day in a little water.

The above is the original prescription of Dr. Ferriar, who re-

commends it in the several forms of dropsy, and particularly in Hydrothorax.

Tincture of Aloes and Canella Alba, vulgo, Tincture of Hiera Picra.

R. Tincturæ aloes cum canella, f $\overline{3}$ j.

A tea-spoonful may be taken every hour, or two hours, until it operates.

Electuary with Jalap, Nitrate of Potash, &c.

R. Pulveris potassæ bitartratis,

——— radicis jalapæ,

——— potassæ nitratis, āā. $\overline{3}$ ss.

Confectionis sennæ, $\overline{3}$ j.

Syrupi simplicis, q. s. ut fiat electuarium.—Of which a bolus the size of a hazlenut may be taken three or four times a-day.

This preparation once gained considerable celebrity as a popular remedy for hemorrhoids.

Electuary with Sulphur.

R. Sulphuris sublimati, $\overline{3}$ ss.

Confectionis sennæ, $\overline{3}$ iss.

Syrupi simplicis, q. s. ut fiat electuarium.—A tea-spoonful night and morning for a dose, in the disease above mentioned.

E N E M A T A.

Enemata, used either as auxiliaries to or substitutes for cathartics, very properly succeed that class of remedies.

They are employed to fulfil other indications, and the different preparations will be noticed under their appropriate heads. It is usual to direct three times the quantity to be given for an enema that is required for a dose *per os*. For the purpose of procuring a discharge from the bowels, this rule may generally be observed; but in some of the powerful remedies occasionally administered, as opium and tobacco, it might be attended with serious consequences.

The following are the proportions recommended by Professor Chapman in the ordinary enemata for persons of different ages:—

A child between the ages of one and five years old, from $\bar{\text{z}}\text{iv}$. to $\bar{\text{z}}\text{vj}$. A youth of ten or fifteen years, half a pint; and an adult, from a pint to a quart, according to circumstances.

Enema with Oil, Salt, &c.

- R. Olei ricini vel olivarum, f $\bar{\text{z}}\text{ij}$.
 Syrupi sacchari rubri, f $\bar{\text{z}}\text{ij}$.
 Sodii chloridi, $\bar{\text{z}}\text{i}$ vel $\bar{\text{z}}\text{ij}$.
 Infusi lini tepidæ, Oj.

Fiat enema.—One half to be thrown up the rectum with a syringe, and the remainder in half an hour or an hour, if the first produces no evacuation. The molasses in this preparation may be omitted without loss, and water substituted for the flax-seed mucilage. In fact there is no better enema than simple salt and water at the ordinary temperature; and sea-water fresh from the ocean answers the same purpose.

Enema with Sulphate of Magnesia, &c.

- R. Sulphatis magnesiæ, vel sodæ, $\bar{\text{z}}\text{ij}$.
 Olei olivarum, f $\bar{\text{z}}\text{j}$.
 Aquæ tepidæ, Oj.

Fiat enema et signa.—To be exhibited in the manner directed above.

Enema of Colocynth.

- R. Colocynthidis medullæ incisæ, $\bar{\text{z}}\text{j}$.
 Aquæ bullientis, f $\bar{\text{z}}\text{x}$.
 Sodii chloridi, $\bar{\text{z}}\text{ss}$.
 Mannæ, $\bar{\text{z}}\text{j}$.

Boil the Colocynth in the water for ten or fifteen minutes, and strain—then add to the other ingredients. Employed in obstinate constipation.

Enema of Oil of Turpentine.

- R. Olei terebinthinæ, f $\bar{\text{z}}\text{jss}$.
 Vitelli unius ovi,
 Solutionis acaciæ, vel
 Infusi lini tepidi, Oj.

Misce.—To be administered secundum artem.

The Venice turpentine may be substituted for the oil directed in this prescription; and either of them, if required, may be given in larger quantities.

Enema of Infusion of Senna and Epsom Salts.

R. Infusi foliorum sennæ, Oj.

Magnesiæ sulphatis, ℥ij.

Misce.—One-half to be exhibited as an enema, and the remainder if necessary.

Enema with Tartrate of Antimony.

R. Antimonii et potassæ tartratis. ℥j to ℥ij.

Solutionis acaciæ tepidæ, Oj.

Misce.—Exhibit as the former.

Dr. Chapman recommends this preparation as one admirably calculated to overcome constipation which resists the ordinary remedies. It is very powerful, and requires great care in its management.

Tobacco Enema.

R. Tabaci, ℥ss.

Aquæ ferventis, Oj.

Make an infusion in the usual manner, and use the half as an enema.

It must be cautiously administered, as death has followed its imprudent exhibition. In case of great consequent prostration, the rectum should be at once washed out with copious injections of water or other simple diluents, accompanied by the internal use of stimulating drinks, and the application of a mustard plaster over the region of the stomach.

CLASS III.

DIURETICS.

THE rules for the administration of this class of remedies are few and simple.

Where there is much arterial excitement, a judicious use of the lancet should precede the employment of diuretics, and the patient kept cool, to avoid perspiration.

In order to insure the full effect of diuretics, diluent drinks should be freely given, and especially those containing some diuretic medicine.

POWDERS AND PILLS.

Powder of Bicarbonate of Potash.

R. Potassæ bicarbonatis, ℥ss.

This powder may be most agreeably taken in a bottle of seltzer water, and repeated three or four times a-day.

The same quantity of bicarbonate of soda may be administered in the same manner, or in a wine-glass of distilled mint-water.

Powder of Squill, &c.

R. Pulveris scillæ, gr. vj.

—— potassæ nitratis, ʒj.

Fiant pulveris vj et signa.—One to be given thrice a-day in sugar and water.

Some aromatic, such as cinnamon, may be added to this preparation, if the stomach should reject it.

Powders of Uva ursi and Soda.

R. Pulveris uvæ ursi, ℥iss.

Sodæ bicarbonatis, ℥j.

Misce, et divide in chartulas xij.—Signa.—One three times a-day in sugar and water.

In Nephritic complaints, and other affections of the bladder.

Pills of Digitalis, Calomel, Opium, &c.

R. Pulveris digitalis, gr. xij.

Hydrargyri chloridi mitis, gr. vj.

Opii, gr. iv.

Confectionis rosæ, q. s.

Ut fiant pilulæ xij et signa.—One to be taken every eight hours.

In Hydrothorax and Ascites.

Pills of Balsam of Copaiva.

R. Copaibæ, ℥ij.

Magnesiae, gr. vij.

Misce in motario.

Copaiva requires for its solidification one seventeenth its weight of pure magnesia. It will not, however, always become solid in these proportions, as the balsam suffers changes by age. The mixture thickens in about six or eight hours, and acquires greater solidity by time. The mass may be formed into pills of four grains each, of which two may be taken three or four times in the day. They answer all purposes of the liquid balsam.

Powder of Ergot and Cubebs.

R. Ergotæ, ℥ij.

Pulveris cubebæ, ℥j.

—— cinnamomi, ℥ss.

Sacchari purificati, ℥j.

Divide into eight powders, of which one may be given three or four times a-day. In Leucorrhœa and Gleet.

Dr. Ryan.

Pills of Extract of Dandelion.

R. Extracti taraxaci, ℥ss.

Pulveris glycyrrhizæ, q. s.

Ut fiant pilulæ viij.—One to be given morning, noon, and night. In Dropsy, and diseases of the urinary apparatus.

Extract of Dandelion and Blue Mass.

R. Extracti taraxaci, ℥ss.

Pilulæ hydrargyri, gr. v vel x.

Pulveris uvæ ursi, q. s.

Ut fiant pilulæ x, et signa.—One to be taken morning, noon, and night. In Dropsy complicated with disease of the liver.

Pills of Squill and Calomel, &c.

R. Hydrargyri chloridi mitis,

Pulveris scillæ, āā. gr. xij.

Confect. rosæ, q. s. ut fiant pilulæ xij. Signa,—one night and morning, in dropsies depending upon visceral derangement.

This preparation is one of the most celebrated of the diuretics; and where disease of the liver causes the effusion, is decidedly one of the best. When the calomel affects the mouth, it should be omitted, and the squill combined with some other diuretic.

Pills of Carbonate of Soda.

R. Sodæ carbonatis exsiccati, ℥j.

Saponis albi, ℥ij.

Aquæ, q. s. ut fiant pilulæ xxx.—Three to be taken three times a-day. Chiefly adapted to calculus affections.

Pills of Calomel, Digitalis, &c.

R. Pulveris scillæ exsiccatæ, gr. iv.

—— myrrhæ, ℥j.

—— digitalis foliorum, gr. x.

Hydrargyri chloridi mitis, gr. vj.

Simul tere et adde—

Asafœtidæ, ℥ss.

Extracti gentianæ, q. s.

Ut fiat massa, in pilulas xv dividenda. Signa, one night and morning.

Dr. Paris.

Turpentine Pills.

R. Terebinthinæ albæ, ℥j.

Divide in pilulas xv et signa. One four or five times a-day.

MIXTURES, INFUSIONS, &c.

Mixture with Tincture Cantharides, &c.

R. Tincturæ cantharidum,
 Spiritus ætheris nitrici, āā. gtt. lx.
 Sacchari albi, ℥j.
 Aquæ menthæ sativæ, f ℥ij.

Fiat mistura et signa.—A tea-spoonful may be taken every three or four hours; desisting if strangury should supervene.

Mixture of the Spirits of Nitre, &c.

R. Spiritus ætheris nitrici, f ℥j.
 Tincturæ scillæ, f ℥ij.

Fiat mistura.—Of which give a tea-spoonful five or six times in the day, with the following infusion:—

R. Baccarum juniperi contus: ℥j.
 Potassæ bitartratis, ℥ss.
 Aquæ bullientis, Oj.

Fiat infusum.—A tea-cupful for a dose with the above mixture.

Solution of Cream of Tartar.

R. Potassæ bitartratis, ℥j.
 Aquæ, Oij.

Fiat solutio. To be freely drunk through the day.

Mixture of Acetate of Ammonia, &c.

R. Liquoris ammoniæ acetatis, f ℥ij.
 Potassæ acetatis, ℥ij.

Misce et signa.—A table-spoonful every three hours for a dose.

Infusion of Parsley.

R. Petroselini, ℥j.
 Aquæ bullientis, Oj.

Fiat infusum et cola. A tea-cupful may be taken with a tea-spoonful of spiritus nitri dulcis, every three or four hours.

A popular and very useful remedy for strangury arising from blisters.

Mixture of Tincture of Jalap, &c.

R. Tincturæ jalapæ, f ℥ij.

Aceti scillæ, f ℥j.

Aquæ menthæ, f ℥j.

Fiat haustus.—To be taken three times a-day.

Infusion of Juniper Berries, &c., in Cider.

R. Juniperi contusi,

Seminum sinapis,

Radicis zingiberis, āā. ℥ss.

—— armoraciæ contusæ,

—— petroselini, āā. ℥j.

Succi fermenti pomorum, Oij.

Fiat infusum.—Of which a wine-glassful may be taken three or four times a-day.

The above compound was recommended by the late Dr. Parrish, in cases of general dropsy which admit of stimulation, and in which the urinary secretion is deficient. The cider should be old and sound.

Oil of Juniper Berries.

R. Olei juniperi, f ℥ss.

Signa.—Five drops to be taken every three hours in sugar, gradually increasing the dose and using diluent drinks.

Oil of Juniper, &c.

R. Olei juniperi, gtt. viij.

Sacchari albi,

Gummi acaciæ, āā. ℥iss.

Aquæ destillatæ, f ℥iv.

Misce et signa.—A table-spoonful to be taken every hour or two hours.

Infusion of Juniper Berries, &c.

R. Juniperi contusi, ℥iss.

Potassæ bitartratis, ℥j.

Aquæ bullientis, Oj.

Fiat infusum.—Of this a tea-cupful may be taken four or six times a-day; adding to each 40 drops of the sweet spirits of nitre. In general and local dropsy.

Mixture of Colchicum, Squills, &c.

R. Oxymellis colchici,
 ——— scillæ,

Tincturæ nicotianæ. āā. f \bar{z} ss.

Misce. Take a tea-spoonful in a little water four times a-day.

If requisite, the spiritus ætheris nitrici may be added in the same quantity. This forms the *diuretic drops* of Dr. Ferriar. It requires to be given with great circumspection.

Infusion of Digitalis, &c.

R. Digitalis, \bar{z} ss.

Aquæ bullientis, Oss.

Macerate for three hours, then strain.—Dose for an adult, half a table-spoonful two or three times a-day.

The prostrating effect of digitalis should always be kept in mind by the practitioner; and the rule that when it acts upon the *stomach*, the *bowels*, the *pulse*, or the *kidneys*, it should be discontinued, cannot, when we consider the power of the article, be too scrupulously observed.

Mixture of Digitalis, Potash, &c.

R. Infusi digitalis, f \bar{z} iv.

Tincturæ digitalis, f \bar{z} i.

Potassæ acetatis, f \bar{z} j.

Tincturæ opii, gtt. x.

Fiat mistura et signa.—Half a table-spoonful three or four times a-day.

Mixture of Spirits of Turpentine, &c.

R. Olei terebinthinæ, gtt. c.

Pulveris acaciæ,

—— sacchari, āā. \bar{z} j.

Aquæ menthæ, f \bar{z} iv.

Fiat mistura et signa.—A table-spoonful four or five times a-day, aided by some diuretic drink.

This remedy is used with great benefit in nephritic complaints, and especially in the passage of calculi down the ureters.

Diuretic Liniment.

R. Tincturæ scillæ,

—— digitalis, āā. f ʒij.

Misce.—Employed with good effect as a liniment in symptomatic anasarca. *M. Rullier.*

Decoction of Cainca.

R. Radicis caincæ, ʒij.

Aquæ, Oiss.

To be gradually reduced by heat to one half. Dose—a table-spoonful three times a-day. *In Dropsy.*

This root is derived from the *chiococca anguifuga*, a Brazilian plant, which has of late been extensively and efficaciously employed in Europe. It occasions watery evacuations and diuresis, whence its use in dropsy.—*Dunglison, New Remedies*, p. 108.

Mixture of Carbonate of Potash, Squills, &c.

R. Carbonatis potassæ, ʒj.

Succi limonis, q. s. ad saturandum,

Tincturæ scillæ, f ʒss.

—— opii, gtt. xxx.

Aquæ cinnamomi, f ʒiv.

Misce et signa.—A table-spoonful every two or three hours throughout the day.

The vinegar or oxymel of squills, if preferred, may be substituted in this preparation. We use the tincture because it is more uniform, and less liable to spontaneous changes.

Mixture of Wine of Colchicum, &c.

R. Vini colchici, f ʒss.

Magnesiæ carbonatis, ʒj.

Aquæ cinnamomi,

—— destillatæ, āā. f ʒiij.

Misce et signa.—A table-spoonful three times a-day.

The vinum colchici is recommended by some European writers in that particular form of dyspepsia which depends on duodenal irritation; taking care at the same time to employ occasional laxatives.

Tincture of Colchicum and Digitalis.

R. Tincturæ seminum colchici,

———— digitalis, āā. f ʒj.

Spiritus ætheris nitrici, f ʒj.

Misce. Dose—twenty drops on a lump of sugar. Given as a diuretic in dropsy.

Infusion of Uva Ursi.

R. Uvæ ursi, ʒj.

Aquæ bullientis, Oj.

Pour the water boiling hot on the leaves, and let them macerate for twelve hours. To be taken cold, from half a pint to a pint, daily. Chiefly used in gonorrhœa and irritable bladder.

Mixture of Balsam Copaiba.

R. Copaibæ,

Spiritus ætheris nitrici, āā. f ʒss.

Pulveris acaciæ,

———— sacchari, āā. ʒj.

Spiritus lavendulæ, f ʒij.

Tincturæ opii, f ʒj.

Aquæ destillatæ, f ʒiv.

Fiat mistura secundum artem et signa. A table-spoonful three times a-day.

This remedy is more especially used in gonorrhœa, and is considered by Professor Chapman as a specific in that disease. A mode, preferable perhaps to any other of exhibiting balsam copaiva, consists in dropping the quantity prescribed for a dose in a wine-glassful of water, and then adding to it a small quantity of the tinc. gentianæ comp. The balsam collects into a globule, and is surrounded by the tincture, which, leaving its taste in the mouth, covers that of the nauseous balsam.

Mixture of Balsam Copaiba, Cubebs, &c.

R. Copaibæ,

Pulveris cubebæ, āā. ʒss.

Acaciæ, ʒij.

Tincturæ opii camphoratæ, f ʒss.

Sacchari albi, ʒij.

Aquæ, f ʒviij.

Misce secundum artem et signa.—A table-spoonful every three hours for a dose.

We have found this remedy, in some obstinate cases of gonorrhœa, more efficacious than the preceding formula. The tincture of cubebs may be substituted for the powder—and the tinc. opii acetat. fʒj for the paregoric, if desirable. Balsam copaiva is sometimes exhibited by the French physicians in the form of enema, for the cure of gonorrhœa.

Copaiba Bolus.

R. Copaibæ, ʒij.
Gummi acaciæ, ʒj.
Pulveris glycyrrhizæ, q. s.

To be made into a bolus, one-half to be taken in the morning, the other in the evening.

This formula is much in use in the Parisian Hospitals, for obstinate gonorrhœa and gleet.

Pills of Copaiba, Calomel, &c.

R. Confect. rosæ, ʒj.
Resinæ pterocarpi, ʒj.
Hydrargyri chloridi mitis, gr. xvij.
Copaibæ, ʒij.

Misce.—To be divided into pills of six grains each, and one or two to be taken morning and evening, according to circumstances. They are employed in long-continued gonorrhœa or gleet, when the inflammatory symptoms have been removed, and the discharge is owing to an atonic state of the mucous membrane.

Ratier.

Compound Mixture of Copaiba, &c.

R. Copaibæ,
Aquæ menthæ,
Alcoholis,
Syrupi,
Spiritus ætheris nitrici, fʒss.

} aa. fʒss.

Fiat mistura.—To be taken during the day in four doses, followed by demulcent drinks. In chronic gonorrhœa.

Hydragogue Draught of Dr. Ferriar.

R. Gambogiæ, gr. iv.
 Spiritus ætheris nitrici, f ʒj.
 Tincturæ sennæ, f ʒij.
 Syrupi rhamni,
 Aquæ menthæ, āā. f ʒss.

Misce.—Dr. Ferriar observes, that in some cases of hydrothorax attended with imminent danger of suffocation, he has afforded immediate relief by the above draught.

Infusion of Dandelion, &c.

R. Infusi taraxaci, f ʒiv.
 Extracti taraxaci, ʒij.
 Sodæ carbonatis, ʒss.
 Potassæ tartratis, ʒiij.
 Tincturæ rhei, f ʒiij.
 ——— hyosciami, gtt. xx.

Fiat mistura et signa.—One third part to be taken three times a-day.
 In dropsical and visceral affections. *Dr. Meigs.*

Decoction of Pipsisseway.

R. Chimaphilæ umbellatæ, ʒj.
 Aquæ, Oj.

Macerate for twelve hours, and then gradually boil it down to one half. Dose—a wine-glassful three or four times a-day. In Dropsy.

Spirituous Decoction of Pipsisseway.

R. Chimaphilæ umbellatæ, ʒij.
 Aquæ, f ʒxij.

Evaporate by heat to ʒvj, and then add two ounces of gin. Dose—a dessert-spoonful every two or three hours, with diluent drinks. In Dropsy accompanied by debility.

Infusion of Scabious or Fleabane.

R. Foliorum erigeri, ʒj.
 Aquæ bullientis, Oj.

Misce.—Pour on the water boiling hot, and infuse all night. A pint of the tea should be taken daily. Nitre or any other diuretic may be added. In calculous and nephritic affections, and in strangury, irritable bladder, &c.

CLASS IV.

ANTILITHICS AND LITHONTRIPTICS.

ANTILITHICS are those substances which arrest or prevent the formation of calculi in the kidneys or bladder. Lithontriptics are supposed to possess the power of dissolving calculous concretions, by acting on the substance which serves as the bond of union to the saline or acid particles composing the stone.

To administer these remedies with any degree of success, requires a chemical knowledge of the ingredients which enter into the formation of the different calculi: attention must also be given to the properties of the urine.

As derangement of the digestive organs almost always co-exists with these foreign bodies in the urinary apparatus, we shall gain a very considerable advantage by combining the remedies of this class with those which have a tendency to restore the healthy action of the stomach and bowels.

When the lithic or uric acid abounds in the urine, the alkalis will be found to produce the greatest benefit; but where the salts are evidently of the calcareous or magnesian character, the muriatic, or some one of the mineral acids, will constitute the most appropriate remedy.

POWDERS.

Powders of Uva ursi, Bark, &c.

R. Pulveris uvæ ursi,

—— cinchonæ, āā. ʒj vel ʒij.

—— opii, gr. iij.

Misce et divide in chartulas vj. —Of which one may be taken three or four times a-day.

The above is the original prescription of Dr. Ferriar, who advises the patient to drink two ounces of aqua calcis after each dose.

PILLS.

Soap Pills.

R. Saponis, ℥j.

Divide in pilulas xv et signa.—One every two hours during the day.

Pills of Carbonate of Soda, dried.

R. Pilulæ sodæ carbonatis exsiccatae, xij.

To be taken three or four times a-day.—As under Diuretics.

SOLUTIONS, MIXTURES, &c.

Solution of Bicarbonate of Soda, &c.

R. Sodæ bicarbonatis, ℥j.

Infusi quassiae, f ℥iv.

Tincturæ calumbæ, f ℥j.

Misce et signa.—A table-spoonful for a dose four times a-day.

Solution of Salæratæ.

R. Potassæ bicarbonatis, gr. x vel xv.

Aquæ seltzer, f ℥vj.

Misce.—Draught, to be taken three or four times a-day.

Mixture of Bicarbonate of Soda, &c.

R. Sodæ bicarbonatis, ℥j.

Misturæ amygdalæ, f ℥iv.

Copaibæ, f ℥ij.

Tincturæ opii, gtt. lx.

Fiat mistura secundum artem.—Signa.—A table-spoonful *pro re natâ*.

In acute pain of the bladder.

In combination with each of these alkaline preparations, demulcent drinks may, with benefit, be freely employed.

Lime-water, &c.

R. Potassæ carbonatis, ℥ij.

Aquæ calcis, Oij.

Fiat solutio.—Of which a wine-glassful may be taken every two hours, mixed with an equal quantity of new milk.

Mixture of Magnesia, &c.

R. Magnesiæ carbonatis, ℥j.

Infusi gentianæ, ℥vj.

Fiat mistura.—A wine-glassful to be taken three times a-day.

This mixture is recommended by Mr. Brande, of London, as superior to the alkalies, in cases where the uric acid abounds.

Mixture of Muriatic acid in Barley water.

R. Acidi muriatici, gtt. x vel xx.

Decocti hordei, ℥viij.

Misce.—Dose, a table-spoonful, largely diluted, three or four times a-day.—In stone, when the calcareous properties are most apparent.

The nitric acid has been given with the same intention, but appears to be less useful than the muriatic.

Oil of Turpentine.

R. Olei terebinthinæ, ℥ss.

Signa.—From thirty drops to a large tea-spoonful may be taken on sugar, and repeated *pro re natâ*. See also the formula given under Diuretics.

This medicine has been frequently given of late in the passage of urinary calculi down the ureters. It is stated by Dr. Physick, (than whom there can be no higher authority,) that this remedy, proportioned in its dose to the degree of suffering, affords more prompt relief than any other.

CLASS V.

DIAPHORETICS.

DURING the exhibition of this class of medicines the patient must be confined to his bed; and when diaphoresis is once excited, every precaution should be taken lest it be suddenly checked.

Venesection should generally be resorted to when there is much arterial excitement with great heat of the skin, before we attempt to give diaphoretics. Where the skin continues steadily hot and dry, all external warmth must be removed, and cold water freely applied to the temples, hands, feet, &c., while the room is to be kept cool by a free current of fresh air. Under these circumstances, cold water may be frequently and plentifully drunk by the patient. Diaphoretics given in conjunction with these general means, will act with much more certainty than if great heat of the surface is maintained by covering the patient with heavy bed-clothes. If it be desirable to produce perspiration when the heat of the skin is not above the natural standard, we shall obtain our object most readily by placing the patient in a warm bed, giving him warm drinks freely, placing his feet in warm water, or applying hot bottles, or bags of sand, to the different parts of his body. The bags of sand accommodate themselves to the inequalities of the surface, and therefore form an excellent mode of applying heat externally. Warm bricks, covered with cloths, and wetted with vinegar, may also be used advantageously. Employed in this way they form a steam-bath. The same effect may be produced by conducting the vapour of alcohol through a tube, under the bed-clothes of the patient.

In few words, then, we have described the manner of producing diaphoresis under opposite states of the system. In the first instance we solicit, in the second we rather extort it.

It may be proper to observe, that in the febrile affections the frequent change of linen about the patient is not only warrantable, but absolutely necessary, whilst employing this class of remedies. Where, however, we are desirous of producing what is emphatically termed "*a sweat*," we should envelope the patient in a flannel shirt or gown, and avoid, as was before observed, every cause which may suddenly check the *cutaneous discharge*, and more especially purging and diuresis.

POWDERS.

Powders with Nitrate of Potash, Calomel, &c.

- R. Pulveris potassæ nitratis, ℥j.
 Antimonii et potassæ tartratis, gr. ss.
 Hydrargyri chloridi mitis, gr. vj.
 Fiat pulveres vj et signa.—One to be taken every two hours in sirup or molasses. In febrile affections.

The calomel may be omitted or employed, at the discretion of the practitioner.

Powders with Opium, Ipecacuanha, Calomel, &c.

- R. Pulveris opii, gr. iij.
 ——— ipecacuanhæ, gr. vj.
 Hydrargyri chloridi mitis, gr. iss.
 Potassæ nitratis, ℥ss.
 Fiant pulveres vj et signa.—One to be taken every three or four hours.

Powders with Guaiacum, &c.

- R. Pulveris guaiaci,
 ——— potassæ nitratis, āā. ℥j.
 ——— ipecacuanhæ, gr. iij.
 ——— opii, gr. ij.
 Fiant pulveres vj et signa.—One to be taken every three hours in a little jelly or molasses.

A stimulating diaphoretic, and particularly serviceable in acute rheumatism after the reduction of inflammatory symptoms.

Powders of Sulphate of Potash, Opium, &c., vulgo, Dover's Powders.

R. Pulveris opii,

—— ipecacuanhæ, āā. gr. vj.

Potassæ sulphatis, gr. xlvij.

Fiant pulveres vj et signa.—One to be taken three times a-day.

The principal use of the salt in this preparation, appears to be to facilitate the minute division of the other two ingredients. Its crystals are extremely hard, and it should therefore be broken down and reduced to powder in a mortar at the same time with the other articles. It is one of the happiest and most useful combinations, having stood the test of time and experience with undiminished reputation. To promote its operation, *warm drinks* may be freely taken after each dose.

Powders with Calomel, Opium, &c.

R. Pulveris opii, gr. iv.

Hydrargyri chloridi mitis, gr. xvj.

Pulveris ipecacuanhæ, gr. viij.

Divide in pulveres viij et signa.—One to be taken every hour or two hours.

This combination is recommended by Professor Chapman in dysentery. From its evident diaphoretic tendency we have been induced to place it under this head.

Antimonial Powder.

R. Pulvis antimonialis, ʒj.

Divide in chartulas vj et signa.—One every two or three hours in sirup or molasses. In Fevers.

This powder, which has been introduced as the succedaneum of the celebrated Fever Powder of Dr. James, has lately been pronounced inert by Mr. Richard Phillips, chemist of London. Learning that it had produced no effect when largely exhibited, he determined to examine it *chemically*, and found it to consist of peroxide of antimony, (which he says is inert,) and the phosphate of lime in mixture. But, as Dr. Paris observes, "It will be difficult for the chemist to persuade the physician he can never have derived any benefit from the exhibition of antimonial powder."

Powders of Precipitated Sulphuret of Antimony, Calomel, &c.

- R. Antimonii sulphureti præcipitati,
 Hydrargyri chloridi mitis, āā. gr. vj.
 Pulveris guaiaci, ʒj.

Fiant chartulæ vj et signa.—One to be taken morning and evening, with double or even triple proportion of the ingredients if necessary. In cutaneous diseases.

Mixture of Carbonate of Potash, Lemon juice, &c., vulgo, Neutral or Saline Mixture.

- R. Succī limonis recentis, f ʒiss.
 Potassæ carbonatis, q. s. ad saturandum,
 Sacchari albi, ʒj vel ʒij.
 Antimonii tartratis, gr. ss.
 Aquæ destillatæ vel menthæ, f ʒiij.

Misce.—A table-spoonful to be taken every two hours. In Fevers.

This preparation is one of our most agreeable diaphoretics. Its powers are decidedly increased by the addition of tartar emetic; which, however, may be omitted, and the sweet spirits of nitre substituted, if preferred.

Solution of Citrate of Potash.

- R. Potassæ citratis, ʒij.
 Aquæ destillatæ, f ʒiv vel f ʒvj.
 Olei limonis, gtt. ij.
 Sacchari albi, ʒij.

Misce.—A table-spoonful to be taken every two hours.—This preparation is a good substitute for the preceding one, and is in several respects to be preferred. Spirits of nitre may be added.

Pills of Antimonial Powder, Calomel, &c.

- R. Pulveris antimonialis, gr. x.
 Opii pulveris,
 Hydrargyri chloridi mitis, āā .gr. ij.
 Confectionis rosæ, q. s.

Fiant pilulæ æquales quatuor.

Signa.—Two to be taken at bed-time. In acute rheumatism.

Pills of Tartar emetic, Camphor, &c.

- R. Antimonii et potassæ tartratis tartarizati, gr. ij.
 Pulveris opii, gr. vj.
 Camphoræ, gr. xxxvj.
 Alcohol, gtt. iij.
 Confect. rosæ, q. s.
 Fiat pilulæ xi et signa.—One to be taken every fourth hour.

Pills of Red sulphuret of Mercury, &c.

- R. Hydrargyri sulphureti rubri,
 Pulveris serpentariæ, āā. ʒss.
 Syrupi, q. s.
 Fiat pilulæ xij et signa.—Two of these to be taken three times a-day.

They are alterative as well as diaphoretic, and are useful in herpetic and other obstinate cutaneous complaints.

Pills of Sulphuret of Antimony, &c.—Plummer's pills.

- R. Hydrargyri chloridi mitis,
 Antimonii sulphureti, āā. ʒss.
 Pulveris guaiaci, ʒj.
 Copaibæ, q. s. ut fiant pilulæ lx.
 Three pills to be taken night and morning.

These pills were recommended by Professor Plummer in leprosy, secondary syphilis affecting the skin, gleans, old ulcers, &c., &c. The decoction of Guaiacum generally accompanies their use.

Anodyne pills.

- R. Extracti opii, gr. x.
 Antimonii sulphureti præcipitati, gr. xij.
 Potassæ nitratæ, gr. xxiv.
 Syrupi, q. s.
 Ut fiant pilulæ vj.
 Signa.—One at bed-time, in rheumatic affections. To diminish pain
 and produce diaphoresis. *M. Recamier.*

Effervescing draught.

R. Potassæ carbonatis, ℥ij.

Aquæ destillatæ, f ℥iv.

Misce et fiat solutio.

R. Succī limonis recentis,

Aquæ destillatæ, āā. f ℥ij.

Misce et signa — Mix two table-spoonsful of the lemonade with one of the alkaline solution, and let it be drunk while effervescing, and repeated *pro re natā*.

This preparation differs from the neutral mixture more in the mode of exhibition than in any other important particular. It is of great value when the irritability of the stomach precludes the use of the ordinary diaphoretics.

Sweet Spirits of Nitre, with Antimonial wine, &c.

R. Tincturæ opii, gtt. xxv.

Spiritus ætheris nitrici, f ℥j.

Vini antimonii, gtt. xx.

Aquæ destillatæ, f ℥ss.

Fiat mistura.—To be given at a dose, and repeated *pro re natā*.

Dr. Chapman observes in his 'Therapeutics'—that "This combination very frequently acts as a diuretic in dropsy, and has more than once, within my knowledge, removed the effusion in this disease, under circumstances the least to be expected.

Sweet spirits of Nitre, &c.

R. Spiritus ætheris nitrici, f ℥j.

Vini antimonii, f ℥ij.

Misce et signa.—A tea-spoonful may be taken every hour or two hours, in barley water, during the hot stage of intermittent and other fevers.

Water of Acetated Ammonia, &c.

R. Liquoris ammoniæ acetatis, f ℥ij.

Aquæ cinnamomi, f ℥j.

Vini antimonii, f ℥j.

Aquæ destillatæ, f ℥ij.

Fiat mistura et signa.—A table-spoonful every two or three hours.

Tincture of Tolu with Wine of Antimony, &c.

R. Tincturæ tolutani, f ʒv.

Pulveris acaciæ, ʒiij.

Sacchari, ʒj.

Vini antimonii, f ʒj.

Aquæ cinnamomi, f ʒij.

Fiat mistura et signa.—A table-spoonful three or four times a-day.

This is a stimulating diaphoretic, and will be found serviceable in pectoral diseases accompanied with an excessive mucous discharge depending on debility of the bronchial membrane.

Mixture with Camphor, Antimonial wine, &c.

R. Misturæ camphoræ, f ʒss.

Aquæ ammoniæ acetatis, f ʒss.

Vini antimonii, gtt. xx.

Tincturæ opii, gtt. xx.

Misce et signa.—To be taken at bed-time, or oftener, but in the latter case diminishing the quantity of laudanum.

For the prescription for *Mistura camphorata*, see Stimulants.

Mixture with Guaiacum, &c.

R. Pulveris guaici, ʒij.

—— potassæ nitratis, ʒiss.

Pulveris acaciæ, ʒj.

Antimonii et potassæ tartratis, gr. j.

Pulveris glycyrrhizæ, ʒj.

Aquæ destillatæ, vel menthæ, f ʒviij.

Fiat mistura et signa.—A table-spoonful three or four times a-day.

This preparation, if made without the extract of liquorice, is disposed to turn green, which gives it an unpleasant appearance, and sometimes induces the patient to refrain from it until the physician arrives. It is employed principally in rheumatic cases.

Sirup or Rob Anti-syphilitique of Laffeteur.

R. Sarsaparillæ,
 Arundinis phragmitis, āā. ℥xxx.
 Florum boraginis officinalis, ℥viij.
 Sennæ,
 Rosæ albæ, āā. ℥ij.
 Sacchari,
 Mellis, āā. ℥vj.

Boil the sarsaparilla and marsh reed grass in nine pints of water for one hour; strain off the decoction, and pour the same quantity of water on the residuum, which is to be boiled for two hours: towards the end of the boiling add the borage flower, senna, and rose leaves, and then strain off, and to both decoctions add the sugar and honey, and boil the whole to the consistence of a sirup.

The dose for a man is six table-spoonsful, and for a woman four, taken without addition, at six in the morning.

The sarsaparilla ptisan is then to be commenced, and is made as follows:—

Boil ℥ij. of sarsaparilla in three quarts of water, to two quarts, suffer it to infuse during the night, and strain it off in the morning.

This is to be drunk by the tumblerful, and several are to be taken during the day.

The above preparation has been asserted, by the New York Medical Society, to be nearly identical with the noted Panacea of Swaim. It is believed that corrosive sublimate is often introduced into these nostrums at the discretion of the vendor. That both the French and American have frequently salivated, is well ascertained.

Decoction of Burdock.

R. Radicis arctii lappæ, ℥ij.
 Aquæ, Oij.

Reduce the fluid by boiling to two pints, and strain. A tea-cupful may be taken for a dose, five or six times a-day.

In syphilis, scurvy, arthritic affections, &c.

Decoction of Mezereon.

R. Mezerei, $\mathfrak{z}\text{vj}$.

Aquæ, Ovj .

Reduce by boiling to $\mathfrak{H}\text{iv}$., and near the end of the decoction, add radicis glycyrrhizæ glabræ, $\mathfrak{z}\text{j}$. Strain, and give from one to four pounds per diem, as the stomach will bear it. In scrofula complicated with syphilis, &c.

Decoction of Lobelia syphilitica.

R. Radicis Lobeliæ syphiliticæ, $\mathfrak{z}\text{ss}$.

Aquæ, Oxij .

Boil down to $\mathfrak{H}\text{viii}$., and strain. Commence with half a pint daily, and increase it to two pints per diem, until free purging is induced; then omit it for three or four days, and resume and continue in this way until a cure is effected.

Applicable to secondary syphilis, and to diseases depending on the excessive use of mercury.

For a variety of decoctions of similar character, see *Swediaur on Syphilis*.

Solution of Citrate of Ammonia, &c.

R. Succī limonis recentis, $\mathfrak{z}\text{j}$.

Ammonizæ carbonatis, q. s. ad saturandum.

Sacchari, $\mathfrak{z}\text{j}$.

Aquæ destillatæ, vel menthæ, f $\mathfrak{z}\text{iv}$.

Fiat mistura et signa.—A table-spoonful may be taken every two or three hours, *pro re natâ*.

This preparation is seldom employed in the practice of this city. It may, however, be beneficially given, as a pleasant stimulating diaphoretic.

Infusion of Boneset.

R. Eupatorii, $\bar{\text{z}}$ j.

Aquæ bullientis, Oj.

Infuse for thirty minutes in a covered vessel; then decant and take a wine-glassful every hour, till perspiration is freely induced. The infusion must be taken as hot as it can be drunk, otherwise, it may produce vomiting.

Decoction of Sarsaparilla, &c.

R. Give of the compound decoction of sarsaparilla, a tea-cupful four or five times a-day.

This preparation, the formula for which is to be found in almost any Pharmacopœia, has long been celebrated in the sequelæ of syphilis, and the disease produced by the improper exhibition of mercury. It is also much employed in rheumatism. The rules laid down in the Dispensatories for the preparation of the decoction should be closely observed.

Infusion of the Asclepias tuberosa, or Pleurisy root.

R. Radicis asclepiadis tuberosæ, $\bar{\text{z}}$ j.

Aquæ bullientis, Oiss.

Fiat infusum et signa.—A tea-cupful to be taken warm, as frequently as the stomach will bear it.

Professor Chapman observes of this plant—"As a diaphoretic, I think it is distinguished by great certainty and permanency of operation, and has this estimable property, that it produces its effects without increasing much the force of the circulation, raising the temperature of the surface, or creating inquietude and restlessness."—*Therapeutics*, Vol. I. p. 347.

Decoction of Barley with Nitrate of potash.

* R. Decocti hordei, Oj.

Potassæ nitratis, $\bar{\text{z}}$ ij.

Succi limonis, f $\bar{\text{z}}$ j.

Fiat potus.—To be used warm as a common drink.

* For Decoction of Barley, see Dietetics.

Infusion of Pipsisseway.

R. Chimaphilæ, $\bar{\text{z}}$ j.

Aquæ bullientis, Oj.

Fiat infusum.—A tea-cupful every two hours.

Mixture of Muriate of Baryta, &c.

R. Barii chloridi,

Ferri chloridi, āā. $\bar{\text{z}}$ ss.

Aquæ destillatæ,

Syrupi corticis aurantii āā. f $\bar{\text{z}}$ j.

Fiat mistura et signa.—The dose may be from ten to twenty drops every three hours. In obstinate scrofulous diseases.—*Hufeland*.

CLASS VI.

EXPECTORANTS.

DURING the administration of Expectorants the patient should be kept warm, and, if the complaint be violent, in bed. The dose of all Expectorants should be repeated sufficiently often to allay the irritation as much as possible; for it is obvious that the act of coughing increases that very irritation which originally gave rise to it.

POWDERS, PILLS, &c.

Powders of Myrrh, Ipecacuanha, &c.

- R. Pulveris myrrhæ, gr. xij.
—— ipecacuanhæ, gr. vj.
—— potassæ nitratis, ʒss.

Misce et divide in doses quatuor. One to be taken every fourth hour.
A stimulating expectorant.—*Paris's Pharmacologia.*

Compound powder of Ipecacuanha.

- R. Pulveris ipecacuanhæ compositi, ʒss.
Divide in chartulas iij et signa.—One, two or three times in 24 hours,
mixed in sugar and water.

This, the Dover's powder, has been already introduced under the head of Diaphoretics, where perhaps it most properly belongs; but it often proves of such decided advantage as an expectorant, as to deserve an insertion here.

Powders with Nitrate of potash, Calomel, Opium, &c.

R. Potassæ nitratis, ℥j.

Hydrargyri chloridi mitis, gr. iij.

Pulveris opii, gr. iij.

—— ipecacuanhæ, gr. iij vel vj.

Misce et divide in chartulas vj, et signa.—One every two or three hours in sirup or molasses.

This preparation closely resembles the former with the exception that it contains *calomel*.

All powders containing calomel, or other metallic preparations, should be given in sirup, as they sink when water is employed as the vehicle.

Pills of sulphate of Zinc and Myrrh.

R. Zinci sulphatis, gr. x.

Pulveris myrrhæ, ℥iss.

Confectionis rosæ, q. s.—ut fiant pilulæ xx.

This prescription is taken from the Pharmacologia of Dr. Paris, who recommends two of the pills to be taken twice a-day.

It is principally used in pertussis; but a more efficient direction would be to give a pill every two hours. Dr. Paris remarks, that the principal nostrums for whooping-cough, are formed either of opium or sulphate of zinc.

Pills of Conium, Ipecacuanha, &c.

R. Extracti conii,

Pulveris ipecacuanhæ compositi, āā. gr. x.

Misce et fiant pilulæ v.—Of which two may be taken at bed-time.

In pulmonary irritation, attended with rheumatic and other local pains.

Pills of Tartar emetic, &c.

R. Antimonii et potassæ tartratis,

Opii, āā. gr. iss.

Pulveris tragacanthæ, gr. x.

Confectionis rosæ, q. s. ut fiant pilulæ xxv. Two to be taken night and morning. In chronic pulmonary catarrh.

Dr. Pariset.

Pills of Squill, Ammoniac, &c.

R. Pulveris scillæ, gr. xxx.

Ammoniaci, ℥ss.

Extracti conii, gr. xxx.

Divide into xxx pills; of which two may be taken twice a-day. In asthma and chronic catarrh.

Pills of Squill, Calomel, &c.

R. Hydrargyri chloridi mitis, gr. iij.

Scillæ recentis,

Ammoniaci, āā. ℥j.

Pulveris ipecacuanhæ compositi, ℥ss.

Confectionis rosæ, q. s. ut fiat massa, et divide in pilulas xxx. One three or four times a-day. In troublesome cough.

Dr. Latham.

The recent squill is greatly preferred by some physicians. It is generally given in double the dose of the dried root.

Pills of sulphate of Zinc.

R. Zinci sulphatis, ℥ss.

Confect. rosæ, q. s. ut fiant pilulæ xx.—One of these pills may be given three times a-day.

In phthisis and pertussis.

Tar pills.

R. Picis liquidæ, ℥j.

Pulveris glycyrrhizæ, q. s.

Ut fiant pilulæ xxx vel xl.—One to be taken every three or four hours.

Pills of Calomel, Squill, &c.

R. Hydrargyri chloridi mitis, gr. xxiv.

Pulveris scillæ, ℥ss.

Antimonij et potassæ tartratis, gr. vj.

Pulveris opii, gr. xvij.

Fiant pilulæ xxiv, et signa.—One every night. In catarrhal affections.

Ipecacuanha pills.

R. Pulveris ipecacuanhæ, gr. xv.

Saponis albi, q. s. ut fiant pilulæ xv. Signa, one three times a-day.

In protracted catarrh, and incipient phthisis.

Pills of Myrrh, &c.

R. Myrrhæ, ℥iss.

Scillæ exsiccatæ, ℥ss.

Extracti hyoscyami, ℥ij.

Aquæ destillatæ, q. s. ut fiant pilulæ xxx.—Two to be taken night and morning.

These pills are recommended by Dr. Paris, in phthisis and catarrh attended with great debility of the pulmonary organs.

Lozenges with Liquorice, Opium, &c.

R. Pulveris acaciæ,

——— extracti glycyrrhizæ,

——— sacchari, āā. ℥ij.

——— opii, gr. vj.

Olei anisi, gtt. iv.

Misce et adde—

Aquæ destillatæ, q. s. ut fiant trochisci lx et signa.—One of these may be dissolved in the mouth three or four times a-day.

These are the well-known *Cough lozenges* of the late Dr. Wistar.

Emetine Lozenges.

R. Emetiæ coloratæ, gr. xxxij.

Sacchari albi, ℥ij.

Divide into lozenges, each weighing ten grains. One of these will produce more or less nausea in a child; but if this is not desirable, they can be given in divided portions. Adults may take several at intervals of two hours, without the risk of vomiting.

*Amckley
pills*

Cubeb lozenges.

- R. Pulveris cubebæ, ℥ij.
 Tolutani, gr. vj.
 Syrupi myroxyli,
 Extracti glycyrrhizæ, āā. ℥j.
 Acaciæ, q. s.

Mix, and divide into lozenges of ten grains each. These are called Spitta's lozenges, and are celebrated for the relief they afford in coryza.

MIXTURES, SIRUPS, &c.

Mixture with extract of liquorice, &c., vulgo, Brown mixture.

- R. Pulveris extracti glycyrrhizæ,
 ——— acaciæ, āā. ℥ij.
 Aquæ ferventis, f ℥iv.
 Misce et fiat solutio, et adde—
 Spiritus ætheris nitrici, f ℥j.
 Vini antimonii, f ℥j.
 Tincturæ opii, gtt. xl vel lx.

Signa.—A table-spoonful for a dose, *pro re natâ*. In catarrh.

Mixture with sirup of Squill, &c.

- R. Syrupi scillæ, f ℥ss.
 Tincturæ opii camphoratæ, f ℥ij.
 Vini antimonii, f ℥j.
 Pulveris acaciæ, ℥ss.
 Aquæ destillatæ, f ℥iij.
 Misce et signa, a tea-spoonful every two or three hours.

This is more particularly designed for children.

Compound sirup of squill, vulgo, Coxæ's hive sirup.

- R. Syrupi scillæ compositi, f ℥j.
 A small tea-spoonful may be given to a child of one year old every quarter, half, or one hour, according to the violence of the disease, and until vomiting ensues; then discontinue it.

The following is perhaps a more eligible compound.

- R. Infusi senegæ, f $\overline{3}$ iv.
 Syrupi ipecacuanhæ, f $\overline{3}$ j.
 Oxymellis scillæ, f $\overline{3}$ ij.
 Antimonii et potassæ tartratis, gr. i.
 Fiat mistura et signa.—A tea-spoonful, *pro re natâ*, for children of two years of age, and upwards. In croup.

Infusion of Seneka.

- R. Radicis senegæ, $\overline{3}$ ij.
 Aquæ bullientis, f $\overline{3}$ vj.
 Syrupi tolutani, $\overline{3}$ j.
 Ammoniaci, $\overline{3}$ ss.
 Misce.—A table-spoonful every two hours. In catarrh.

Mixture of extract of Conium, &c.

- R. Extracti conii $\overline{3}$ j
 Tincturæ opii camphoratæ, f $\overline{3}$ ss.
 Syrupi tolutani, f $\overline{3}$ ss.
 Aquæ rosæ, f $\overline{3}$ iv.
 Misce et signa.—From half to a whole tea-spoonful may be given once in four hours to a child a year old, watching the effect.

Dr. Pearson, in his work on pertussis, recommends the above as a valuable formula.

Mixture of Almond emulsion, &c.

- R. Misturæ amygdalæ, f $\overline{3}$ v.
 Vini ipecacuanhæ,
 Tincturæ scillæ, āā. f $\overline{3}$ j.
 Syrupi tolutani, f $\overline{3}$ vj.
 Misce et signa.—Take a table-spoonful whenever the *cough* is urgent.

Almond emulsion is prepared by removing the skin of sweet almonds by immersing them in hot water, (called blanching,) then beating them with some sugar to a pulp in a mortar, and adding water *gradatim* until an emulsion of sufficient consistence is formed. It is then to be strained.

White linctus.

R. Amygdalæ dulcis, xv.

Tragacanthæ, ʒj.

Syrupi, f ʒj.

Olei amygdali, f ʒij.

Aquæ florum aurant: f ʒij.

— destillatæ, f ʒiv.

Misce et signa.—A table-spoonful for a dose, frequently through the day. In catarrh.

Mistura Moschi.

See Antispasmodics.

Mixture of oil of Amber, &c.

R. Olei succini, gtt. lxxx.

Acaciæ,

Sacchari albi, āā. ʒss.

Tincturæ tolutani, f ʒij.

Aquæ destillatæ, f ʒiv.

Fiat mistura secundum artem et signa.—A table-spoonful every two or three hours. In spasmodic cough.

Mixture with Carbonate of potash, &c.

R. Potassæ carbonatis, ʒij.

Vini antimonii, f ʒj.

Tincturæ opii, gtt. xl.

Spiritus lavendulæ compositi, f ʒij.

Aquæ destillatæ, f ʒiv.

Fiat mistura.—And let a table-spoonful be taken every hour or two hours.

Mixture with bicarbonate of soda, &c.

R. Sodæ bicarbonatis, gr. xij.

Vini ipecacuanhæ, gtt. xx.

Tinturæ opii, gtt. iv.

Aquæ destillatæ, f ʒj.

Misce et signa.—Give a tea-spoonful every two or three hours.

This preparation is designed for children, and is chiefly used in pertussis.

Solution of carbonate of Potash with Cochineal.

R. Potassæ carbonatis, ℥j.

Pulveris cocci, ℥ss.

Sacchari, ℥j.

Aquæ destillatæ, f ℥iv.

Fiat solutio.—Dose for children, a tea-spoonful every two or three hours.

A popular remedy in pertussis.

Mixture with tincture of Digitalis, &c.

R. Tincturæ digitalis, f ℥j.

——— opii, gtt. lx.

Aquæ destillatæ, f ℥ij.

Misce.—A small tea-spoonful may be taken three or four times a-day. In hæmoptysis and in incipient phthisis.

Solution of Asafætida, &c.

R. Asafætidæ, ℥j.

Aquæ, f ℥iv.

Fiat solutio, et adde—

Tincturæ tolutani, f ℥ss.

——— opii, gtt. xx vel xl.

A tea-spoonful to a child every two hours, and a dessert-spoonful, (or more,) as frequently to an adult.

This preparation is of great value in pertussis and other spasmodic diseases of the chest.

Tincture of Blood root.

R. Tincturæ sanguinariæ saturatæ, ℥j.

Direct from 30 to 50 drops twice in the day.

This native product is one of the most powerful medicinal agents. It is violently emetic in large doses, but in the quantity recommended is said to produce diaphoresis and effects analogous to those of digitalis.

Its active principle is called *sanguinarina*.

Solution of gum Ammoniac, &c.

R. Ammoniaci, ℥j.

Aquæ destillatæ, f ℥iv.

Fiat solutio, et adde—

Oxymellis scillæ, f ℥ij.

Tincturæ opii camphoratæ, f ℥ss.

A table-spoonful may be given every two hours.

A stimulating expectorant.

Mixture with milk of Asafætida and acetate of Ammonia.

R. Asafætidæ, ℥ss.

Liquoris ammoniæ acetatis,

Aquæ menthæ, āā. f ℥ij.

Fiat mistura.—A tea-spoonful to children, and a table-spoonful to adults, in coughs, *pro re natâ*.

This simple solution of asafætida is frequently employed, and is found to answer every purpose of more complicated prescriptions.

Mixture of Copaiba and Balsam Tolu, &c.

R. Copaibæ,

Tolutani,

Pulveris acaciæ, āā. ℥ss.

Acidi sulphurici aromatici, gtt. xx.

Aquæ destillatæ, f ℥vj.

Fiat mistura.—Dose, a table-spoonful, *pro re natâ*. In chronic whooping-cough. When there is hectic excitement, digitalis may be added.

Tincture of Tolu with Digitalis, &c.

R. Tincturæ tolutani, f ℥iss.

Acidi sulphurici aromatici, f ℥ss.

Tincturæ digitalis, ℥j.

Vini antimonii, f ℥ij.

Mellis despumati, f ℥iss.

Pulveris glycyrrhi zæ, ℥ss.

Aquæ destillatæ, f ℥vj.

Fiat mistura et signa.—A table-spoonful to be given, according to circumstances.

Mixture with Balsam Peru, &c.

R. Myroxyli, ℥ss.
 Acaciæ, q. s.
 Aquæ cinnamomi,
 ——— destillatæ, āā. f ℥ss.

Misce et signa.—To be taken at once, and repeated three or four times a-day.

The different *balsams* were at one time almost proscribed from the class of expectorants, on account of their stimulating qualities. Copaiba, however, and some others of this class, are now much employed in diseases of the pulmonary mucous membranes; and the author has himself prescribed it with great advantage in the peculiar hoarseness that follows measles.

Tar Water.

R. Picis liquidæ, Oij.
 Aquæ, cong.

Mix them, and stir them together with a wooden rod for an hour; then let the tar subside, strain the water and keep it in well-corked bottles.—A pint, or even two pints, may be taken daily; but in some cases the dose must be greatly diminished.

Decoction of tar and bran, sometimes called Jew's beer, or wine of Tar.

Water, three quarts,
 Wheat bran, one quart,
 Tar, one pint,
 Honey, half pint.

To be simmered together for three hours, and when cool add a pint of brewer's yeast, and let it stand for 36 hours. Then bottle it. Dose—a table-spoonful morning, noon, and night.

Mixture of gum Ammoniac and Nitric acid, called Nitric lac ammoniac.

R. Ammoniaci, ℥ijss.
 Acidi nitrici, f ℥ij.
 Aquæ, f ℥viij.

Pour the nitric acid and water together, then add the compound gradually to the gum, incorporating them well in a composition mortar. A table-spoonful may be taken three or four times a-day.

This preparation is strongly recommended in protracted catarrh and phthisis pulmonalis, by Dr. J. Stuart, author of a treatise on *Colds*.

Mixture of Spermaceti, &c.

- R. Cetacii, ℥ij.
 Sacchari albi, ℥iij.
 Tincturæ opii camphoratae, f ℥ss.
 Aquæ, f ℥viiij.

Rub the spermaceti and sugar together with the yelk of an egg, then gradually mix the water.—A table-spoonful for a dose, four or five times a-day. In Catarrh.

Sirup of Tolu with Belladonna, &c.

- R. Extracti belladonnæ, gr. viij vel xij.
 Vini ipecacuanhæ, f ℥j.
 Syrupi senegæ, f ℥ss.
 ——— tolutani, f ℥iij ss.

Misce et signa.—To take a tea-spoonful three or four times a-day, freely using gum water acidulated with lemon juice. In Coughs.

Infusion of Flaxseed, &c.

- R. Lini, ℥j.
 Radicis glycyrrhizæ, ℥ss.
 Aquæ bullientis, Oij.

Macerate for two or three hours near the fire in a covered vessel; strain, and add lemon juice sufficient to make it agreeable.

It may be given as a common drink in catarrh.

Decoction of Iceland Moss.

- R. Cetrariæ, ℥j.
 Aquæ, Oiss.

Boil to one pint, and strain.

This article once acquired great celebrity in coughs; but was overrated, and lost its reputation. It contains a bitter quality, which is sometimes an advantage in dyspepsia and phthisis. From this it may be freed if necessary, by macerating before boiling, and throwing the first liquor away. To be taken *ad libitum*.

Prussic or hydrocyanic acid.

As prussic acid rises to the top of an aqueous mixture, thereby rendering the dose very uncertain, we prefer directing the patient

to drop the dose each time into a solution of gum Arabic or simple sirup. It should be kept covered from the light, and not allowed to be accessible to those unacquainted with its power, as even a strong inhalation will sometimes prostrate an adult. The physician should also know after what process the acid is made that he prescribes. That of Scheele, who discovered it, affords an acid containing some water, and this may be unequal at different times. The process of Gay Lussac, yields a fluid free from admixture, and of course much more energetic than the former. Magendie directs the prussic acid of Gay Lussac to be diluted with 8.5 times its weight of water, and this he denominates *medicinal prussic acid*. This remedy is doubtless very efficacious in some diseases, but it is to be regretted that it is liable to such inequality of strength. We are told by Magendie, that left to itself in close vessels, it decomposes sometimes in *less than an hour*, and can scarcely be kept over fifteen days. This is to be understood only of the acid of Gay Lussac.

The prussic acid of Brande, as kept in our shops, may be commenced in doses of a drop three times a-day in mucilage of gum Arabic, or sugar and water, and augmented one drop daily, until its action on the system is fully displayed.

Magendie directs the following, among other formulæ, for the exhibition of his medicinal Prussic acid.

Pectoral Mixture.

R. Acidi hydrocyanici, fʒj.

Aquæ destillatæ, Oj.

Sacchari albi, ʒiiss.

Fiat mistura et signa.—A dessert-spoonful may be taken morning and evening, and gradually increased, (if necessary,) to six or eight spoonfuls in the twenty-four hours—shaking the vial each time.

Prussic acid is also used externally, in the proportion of ʒij to Oj, of water, or other fluids. In cancerous ulcers; darts; and injected into the vagina in cancer of the uterus.—See *Magendie's Formulary*, edit. 5th, p. 66.

Another mode of administering Prussic acid is the following:

“In prescribing it I have mostly confined myself to a single prescription, which is a slight modification of that recommended by Dr. Granville of London.—Let half an ounce of gum Arabic be dissolved in seven ounces and a-half of water, to which add

half an ounce of sirup of tolu and twelve drops of prussic acid prepared according to the formula of the London pharmacopœia. Of this mixture, a table-spoonful may be taken every three hours,—a medium dose which I prefer in commencing the use of so powerful a medicine.”—*Morton's Illustrations of Pulmonary Consumption*, p. 132.

Cyanuret of Potassium.

By dissolving this substance in eight times its weight of distilled water, it becomes the hydrocyanate of potassa, which is also called the *medicated solution of hydrocyanate of potassa*, and is employed as a remedy in the same doses as prussic acid. It is said to exercise the same power over the system as the latter, being equally active, but with the advantage of being a more uniform and permanent medicine. It is prescribed as follows:—

Mixture of medicated hydrocyanate of Potassa.

R. Liquor potassii cyanureti medicati, f℥j.*

Aquæ destillatæ, Oj.

Sacchari purificati, ℥iss.

Fiat solutio. Dose—a table-spoonful night and morning, watching its effects. *Magendie.*

Cyanuret of Potassium.

R. Potassii cyanureti, gr. ss.

Aquæ lactucæ, f℥ij.

Syrupi althææ, f℥j.

Fiat mistura. Dose—a table-spoonful every two hours. *Magendie.*

Pills of Cyanuret of Potassium.

R. Potassii cyanureti, gr. j vel ij.

Amyli, gr. iv.

Syrupi, q. s.

Ut fiant pilulæ viij. Dose—a pill night and morning, watching its effect.

We cannot enjoin too much caution in the use of all the preparations of prussic acid, some of which are extremely variable in themselves, and all produce very unequal effects on different con-

* In the seventh edition of this work the symbol for an ounce (℥j) was printed for that of a drachm (ʒj.) Persons having that edition will please to correct the error. The formula is correct in all the previous editions.

stitutions. It is questionable whether the practice of medicine has gained any thing by their adoption into the *Materia Medica*.

The various preparations of Iodine and Bromine are also used as expectorants. For the formulæ, see *Alteratives*.

Mixture of gum Ammoniac, &c.

- R. Misturæ ammoniaci, f ℥iij.
 Tincturæ castorei, f ℥ss.
 Syrupi tolutani, f ℥ss.
 Tincturæ opii, gutt. xx vel xxx.
 Aquæ cinnamomi, f ℥j.

Fiat mistura et signa.—A small table-spoonful every three or four hours, in troublesome cough. *Dr. Meigs.*

Mixture of Morphia and Tolu.

- R. Oxymellis scillæ, ℥iss.
 Syrupi tolutani, ℥ss.
 Morphiæ acetatis, gr. ss vel j.

Misce et signa.—A tea-spoonful may be taken every two or three hours, *pro re natâ*. In phthisis, and other diseases attended with cough.

Tolu with Morphia and Antimony.

- R. Mucilaginis acaciæ, Oj.
 Syrupi tolutani, f ℥ij.
 Morphiæ sulphatis, gr. i vel ij.
 Antimonii tartarizati, gr. i vel ij.

Misce et signa.—A table-spoonful to be given every two hours.

Morton on Consumption, p. 123.

Decoction of Seneka-root.

- R. Radicis senegæ contusæ, ℥j.
 ——— glycyrrhizæ, ℥ss.
 Aquæ destillatæ, Oiss.

Boil down to a pint, and strain. Dose—a table-spoonful.

This decoction is prescribed in pectoral diseases, and especially in croup. It is sometimes too pungent, and may require to be much diluted.

INHALATION.

Inhalation is a means of applying remedies directly to the lungs. A good instrument for this purpose is the *Inhaler* of Mudge; but as a substitute the common tea-pot may be used, or a funnel inverted over a bowl. The substances usually selected for inhalation are—the steam of warm water: the steam of vinegar, produced by pouring it into boiling water; and various other articles next to be enumerated.

Inhalation of Balsam tolu.

R. Tolutani, ℥j.

Aquæ bullientis, Oj.

Misce.—To be inhaled.

Ether is also used alone, or impregnated. When saturated with cicuta, and inhaled from a wine-glass, it is adapted to protracted catarrh, pneumonia, consumption, &c. Dr. Morton advises Dr. Pearson's formula, which consists in keeping a drachm of powdered cicuta in an ounce of ether for a week. A tea-spoonful or two of this impregnated fluid may be inhaled at a time, and repeated thrice per diem.—*Morton on Consumption*, p. 136. The latter practitioner has more recently recommended the following formula:

Ethereal tincture of Iodine and Cicuta for inhalation.

R. Iodini, gr. viij.

Conii, gr. xvj.

Ætheris sulphurici, ℥ij.

Macerate the ingredients together for 24 hours or more. Half a tea-spoonful at a time is to be breathed from a wine-glass grasped in the warm hand, and repeated twice or thrice a-day. If it does not affect the head, the quantity inhaled may be gradually increased.

The following is Dr. Scudamore's recipe for Iodine inhalation:

R. Iodini,

Potassii iodidi, āā. gr. vj.

Aquæ destillatæ, f ℥v ℥vj.

Alcohol, f ℥j.

Mix, and use for inhalation.

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"I usually commence with a drachm of this mixture, proceeding gradually to the extent of half an ounce, (rarely more,) putting two-thirds the dose for the first half of the time, (10, 15, or 20 minutes,) and the other third for the remainder, always adding thirty minims of a saturated tincture of conium, with an increase if the cough be very irritable. Occasionally I add some saturated tincture of ipecacuanha; and when the respiration is spasmodically affected, some ætherial tincture of lobelia inflata."—*Scudamore*.

Stramonium is particularly serviceable in asthma and consumption. The root is cut, dried, and smoked from a common pipe.

Fumigations of *tar* and *turpentine* are also much in use. The former is even said to have cured consumption.. It usually is applied by placing the tar on a dish over coals, and suffering it slowly to evaporate:—but a far neater and more effectual mode is that practised by Sir Alexander Crichton, viz: "an ounce of potash is added to every pound of tar, in order that the latter may be deprived of its pyroligneous acid. The two ingredients being well mixed, should be first boiled for a few minutes in the open air, in order to disengage any impurities, and then be kept at a simmer in the room of the patient. This is effected by putting the mixture in an iron vessel, and placing the latter over a spirit lamp, or some analogous contrivance. In this way, not only a chamber, but an entire house, is speedily pervaded by a most agreeable vapour, which, although it may at first excite some disposition to cough, both in healthy and sick persons, very soon in a majority of cases, allays this symptom, and with it a great proportion of the patient's distress."—*Morton ut supra*.

The fumes of *rosin* were much employed by the late Dr. Parrish, of this city; he directed it to be put on a hot shovel, or coals, and allows the patient gradually to inhale it. To some persons it is very agreeable, while the lungs of others cannot tolerate it.

In some cases of croup, the inhalation of ether or Hoffman's anodyne, will often procure prompt relief, and gain time for the application of general remedies.

Chlorine gas has also been much used by inhalation, not pure, however, but mixed or diluted with atmospheric air. For this purpose a little acid of any kind may be dropped gently on a mixture of chloride of lime, by which means the chlorine is gradually disengaged, and is inhaled as it rises; or, the air of a room may be pervaded with it in like manner. It has been much com-

mended in bronchitis and the kindred affections, but is getting into disuse from its manifest inefficiency.*

* *Fumigation of Chlorine.*

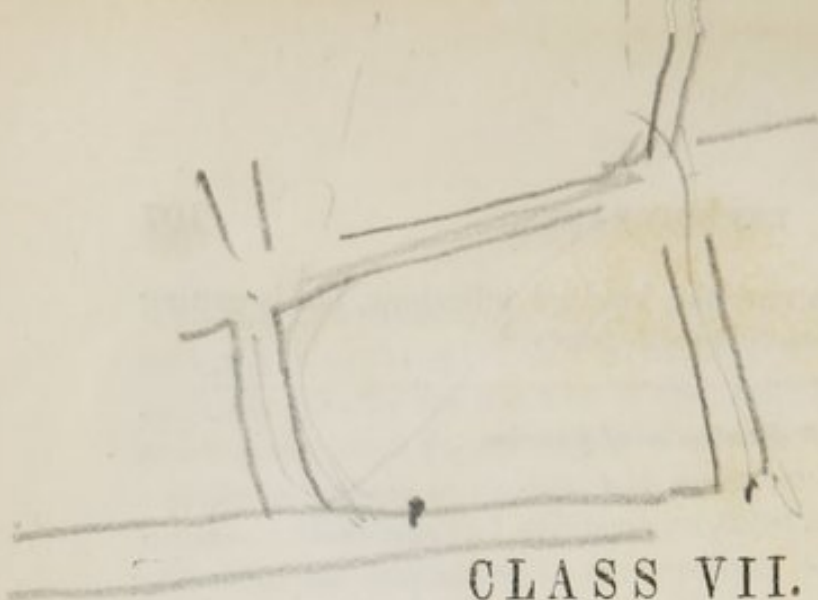
R. Sodii chloridi, ℥ij.

Oxidi manganesii, $\bar{\zeta}$ v.

Aquæ, ℥j.

Acidi sulphurici, ℥j.

Mix the salt and manganese, and add at proper intervals the acid and water, mingled. When used in the wards of hospitals or other infected apartments, the patients should be previously removed. For the method of preparing the different chlorides used as disinfecting agents, see *Journal of the Philadelphia College of Pharmacy*, Vol. I. No. 4.



CLASS VII.

EMMENAGOGUES.

EMMENAGOGUES are those medicines which promote the menstrual discharge, or restore it when entirely suppressed. Although by some authors the specific action of these medicines on the ureters has been questioned, if not denied, yet by others, of equal authority, it has been fully acknowledged.

It must, however, be observed, that amenorrhœa occurs under opposite states of the system; and when general *debility* appears to be the cause of the local disease, it may be advisable to accompany the emmenagogue with an active course of tonics. While, on the contrary, if the obstruction be the effect of a plethoric habit, bleeding, cathartics, &c., are essential preliminaries to the successful exhibition of a specific remedy.

POWDERS.

Powder of Hiera picra.

R. Pulveris aloes et canellæ, ℥j.

Divide in chartulas vj.—One three times a-day.

This article is placed under the head of cathartics, but it is so generally employed as an emmenagogue, as to merit an insertion here.

Powder of Madder.

R. Pulveris rubiæ tinctor. ℥ss.

Signa.—A small tea-spoonful to be taken morning, noon and night, in sugar and water.

There are three or four qualities of madder, which circumstance may account for its frequent inertness.

Powder with Savin, &c.

R. Sabinæ exsiccatæ,

Pulveris zingiberis, āā. ʒj.

—— potassæ sulphatis, ʒij.

Fiant pulveres vj et signa.—One to be taken twice a-day.

Powder with Savin and Cantharides.

R. Pulveris sabinæ, ʒj.

—— cantharidum, gr. ij.

Misce et divide in pulveres iv et signa. One to be taken every night, on going to bed, watching its effect.

Powder of Spurred rye.

R. Pulveris ergotæ, ʒij.

Divide in chartulas iv.—Of which one may be taken morning and night, in sugar and water.

Drs. Chapman and Dorsey have placed this substance under the head of Emmenagogues, where it seems properly to belong.

Pills of Myrrh, sulphate of Iron, &c.

R. Myrrhæ,

Ferri sulphatis, āā. ʒij.

Potassæ carbonatis,

Saponis, āā. ʒss.

Fiat massa, in pilulas xl dividenda.—Of which two may be taken morning, noon and night. In suppression of the catamenia.

Hooper's pills.

R. Ferri sulphatis, ʒj.

Pulveris sennæ,

—— jalapæ,

—— potassæ bitartratis, āā. ʒss.

—— zingiberis, gr. xij.

Syrupi simplicis q. s.—ut fiat massa, in pilulas xxv., dividenda.

The patient is directed to take three twice in the day, followed by five or ten drops of the tinctura ferri muriatis in a glass of some bitter infusion.

This compound is sold by the apothecaries as a patent medicine.

Pills of Aloes, sulphate of Iron, &c.

R. Ferri sulphatis exsiccati, ℥j.

Pulveris aloes, ℥ij.

—— caryophylli, gr. v.

Terebinthinæ venetæ, q. s. ut fiant pilulæ xx. One to be taken three times a-day.

DECOCTIONS, TINCTURES, &c.

Decoction of Seneka.

R. Radicis senegæ contusæ, ℥j.

Corticis aurantii, q. s.

Aquæ, Oj.

Let the seneka simmer over a slow fire until the fluid be reduced one-third; add the orange-peel, cover until cool, and then strain.

Dr. Chapman observes—"My rule in the administration of the medicine in these cases, (of amenorrhœa,) is to give about four ounces of the decoction, more or less, during the day, according to the circumstances of the case. But at the time when the menstrual effort is expected to be made, and until the discharge is actually induced, I push the dose as far as the stomach will allow, having given as much as two ounces every hour."—*Therapeutics*, Vol. II. p. 38.

Infusion of Ergot.

R. Ergotæ contusæ, ℥ij.

Aquæ bullientis, f ℥vj.

Fiat infusum.—To be given by spoonful, in protracted parturition occasioned by deficiency of contractile power in the uterus.

For the same purpose the powder may also be given in doses of ℥j, as well to assist in arresting uterine hemorrhage, as to promote the expulsion of the placenta.

Decoction of Ergot.

R. Ergotæ, ℥j.

Aquæ, Ojiss.

Boil gradually down to two pints, and give a table-spoonful occasionally. Used in the same circumstances as the infusion.

Tincture of Ergot.

R. Ergotæ, $\bar{\text{z}}$ iiss.

Alcoholis diluti, Oj.

Macerate for fourteen days, and strain. This is the formula used in Guy's Hospital. Dose twenty drops to a drachm.

Sirup of Ergot.

R. Ergotæ, gr. xx.

Extracti opii, gr. $\frac{3}{4}$.

Syrupi, $\bar{\text{z}}$ viiij.

M.—Dose, an ounce (two table-spoonsful) *pro re natâ*, in engorgement of the uterus.

Lisfranc.

Decoction of Madder.

R. Pulveris rubiæ tinctor. $\bar{\text{z}}$ j.

Aquæ bullientis, Oj.

Simmer for fifteen minutes, and add—

Caryophylli contusi, $\bar{\text{z}}$ j.

Signa.—When cool, strain and give a wine-glassful every three hours, a short time before the expected return of the menstrual discharge.

See Dewees on Females, p. 74.

Mixture of Camphor, &c.

R. Camphoræ, ʒ j.

Alcoholis, q. s. ut fiat pulvis: dein adde—

Pulveris acaciæ, $\bar{\text{z}}$ j.

Sacchari, q. s.

Aquæ cinnamomi, $\bar{\text{z}}$ j.

Fiat mistura.

This mixture would more properly appear under the head of Narcotics, but as Dr. Dewees considers it particularly efficacious in dysmenorrhœa, we have given it a place with Emmenagogues. He directs “one-half the above draught to be given the instant pain is experienced, and if not relieved in an hour or two, the remainder to be given.”—*Syst. of Midwifery, p. 158.*

Tincture of Hellebore.

R. Tincturæ hellebori nigri, f $\bar{\text{z}}$ j.

Signa.—Half a tea-spoonful three times a-day, gradually increasing the quantity, and watching its effect.

Tincture of Hellebore, Myrrh, &c.

- R. Tincturæ hellebori nigri, $\bar{\zeta}$ ss.
 ——— myrrhæ, $\bar{\zeta}$ j.
 ——— cantharidum, $\bar{\zeta}$ ij.

Fiat mistura.—Dose, thirty drops, three times a-day, in a little sugar and water.

Tincture of Savin, &c.

- R. Tincturæ sabinæ compositæ, $\bar{\zeta}$ j.
 ——— hellebori nigri, $\bar{\zeta}$ ss.
 ——— castorei, $\bar{\zeta}$ ij.

Fiat mistura et signa.—To take forty drops three times a-day, in any vehicle.

Tincture of Guaiacum, (Dewees.)

- R. Pulveris guaiaci, $\bar{\zeta}$ iv.
 Sodæ et potassæ carbonatis, $\bar{\zeta}$ iss.
 Pulveris pimentæ, $\bar{\zeta}$ j.
 Alcoholis diluti, Oj.

Misce.—“Digest for a few days.—The volatile spirit of ammonia to be added *pro re natâ*, in the proportion of a drachm or two, to every four ounces of tincture.”

The above formula is different from that adopted in the Pharmacopœias, for which reason we have inserted it here. Dr. Dewees remarks that after nearly thirty-five years' experience with this tincture, he has never known it to fail in restoring the *suppressed catamenia*, when the suppression was an *idiopathic disease*. He gives it morning, noon and night, in doses of a tea-spoonful in a little sweetened milk; and sometimes in a little Madeira, Sherry, or Teneriffe wine. It is occasionally necessary to continue the medicine for some weeks, on which occasion, the dose must be judiciously augmented.—*Syst. of Midwifery*, p. 149.

Volatile tincture of Guaiacum, &c.

- R. Tincturæ guaiaci ammoniatæ, f $\bar{\zeta}$ j.
 Copaibæ, f $\bar{\zeta}$ ss.

Misce.—Signa.—A tea-spoonful two or three times a-day.

In cases of amenorrhœa connected with general debility.

Saturated tincture of Iodine.

R. Iodini, ℥ij.

Alcohol, f ℥j.

Spiritus lavendulæ compositi, f ℥ij.

Fiat tinctura et signa.—From five to ten drops twice a-day, gradually increasing it.

We are informed by M. Durand, apothecary of this place, that the above is a saturated tincture. It is prescribed in amenorrhœa, gonorrhœa, leucorrhœa, &c.

From its great activity it requires to be cautiously administered.

Solution of Iodide of Potassium.

R. Potassii iodidi, ℥j.

Aquæ destillatæ, f ℥j.

Fiat solutio et signa.—Dose, five to twenty drops.

Injection of Aqua Ammoniæ, &c.

R. Liquor ammoniæ, gtt. xx.

Lactis, f ℥i.

Misce et signa.—This quantity to be thrown into the vagina three or four times a-day, in amenorrhœa.

Tincture of Cantharides, (Dewees.)

This tincture, as prepared from the formula of Dr. Dewees, differs from that kept in the shops in strength only. Ten drops may be taken three times a-day, and gradually increased; and, if necessary, until strangury is induced.

Mixture of Muriate of Iron, &c.

R. Tincturæ chloridi ferri,

——— aloes compositæ, āā. ℥ss.

——— castorei, ℥ij.

Fiat mistura et signa.—Take ten to thirty drops three times a-day in wine-glassful of chamomile tea, or cold water.

Tincture of Hierá Picra.

R. Tincturæ aloes et canellæ, f \bar{z} j.

Signa.—A tea-spoonful may be taken three times a-day in sugar and water.

Compound Tincture of Aloes.

R. Tincturæ aloes et myrrhæ, f \bar{z} j.

Dose, a tea-spoonful *pro re natâ*.

CLASS VIII.

ANTHELMINTICS.

ANTHELMINTICS are medicines employed to destroy and bring away worms from the alimentary canal. They are also termed Vermifuges.

The only unequivocal proof of the existence of worms in the alimentary canal is the ejection of some of them *per anum*, or, as sometimes happens, by the mouth. When, in such cases vermifuges are resorted to, they must be persevered in for several days, with the occasional intervention of an active cathartic.

POWDERS.

Calomel with Gamboge.

R. Hydrargyri chloridi mitis, gr. v.

Pulveris gambogiæ, gr. vj vel x.

Misce.—For an adult. To be taken in sirup early in the morning.

Gamboge is sometimes given in doses of fifteen or twenty grains for the tape-worm, and is highly spoken of in such cases.

Calomel with Pink-root.

R. Hydrargyri chloridi mitis, gr. iv.

Pulveris spigeliæ, gr. x.

Misce et signa.—To be taken two mornings in succession, and on the afternoon of the second day, followed by a dose of castor oil or senna and manna.—For children upwards of four years old.

Pink-root with Savin, &c.

R. Pulveris spigeliæ,
 ——— sennæ, āā. ℥ij.
 ——— sabinæ, gr. xij.

Fiant chartulæ vj. One every morning till three are taken, then give a dose of castor oil; if the effect is not produced, the remainder may be exhibited after the same manner.

Common salt with Cochineal.

R. Sodii chloridi, ℥ij.
 Cocci pulverizati, gr. xv.

Fiant doses vj. One every morning, following the last dose with some purgative medicine.

Dr. Rush speaks in high terms of this preparation.

Carbonate of Iron,

R. Ferri carbonatis, ℥j.

Divide in chartulas iij. One powder to be taken before breakfast.

Of this remedy, also, the late Professor Rush had a very favourable opinion. He gave it in doses of from 5 gr. to 3ss. to children of from one year old to ten, and sometimes in half ounce doses, with safety and success. It is chiefly used in tape-worm. See *Observ. and Inquiries*, p. 243.

Powder of Male fern.

Give of the powder of the Male Fern-root from one to three drachms, in a large cupful of any distilled water, early in the morning. If the stomach should reject it, the powder must be repeated again, as soon as the sickness has gone off, in the same quantity. When it has been upon the stomach about two hours, a strong cathartic bolus made of calomel and gamboge, (eight or ten grs. of the last and five or six grs. of the first,) must be taken, and worked off with a draught of green tea every now and then: and its operation may be still farther promoted, if necessary, by half an ounce, or 3vj. of salts, dissolved in warm water. Till the worm comes away, which generally happens on the same day, the patient is to take nothing but broth. If, however, the worm should not be discharged, either wholly or in part, the powder is to be repeated with the same regimen, the next day. In the tape-worm.—*Nouffer*.

It has been suggested, and with some probability, that the purge directed to follow this medicine is the most efficient of the two.

Oil of Male fern.

R. Olei filicis maris, f℥ij.

Acaciæ,

Sacchari, āā. q. s.

Aquæ destillatæ, f℥iij.

Fiat mistura. Dose—a table-spoonful night and morning.

Tin electuary.

R. Pulveris stanni, ℥vj vel ℥j.

* Sacchari liquidi, ℥iv.

Misce.—Two or three table-spoonsful may be given early in the morning; to be repeated until the whole be taken, and then followed by an active cathartic.

The efficacy of this substance is said to be increased by combination with sulphur, by which means sulphuretted hydrogen is generated, and the worm destroyed by the offensive gas. Larger doses are sometimes prescribed.

Cowhage electuary.

R. Spicularum dolichi, ℥j.

Mellis liquidi, q. s. ut fiat electuarium. Dose, a tea-spoonful to a child two or three years old; to be given before breakfast in the mornings of three successive days, and then followed by a brisk cathartic. In lumbrici.

Vermifuge bolus.

R. Hydrargyri chloridi mitis, gr. ij.

Seminum artemisiæ santonicæ, gr. viij.

Camphoræ, gr. vj.

Syrupi, q. s. ut fiat bolus.

To be repeated *pro re natâ* in children of four or six years of age.

Ratier's Formulary.

* Molasses. Any sirup will answer the same purpose.

INFUSIONS, DECOCTIONS, &c.

Infusion of Pink-root, &c., vulgo, Worm-tea.

R. Radicis spigeliæ marilandicæ, \bar{z} ss.

Sennæ, \bar{z} ij.

Mannæ, \bar{z} j.

Fœniculi, \bar{z} ij vel \bar{z} ss.

Aquæ bullientis, Oj.

Fiat infusum.—Half a wine-glassful may be given to a child of two years old, three or four times a-day.

Pills of Venice turpentine, Calomel, &c.

R. Terebinthinæ venetæ, \bar{z} j.

Extracti hyoscyami, gr. iv.

Hydrargyri chloridi mitis, gr. viij.

Fiat massa, et divide in pilulas singulas gr. ij.

Of these four are to be taken every three hours, and during the entire period, the patient is to take only weak broth, tea, or coffee.

They are strongly recommended by some of the German practitioners in tape-worm.

Infusion of Pink-root.

R. Radicis spigeliæ, \bar{z} j.

Aquæ bullientis, Oj.

Fiat infusum. Of which a child may take a table-spoonful at a dose; an adult from \bar{z} j to \bar{z} iv.

The spigelia sometimes produces violent effects in children, whence the necessity of caution in its use.

Decoction of the Geoffrea bark.

R. Corticis geoffrææ, \bar{z} j.

Aquæ, Oij.

To be boiled over a slow fire until it assumes the colour of amber or Madeira wine. Dose for adults four table-spoonful; for children two or three years old, one table-spoonful; and so in proportion to the age and strength of the patient.—The dose of the extract of this medicine is stated by Dr. Chapman to be three grains, and of the powder, \bar{z} ss.

We are not aware that the above remedy has been much employed in this city. Cold water is to be avoided while using it; and if any unpleasant consequence follows its exhibition, and particularly if an over-dose has been taken, our best resource is castor oil, together with tepid water acidulated with lemon juice, or some other vegetable acid.

Mixture of Worm-seed oil.

R. Olei chenopodii, ℥j.

Sacchari,

Acaciæ, āā. ℥iss.

Misce, secundum artem; tunc adde—

Aquæ menthæ, f ℥ijss.

A tea-spoonful of this preparation may be given four times a-day for two days in succession, and then purged off with castor oil or salts.

For children of three to eight years old.

This is a vermifuge of considerable reputation in this country. It is generally used in *lumbrici* and *ascarides*; though we have heard of its having been successfully given for *tænia*, but in much larger doses.

Spirit of Turpentine,

Is recommended for tape-worm, in doses of ℥ss to ℥ij daily, taken in honey.

Dr. Chapman speaks highly of this remedy; but it sometimes causes strangury, and requires caution.

Olive Oil and Ammonia.

R. Olei olivæ, f ℥viiij.

Spiritus ammoniæ aromatici, f ℥ij.

Dose, three spoonsful night and morning.

This mixture is highly spoken of by some authors, and may be given in much larger quantities; if it does not purge, it should be followed by some aloetic or other cathartic preparation.

Decoction of the bark of Pomegranate.

R. Corticis radicis granati, ℥iss.

Aquæ destillatæ, Oiss.

To be boiled away one-half, and given in doses of an ounce several times in the day.

“The efficacy of the bark of the root of the pomegranate, as a remedy for the tape-worm, is now well established in India.”—*Paris*, vol. ii. p. 173.

Aloetic enema.

R. Aloes, ℥j vel ij.

Lactis, Oj.

Fiat enema.—The half of this may be given to a child eight or ten years old. In ascarides.

Spirit of Turpentine, Ether, &c.

R. Olei terebinthinæ, ℥ss.

Ætheris sulphurici, ℥ij.

Pulveris acaciæ, ℥ss.

Aquæ, ℥xvj.

Misce et signa.—Two table-spoonsful to be taken morning and evening. In tænia. *Dr. Frank.*

The effect of turpentine requires attention, for in some constitutions it causes violent strangury in defiance of every precaution. Patients should be put on their guard against this contingency.

Enema of Camphor, &c.

R. Camphoræ, ℥j.

Olei olivæ, ℥ij.

Misce pro enema.

This preparation is particularly adapted to *ascarides*, and should be freely thrown up the rectum for three or four successive nights. No remedy is more effectual than this in relieving the intolerable itching caused by those worms.

Enemata are the most certain of all remedies in *ascarides*, they may be made of various substances, such as solution of asafoetida, of common salt, hepar sulphuris, pure olive oil, soap, aloes, &c., &c. For children, ℥ss of aloes should be dissolved in half a gill of water; to this add a table-spoonful of sweet oil, and administer the half of the mixture going to bed. The other half the next night, if necessary.

CLASS IX.

EPISPASTICS.

“By the ancients, all the external applications which redden or inflame the skin, were called *Epispastics*, and these were designated according to the several degrees of effect:—the slightest, entitled *phænigmoi*; the next, *sinapismi*; the more active, *vesicatorii*; and the strongest, *caustici*.”

We shall, however, as heretofore, follow the arrangement adopted by Dr. Chapman, and divide them into Rubefacients, Blisters, and Caustics; and with him, too, we shall first speak of *Blisters*.

As a general rule, blisters should remain on the patient six or eight hours, in order to ensure their full effect. There are individuals, however, whose skins are so delicate, that a shorter application will answer every purpose; in children it is seldom necessary to leave them on longer than three or four hours. When they are applied to the scalp, twelve hours are almost universally required; and Dr. Chapman directs the hair to be shaved, if possible, some hours before the application is made.

The usual dressing, when a blister is taken off, is basilicon ointment, or simple cerate, according to the urgency of the case, or irritability of the system. In order to keep it open, the weak epispastic, or savin ointment, will be found sufficient.

In acute disease, these remedies ought never to precede those means which have a tendency to reduce inflammatory action. It is generally admitted, that otherwise employed, they do harm; although there are individuals of acknowledged experience who say “they can bring a patient to the blistering point at pleasure,” and in pleurisy, and some other acute diseases, apply them soon after a free bleeding. Blisters should be placed as near the affected part as possible. In fevers they are usually put on the

inside of the forearms or legs, back of the neck, or between the shoulders.

When the system is very prostrate, they should be applied to the inside of the thighs, or the last two places mentioned: for when the circulation is languid in the extremities, they seldom draw well, and are even liable to produce gangrene by exhausting the little vitality that remains.

When, from peculiarity of constitution, *strangury* is produced by them, we must take them off after 3 or 4 hours, and bathe the part with sweet oil, or apply a poultice, giving at the same time diluent drinks, such as flaxseed tea or barley water, with the sweet spirits of nitre; camphor or parsley tea; bladders also half filled with warm water should be applied to the pubes. An opium suppository or injection will be found very advantageous. A poultice of ground flaxseed or starch is often serviceable, and a warm bath affords prompt relief. Prevention, however, is better than cure; and in irritable constitutions, or in persons disposed to strangury, the blistering ointment, before being spread, should be rubbed up with three or four grains of opium and three or four times as much camphor, before it is spread. This preventive seldom fails. Blisters are rendered much less irritating by covering them with a fine gauze, which, if it be pressed in close contact with the plaster, will not prevent or materially retard its operation. It is seldom necessary to keep a blister on longer than to *redde[n] the skin*, when a simple poultice will complete the vesication. In children this precaution is imperative.

Epispastic ointment.

R. Ceræ flavæ,

Resinæ,

Adipis, āā. ʒvj.

Melt over a slow fire, and when at the temperature of 98° add slowly—

Pulveris cantharidum, ʒvijss.

Misce, et fiat unguentum.

If the cantharides be united with the melted plaster before it is partially cooled, they are liable to be injured by the heat.

In employing this ointment, the margin of the blister should be covered with adhesive plaster, in order to confine it to its place, and prevent its creating unnecessary irritation. Another mode is to draw straps across it diagonally, which plan we generally prefer; it prevents the blister from rising in the middle, and thereby partially defeating its object.

It is mentioned in Paris's Pharmacologia, that the flies may be deprived of their power of producing strangury by first boiling them in water.

RUBEFACIENTS.

The substances called Rubefacients not unfrequently vesicate on very delicate skins. The term, therefore, is relative. They are employed for the same purpose as blisters, and are often good substitutes for them.

Plaster of Mercurial ointment, Camphor, &c.

R. Unguenti hydrargyri, ℥j.

Olei terebinthinæ,

Camphoræ, āā. ℥ij.

Cerati, ℥j.

Fiat unguentum secundum artem. Used as a rubefacient over the hypochondriac region, when blisters are precluded.

Tartar-emetic plaster.

This may be made by sprinkling the powdered Tartrate of Antimony on the surface of a Burgundy pitch or adhesive plaster, or on one made by spreading basilicon, or simple ointment, on leather or linen. In either way the margin should be left clean.

Tartar emetic requires a longer time to produce its effect than the ordinary blister; the irritation is of a peculiar and very painful kind, and its effects must be watched with extreme care.

Tartar-emetic ointment.

R. Antimonii et potassæ tartratis, ℥j.

Adipis, ℥j.

Misce secundum artem.

This ointment, when applied to the skin, is a slow but certain means of exciting an eruption. We have given the formula of Dr. Hannay, of Glasgow, in Scotland. Dr. Jenner recommended a much larger proportion of the antimony.

Tartar emetic and Corrosive sublimate.

R. Antimonii et potassæ tartratis, ℥j.

Hydrargyri corrosivi, gr. v.

Aquæ, f ℥j.

Spiritus, lavendulæ compositi, f ℥j.

Solve sales in aqua, dein adde spiritum.

This solution is applied by wetting the fingers with it, and rubbing it on the part. The rubbing should be continued for five or ten minutes, and after some hours a pustular eruption will appear.—Dr. Hannay's essay, "*De Tartratis Antimonii usu externo*," p. 26.

It has been used in pertussis, dyspnœa, catarrh, &c., and in the removal of incipient tumours.

It has been ascertained by the illustrious Jenner and others, that tartar emetic employed for an undue length of time externally, will produce violent effects of the system.

We find in a note in Beck's Medical Jurisprudence, vol. ii. p. 283, that Dr. Francis mentions two cases wherein tartar emetic ointment, excessively used, produced effects similar to those at times arising from the outward application of arsenic. Majendie and Brodie ascertained by experiments upon animals, that inserted into wounds its effects resemble those produced by internal exhibition.

Granville's Ammoniated counter-irritant, or Antidynous lotions.

These preparations act with great celerity, and are now in common use. They are formed of *three ingredients*, mixed in certain proportions, according to the urgency of the case.

1. The first ingredient is the *strongest liquor of ammonia* (liquor ammoniæ fortissimus) which is made by saturating a given quantity of distilled water, contained in a glass receiver surrounded by ice, with ammoniacal gas, obtained in the usual way from a mixture of equal parts of hydrochlorate of ammonia and recently slaked lime, both reduced to a fine powder. The water, by this process, may be made to take up nearly eight hundred times its bulk of ammoniated gas, and is three times the strength of the liquor ammoniæ of the London Pharmacopeia.

2. The second ingredient is distilled spirits of Rosemary, prepared by taking two ℥s of the tips or small leaves of fresh Rosemary, and eight pints of alcohol, which are infused together for twenty-four hours in a covered vessel, and after adding as much water as will first prevent the empyreumatic smell, distil over *seven* pints.

3. The third ingredient is spirit of camphor, made as follows: To four oz. of pure camphor, add two pints of alcohol, so as to dissolve the camphor, which solution should be filtered.

Of the preceding ingredients, Dr. Granville prepares two ammoniated lotions, differing in strength; viz.

The milder Ammoniated lotion.

(Lotio ammoniata mitior.)

R. Liquoris ammoniæ fortissimi, ℥j.

Spiritus rosmarini, ℥vj.

—— camphoræ, ℥ij.

Misce.

The stronger Ammoniated lotion.

(Lotio ammoniata fortior.)

R. Liquoris ammoniæ fortissimi, ℥x.

Spiritus rosmarinæ, ℥ss.

—— camphoræ, ℥ij.

Misce.*

As to the method of applying these counter-irritants, we shall use the words of their inventor, Dr. Granville. "First impregnate with the colourless and transparent liquid, either a piece of linen folded six or seven times to the size of the part intended to be covered, or a piece of thick and coarse flannel; and, secondly, lay either of them on the spot, pressing with the hand at the same time, very steadily and firmly, the said linen or flannel, over which there should be placed a thick towel, doubled several times, so that not only the evaporation of the lotion may be impeded, but the hand employed in pressing the application to the part may not suffer damage from any evaporation, or from contact with the liquid. In some parts of the body more convenient than the others, the readiest and most effectual mode of pressing down the application is, by tying over it a towel or thick bandage; but to this mode there is the objection that we cannot, under certain circumstances, infect the part as quickly and as often as required, so as to judge, from the effect of the application, when to stop, or how long to persevere in using it."†

When applied to the temples, forehead, jaws, or chin, great care must be taken to prevent the effluvia from affecting the eyes and nostrils. The skin should be examined in a minute or two after the application, in order to see the effect produced. When the pain is severe after the lotion is removed, simple diluent washes, and warm water is perhaps the best, will speedily allay it. Vesication will generally take place in from two to five minutes, and even in a minute in some per-

* Dunglison, New Remedies, p. 504.

† GRANVILLE. Counter-irritation, its Principles and Practice, p. 39.

sons: but where cauterization is requisite, ten, or twelve minutes may be necessary. The irritated or denuded surface may be dressed according to existing indications, with a simple poultice, tepid fomentation, cerate or irritating ointments.

The *Pommade ammoniacale* of M. Gondret, which belongs to this series of counter-irritants, is made as follows:

R. Adipis, ℥vij.

Olei amygdalarum, f ℥iss

Ammoniae liquidæ (25°) f ℥vj.

Melt the lard, mix the oil with it, and pour them into a wide-mouthed vial with a glass stopper; then add the ammonia, close the bottle, mix the contents together by shaking, and keep the mixture in a cool place. If the skin is to be excited, perspiration to be re-established, or some sub-cutaneous engorgement to be dissipated, light and hasty practices accomplish these objects. If a rubefacient effect is desirable, spread the ointment thickly on linen, and apply it for one or two minutes. For vesication, continue the application for five or six minutes; and by a farther continuance absolute cauterization is speedily produced.

These powerful preparations are used in a great variety of diseases, and in all cases when speedy and powerful counter-irritation is demanded; as in neuralgia and rheumatic affections generally, both acute and chronic; spasms, convulsions, gout, paralysis, inflammatory diseases of internal organs, diseases of the heart, sprains, &c. &c.

Instantaneous vesication.

The French practitioners have a process for raising an instant blister. A piece of linen or paper, being cut to the requisite size, is immersed in spirits of wine or brandy, or even cologne water, or spirits of camphor, whichever is most readily obtained. It is then laid on the part to be blistered, taking care that the moisture does not wet the surrounding surface. The flame of a lighted taper is then applied quickly over the surface of the paper, so as to cause ignition, which is almost instantaneous. At the conclusion of this operation, the cuticle is found detached and raised from the true skin beneath.

Ointment of Iodine and Calomel.

R. Iodini, partem j.

Hydrargyri chloridi mitis, partem iss.

Adipis, partes xlvij.

The iodine to be first united to the lard, and then the calomel added.

MM. Planc and Souberain, by whom this ointment is proposed, state that these are the only proportions that can be used, without leading to decompositions that will defeat the intention.

Ointment of Iodide of Mercury, &c.

R. Hydrargyri iodidi, gr. vj.
Morphiæ acetatis, gr. viij.
Adipis, ℥j.

Fiat unguentum.

Recommended by the French physicians in glandular swellings. The morphia is supposed by them to prevent the unpleasant effects of iodine when used as an ointment. *Pelletan.*

Ointment of red Iodide of Mercury.

R. Hydrargyri iodidi rubri, ℥j.
Adipis, ℥iss.

Fiat unguentum.—Used to accelerate the cicatrization of inveterate venereal ulcers.

An ointment may be made in the same proportions of the *deutiodide of mercury*; but should be used with more caution.

Ointment of red Iodide of Mercury.

R. Hydrargyri iodidi rubri, gr. xv.
Adipis, ℥ij.
Olei limonis, gtt. xx.

Fiat unguentum.

Employed as a curative application to syphilitic tubercles, chronic ulceration and other sequelæ of venereal. Its great activity requires caution in its use. *Ratier.*

Ointment of Iodide of Zinc.

R. Zinci iodidi, ℥j.
Adipis, ℥j.

Fiat unguentum.—A drachm to be rubbed on twice a-day. In tumours.

Dr. Ure recommends the above as a substitute for the ointment of iodide of potassium in glandular swellings.

Ointment of Iodide of Potassium.

R. Potassii iodidi, ℥j.

Cerati, ℥j.

Fiat unguentum.

Applied to scrofulous swellings, when the skin is unbroken.

Simple Iodine ointment.

R. Iodini, gr. iij.

Adipis, ℥ij.

Fiat unguentum.

Used as the preceding preparation.

Iodine liniment.

R. Linimenti saponis compositi, f ℥j.

Tincturæ iodini, f ℥j.

Misce.

Ointment of Iodide of Potassium.

R. Potassii iodidi, ℥ss.

Adipis, ℥iss.

Fiat unguentum.—For tetter and the kindred eruptions.

Lugol's ointment of Ioduretted iodide of Potassium.

R. Iodini, gr. xij.

Potassii iodidi, ℥iv.

Adipis, ℥ij.

Fiat unguentum.—Used in scrofulous ophthalmia, ulcers, &c.

Ointment of Ioduretted iodide of Potassium with Opium.

R. Iodini, gr. xvj.

Potassii iodidi, ℥j.

Tincturæ opii, f ℥ij.

Adipis, ℥ij.

Fiat unguentum. Applied to scrofulous and other ulcers. *Lugol.*

Ointment of Cyanuret of Iron.

R. Ferri cyanureti, $\overline{3}$ j.

Cetacei, $\overline{3}$ j.

Fiat unguentum. Applied to foul ulcers.

Ointment of Iodide of Arsenic.

R. Arsenici iodidi, gr. iij.

Adipis, $\overline{3}$ j.

Fiat unguentum.

In lepra, impetigo, and other cutaneous affections.

Ointment of Cyanuret of Mercury.

R. Hydrargyri cyanureti, gr. xij.

Adipis, $\overline{3}$ j.

Fiat unguentum.

Ointment of Iodide of Iron.

R. Ferri iodidi, $\overline{3}$ iss.

Adipis, $\overline{3}$ j.

Fiat unguentum.

Ointment of Iodide of Sulphur.

R. Sulphuris iodidi, partes 5.

Adipis, partes 96.

Fiat unguentum.—In diseases of the skin.

Magendie.

Ointment of Bromide of Potassium.

R. Adipis, $\overline{3}$ j.

Potassii bromidi, gr. xxxiv.

Fiat unguentum.

Ointment of Iodide of Barium.

R. Barii iodidi, gr. iv.

Adipis, $\overline{3}$ j.

Fiat unguentum.

For scrofulous swellings.

Dr. Bielt.

Decoction of Turpentine and Cantharides.

R. Pulveris cantharidum, $\bar{\text{z}}\text{i}$.

Olei terebinthinæ, f $\bar{\text{z}}\text{viij}$.

Boil them together for three hours, then filter.

This is the process usually followed by our apothecaries; but we conceive thirty minutes' boiling would be quite sufficient, and the cantharides be less likely to be injured by the heat. It was first made by Dr. Hartshorne of this city, who has used it with great success in the typhoid state of fever. It is merely rubbed over the surface of the body.

Kentish's ointment.

R. Unguenti resinæ flavæ, $\bar{\text{z}}\text{ij}$.

Olei terebinthinæ, f $\bar{\text{z}}\text{ij}$ vel f $\bar{\text{z}}\text{ss}$.

Fiat unguentum.

This preparation has long been celebrated in burns and scalds. Care is requisite to avoid touching the sound skin, for turpentine occasionally inflames it severely.

Turpentine liniment.

R. Olei terebinthinæ, f $\bar{\text{z}}\text{ij}$.

— olivarum, f $\bar{\text{z}}\text{ij}$.

Tincturæ camphoræ, f $\bar{\text{z}}\text{j}$.

Liquor. ammoniæ, f $\bar{\text{z}}\text{j}$.

Fiat linimentum.

Creasote ointment.

R. Creasoti, gtt. xv.

Cerati, $\bar{\text{z}}\text{j}$.

Olei cinnamomi, gtt. vj.

Fiat unguentum.—In ulcers of a chronic character, and in cutaneous eruptions.

Digestive ointment of the French Hospitals.

R. Unguenti terebinthinæ comp. $\bar{\text{z}}\text{ij}$.

Vitellum ovi j.

Olei olivæ, f $\bar{\text{z}}\text{ij}$.

Misce.—Used in dressing indolent wounds and ulcers. *Ratier.*

Sulphur ointment.

R. Adipis, ℥j.

Sulphuris sublimati, ℥viij.

Fiat unguentum.—Used in friction, three to six drachms at a time.

Mercurial cerate.

R. Unguenti hydrargyri, ℥iv.

Cerati, ℥x.

Fiat unguentum.—A dressing for venereal ulcers.

Ratier.

Ointment of Belladonna.

R. Extracti belladonnæ, ℥ij.

Aquæ destillatæ, f ℥ij.

Adipis, ℥ij.

Misce.—Employed by M. Chaussier as a direct application to the neck of the uterus, in case of rigidity.

Ratier.

Liniment with Camphor, &c.

R. Spiritus camphoræ, f ℥iij.

Acidi acetici fortis, f ℥j.

Fiat embrocatio.—To be applied to bruises, rheumatic parts, &c.

Soap liniment, &c.

R. Linimenti saponis, f ℥ij.

Liquor ammoniæ, f ℥j.

Tincturæ opii, f ℥ss.

Fiat linimentum.—To be used as above.

Liniment with Ammonia and Olive oil; vulgo, Volatile liniment.

R. Olei olivæ,

Liquoris ammonia, āā. ℥j.

Misce.—Applied to the neck in inflammation of the throat.

Liniment of Ammonia and Tartarized Antimony.

R. Linimenti ammoniæ, f ℥j.

Ammonii et potassæ tartratis, ℥j.

Misce.—Applied to indolent tumours, and other swellings.

Liniment of Cantharides, &c.

R. Camphoræ, ℥iij.

Solve in decocti cantharidis cum terebinthinâ f ℥ss.—et adde—

Unguenti hydrargyri fortis,

———— simplicis, āā. ℥j.

Fiat linimentum.—This preparation is employed in low fever, when it is desirable to rouse the system, and at the same time affect it with mercury; also in tumours.

Liniment of Croton oil.

R. Olei tigllii,

—— olivæ, āā. f ℥ss.

Fiat unguentum.—Croton oil is one of our safest and most efficient rubefacients. Rubbed for a few minutes, or sometimes even for a few moments, on the skin it produces irritation and redness, followed in some hours by a pustular eruption. If the effect is too severe at first, it is readily counteracted by a poultice, preceded by washing with mild soap and water to remove the oil. In some persons the oil may be applied pure.

Lotion of Cyanuret of Potassium.

R. Potassii cyanureti, gr. xij.

Misturæ amygdalarum, f ℥vj.

Fiat lotio. In lichen, and other chronic eruptions.

Liniment of Chlorine.

R. Aquæ chlorinæ, f ℥j.

Olei olivæ, f ℥j.

Fiat linimentum.—Applied externally to itch, herpes and tinea capitis.

Dunghison's New Remedies.

Solution of Caustic Potash.

R. Potassæ, ℥iss.

Aquæ, f ℥ij.

Fiat solutio.—Applied to the spine in tetanus.

Dr. Hartshorne speaks in high terms of the beneficial effect of this solution in the above disease. The best mode of applying it, so as merely to produce a rubefacient action, is to tie a piece of

sponge to a stick or common table fork, and apply it from the nape of the neck to the sacrum. When the solution is strong, the effect is powerful.

Compound opiate liniment.

R. Tincturæ opii,
Spiritus ætheris sulphurici,
—— camphoræ, āā. f $\bar{\zeta}$ ij.

Fiat embrocatio.—To be applied to rheumatic parts.

Also, in odontalgia, pain in the region of the ear, &c.

Opiate liniment.

R. Olei olivæ, f $\bar{\zeta}$ ij.
Tincturæ opii, f $\bar{\zeta}$ ij.
Liquor. plumbi acetatis, f $\bar{\zeta}$ ss.
Misce.

Embrocation of Acetate of Ammonia.

R. Ammonia carbonatis, $\bar{\zeta}$ ij.
Acidi acetici, q. s. ad saturandum:
Alcoholis diluti, Oiss.

Mix the ammonia with the vinegar, and after effervescence ceases, add the spirit.

In rheumatic affections; or mixed with linseed meal, it may be used as a poultice to chronic inflammations of the joints, &c.

Liniment of sulphuret of Potassium.

R. Potassii sulphureti, $\bar{\zeta}$ j.
Aquæ, Oss.

Solve.—A wash in herpetic and other cutaneous eruptions.

Compound liniment of Tar.

R. Petrolei barbadensis, f $\bar{\zeta}$ j.
Camphoræ, $\bar{\zeta}$ ss.
Alcoholis, gtt. xl.

Fiat linimentum.—Powder the camphor by adding the spirit, and then mix the whole in a mortar.

Anteata

Handwritten notes and signatures.

To be applied over the joints in chronic rheumatism, &c., and especially in thickening of the ligaments.

Creasote liniment.

R. Creasoti, gtt. x.
Olei olivæ, f ʒj.
Fiat linimentum.—In herpes, &c.

Creasote lotion.

R. Creasoti, gtt. x.
Aceti, f ʒij.
Aquæ destillatæ, f ʒij.
Fiat lotio.—Applied in phagadenic ulceration.

An admirable wash for herpetic eruptions may be prepared by mixing half an ounce of Wetherill's distilled creasote water with four times the quantity of pure water. This may be applied with safety to the skin of infants; but if too active it should be still farther diluted.

Camphorated oil.

R. Camphoræ, ʒj.
Olei olivæ, f ʒiv.
Tere, et fiat solutio; tunc adde,
Olei terebinthinæ, ʒiss.
To be applied by rubbing with a piece of flannel. In deep-seated rheumatic pains.

Epithem with tincture of Cantharides.

R. Pulveris cantharidum, ʒj.
Alcoholis, f ʒiv.
Digest with a gentle heat for two days. Strain and add—
Camphoræ, ʒss.
To be rubbed on the parts affected. In paralysis.

Epithem with Camphor and carbonate of Ammonia.

R. Spiritus camphoræ, f ʒiv.
Ammoniæ carbonatis, ʒss.
Olei juniperi,
— succini, āā. f ʒij.
Misce.—To be employed in the same cases as the former.

Liniment of oil of Amber, &c.

R. Olei succini, f ʒij.

— olivæ, f ʒss.

Tincturæ opii, f ʒij.

Spiritus vini gallici, f ʒiij.

Fiat linimentum et signa.—To be rubbed between the shoulders. In pertussis.

Cayenne Pepper and Alcohol dilute.

R. Pulveris capsici, ʒij.

Alcoholis diluti, f ʒviij.

Misce.—This preparation forms an excellent rubefacient in low fever.

Dr. Chapman recommends it strongly in sciatica and other rheumatic affections.

In dyspepsia, and other diseases attended with *cold feet*, socks dusted with Cayenne pepper may be worn with advantage.

CATAPLASMS, &c.

Cataplasm of Pepper, &c.

R. Seminum sinapis contus. ℥ss.

Piperis nigri,

Pulveris zingiberis, āā. ʒj.

Syrupi, q. s. ut fiat cataplasma.

To be applied to the region of the stomach in severe pain or sickness ; or, to the soles of the feet when revulsion is required.

Spice plaster.

R. Pulveris caryophyllorum,

— cinnamomi,

— capsici, āā. ʒss.

Misce, et adde—

Farinæ,

Spiritus gallici, āā. q. s. ut fiat cataplasma.

Let the plaster, thus prepared, be applied hot to the epigastric region.

Mustard cataplasm.

R. Pulveris sinapis, ʒij.

Acidi acetiti tepidi, q. s. ut fiat cataplasma.

The uses of the mustard poultice are too well known to require description. It is frequently made by adding an equal quantity of wheat or rye flour; this should always be done for children, or other persons of delicate skins. It cannot generally be borne longer than a half hour or hour. Water may be substituted for vinegar.

Iodine cataplasm.

R. Tincturæ iodini, f $\overline{3}$ ss.

Pulveris lini, $\overline{3}$ j.

Farinæ avenæ, $\overline{3}$ ij.

Aquæ q. s. ut fiat cataplasma.

Applied to indolent ulcers, (especially those of a scrofulous character,) and to tumours of the same class.

Garlic cataplasm.

The garlic cataplasm is employèd with the same intention as the mustard, though much less active. It may be made by bruising the cloves of garlic, and mixing them in a common poultice of bread and milk. Onions may be substituted for garlic.

Cataplasm of common salt, &c.

R. Pulveris lini,

Micæ panis, āā. partes æquales.

Aquæ sodii chloridi saturatæ, q. s. ut fiat cataplasma.

To be applied to indolent strumous swellings, and enlargements of the joints. When it produces irritation or inflammation, the common bread and milk poultice must be substituted; and the other re-applied when circumstances permit.

Cataplasm of yeast.

R. Farinæ, $\overline{1}$ j.

Cerevisiæ fermentæ, Oss.

Misce.—This cataplasm is useful in stimulating foul ulcers and gangrenous wounds, and removing the unpleasant odour. It should be made with fresh yeast, and applied warm.

Cataplasm of charcoal.

This cataplasm is made by stirring into the common bread and milk poultice as much finely powdered charcoal as it will bear. It is a very useful application to offensive ulcers; removing in a short time the fetor, and giving them a more healthy aspect.

Cataplasms are also made of carrots or turnips, by simply boiling them to softness, and beating them to a pulpy mass. Either furnishes a good poultice for cancerous and other painful sores.

Cloves.

Quilt some powdered cloves in flannel, and wring them out in hot brandy. Thus prepared, they form an excellent external application in colic, and in irritability of the stomach, &c.

Emollient cataplasm.

R. Farinæ seminum lini,
 ————— hordei, āā. partes equales.
 Aquæ vel lactis, q. s. ut fiat cataplasma.

The milk or water may be warmed if desirable. Applied to inflammatory tumours.

Antiseptic cataplasm.

R. Cataplasmati emollientis, ℥viij.
 Pulveris kino,
 ————— camphoræ, āā. ℥ij.

Fiat cataplasma.—Applied to unhealthy wounds and ulcers.

Hotel Dieu.

Resolvent cataplasm.

R. Cataplasmati emollientis, ℥iv.
 Plumbi acetatis, ℥j.
 Ammoniæ muriatis, ℥ss.

Fiat cataplasma.—Applicable to tumours that require gentle excitement.

Ratier's Formulary.

Warm strengthening plaster.

R. Picis abietis, ℥v.
 Unguenti cantharidum, ℥j.

Fiat emplastrum.—This plaster is applied in the same way, and used in all the cases for which burgundy pitch is prescribed. It is very irritating, and sometimes draws a blister.

BATHS, FOMENTATIONS, &c.

The ordinary application of cold, tepid and shower baths is too well known to require any particular notice. The hot bath should be of a temperature of 93 to 96 degrees of Fahrenheit. It is designed to alleviate general or local irritation, and to induce repose and sleep. It is especially adapted to fevers with deficient capillary circulation, rheumatism, herpetic eruptions, paralytic affections, &c. The lower temperature is best adapted to cutaneous complaints, and to bring on relaxation of the skin during febrile irritation: the warmer temperature is suited to paralysis; and, as a general rule, more heat is desirable to act upon deep seated than on superficial diseases.

Vapour Baths are produced by the evaporation of boiling water in a suitable apparatus. They are used, like ordinary warm baths, in rheumatic and cutaneous affections, and in every case wherein profuse perspiration is desirable. They are avoided in persons labouring under pulmonary or cardiac disease, and in exhaustion from any cause.

Local Baths are admirably adapted to parts which are swelled and painful, and may consist of tepid water only, or their strength may be increased by the addition of saline, emollient, narcotic or stimulant substances. Among these salt and mustard are preferable.

Sulphurous water, or artificial Bareges bath.

R. Potassii sulphureti, ℥j.

Aquæ, cong. xxx.

Mix for a bath. In cutaneous eruptions.

Sulphureo-gelatinous bath.

R. Potassii sulphureti, ℥ij vel ℥iv.

Aquæ, cong. xxx.

Add to this solution,

Ichthyocollæ, ℥j vel ℥ij in Aquæ bullientis solutæ, ℥x.

This bath, according to Dr. Green, (Diseases of the Skin, p. 240,) "is preferable to the artificial Bareges bath, as it is neither irritating nor apt to occasion feverishness, which the common sulphurous water bath is. A cheaper and not less efficacious gelatine may be procured by dissolving from a pound and a-half to two pounds of parchment-clippings in water by long boiling, or by using a neat's or a calf's foot for the purpose."

Emollient bath.

To an ordinary tepid water bath, add a large cupful of thick gruel or paste, and mix it well with the water. These baths are suited to prurigo, eczema, lichen and impetigo.

Nitro-muriatic acid bath.

R. Acidi nitrici, f ℥iij.

Acidi muriatici, f ℥j.

Mix, and add to the water of a tepid bath, which should then be about as sour as distilled vinegar.

Sublimate bath.

R. Hydrargyri chloridi corrosivi, ℥ij vel ℥ss.

Aquæ tepidæ, cong. xxx.

Mix for a bath. Prescribed by the French physicians in syphilitic affections, when it is desirable to avoid the action of the medicine on the stomach. This plan is seldom resorted to, on account of the great risk of employing corrosive sublimate in such large quantity.

Alkaline bath.

R. Potassæ carbonatis, ℥iv vel ℥viij.

Aquæ tepidæ, cong. xxx.

Mix for a bath. For promoting desquamation from the skin, and to allay itching in various forms of prurigo.

Artificial Harrowgate bath.

R. Sodii chloridi, ℥ij.

Magnesiæ sulphatis, ℥iij.

Potassæ sulphureti, ℥j.

Aquæ, cong. xxx.

Mix for a bath.

Fomentation is a yet more restricted mode of applying fluids to the surface of the body, and is best accomplished by means of a sponge, flannel or soft cloth. To be efficacious it should be often repeated, and not allowed to get cold.

Stimulant fomentation.

R. Vini rubri, Oij.

Mellis, ℥iv.

Misce.—This is an active fomentation, adapted to parts in a low state of vitality.

Ratier.

Saponaceous fomentation.

R. Alcoholis, Oij.

Saponis, ℥j.

Misce.—A resolvent in indolent tumours, and in sprains. *Ratier.*

Narcotic fomentation.

R. Opii, ℥ij.

Aquæ, Oj.

Solve.—For painful affections of the joints, as chronic rheumatism, &c. *Ratier.*

Narcotic fomentation.

R. Dulcamaræ, ℥ij.

Capsularum papaveris, ℥ij.

Aquæ ferventis, Oj.

Fiat infusum.—Employed as a soothing application to irritable surfaces.

Mustard fomentation.

R. Farinæ sinapis, ℥iv.

Aquæ ferventis, Oj.

Misce.—By wetting cloths in this fluid and applying them to the skin, irritation may be prolonged to any requisite degree.

Tobacco fomentation.

R. Tabaci, ℥ij vel ℥ss.

Aquæ ferventis, Oj.

Misce.—Employed in psora, but is apt to produce nausea and vomiting. Its use requires great care.

Fumigations are for the most part used to purify infected air by absorbing or otherwise counteracting deleterious gases. They are also employed in diseases of the skin, and may be sometimes substituted for a local bath. The ordinary process for fumigating apartments with chlorine, has been already described. (Page 106.)

Fumigations of sulphur, cinnabar and mercury, are also in common use for medicinal purposes, and are readily applied with a proper apparatus.

For *Inhalations*, see Expectorants, p. 105.

CAUSTICS, OR ESCHAROTICS.

Caustics or cauteries are divided into the actual and potential. The first consists of fire itself; and the second of those substances which destroy the living solids, either by excessive stimulation, or, as some suppose, by producing a chemical decomposition.

Common Caustic with Opium.

R. Potassæ cum calce, ʒij.

Pulveris opii, ʒss.

Saponis mollis, q. s.

Misce.—This preparation is employed for the same purpose as the common caustic.

Potassa.

The *causticum commune acerrimum* is the pure potash: when mixed with lime, its activity is lessened, and it is then called *Causticum commune mitius*. For the best mode of applying this substance, see the remarks on Issues. As this caustic spreads rapidly and eats deeply, care should be taken not to leave it on too long, when in the neighbourhood of large blood-vessels. When, however, we wish to arrest its effects, they may be neutralized at once by vinegar, or vinegar and water.

Lunar caustic.

This caustic is the *nitras argenti* deprived of its water of crystallization, fused and cast into moulds. Its mode of application is universally known. It is free from the inconvenience of the former.

Burnt alum.

The *alumen ustum* is made by depriving this salt of its water of crystallization by heat. It is applied in powder to the fungous granulation of ulcers; and, mixed with an equal part of powdered sugar, is used to remove specks or *nebulæ* of the cornea.

Chloride of zinc.

This is a powerful escharotic, and is safe and certain in cases that require the destruction of a considerable thickness of the living

tissues; "never causing violent pain in the affected parts, or any kind of irritative fever, or disorder of the digestive organs."

Hancke directs the following formula as a lotion:

R. Zinci chloridi, gr. ij.

Aquæ destillatæ, f $\overline{3}$ j.

Misce.—Applied on lint to chronic and indolent ulcers.

"The chloride of zinc may be applied as a caustic by means of a moistened hair pencil, either alone or mixed with an equal portion of oxide of zinc, or sulphate of lime, or according to the following form:

Canquoin's caustic paste.

R. Zinci chloridi, partem, j.

Farinæ, partem, iss.

Antimonii butyri, partem, ss.

Aquæ, q. s.

Ut fiat pasta."

Dunglison's New Remedies, p. 492.

Caustic paste of chloride of zinc.

R. Zinci chloridi,

Sulphatis calcis, āā. $\overline{3}$ ss.

Misce.—This preparation is very liable to deliquescence, to prevent which a little flower may be added at the time of applying it.

MINERAL ACIDS.

The mineral acids are all escharotics, though seldom employed, on account of the difficulty of managing fluids when used in this way. *Nitric acid* much diluted, is sometimes applied to foul ulcers in warm weather, to destroy the animalculæ which are apt to be generated in such sores.

Solution of Muriate of Ammonia, &c.

R. Ammoniæ muriatis, $\overline{3}$ j.

Acetici destillati, f $\overline{3}$ ij.

Aquæ, $\overline{3}$ iv.

Fiat solutio.—To be applied to venereal warts.

Bell on Venereal.

White oxide of Arsenic, or Arsenious acid.

R. Acidi arseniosi, ℥j.

Aquæ, f ℥ij.

Fiat solutio.

This solution is occasionally applied to cancerous sores, and was formerly used in a powder or paste as an empirical remedy. But it is now seldom employed, from the circumstance of its producing constitutional irritation. Sir Astley Cooper mentions cases in which, from its absorption when applied to open sores, partial if not complete paralysis of the limbs was the consequence.

Ointment of Arsenic.

R. Acidi arseniosi, ℥j.

Adipis,

Cerati cetacci, āā. ℥vj.

Melt the cerate and lard over a slow fire, and then pour it on the white oxide of arsenic, and triturate it in a glass mortar until it is *intimately* united. *Pharm. Chirurg.*—For cancers, &c.

In hot weather, arsenic may be advantageously rubbed up with basilicon, to prevent its spreading on the sound parts. A scruple of the one to half an ounce of the other, makes a strong ointment.

The same care is required in its use as in using the solution.

Dubois's Arsenical powder.

R. Acidi arseniosi, ℥ss.

Hydrargyri sulphureti rubri, ℥j.

Resinæ pterocarpi, ℥ss.

Fiat pulvis.—Chiefly used in the French hospitals as a caustic to cancerous affections. *Ratier.*

Arsenic is sometimes applied in the form of a paste made with water, which is carefully laid over the part to be removed, and renewed according to circumstances. When the slough forms, it should be dressed with a poultice, or with cerate spread on lint. It acts rapidly and requires watching, a remark that applies equally to all these pastes.

MOXA.

This is another mode of using the actual cautery; and, as it is engaging the attention of physicians, we insert the usual mode of applying it. The Chinese employ this remedy by means of the Mugwort. They separate this soft, lanuginous substance by beating, and form it into a cone; the base of this is attached, by being wetted, to the skin, and the point set on fire.

Dr. Boyle recommends dipping cotton in a strong solution of nitrate of potash, and enclosing pieces of it thoroughly dried in paper cylinders, about one inch in diameter, and another inch in height. Dr. Burne employs wood in a state of dry-rot, touch-wood. This only requires to be shaped properly, and burns, he says, with certainty and steadiness, and is preferable to the other modes suggested; some of which, as common cotton, or lint, requiring the use of the bellows, and when they have been dipped in nitre, demanding care to prevent the scintillations from injuring the surrounding parts.

The cylinders or cones of touch-wood, may be confined to the skin by a little adhesive plaster fixed to the edges.

It has been proposed to place pieces of cold iron in the neighbourhood of the part while the moxa is burning, in order to render the sensations more vague, and therefore less painful.

Moxa is used in diseases of the spine, paralysis, &c. &c.

STIMULATING OINTMENTS, &c.

Ointment of Red precipitate.

R. Hydrargyri oxydi rubri, ℥j.

Terebinthinæ venetæ, ℥j.

Fiat unguentum.

This preparation is applied to indolent sores, and is thought, by some practitioners, to be a specific in itch.

White precipitate.

R. Hydrargyri ammoniati, gr. xv.

Potassæ nitratis, ℥ss.

Sulphuris, ℥j.

Bene terantur et adde—

Adipis, ℥ij.

Fiat unguentum.

This ointment has long been celebrated in the cure of itch.

Solution of Phosphoric acid.

R. Acidi phosphorici, f ℥j.

Aquæ destillatæ, f ℥viij.

Fiat solutio.

Dr. Lentin, a German physician, has employed this solution on compresses applied to ulcers situated over carious bones.—*Spillan's supplement to the British Pharmacopæias.*

Corrosive sublimate and Lime-water.

R. Hydrargyri chloridi corrosivi, gr. j vel iij.

Aquæ calcis, f ℥j.

Fiat solutio et signa.—The yellow wash.

For ordinary purposes one grain to the ounce will be sufficient. In phagedænic and venereal ulcers.

Calomel and Lime-water.

R. Hydrargyri chloridi mitis, ℥j.

Aquæ calcis, f ℥iv.

Misce et signa.—The black wash.

This prescription is used in the same cases as the other. The red-oxide in that, and the black-oxide of mercury in this, are precipitated by the lime-water. They are sometimes administered in the form of injections in gleet and gonorrhœa.

Anti-psoric lotion of Dupuytren.

R. Potassii sulphureti, ℥iv.

Aquæ, Oj.

Acidi sulphurici, f ℥iv.

Misce.—To be applied two or three times a-day on the parts covered with the pustules, and with this treatment the simple bath is conjoined.

Lotion of Myrrh.

R. Tincturæ myrrhæ,

Liquoris calcis, āā. f ℥j.

Misce.

This lotion is recommended by Dr. Kirkland for removing fungous flesh.

Powder of Verdigris and Calomel.

R. Cupri acetatis,

Hydrargyri chloridi mitis, āā. ʒj.

Fiat pulvis subtilissimus.—For chancres and indolent ulcers.

Powdered Rhubarb, &c.

R. Pulveris rhei,

——— ipecacuanhæ, āā. ʒj.

Fiat pulvis.—To be dusted on sarcomatous and watery tumours.

Rhubarb alone forms an excellent application to indolent ulcers.

Powder of Savin, &c.

R. Pulveris sabinæ,

——— cupri acetatis, āā. ʒj.

Fiat pulvis.—To be dusted on sores accompanied with fungous excrescences.

Ointment with Carbonate of Ammonia, &c.

R. Ammoniæ carbonatis, ʒss.

Unguenti simplicis, ʒss.

Fiat unguentum.—Applied to indolent ulcers of a scrofulous character.

ISSUES AND SETONS.

These remedies are employed as substitutes for blisters, especially when a permanent discharge is desired.

There are three kinds of issues in common use, by either of which we may procure a discharge of purulent matter for any length of time that may be requisite. They are applied in different situations, according to circumstances, and some one of the following parts is generally chosen: the nape of the neck; the hollow of the deltoid muscle, and between the shoulders or over the ribs in front; in the inferior extremities they are most conveniently formed in the inside of the leg, either above or below the knee.

1. *Blister issue.*

To form this issue it is merely necessary to apply a blister to any part in the usual manner; the skin being thus removed, the discharge must be promoted by means of stimulating ointments, as unguentum cantharidum, ung. basilici, ung. sabinæ, etc. These may be alternated with mild liniments, in order to prevent the ulceration and consequent discharge from becoming excessive.

2. *The pea issue.*

There are two modes of forming this issue; the first is made by means of a lancet; the part is merely taken in the thumb and finger, and an incision made by passing the lancet through the skin. The wound should be kept open by means of orange peas, the common pea, a bean, or a bit of orris root.

The following extracts from the *Surgeon's Vade Mecum*, will exemplify the manner of forming the issue with caustic :—

“The part is first to be covered with a piece of adhesive plaster, in the centre of which a circular hole has been cut of the size of the intended issue; in this hole the caustic *kali purum*, made into a paste with soap, is to be placed. The whole is then to be covered with another plaster, secured by a bandage, and suffered to remain for *ten or twelve* hours. Generally in two or three days an eschar begins to separate, when the opening should be filled with the substance made choice of.” These substances are enumerated above.

3. *The seton.*

To form this artificial discharge, take the seton needle, to which is attached a skein of silk, the latter being partially anointed with some oleaginous substance. The needle is to be passed completely through the part chosen for the operation, after which it is removed, and the ends of the silk left hanging from the wound. It should be dressed every day, or twice a-day, with some mild ointment; and if this be not sufficient to keep up the discharge, the more stimulating unguents may be used, as mentioned when speaking of the blister issue.

BOUGIES.

Although directions for forming bougies may appear out of place under this head, yet as country physicians are often obliged to make these articles, we insert the following formulæ.

- R. Ceræ albæ, $\overline{\text{z}}$ xvj.
 Terebinthinæ venetæ, $\overline{\text{z}}$ iss.
 Olei olivæ, f $\overline{\text{z}}$ i.

Melt the wax and turpentine over a slow fire, and then add the oil.

Bougie with Red lead.

- R. Olivæ olei, Oj.
 Ceræ flavæ, $\overline{\text{z}}$ x.
 Plumbi oxidi rubri, $\overline{\text{z}}$ xv.

Boil over a slow fire until the minimum is perfectly dissolved, which will be in about four or six hours.

Dr. Swediaur's bougie.

- R. Ceræ flavæ, $\overline{\text{lb}}$ j.
 Cetacei, $\overline{\text{z}}$ iiij,
 Plumbi acetatis, $\overline{\text{z}}$ v.

These are to be boiled like the former until the composition is of a proper consistence for forming bougies.

Sharp's bougie.

- R. Emplastri plumbi cum resinâ abietis, $\overline{\text{z}}$ ij.
 Hydragryi, $\overline{\text{z}}$ j.
 Antimonii sulphureti, $\overline{\text{z}}$ ss.

The quicksilver to be previously dissolved in balsam of sulphur or in honey, and added to the plaster when melted in a moderate heat.

Bell on Venereal.

In order to form a bougie, a slip of linen an inch in width at one end, and an inch and a quarter at the other, and from ten to twelve inches long, must be dipped into the melted composition, taking care that it be evenly applied; it is then to be carefully folded

up into the proper longitudinal shape, and rolled firmly between two marble slabs till perfectly smooth and even.—*Pharmacop. Chirurgica.*

The caustic bougie is made by simply rolling in the centre of the wax bougie, at the extremity, a small piece of lunar or common caustic. The former is more manageable, and therefore generally preferred. Bougies are sometimes dipped in basilicon or mercurial ointment, oil of turpentine, &c., in order to render them more stimulating when employed in the treatment of gleet, &c.

CLASS X.

STIMULANTS.

In the use of stimulants, it is for the most part advisable to begin with small doses, and augment them as circumstances may require. There are cases, however, in which it is necessary to give them plentifully *ab initio*.

It will be often requisite to change not only the stimulating substance, but the part of the body to which it is applied; thus when the stomach fails, the rectum and skin may be acted upon with advantage.

PILLS, POWDERS, &c.

Pills of Camphor, Cantharides, &c.

R. Pulveris cantharidis, gr. xvij.

—— opii,

—— camphoræ, āā. gr. xxxvj.

Conservæ rosarum, q. s.

Ut fiant pilulæ xxxvj.—Of which one may be taken every night going to bed.

In impotency from general debility.

Pills of red iodide of Mercury.

R. Hydrargyri iodidi rubri, gr. ss vel gr. j.

Extracti juniperi vel glycyrrhizæ, q. s.

Divide in pilulas viij et signa.—Two in the morning and two at night; dose to be gradually and cautiously augmented.

Pills of iodide of mercury may be made in the same proportions and given in the same doses. In *scrofula*.

Pills of Turpentine and Guaiac.

R. Pulveris guaiaci, ℥j.

Terebinthinæ venetæ, q. s.

Ut fiant pilulæ xv et signa.—One three times a-day.

These pills have a powerful effect upon the urinary organs. They are employed in gleet and leucorrhœa, but frequently produce strangury.

Pills of Cayenne Pepper.

R. Pulveris capsici, ℥j.

Micæ panis,

Aquæ destillatæ, āā. q. s.

Ut fiant pilulæ xij et signa.—One three or four times a-day. In debility of the stomach, from intemperance.

Aromatic Pills.

R. Ammoniac carbonatis,

Capsici,

Caryophylli,

Macis, āā. ℥j.

Olei carui, gtt. v.

Extracti gentianæ, gr. xij.

Syrupi, q. s.

Ut fiant pilulæ xx. One every two hours in gout of the stomach.

Dr. Parrish.

Tincture of Cantharides, &c.

R. Rhei contusæ, ℥iss.

Guaiaci, gr. xlv.

Gummi laceæ, ℥ss.

Cantharidum contusarum, ℥j.

Alcoholis, f ℥xij.

Fiat infusum, et cola. Dose from thirty to fifty drops, night and morning, in a draught of water. In gleet.

From the active nature of these articles, we recommend caution in the use of them.

Mixture of Carbonate of Ammonia, &c.

R. Ammoniae carbonatis, ℥iss.

Pulveris sacchari,

—— acaciae, āā. ℥iss.

Spiritus lavendulae compositi, f℥ij.

Aquae destillatae, vel menthae, f℥jv.

Fiat mistura et signa.—A table-spoonful for a dose, every two or three hours. If desirable, tinct. opii, gutt. xl vel l may be added to the mixture.

Draught with Valerian and Carbonate of Ammonia.

R. Valerianae, ℥j.

Ammoniae carbonatis, gr. x.

Aquae cinnamomi, f℥ij.

Fiat haustus.—To be taken every fourth hour. In nervous headache, and depression of spirits.

Mixture of Cubebs, &c.

R. Pulveris cubebae, ℥ij.

Sodae carbonatis, ℥ss.

Mucilaginis acaciae, f℥vj.

Aquae menthae, f℥vj.

Fiat mistura et signa.—Take a table-spoonful every hour and a-half.

Mixture of Oxide of Bismuth, Cubebs, &c.

R. Pulveris cubebae, ℥ij.

Bismuthi subnitrat, ℥ss.

Mucilaginis acaciae, f℥ss.

Syrupi, f℥vj.

Aquae, f℥vj.

Fiat mistura et signa.—Take a table-spoonful four times a-day.

We have extracted the two preceding prescriptions from a paper of Mr. John Fosbroke, surgeon, Chittenham. See Medical Recorder, for April, 1825.

They are recommended, with other similar compounds, in various affections of the mucous membranes; viz: of the bowels, bladder, trachea, &c.

Camphorated Enema.

R. Enematis communis, Oij.

Camphoræ, ℥ij.

Vitellis unius ovi.

Misce. One-fourth part to be thrown up the rectum in the treatment of putrid fevers, *pro re natâ*. M. Chaussier,

Antiseptic pills.

R. Camphoræ,

Potassæ nitratis,

Pulveris acaciæ, āā. ℥j.

Mix, and divide into pills of four grains each.—Dose two pills every hour or two hours.

Draught with Powdered Ginger, &c.

R. Pulveris zingiberis, gr. xv.

Ammoniæ carbonatis, gr. viij.

Spiritus cinnamomi, f℥ij.

Aquæ, f℥iss.

Misce.—To be taken at once. In gout or cramp of the stomach.

Camphor mixture.

R. Camphoræ, ℥j.

Pulveris acaciæ,

—— sacchari albi, āā. ℥iss.

Tincturæ opii, gtt. xl.

Aquæ menthæ, f℥iv.

Fiat mistura et signa.—A table-spoonful to be given every two hours.

In reducing camphor to powder, (which must be done before it can be formed into a mixture, it is necessary to add to it a few drops of alcohol.

Camphor in Milk.

R. Camphoræ, ℥j.

Lactis bullientis, f℥iv.

Fiat solutio.—This preparation may be taken in the manner directed for the former one.

Camphor Julep.

R. Camphoræ, ʒj.

Aquæ bullientis, f ʒviij.

Fiat mistura.—This preparation should be set aside in a covered vessel for half an hour, and then strained. A table-spoonful for a dose *pro re natâ*.

Camphor with Magnesia.

R. Camphoræ pulverizata, ʒj.

Magnesiae carbonatis, ʒij.

Aquæ, Oj.

Fiat mistura.

This prescription answers the same purpose as the former. It is considered a more eligible preparation, and is given in the same doses. It should be allowed to settle, and the clear liquor, which is slightly impregnated with the camphor, decanted for use.

Camphor with Myrrh.

R. Camphoræ pulverizata, ʒj.

Pulveris myrrhæ, ʒss.

—— sacchari, ʒij.

Aquæ, f ʒvj.

Misce et signa.—A table-spoonful to be given every two hours.

Mixture with Oil of Turpentine.

R. Olei terebinthinæ, gtt. cxx.

Pulveris acaciæ,

Sacchari albi, āā. ʒij.

Tincturæ opii, gtt. lx.

—— lavendulæ compositæ, f ʒij.

Aquæ menthæ, f ʒv.

Fiat mistura et signa.—A table-spoonful for a dose every two hours.

This remedy has gained great reputation in some of the low forms of fever. The author once employed it in the dose prescribed above, in passive hemorrhage from the bowels with com-

plete success; and in hemorrhage from the bladder, resulting from low fever, it has been given with equal advantage.

Linctus with Oil of Turpentine.

R. Olei terebinthinæ, f ʒij.

Mellis optimi, f ʒj.

Fiat linctus.—Dose a tea-spoonful night and morning, with a draught of warm tea. In sciatica.

Emulsion of Phosphorus.

R. Phosphori puri, gr. ij.

Mucilaginis acaciæ, q. s.

Let these articles be carefully and effectually triturated in a mortar, and add gradually as much distilled water as will make an emulsion of ʒvj. then add—

Syrupi simplicis, f ʒj.

Liquoris Hoffmani anodynii, gtt. xxx.

Fiat mistura.—Of which the usual dose is a table-spoonful every two, three or four hours

This preparation was originally made by the celebrated Hufeland, and is now taken from Dr. Chapman's Therapeutics, p. 176, vol. 2.

As the violence of the remedy, and its very great power, are generally known to physicians, we need hardly repeat the necessity there is for the greatest caution in its administration.

It is sometimes given in sweet oil, but this is said to be extremely nauseous. The solution in ether (æther phosphoratus) contains about three grains of phosphorus to the ounce, and is given in dose of five or ten drops every three or four hours. There is also a saturated ethereal tincture, which is much stronger, and is now seldom prescribed. It contains six or eight grains to the ounce of ether.

Mixture of camphor and Guaiacum.

R. Tincturæ opii camphoratæ,

———— Guaiaci ammoniatæ, āā. f ʒj.

Fiat mistura, et signa.—Two tea-spoonsful every two hours. In misplaced and retrocedent gout.

Aromatic Spirit of Hartshorn.

R. Spiritus ammoniæ aromatici, f ℥ij.

Signa.—Ten or twenty drops to be given in a wine-glassful of water, *pro re natâ*. In sudden exhaustion from any cause.

Mustard seed.

R. Semen sinapis albi, ℥j.

Signa.—A tea-spoonful of the unbruised seeds two or three times a-day. They are beneficial in costive habits, when the constipation depends upon a torpid state of the muscular coat of the intestines.—*Paris on Diet*, p. 187.

Infusion of Sassafras, &c.

R. Corticis sassafras, ℥ss.

Radicis glycyrrhizæ, ℥ij.

Aquæ bullientis, Oj.

Fiat infusum et signa.—One half may be taken in the morning, and the other half in the evening.

Recommended highly by the Germans in diseases of a scrofulous character.—*Hufeland*.

Mustard whey.

R. Lactis vaccinæ, Oj.

Semen sinapis contus: ℥j.

Simmer until the caseous part separates, then strain, and add—

Vini albi, f ℥vj.

Signa.—A draught of this whey may be taken every hour or two in low fever and in debilitated stomach.

Wine whey.

R. Lactis vaccinæ, Oss.

Vini albi, (Madeira,) f ℥j vel ℥ij.

Boil the milk and then add the wine.

There are few mild stimulants more employed, or more useful than wine whey. Dr. Chapman speaks of it as possessing a kindred action with carbonate of ammonia. The dose to be

regulated by the circumstances of the case; from four ounces to ten or more during the day.

Infusion of Cayenne Pepper.

R. Pulveris capsici, ℥iss.

Aquæ bullientis, Oss.

Fiat infusum et signa.—A table-spoonful for a dose in severe colic, or gout in the stomach.

For the external use of it, see Rubefacients.

Infusion of Cloves.

R. Caryophylli contusi, ℥j.

Aquæ bullientis, Oss.

Fiat infusum et signa.—To be employed in the same cases, and in similar doses as the former.

This preparation is also very useful as an adjunct to bark in intermittent fever.

An Infusion of Ginger.

Is also an excellent stomachic, and may be employed with great benefit in debility of the stomach and bowels.

Mixture with Wine, &c.

R. Vitellum, Ov. ij.

Olei cinnamomi, gtt. xx.

Misce, et adde—

Vini albi, (Madeira,)

Aquæ cinnamomi, āā. f ℥iij.

— destillatæ, f ℥ij.

Sacchari albi, ℥ij.

Misce.—Three spoonsful for a dose. During convalescence from low fevers.

24
5
120

CLASS XI.

NARCOTICS.

NARCOTICS have been denominated *sedatives*, from their power of diminishing action; *anodynes*, from their capability of alleviating pain; and *hypnotics*, or *soporifics*, from their power of inducing sleep. A few words only will be necessary as general rules for their administration, and any peculiarities that individuals of the class may possess will be noticed under the appropriate prescriptions. It is well known they possess the power of fulfilling two indications; namely, of exciting and depressing the nervous energy.

To obtain the first of these results, it is necessary to begin with small doses, and repeat them frequently; while in order to arrive at the second, a full dose must be given, and not resorted to again for a considerable length of time. We should also bear in mind that the system very soon becomes habituated to their action, and the doses must be continually enlarged when it is necessary to maintain their impression. The difference between the susceptibility to their action when the body is in a morbid or healthy condition, should not be overlooked.

PILLS.

R. Pulveris opii, gr. xij.

Saponis albi, q. s.

Misce et divide in pilulas, xij.—Of which one is the ordinary dose to produce sleep.

In equal weights of powdered and soft opium, the former is much the more powerful, the latter containing a considerable pro-

portion of water. This should be recollected in directing the medicine in the form of pills.

An opium pill that has been made long enough to become perfectly hard and dry, will be retained by an irritable stomach when a fresh one would be rejected.

Pills of Lupulin.

R. Lupulinæ, ʒss.

Contunde in mortario, et divide in pilulas x.

Signa.—Two pills may be given for a dose, and the quantity doubled if necessary.

This substance, we are told by Dr. Ives, contains all the active properties of the hop. It is slightly narcotic, and is serviceable in irritable stomach.

The lupulin is sometimes administered in powder, with two parts of white sugar.

Pills of Sulphate of Morphia.

R. Morphiæ sulphatis, gr. iij.

Conservæ rosarum, q. s., ut fiant pilulæ, xij.

Signa.—One may be given for a dose, *pro re natâ*.

One grain of either of the salts of morphia, is usually estimated as equal to four of opium; so that a pill of the above prescription will be equivalent to a grain of opium.

The acetate and muriate of morphia are prepared in the same way, and given in the same dose.

Pills of Lactucarium.

R. Lactucarii, gr. xij.

Divide in pilulas, vj.

Signa.—One for a dose, to be repeated in two hours, if sleep be not procured.

The inspissated juice of the garden lettuce is said to act as a direct sedative, lessening the frequency of the pulse, diminishing the natural heat, and procuring sleep, without inducing the subsequent distressing effects which follow the use of opium.

The *thridace* of the French appears to be prepared by a different

process from that employed in the preparation of the British lactucarium. The former is not so highly esteemed in this country as the latter.

Pills of Hyoscyamus and Ipecacuanha.

R. Extracti hyoscyami nigri, gr. x.

Pulveris ipecacuanhæ, gr. v.

Misce et divide in pilulas x.—One every hour or two until relief is procured, watching the effect.

In flatulence and irritability of the bowels.

Pills of Opium, Hyoscyamus, &c.

R. Pulveris opii, gr. iv.

Extracti hyoscyami,

———— conii, āā. gr. xv.

Fiat massa in pilulas x dividenda.—One every night when an anodyne is required.

Pills of Extract of Hyoscyamus.

R. Extracti hyoscyami nigri, ℥j.

Divide in pilulas x.—Of which one may be given every four hours, increasing the dose if necessary.

This medicine, which is employed as a substitute for opium, does not constipate the bowels.

Pills of Extract of Stramonium.

R. Extracti stramonii, ℥ss.

Divide in pilulas xv. et signa.—One three times a-day.

The powdered leaves and seeds are also prescribed in similar doses.—*Vide Expectorants.*

Opiate Confection.

R. Confectionis opii, ℥ss.

To be given for a dose.—One grain of opium is contained in forty-three grains of the Edinburgh confection.

Pills of Extract of Conium.

R. Extracti conii, ℥j.

Pulveris, conii, q. s.; ut fiat massa in pilulas xx dividenda.

One of these pills night and morning, may be taken at the commencement, gradually increasing them to two, three, four or more, as the patient can bear them.

The efficacy of narcotic plants is influenced by soil, climate, exposure, and cultivation; and the extracts by the season when the plants are gathered, and the mode of preparing them. Physicians would do well therefore to make themselves acquainted with the quality of the article they prescribe, inasmuch as there may be a fatal difference between two parcels of different ages, modes of preparation, &c.—*Vide Journal of the Philadelphia College of Pharmacy, Vol. 2. On Narcotic Extracts.*

Pills of Camphor.

R. Camphoræ, ℥ss.

Acaciæ,

Alcoholis, āā. q. s.

Ut fiant pilulæ xv.—Dose, a pill every two or three hours.

Pills of Opium, Digitalis, &c.

R. Pulveris opii,

——— digitalis, āā. gr. vj.

Confec. rosæ, q. s., ut fiant pilulæ xij.

Signa.—One to be taken every four hours. In Asthma, &c.

Pills of Extract of Conium and Calomel.

R. Extracti conii, ℥ij.

Hydrargyri chloridi mitis, gr. xv.

Fiant pilulæ xv et signa.—One three times a-day. In pseudo-syphilitic affections.

Pills of powdered Nux vomica.

R. Pulveris nucis vomicæ, ℥j vel ℥ss.

Confec. rosæ, q. s., ut fiant pilulæ x.

Signa.—One to be given two or three times a-day, closely watching the effects. In paralysis.

Pills of the resin of Nux vomica.

R. Extracti nucis vomicæ, gr. x.

Divide in pilulas xv.—One pill twice a-day, gradually augmenting the dose, and watching its effect.

Pills of Strychnia.

R. Strychniæ, gr. ij.

Confect. rosæ, q. s., ut fiant pilulæ xxiv.

Of which one pill may be given once or twice a-day, according to the idiosyncrasy of the patient.

This latter medicine is still more powerful than the former two: for their mode of preparation, manner of exhibition, and peculiar effects, see Magendie's Formulary, page 82. It is only necessary in this place to observe, that great care is requisite to divide the mass into pills of equal strength.

Tincture of Strychnia.

R. Alcohol, f ℥j.

Strychniæ, gr. iij.

Fiat tinctura.—This tincture to be given by drops, from six to twenty in draughts of mucilage.

Draught of Strychnia.

R. Strychniæ, gr. j.

Sacchari, ℥ij.

Acidi aceticæ, gtt. ij.

Aquæ destillatæ, f ℥ij.

Fiat solutio et signa.—A tea-spoonful morning and evening.

Strychnia forms with acids a variety of salts, which are generally very soluble, and for this reason much more active than the alkali uncombined. These may be resorted to when the system becomes habituated to the action of strychnia. The commencing dose of the salt, should not be greater than that of the alkaloid. It should be borne in mind that the activity of this substance is increased by all acid drinks.—See *Magendie's Formulary*, Edit. 5, p. 12.

MIXTURES, TINCTURES, &c.

Opiate mixture.

R. Pulveris opii, ℥ss.
Sacchari, ʒj.
Aquæ cinnamomi, f ʒvj.

Fiat mistura et signa.—A table-spoonful may be taken every two hours, so that the whole be consumed in twenty-four. In tetanus and colica pictonum.

Hemlock mixture.

R. Succī conii spissati, ʒss.
Syrupi papaveris albi, f ʒj.
Aquæ, f ʒvij.

Misce.—A table-spoonful three or four times a-day for a dose.

Tincture of Resin of Nux vomica.

R. Extracti nucis vomicæ, gr. iij.
Alcoholis, ʒj.

Fiat tinctura.—This tincture to be given in doses of fifteen or twenty drops, in any kind of drink.

This preparation, and the pills made of the resin of nux vomica, have been successfully used in general and local paralysis. Nux vomica is also applied by friction in paralytic and other nervous diseases. The following is Magendie's formula for this purpose :

R. Tincturæ nucis vomicæ, f ʒj.
Liquor ammoniæ (ammoniaque concentrée,) f ʒij.
Misce.

Opiate Collyrium.

R. Pulveris opii, gr. j.
Camphoræ, gr. v.
Mucilaginis acaciæ, f ʒj.
Misce, et fiat collyrium.

Anodyne Draught.

R. Tincturæ opii, gtt. xv vel xxv.

Syrupi papaveris, f ℥ij.

Spiritus cinnamomi, f ℥j.

Aquæ destillatæ, f ℥iss.

Misce et signa.—Anodyne draught. Laudanum is very disagreeable to some persons; combined as above the taste is disguised.

As the regulation of doses for children is, to the young practitioner, one of the most difficult parts of prescribing; and as laudanum is an article so universally employed in their diseases, we subjoin the following graduated table from Dr. Dorsey's Syllabus, 1817, page 36.

For a child at birth, or within a month after	$\frac{1}{2}$ to 1 drop.
Under a year old - - - - -	$\frac{1}{2}$ to 2 or 3
From one to two years of age - - - - -	1 to 5
From two to five - - - - -	2 to 8
From five to ten - - - - -	5 to 15
From ten to fifteen - - - - -	10 to 20
At fifteen years - - - - -	15 to 20
For an adult - - - - -	25 to 30

It is important in the employment of laudanum that it should be a *saturated* tincture, and perfectly transparent. For these reasons it should be obtained from the apothecary in small quantities, as it is liable to deposit part of the opium; hence the liquid near the surface is weaker, and causes that in the bottom of the phial to be very strong, if it be shaken before using. Infants have been destroyed by the exhibition of *thick laudanum*. Physicians, therefore, should always examine the phial, before trusting the nurse to give a dose to a child.

Solution of Sulphate of Morphia.

R. Morphiæ sulphatis, gr. ij.

Aquæ destillatæ, f ℥ij.

Fiat solutio.—Dose, one or two tea-spoonsful; the larger dose being equivalent to a grain of opium, or twenty-five drops of laudanum.

The sulphate of morphia has one superiority over the acetate,

namely, that the latter when dissolved in water is decomposed, two salts resulting, the one soluble, the other not. From this objection the sulphate is exempt.

Magendie states that, by alternating these new alkaline remedies, we may prolong the effect without increasing the dose.—*Magendie's Formulary*, p. 24.

The muriate and nitrate of morphia possess no advantages over the sulphate and acetate.

The French chemists have also discovered in opium a principle allied in its effects to morphia, and called *Codéine*. In dose of a single grain it proves highly anodyne, but distresses the stomach in larger doses. Its salts are given in somewhat smaller quantities.—*Magendie*, 9^{me}, ed. p. 80.

A preparation of opium known as *McMunn's Elixir*, has been for several years much in vogue in this country. The mode of preparation is a secret with the proprietor; but the medicine has certainly some advantages over others of its class. For example, it rarely affects the head, and causes little or no constipation, but acts freely on the urinary organs and skin. It is given in the same dose as laudanum, but is probably not more than two-thirds as strong.

Tincture of Lupulin.

R. Lupulinæ puræ, ℥j.

Alcohol, f ℥ij.

Digest for six days in a close vessel. Strain, filter, and add a sufficient quantity of alcohol to make ℥iij. of the tincture. Of this from ℥ss. to ℥ij. may be taken for a dose.

Tincture of Hops.

R. Tincturæ humuli, f ℥j.

Signa.—Of this, a tea-spoonful may be taken as a narcotic in cases when opium is inadmissible.

Hops are also given in the form of infusion; for which see tonics. Enclosed in a bag, they have acquired some celebrity as a pillow.

Camphor and Hoffman's Anodyne.

R. Aquæ camphoræ, f ℥iv.

Spiritus ætheris sulph. comp., f ℥ij.

Misce.—Dose, a dessert-spoonful every hour or two hours diluted. In nervous affections, and sleeplessness of fever.

Infusion of Camphor.

R. Camphoræ, $\bar{\text{z}}\text{j}$.

Aquæ bullientis, f $\bar{\text{z}}\text{vii}$.

Pour the hot water on the gum, and allow it to stand until cold: it should be then kept in a well-stopped phial. Dose, a table-spoonful every hour or two hours. In febrile pervigilium and nervous irritability.

Tincture of Opium and Oil Turpentine.

R. Tincturæ opii, f $\bar{\text{z}}\text{j}$.

Olei terebinthinæ, f $\bar{\text{z}}\text{ss}$.

Misce et signa.—A tea-spoonful diluted every hour or two may be given in delirium tremens, but even here its effect must be closely watched.

The turpentine may be added or omitted at the discretion of the physician, and the quantity of laudanum in some cases may be doubled. We have given two tea-spoonful every hour until $\bar{\text{z}}\text{ij}$ of laudanum were taken, with success. We do not believe in the doctrine, however, that opium in this disease may be administered almost *ad libitum* without danger. On the contrary, we feel assured that death has been caused by its excessive use in delirium tremens.

Denarcotized laudanum.

R. Tincturæ opii sine narcotinâ.

This preparation was proposed by Robiquet. It relieves pain and induces sleep, without producing the ordinary sequelæ of opium or laudanum, and is given in the same dose as the latter.

Black drop.

R. Tincturæ opii acetatæ, f $\bar{\text{z}}\text{i}$.

From six to eight drops of this preparation may be given to an adult for a dose. It is said to be three times the strength of laudanum, and has obtained celebrity from the fact, that it equally promotes the ends of laudanum without affecting the head and stomach. When it cannot be had, Dr. Chapman states that by giving the alcoholic tincture of opium in vinegar, we obtain nearly the same results.

Elixir Paregoric.

R. Tincturæ opii camphoratæ.

A tea-spoonful of this in a little water is a dose for an adult. It is principally employed as an expectorant.

Wine of Opium.

The dose of the Vinum opii is the same as the spirituous tincture; but it is chiefly employed as an external application to chronic inflammation of the eyes.

Tincture of Digitalis.

R. Tincturæ digitalis, f℥ij.

Of which ten drops may be given at first twice or three times a-day, increasing the quantity gradually as the system becomes accustomed to it. The peculiar character of this remedy should induce caution in giving it.

For its particular applications and effects, see Expectorants and Diuretics.

Infusion and Tincture of Digitalis.

Vide Diuretics and Expectorants.

Infusion of Conium.

R. Conii, ℥ss.

Aquæ bullientis, Oj.

Fiat infusum et cola.—To be applied as a wash to cancerous and scirrhous ulcers.

A cataplasm is also employed for the same purpose, made by mixing the powdered leaves with bread and water poultice.

Solution of the Extract of Belladonna.

R. Extracti Belladonnæ, ℥j.

Aquæ destillatæ, f℥iij.

Fiat solutio et signa.—To be applied to the eye in cataract, for the purpose of dilating the pupil and exposing the lens.

The extract of belladonna is given in doses of a grain three or four times a-day.

Ointment of Belladonna.

R. Extracti belladonnæ, ℥ij.

Aquæ destillatæ, f ℥ij.

Adipis, ℥ij.

Fiat unguentum.—To be applied to the neck of the uterus in rigidity of that part occasioned by disease, or previous to delivery. It is said to act on the same principle as it does in dilating the iris. The application to be made for some time by means of a syringe with a wide mouth.

M. Chaussier.

Infusion of Hyoscyamus niger.

R. Foliorum hyoscyami nigri, ℥ss.

Aquæ bullientis, Oj.

Fiat infusum.—Employed as an external application to cancerous, scrofulous, and other indolent ulcers.

Decoction of Bitter sweet.

R. Dulcamaræ, ℥j.

Aquæ, Ojss.

Boil to a pint and strain.

Dr. Chapman directs a wine-glassful to be taken frequently, and gradually increased until a pint is consumed daily. In chronic eruptions, &c. The same preparation is employed as a wash.

Decoction of Stramonium in milk.

R. Stramonii, ℥ij.

Lactis recentis, Oiss.

Boil to a pint and strain. For gouty, rheumatic, and other painful swellings.

Solution of Extract of Belladonna.

R. Extracti belladonnæ, gr. iij.

Aquæ cinnamomi, f ℥j.

Fiat solutio et signa.—Two or three drops twice or thrice a-day, to a child under a year old, and an additional drop for every additional year.

Belladonna has been recently used in Germany as a preventative of scarlatina. The extract, if given for several days, produces a scarlet eruption and affection of the fauces analogous to those

of scarlatina; and it is pretended that this factitious disease is sufficient to prevent the access of the real one.

Opium Enema.

- R. Pulveris opii, gr. ij.
Mucilaginis acaciæ, f \bar{z} ss.
Lactis tepifacti, f \bar{z} ij.
Misce pro enemate.

Opium Enema.

- R. Pulveris opii, gr. iij vel iv.
Adipis, \bar{z} j.
Melt them together with a gentle heat, and when of a proper warmth, inject the mixture with a small syringe.

Solution of Opium in Lime-water, &c.

- R. Extracti opii, gr. j.
Liquor calcis,
Olei amygdalæ dulcis, āā. f \bar{z} ij.
Fiat mistura.—Recommended by Dr. Sibergundi of Dorsten, in the treatment of sore nipples. It is to be applied to the parts on dorsils of lint.

Laudanum Enema.

- R. Tincturæ opii, \bar{z} ss.
Infusi lini, f \bar{z} ij vel f \bar{z} iv.
Fiat enema.

It is generally supposed that three times the quantity of a medicine may be thrown into the rectum that may be taken into the stomach. As regards opium, however, we believe it to be too much, particularly in children. Indeed, it is an unsettled point in therapeutics, whether remedies act most powerfully upon the rectum or the stomach.

Suppository of Opium.

- R. Pulveris opii, gr. ij.
Saponis, gr. iv.
Misce bene.—Introduce into the rectum when an enema cannot be administered.

Plaster of Opium, &c.

R. Opii puri,
Camphoræ, āā. ℥ss.
Emplastri lithargyri, ℥ij.

Melt the plaster, and having previously powdered the other articles, mix them gradually. For local pains.

Plaster of Opium, &c.

R. Pulveris opii,
—— camphoræ,
—— saponis albi, āā. ℥j.

Tincturæ opii, q. s. ut fiat emplastrum.

This plaster is employed in the same cases as the preceding one. Another, and the most common plan, is to spread theriaca andromachi* on leather of the size required, and cover it with powdered opium, sprinkling a little laudanum to promote its adhesion.

* The original Theriaca Andromachi is composed of seventy-two ingredients, pulverized and rubbed up with honey into an electuary. A preparation bearing the same name, but used for the same purposes, is now made in a much less elaborate way. The word *Theriaca* is, at the present day, applied to any coarse sirup, as treacle or molasses.

CLASS XII.

ANTISPASMODICS.

ANTISPASMODICS are those medicines which allay spasm, and compose the irregular actions of the nervous system. Some of the most powerful of them are derived from the class of Narcotics.

Pills of Asafætida and Soap.

R. Asafætidæ, ℥j.

Saponis, gr. x.

Aquæ, q. s., ut fiant pilulæ xx.

Two or four of these pills may be taken for a dose and repeated *pro re natâ*.

Pilulæ asafætidæ cum aloë, et

———— cum rheo,

May be given in the same doses as those made with soap only.

Opium Pills.

As under Narcotics.

Pills with Castor and Salt of Amber

R. Castorei, ℥j.

Acidi succinici, ℥ss.

Extracti gentianæ, q. s., ut fiant pilulæ xxiv.

Dose three pills night and morning.—In hysteria.

Calomel Pills.

As under Sialagogues.

Pills of Musk, Camphor, &c.

R. Moschi, ℥ss.
Camphoræ, ℥j.
Ammoniaci, ℥ij.
Opii, gr. iv.

Misce, et fiant pilulæ singulæ gr. iv.

Signa.—The dose may be four or five in the twenty-four hours. In nervous diseases. *M. A. Richard.*

Bolus with Valerian and Rust of Iron.

R. Pulveris valerianæ, ℥j.
Ferri subcarbonatis, ℥ss.
Mucilaginous acaciæ, q. s., ut fiat bolus.

One three times a-day.

Bolus with Musk and Camphor.

R. Camphoræ, gr. v.
Moschi, gr. v vel x.
Syrupi, q. s., ut fiant bolus.

Signa.—To be taken at once.

This is a full dose which, however, can be readily modified by the practitioner.

To confine the aroma of musk, whether in the form of pills or otherwise, it should always be kept in phials.

Bolus with Musk and Carbonate of Ammonia.

R. Moschi,
Ammoniæ carbonatis, āā. ℥ss.
Confect. rosæ, q. s. ut fiat bolus.

To be taken every third hour.

In mortification accompanied with spasmodic action.

Musk Mixture.

R. Moschi optimi, ℥ij.

Sacchari, ℥j.

Pulveris acaciæ, ℥j.

Aquæ destillatæ, f ℥vj.

Fiat mistura et signa.—A table-spoonful to be given every hour or two hours.

Mixture with Musk, &c.

R. Misturæ moschatæ, ℥vj.

Tincturæ opii camphoratæ, f ℥ss.

——— valerianæ ammoniatæ, f ℥j.

Misce et signa.—A tea-spoonful three or four times a-day. For children in pertussis.

Tincture of Asafætida, Castor, &c.

R. Tincturæ asafætidæ,

——— castorei, āā. f ℥j.

Spiritus ammoniæ aromat., f ℥i.

Misce.—A tea-spoonful may be taken in a glass of water for a dose.

Hoffman's Anodyne and Laudanum.

R. Anodynii Hoffmanni, f ℥iij.

Tincturæ opii, gtt. lxxx.

Aquæ cinnammomi, f ℥vj.

Fiat mistura et signa.—A table-spoonful every one or two hours. In hysteria, &c.

Mixture with Asafætida, &c.

R. Asafætidæ, ℥j.

Aquæ menthæ piperitæ, f ℥iij.

Fiat solutio, et adde—

Tincturæ valerianæ ammoniatæ, f ℥ij.

——— castorei, f ℥iij.

Ætheris sulphurici, f ℥j.

Signa.—A table-spoonful for a dose, largely diluted, every second hour.

In hysteria.

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Oil of Valerian with Spirits of Hartshorn.

R. Olei valerianæ, gtt. viij.

Spiritus ammoniæ aromatici, f ʒj.

Aquæ, f ʒiv.

Sacchari albi, ʒij.

Misce et signa.—To take a table-spoonful every two or three hours shaking the vial.

Infusion of Valerian.

R. Valerianæ, ʒj.

Aquæ bullientis, Oj.

Put them into a covered vessel and let them stand until cold.—Dose, a wine-glassful every two or three hours.

Tincture of Valerian and Hoffman's Anodyne.

R. Liquoris Hoffmani anodynii,

Tincturæ valerianæ, āā, f ʒi.

Misce et signa.—A tea-spoonful for a dose, with water, *pro re natâ*, shaking the vial each time.

Mixture with Ether and Laudanum.

R. Ætheris sulphurici, f ʒij.

Sacchari albi,

Acaciæ, āā. ʒiss.

Tincturæ opii, gtt. lx.

Aquæ cinnamomi, f ʒij.

Misce et signa.—A tea-spoonful every hour. In cramp of the stomach, &c.

Solution of Boracic acid, &c.

R. Syrupi simplicis, f ʒj.

Acidi boracici, ʒj.

Infusi fœniculi, f ʒiv.

Misce et signa.—A small table-spoonful three or four times a-day.

The above is prescribed by the French physicians in cerebral affections.

Ratier.

Asafœtida enema.

R. Asafœtidæ, ℥ij.

Decocti hordei, f ℥x vel f ℥xij.

Misce pro enemate.—Tinct. opii may be added *pro re natâ*. In hysteria, spasmodic colic, &c.

Musk enema.

R. Moschi, gr. xij.

Sacchari, ℥ij.

Spiritus ammoniæ, gtt. xxx.

Infusi lini, ℥iv.

Fiat enema.—For children with convulsions.

Opiate plaster.

As under Narcotics.

Hemlock plaster.

As under Narcotics.

Tobacco chyster.

As under Cathartics.

CLASS XIII.

SIALAGOGUES.

THOSE medicines which increase the salivary secretion are denominated Sialagogues. In forming these into a *class* in this place, we trespass on the arrangement of Dr. Chapman, but merely from a motive of convenience; for we agree with him that such a class would be better expunged from the *Materia Medica*, at the same time that it appears necessary to introduce it here, in order to place the mercurial preparations in stronger relief than could otherwise be done.

Pills of Calomel.

R. Hydrargyri chloridi mitis, gr. xij.

Confect. rosæ, q. s., fiant pilulæ xij.

Signa.—One, morning and evening, and if necessary, until salivation is excited.

Pills of Corrosive sublimate.

R. Hydrargyri chloridi corrosivi. gr. v.

Aquæ destillatæ, gtt. xxx vel xl.

Confect. rosæ, ʒj.

Pulveris glycyrrhizæ, q. s., ut fiant pilulæ xl.

Of which, give one pill three or four times a-day. In lues venerea. As salivation rapidly follows the use of corrosive sublimate, its effect must be watched.

Dupuytren's Antisyphilitic pills.

R. Hydrargyri chloridi corrosivi, gr. ss.

Extracti cinchonæ, gr. x.

—— opii, gr. ss.

Pulveris cinchonæ, q. s.

Ut fiant pilulæ ij.—The two pills may be taken, one in the morning and the other at night; but as each contains a quarter of a grain of corrosive sublimate, their action must be very closely watched.

M. Dupuytren was partial to these pills in the treatment of Syphilis. He thought the opium and cinchona promoted and beneficially modified the action of the sublimate.

Pills with Corrosive sublimate and Hemlock.

R. Hydrargyri chloridi corrosivi, gr. vj.

Solvantur in

Aquæ destillatæ, q. s. et adde—

Succi conii spissati, ℥j.

Pulveris conii, q. s., ut fiat massa, in pilulas xlvijj dividenda.

These pills contain the same quantity of mercury as the former, and may be given in the same number, and for the same purpose.

Pills of Acetate of Mercury.

R. Hydrargyri acetatis,

Mannæ,

Pulveris acaciæ, āā. ℥j.

Aquæ rosarum, q. s., ut fiant pilulæ, xx.

Of which let three be taken every night, till a gentle ptyalism is excited.

This preparation is said to be the mildest of the mercurial salts, and is less apt to disturb the bowels; but it is believed to be less efficacious in arresting the venereal disease.

The effect of the mercurial preparations upon children is sometimes very serious, and even fatal. So powerful upon them is the action of this medicine, that a profuse or even gentle salivation, will sometimes produce mortification and destruction to the jaw, cheek and lip. This however, does not often happen; but to avoid it the gums should be frequently and carefully examined.

It is, nevertheless, a fact, that a disease precisely similar in all its features occasionally attacks children who are badly clothed and fed, though no mercury has been given to them.

Solution of Cyanuret of Mercury.

R. Hydrargyri cyanureti, gr. viij.

Aquæ, Oj.

Fiat solutio.—This is the *Liqueur anti-syphilitique* of Chaussier, who prefers it to corrosive sublimate on account of its greater solubility and more speedy action. By giving a tea-spoonful of the solution we give one eighth of a grain of the cyanuret, which may be repeated morning, noon and night, watching its effects.

Pills of Iodide of Mercury.

R. Hydrargyri iodidi, gr. v.

Confectionis rosæ, q. s.

Ut fiant pilulæ, xxx.

Each pill will contain the sixth of a grain, which may be given three times a-day. Double the quantity (two pills) is sometimes administered at first, but care should be taken not to push it too far.

Compound Pills of Iodide of Mercury.

R. Hydrargyri iodidi, gr. ij vel gr. iij.

Extracti opii, gr. ij.

Lactucarii, gr. xij.

Extracti guaiaci, gr. xxiv.

Misce, et fiant pilulæ xxiv.—Given by M. Ricord in the syphilis of children. He directs one pill for a child six months old, and two, three, or four pills for older children.

Dunlison's New Rem. p. 280.

Pills of Iodide of Mercury.

R. Hydrargyri iodidi, gr. j.

Extracti juniperi, gr. xij.

Pulveris glycyrrhizæ, q. s.

Ut fiant pilulæ, viij.—In adult patients Magendie directs two to be given morning and evening, to be increased to three or four.

Dunlison, ut supra.

Pills with Calomel, Camphor, &c.

- R. Hydrargyri chloridi mitis,
 Camphoræ, āā. ℥j.
 Pulveris opii, gr. xij.
 Syrupi, q. s. ut fiant pilulæ xx.

Signa.—One or two to be taken morning, noon and night, when calomel by itself causes purging.

Blue Mercurial pills.

- R. Pilulæ hydrargyri, ℥ss.
 Divide in pilulas, xij.

Signa.—One may be taken three or four times a-day, according to circumstances.

If they should occasion purging, pulv. opii. gr. ss. may be added to each pill. The mass directed in the American Pharmacopœia contains one grain of mercury in every two and a half grains. One grain is contained in four of the Edinburgh, and in three of the London and Dublin Pharmacopœias.

Powder of Mercury and Chalk with Ipecacuanha.

- R. Hydrargyri cum cretâ, ℥j.
 Pulveris ipecacuanhæ, ℥ss.
 Fiant chartulæ, vj.

Signa.—One night and morning in sirup.

Commended by Dr. Paris, in dyspepsia in which the biliary secretion is impaired. He prefers it under these circumstances to every other form of mercury.

Compound Powder of Sulphate of Mercury.

- R. Hydrargyri sulphatis flavi, gr. j.
 Pulveris asari, ℥iss.

Misce et divide in chartulas, viij.

Signa.—One of these may be used as an Errhine, morning and evening. In gutta serena, ozæna, and after the removal of polypi.

Pills of the Red oxide of Mercury.

- R. Oxidi hydrargyri rubri, gr. j.
 Pulveris opii, gr. j.
 Olei caryophilli, gtt. ij.
 Fiant pilulæ iij et signa.—One pill every night for a week. In venereal cases.

This preparation in a stronger formula, was used by the celebrated John Hunter; but from its harshness it is now generally superseded by milder medicines.

Mixture with Corrosive sublimate.

- R. Hydrargyri chloridi corrosivi, gr. ij.
 Aquæ destillatæ, f $\frac{3}{4}$ vj.
 Spiritus cinnamomi,
 Syrupi, āā. f $\frac{3}{4}$ j.
 Misce.—Dose one or two large spoonful, twice or thrice a-day. In venereal cases.

Solution of Corrosive sublimate.

- R. Hydrargyri chloridi corrosivi, gr. xvj.
 Alcoholis, f $\frac{3}{4}$ ss.
 Aquæ, Oj.
 Misce.—This is the celebrated *Liquor of Van Swieten*, who directs half an ounce of it to be taken morning and evening, in milk, solution of gum or sirup. Its use requires the utmost caution. In venereal affections.

Spirituous solution of Corrosive sublimate.

- R. Hydrargyri chloridi corrosivi, gr. j vel ij.
 Alcohol. diluti, f $\frac{3}{4}$ iv.
 Solve.—Of which a table-spoonful, night and morning, may be taken in a draught of decoction of Sarsaparilla.

The muriate of mercury is decidedly preferred by some physicians in the treatment of syphilis. John Hunter was of opinion, however, that the disease is more liable to recur, after its use, than when some of the other preparations have been employed.

Strong Mercurial ointment.

R. Unguenti hydrargyri fortis, $\bar{\text{z}}$ j.

One drachm of this ointment to be rubbed on the inside of the thighs, before the fire.

Some physicians recommend the warm bath before using this ointment, while others consider it useless. We think the practice occasionally beneficial. The hands of the person rubbing it on should be enveloped in a bladder, or gloves made of oiled silk.

Strong Mercurial ointment with Camphor.

R. Unguenti hydrargyri fortis, $\bar{\text{z}}$ j.

Camphoræ, $\bar{\text{z}}$ j.

Misce.—To be employed as the former.

Masticatory with Pellitory, &c.

R. Pulveris pyrethri,

Resinæ mastichi, āā. $\bar{\text{z}}$ j.

Let these be dissolved together by a moderate application of heat: then divide the mass into two equal parts. One of these lumps may be chewed at pleasure. In toothach, and paralytic affections of the tongue.

Mixture of Pellitory, Opium, &c.

R. Radicis pyrethri contusæ, $\bar{\text{z}}$ ss.

Aceti destillati, f $\bar{\text{z}}$ vj.

Opium, gr. iij.

Digest in a sand bath for an hour et signa.—A spoonful to be held in the mouth and frequently renewed. Used in the same cases as the former.

There are several other substances, such as polygala senega, nitric acid, &c., which occasionally excite salivation; but they are seldom employed for that purpose.

Mercurial Lotion of Corrosive sublimate.

R. Hydrargyri chloridi corrosivi, ℥j.

Aquæ, f ℥vj.

Solve et adde—

Ammoniacæ muriatis, ℥ij.

Potassæ nitratis, ℥ss.

Fiat lotio.—Principally used as a wash in itch.

Good's Study of Med. vol. iv.

Antacid tincture.

R. Guaiaci pulveris, ℥j.

Balsami canadensis, ℥j.

Hydrargyri chloridi corrosivi, ℥j.

Olei sassafras, f ℥ij.

Spiritus vini rectificati, f ℥viij.

Dissolve the corrosive sublimate in one-half the spirit, and then add to it the other ingredients.—Of this from ten to twenty drops may be taken morning and evening, in wine or water.

This form of exhibiting corrosive sublimate is employed by Dr. Emerson and other practitioners of this city, in lues venerea, &c.

Ointment of Red precipitate, &c.

R. Oxidi hydrargyri rubri, gr. x.

Zinci sulphatis, ℥j.

Adipis, ℥ij.

Fiat unguentum.

Recommended by Professor Dupuytren in obstinate chronic ophthalmia depending on a scrofulous diathesis.

Anti-herpetic Ointment.

R. Hydrargyri sulphatis flavi, ℥j.

Tincturæ opii, f ℥j.

Sulphuris sublimati, ℥ss.

Adipis, ℥j.

Fiat unguentum.—In herpes, alternated with the simple water bath.

Ointment of red iodide of Mercury.

R. Hydrargyri iodidi rubri, gr. xv.

Adipis, ℥ij.

Olei limonis, gtt. xx.

Fiat unguentum.

This ointment has been found highly efficacious in syphilitic tubercles, and chronic ulceration of a syphilitic character, but its great activity requires close attention. The following formula, which is much less active, may be employed with less inconvenience.

R. Hydrargyri iodidi, ℥ss.

Adipis, ℥iss.

Olei limonis, gtt. xv.

Fiat unguentum.—Syphilitic ulcerations which have resisted a variety of remedies, have cicatrized rapidly under the use of this ointment.

Ratier.

Ointment of Cyanuret of Mercury.

R. Hydrargyri cyanureti, gr. xvj.

Adipis, ℥j.

Essentiæ citri medicæ, gtt. xv.

Fiat unguentum.—In herpes, attended by inflammation and itching.

CLASS XIV.

TONICS.

THOSE medicines are denominated Tonics which impart strength to the system, without subjecting it to any preternatural excitement during their operation. They stimulate, however, in a secondary manner, by gradually increasing the force of the circulation, and by restoring the digestive and secretory functions to a more healthy state. Considerable perseverance is often necessary in giving any one of this class a fair trial; and when one fails, we may often resort with success to another: much also may sometimes be gained by alternating them.

POWDERS, &c.

Powder of Peruvian Bark.

R. Pulveris cinchonæ, $\bar{\text{z}}$ j.

A drachm (about a tea-spoonful) to be taken every hour in port-wine, water, or milk, during the intermission of fever.

Some practitioners suspend the bark till within a few hours of the expected paroxysm; and a few others administer it during the hot stage of the disease. It is better to commence immediately after the paroxysm has ended, and give a dose every hour, until the expected period of its return; and to continue it in smaller quantities for several days.

Powder of Peruvian bark and Cloves.

R. Pulveris cinchonæ,

Potassæ bitartratis, āā. $\bar{\text{z}}$ j.

Pulveris caryophilli, $\bar{\text{z}}$ j.

Misce.—Dose a drachm and a half every second hour.

This compound will sometimes succeed when the bark alone fails.

Powder of Peruvian bark and Sulphate of Magnesia.

R. Pulveris cinchonæ,

Magnesiæ sulphatis, āā. ℥vj.

Fiat pulvis, et divide in partes æquales iv.—One to be taken every two hours, when purging is required.

Powder of Peruvian bark, Snake root, &c.

R. Pulveris cinchonæ, ℥ss.

——— serpentariæ, ℥j.

Sodæ bicarbonatis, gr. ℥ij.

Divide in chartulas iv et signa.—One to be given every two hours.

In obstinate intermittents.

If the bark should purge when given alone, a little opium may be added; when it oppresses the stomach, cloves, as in a former prescription; if costiveness should follow, rhubarb, or sulphate of magnesia. The alkali in the above preparation will correct acidity.

Powder of Augustura bark.

R. Pulveris cuspariæ, ℥ss.

Divide in chartulas vj.—Of which one may be taken three or four times a-day, in water or any other vehicle.

This bark has been successfully administered in uterine hemorrhage.

Powder of carbonate of Iron.

R. Ferri subcarbonatis, ℥j.

Divide in chartulas vj. et signa.—One every six hours in molasses.

Chorea, neuralgia, &c.

The dose may be carried as far as ℥ss. every four or six hours, but must sometimes be preceded by antiphlogistic treatment.

Powder of Colomba, Ginger, &c.

- R. Pulveris colombæ,
 ——— ferri subcarbonatis,
 ——— rhei,
 ——— zingiberis, āā. ʒj.

Misce, et fiant doses xij.—One to be taken three times a-day, in molasses.

Powder of Colomba and Tartrate of Iron.

- R. Ferri et potassæ tartratis, ʒij.
 Pulveris colombæ, ʒss.

Fiant pulveres iv et signa.—One every three or four hours, in sirup.

Powder with Rust of Iron, &c.

- R. Ferri sulphatis, ʒij.
 Ferri subcarbonatis, ʒiss.

Divide in pulveres xij et signa.—One to be taken morning, noon and night, in sirup or molasses.

Pills of Protocarbonate of Iron.

- R. Ferri protocarbonatis, ʒj.
 Ferri subcarbonatis, q. s.

Ut fiant pilulæ xx, et signa.—A pill to be taken morning, noon and night. This is one of the latest and best formulæ for the chalybeate preparations. The pills as above directed are perhaps too large for convenience; a difficulty that can be easily obviated by further subdivision.

Lactate of Iron.

This salt of iron has lately been introduced into the pharmacopœia, but it has no obvious advantage over the ordinary preparations.—The dose is from gr. v to ʒj.

Pills of Cinchona and Camphor.

- R. Extracti cinchonæ, ʒj.
 ——— opii, gr. j.
 Camphoræ, gr. xij.
 Pulveris cinchonæ, q. s.

Ut fiant pilulæ xij.—One to be taken three or four times a-day.

Ratier.

Powder of Prussiate of Iron and Guaiacum.

R. Ferri ferrocyaneureti,
 Pulveris guaiaci, āā. ℥ss vel ℥j.
 Misce et divide in chartulas xij et signa.—One three times a-day.

In obstinate intermittents.

Pills of Extract of Bark, &c.

R. Extracti cinchonæ,
 ——— gentianæ, āā. ℥j.
 Ferri sulphatis, ℥ss.
 Pulveris myrrhæ, ℥j.
 Olei carui, gtt. x.
 Syrupi zingiberis, q. s., ut fiant pilulæ lx.
 Signa.—Three to be taken three times a-day.

Pills of Sulphate of Quinia, &c.

R. Quiniæ sulphatis, gr. xv vel xxx.
 Mucilaginis, q. s., ut fiant pilulæ xv.
 Signa.—One to be given every hour in the apyrexia of intermittent fever.

In prescribing quinia in the apyrexia of intermittents, and especially in that of neuralgia, it is often necessary to increase the dose beyond the maximum of the above formula. For example, of three, four or five grains may be requisite in those cases in which the neuralgic paroxysms are violent and the intermission short; and this quantity must be repeated every two or three hours, or even every hour. The principal inconveniences arising from the free exhibition of quinine are a painful sense of fulness, noise and dizziness of the head, constriction of the chest, and purging. The latter may be checked by accompanying each pill with a few drops of laudanum, or by a table-spoonful of the simple aqueous infusion of camphor. If the affection of the head or chest becomes severe, the medicine must be suspended or diminished in quantity.

There is another principle obtained from the *cinchonia lancifolia*, or pale bark, which possesses very nearly the same powers as quinia. It is called *Cinchonia*. These preparations produce all the effects of the Peruvian bark, and have now nearly superseded it.

Pills of Sulphate of Quinia and Carbonate of Ammonia.

R. Quiniæ sulphatis, gr. xij.

Ammoniæ carbonatis, gr. xxiv.

Fiant pilulæ xij. et signa.—One every hour, beginning six hours before the expected paroxysm.

These pills are large, but they will act when quinia alone proves unavailing. Quinine may also be combined advantageously with the oil of black pepper, or other essential oils, in case of irritable stomach.

A preparation of the *citrate of quinia and iron*, has of late been much in vogue. It contains about three parts of iron to one of quinine, and is given in doses of two or three grains.

A substance has lately been discovered in the bark of the willow, (*Salix helix*), which is proved not to be alkaline, but which answers the purpose of quinia in the cure of intermittent fever. It is called salicine, and has been chiefly used in France and Italy.—*Vide Journal of the Philadelphia College of Pharmacy, Vol. II. No. 3.*

Pills of Salicine.

R. Salicinæ, gr. xxiv.

Mucilaginis, q. s.

Ut fiant pilulæ viij.—A pill to be taken three or four times a day. The bark of the common Dogwood (*Cornus florida*) yields a principle somewhat analogous to salicine.

Pills of Ammoniuret of Copper.

R. Cupri ammoniati, ℥j.

Confectionis rosæ, q. s., ut fiant pilulæ xl.

Signa.—One or two to be taken at bed-time. In epilepsy.

Febrifuge bolus.

R. Pulveris cinchonæ, ℥j.

Ammoniæ muriatis,

Ammoniæ carbonatis, āā. gr. xij.

Antimonii et potassæ tartratis, gr. xvij.

Syrupi, q. s., ut fiat massa et divide in partes xlvij.

Signa.—One to be taken four times a-day, during the apyrexia of fever.

Hotel Dieu.

Pills of Piperine.

R. Piperinæ puræ, gr. xij.

Extracti gentianæ, q. s., ut fiant pilulæ xij.

One every hour during the apyrexia of fever.

This is one of the preparations lately introduced into practice. It is procured from the black pepper, and is said to possess considerable febrifuge powers. It sometimes vomits, purges, or produces diaphoresis; and therefore requires caution in its administration. It may be also given in mixture.

Pills of Arsenic, &c.

R. Acidi arseniosi, gr. ij.

Pulveris opii, gr. iij.

Saponis venetæ, gr. viij.

Pulveris glycyrrhizæ, q. s., fiant massa in pilulas xx dividenda.

Signa.—One, two, three or four times a-day, increased gradually according to circumstances, watching the effect. In intermittent fever, and local diseases of an intermittent character.

Pills of Muriate of Ammonia, Arsenic, &c.

R. Ammoniæ muriatis, ℥ss.

Pulveris opii, gr. viij.

Acidi arseniosi, gr. iv.

Syrupi, q. s., ut fiant pilulæ xxxij.

Of which one may be given three times a-day. In intermittent fever.

Each pill contains one-eighth of a grain of arsenic.

Each of these pills contains one-tenth of a grain of arsenious acid. The utmost care is requisite in compounding this and all other formulæ for solid arsenic, at the same time that its specific action should be closely watched.

Pills with the Sulphate of Copper.

R. Cupri sulphatis, gr. iv.

Extracti cinchonæ, gr. xxxij.

Syrupi, q. s., ut fiat massa, in pilulas xvj vel xx dividenda.

One to be taken three times a-day. In obstinate intermittents.

Pills of the Oxide of Bismuth.

R. Bismuthi subnitratis, ℥j.

Mucilaginis acaciæ, q. s., ut fiant pilulæ xxx.

One to be taken every two hours. In dyspepsia.

Pills of Ammoniated Iron, &c.

R. Ferri ammoniati, ℥j.

Pulveris rhei, gr. viij.

Confect. rosæ, q. s., ut fiat massa in pilulas viii dividenda.

This formula is recommended in rachitis, and is to be continued with one pill a-day for a fortnight, and then intermitted for the same length of time and again resumed. The object of this direction is to prevent the system from becoming habituated to the medicine.

Pills of Oxide of Zinc.

R. Zinci oxidi, ℥ij.

Confect. rosæ, q. s., ut fiant pilulæ x.

Signa.—One three or four times a-day. In epilepsy, chorea, &c.

Dr. Chapman speaks favourably of this medicine, and recommends to begin with the above dose, and gradually to increase it.

Pills of Steel filings.

R. Limaturæ ferri, gr. xvj.

Extracti gentianæ, q. s., ut fiat massa.—Divide in pilulas vj.

One three times a-day, followed by a draught of some bitter infusion.

Pills of the Extract of Quassia.

R. Extracti quassia, ℥j.

Pulveris gentianæ, q. s., ut fiant pilula xx.

Of which one may be taken three or four times a-day

This is one of the purest bitters, and when a simple tonic is required, a more appropriate preparation cannot be substituted.

Pills of Nitrate of Silver, &c.

R. Argenti nitratis, gr. v vel x.

Pulveris opii, ℥ss.

——— camphoræ,

——— nucis moschata, āā. ℥j.

Mucilaginis acaciæ, q. s., ut fiat massa.—Divide in pilulas xx.

Dose, a pill morning and evening. In chorea and epilepsy.

Pills of Nitrate of Silver.

R. Argenti nitratis, gr. vel iij.

Micæ panis, ℥ss.

Aquæ, q. s., ut fiant pilulæ xij.

Signa.—One to be taken night and morning, gradually increasing them as the case may demand. The nitrate of silver should first be dissolved in a little water, and the crumbs of bread afterwards added. A glass mortar should always be employed in compounding them.

Pills of the Sulphate of Iron.

R. Ferri sulphatis, ℥j.

Extracti gentianæ, q. s., ut fiat massa, et divide in pilulas, xxx.

One to be taken morning, noon and night. In dyspepsia, &c.

Electuary of Cinchona, Rust of Iron, &c.

R. Pulveris cinchonæ,

—— ferri subcarbonatis, āā. ℥j.

Copaivæ, q. s., ut fiat electuarium.

To be made (by the patient) into pills of the ordinary size, of which four may be taken three times a-day.

Pills of Nitromuriate of Gold.

R. Auri nitromuriatis, gr. v.

Pulveris glycyrrhizæ, q. s.

Mucilaginis acaciæ, q. s., ut fiat massa, in pilulas lxxv dividenda.

Signa.—One or two thrice a-day. In syphilis, &c.

This metal is placed under the head of tonics by Dr. Chapman, and we have followed his example. Although once much extolled, it is now seldom used.

MIXTURES, &c.

Griffith's Myrrh mixture.

R. Myrrhæ, ℥j.

Ferri sulphatis, ℥j.

Potassæ carbonatis, ℥j.

Sacchari, ℥ij.

Aquæ, f ℥vj.

Fiat mistura.—Dose, a table-spoonful according to circumstances.

Given as a tonic in phthisis.

Mixture of Sulphuric acid, &c.

- R. Ferri sulphatis, gr. ij.
 Acidi sulphurici, gtt. iv vel vj.
 Sacchari albi, ℥j.
 Aquæ, f ℥iv.

Misce et signa.—A tea-spoonful for a dose, to be repeated every two, three, or four hours, much diluted.

Vinous Infusion of Carbonate of Iron, &c.

- R. Ferri subcarbonatis, ℥iss.
 Pulveris gentianæ.
 Corticis aurantii, āā. ℥ss.
 Vini lusitanici rubri, Oij.

Macerate for three days, and give a wine-glassful two or three times a-day. In dyspepsia.

Mixture with tincture of Bark and Citrate of Potash.

- R. Succī limonis, f ℥jss.
 Potassæ carbonatis, ℥j.
 Tincturæ cinchonæ, f ℥j.
 Aquæ cinnamomi, f ℥iij.

Misce et signa. A table-spoonful every two hours. To promote insensible perspiration while taking the bark.

Infusion of Sage, Boneset, &c.

- R. Salviæ officinalis,
 Eupatorii perfoliati, āā. ℥ss.
 Corticis cascarillæ, ℥j.

Infuse in three half-pints of water until cold. Dose, a wine-glassful every three or four hours. In hectic fever.

Decoction of Cinchona.

- R. Corticis cinchonæ contusæ, ℥j.
 Aquæ, Oj.

Boil for ten minutes—and while hot add—

- Surpentariæ radices, ℥ss.
 Corticis aurantii, ℥ij.

And suffer them to infuse for half an hour near the fire in a covered vessel.—Dose, a wine-glassful every hour.

If the bark be boiled longer than ten minutes, it deposits extractive and resinous matter, becomes paler, and is less efficient. The last ingredients are directed to be infused because their aromatic properties would be dissipated by decoction.

Decoction of Bark, &c.

R. Decocti cinchonæ, f $\overline{3}$ vj.

Tincturæ cinchonæ huxhami, f $\overline{3}$ j.

Acidi sulphurici aromatici, gtt. x.

Misce.—A table-spoonful may be taken every hour or two hours *pro re natâ*.

By this preparation we obtain both the aqueous and alcoholic extracts of the bark.

Sulphate of Quinia in Sirup.

R. Sulphatis quiniæ, gr. xvi.

Surupi zingiberis vel limonis, f $\overline{3}$ ij.

Misce et signa.—A tea-spoonful to be given every hour during the apyrexia.

The French physicians employ a wine and tincture of quinia, which, however, are not superior to the compound used in this country. Both in Europe and America, and especially in Italy, the dose is carried to a much greater extent than we have directed. Eight, ten, fifteen, twenty, and even thirty grains have been given by the Italians, without manifest injury and with successful results. Such doses, however, are seldom admissible in this country; and a cure can generally be accomplished by giving sixteen or twenty grains in twenty-four hours, repeated in half doses for three or four successive days.

Mixture of Sulphate of Quinia.

R. Sulphatis quiniæ, gr. xx.

Acidi sulphurici, gtt. j.

Sacchari albi, $\overline{3}$ j.

Aquæ cinnamomi, f $\overline{3}$ ijss.

Misce et signa.—A tea-spoonful for a dose, every hour during the apyrexia of intermittents.

By the addition of sulphuric acid, a super-sulphate of quinia is formed, which is soluble in the aqueous menstruum.

Tincture of Quinia.

R. Quiniæ, ℥j.

Alcohol, f ℥ss.

Fiat tinctura.—Dose, ten to twenty drops every hour.

Tincture of Ferrocyanate of Quinia.

R. Quiniæ ferrocyanitis, gr. iv.

Alcoholis, f ℥j.

Solve et add—

Aquæ camphoræ, f ℥vij.

Misce.—This preparation is said to be more active than the sulphate, whence it should be given in less doses: a tea-spoonful of the solution (which will contain half a grain of the salt) may be taken every hour or two hours, according to circumstances.* Pills of the ferrocyanate of quinia are prepared with simple mucilage, and administered like the sulphate.

The acetate, citrate, muriate and nitrate of Quinia, have also been employed in Europe, and occasionally in this country. They possess no advantages over the ordinary preparations, and are given in much the same quantity.

Sirup of Cinchonine.

R. Sulphatis cinchoninæ, gr. xxiv.

Syrupi, Oss.

Fiat mistura.—A table-spoonful will contain nearly a grain and a-half of the salt, which is a full dose; to be repeated *pro re natâ*.

Cinchonine is more readily administered in pills of a grain or two grains each. In intermittent fevers.

Mixture of Red bark in Port wine, &c.

R. Pulveris cinchonæ oblongifoliæ, ℥ss.

Theriacæ andromachi, ℥j.

Succi limonis, f ℥ij.

Vini lusitaniæ, f ℥iv.

Misce et signa.—A wine-glassful every second hour during the apyrexia of intermittent fever.

* Vide Dunglison, New Remedies, p. 408.

We find this prescription strongly recommended in the *N. A. Medical and Surgical Journal*, by Dr. Meigs.

Mixture with Decoction and Tincture of Bark, &c.

- R. Decocti cinchonæ, f \bar{z} ijj.
 Tincturæ huxami, f \bar{z} j.
 Pulveris cinchonæ, f \bar{z} ij.
 Syrupi, f \bar{z} ss.

Fiat mistura.—A table-spoonful to be taken every one or two hours during the absence of fever.

Mixture with Extract of Bark, &c.

- R. Extracti cinchonæ, \bar{z} j.
 Decocti cinchonæ, f \bar{z} vj.
 Tincturæ cardamomi, f \bar{z} iv.

Misce.—A table-spoonful for a dose, as above directed

Tincture of Cinchona, Valerian, &c.

- R. Tincturæ cinchonæ,
 ——— valerianæ, āā. f \bar{z} j.
 ——— cardamomi, f \bar{z} ij.
 Aquæ menthæ, f \bar{z} iv.

Fiat mistura.—Of this mixture a table-spoonful may be given every third hour. It is especially designed as a tonic in nervous temperaments.

Mixture of Fowler's solution, &c.

- R. Liquoris potassæ arsenitis, gtt. lx.
 Tincturæ opii, gtt. xxx.
 Spiritus lavendulæ compositi, f \bar{z} j.
 Aquæ cinnamomi, f \bar{z} iv.

Fiat mistura et signa.—A table-spoonful for an adult, a tea-spoonful for a child; to be administered every two or three hours, during the apyrexia of intermittents, watching the effect.

Arsenical Mixture.

- R. Liquoris potassæ arsenitis, gtt. x.
 Aquæ destillatæ, f \bar{z} j.
 Tincturæ opii, gtt. x.
 Spiritus lavendulæ compositi, f \bar{z} ss.

To be taken at a dose.

This mixture is recommended by Dr. Graves, when the simple arsenical solution irritates the stomach.

Acidulated tincture of Gentian.

R. Tincturæ gentianæ compositæ, f \bar{z} iv.

Acidi sulphurici aromatici, f \bar{z} ss.

Misce.—A small tea-spoonful to be taken in sugar and water, three or four times a-day.

Tincture of Bark.

R. Tincturæ cinchonæ compositæ, f \bar{z} j.

Signa.—A tea-spoonful for a dose, every two hours.

In the same doses as the above may be taken,

Tinctura columbæ—et

Tinctura gentianæ composita.

Muriated Tincture of Iron.

R. Tincturæ ferri chloridi, f \bar{z} j.

From five to twenty drops to be taken in a glass of cold chamomile tea, twice or thrice a-day. In passive hemorrhage.

Infusion of Columba and Ginger.

R. Columbæ contusæ, \bar{z} j.

Zingiberis, \bar{z} ij.

Aquæ bullientis, Oj.

Fiat infusum.—Give of the strained liquor (cold) a wine-glassful every two hours.

This infusion, freely used, is adapted to chronic diarrhœa.

Infusion of Columba, Rhubarb, &c.

R. Carui contusi,

Radicis columbæ,

—— rhei, āā. \bar{z} j.

Aquæ ferventis, f \bar{z} viiij.

Digest for two hours, and strain.

R. Liquor. colati, f \bar{z} ijss.

Tincturæ rhei, f \bar{z} j.

Syrupi zingiberis, f \bar{z} ij.

Misce.—Dose, a tea-spoonful to a table-spoonful for children, according to their age. In Diarrhœa.

Mixture of Sulphate of Iron and Elixir of vitriol.

R. Ferri sulphatis, gr. iv.

Acidi sulphurici aromatici, gtt. xx.

Aquæ destillatæ, f \bar{z} j.

Fiat mistura et signa.—A tea-spoonful to be taken three times a-day in a wine-glass of water.

Vinegar Draught.

R. Acidi acetici, f \bar{z} j.

Tincturæ cardamomi compositæ, f \bar{z} ss.

Syrupi simplicis, f \bar{z} ss.

Aquæ, f \bar{z} x.

Misce.—To be taken in such portions as the stomach can bear. In sick head-ache.

Acorn coffee.

R. Pulveris glandis torrefactæ, \bar{z} j.

Aquæ bullientis, Oj.

Fiat infusum.—Three or four tea-cupsful may be taken during the day, and augmented according to circumstances.

The above is a favourite remedy with the Germans. "It is one of the most successful in mesenteric atrophy, commencing rachitis, glandular swellings, asthma and cough. Continued for a long time, it is one of the most powerful means we possess for destroying the scrofulous disposition."—*Hufeland. Treatise on Scrofula, p. 215.*

Infusion of Quassia, &c.

R. Quassiæ,

Sepentariæ,

Corticis aurantii, āā. \bar{z} ss.

Aquæ bullientis, Oij.

Fiat infusum et cola.—A tea-cupful to be taken cold, three times a-day.

Decoction of Bark and Valerian.

R. Corticis cinchonæ contusæ, $\overline{\text{z}}$ j.

Boil in a pint of water for ten minutes, and strain.

R. Valerianæ contusæ, $\overline{\text{z}}$ j.

Aquæ bullientis, Oj.

Infuse for one hour and strain.—Add the decoction of bark to this infusion, and give a tea-cupful cold, three or four times a-day.

This was a favourite prescription with the late Dr. Parrish, in rheumatic and nervous headach.

Cold Infusion of Chamomile and Orange peel.

R. Anthemidis, $\overline{\text{z}}$ j.

Corticis aurantii, $\overline{\text{z}}$ ss.

Aquæ, Oij.

Macerate for twenty-four hours.—Dose, a tea-cupful three or four times a-day.

The infusion of chamomile made with cold, is in general more grateful to the patient than when made with boiling water. The same remark applies to infusions generally, and they are also less liable to ferment.

Decoction of Augustura bark.

R. Cuspariæ contusæ, $\overline{\text{z}}$ j.

Aquæ, Ojss.

Boil for fifteen or twenty minutes, and strain. Of this decoction a wine-glassful may be taken every two hours.

Infusion of Wild-cherry bark.

R. Pruni virginiani, $\overline{\text{z}}$ j.

Aurantii corticis, $\overline{\text{z}}$ ij.

Aquæ, Oj.

Infuse the bark alone for an hour, and then add the orange peel.
A wine-glassful may be taken every hour or two in consumptive cases, asthma, &c.

Infusion of Serpentaria.

R. Serpentariæ, ℥j.

Aquæ bullientis, Oj.

Infuse in a covered vessel for one hour.—A wine-glassful every hour or two hours, *pro re natâ*.

Compound tincture of Aloes, Gentian, &c.

R. Aloes, ℥j.

Pulveris zedoariæ,

—— gentianæ,

—— croci,

—— rhei,

—— agarici, āā. ℥j.

Syrupi, f ℥ij.

To be mixed into a quart of brandy. This is the celebrated Baume de vie, or Elixir of Life. It is a powerful tonic, and one of the most effectual febrifuge medicines. In intermittents, especially, it is justly celebrated. Dose, a table-spoonful three times a-day, in water.

Decoction of Dog-wood bark.

R. Corni floridæ contusi, ℥j.

Aquæ, Oj.

Boil for twenty or thirty minutes, and strain.—A wine-glassful may be given every hour, as a substitute for Peruvian bark in intermittents.

Infusion of Hops.

R. Humuli, ℥j.

Aquæ ferventis, Oj.

Infuse for two hours, and strain by expression. Of this a wine-glassful may be taken three or four times a-day. In dyspepsia.

*Infusion of Boneset.*R. Eupatorii $\bar{\text{z}}\text{j}$.

Aquæ bullientis, Oj.

Infuse for two hours, and strain.—Of this a wine-glassful may be taken every one or two hours, cold. In intermittent fever.

*Enema of Extract of Bark, &c.*R. Extracti cinchonæ, $\bar{\text{z}}\text{ss}$.Aquæ tepidæ, f $\bar{\text{z}}\text{iv}$.

Solve; dein adde—

Olei olivæ, f $\bar{\text{z}}\text{ss}$.

Tincturæ opii, gtt. x.

Fiat enema.—To be administered every fourth hour. In intermittents.

When preferred, the powdered bark may be used, say $\bar{\text{z}}\text{ij}$. mixed with some of the decoction instead of common water. Bark is also employed externally in the form of a waistcoat, worn next the skin. A poultice made by mixing the powder and decoction into a paste, may be applied to the region of the stomach; and lastly, the decoction is used as a simicupium.

Enema of Quinia.

Quinine is employed in enemata, and in this form has an immediate and powerful effect on intermittent fevers. From twelve to twenty grains of the sulphate of quinine, dissolved in a tea-cupful of flax-seed or other mucilage, may be administered at a time, and repeated in four or six hours.

*Infusion of Cinchona with Lime-water.*R. Cinchonæ cordifoliæ, $\bar{\text{z}}\text{ij}$.

Liquor. calcis, Oij.

Misce, et fiat infusum.

This infusion was formerly much. A wine-glassful may be taken three or four times per diem, or once every hour, in intermittent and other forms of fever.

Gentianin.

This substance was obtained by an elaborate chemical process from the root of the *Gentiana lutea*. It is intensely bitter, but possesses no advantages over the common preparations of gentian. Magendie gives two formulæ for its administration; but it is now almost discarded from the *materia medica*.

R. *Gentianæ*, gr. v.

Alcohol, f ℥j.

Fiat tinctura.—Dose, two tea-spoonsful, which will contain a little more than a grain of the medicine. In scrofulous affections.

Sirup of Gentianin.

R. *Gentianinæ*, gr. xvj.

Syrupi, Oj.

Misce.—Dose, a wine-glassful, which will contain a grain.

Compound Infusion of Gentian.

R. *Gentianæ concisæ*, ℥ss.

Corticis aurantii, ℥ij.

Seminum cardamomi, ℥ss.

Aquæ ferventis, Oj.

Fiat infusum.

Gentian is an excellent bitter. The above preparation is given in wine-glassful doses, in debility of the digestive organs, &c.

ALTERATIVES.

Alteratives have been defined—medicines that re-establish the healthy functions of the animal economy, without producing any active evacuation. This class of remedies, therefore, embraces numerous preparations which produce a slow but decided effect on the various secreting organs, sometimes without any sensible increase of the secretions themselves, but in other instances obviously augmenting or magnifying them. Such is the action of minute doses of mercury, iodine and other substances upon the glandular apparatus. These medicines are generally classed with stimulants and tonics, some of them

with narcotics, and others have been placed with those preparations to which they seem most allied when given in an over-dose—sialagogues, for example. Without attempting to investigate this question farther than regards practical convenience, we proceed in this place to indicate the more active and important Alteratives; merely premising the familiar truth, that medicines of almost every class of the materia medica become alteratives by being administered in very small doses at intervals of a few hours.

Æthereal tincture of Iodine.

R. Iodini, gr. vj.

Ætheris sulphurici, f ʒij.

Misce.—Thirty drops contain one grain of iodine.—Dose, ten drops two or three times a-day, largely diluted. In cutaneous and glandular diseases.

Compound tincture of Iodine.

R. Iodini, ʒss.

Potassii iodidi, ʒi.

Alcohol, Oi.

Fiat tinctura.—Dose, five to fifteen drops, *pro re natâ*.

Mixture of Iodide of Potassium, &c.

R. Iodidi potassii, gr. x vel ʒj.

Magnesiæ sulphatis, ʒss.

Potassæ et antimonii tartratis, gr. ss.

Aquæ destillatæ, f ʒvj.

Misce et signa.—A tea-spoonful three or four times a-day. In scrofula.

Saturated tincture of Iodine.

R. Iodini, ʒij.

Alcohol, f ʒj.

Spiritus lavendulæ compositi, f ʒij.

Fiat solutio.—This is Mr. Durand's saturated solution. The dose is ten or twenty drops, which may be gradually increased, watching its effects.

Iodine with Iodide of Potassium.

R. Iodini, gr. iij.

Potassii iodidi, gr. vj.

Aquæ destillatæ, f $\bar{\text{z}}$ j.

Solve et signa.—Dose, six to ten or twenty drops thrice a-day in a draught of cold water.

If it produce dizziness, pain in the bowels, or other unpleasant symptoms, diminish the quantity.

The author of "Illustrations of Pulmonary Consumption," strongly recommends this formula in catarrh, phthisis, &c. It has a powerful effect in glandular disease, and in all affections of the mucous membranes.

Mixture of tincture of Iodine, &c.

R. Tincturæ iodini, f $\bar{\text{z}}$ j.

Mucilaginis acaciæ, f $\bar{\text{z}}$ ij.

Aquæ destillatæ, f $\bar{\text{z}}$ vj.

Fiat mistura et signa.—A table-spoonful every two hours. Employed in cases of ulceration accompanied by purulent discharge from the meatus auditorius, and in the scrofulous diathesis.

See Astringents.

Solution of Iodide of Iron.

R. Ferri iodidi, $\bar{\text{z}}$ j.

Aquæ destillatæ, f $\bar{\text{z}}$ j.

Fiat solutio.—Dose, six to ten drops, morning, noon and night, in a wine-glass of cold water.

Solution of Iodide of Iron.

R. Ferri iodidi, gr. xxiv.

Aquæ destillatæ, f $\bar{\text{z}}$ j.

Fiat solutio.—An ordinary tea-spoonful contains about three grains, which is a full dose.

Solution of Iodide of Potassium.

R. Potassii iodidi, gr. xxxvj.

Aquæ destillatæ, f ℥j.

Fiat solutio.—Dose, ten to twenty drops, morning, noon and night, in a wine-glass of sweetened water. Each dose will contain between one and two grains of the iodide. *Magendie.*

Solution of the Ioduretted Hydriodate of Potassa.

R. Iodini, ℥j.

Potassii iodidi, ℥ij.

Aquæ destillatæ, f ℥vij.

Fiat solutio.—Dose, six drops, morning and evening, in a wine-glass of water. In scrofulous and scirrhus diseases.

Dunghison, New Remedies, p. 396.

Tyrell's Mixture of Ioduretted Hydriodate of Potassa.

R. Iodini, gr. ss.

Potassii iodidi, ℥ss.

Syrupi papaveris, ℥ss.

Aquæ, Oss.

Fiat mistura.—Given in dose of a wine-glassfull three times a-day. In syphilis combined with scrofula.

Vide Dunghison, ut supra.

Mixture of Iodo-hydrargyrate of Potassa.

R. Iodidi potassii, gr. iiiiiss.

Iodidi hydrargyri rubri, gr. ivss.

Aquæ destillatæ, f ℥j.

Dissolve first the iodide of potassium, and then the biniodide of mercury, in the water. The compound salt in this solution may be assumed at eight grains, although there is a small excess of the iodide of potassium. The dose is from two to five drops, containing from the thirtieth to the twelfth part of a grain, which may be repeated three times a-day, much diluted. *Dr. Channing.*

Tincture of Iodo-hydrargyrate of Potassium.

R. Potassæ iodo-hydrargyratis, gr. j.

Spiritus vini tenuioris, f ℥j.

Fiat tinctura.—Dose, ten to twenty drops three times a-day, much diluted.

Ioduretted Sulphuric Ether.

R. *Ætheris sulphurici*, f ʒj.

Iodini, gr. vj.

Solve.—Thirty drops of this solution contain a grain of iodine. Six drops constitute a full dose. To be largely diluted.

Magendie's Anti-epileptic solution.

R. *Potassii iodidi*, ʒiv.

Iodini, gr. ij.

Aquæ menthæ destillatæ, f ʒvj.

Fiat solutio.—Dose, a spoonful thrice per diem.

Iodine waters.

The physicians of Europe, and especially of Paris, have made extensive and salutary use of iodine waters, both internally and externally. In these the iodine is very much diluted, and generally with the addition of more or less common salt. These waters are prepared on a large scale and with great precision by the Pharmacutists of Paris; but they have been but partially introduced into this country. M. Magendie, however, gives formulæ for some extemporaneous Iodine waters, which may answer all the purposes of the more elaborate preparations. The following is an example:—

Ioduretted water.

R. *Potassii iodidi*, gr. vj.

Iodini, gr. j.

Aquæ, Oij.

Fiat solutio.—This solution is directed to be drank at meals, in place of common water.

That iodine is one of the most powerful alteratives at present known, there can be no question. There are few diseases dependent upon or connected with morbid secretion of the glandular structures, but what are more or less modified by its use, while in others it acts as a direct curative agent. It is chiefly, however, in scrofulous, glandular and cutaneous affections that it acts most beneficially, dispersing indurations of the glands, and restoring the secretions of the cutaneous and mucous apparatus: whence its advantages in eruptive diseases, bronchitis, leucorrhœa,

amenorrhœa, &c. &c. It has been found to restore suppressed hæmorrhoidal and catamenial discharges, and when pushed too far, has even produced alarming hæmorrhage of the lungs, nose and uterus. These facts should make the practitioner extremely cautious in its administration, beginning with small doses, and watching their effects. Should it produce any of the inconveniences already mentioned, or dizziness, nausea, purging, burning of the skin or swelling of the gums, it should be at once suspended, or given less frequently and in smaller doses.

It is well known that iodine was first discovered in sea-weed and sponges; and the latter having long had the reputation of being a cure for goitre, it was found that iodine was the active remedial agent. We give below two prescriptions for the use of Sponge as formerly in vogue, but now nearly superseded by the preparations of pure iodine.

Burnt Sponge.

R. Spongiæ ustæ, $\bar{\text{z}}$ j.

Sacchari albi, ʒ j.

Misce et divide in chartulas vj.—One three times a-day, gradually augmenting the dose. In Bronchocele.

Decoction of Sponge.

R. Spongiæ concisæ et terrefactæ, $\bar{\text{z}}$ j.

Aquæ destillatæ, Oj.

Coque et infunde duodecem horas.—Of this, filtered and rendered palatable by the addition of a little mint water, a table-spoonful or more may be taken every three hours.

Phosphate of Ammonia.

R. Phosphatis ammoniæ, $\bar{\text{z}}$ ss.

Aquæ destillatæ, f $\bar{\text{z}}$ vj.

Fiat solutio.—A table-spoonful to be taken every four hours.

The preceding formula is that of Dr. Buckler, who recommends it in those cases of gout and rheumatism in which little acid is present in the urine; as well as in all the chronic modifications of those diseases, especially when they are associated with chronic thickening of the white tissues.*

* American Journal of Medical Sciences, January, 1846.

Strychnia.

We have (under the head of Narcotics) noticed several prescriptions for using this extremely poisonous substance; but as it is chiefly given as an alterative, we now add some additional modes of administration. Strychnine is much in vogue in the whole class of nervous diseases, paralysis, whether general or local, neuralgia, chorea, hysteria, &c. It is also employed in syphilis, amenorrhœa, dyspepsia, bronchitis, and in fact, in all cases where an alterative course is indicated.

Solution of Acetate of Strychnine.

R. Strychniæ acetatis, gr. iij.

Alcohol, f ʒj.

Aquæ cinnamomi, f ʒviij.

Misce.—Dose, five drops twice a-day, cautiously increasing it.

Dunlison, New Remedies, p. 450.

Tincture of Acetate of Strychnine.

R. Strychniæ acetatis, gr. iss.

Alcohol, f ʒss.

Fiat tinctura.—Dose, five to ten drops thrice per diem. In syphilitic pains of the bones, &c.

Dunlison, ut supra.

A sulphate of Strychnine is also in use. It is prepared like the Acetate, of course substituting sulphuric acid. It has no advantages over the preparations already given, and is little used.

See Magendie, Formulaire, 9^{ème}. éd. p. 30.

Brucine.

The alkaline principle called Brucia or Brucine, is contained in the augustura bark, nux vomica and St. Ignatius's bean. That obtained from the bark is preferable for medicinal purposes. It possesses the properties of Strychnia, but in less degree. It may be administered in doses of half a grain to a grain; but the minimum dose should be first given, and the quantity gradually augmented.

Pills of Brucia.

R. Bruciæ, gr. xij.

Confectionis rosæ, q. s., ut fiat massa.

Divide in pilulas, xxiv.

Signa.—One pill to be taken four times a-day, and gradually increased.

Tincture of Brucia.

R. Alcohol, f ℥j.

Bruciæ, gr. xvij.

Fiat tinctura.—From six to ten drops may be taken in a draught of water.

Mixture of Brucia.

R. Bruciæ, gr. vj.

Aquæ destillatæ f ℥iv.

Sacchari, ℥ij.

Fiat mistura. Dose, half a table-spoonful night and morning. These preparations are chiefly used in paralysis and the entire series of spasmodic affections.

Bromine.

This substance, which is allied to chlorine and iodine, is obtained from salt springs and other mineral waters. In medicine it is chiefly used in combination with potassa.

Solution of Bromide of Potassium.

R. Potassii bromidi, gr. xvij.

Aquæ destillatæ, f ℥ij.

Syrupi tolu, f ℥j.

Fiat mistura.—A tea-spoonful every three hours.

Pills of Bromide of Iron.

R. Ferri bromidi pulverisati, gr. xij.

Confectionis rosæ, gr. xvij.

Acaciæ, gr. xij.

Misce et fiant pilulæ xx secundum artem. Two pills to be taken in the morning, and two in the evening, or, one three times a-day. In hypertrophy of the heart, and scrofulous affections.—*Magendie.*

Mercury.

The mercurial preparations constitute the most decided and efficient medicines of this class. In addition to several formulæ inserted under the head of Sialagogues, the following may be appropriately noticed in this place.

Calomel pills.

R. Hydrargyri chloridi mitis, gr. ij.

Confectionis rosæ, q. s. ut fiant pilulæ xij.

Of which one may be taken every hour or two hours. In marasmus, &c., &c.

The use of calomel in minute doses has become very general, and deservedly so. In the hepatic and intestinal complaints of children, it is productive of the happiest results when carefully managed.

In infants, for example, the sixteenth or eighth of a grain, repeated every hour or two hours, according to age and circumstance, will often check diarrhœa, cholera infantum, and dysentery, which have resisted every other treatment. If the discharges are attended by pain and tenesmus, small doses of powdered opium or laudanum may be added; but, as a general rule, the anodyne had better be given by injection.

The preparation called blue-pill (*pilula hydrargyri*) is indicated in similar conditions, and is especially beneficial whenever an alterative is called for. A grain given at bed time, or even a grain in divided portions through the day, will often produce the desired effect. Hence its extensive use in chronic and obscure derangements of the digestive organs, especially of the stomach and liver; in the whole class of syphilitic affections; glandular enlargements; &c.

In like manner all the mercurial preparations mentioned under the head of SIALAGOGUES, become alteratives by cautious administration in doses more or less minute, and especially when they are given in conjunction with the preparations of sarsaparilla.

Pills of Calomel, Quinia, Opium, &c.

R. Hydrargyri chloridi mitis, gr. vj.

Pulveris opii, gr. iij.

Quiniæ sulphatis, gr. xij.

Syrupi, q. s. ut fiat massa in pilulæ xij dividenda.

Signa.—One night and morning.

Pills of Blue mass, Quinia, &c.

- R. Pilulæ hydrargyri,
 Quiniæ sulphatis,
 Pulveris aloes, āā. gr. xij.
 Syrupi rhei aromatici, q. s. ut fiant pilulæ xij.

Signa.—One, three or four times a-day.

Either of the above prescriptions is adapted to the condition that follows bilious intermittent or remittent fever. They may be denominated tonic alteratives.

Arsenic.

Arsenic is a powerful alterative, and one that should be administered with the utmost circumspection. In addition to the formulæ already given, the following may be found useful.

Pills of Arsenic and Black pepper.

- R. Acidi arseniosi, gr. iv.
 Piperis nigri, ℥ij.

Pound these substances in a mortar for a few days at intervals, after which water enough is to be gradually added to form a pill mass, which should be divided into one hundred pills: the French physicians direct double that number, and restrict the patient to one or two pills daily. This preparation of arsenic is regarded in India as an infallible cure for tuberculous lepra.

Pills of the Arseniate of Iron.

- R. Ferri proto-arseniatis, gr. iij.
 Extracti humuli, ℥ij.
 Pulveris althææ, ℥ss.
 Syrupi, q. s. ut fiant massa.

To be divided into forty-eight pills, of which one is given daily. Prescribed by Dr. Bielt in scrofulous, cancerous, and herpetic diseases.

Iodide of Arsenic and Mercury.

- R. Liquoris hydriodatis arsenici et hydrargyri, f ℥ij.
 Aquæ destillatæ, f ℥iiiss.
 Syrupi zinziberis, f ℥ss.

Misce.—A small table-spoonful night and morning. Chiefly given in scrofula and cutaneous eruptions.—*Donovan, in Dunglison, New Remedies, p. 288.*

Cod-liver oil, (Gadus morrhua.)

This preparation, which is now divested of any nauseous smell or taste, is given in doses of half an ounce to two or even three ounces twice a-day. To children, a tea-spoonful. It is said to be of service in all strumous affections, and in the chronic forms of gout and rheumatism. In place of the pure oil the following formula may be prescribed:

R. Olei jecinoris aselli, f ℥iv.

Acaciæ,

Sacchari, āā. ℥ij.

Aquæ cinnamomi vel menthæ, f ℥iv.

Fiat mistura. Dose, one or two table-spoonsful morning and evening.

In place of mint or cinnamon water, pure water may be used, adding five or six drops of the oil of anise.

MINERAL ACIDS.

Nitro-muriatic Acid.

R. Acidi nitrici, f ℥ss,

— muriatici, f ℥j.

Aquæ, f ℥viiij.

Misce, et adde—

Spiritus ætheris nitrici, f ℥i vel f ℥ij.

Fiat mistura et signa.—From twenty drops to half a tea-spoonful, to be given every three hours, in a wine-glass of sweetened water.

These acids, in the same proportions, are also employed as a bath in hepatic derangements. To accomplish this end, put a tea-spoonful of the compound acid into a quart of warm water, and apply it to the region of the liver night and morning, by means of a soft sponge.

Diluted Nitric acid.

R. Acidi nitrici, f ℥ss vel f ℥j.

Aquæ, Oij.

Sacchari, ℥j.

Fiat mistura.—One-eighth of this quantity may be taken daily, in divided doses. In lues venerea. *Ferriar, Med. Hist.*

Mixture of Nitric acid.

R. Acidi nitrici, f℥ss.

Pulveris acaciæ,

Sacchari albi, āā. ℥iij.

Aquæ, f℥viiij.

Fiat mistura et signa.—A small table-spoonful largely diluted, and sweetened, *pro re natâ*.

Nitric acid may be prescribed as a tonic in the above form, or simply diluted with water. It is best taken through a quill, as the teeth suffer when it comes in contact with them. It sometimes arrests the colliquative sweats of hectic fever when other remedies fail.

CLASS XV.

ASTRINGENTS.

DOCTOR CULLEN describes astringents to be "such substances as applied to the human body, produce contraction and condensation in the soft solids, and thereby increase their density and force of cohesion." "And by the operation of this corrugating power," adds Dr. Murray, "either directly exerted on a part, or extended by sympathetic action, the morbid affections arising from a state of relaxation are supposed to be removed."

In the use of this class of medicines a caution suggests itself; namely, that they should not be given to arrest evacuations that are critical, and designed by nature to relieve a plethoric state of the system, unless such an evacuation exists to an alarming extent.

PILLS, POWDERS, &c.

Compound Powder of Alum.

R. Aluminis, ℥j.

Pulveris kino, gr. v.

Fiant pulveres v et signa.—One every two hours. In obstinate diarrhœa.

This compound, though much employed by some practitioners, contains substances incompatible with each other. In menorrhagia, &c.

Powder of Sugar of Lead and Calomel.

R. Hydrargyri chloridi mitis, gr. j vel ij.

Plumbi acetatis, gr. ss ad gr. j.

Fiant pulveres iv.—One every three hours. *In Cholera infantum.*

The above dose is adapted to any period between ten and twenty months of age.

Dr. T. D. Mitchell.

Powder with Alum and Opium.

R. Aluminis, ℥ss.

Pulveris opii, gr. iij.

Fiant pulveris vj et signa.—One to be taken every three or four hours.
In diarrhœa.

Pills of Acetate of Lead and Calomel.

R. Plumbi acetatis, ℥ss.

Calomel, gr. v.

Confectionis rosæ, q. s.

Ut fiant pilulæ x.—One to be given every two, three, or four hours, according to circumstances. In hemorrhage, and especially in hematemesis.

Sugar of Lead and Opium.

R. Plumbi acetatis, ℥j.

Opii, gr. j.

Misce, et divide in pilulas xij.—A pill to be taken every hour at first, and then every two hours. This is Dr. Graves's prescription for the treatment of cholera.

Pills of Acetate of Lead and Opium.

R. Plumbi acetatis, gr. xij.

Pulveris opii, gr. vj.

Confectionis rosæ, q. s., ut fiat massa, in pilulas vi dividenda.

One to be taken for a dose, according to circumstances. In hæmoptysis and other hemorrhages.

Bolus with Alum and Extract of Bark.

R. Aluminis,

Extracti cinchonæ,

Nucis myristicæ, āā. ℥ss.

Syrupi, q. s., ut fiat bolus.

To be given in uterine and other hemorrhages, and repeated *pro re nata*.

Pills of Alum, Catechu, &c.

R. Aluminis, gr. vj.
 Extracti opii, gr. j.
 Catechu, gr. j.

To be divided into six pills, one of which is to be given every two, three or four hours. In passive hemorrhage, and in atonic mucous discharges.

Pills of Rhatany.

R. Extracti krameriae, ℥j.
 Pulveris kino, q. s.

Ut fiant pilulæ viij.—Signa, a pill to be given every hour or two hours. In the profluvia.

Pills of Creasote.

R. Creasoti, gtt. x.
 Pulveris glycyrrhizæ,
 Mucilaginis, āā. q. s.

Ut fiant pilulæ xx.—Dose, a pill thrice in the day. In bronchitis, neuralgia, &c.

Creasote mixture.

R. Creasoti, gtt. vj.
 Mucilaginis acaciæ, f ℥iv.
 Sacchari, ℥j.

Fiat mistura. Dose—a table-spoonful diluted, every two or three hours. In hemorrhages.

Alcoholic solution of Creasote.

R. Creasoti, gtt. j.
 Alcoholis, gtt. xvj.

Misce.—A drop or two of this solution dropped into the cavity of an aching tooth, is said to afford immediate relief. *Marinus.*

Tannin pills.

R. Tanninæ, gr. viij vel xij.
 Gummi vel Syrupi, q. s.

Ut fiant pilulæ viij. One may be given every two or three hours. In gonorrhœa, &c.

Pills of Tannin and Morphia.

- R. Tanninæ, ℥j.
 Morphiæ sulphatis, gr. j.
 Mucilaginis, q. s.
 Ut fiant pilulæ, x.

One to be given every two or three hours. Blue mass may be added according to circumstances. In diarrhœa and dysentery.

Chalk mixture.

- R. Cretæ præparatæ, ℥iss.
 Sacchari albi,
 Acaciæ, āā. q. s.
 Aquæ destillatæ, f ℥iv.
 Olei cinnamomi, gtt. ij.
 Tincture opii, gtt. xl vel lx.

Misce.—Dose, a table-spoonful every two hours. In diarrhœa and dysentery.

Another formula for chalk mixture will be given under the head of Absorbents and Antacids.

When a strongly astringent chalk mixture is desirable, we add to the above formula tinct. kino, f ℥ij., or the same quantity of tincture of krameria, catechu, or nutt-galls.

Camphor, Laudanum and Nitric acid. Hope's mixture.

- R. Aquæ camphoræ, f ℥iv.
 Acidi nitrici, gtt. iv.
 Tincturæ opii, gtt. xl vel lx.

Fiat mistura. Dose—a table-spoonful every two hours. In diarrhœa and dysentery.

This is the well known and very efficacious preparation called *Hope's mixture*. If the nitric acid is added in larger proportion, it is liable to defeat the object of the prescription.

Camphor Water, Lavender, &c.

- R. Aquæ camphoræ, f ℥iv.
 Tincturæ lavendulæ compositæ, f ℥ij.
 Tincturæ opii, gtt. xl vel lx.

Fiat mistura. Dose—a table-spoonful every two hours.

This prescription is adapted to the same cases as the preceding one.

Electuary of Catechu and Opium.

R. Confectionis catechu, $\bar{\text{z}}$ j.

Suited to cases of diarrhœa, in tea-spoonful doses. Ten scruples contain one grain of opium.

Pills of Kino, Opium, &c.

R. Pulveris kino, gr. xx.

———— opii, gr. ij.

Mucilaginis acaciæ, q. s., ut fiant pilulæ iv.

Of which take one every four hours. In diarrhœa, pyrosis, &c.

Monesia.

This substance is the product of a tree that grows in Chilli, but its botanical affinities are unknown. It is given in the form of extract, twelve or twenty grains daily, divided into three grain pills. There is also a tincture of monesia, of which the dose is $\text{f}\bar{\text{z}}$ j twice *per diem*. In leucorrhœa, diarrhœa, menorrhagia, &c., &c.

Pure Argil and Logwood.

R. Argillæ puræ, ʒ ij.

Decocti hematoxyli, $\text{f}\bar{\text{z}}$ iv.

Fiat solutio. Dose for a child, a tea-spoonful every two or three hours.

Dr. Neumann.

Mixture of Pure Argil.

R. Argillæ puræ, $\bar{\text{z}}$ ss.

Acaciæ, $\bar{\text{z}}$ j.

Sacchari, $\bar{\text{z}}$ ij.

Aquæ sœniculi, $\text{f}\bar{\text{z}}$ ij.

Misce et signa.—For a child a year old a tea-spoonful every two hours.

Dunlison, New Remedies.

Infusion of Galls.

R. Gallæ contusæ, $\bar{\text{z}}$ ij.

Aquæ bullientis, $\text{f}\bar{\text{z}}$ x.

Infuse for four hours, and strain.—To be taken in doses of a table-spoonful every hour or two hours. In diarrhœa. It may be rendered more agreeable by the addition of some aromatic.

Infusion of Galls and Chalk.

R. Infusi gallarum, f $\bar{\text{z}}$ iv.

Cretæ præparatæ, $\bar{\text{z}}$ ss.

Tincturæ opii, f $\bar{\text{z}}$ ss.

Acaciæ, $\bar{\text{z}}$ j.

Fiat mistura.—Dose, a table-spoonful every two hours. In diarrhœa.

Infusion of Logwood.

R. Hæmatoxyli ligni, $\bar{\text{z}}$ ss.

Aquæ bullientis, Oj.

Infuse for two or three hours, and strain. Of this a table-spoonful is given to a child every two or three hours. In cholera and diarrhœa.

Mixture of Extract of Logwood, &c.

R. Extracti hæmatoxyli, $\bar{\text{z}}$ ijj.

Tincturæ catechu, f $\bar{\text{z}}$ ij.

Aquæ, f $\bar{\text{z}}$ vij.

Misce et signa.—Two spoonsful to be given once in three or four hours. In the advanced stages of diarrhœa and dysentery.

Mixture with Extract of Bark and Alum.

R. Extracti cinchonæ, $\bar{\text{z}}$ ss vel $\bar{\text{z}}$ j.

Aluminis, $\bar{\text{z}}$ ij.

Aquæ cinnamomi, f $\bar{\text{z}}$ ijj.

Syrupi, f $\bar{\text{z}}$ j.

Misce et signa.—Two tea-spoonsful every two hours. In low diseases accompanied with hemorrhage.

Mixture with tincture of Catechu, &c.

R. Tinctura catechu, f $\bar{\text{z}}$ j.

——— opii, gtt. lx.

Acaciæ, $\bar{\text{z}}$ ij.

Aquæ cinnamomi, f $\bar{\text{z}}$ vj.

Misce et signa. A table-spoonful every two hours. In diarrhœa.

Solution of Sulphate of Zinc and Alum.

As under Emetics.

Alum whey.

R. Lactis vaccinæ bullientis, Oj.

Pulveris aluminis, $\bar{\text{z}}$ ij.

Boil them until the coagulum separates, and strain. A cupful to be taken occasionally. In diabetes, &c.

Peruvian Bark with Lime-water.

R. Pulveris cinchonæ, \mathfrak{z} ss.

Aquæ calcis, f \mathfrak{z} viiij.

Misce et signa.—A table-spoonful every two hours, or oftener if necessary. In diarrhœa and menorrhagia.

Sirup of Galls, Brandy, &c.

R. Gallarum contusarum, \mathfrak{z} ij.

Spiritus gallici, f \mathfrak{z} viiij.

Misce.—Burn out the spirit; then add—

Corticis cinnamomi,

Macis, āā. \mathfrak{z} ij.

While hot, add sugar by burning it over the inflamed brandy until a sirup is formed. Decant the pure sirup. Dose, a table-spoonful every two hours. In chronic and obstinate diarrhœa.

Dr. Parrish.

Solution of sulphate of Copper, &c.

R. Cupri sulphatis, gr. iij.

Acidi sulphurici, gtt. x.

Aquæ destillatæ, \mathfrak{z} j vel f \mathfrak{z} ij.

Fiat solutio et signa.—From twenty to forty drops to be given every one or two hours in sirup, *pro re natâ*. In menorrhagia.

Mixture of Extract of Rhatany, &c.

R. Extracti krameriz, \mathfrak{z} j.

Syrupi papaveris,

Aquæ rosæ, āā. f \mathfrak{z} ij.

Fiat solutio et signa.—A tea-spoonful for a dose, *pro re natâ*. In passive hemorrhage and chronic dysentery.

M. Fouquier.

COLLYRIA.

These are preparations applied to the eyes; they are sometimes dry, but generally liquid—consisting of infusions, decoctions, or distilled waters, with the addition of various substances.

Dry Collyrium of Sugar, &c.

R. Sacchari,
Zinci oxidi, āā. partes equales.
Tere in pulverem.

M. Recamier.

Dry Collyrium of Mercury, &c.

R. Sacchari albi, ℥ij.
Hydrargyri oxidi rubri, gr. x.
Zinci oxidi impuri præparati, ℥j.
Fiat pulvis.

M. Dupuytren.

Dry Collyrium of Opium, &c.

R. Pulveris opii, gr. iv.
Hydrargyri chloridi mitis.
Sacchari, āā. ℥j.
Tere bene.

These compounds are blown into the eyes for the removal of specks on the cornea resulting from inflammation.

Powder of Blue vitriol, &c.

R. Cupri sulphatis,
Boli armeniacæ, āā. ℥j.
Camphoræ, ℥ij.

Fiat pulvis.—Put ℥j of this powder into a pint of boiling water; filter the solution, and mix ℥j of it with ℥j of clear water, and apply it to the purulent eyes of infants by means of a syringe, *pro re nata*.—*Cooper's Surgery.*

Alum curd.

R. Pulveris aluminis, ℥ss.
Albuminis, Ovi j.

Agitate them well until a coagulum be formed.—To be applied on a linen rag to inflamed eyes. It should be removed in three or four hours.

Alum Collyrium.

R. Pulveris aluminis, gr. xij vel xx.
Aquæ rosæ, f ℥iv.

Fiat solutio.—To be applied to the eye in chronic inflammation.

Collyrium of Iodide of Potassium.

R. Aquæ rosæ, f ℥vj.
Potassii iodidi, gr. xxiv.
Iodini, gr. j vel ij.

Fiat collyrium. To be applied to the eyes three or four times in the day. In scrofulous ophthalmia, and ulcerations of the cornea and conjunctiva.

Collyrium of Acetate of Zinc.

R. Zinci sulphatis,
Plumbi acetatis, āā. gr. vj.
Aquæ rosæ, ℥iv.

Fiat solutio.

In this prescription a double decomposition takes place; the acetate of zinc is held in solution, while the sulphate of lead falls to the bottom. It should be filtered, or used without shaking.

Collyrium of Acetate of Lead, &c.

R. Liquoris plumbi acetatis, gtt. xij.
Vini opii, gtt. xl.
Aquæ rosæ, f ℥iv.

Fiat collyrium.

Collyrium of Vinegar, &c.

R. Aceti destillati, f ℥j.
Alcohol, f ℥ss.
Aquæ rosæ, f ℥viiij.

Fiat mistura et signa.—To be applied to weak eyes, and to ophthalmia after depletion.

Collyrium of Acetate of Ammonia and Camphor. —

R. Liquoris ammoniæ acetatis, f ℥ij.
Misturæ camphoræ, f ℥vj.

Misce et signa.—For eyes requiring a mild astringent and stimulant application.

Collyrium of Acetate of Ammonia with Opium.

R. Liquoris ammoniæ acetatis, f ℥ij.
Aquæ ferventis, f ℥vj.
Extracti opii mollis, gr. x.

Dissolve the extract of opium in the hot water, strain, and add the liquor of acetate of ammonia. In acute ophthalmia when considerable pain remains after depletion.

Collyrium of Sulphate of Copper.

R. Cupri sulphatis, gr. vj.

Camphoræ, ℥j.

Aquæ ferventis, f ℥viii.

Rub the camphor with the water—then strain, and add the sulphate of copper.

This is nearly the same as the formula recommended by Mr. Ware in the treatment of purulent ophthalmia.

Collyrium of Corrosive Sublimate.

R. Hydrargyri chloridi corrosivi, gr. ij.

Aquæ destillatæ, f ℥viii.

Fiat solutio.

The above may be advantageously used in gonorrhœal ophthalmia, as also in that of a scrofulous character.

Collyrium of Opium and Camphor.

R. Extracti opii mollis, gr. x.

Camphoræ, gr. vj.

Aquæ ferventis, f ℥xij.

Rub the camphor and opium well together in a mortar and add the water. Then strain before using.

Collyrium of Poppies, &c.

R. Fomenti papaveris capsularum, ℥iv.

Aquæ rosæ,

Misturæ camphoræ, āā. ℥ij.

Misce.—Either of the last two collyria is adapted to the early stages of ophthalmia.

These collyria can be most successfully applied to the eyes by introducing the point of a small syringe into the outer angle, and gradually injecting them.

Collyrium of Nitrate of Silver.

R. Nitratis argenti, gr. j vel ij.

Aquæ destillatæ, f ℥ij.

Fiat solutio.—In acute ophthalmia, and to promote the absorption of nebulæ of the cornea.

Emollient Collyrium.

R. Radicis althææ officinalis, ℥ij.

Aquæ destillatæ, Oj.

Infuse for three hours near the fire, and strain.—In inflammation of the conjunctiva accompanied with violent irritation.

Anodyne Collyrium.

R. Colchici autumnalis, ℥j.

Infusi lini bullientis, f ℥iv.

Tincturæ opii, f ℥j.

Fiat mistura.—For ophthalmia accompanied with great sensibility.

M. Jadelot.

Strychnine Collyrium.

R. Stychniæ puræ, gr. ij vel iv.

Acidi acetici diluti,

Aquæ destillatæ, āā. f ℥j.

Fiat solutio.—A drop or two, diluted or not according to circumstances, to be applied to the eye several times a-day. Dr. Ryan on amaurosis.

INJECTIONS.

Injections are liquid compositions of emollient, astringent, or stimulating substances. The parts into which they are thrown are, the external auditory passages, the canal of the urethra, the bladder, and also fistulous cavities, the tunica vaginalis in the case of hydrocele, and the vagina. When employed in the cure of gonorrhœa, two circumstances merit especial attention, viz: the manner of injecting them and the frequency of using them. When the common syringe is used, the pipe should be perfectly smooth, short and conical, so that it cannot pass more than a quarter of an inch into the urethra. The patient should oil the pipe before using it, seat himself on the edge of a chair so as to avoid pressing the perinæum, draw the penis forward on the syringe with the left hand, and throw up the injection to the seat of disease, (previously ascertained,) with the other. As respects the frequency of injecting, it may be observed, that five or six times a-day are not too often, and that the cure will be retarded by using these remedies at longer intervals. We cannot forbear remarking, that gonorrhœal inflammation, situated near the ex-

tremity of the penis, can be often cured by a *routine plan*; but when seated higher up the canal, and affecting Cowper's gland or the prostate, it becomes a serious disease, the cure of which ought not to be undertaken by persons ignorant of the structure of the parts and the nature of morbid action.

Injection of Pyroligneous Acid for the Ear.

R. Acidi pyrolignei, f℥ij.

Aquæ destillatæ, f℥vj.

Fiat injectio.—To be injected twice a-day with a silver syringe, in purulent discharge from the meatus auditorius.

Buchanan on the Ear.

Injection of Catechu for the Ear.

R. Extracti catechu, gr. xij.

Aquæ bullientis, f℥vj.

Fiat injectio.—To be used four or five times a-day. *Idem.*

Pyroligneous Acid, Ether, &c., for the Ear.

R. Acidi pyrolignei,

Spiritus ætheris sulphurici,

Olei terebinthinæ, āā. partes equales.

Misce et signa.—Introduce two drops into the meatus auditorius every night, when the cerumen is deficient in quantity.—*Idem.*

Peruvian Balsam, &c., for the Ear.

R. Fellis bovini, f℥iij.

Myroxyli, f℥j.

Misce.—To be dropped occasionally into the ear to correct a fetid discharge, syringing the ear every day with a weak solution of soap and water.

Dr. Hugh Smith.

Injection of Corrosive Sublimate, &c.

R. Zinci sulphatis, gr. x.

Hydrargyri chloridi corrosivi, gr. ij.

Aquæ rosæ, f℥viij.

Fiat injectio.—In gleet.

This powerful remedy should be employed with great caution.

Injection of Sulphate of Zinc, &c.

R. Zinci sulphatis, gr. x.
 Pulveris acaciæ, ℥ij.
 Tincturæ opii, f℥j.
 Aquæ destillatæ, f℥viiij.
 Fiat injectio.—In gonorrhœa virulenta.

Injection of Muriate of Ammonia, &c.

R. Ammoniæ muriatis, gr. j vel ij.
 Hydrargyri chloridi corrosivi, gr. ij.
 Aquæ destillatæ, f℥iv.
 Fiat injectio.—In chronic gonorrhœa.

Injection of Acetate of Zinc.

R. Zinci acetatis, gr. viij.
 Aquæ rosæ, ℥iv.
 Fiat injectio. In gonorrhœa virulenta.

For all these preparations, rose water is an admirable menstruum; it possesses the advantages of being slightly astringent and rendered pure by distillation, and is therefore particularly applicable to the formation of injections and collyria.

Injection of Armenian Bole.

R. Zinci sulphatis, ℥j.
 Boli armeniæ, ℥ij.
 Pulveris acaciæ, ℥ij.
 Aquæ rosæ, ℥viiij.
 Fiat injectio.—In gonorrhœa.

Injection of Calomel, &c.

R. Hydrargyri chloridi mitis, ℥j.
 Acaciæ,
 Tincturæ opii, āā. f℥ss.
 Aquæ, f℥viiij.
 Fiat injectio.—For gonorrhœa or gleet.

Injection of Sulphate of Copper.

R. Cupri sulphatis, gr. vj.

Aquæ destillatæ, f \bar{z} vj.

Tincturæ opii, f \bar{z} j.

Fiat solutio.—To be thrown up the urethra in chronic gonorrhœa.

Injection of Tea.

R. Theæ viridis foliorum, \bar{z} j.

Aquæ ferventis, f \bar{z} vj.

Fiat infusum et cola.—For an injection in gonorrhœa virulenta.

Injection of Ammoniuret of Copper.

R. Cupri ammoniureti, gr. v.

Aquæ rosæ, f \bar{z} viiij.

Fiat solutio.—In chronic gonorrhœa.

GARGLES, MOUTH WASHES, &c.

Gargles, like injections, are astringent and stimulating; and to be of any service must be frequently applied and persevered in for some time.

Gargle of Brandy.

R. Spiritus vini gallici,

Aquæ, āā. partes equales.

Brandy and water form an excellent gargle for some cases of inflamed fauces.

Gargle of Galls and Alcohol.

R. Infusi gallarum, f \bar{z} vij.

Spiritus vini rectificati, f \bar{z} j.

Fiat gargarysma.—In relaxation of the uvula and soft palate. Should be applied with a camel's-hair brush.

Gargle of Infusion of Oak bark.

R. Corticis querci falcatæ, \bar{z} j.

Aquæ, Oiss.

Boil to a pound, and strain; then add—

Sulphatis aluminis, \bar{z} ss.

Spiritus vini gallici, f \bar{z} ij.

Misce.—Injection in fluor albus.

Gargle of sulphate of Quinia, &c.

R. Sulphatis quiniæ, gr. xij.

———— cupri, gr. xvj.

Acidi sulphurici aromatici, f ʒj.

Aquæ, f ʒviij.

Fiat mistura et signa.—To be used three or four times a-day, in obstinate sore throat. *Dr. Hartshorne.*

Gargle of Borax, &c.

R. Boratis sodæ, ʒj.

Tincturæ myrrhæ, f ʒss.

Mellis despumati, f ʒj.

Aquæ rosæ, f ʒiv.

Fiat gargarysma.—To be used as a gargle or mouth wash, in ptyalism or scorbutic affections of the gums.

Gargle of sulphate of Zinc, &c.

R. Zinci sulphatis, ʒj.

Mellis, f ʒss.

Tincturæ myrrhæ, f ʒj.

Spiritus vini gallici, f ʒj.

Aquæ rosæ, f ʒvj.

Fiat gargarysma.—To be applied to ulcerated gums, occasioned by excessive salivation. Water can be added if it be too strong.

In mercurial sore mouth, common lead water forms a most soothing and useful application. It makes the teeth black—an effect, however, which is only temporary.

Dr. Blake's Toothach Solution.

R. Aluminis, ʒij. (in pulverem subtilissimum tritrandum.)

Spiritus ætheris nitrici, f ʒvij.

Fiat solutio.—Said by Dr. Blake of London, to be an infallible cure for *toothach*, when not connected with rheumatism.

Gargle of Alum.

R. Sulphatis aluminæ et potassæ, ʒij.

Aquæ, f ʒiv.

Solve.—This is Dr. Cavarra's gargle for *fætor oris*, or offensive breath.

Gargle of Pomegranate.

R. Corticis granati, $\overline{3}$ ss.
 Rosæ rubræ, $\overline{3}$ ij.
 Aquæ bullientis, f $\overline{3}$ vj.
 Fiat infusum. Cola et adde—
 Mellis despumati, f $\overline{3}$ j.
 Aluminis, $\overline{3}$ ij.

Fiat gargarysma.—For inflammation of the throat and fauces.

Muriatic acid Gargle.

R. Infusi cinchonæ, f $\overline{3}$ iv.
 Mellis despumati, f $\overline{3}$ j.
 Acidi muriatici, gtt. x vel xvij.

Fiat gargarysma.—In chronic inflammation, when the pain and swelling have been reduced by depletion.

Ratier's Formulary.

Wash of sulphate of Copper, &c.

R. Cupri sulphatis, $\overline{3}$ ij.
 Pulveris cinchonæ, $\overline{3}$ ss.
 Aquæ destillatæ, f $\overline{3}$ iv.

Misce et signa.—In the gangrenous sore mouth of children, applied to the full extent of the ulceration and excoriation.

Dr. B. H. Coates.

Linctus with Muriatic acid, &c.

R. Acidi muriatici, f $\overline{3}$ ss.
 Mellis,
 Aquæ rosæ, āā. f $\overline{3}$ j.

Misce et signa.—To be applied to scorbutic gums three or four times a-day.

Detergent Gargle of Sulphuric acid, &c.

R. Decocti hordei, f $\overline{3}$ iv.
 Mellis despumati, f $\overline{3}$ ss.
 Acidi sulphurici, gtt. x vel xx.

Fiat gargarysma.

Ratier's Formulary.

Mercurial Gargle.

R. Hydrargyri chloridi corrosi, gr. j.

Mellis despumati f \bar{z} ss.

Aquæ destillatæ, f \bar{z} iv.

Fiat solutio.—For venereal sore throat.

Ratier.

Acetous Gargle.

R. Acidi acetati, f \bar{z} ij.

Ammoniæ muriatis, \bar{z} j.

Mellis, f \bar{z} iss.

Aquæ, f \bar{z} xij.

Fiat gargarysma.—For inflamed fauces.

Ratier.

Astringent Gargle of Acetate of Lead, &c.

R. Plumbi acetatis, \bar{z} ss.

Syrupi, f \bar{z} j.

Decocti hordei, Oj.

Fiat solutio.—In mercurial sore mouth, &c. *Ratier's Formulary.*

Enema of Acetate of Lead, &c.

R. Plumbi acetatis, \bar{z} j.

Tincturæ opii, gtt. lx.

Aquæ tepidæ, f \bar{z} ij.

Fiat solutio.—To be thrown up the rectum in uterine hemorrhage.

Dewees's Syst. of Mid., p. 420.

LINIMENTS, LOTIONS, &c.

Lotion of Lime water, Zinc, &c.

R. Zinci oxidi, gr. xij.

Cupri sulphatis, gr. iij vel iv.

Mellis, f \bar{z} j.

Aquæ calcis, f \bar{z} ij.

Fiat lotio.—To be applied to phagedænic ulcers of the genitals.

Vide Swediaur on Syphilis.

Liniment of Lime water and Linseed Oil.

R. Olei lini, f \bar{z} ijj.

Liquoris calcis, f \bar{z} vj.

Fiat linimentum.—To be applied to burns and scalds by means of a feather or soft rag.

Lotion of Lime water and Alcohol.

R. Alcohol, f \bar{z} ij.

Liquoris calcis, Oss.

Fiat mistura.—In the same cases as the above.

Lotion of Goulard's Extract of Lead, &c.

R. Liquoris plumbi acetatis, f \bar{z} j.

Spiritus camphoræ, f \bar{z} ijj.

Aquæ, Oj.

Fiat lotio.—To be used as the former.

This compound is much recommended by some of the French surgeons. Applied by means of lint to old ulcers.

Epithem of Acetate of Lead.

R. Confectionis rosæ, \bar{z} j.

Mellis,

Liquoris plumbi acetatis, āā. f \bar{z} ss.

Tincturæ opii, gtt. lx.

Misce et signa.—Applied to painful venereal ulcers, and to chancres after the use of lunar caustic.

Compound Lotion of Sulphuret of Potash.

R. Potassii sulphureti, \bar{z} ss.

Saponis venetæ, \bar{z} j.

Alcohol, f \bar{z} iv.

Tincturæ myrrhæ, f \bar{z} ss.

Liquoris calcis, Oj.

Fiat mistura secundum artem.—To be applied to the head night and morning, in tenea capitis. The hair must be shaved previous to its employment.

Astringent Fomentation.

R. Radicis bistortæ,
Granati corticis, āā. ℥ij.
Ammoniæ muriatis, ℥ij.
Vini rubri, Oj.

Misce et signa.—For indolent inflammatory swellings.

Ratier's Formulary.

Lotion of Bark.

R. Cinchonæ rubræ contusæ, ℥j.
Aquæ, Oj.

Boil for ten minutes, strain, and add—

Alcoholis camphorati, f ℥viij.

A tonic and stimulant lotion.

Lotion of Tannin.

R. Tanninæ, gr. xxxij.
Aquæ destillatæ, f ℥viij.

Solve.—Employed as a wash to chronic ulcers, and as an injection in obstinate blenorrhœa.—*Beral, in Dunglison's New Remedies, p. 474.*

Lotion of Sulphuret of Potassa, &c.

1. R. Potassii sulphureti, ℥j vel ℥ij.
Aquæ, Oj.

Misce.—

2. R. Acidi muriatici, f ℥j vel f ℥ij.
Aquæ destillatæ, Oij.

Mix one ounce of each lotion with four ounces of warm water, and apply by means of a sponge. In psora. *M. Alibert.*

OINTMENTS.

Ointment of Alum, Calomel, &c.

R. Hydrargyri chloridi mitis, ℥ij.
Aluminis exsiccati,
Plumbi oxidi albi, āā. ℥ss.
Olei terebinthinæ, ℥ij.
Cerati, ℥iss.

Fiat unguentum.

This ointment is particularly adapted to *Tinea capitis*. It should be applied every night going to bed, and washed off in the morning: as soon as the child's head is dry, dust it over with powdered starch, which in the evening is again to give place to the ointment. The hair must be cut off previous to the application of the ointment.

Ointment of Gall-nuts.

R. Pulveris gallarum, ℥j vel ℥ij.

Adipis, ℥j.

Fiat unguentum.—In hæmorrhoidal affections.

Ointment of Oxide of Zinc,

R. Zinci oxidi, ℥j.

Butyri recentis, ℥vj.

Fiat unguentum.—To be applied to the eyes in defluxions arising from relaxation or slight inflammation of the lids.

Ointment of Rhubarb, Opium, &c.

R. Pulveris rhei, gr. x.

—— opii, gr. v.

Cerati, ℥iss.

Fiat unguentum.—In indolent ulcers.

Ointment of Tar, &c.

R. Unguenti picis liquidæ, ℥j.

—— hydrargyri nitratis, ℥ss.

Fiat unguentum.—In tinea capitis.

Ointment of Tar and Opium.

R. Pulveris opii, ℥ij.

Unguenti picis, ℥j.

Fiat unguentum.—Hæmorrhoidal ointment.

For hæmorrhoids.

Kirkland's Neutral cerate.

R. Emplastri plumbi, ℥iv.

Olei olivæ,

Cretæ præparatæ,

Acidi acetici, āā. ℥ij.

Plumbi acetatis, ℥jss.

The plaster and oil are first to be melted over a gentle fire. The prepared chalk is then to be briskly stirred in, and when the mixture is sufficiently cooled, the vinegar and superacetate of lead are to be added, and the whole stirred until nearly cold.

This cerate, which is not to be met with in the pharmacœpia, is well adapted to abraded irritable surfaces, and the later stages of burns.

Aromatic Sulphur Ointment.

R. Potassæ carbonatis, \bar{z} ss.

Aquæ rosæ, f \bar{z} j.

Hydrargyri sulphureti rubri, \bar{z} j.

Olei essentialis bergamotæ, f \bar{z} ss.

Sulphuris sublimati et loti,

Adipis, āā. \bar{z} x.

Misce secundum artem.—In scabies.

Bateman's Synopsis.

CLASS XVI.

ABSORBENTS OR ANTACIDS.

ABSORBENTS or Antacids form a class of remedies for correcting acidity in the stomach and bowels. As a general rule they should be preceded by an emetic or cathartic, or both. When a permanent effect is desired, they are usually combined with tonics, aromatics, and sometimes with narcotics. When given alone, they too frequently afford but transient relief.

POWDERS.

Compound Cretaceous Powder with Opium.

- R. Cretæ præparatæ, ℥iss.
Pulveris cinnamomi, ℥j.
—— piperis longi, gr. viij.
—— opii, gr. vj.

Divide in chartulas xij.—One three or four times a-day. In diarrhœa.

The above formula, with a slight alteration, is from the London Pharmacopœia.

Powder with Crab's claws and Rhubarb.

- R. Chelæ cancerorum, ℥j.
Pulveris rhei, ℥ij.

Misce, et divide in pulveres iv.—Of which one may be taken once or twice a-day, according to circumstances. In acidity of the *primæ viæ*.

This preparation is called by the several names of crabs' claws, eyes, and stones. It is a carbonate of lime united with some

animal gelatine, which, like prepared oyster shells, has little or no superiority over the prepared chalk.

Powder with Magnesia, Fennel seed, &c.

R. Magnesiae, $\overline{3}$ ss.

Pulveris fœniculi,

—— cinnamomi, āā. $\overline{3}$ j.

Fiat pulvis.—Dose, a small tea-spoonful three or four times a-day.

Powder with Soda, Magnesia, &c.

R. Magnesiae, $\overline{3}$ ss.

Sodæ bicarbonatis,

Pulveris zingiberis, āā. $\overline{3}$ j.

Misce, et signa.—A small tea-spoonful occasionally. In cardialgia.

Powder with Magnesia and Colombo.

R. Magnesiae, $\overline{3}$ jss.

Pulveris colombæ, $\overline{3}$ j.

Misce.—Divide in chartulas vj.—Of which one may be taken three times a-day, in sugar and water. In cardialgia.

PILLS.

Pills of Soda, Rhubarb, &c.

R. Pulveris rhei,

Sodæ carbonatis exsiccatae,

Extracti gentianæ, āā. $\overline{3}$ j.

Hydrargyri chloridi mitis, gr. iij.

Fiant pilulæ xx et signa.—Two occasionally. In dyspepsia.

MIXTURES, SOLUTIONS, &c.

Chalk Mixture.

R. Cretæ præparatae, $\overline{3}$ iss vel $\overline{3}$ ij.

Sacchari albi,

Pulveris acaciæ, āā. q. s.

Aquæ menthæ, f $\overline{3}$ vj.

Fiat mistura.—A table-spoonful for a dose every two hours. When administered in diarrhœa, astringents and laudanum are added.

Solution of Salt of Tartar.

- R. Potassæ carbonatis, ℥j.
 Sacchari albi, ℥j.
 Tincturæ lavendulæ compositæ, f ℥ij.
 ——— opii, gtt. xl.
 Aquæ menthæ, f ℥iv.

Misce et signa.—A table-spoonful every hour or two hours. In sickness of the stomach occasioned by acidity.

The opium in the above prescription may be omitted at the discretion of the practitioner.

Mixture of Salt of Tartar, Ammonia, &c.

- R. Spiritus ammoniæ aromat., f ℥j.
 Potassæ carbonatis, ℥ij.
 Aquæ cinnamomi, f ℥iv.

Misce et signa.—A large tea-spoonful for a dose *pro re nata*. In pyrosis.

Lime water and Milk.

- R. Liquor calcis,
 Lactis recentis, āā. f ℥iij.

Misce et signa.—Two table-spoonsful for a dose. In sickness of the stomach few remedies are more prompt in their effect. An antacid remedy admirably adapted to children, is prepared by pouring four ounces of boiling water on a heaped tea-spoonful of calcined magnesia, and giving a dessert-spoonful of the clear solution every hour or two. It is slightly aperient.

Mixture with Ammonia, Magnesia, &c.

- R. Magnesiæ, ℥j.
 Spiritus ammoniæ aromat., f ℥j.
 Spiritus cinnamomi, f ℥iij.
 Aquæ, f ℥vj.

Misce et signa.—A table-spoonful every two hours. In the sickness accompanying pregnancy.

Mixture of Magnesia, Camphor, &c.

R. Magnesiae, ℥j.
 Camphoræ, ℥ss.
 Sacchari albi,
 Acaciæ, āā. ℥ij.
 Ætheris sulphurici, f℥ss.
 Aquæ destillatæ, f℥iv.

Misce et signa.—A table-spoonful for a dose four or five times a-day.
 In flatulency and irritable stomach.

Dyspeptic Lye.

Take of

Hickory ashes,	. . . . .	1 quart,
Soot,		6 ounces,
Boiling water,	. . . . .	1 gallon.

Mix and let them stand for twenty-four hours, frequently stirring the ingredients. A tea-cupful may be given of this liquor, (decanted,) three times a-day. It should be decanted always at the end of twenty-four hours, for by standing on the materials a long time the water acquires *caustic properties*, and may do serious injury.

This domestic remedy we have thought best to give, as we received it, in the English language. It deserves an insertion from the circumstance that it was employed by the late Dr. Physick in his own case, and was of decided advantage when the usual alkaline remedies had failed.

Solution of Salt of Tartar, &c.

R. Potassæ carbonatis, ℥j.
 Pulveris acaciæ, ℥ss.
 Olei menthæ, gtt. ij.
 Tincturæ opii, gtt. x.
 Aquæ, ℥iij.

Fiat solutio.—A table-spoonful for a dose, *pro re natâ*. In sickness of the stomach.

Mixture of Colombo, &c.

R. Colombæ, ℥ss.

Coque in aquæ, f ℥iij ad f ℥v.

Cola et adde—

Potassæ carbonatis, ℥ss.

Succi limonis, f ℥iij.

Tincturæ opii, gtt. xij.

Misce.—From a tea to a table-spoonful may be given every hour.

Anti-emetic.

Anti-emetic Mixture.

R. Tincturæ corticis aurantii, f ℥ss.

——— aloes,

——— castorei, āā. f ℥j.

Misce, et signa.—Dose, from forty to fifty drops, three or four times a-day.

In continued or chronic vomiting, occasioned by atony or spasm of the stomach, the above is strongly recommended by Hufeland, in his Treatise on Scrofula.

Mixture with Carbonate of Soda, &c.

R. Sodæ carbonatis, ℥iv.

Infusi gentianæ compositæ,

Aquæ cinnamomi, āā. f ℥iij.

Tincturæ cardamomi, f ℥ss.

Fiat mistura et signa.—A table-spoonful every two or three hours.

In acidity and flatulence of the stomach, &c.

APPENDIX, NO. I.

DIETETIC PREPARATIONS.

THE importance of an acquaintance with those preparations of diet peculiarly designed for the patient during disease and convalescence, is so obvious that it requires little or no comment. It was remarked by the late Dr. Rush in his lectures, that a physician should spend six months in a kitchen before entering upon his practical career. As the medical attendant, therefore, is called upon frequently to give directions and rules for preparing the diet for the sick, we have inserted a few formulæ for those articles which are in daily use. However apparently trifling such a class may appear to some persons, the physician will find that an attention to it will place the patient more completely under his own control, and inspire greater confidence in the relations and attendants. The rules to be observed in giving nourishment to the sick, will generally present themselves; but there is one in particular which should not be overlooked. In all low diseases, the nurse should be directed never to give too much at once, but frequently to repeat a small proportion. The lapse of a very short time without food, will frequently, in cases of great prostration, reduce the patient very low, and may endanger his life.

This rule is not intended to be applied to those chronic derangements of the digestive functions, which are to be remedied principally by a regulation of diet, and in which the old adage, "a little and often," has too frequently, we are convinced, been perniciously advised.

Decoction of Barley; or, Barley water.

Take of

Pearl barley, 2 ounces,

Boiling water, 2 quarts.

Before adding the boiling water, let the barley be well washed. Then boil it to one-half, and strain the liquor. A little lemon juice and sugar may be added if desirable. To be taken *ad libitum* in inflammatory diseases.

Rice water.

Take of

Rice, 2 ounces,

Let it be well washed, and add to it—

Water, 2 quarts.

Boil it for an hour and a half, and then add sugar and nutmeg as much as may be required. To be taken *ad libitum*.

Rice, when boiled for a considerable time, assumes a gelatinous form, and mixed with milk, is a very excellent diet, for children. It possesses in some measure a constipating property, which may be increased by boiling the milk.

Infusion of Flaxseed.

As under Expectorants.

Mucilage of Gum Arabic.

As under Expectorants.

Decoction of Bran.

Take of

Wheat bran, recent, 1 pint,

Water, 3 quarts.

Boil down one-third, strain off the liquor, and add sugar, honey or molasses, according to the taste of the patient.

Bran tea may be made by using boiling water, and suffering the mixture to stand in a covered vessel for three or four hours.

Sage tea.

Take of

The dried leaves of sage,	. . .	half an ounce,
Boiling water,	. . .	1 quart.

Infuse for half an hour, and then strain. Sugar and lemon juice may be added in the proportion required by the patient. In the same manner may be made balm and other teas.

These infusions form very agreeable and useful drinks in fever, and their diaphoretic powers may be increased by the addition of sweet spirits of nitre or antimonial wine.

Infusion of Malt.

Take of

Ground malt,	. . . . .	1 pint,
Scalding water,*	. . . . .	3 pints.

Infuse for two hours, and strain off the liquor, to which may be added sugar or lemon juice, if required.

This was a favourite preparation with the late Dr. Parrish, in inflammatory fevers.

Lemonade.

Take of

Fresh lemon juice.	. . . . .	4 ounces,
Fresh and very thin peel of lemon,	. . . . .	half an ounce,
White sugar,	. . . . .	4 ounces,
Boiling water,	. . . . .	3 pints.

Let them stand until cold, then strain off for use. When employed in fevers, a little nitrate of potash or sweet spirits of nitre may be added. It can be further diluted to the taste of the patient.

This preparation, when freely taken, sometimes produces pain in the bowels. It must therefore be used with some reserve as a daily drink.

* Water not quite brought to the boiling point.

Water gruel.

Take of

Oatmeal, 2 ounces,

Water, 1 quart.

Boil for ten or fifteen minutes, and strain, adding sugar and salt to make it agreeable.

Milk for Infants.

Take of

Cow's milk, 1 part,

Water, 2 parts,

Loaf sugar as much as may be agreeable.

It is necessary, when children are to be raised by the hand, to dilute the milk. These proportions may be altered as the child advances in age. The object is to make a diet as near the qualities of the maternal milk as possible.

Rice gruel.

Take of

Ground rice, 1 ounce,

Cinnamon, 1 drachm,

Water, 1 quart.

Boil for forty minutes, adding the aromatic near the conclusion.

Strain and sweeten. Wine may be added if necessary.

Panado.

Take of

Wheat bread, 1 ounce,

Cinnamon, 1 drachm,

Water, 1 pint.

Boil them until well mixed, then add a little grated nutmeg and sugar.

Wine or butter may also be added if desirable.

Compound Salep powders.

R. Salep,

Tragacanth,

Sago, āā. \mathfrak{z} iv.Cochineal, \mathfrak{z} ss.Prepared oyster-shells, \mathfrak{z} j.

To be carefully mixed and divided into powders of \mathfrak{zj} each. Stir one of these powders into a pint of milk, and boil them together for ten or fifteen minutes. To be drank freely in dysentery and diarrhœa.

These are the dysenteric powders of Dr. Castanello. A somewhat analogous preparation which bears the same name, is prepared as follows :

R. Gum arabic,
Tragacanth,
Maranta,
Sago,
Tapioca, āā. each \mathfrak{zj} .

Mix them well together, and boil in a pint of milk, flavoured with nutmeg, or cinnamon. Used as a diet in dysentery, diarrhœa, &c., &c.

Sago.

Take of

Sago,	.	.	.	.	.	2 spoonsful,
Water,	.	.	.	.	.	1 pint,

Boil gently until it thickens, frequently stirring. Wine, sugar, and nutmeg may be added according to circumstances.

Tapioca jelly.

Take of

Tapioca,	.	.	.	.	.	2 spoonsful,
Water,	.	.	.	.	.	1 pint.

Boil it gently for an hour, or until it assumes a jelly-like appearance. Add sugar, wine, and nutmeg, with lemon juice, to suit the taste of the patient and the nature of the case.

Jelly of Carrageen, or Irish moss. (Fucus crispus.)

Take of

Carrageen,	.	.	.	.	.	half an ounce,
Fresh milk,	.	.	.	.	.	a pint and a-half.

Boil them down to a pint; remove any sediment by filtering or otherwise, and then add the requisite quantity of sugar, with lemon juice, or peach water, to give it an agreeable flavour. To be used freely.

The moss, before being used, should be well washed in cold water to remove its saline taste.

Arrow root.

Take of

Arrow root,	1 table-spoonful,
Sweet milk,	half a pint,
Boiling water,	half a pint.

Boil them a few moments over the fire.

Sweetened with loaf sugar it is one of the best aliments for children, especially when the bowels are irritable.

The farinaceous substance called *Canna* is prepared by simply boiling in milk, and adding sugar.

Boiled flour.

Take of

Fine flour, a pound.

Tie it up in a linen cloth as tight as possible, and after frequently dipping it in cold water, dredge the outside with flour till a crust is formed round it, which will prevent the water soaking into it while boiling. It is then boiled until it becomes a hard, dry mass.

Two or three spoonful of this may be grated and prepared in the same manner as arrow root, for which it forms an excellent substitute.

Vegetable soup.

Take one turnip, one potato, one onion. Let them be sliced, and boiled in one quart of water for an hour. Add as much salt as is agreeable, and pour the whole upon a piece of dry toast.

This preparation forms an agreeable substitute for animal food, and may be given when the latter is inadmissible.

Chocolate.

Chocolate should be suffered to stand until cold, after having been made in the usual way. The oily parts thus collect on the surface and should be taken off. The liquid should then be boiled again, and sugar, &c. added.

Beef tea.

Take of

Lean beef, cut into shreds,	. . . . .	1 pound,
Water,	. . . . .	1 quart.

Boil it for twenty minutes, taking off the scum as it rises. After it grows cold, strain the liquor.

This preparation is more nourishing than ordinary broths, and very palatable.

Essence of beef.

Take of

Lean beef, sliced.

Put a sufficient quantity into a porter bottle to fill up its body, cork it *loosely* and place it in a pot of cold water, attaching the neck by means of a string to the handle of the vessel. Boil this for an hour and a-half or two hours, then decant the liquor and skim it.

To this preparation may be added spices, salt, wine, brandy, &c., according to the taste, of the patient and nature of the disease.

Hartshorn jelly.

Take of

Hartshorn shavings,	. . . . .	4 ounces,
Water,	. . . . .	1 quart.

Boil over a gentle fire until one pint of the water be dissipated. Strain and add lemon juice, sugar and wine.

This forms, either with or without the last named ingredients, a very nourishing diet for convalescents; and when mixed with an equal portion of milk, is well adapted to the bowel complaints of children.

Isinglass, or fish glue may be used instead of the hartshorn shavings, if preferred.

Calf's feet jelly.

Take two calves' feet, and add to them one gallon of water, which reduce by boiling to one quart. Strain it, and when cold, skim the fat entirely off. Add to this the white of six or eight eggs well beaten, a pint of wine, half a pound of loaf sugar and the juice of four lemons, and let them be well mixed. Boil the whole for a few minutes, stirring constantly, and then pass it through a flannel strainer.

This forms a very nutritious article of diet for the sick and convalescent. The wine may be omitted or added at option.

Chicken water.

Take half a chicken divested of all fat, and break the bones; add to this half a gallon of water, and boil for half an hour. Season with salt.

This water is directed by some physicians in the early stages of cholera. Taken warm it promotes vomiting and washes out the stomach.

Suet ptisan.

Take of

Sheep's suet,	2 ounces,
Milk,	1 pint,
Starch,	half an ounce.

Boil slowly for half an hour.

This may be used as a common drink in dysentery.

Mucilage of starch, &c.

Take of

Starch,	1 ounce,
Powdered cinnamon,	1 drachm,
— gum arabic,	1 ounce,
Boiling water,	3 pints.

Boil until reduced one-third, and strain.

The above may be taken for a common drink in dysentery.

Wine and Mustard whey.

As under Stimulants.

Rennet whey.

Take of

New milk, 1 quart,
 Rennet, a large spoonful,

Heat the milk and then add the rennet. Boil until the curd separates and is all taken off.

To many persons this forms a very agreeable nutriment.

Vinegar whey.

Take of

Milk, 1 pint,
 Vinegar, half an ounce.

Boil for a few minutes, and separate the curd.

Tartar whey.

Take of

Milk, 1 quart,
 Cream of tartar, half an ounce.

Boil until the curd separates.

Sarsaparilla beer.

R. Sarsaparilla contusæ, ℥ij.

Pulveris corticis guaiaci, ℥viiij.

Ligni guaiaci concisi,

Anisi,

Radicis glycyrrhizæ contusæ, āā. ℥iv.

Mezerei, ℥j.

Sacchari liquidi, ℥ij.

Caryophilli contusi, ℥ss.

Aquæ bullientis, congios iv.

Mix these ingredients, and agitate the vessel thrice a-day. When a fermentation has well begun it is fit for use, and may be taken in the dose of a small tumblerful twice or thrice a-day.

“This is the Spanish recipe for the Jarave or diet drink, somewhat modified. If intended for old and obstinate complaints, as leprous affections, elephantiasis, various anomalous ulcerations

and foul disorders of the skin. There may be added to the jug, *after fermentation has well begun*, tartrate of antimony twelve grains, corrosive sublimate eight or ten grains, muriate of ammonia one drachm, dissolved previously in a little water. These remedies greatly increase the alterative powers of the vegetable infusion, and so effectually prevent its decomposition that it may be kept for a long time unaltered, *even in a hot climate.*"—See *Hancock on Sarsaparilla. Journal of the Philadelphia College of Pharmacy, Vol. I. No. 4.*

APPENDIX, NO. II.

POISONS.

CASES of poisoning are so sudden and so awful that no time is to be lost in administering relief. To do this with judgment and effect, it is requisite to be familiar with all the usual antidotes; and of these we have accordingly selected some which possess an acknowledged efficacy, omitting at the same time many others that are unworthy of confidence. For the purpose of convenience we have arranged the *Poisons* alphabetically, with the appropriate *antidotes* attached to each. But, as has been remarked when speaking of Emetics, our chief reliance in these cases is upon free vomiting, induced by those articles which are most speedy in their effect. Dr. Beck prefers sulphate of zinc, whenever it can be procured, and adds, "but if vomiting be present, we may aid it by diluents or a vegetable emetic. Tartrate of antimony should never be given." Yet even from this treatment little can be expected when the deleterious substance has remained long in the stomach; and the stomach-tube and syringe will be indispensable.

To protect the stomach and intestines from the direct operation of poisons, it is generally recommended to give milk, lime water, soap, or drinks sweetened with sugar or honey. Oils and other fatty substances are found to be injurious.

When the vomiting has ceased, and retching and pain continue, Mr. Hume advises the free administration of carbonate of magnesia with tincture of opium, suspended in water.

ALKALIES.

The best antidote is common vinegar; it is always at hand, and its affinity for these substances is sufficiently strong to neutralize them. Also, a *fixed oil*, as olive oil, should be given in large quantity—several pounds being required where a large portion of the alkali has been taken; it acts by rendering the vomiting easy and free, and partly by converting the alkali into a soap.

ANTIMONY.

The preparation of this mineral by which poisoning is commonly produced, is *emetic tartar*. This of itself produces violent vomiting, and therefore our first efforts should be directed to keeping up the emesis by means of mild diluents and mucilaginous preparations. Its antidotes are the alkalies, bitter and astringent infusions, such as common tea, Peruvian bark, especially the yellow bark and its tincture—the administration of the bark in *powder*, before the decoction is ready, &c., &c. These decompose the antimonial salt. When the vomiting is excessive, opium by injection will assist in allaying it.

ARSENIC.

Until lately there has been no known antidote to this deadly poison, and our sole dependence has been upon mild diluents, albumen, (such as the whites of eggs suspended in milk) or warm water and sugar. Various substances have been proposed as antidotes, but without success. It is best first (if vomiting has been delayed) to give an emetic of the sulphate of lime, and milk should be drunk liberally both before and after vomiting has begun. The patient should never be allowed to exhaust his strength in retching, without some milk or other fluid in his stomach to act on.

THE HYDRATED PEROXIDE OF IRON, freshly prepared, was announced in the year 1834, by Dr. Bunsen of Gottingen, as an antidote for poisoning by Arsenic; and its efficacy has been confirmed by M. M. Orfila, Lesueur, Souberain and Miguel, and also in this city by various chemists, and by experiments upon the inferior animals. The antidote is thus prepared:*

Hydrated peroxide of Iron.

R. Sulphuric acid (67° Baumé)	8 oz.	.	.	.	16 parts.
Iron wire,	8 oz.	.	.	.	16
Nitric acid, (49° Baumé)	5½ oz.	.	.	.	11
Water of ammonia,	q. s.	.	.	.	
Water,	1½ gal.	.	.	.	384

* Dunglison, New Remedies, p. 240.

Mix the sulphuric acid with the water in a glass vessel ; then add the iron, and after the effervescence has ceased, filter. Add the nitric acid in divided portions, and apply heat so long as orange-coloured fumes are given off. To the heated solution, pour in the water of ammonia until a decided excess has been added, then wash the precipitate by decantation, until the washings give no precipitate with nitrate of baryta. The water is then to be drawn off until just enough remains to give the consistence of thick cream.

Bottles of half a pint are the most convenient size for containing it ; to each bottle add two ounces of uncrystallizable sugar or honey to prevent the oxide from separating from the water.

The following direction will enable the most ignorant person to make use of this antidote until medical advice can be obtained. It must be administered as soon as possible after the discovery that arsenic has been taken, and as it causes no bad effect itself, should be given EVERY FIVE OR TEN MINUTES, UNTIL ENTIRE RELIEF IS OBTAINED. The dose for a grown person is a table-spoonful ; for children a tea-spoonful. The bottle to be well shaken before each dose.

Should the patient survive (and the probability is in his favour if the antidote prepared as above be faithfully given) the inflammatory symptoms must be combatted on the general principles for treating inflammation. The diet should consist exclusively of milk, gruel, cream, rice and similar bland articles.

In a case of poisoning in this city, where half an ounce of the powdered arsenic had been taken and was followed by extreme thirst and vomiting, all the symptoms were allayed by freely taking the hydrated peroxide of iron. Only a slight gastritis followed, which was readily subdued. The oxide forms with the arsenious acid a proto-arsenate of iron.

In place of the hydrated oxide, the rust of iron and the hematitic oxide have also been resorted to in cases of emergency, and have appeared to possess, to a certain extent, the power of antidotes.

BARYTES.

The carbonate of this earth is poisonous, and might possibly be taken by mistake. Its true antidote is sulphate of magnesia or soda ; with these a sulphate of barytes is formed, which is perfectly insoluble, and may be brought off by emetics and copious diluents, oleaginous or albuminous.

COPPER.

The sulphate of this metal is, perhaps, the only chemical preparation that is likely to be taken into the stomach. A more ordinary mode of poisoning is the careless use of culinary vessels, or mineral water fountains. All saccharine preparations, and the prussiates of potash and iron are considered as antidotes. But our safest reliance is upon *albumen*, with copious draughts of warm milk, and *brown* sugar or molasses. Vinegar in all cases must be avoided. The French physicians have tried iron-filings, in consequence of the power possessed by this metal of reducing the salts of copper; and the results they obtained, in some experiments performed on animals, are such as to justify considerable confidence in the antidote.

GOLD.

The nitro-muriate of gold is a powerful poison. Its antidotes are sulphate of iron, (which throws down the gold in a metallic state,) and the free use of mucilaginous drinks.

IODINE AND IODIDE OF POTASSIUM.

Ten or twenty grains of Iodine sometimes, though not always, produce constriction of the fauces, nausea, vomiting and severe colic pain. The supposed antidote for these preparations is starch freely given, or what answers the same purpose, flour mixed with water.

LAUDANUM.

Laudanum, when taken in large quantity, must be withdrawn from the stomach by active emetics, or by tickling the fauces. The stomach tube should then be used to remove whatever remains of the poison. Diluted vegetable acids, and vinegar in particular, are afterwards necessary, and active stimulants are often required. Iodine, bromine and chlorine are stated by M. Donné, of Paris, to be antidotes for poisoning by *nux vomica* and opium. M. Orfila thinks that the decoction of galls may with propriety be used as an imperfect antidote, until the narcotic can be evacuated from the stomach.

LEAD.

The acetate is the only preparation which is resorted to as a poison. The sulphate of magnesia or soda is its true antidote, as it converts the poison into a sulphate, which is inert; also the alkaline carbonates and particularly the bicarbonates. Phosphate of soda is also a good antidote. If the patient does not vomit, give an emetic of the sulphate of zinc, which will not only empty the stomach, but convert any remaining soluble lead into an insoluble sulphate.

MERCURY.

All the preparations of this metal are poisonous, and corrosive sublimate in particular. Our chief and only dependence, according to M. Orfila, is upon the albumen of eggs, copiously swallowed, or introduced through the *stomach tube*, which should be resorted to when the patient cannot swallow or vomit. Enemata of the same should also be used.

If the albumen be taken in sufficient quantities, it decomposes the sublimate, forming a triple compound of albumen, muriatic acid and calomel. If the remedy excites fresh vomiting, so much the better, and if symptoms of gastritis appear, they are to be treated in the usual way. M. Orfila has also established that a fatal dose of corrosive sublimate may be swallowed by animals with impunity, provided the white of egg or any other kind of fluid albumen, be introduced shortly before or after into the stomach. Cases are also upon record which establish that it possesses an equal efficacy in man.

The gluten of wheat flour is also strongly recommended on the same principle, as an antidote to corrosive sublimate. To administer it, nothing more is requisite than to mix the flour with water. The quantity taken must be very considerable. It is said to reduce the muriate to the state of calomel.

Gluten of wheat flour is also given in the form of an emulsion with soft soap, by mixing partly in a mortar and partly with the hand, 5 or 6 parts of fresh gluten with 50 parts of soft soap.

When neither albumen or gluten is at hand, milk forms a good substitute.

“The only other antidotes deserving of mention here are iron filings and meconic acid. The former was recommended by Dumas, and must obviously operate by bringing the mercury to the metallic state. The meconic acid, particularly when com-

bined with an alkaline base, affords, with corrosive sublimate, an insoluble and inert permeconate of mercury. The meconates of the ordinary alkalies, however, can scarcely be obtained in sufficient quantity to be applied to such a purpose; and from the smallness of the saturating power of meconic acid, it would be hazardous to administer the quantity of opium which would be adequate to the decomposition of a few grains of corrosive sublimate, inasmuch as the muriate of morphia, which would be contemporaneously formed, is a narcotic medicine of very considerable energy."

MINERAL ACIDS.

The first, because the most ready method of counteracting the action of the mineral acids, is the copious use of water, warm or cold, which, by simply diluting them, renders them less acrid, and at the same time assists the stomach in rejecting them. This course should be followed until the proper antidotes are prepared. These are, the alkalies, alkaline earths and soaps; common pearl-ash or carbonate of potash; carbonate of magnesia; chalk; and soap in solution. Calcined magnesia, though advised by some authors, is objectionable, inasmuch as the rapidity with which it would combine with acid in the stomach, might alone produce inflammation of that organ.

The smallest quantity of nitric acid which is known to have destroyed life is two drachms; the smallest fatal dose of muriatic acid, was one ounce.

NARCOTICS.

The remedies employed in all cases of poisoning from this class of substances, are nearly the same, viz: the most active emetics, as sulphate of zinc in large doses, and ipecacuanha. In all cases where it is possible, the stomach-tube should be employed. After these evacuations, coffee and the vegetable acids are proper.

NITRE.

This salt is often taken in mistake for Epsom or Glauber's salts. When this happens, vomiting should be excited as speedily as possible, followed by the free use of mucilaginous drinks, hot gin-toddy, brandy and water, &c.

OPIUM.

We cannot do better in this place than transcribe what Dr. T. R. Beck, of Albany, says of the antidotes to opium.

“The experiments of Orfila have demonstrated that the administration of vinegar, or rather vegetable acids, previous to the evacuation of the poison by vomiting, will accelerate and aggravate the action of the opium; but that when the opium has previously been expelled, water acidulated with vinegar, or any other vegetable acid, will tend to diminish and correct the effects. Coffee, when prepared in strong decoction or infusion, rapidly lessens the symptoms, but cannot be considered as an antidote. The result of his experiments led him to give the following directions for the treatment of a person poisoned by opium. Induce vomiting, if possible, with sulphate of zinc, or sulphate of copper: but the administration of watery liquors with the view of promoting the vomiting, should be forbidden, as they dissolve the opium and promote its absorption. In order to ensure the action of the emetic, the patient must be kept *roused* either by discharging cold water over the head and breast, yet cold affusion must be avoided in the advanced stage, when the body is cold, and the breathing scarcely perceptible. To ensure success in every case, the patient must be kept awake, either by dragging him up and down between two men, or by flagellation on the back and soles of the feet. Artificial respiration may be used in desperate cases with propriety. Bleed the patient immediately after the rejection of the poison, and repeat this if necessary. Afterwards administer alternately water acidulated with any vegetable acid and a strong infusion of coffee warmed—and in ten or twelve hours exhibit an enema, and let the arms and legs of the patient be well rubbed. Purgative clysters should be continued, if it be suspected that any of the opium still remains in the large intestines.”—*Beck, Med. Jurisprudence, Vol. II. p. 403.* These remarks are applicable to the poisonous effects induced by other articles of the Narcotic class, as belladonna, hyoscyamus, stramonium, &c. Yet as these are not often taken with suicidal intentions, the quantity is seldom inordinately large. Emetics, if given soon after the poison has been swallowed, will at least remove a part of it; after which the practitioner must necessarily be governed in the treatment by the nature of the peculiar poison, the amount taken and the patient's constitution. Stimulants are occasionally necessary from the first; in other instances, depletion; but more frequently, each is in turn called for.

OXALIC ACID.

Death from this poison is generally sudden. A mixture of chalk and water is recommended by Dr. Thompson, for the purpose of converting the acid into oxalate of lime. The carbonate of magnesia, also, has been found by experiment to counteract the poison; but the other alkalies must be avoided, as they act with an energy little inferior to the acid itself.

It is advisable to avoid giving *warm water* with a view to accelerate vomiting; for dilution promotes the absorption of the poison.

PHOSPHORUS.

This substance acts so immediately and so powerfully in decomposing the animal tissues, that no available antidote has hitherto been suggested. A small quantity is sufficient to destroy life.

SILVER.

The nitrate of this metal is sometimes taken by mistake: its antidote is common salt, *largely given*, with copious draughts of mucilaginous drinks to promote vomiting. The salt produces an insoluble muriate which has no power on the system. *Beck.*

TIN.

When any of the salts of tin are taken, albumen of eggs, or milk given freely, is the appropriate remedy. Milk forms a coagulum with the muriate of tin, and renders it innoxious.

ZINC.

The sulphate of this metal is occasionally taken in an over-dose. Warm water and emollient drinks are proper in such cases; but milk is particularly useful, from its power of decomposing the sulphate; also albumen, &c.

The crystallized sulphate of zinc very closely resembles the sulphate of magnesia, and *has been mistaken* for it; a fact to be borne in mind by apothecaries and physicians.

The following works have been consulted in arranging the preceding remarks on Poisons: A Treatise on Poisons, by Robert Christison, M. D.—Turner's Chemistry.—Manuel de Médecine Légale, par A. Brierre de Boismont.—Orfila, Toxicologia Generale.—Beck, Medical Jurisprudence.—Henry, Thompson, &c., &c.

The crystalline sulphate of iron very closely resembles the sulphate of magnesium, and has been mistaken for it; a fact to be borne in mind by apothecaries and physicians.

The following remarks have been contained in regarding the preparation of the sulphate of iron. A quantity of sulphate of iron is placed in a glass bottle, and the bottle is placed in a bath of water. The bottle is then filled with water, and the water is allowed to stand over the sulphate of iron for several days. The water is then poured off, and the sulphate of iron is dried in a vacuum.

The following remarks have been contained in regarding the preparation of the sulphate of iron.

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APPENDIX, NO. III.

ON THE ENDERMIC USE OF MEDICINES.

"THE science of medicine," says Dr. Gerhard,* "has recently received an important auxiliary to its resources, by the discovery that remedial substances when applied to the cutis, after the removal of the epidermis, produce their peculiar effects with nearly the same energy as if introduced into the alimentary canal. This mode of exhibition, which has received the name of the *endermic method*, or *endermic medication*, is always found much more efficacious than the iatropic method of Christien, or the administration of medicines by means of frictions on the cuticle."

The endermic method requires the previous separation of the cuticle, which is best effected by a blister about four inches square. The cuticle should then be punctured or removed in very small patches, so that the medicine may come in contact with the vesicated surface. Substances used in this way, must be applied in two or three times the quantity requisite when given by the mouth. "The remains of the substance applied are much less than the original quantity, and sometimes no trace of it can be perceived; the whole appearing to be absorbed or mingled with the secretions."

We avail ourselves of Dr. Gerhard's valuable paper for the following facts in relation to those medicines which act most effectually in the endermic method.

Sulphate of Quinia.—A blister to be applied to the epigastrium during the apyrexia; and if the paroxysm returns before the quinia can be used, defer it until the next apyrexia. Apply four grains of powdered quinia, (either alone or with an equal quantity of starch,) four times a-day, for two successive days. A less irritating plan, however, is to dissolve sixteen grains of quinine in two ounces of water, with which the blistered surface is to be

* North Amer. Med. and Surg. Jour., April, 1830.

repeatedly wet during the day, by means of a soft linen cloth. There is no occasion to *remove* the loose epidermis; it is all-sufficient to *puncture* it in several places to allow the solution to touch the denuded surface.

Morphia.—The acetate and sulphate act readily and effectually; the latter is preferable because more soluble and less irritating. It may be applied in powder, in solution, or in the form of cerate. The dose varies from half a grain to two grains, and its effects are speedily perceptible.

Digitalis.—Dose, two grains three times a-day.

Aloes.—This medicine acts on the bowels with nearly the same certainty as if taken internally. Dose, ten grains, to be repeated, if necessary, in a few hours.

Gamboge, owing to its solubility, purges freely in the endermic method. Dose from five to eight grains.

Rhubarb, *jalap*, *blaterium* and *croton oil*, contrary to what might be expected, do not produce catharsis, although they excite severe local irritation.

Squills.—This medicine in powder, sprinkled on a blistered surface three times a-day in the quantity of four grains at each application, causes copious diuresis. Its power is increased by combination with *digitalis*, in the proportion of four grains of the former to one of the latter.

Emetics from the *vegetable* kingdom all produce their effect in the endermic method; and tobacco does so without any previous irritation of the skin. The same remark is applicable to mercury and iodine, which last is best applied in the form of ointment, made by rubbing a drachm with an ounce of cerate.

Emetics derived from the mineral kingdom exert no specific action.

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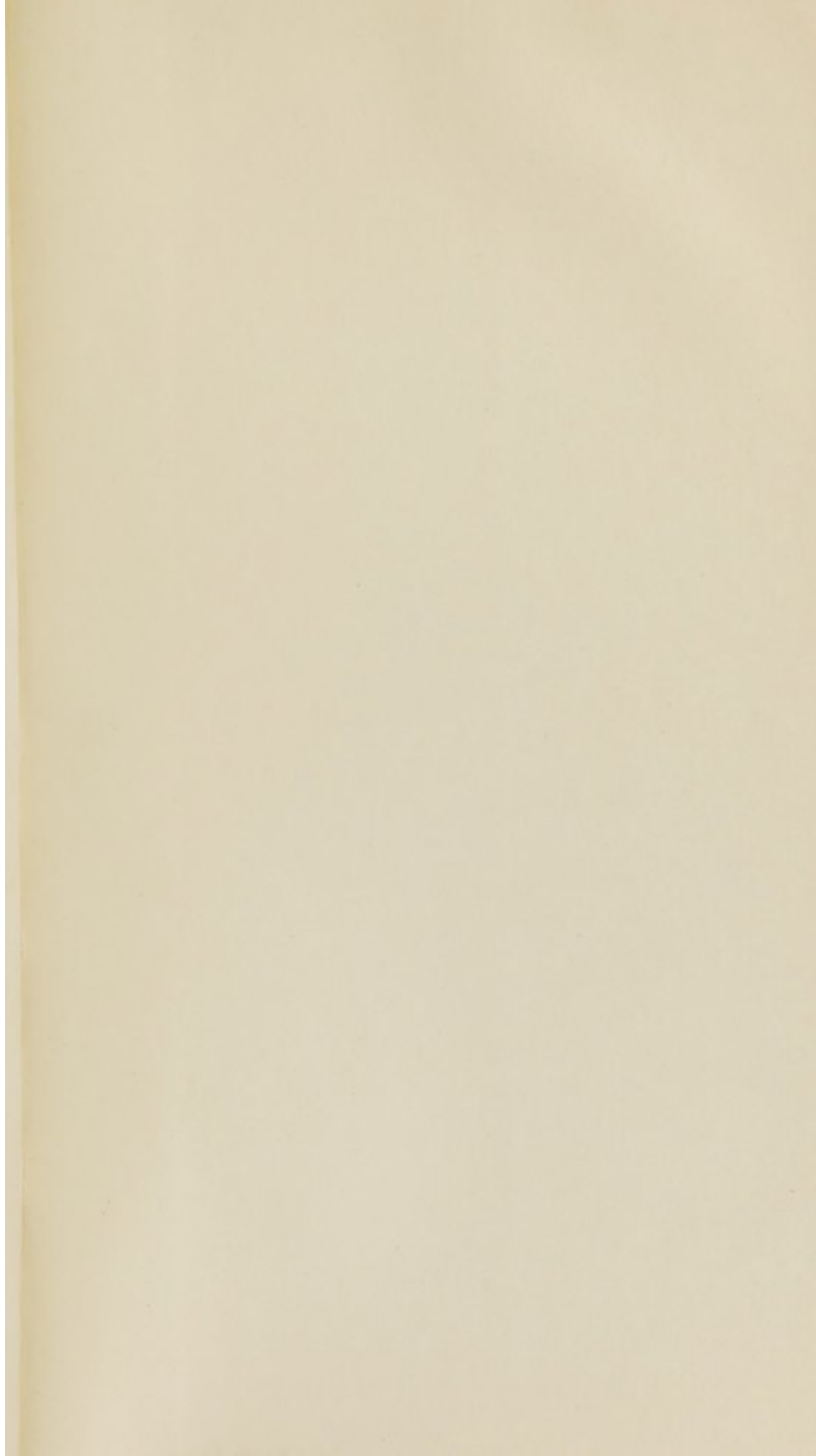
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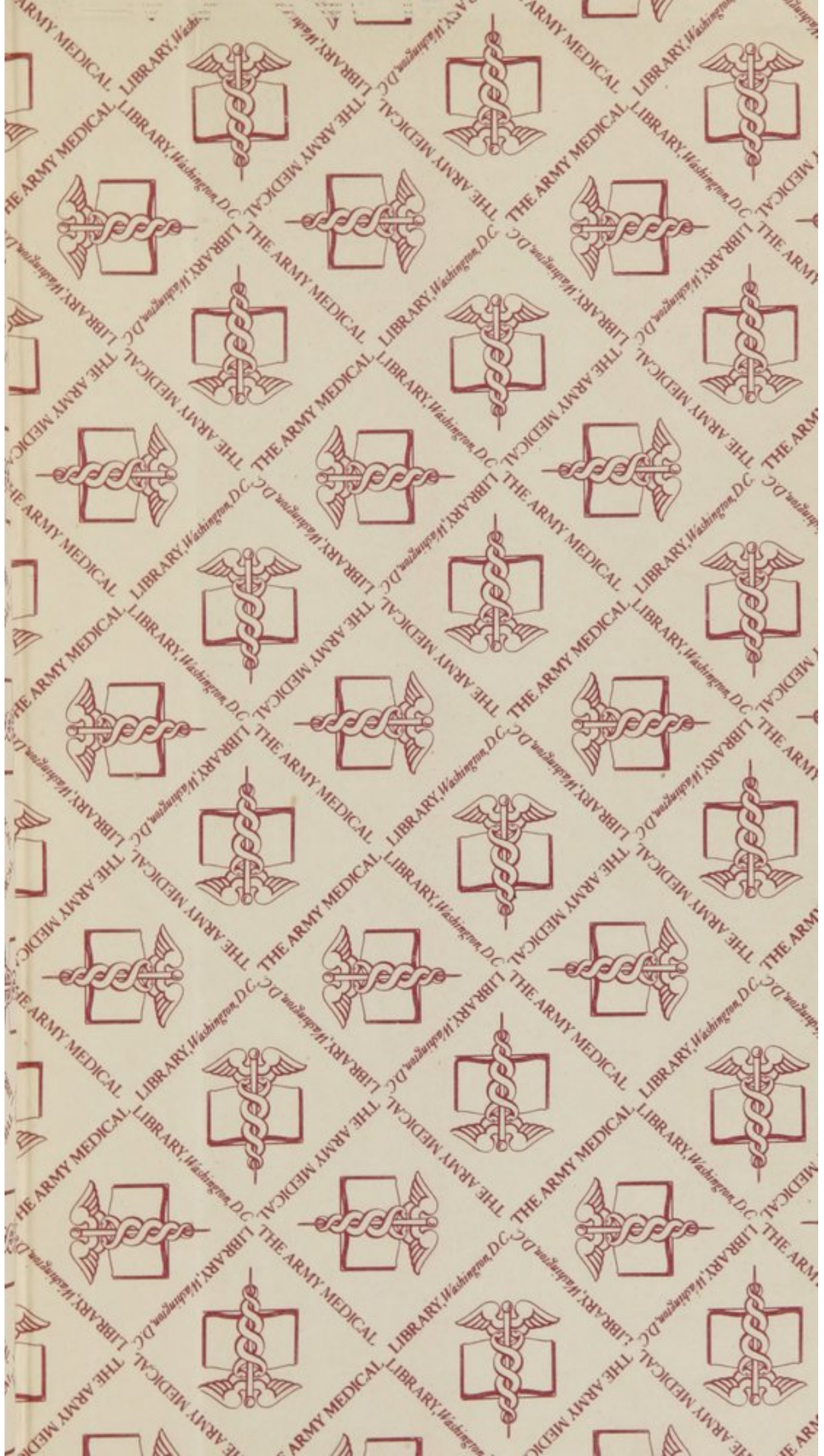
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THE END.

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